



Competence in
Communication
Technologies

Product Catalogue 2021/22



Legend

The labels and abbreviations used in this product overview have the following meanings:



New 2021

The article is newly listed in 2021.



Class A

The Class A certification marks products that meet the requirements of the following standards:

EN 50083-2 for active and passive devices

EN 50117-2-4 for coaxial cables

EN 60966 for connection cables



Class A + 10 dB

Products with a higher screening factor than required by the respective standard are marked with an addition to the Class A certification (in the example +10 dB)



4G protected

Higher shielding to protect against interference of LTE services



Vodafone Kabel Deutschland

Listed at „Vodafone Kabel Deutschland“ (You find the exact types in the lists of your cable network operator).

PU

Packing unit

High-speed networks for internet, TV and telephony



by axing group

HFC Broadband Solutions from AXING and DEV Systemtechnik provide low-cost, multi-gigabit-capable broadband network solutions from a single source – from signal supply to in-house delivery.

Strong team – strong performance

AXING and DEV have developed and implemented future-proof and competitive end-to-end solutions as an alternative to FTTH – for data, TV, radio and telephony, from signal supply to in-house

distribution. We deliver not only the hardware, but also the matching software tools, remote monitoring options, as well as measuring and planning services. More Information can be found on a separate website: <https://hfc-broadbandsolutions.com/en/>

TABLE OF CONTENT



Antennas	7
SAT antennas premium-line	7
SAT antennas premium-line	8
LNBS	9
Accessories	9
SAT window cable	11
TERR antennas	12
Measuring devices	14
DVB-TV Meter	14
Accessories for DVB-TV Meter	16
Signal tester	16
Multiswitches	18
1 SAT position basic-line	18
1 SAT position Complete packages	21
1 SAT position premium-line	22
2 SAT positions basic-line	26
2 SAT positions premium-line	28
3 SAT positions basic-line	31
4 SAT positions basic-line	33
4 SAT positions premium-line	35
Single cable multiswitches premium-line	38
Stackable multiswitch system mini	42
DiSEqC switches	43
Earthing and equipotential bonding	45
Earthing angles Vodafone Kabel Deutschland	45
Earthing angles single-rowed	46
Earthing angles single-rowed surge protection	47
Surge protection	49
Earth connection blocks	49
CHP – Compact High Performance Headends	50
DVB headends	50
Software extensions	51
Accessories for compact headends	52
Encoders premium-line	55
IPQAM	56
IP to DVB-T2 4K 47.7 Mbps	58
IP zu DVB-T2 8Kext 49.8 Mbps	60
Streamers	62
Encoders	63
Set-Top Boxes	64
Modular headends	64
Optic	65
Optical distribution SAT - SC/APC	65
Optical distribution HFC	68
Optical distribution Accessories	69
Optical distribution SAT - FC/PC	71
Amplifiers	73
CATV amplifiers premium-line 1218 MHz	73
CATV amplifiers premium-line 1006 MHz	74
CATV cabinets	80
CATV amplifiers basic-line	81
CATV accessories	85
DVB-T/T2 amplifiers basic-line	85
SAT amplifiers	86
Mechanical accessories	89
Mounting cabinet	89
Perforated mounting plate	89


19" Racks	90
Splitters and Taps	91
Splitters CATV premium-line 1218 MHz.....	91
Splitters CATV basic-line	93
Splitters for two devices	93
Taps CATV premium-line 1218 MHz.....	95
Taps CATV premium-line.....	100
Taps CATV basic-line.....	101
Splitters/Taps CATV Outdoor.....	103
Splitters SAT.....	104
Taps SAT	105
Coaxial cable	107
premium-line	107
basic-line	110
Underground cable	111
Accessories	112
Coaxial connectors	113
Compression premium-line.....	113
IEC premium-line	114
IEC basic-line	115
F premium-line.....	115
F basic-line.....	116
Adapters premium-line	116
Adapters basic-line	117
Terminal resistors.....	118
Tools	119
Antenna wall outlets.....	120
CATV premium-line.....	120
CATV basic-line.....	121
Multimedia premium-line	122
SAT premium-line	125
SAT basic-line	130
Accessories	132
Connection cables	134
CATV connection cables.....	134
CATV patch/modem cable.....	136
SAT connection cables	137
CATV patch cables	137
Power supplies	138
For CATV/TERR components	138
For SAT components	139
Attenuation Equalization Filters Combiners.....	140
Attenuators.....	140
Equalizers Filters Combiners	141
SMARTSolutions	144
CMTS (Cable Modem Termination System)	144
CMTS Accessories	145
Cable modems.....	146
Ethernet over Coax Peer-to-Peer	147
Ethernet over Coax Master-Endpoint.....	148
Ethernet over Coax Accessories	149
Audio/Video.....	152
Audio/Video modulators	152
Audio/Video converters.....	153
Sales Worldwide.....	155



ARTICLE IN ALPHABETICAL ORDER


AVC00100.....	153	BSD00414N.....	121	BZU06002.....	114	EOC03021.....	148
AVM00300.....	152	BSD00418N.....	121	BZU06585.....	145	HKI04134.....	63
AVM00600.....	152	BSD00422N.....	121	BZU08002.....	79	HKI04135.....	63
BAB00106P.....	95	BSD02100.....	120	BZU09103.....	140	HKI08134.....	63
BAB00108P.....	95	BSD02101.....	120	BZU09106.....	140	HKI08135.....	63
BAB00110P.....	95	BSD02107.....	120	BZU09110.....	140	HKM04002.....	55
BAB00112P.....	95	BSD02110.....	120	BZU09203.....	140	HKZ00100.....	55
BAB00116P.....	95	BSD02111.....	120	BZU09206.....	140	ISW.....	64
BAB00120P.....	95	BSD02114.....	120	BZU09209.....	140	MAK02080.....	136
BAB00124P.....	95	BSD02118.....	120	BZU10000.....	138	MAK03080.....	136
BAB00208P.....	96	BSD02122.....	120	BZU15000.....	138	MAK04080.....	136
BAB00210P.....	96	BSD96000N.....	124	CFA00100.....	117	MAK05080.....	136
BAB00212P.....	96	BSD96010N.....	124	CFA00200.....	117	MAK15080.....	136
BAB00216P.....	96	BSD96108K.....	123	CFA00300.....	118	MAK20080.....	136
BAB00220P.....	96	BSD96111K.....	123	CFA00302.....	118	MAK35080.....	136
BAB00224P.....	96	BSD96112K.....	123	CFA00400.....	118	MAK50080.....	136
BAB00310P.....	97	BSD96113K.....	123	CFA00401.....	116	MAK75080.....	136
BAB00312P.....	97	BSD96115K.....	123	CFA00500.....	117	MAK99980.....	136
BAB00316P.....	97	BSD96117K.....	123	CFA00602.....	118	MG00100.....	14
BAB00320P.....	97	BSD96120K.....	123	CFA00700.....	49	MGK00100.....	16
BAB00324P.....	97	BSD96300N.....	122	CFA00701.....	49	MGS00100.....	16
BAB00401P.....	99	BSD96310N.....	122	CFA00800.....	118	MGZ00100.....	16
BAB00402P.....	100	BSD96311N.....	122	CFA00900.....	49	MGZ00101.....	16
BAB00412P.....	98	BSD96312N.....	122	CFA00901.....	49	MGZ00200.....	16
BAB00416P.....	98	BSD96313N.....	122	CFA01000.....	117	MGZ00300.....	16
BAB00420P.....	98	BSD96313N.....	150	CFA01100.....	118	MIE00302.....	60
BAB00424P.....	98	BSD96314N.....	122	CFA01200.....	117	MIE00402.....	58
BAB00601P.....	99	BSD96317N.....	122	CFA01301.....	117	MIE00602.....	60
BAB00602P.....	100	BSD96320N.....	122	CFA01401.....	117	MIE00800.....	56
BAB00801P.....	99	BVE00201P.....	91	CFA01500.....	117	MIE00802.....	58
BAB00802P.....	100	BVE00301P.....	91	CFA01601.....	117	MIE01600.....	56
BAB01008.....	101	BVE00401P.....	91	CFA01700.....	117	MIE03200.....	56
BAB01010.....	101	BVE00402P.....	92	CFA01800.....	118	MIM00302.....	60
BAB01012.....	101	BVE00601P.....	91	CFA02602.....	116	MIM00402.....	58
BAB01016.....	101	BVE00602P.....	92	CFS00000.....	116	MIM01600.....	56
BAB01018.....	101	BVE00801P.....	91	CFS00002.....	116	MIP00400L.....	62
BAB01020.....	101	BVE00802P.....	92	CFS00100.....	116	MIP00800.....	62
BAB01202.....	100	BVE02001.....	93	CFS00200.....	116	MIP00806.....	62
BAB01602.....	100	BVE03001.....	93	CFS00300.....	116	MIP01600.....	62
BAB02008.....	102	BVE04001.....	93	CFS00400.....	116	MIP01606.....	62
BAB02010.....	102	BVE06001.....	93	CFS00700.....	116	MIS00111.....	57
BAB02012.....	102	BVE08001.....	93	CFS00702.....	116	MIS00111.....	59
BAB02014.....	102	BVE20200.....	103	CFS02000.....	116	MIS00111.....	61
BAB02016.....	102	BVE20300.....	103	CFS08901.....	115	MIS00816.....	57
BAB02018.....	102	BVS00201.....	81	CFS09348.....	114	MK00800.....	50
BAB02020.....	102	BVS00265.....	81	CFS09748.....	113	MK00806.....	50
BAB20108.....	103	BVS00301.....	81	CFS09948.....	113	MK01600.....	50
BAB20112.....	103	BVS00365.....	81	CFS09951.....	113	MK01606.....	50
BAB20116.....	103	BVS01000.....	83	CFS10048.....	113	MKS00100.....	51
BAB20208.....	103	BVS01001.....	83	CFS10051.....	113	MKS00101.....	51
BAB20212.....	103	BVS01002.....	83	CKA00100.....	117	MKS00102.....	51
BAB20216.....	103	BVS01030.....	83	CKA00200.....	117	MKS00102.....	57
BAK12590.....	134	BVS01269N.....	74	CKA00500.....	117	MKS00102.....	59
BAK15080.....	135	BVS01368.....	75	CKA01200.....	117	MKS00102.....	61
BAK15090.....	134	BVS01369N.....	74	CKK00100.....	115	MKS00102.....	63
BAK15200.....	134	BVS01466.....	79	CKK00400.....	114	MKS00816.....	51
BAK15300.....	135	BVS01469P.....	73	CKK00500.....	114	MKZ00100.....	54
BAK20080.....	135	BVS01568.....	75	CKK00600.....	115	MKZ00101.....	54
BAK25080.....	135	BVS02000.....	76	CKK00748.....	113	OAK00102.....	72
BAK25090.....	134	BVS02046.....	76	CKK00751.....	113	OAK00103.....	70
BAK25200.....	134	BVS02047.....	76	CKK02100.....	115	OAK00502.....	72
BAK25300.....	135	BVS02066.....	77	CKS00100.....	115	OAK00503.....	70
BAK35080.....	135	BVS02069N.....	78	CKS00400.....	114	OAK01001.....	72
BAK37300.....	135	BWE20000.....	103	CKS00500.....	114	OAK01002.....	72
BAK37590.....	134	BWZ00100.....	119	CKS00600.....	115	OAK01003.....	70
BAK50080.....	135	BWZ00300.....	119	CKS00748.....	113	OAK02002.....	72
BAK50090.....	134	BWZ00401.....	119	CKS00751.....	113	OAK05001.....	72
BAK50200.....	134	BWZ00502.....	119	CKS02000.....	115	OAK05003.....	70
BAK50300.....	135	BWZ00512.....	119	CMO00101.....	146	OAK10002.....	72
BAK75080.....	135	BWZ00700.....	119	CMO00201.....	146	OAK10003.....	70
BAK75090.....	134	BWZ00800.....	119	CMTS00200.....	144	OAK20001.....	72
BAK75200.....	134	BWZ01100.....	119	CZU00200.....	145	OAK20002.....	72
BAK75300.....	135	BZU01002.....	17	DCC00100.....	53	OAK50002.....	72
BAK99200.....	134	BZU02065.....	76	EOC00131.....	147	OAK50003.....	70
BAK99300.....	135	BZU03065.....	85	EOC00132.....	147	OCO00200.....	71
BAK99980.....	135	BZU03065.....	150	EOC00231.....	147	ONX155001.....	68
BAK99990.....	134	BZU04008.....	80	EOC00232.....	147	ONX155002.....	68
BSD00400N.....	121	BZU04016.....	80	EOC03001.....	148	ONX155003.....	68
BSD00407N.....	121	BZU06000.....	114	EOC03002.....	148	ONX155011.....	68
BSD00410N.....	121	BZU06001.....	114	EOC03003.....	148	ONX155012.....	68






ONX155021	68	SAB00112	105	SPU133206	31	SZU08506	9
ONX155022	68	SAB00116	105	SPU170806	33	SZU08507	10
ORX01400	66	SAB00120	105	SPU170809	35	SZU08508	10
ORX01401	66	SAB00212	106	SPU171009	36	SZU08509	10
ORX01500	67	SAB00416	106	SPU171206	33	SZU08510	10
OTX05100	65	SAK02102	137	SPU171606	33	SZU09101	141
OVE00201	71	SAK02501	11	SPU171609	36	SZU09906	139
OVE00202	72	SAK02502	11	SPU171819	36	SZU09922	139
OVE00203	69	SAK04102	137	SPU172406	33	SZU51206	21
OVE00301	71	SAK15100	137	SPU173206	33	SZU51606	21
OVE00302	72	SAK25100	137	SPU551209	23	SZU52100	42
OVE00303	69	SAK50100	137	SPU551809	23	SZU52200	42
OVE00401	71	SAK99100	137	SPU551819	23	SZU53100	42
OVE00402	72	SCO00210	9	SPU991209	29	SZU53200	42
OVE00403	69	SCO00410	9	SPU991809	29	SZU92100	42
OVE00801	71	SCO00411	9	SPU991819	29	SZU92200	42
OVE00802	72	SE552206	39	SSD00200	130	SZU93100	42
OVE00803	69	SE598406	40	SSD00210	130	SZU93200	42
OZU00103	70	SE5521606	41	SSD00400	131	SZU172100	43
OZU00301	70	SE5553219	38	SSD00500	125	SZU172200	43
OZU00303	70	SFK25002	11	SSD00507	125	SZU173100	43
OZU00305	70	SFK50002	11	SSD00510	126	SZU173200	43
OZU00310	70	SFK75002	11	SSD00514	126	TAA00320	12
OZU00315	70	SFK99902	11	SSD00515	127	TVE00103	93
OZU00320	70	SKA00100	112	SSD00518	126	TVE00203	93
OZU00500	70	SKB01103	112	SSD00607	128	TVS00500	85
QAS3045	89	SKB01113	111	SSD00610	128	TVS00801	84
QAS4045	89	SKB07501	110	SSD00614	128	TVS00902	84
QAS4065	89	SKB08801	110	SSD00618	128	TVS01000	84
QAS6065	89	SKB08803	110	SSD00700	129	TVS01400	84
QAS6085	89	SKB08804	110	SVE02001	104	TVS01600	84
QAS6010501	89	SKB09401	107	SVE03001	104	TVS02100	84
QAS8010501	89	SKB09403	107	SVE04001	104	TZA00600	12
QEW00312	46	SKB09404	107	SVE06001	104	TZU00100	132
QEW00406	46	SKB39501	108	SVE550209	25	TZU00110	133
QEW00412	46	SKB39503	108	SVE550409	25	TZU00200	132
QEW00420	47	SKB39504	108	SVS00100	86	TZU00210	133
QEW00506	48	SKB39511	109	SVS00201	87	TZU00300	118
QEW00510	47	SKB39513	109	SVS00202	87	TZU00300	133
QEW00512	46	SKB39514	109	SVS00204	87	TZU00301	118
QEW00550	45	SKF04200	52	SVS00205	87	TZU00301	133
QEW00606	46	SKF08200	52	SVS00400	87	TZU00400	140
QEW00612	46	SKS	64	SVS44006	88	TZU00401	140
QEW00650	45	SKS00100	52	SVS55006	19	TZU00900	141
QEW00750	45	SPU00602	13	SVS55009	24	TZU01000	142
QEW00806	46	SPU02101	43	SVS99006	27	TZU01001	142
QEW00850	45	SPU02102	43	SVS99009	30	TZU01002	142
QEW00906	48	SPU04102	43	SVS131306	32	TZU01102	138
QEW00910	47	SPU05405	20	SVS171706	34	TZU01104	138
QEW00912	46	SPU05409	22	SVS171709	37	TZU01400	83
QEW00920	47	SPU05605	20	SWE00210	143	TZU01400	87
QEW00922	46	SPU05609	22	SWE02001	143	TZU01501	138
QEW00950	45	SPU05805	20	SWE03001	143	TZU01503	138
QEW01150	45	SPU05806	18	SWE04001	143	TZU01504	138
QEW01206	46	SPU05809	22	SWZ00400	90	TZU01965	142
QEW01306	48	SPU08100	44	SZU00200	132	TZU01965	150
QEW01350	45	SPU08102	44	SZU00201	132	TZU01966	142
QEW01606	46	SPU08200	43	SZU00202	132	TZU01966	150
QEW01706	48	SPU09409	28	SZU00203	132	TZU01968X	150
QEW01710	47	SPU09609	28	SZU00204	132	TZU02001	112
QEW01712	46	SPU09806	26	SZU00210	133	TZU02165	132
QEW01750	45	SPU51009	22	SZU00212	133	TZU02201	17
QEW02550	45	SPU51205	20	SZU00213	133	TZU02300	133
QEW51306	48	SPU51206	18	SZU00214	133	TZU04001	94
QEW91706	48	SPU51605	20	SZU00300	141	TZU04002	94
QMP3045	89	SPU51606	18	SZU00601	49	TZU04003	149
QMP4045	89	SPU51609	22	SZU00602	49	TZU04004	149
QMP4065	89	SPU52406	18	SZU00800	141	TZU04005	149
QMP6065	89	SPU53206	18	SZU01101	112	TZU11004	138
QMP6085	89	SPU55609	23	SZU01200	143	TZU19862	142
QMP60105	89	SPU55809	23	SZU01300	143	TZU19863	142
QRA00200	90	SPU91009	28	SZU01400	143	UIM00100	54
QRA00400	90	SPU91206	26	SZU01701	16		
QSF40100	10	SPU91606	26	SZU01702	16		
SAA08001	8	SPU91609	28	SZU04400	141		
SAA08002	8	SPU92406	26	SZU05502	38		
SAA08003	8	SPU93206	26	SZU05806	21		
SAA08501	7	SPU99609	29	SZU06000	128		
SAA08502	7	SPU99809	29	SZU08501	9		
SAA08503	7	SPU130806	31	SZU08502	9		
SAA11001	7	SPU131206	31	SZU08503	10		
SAA11002	7	SPU131606	31	SZU08504	10		
SAA11003	7	SPU132406	31	SZU08505	10		

Type	Part No.	Product description	GTIN	PU
Antennas				
SAT antennas premium-line				
	SAA 110-01 SAA11001	Aluminium satellite antenna 110 x 99 cm ✓ Grey ✓ Powder-coated ✓ Fast and easy to mount ✓ Completely pre-assembled ✓ Suitable for multifeed reception	7611682004281	1
	SAA 110-02 SAA11002	Same as SAA 110-01, but anthracite	7611682004298	1
	SAA 110-03 SAA11003	Same as SAA 110-01, but brick-red	7611682004304	1
Type	SAA 110-01	SAA 110-02	SAA 110-03	
Electrical data				
Frequency range	10.75/11.75/12.75 GHz			
Antenna gain	39.8...40.9 dB			
Full width at half maximum	< 1.8°			
Mechanical data				
Reflector dimensions	110 x 99 cm			
Reflector colour	grey	anthracite	brick-red	
Reflector material	Aluminium			
Elevation range	5...70°			
Diameter of feed	40 mm			
Mast diameter	32...76 mm			
Wind load at max. wind speed [20/40/60 m/s]	30 kg/119 kg/268 kg			
Back part material	Zinc coated steel, including plastic coupler			
Screw sets material	Stainless steel			
General				
Weight	9.400 kg			
	SAA 85-01 SAA08501	Aluminium satellite antenna 85 cm ✓ Grey ✓ Powder-coated ✓ Fast and easy to mount ✓ Completely pre-assembled ✓ Suitable for multifeed reception	7611682001952	1
	SAA 85-02 SAA08502	Same as SAA 85-01, but anthracite	7611682001969	1
	SAA 85-03 SAA08503	Same as SAA 85-01, but brick-red	7611682001976	1
Type	SAA 85-01	SAA 85-02	SAA 85-03	
Electrical data				
Frequency range	10.75/11.75/12.75 GHz			
Antenna gain	38.12...39.53 dB			
Full width at half maximum	< 2.2°			
Mechanical data				
Reflector dimensions	85 x 85 cm			
Reflector colour	grey	anthracite	brick-red	
Reflector material	Aluminium			
Elevation range	15...50°			
Diameter of feed	40 mm			
Mast diameter	32...76 mm			
Wind load at max. wind speed [20/40/60 m/s]	21.3 kg/85.4 kg/192.1 kg			
Back part material	Zinc coated steel, including plastic coupler			
Screw sets material	Dacromet			
General				
Weight	6.000 kg			

	Type Part No.	Product description	GTIN	PU
SAT antennas premium-line				
	SAA 80-01 SAA08001	Aluminium satellite antenna 85 x 75 cm <ul style="list-style-type: none"> ✓ Grey ✓ Powder-coated ✓ Fast and easy to mount ✓ Suitable for multifeed reception 	7611682006537	1
	SAA 80-02 SAA08002	Same as SAA 80-01, but anthracite	7611682006544	1
	SAA 80-03 SAA08003	Same as SAA 80-01, but brick-red	7611682006551	1
Type	SAA 80-01	SAA 80-02	SAA 80-03	
Electrical data				
Frequency range	10.75/11.75/12.75 GHz			
Antenna gain	37 dB			
Full width at half maximum	< 2.2°			
Mechanical data				
Reflector dimensions	85 x 75 cm			
Reflector colour	grey	anthracite	brick-red	
Reflector material	Aluminium			
Elevation range	16...50°			
Diameter of feed	40 mm			
Mast diameter	32...60 mm			
Wind load up to 20 m mounting high	325 Nm			
General				
Weight	1.494 kg			



Type	Part No.	Product description	GTIN	PU
LNBs				
 	SCO 2-10 SCO00210	Wideband-LNB DVB-S/S2 ✓ For uses with wideband-capable single-cable multiswitches ✓ Input frequency range 10.7 ... 12.75 GHz ✓ Output frequency range 300 ... 2350 MHz ✓ Oscillator frequency 10.4 GHz	7611682007176	1
	SCO 4-10 SCO00410	Quattro LNB DVB-S/S2 ✓ For use with multiswitches ✓ Input frequency range 10.7 ... 12.75 GHz ✓ Output frequency range 950 ... 2150 MHz ✓ Oscillator frequency 9,75 GHz 10,6 GHz	7611682007183	1
	SCO 4-11 SCO00411	Quad LNB DVB-S/S2 ✓ For connection of 4 end devices ✓ Input frequency range 10.7 ... 12.75 GHz ✓ Output frequency range 950 ... 2150 MHz ✓ Oscillator frequency 9,75 GHz 10,6 GHz	7611682007190	1
Type	SCO 2-10	SCO 4-10	SCO 4-11	
Electrical data				
Input frequency range	10.7 ... 11.7 GHz (low-band) 11.7 ... 12.75 GHz (high-band)	10.7 ... 11.7 GHz (low-band) 11.7 ... 12.75 GHz (high-band)	10.7...11.7 GHz (low-band) 11.7...12.75 GHz (high-band)	
Gain		55 dB		
Oscillator frequency	10.4 GHz	9.75 GHz (low-band) 10.6 GHz (high-band)	9.75 GHz (low-band) 10.6 GHz (high-band)	
Impedance		75 Ω		
Output frequency range	300 ... 2350 MHz	950.....2150 MHz	950 ... 2,150 MHz	
Noise figure	1.0 dB	0.5 dB	0.5 dB	
Cross polarisation isolation		-		
Connectors				
Connector type	2 × F-female	4 × F-female	4 × F-female	
General				
Operating voltage	10.0 ... 19.0 V	11.5 ... 19.0 V	11.5...19.0 V	
Current consumption	105 mA (max.)	220 mA	200 mA	
Operating temperature range	-40 ... +60 °C	-40...+60 °C	-40 ... +60 °C	
Mechanical data				
Diameter of feed		40 mm		
General				
Weight	0.1475 kg	0.2775 kg	0.2775 kg	



Type	Part No.	Product description	GTIN	PU
Accessories				
	SZU 85-01 SZU08501	40 mm LNB holder for multifeed ✓ For SZU 85-02 and SZU 85-06	7611682002270	1
	SZU 85-02 SZU08502	Multifeed bar ±5° ✓ For SAA 80/85-0x and SAA 110-0x ✓ As well as SCO 2-00/4-0x, OCO 1-00/2-00	7611682002287	1
	SZU 85-06 SZU08506	Same as SZU 85-02, but ±12°	4026423971921	1
Type	SZU 85-01	SZU 85-02	SZU 85-06	
Mechanical data				
Diameter of feed	40 mm	-	-	
Orbital distance	-	± 5°	± 12°	
General				
Weight	0.066 kg	0.066 kg	0.078 kg	


Type	Part No.	Product description	GTIN	PU				
    	SZU 85-03 SZU08503	Rafter fastener <ul style="list-style-type: none"> ✓ For SAA 80/85-xx ✓ Steel, hot-dip galvanised ✓ Mast diameter 48 mm ✓ Mast length 900 mm 	4026423970917	1				
	SZU 85-07 SZU08507	Same as SZU 85-03, but for SAA 110-xx, mast diameter 60 mm	4026423972140	1				
	SZU 85-09 SZU08509	Same as SZU 85-03, but for SAA 85-xx, mast length 1300 mm	7611682006865	1				
	SZU 85-05 SZU08505	Wall bracket <ul style="list-style-type: none"> ✓ For SAA 80/85-xx ✓ Steel, hot-dip galvanised ✓ Wall distance 500 mm 	4026423970788	1				
	SZU 85-08 SZU08508	Wall bracket <ul style="list-style-type: none"> ✓ Hot-galvanised steel wall bracket for permanently fastening of satellite antennas up to Ø 160 cm (e.g. SAA 110-0x) ✓ Can be used as 75 cm wall bracket or 120 cm stand (bracket tube can be split and rotated in 1/3 length) ✓ Wall plate 30 × 30 cm with slotted holes for exact alignment 	4026423972133	1				
	SZU 85-04 SZU08504	Mast fitting kit <ul style="list-style-type: none"> ✓ Aluminium cover plate ✓ Gasket strip ✓ Mast cap for the insertion ✓ Cover flange ✓ Max mast diameter 50 mm 	4026423972065	1				
	SZU 85-10 SZU08510	Mast cap for cable entry <ul style="list-style-type: none"> ✓ Cables are inserted via the mast top ✓ Suitable for up to 18 cables with a diameter of 4...8 mm ✓ Bending radius of the coaxial cable is maintained ✓ Watertight sealing of antenna masts ✓ UV-resistant PE plastic 	7611682008210	1				
QSF 401-00 QSF40100	Flat roof stand <ul style="list-style-type: none"> ✓ Robust flat-roof and terrace stand ✓ For mounting SAT antennas up to Ø 110 cm ✓ Is weighted down with 4 or 8 cement plates (50 x 50 cm) (not included in delivery) ✓ High-quality steel, hot-dip zinc-coated ✓ Mast angle 10° adjustable ✓ Loadable up to 1600 Nm 	4026423971426	1					
Type	SZU 85-03	SZU 85-07	SZU 85-09	SZU 85-05	SZU 85-08	SZU 85-04	SZU 85-10	QSF 401-00
Mechanical data								
Mast diameter	48 mm	60 mm	48 mm	48 mm	76 mm	50 mm	42...50 mm	60 mm
Mast length	900 mm	900 mm	1300 mm	240 mm	500/1200 mm	-	-	1000 mm
Wall distance	-	-	-	500 mm	750 mm	-	-	-
Gaps between rafters	500...950 mm	500...950 mm	500...950 mm	-	-	-	-	-
Dimensions base plate	-	-	-	-	-	-	-	1000 × 1000 mm
General								
Dimensions (W × H × D) appr.	-	-	-	-	-	-	-	1000 × 1000 × 1000 mm
Weight	6.500 kg	12.80 kg	-	2.600 kg	10.40 kg	1.000 kg	-	-

NEW NEU 21

NEW NEU 21

	Type Part No.	Product description	GTIN	PU
SAT window cable				
	SAK 25-01 SAK02501	F female-female window leading ✓ Very flexible, to lead through a window or door frame	7611682002348	1
	SAK 25-02 SAK02502	F female-female window leading ✓ Very flexible, to lead through a window or door frame ✓ With water protection sleeve for outdoor connection ✓ F female gold-plated	7611682090253	1
Type	SAK 25-01		SAK 25-02	
Connectors				
Connector type	F-female F-female			
Mechanical data				
Cable length	0.25 m			
General				
Weight	0.026 kg		0.020 kg	
	SFK 250-02 SFK25002	F male-male flat cable 3 mm ✓ 2.50 m ✓ Simple installation underneath carpet, parquet or laminate ✓ Very flexible, to lead through a window or door frame ✓ Gold-plated F connector male ✓ With water protection sleeve for outdoor connection directly at LNB	7611682000078	1
	SFK 500-02 SFK50002	Same as SFK 250-02, but 5.00 m	7611682000085	1
	SFK 750-02 SFK75002	Same as SFK 250-02, but 7.,50 m	7611682000092	1
	SFK 999-02 SFK99902	Same as SFK 250-02, but 10.00 m	7611682000108	1
	Type	SFK 250-02	SFK 500-02	SFK 750-02
Connectors				
Connector type	F-male, screw type F-male, screw type			
Return loss	>14 dB			
Mechanical data				
Cable length	2.5 m	5.0 m	7.5 m	10.0 m
Braiding opt. coverage	64 x 0.10 mm –			
Jacket material diameter	PVC, 3 x 8 mm			
General				
Weight	0.134 kg	0.222 kg	0.364 kg	0.418 kg

Type	Part No.	Product description	GTIN	PU
TERR antennas				
	TAA 3-20 TAA00320	DVB-T/T2 FM DAB+ antenna with LTE filter (class 3) ✓ Suitable for DVB-T/T2, FM and DAB+ reception ✓ Motorcar supply cable/adapter ✓ With integrated amplifier ✓ RED-compliant class 3 ✓ Included accessory: Coaxial cable, F-angle adapter, F/F adapter, F quickfix connector and IEC connector, Plug-in power supply unit, Motorcar supply cable/adapter, DC power coupler, Indoor stand, Mast clamp, Mounting screws	7611682007381	1
Type	TAA 3-20			
Frequency range	85...774 MHz			
Output				
Verstärkung	22 dB			
Noise figure	≤ 5.5 dB			
Connector	F-female			
General				
Remote voltage	5...12 VDC			
Current consumption	<50 mA			
Operating temperature range	-20...+65°C			
Dimensions (W × H × D) appr.	370 x 260 x 49 mm			
Weight	1.900 kg			
Protection class	IP 35			
RED compliance	Class 3			
External accessories				
Plug-in power supply	230 V~ 50 Hz/3W 12V=0.2A			
	TZA 6-00 TZA00600	Telescopic indoor antenna ✓ For all TV and radio channels ✓ Suitable for DVB-T/T2 and DAB+ ✓ Passive, no power supply necessary	7611682070064	1
Type	TZA 6-00			
Frequency range	Band I, II, III, IV, V			
Output				
Connector	ICE			
Mechanical data				
Cable length	1.5 m			
General				
Weight	0.308 kg			

Type Part No.	Product description	GTIN	PU
 SPU 6-02 SPU00602	DVB-T/CATV antenna relay ✓ To switch between a DVB-T and a CATV signal ✓ Switching signal 5 V/35 mA ✓ Including DC blocker SZU 14-01	7611682001099	1
Type	SPU 6-02		
Application	DVB-T		
Screening factor acc. to EN 50083-2	> 75 dB		
Frequency range	5...1006 MHz		
Through loss	≤ 1 dB		
Trunk line			
Isolation internal	≤ 45 dB		
Connectors			
Connector type	F-female		
General			
Weight	0.102 kg		

Type Part No. Product description GTIN PU

Measuring devices

DVB-TV Meter

MG 1-00
MG00100

DVB-TV Meter

7611682007916 1



NEW 21 Höhere Akku-Kapazität
Individueller Frequenzplan möglich
Higher battery capacity
Individual frequency map possible

- ✓ Easy start thanks to DVB-T2 and SAT wizard, intuitive operation
- ✓ Ideal for use by installers, electricians and on the construction site
- ✓ 7-inch high-resolution touch display (800 × 480 px)
- ✓ Including display of the TV picture by MPEG4 decoder (H.264)
- ✓ Very good legibility even in poor lighting conditions
- ✓ Measuring ranges DVB-T/T2/T2 Lite, DVB-C/-C2 and DVB-S/-S2 (incl. UNICABLE I and II as well as Wideband)
- ✓ Extendable to DVB-S2x with software extension MGS 1-00
- ✓ Frequency range SAT 200 ... 2400 MHz (Wideband)
- ✓ Frequency range DVB-T/T2/CATV 5 ... 1005 MHz
- ✓ Import of an individual frequency plan possible
- ✓ Level measuring range 20 ... 120 dBμV
- ✓ Measurements: level (also analogue), BER, MER, packet error (PER), link margin, constellation diagram
- ✓ Including spectrum analyser with full-band display or stepwise adjustment of the span
- ✓ DiSEqC Version 1.2
- ✓ Supply voltages 13/18 V for SAT, 5/13/18/24 V for DVB-T2 and CATV
- ✓ Network interface RJ45 (10/100baseT), USB
- ✓ Compact design, stable housing with robust bumpers
- ✓ Built-in lithium-ion battery with 94 Wh for up to 5 hours operating time (depending on the use and a remote power supply for LNB or antenna)
- ✓ Incl. F/F-adapter, charging unit, USB flash drive and carrying bag MGZ 1-00
- ✓ User-friendly generation of measurement protocols thanks to the AXING-MCombiner software tool included in delivery

Type MG 1-00

Input

Frequency range 5 ... 1005 MHz @ CATV / TERR
200 ... 2400 MHz @ SAT

LNB-Type C | Ku | Ku WIDEBAND (LO adjustable)

Level measurement

Range 20 ... 120 dBμV

Units dBμV | dBmV | dBm

Accuracy ± 2 dB ± 0.05 dB/°C

Resolution 0.1 dB

Standards DVB-T/T2/T2Lite | DVB-C/C2 | BG | DK | I | L | MN | DAB | FM carrier @ CATV / TERR
DVB-S/S2/S2X* | PAL | SECAM | NTSC carrier @ SAT

Digital measurements

Packet errors and link margin (LKM) Yes

Modulation Error Rate (MER) 15 ... 35 dB @ DVB-T
15 ... 35 dB @ DVB-T2/T2lite
20 ... 40 dB @ DVB-C (J83.A)
25 ... 35 dB @ DVB-C2
0 ... 20 dB @ DVB-S
0 ... 20 dB @ DVB-S2
0 ... 20 dB @ DVB-S2X*

Sensitivity 35 dBμV @ DVB-T
35 dBμV @ DVB-T2/T2lite
< 55 dBμV @ DVB-C (J83.A)
< 55 dBμV @ DVB-C2
47 dBμV @ DVB-S
47 dBμV @ DVB-S2
47 dBμV @ DVB-S2X*

Bandwidth 6 | 7 | 8 MHz @ DVB-T
1.7 | 5 | 6 | 7 | 8 MHz @ DVB-T2/T2lite
6 | 8 MHz @ DVB-C2

Mode PLP and data slice, simple or multiple @ DVB-C2

FFT 2k | 8k @ DVB-T
1k | 2k | 4k | 8k | 16k | 32k + Band Extension @ DVB-T2/T2lite

Type Part No.	Product description	GTIN	PU
Modulation type	QPSK, 16 - 64QAM @ DVB-T QPSK, 16 - 256QAM @ DVB-T2/T2lite 16, 32, 64, 128, 256QAM @ DVB-C (J83.A) 16, 64, 256, 1024, 4096QAM @ DVB-C2 QPSK @ DVB-S QPSK, 8PSK, 16, 32APSK @ DVB-S2 QPSK, 8PSK, 8, 16, 32APSK-L @ DVB-S2X*		
Symbol rate	1 ... 7.224 MS/s @ DVB-C (J83.A) 1 ... 50 MS/s @ DVB-S 1 ... 50 MS/s @ DVB-S2 1 ... 50 MS/s @ DVB-S2X*		
HP/LP – PLP – Data Slice	HP/LP @ DVB-T PLP @ DVB-T2/T2lite PLP + Data Slice @ DVB-C2		
Multistream	Stream selection 0 ... 255 (ISI) PLS descrambling (Gold code) @ DVB-S2 Stream selection 0 ... 255 (ISI) PLS descrambling (Gold code) @ DVB-S2X*		
Spectrum analysis			
Span	1 MHz to full span in 1, 2, 5 steps		
Sweep	100 ... 1000 ms		
Filters	1.6 kHz 3.2 kHz 8 kHz 16 kHz 32 kHz 80 kHz 160 kHz 320 kHz 800 kHz 1.6 MHz 3.2 MHz		
Attenuation	0 ... 55 dB, in 5 dB steps (automatic)		
Display range / dynamic	60 dB (10 dB/div)		
Remote supply/control			
Supply	5/13/18/24 V 500 mA max. (300 mA @ 24V) @ DVB-T/T2 13 / 18V 500 mA max. @ DVB-S/S2		
DiSEqC	DiSEqC 2.1 Dish Rotor Control committed & uncommitted Switches		
DCSS	Max. 8 user bands @ EN 50494 (UNICABLE I) Max. 32 user bands @ EN 50607 (UNICABLE II)		
Audio/Video			
Audiocodex	MPEG-1 MPEG-2 AAC HE AAC Dolby® Digital Dolby® Digital Plus		
Videocodex	MPEG-2 SD und MPEG-4 HD (H.264)		
Service tables	SDT LCN		
Antenna check mode			
Memory	10 places/stations @ DVB-T/T2 30 satellites, with European database loaded @ DVB-S/S2		
Check	4** channels @ DVB-T/T2 4** transponders @ DVB-S/S2		
Interfaces			
Ethernet connectors (LAN)	1 × RJ 45		
Ethernet standards	10/100 BaseT		
USB	USB-A / V1.1 (Full Speed)		
Connectors			
RF Input	F-male (F-female/-F-female adaptor mounted) 75 Ohms		
Max. permitted voltage	50 VDC, 33 Veff / 50 Hz		
Analogue video input	Jack 3.5 mm 4 contacts		
Level	Video 1 Vpp max. / Audio 10 kOhm		
Standards	PAL SECAM NTSC		
Power supply	Jack 5.5 mm (max 1 A)		
General			
Display	Color LCD TFT 7 inches 16:9 backlight (500 cd/m2) resolution 800 x 480 capacitive touch screen		
Operating voltage	15 VDC		
Battery	Lithium Ion with 94 Wh (non-removable)***		
Charging time	6:45 h:min 80% 9:30 h:min 100%		
Operating time	CATV/TERR: 5 h SAT: 3 h (depending on use case)		
Operating temperature range	-5 ... +40 °C		
Storage temperature range	-10 ... +60 °C		
EMC and safety	NF-EN 61326-1 NF-EN 61326-2 NF-EN 61010-1		
Dimensions (W × H × D) appr.	280 x 300 x 70 mm		
Weight	1.350 kg		
External accessories			
Plug-in power supply	110/230 VAC 15 VDC / 1 A		
General			
Comments	* DVB-S2X only with software extension MGS 1-00 ** Can be changed by the user *** From serial number #6000 upwards		

Type	Part No.	Product description	GTIN	PU
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Accessories for DVB-TV Meter



MGS 1-00 MGS00100	Software extension for MG 1-00 ✓ For measuring DVB-S2X modulated satellite signals. ✓ The measuring device must be reprogrammed at AXING.	-	1
MGZ 1-00 MGZ00100	✓ Carrying bag for MG 1-00 Replacement for the carrying bag supplied with the MG 1-00	7611682007923	1
MGZ 1-01 MGZ00101	Rain and sun protection kit for MG 1-00 ✓ Rain cover for working even in the rain ✓ Glare protection for mounting above the display ✓ Belt clip	7611682007930	1
MGZ 2-00 MGZ00200	Car charger for MG 1-00 ✓ For charging the device in the car ✓ DC/DC converter 12V to 15V/1A ✓ With adapter for car cigarette lighter and hollow plug 5.5 mm	7611682007947	1
MGZ 3-00 MGZ00300	Measuring cable and adapter set for MG 1-00 ✓ Includes a 2.0 m measuring cable and the following laboratory adapters: ✓ CFA 13-01 Adapter IEC-female to F-female ✓ CFA 14-01 Adapter IEC-male to F-female ✓ CFA 15-00 Adapter IEC-male to F-male, Quickfix ✓ CFA 16-00 Adapter IEC-female to F-male, Quickfix ✓ CFA 17-00 Adapter F-male, Quickfix to IEC-female	7611682007954	1

Type	MGS 1-00	MGZ 1-00	MGZ 1-01	MGZ 2-00	MGZ 3-00
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MGK 1-00 MGK00100	Meter calibration for DVB-TV meter MG 1-00 ✓ Meters must be calibrated at regular intervals. ✓ The measuring device must be sent to the factory for this and is checked and recalibrated	-	1
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Type	MGK 1-00
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Signal tester



SZU 17-01 SZU01701	SAT signal tester ✓ Enables to find new satellites and align satellite dishes ✓ With acoustic signal ✓ Display type LED chain	7611682160178	1
SZU 17-02 SZU01702	Same as SZU 17-01, but LCD display	7611682001914	1

Type	SZU 17-01	SZU 17-02
Frequency range	950...2200 MHz	
Display	22 kHz	22 kHz H/V
Measurement range	60...105 dBµV	-
Through loss	-	< 10dB
RF connectors		
Type	F-female	
General		
Weight	0.074 kg	0.100 kg

	Type Part No.	Product description	GTIN	PU
 	BZU 10-02 BZU01002	CATV signal tester digital <ul style="list-style-type: none"> ✓ Easy-to-use, small level tester for digital CATV systems ✓ Displays the average level of a single channel within 254...294 MHz or 398...438 MHz ✓ Alternatively, display of the sum total level over the entire bandwidth ✓ Including: Patch cable (F/F, 30 cm) and Adapter (IEC female/F-female) 	7611682007824	1
	Type	BZU 10-02		
	Input			
	Frequency range	254...294 MHz (D258...D290 S15...S19) @ VHF selective 398...438 MHz (D402...D434 S33...S37) @ UHF selective 5...2700 MHz @ broadband		
	Impedance	75 Ω		
	Return loss	> 10 dB		
	Level measurement			
	Range	60...105 dBμV selectiv 80...125 dBμV broadband		
	Resolution	-		
	Connectors			
RF Input	F-female			
General				
Operating voltage	9 VDC (PP3) *			
Power consumption	630 mW (max.)			
Current consumption	70 mA (max.)			
Current consumption in standby	10 μA (max.)			
Dimensions (W × H × D) appr.	60 x 120 x 26 mm			
Comments	* 9 V battery not included in delivery			
	TZU 22-01 TZU02201	Signal tester DVB-T/T2 analogue digital <ul style="list-style-type: none"> ✓ With LED indication ✓ To adjust TV and Radio (FM) antennas ✓ Input level adjustable ✓ Can either be operated with a PP3 (9 volt) battery, an external DC power supply (not included in delivery) or can be remote power fed from a DVB-T receiver. 	7611682082203	1
	Type	TZU 22-01		
	Frequency range	47...862 MHz		
	Input level adjustment range	20 dB		
	RF connectors			
	Type	F-female		
	General			
	Operating voltage	5...12 VDC		
	Remote voltage	5 VDC		
	Current consumption	25 mA		
Connector DC	3.5 mm jack plug			
Weight	0.094 kg			

Type Part No. Product description GTIN PU


Multiswitches


1 SAT position | basic-line


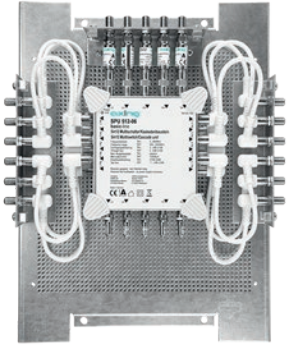



SPU 58-06 SPU05806	Multiswitch stand-alone/cascade unit 5 in 8 basic-line <ul style="list-style-type: none"> ✓ For up to 8 subscribers ✓ Subscriber ports SAT active, terrestrial passive ✓ Suitable for return path ✓ Receiver-fed multiswitch – no power supply necessary ✓ Cascadable - Cascade outputs must be terminated with DC-isolated 75 Ohm terminating resistors (e.g. CFA 11-00, not included in the scope of delivery) 	7611682005332	1
SPU 512-06 SPU51206	Same as SPU 58-06, but 5 in 12, for up to 12 subscribers	7611682005349	1
SPU 516-06 SPU51606	Same as SPU 58-06, but 5 in 16, for up to 16 subscribers	7611682005356	1
SPU 524-06 SPU52406	Same as SPU 58-06, but 5 in 24, for up to 24 subscribers	7611682005363	1
SPU 532-06 SPU53206	Same as SPU 58-06, but 5 in 32, for up to 32 subscribers	7611682005370	1


Type	SPU 58-06	SPU 512-06	SPU 516-06	SPU 524-06	SPU 532-06
Inputs					
Number	5				
Frequency range	5...862 MHz 950...2400 MHz				
Max. LNB current	1500 mA				
Isolation V H.	>30 dB				
Isolation TERR SAT	30 dB				
Subscriber ports					
Number	8	12	16	24	32
Switch commands	13/18 V, 0/22 kHz				
Tap loss TERR	23 dB ±2 dB	27 dB ±3 dB	27 dB ±3 dB	33 dB ±3 dB	33 dB ±3 dB
Tap loss SAT	-1...-3 dB ±2 dB	-1...-2 dB ±2 dB	-1...-2 dB ±2 dB	2...-1 dB ±2 dB	2...-1 dB ±2 dB
Max. output level SAT (3rd order SAT EN 50083-3 35dB KMA, 2 sender test method)	102 dBµV				
Current consumption per port (without LNB supply)	< 35 mA				
Trunk outputs					
Number	5				
Through loss TERR	2 dB ±1 dB	2...3 dB ±1 dB	2...3 dB ±1 dB	2 dB ±2 dB	2 dB ±2 dB
Through loss SAT	2 dB ±1 dB	2...4 dB ±1 dB	2...4 dB ±1 dB	2...6 dB ±2 dB	2...6 dB ±2 dB
Connectors					
Connector type	F				
General					
Equipotential bonding connection	4 mm²				
Operating temperature range (acc. to EN 60065)	-20...+50°C				
Dimensions (W × H × D) appr.	137 x 112 x 63 mm	137 x 150 x 63 mm	137 x 150 x 63 mm	137 x 240 x 63 mm	137 x 240 x 63 mm
Weight	0.400 kg	0.500 kg	0.520 kg	0.710 kg	0.750 kg
Protection class	IP 20				

Type Part No.	Product description	GTIN	PU
 SVS 550-06 SVS55006	Headamplifier 5 in 5 basic-line <ul style="list-style-type: none"> ✓ For use with SPU 5xx-06 systems ✓ 4 × SAT 950...2200 MHz Gain 15...20 dB ✓ 1 × TERR 5...862 MHz Gain 20 dB ✓ Built-in attenuators 0...15 dB ✓ Powered by ext. power supply SZU 99-06 (not included in delivery) or via the SAT-IF trunk lines ✓ Die cast housing 	7611682005547	1
Type	SVS 550-06		
Inputs			
Number	5		
Frequency range	40...862 MHz 950...2200 MHz		
Attenuator adjustment range	0...15 dB		
Gain TERR	20 dB		
Gain SAT	15...20 dB		
Output			
Noise figure	5 dB		
Trunk outputs			
Number	5		
Max. output level TERR (3rd order EN 50083-3, 60 dB KMA)	112 dBμV		
Max. output level trunk SAT (3rd order EN 50083-3, 35 dB KMA, 2 sender test method)	105 dBμV		
Noise figure	5 dB		
Connectors			
Connector type	F		
Return loss	12 dB		
General			
Operating voltage	15 VDC		
Current consumption	220 mA		
Equipotential bonding connection	4 mm ²		
Operating temperature range (acc. to EN 60065)	-20...+50°C		
Dimensions (W × H × D) appr.	146 x 70 x 45 mm		
Weight	0.250 kg		
Protection class	IP 20		

	Type Part No.	Product description	GTIN	PU	
	SPU 54-05 SPU05405	Multiswitch 5 in 4 basic-line ✓ For up to 4 subscribers ✓ Active satellite path, passive terrestrial path ✓ Suitable for return path ✓ Switching power supply	7611682130553	1	
	SPU 56-05 SPU05605	Multiswitch 5 in 6 basic-line ✓ Up to 6 subscribers ✓ Active satellite path, passive terrestrial path ✓ Suitable for return path ✓ Suitable for Quad LNB ✓ Switching power supply	7611682130577	1	
	SPU 58-05 SPU05805	Same as SPU 56-05, but 5 in 8, for up to 8 subscribers	7611682130591	1	
	SPU 512-05 SPU51205	Same as SPU 56-05, but 5 in 12, for up to 12 subscribers	7611682135138	1	
	SPU 516-05 SPU51605	Same as SPU 56-05, but 5 in 16, for up to 16 subscribers	7611682135176	1	
	Type	SPU 54-05	SPU 56-05	SPU 58-05	SPU 512-05
Inputs					
Number	5				
Frequency range	5...65 MHz 85...862 MHz 950...2200 MHz				
Isolation V H.	25 dB				
Isolation SAT inputs SAT inputs	30 dB				
Isolation TERR SAT	50 dB				
Subscriber ports					
Number	4	6	8	12	16
Tap loss TERR	20 dB				
Tap loss SAT	8...2 dB	8...2 dB	9...3 dB	10...6 dB	10...6 dB
Isolation	35 dB				
Max. output level SAT (3rd order SAT EN 50083-3 35dB KMA, 2 sender test method)	90 dBµV				
Connectors					
Connector type	F				
General					
Switching power supply	90...250 V~ 47-63 Hz 18 V=0.5 A				
Power consumption	3.7 W	4.4 W	4.7 W	5.0 W	5.3 W
Equipotential bonding connection	4 mm²				
Operating temperature range (acc. to EN 60065)	-20...+50°C				
Dimensions (W × H × D) appr.	275 × 125 × 50 mm	275 × 125 × 50 mm	275 × 125 × 50 mm	355 × 125 × 50 mm	355 × 125 × 50 mm
Weight	0.624 kg	0.638 kg	0.640 kg	0.790 kg	0.805 kg
Protection class	IP 20				

Type Part No.	Product description	GTIN	PU																																																																																												
1 SAT position Complete packages																																																																																															
 	SZU 58-06 SZU05806	Complete multiswitch package 5 in 8 completely pre-assembled <ul style="list-style-type: none"> ✓ For up to 8 subscribers ✓ Minimum installation time due to ready-to-operate, pre-installed system ✓ Service- and assembly-friendly ✓ With overvoltage protection and equipotential bonding at the inputs ✓ With equipotential bonding at subscriber outputs ✓ Consisting of: <ul style="list-style-type: none"> ✓ 1 x QMP 3045 Perforated mounting plate ✓ 1 x SPU 58-06 Multiswitch 5 in 8 ✓ 1 x QEW 5-06 Earthing angle ✓ 2 x QEW 4-06 Earthing angle ✓ 5 x CFA 11-00 Terminating resistor ✓ 8 x SAK 21-02 Patch cable ✓ Optionally available with power supply unit SZU 99-06 	7611682007695	1																																																																																											
	SZU 512-06 SZU51206	Same as SZU 58-06, but for up to 12 subscribers	7611682007701	1																																																																																											
	SZU 516-06 SZU51606	Same as SZU 58-06, but for up to 16 subscribers	7611682007718	1																																																																																											
	<table border="1"> <thead> <tr> <th>Type</th> <th>SZU 58-06</th> <th>SZU 512-06</th> <th>SZU 516-06</th> </tr> </thead> <tbody> <tr> <td colspan="4">Inputs</td> </tr> <tr> <td>Number</td> <td></td> <td colspan="2">5</td> </tr> <tr> <td>Frequency range</td> <td></td> <td colspan="2">5...862 MHz 950...2400 MHz</td> </tr> <tr> <td>Max. LNB current</td> <td></td> <td colspan="2">1500 mA</td> </tr> <tr> <td>Isolation V H.</td> <td></td> <td colspan="2">>30 dB</td> </tr> <tr> <td>Isolation TERR SAT</td> <td></td> <td colspan="2">30 dB</td> </tr> <tr> <td colspan="4">Subscriber ports</td> </tr> <tr> <td>Number</td> <td>8</td> <td>12</td> <td>16</td> </tr> <tr> <td>Switch commands</td> <td></td> <td colspan="2">13/18 V, 0/22 kHz</td> </tr> <tr> <td>Tap loss SAT</td> <td>-1...-3 dB ±2 dB</td> <td>-1...-2 dB ±2 dB</td> <td>-1...-2 dB ±2 dB</td> </tr> <tr> <td>Max. output level SAT (3rd order SAT EN 50083-3 35dB KMA, 2 sender test method)</td> <td></td> <td colspan="2">102 dBµV</td> </tr> <tr> <td>Current consumption per port (without LNB supply)</td> <td></td> <td colspan="2">< 35 mA</td> </tr> <tr> <td colspan="4">Trunk outputs</td> </tr> <tr> <td>Number</td> <td></td> <td colspan="2">5</td> </tr> <tr> <td>Through loss TERR</td> <td>2 dB ±1 dB</td> <td>2...3 dB ±1 dB</td> <td>2...3 dB ±1 dB</td> </tr> <tr> <td>Through loss SAT</td> <td>2 dB ±1 dB</td> <td>2...4 dB ±1 dB</td> <td>2...4 dB ±1 dB</td> </tr> <tr> <td colspan="4">Connectors</td> </tr> <tr> <td>Connector type</td> <td></td> <td colspan="2">F</td> </tr> <tr> <td colspan="4">General</td> </tr> <tr> <td>Operating temperature range (acc. to EN 60065)</td> <td></td> <td colspan="2">-20...+50°C</td> </tr> <tr> <td>Dimensions (W × H × D) appr.</td> <td></td> <td colspan="2">300 x 400 x 170 mm</td> </tr> <tr> <td>Protection class</td> <td></td> <td colspan="2">IP 20</td> </tr> </tbody> </table>				Type	SZU 58-06	SZU 512-06	SZU 516-06	Inputs				Number		5		Frequency range		5...862 MHz 950...2400 MHz		Max. LNB current		1500 mA		Isolation V H.		>30 dB		Isolation TERR SAT		30 dB		Subscriber ports				Number	8	12	16	Switch commands		13/18 V, 0/22 kHz		Tap loss SAT	-1...-3 dB ±2 dB	-1...-2 dB ±2 dB	-1...-2 dB ±2 dB	Max. output level SAT (3rd order SAT EN 50083-3 35dB KMA, 2 sender test method)		102 dBµV		Current consumption per port (without LNB supply)		< 35 mA		Trunk outputs				Number		5		Through loss TERR	2 dB ±1 dB	2...3 dB ±1 dB	2...3 dB ±1 dB	Through loss SAT	2 dB ±1 dB	2...4 dB ±1 dB	2...4 dB ±1 dB	Connectors				Connector type		F		General				Operating temperature range (acc. to EN 60065)		-20...+50°C		Dimensions (W × H × D) appr.		300 x 400 x 170 mm		Protection class		IP 20
Type	SZU 58-06	SZU 512-06	SZU 516-06																																																																																												
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Protection class		IP 20																																																																																													

Type	Part No.	Product description	GTIN	PU	
1 SAT position premium-line					
	SPU 54-09 SPU05409	Active multiswitch 5 in 4 premium-line ✓ For up to 4 subscribers ✓ Active satellite, passive terrestrial path ✓ Suitable for return path ✓ Suitable for Quad LNB ✓ Switching power supply unit (detachable up to 10 m)	7611682000467	1	
	SPU 56-09 SPU05609	Active multiswitch 5 in 6 premium-line ✓ For up to 6 subscribers ✓ Active satellite and terrestrial path ✓ Terrestrial adjustable, switchable to passive ✓ Cascadable ✓ Suitable for return path ✓ Suitable for Quad LNB ✓ Switching power supply unit (detachable up to 10 m)	7611682000474	1	
	SPU 58-09 SPU05809	Same as SPU 56-09, but 5 in 8, for up to 8 subscribers	7611682001464	1	
	SPU 510-09 SPU51009	Same as SPU 56-09, but 5 in 10, for up to 10 subscribers	7611682000481	1	
	SPU 516-09 SPU51609	Same as SPU 56-09, but 5 in 16, for up to 16 subscribers	7611682000498	1	
Type	SPU 54-09	SPU 56-09	SPU 58-09	SPU 510-09	SPU 516-09
Inputs					
Number	5				
Frequency range	5...65 MHz 85...862 MHz 950...2200 MHz				
Attenuator adjustment range TERR, switchable to passive	-	20 dB	20 dB	20 dB	20 dB
Subscriber ports					
Number	4	6	8	10	16
Switch commands	13/18 V, 0/22 kHz				
Gain SAT	-3...3 dB	-3...2 dB	-6...0 dB	-6...0 dB	-6...0 dB
Gain TERR active	-	-5...-2 dB	-5...0 dB	-5...0 dB	-5...0 dB
Gain TERR passive	-20 dB	-22...-27 dB	-23...-25 dB	-23...-25 dB	-23...-25 dB
Isolation	>26 dB				
Switching isolation	>26 dB				
Max. output level SAT (3rd order SAT EN 50083-3 35dB KMA, 2 sender test method)	94 dBµV				
Current consumption per port (without LNB supply)	25 mA				
Trunk outputs					
Number	-	5	5	5	5
Gain TERR active	-	12...20 dB	13...18 dB	13...18 dB	13...18 dB
Gain TERR passive	-	-5 dB	-5 dB	-5 dB	-5 dB
Gain SAT	-	13 dB	11 dB	11 dB	11 dB
Max. output level TERR (3rd order EN 50083-3, 60 dB KMA)	-	103 dBµV	103 dBµV	103 dBµV	103 dBµV
Max. output level trunk SAT (3rd order EN 50083-3, 35 dB KMA, 2 sender test method)	-	113 dBµV	113 dBµV	113 dBµV	113 dBµV
Isolation	-	>26 dB	>26 dB	>26 dB	>26 dB
Rejection (SAT TERR)	-	>40 dB	>40 dB	>40 dB	>40 dB
Connectors					
Connector type	F				
General					
Switching power supply	90...250 V~ 47-63 Hz 18 V=±0.7A				
Power indicator	LED				
Power consumption without LNB supply (TERR passive active)	3.4 W -	4.6 6.7 W	4.6 6.7 W	4.6 6.7 W	4.6 6.7 W
Power consumption in Stand-by (TERR passive active)	0.9 W -	2.4 4.5 W	2.4 4.5 W	2.4 4.5 W	2.4 4.5 W
Equipotential bonding connection	4 mm²				
Operating temperature range (acc. to EN 60065)	-20...+50°C				
Dimensions (W × H × D) appr.	195 × 145 × 85 mm	195 × 145 × 85 mm	195 × 190 × 85 mm	195 × 190 × 85 mm	195 × 255 × 85 mm
Weight	0.705 kg	0.775 kg	0.825 kg	0.880 kg	1.080 kg
Protection class	IP 20				

	Type Part No.	Product description	GTIN	PU	
 KLASSE A CLASS	SPU 556-09 SPU55609	Cascade unit 5 in 6 premium-line ✓ For up to 6 subscribers ✓ Passive satellite and terrestrial path ✓ For cascadable 5 in x SAT systems ✓ Optimized for the use with SPU 5xx-09 ✓ Suitable for return path	7611682000535	1	
	SPU 558-09 SPU55809	Same as SPU 556-09, but 5 in 8, for up to 8 subscribers	7611682000528	1	
	SPU 5512-09 SPU551209	Same as SPU 556-09, but 5 in 12, for up to 12 subscribers	7611682000511	1	
	SPU 5518-09 SPU551809	Same as SPU 556-09, but 5 in 18, for up to 18 subscribers	7611682000504	1	
	SPU 5518-19 SPU551819	Same as SPU 5518-09, but SAT active	7611682004526	1	
Type	SPU 556-09	SPU 558-09	SPU 5512-09	SPU 5518-09	SPU 5518-19
Inputs					
Number	5				
Frequency range	5...65 MHz 85...862 MHz 950...2200 MHz				
Subscriber ports					
Number	6	8	12	18	18
Tap loss TERR	20 dB	20 dB	25 dB	28 dB	23...29 dB
Tap loss SAT	19...16 dB	19...16 dB	19...16 dB	20...17 dB	20...17 dB
Tap loss SAT active	-	-	-	-	6...2 dB
Isolation	>26 dB				
Switching isolation	>26 dB				
Max. output level SAT (3rd order SAT EN 50083-3 35dB KMA, 2 sender test method)	-	-	-	-	98 dB μ V
Current consumption per port (without LNB supply)	-	-	-	-	40 mA
Trunk outputs					
Number	5				
Through loss TERR	4 dB	4 dB	4 dB	6 dB	6 dB
Through loss SAT	2 dB	2.5 dB	3.5 dB	3...6 dB	3...6 dB
Isolation	>30 dB				
Rejection (SAT TERR)	>40 dB				
Connectors					
Connector type	F				
General					
Operating temperature range (acc. to EN 60065)	-20...+50°C				
Dimensions (W x H x D) appr.	170 x 130 x 40 mm	170 x 150 x 40 mm	170 x 190 x 40 mm	170 x 255 x 40 mm	170 x 255 x 40 mm
Weight	0.448 kg	0.522 kg	0.675 kg	0.850 kg	0.850 kg

Type Part No. Product description GTIN PU

KLASSE
A
CLASS





SVS 550-09
SVS55009

- Headamplifier | 5 in 5 | premium-line**
- ✓ For use with SPU 5xx-09 systems
 - ✓ 4 × SAT 950...2200 MHz | 1 × TERR 5...862 MHz
 - ✓ 4 × SAT 950...2200 MHz | Gain 21...27 dB
 - ✓ 1 × TERR 5...862 MHz | Gain 15 dB
 - ✓ Built-in attenuators 0...15 dB
 - ✓ Switching power supply unit (detachable up to 10 m)
 - ✓ 5 termination resistors CFA 11-00 included


7611682002621 1

Type	SVS 550-09
Inputs	
Number	5
Frequency range	5...65 MHz 85...862 MHz 950...2200 MHz
Attenuator adjustment range	0...15 dB
Gain TERR	15 dB
Gain SAT	21...27 dB
Gain return path (passive)	-2 dB
Isolation SAT inputs SAT inputs	40 dB
Isolation TERR SAT	40 dB
Trunk outputs	
Number	5
Max. output level TERR (3rd order EN 50083-3, 60 dB KMA)	109 dB μ V
Max. output level trunk SAT (3rd order EN 50083-3, 35 dB KMA, 2 sender test method)	114 dB μ V
Isolation TERR SAT	40 dB
Isolation SAT SAT	40 dB
Connectors	
Connector type	F
General	
Switching power supply	90...250 V~ 47...63 Hz 18 V= / 0.7 A
Power consumption	10 W
Equipotential bonding connection	4 mm ²
Operating temperature range (acc. to EN 60065)	-20...+50°C
Dimensions (W × H × D) appr.	195 × 145 × 85 mm
Weight	0.725 kg
Protection class	IP 20



Type	Part No.	Product description	GTIN	PU
 	SVE 5502-09 SVE550209	2-way SAT splitter 5 in 5 premium-line ✓ For use with 5xx-09 systems ✓ 4 × SAT (Wideband) 300...2400 MHz 1 × TERR 5...862 MHz ✓ DC power pass from SAT outputs to SAT inputs (isolated with diodes)	7611682003307	1
	SVE 5504-09 SVE550409	Same as SVE 5504-09, but 4-way SAT splitter	7611682003314	1
Type	SVE 5502-09		SVE 5504-09	
Inputs				
Number	5			
Frequency range	5...862 MHz @ TERR 300...2400 MHz @ SAT			
Isolation SAT inputs SAT inputs	35 dB			
Isolation TERR SAT	40 dB		35 dB	
Distribution				
Distribution loss	≤ 4.5 dB @ 5...862 MHz ≤ 5.5 dB @ 950...2200 MHz		≤ 8.5 dB @ 5...862 MHz ≤ 9.5 dB @ 950...2200 MHz	
Trunk outputs				
DC power pass	Yes			
Isolation TERR SAT	40 dB			
Isolation SAT SAT	35 dB			
Isolation TERR TERR	20 dB			
Connectors				
Connector type	F			
General				
Weight	0.636 kg		0.950 kg	


Type Part No. Product description GTIN PU


2 SAT positions | basic-line


	SPU 98-06 SPU09806	Multiswitch stand-alone/cascade unit 9 in 8 basic-line ✓ For up to 8 subscribers ✓ Subscriber ports SAT active, terrestrial passive ✓ Suitable for return path ✓ Powered by ext. power supply SZU 99-06 (not included in delivery) or via the SAT-IF trunk lines ✓ Cascadable - Cascade outputs must be terminated with DC-isolated 75 Ohm terminating resistors (e.g. CFA 11-00, not included in delivery)	7611682005387	1
	SPU 912-06 SPU91206	Same as SPU 98-06, but 9 in 12, for up to 12 subscribers	7611682005394	1
	SPU 916-06 SPU91606	Same as SPU 98-06, but 9 in 16, for up to 16 subscribers	7611682005400	1
	SPU 924-06 SPU92406	Same as SPU 98-06, but 9 in 24, for up to 24 subscribers	7611682005417	1
	SPU 932-06 SPU93206	Same as SPU 98-06, but 9 in 32, for up to 32 subscribers	7611682005424	1

Type	SPU 98-06	SPU 912-06	SPU 916-06	SPU 924-06	SPU 932-06
Inputs					
Number	9				
Frequency range	5...862 MHz 950...2400 MHz				
Max. LNB current	1500 mA				
Subscriber ports					
Number	8	12	16	24	32
Switch commands	13/18 V, 0/22 kHz, DiSEqC 1.0				
Tap loss TERR	24 dB ±2 dB	28 dB ±3 dB	28 dB ±3 dB	32 dB ±3 dB	32 dB ±3 dB
Tap loss SAT	2...0 dB ±2 dB	2...1 dB ±2 dB	2...1 dB ±2 dB	2...0 dB ±2 dB	2...0 dB ±2 dB
Max. output level SAT (3rd order SAT EN 50083-3 35dB KMA, 2 sender test method)	102 dBµV				
Current consumption per port (without LNB supply)	< 35 mA				
Trunk outputs					
Number	9				
Through loss TERR	2...3dB ±1.5 dB	4...5 dB ±1.5 dB	4...5 dB ±1.5 dB	4...6 dB ±1 dB	4...6 dB ±1 dB
Through loss SAT	1...2 dB ±1.5dB	1.5...3 dB ±1.5 dB	1.5...3 dB ±1.5 dB	2...6 dB ±1.5 dB	2...6 dB ±1.5 dB
Connectors					
Connector type	F				
General					
Current consumption	10 mA				
Equipotential bonding connection	4 mm ²				
Operating temperature range (acc. to EN 60065)	-20...+50°C				
Dimensions (W × H × D) appr.	202 x 128 x 63 mm	202 x 189 x 63 mm	202 x 189 x 63 mm	202 x 306 x 63 mm	202 x 306 x 63 mm
Weight	0.685 kg	0.810 kg	0.830 kg	1.160 kg	1.190 kg
Protection class	IP 20				


	Type Part No.	Product description	GTIN	PU
 	SVS 990-06 SVS99006	Headamplifier 9 in 9 basic-line ✓ For use with SPU 9xx-06 systems ✓ 8 × SAT 950...2200 MHz Gain 15...20 dB ✓ 1 × TERR 5...862 MHz Gain 20 dB ✓ Built-in attenuators 0...15 dB ✓ Powered by ext. power supply SZU 99-06 (not included in delivery) or via the SAT-IF trunk lines ✓ Die cast housing	7611682005554	1
	Type	SVS 990-06		
Inputs				
Number	9			
Frequency range	40...862 MHz 950...2200 MHz			
Attenuator adjustment range	0...15 dB			
Gain TERR	20 dB			
Gain SAT	15...20 dB			
Output				
Noise figure	5 dB			
Trunk outputs				
Number	9			
Max. output level TERR (3rd order EN 50083-3, 60 dB KMA)	112 dBμV			
Max. output level trunk SAT (3rd order EN 50083-3, 35 dB KMA, 2 sender test method)	105 dBμV			
Noise figure	5 dB			
Connectors				
Connector type	F			
Return loss	12 dB			
General				
Operating voltage	15 VDC			
Current consumption	400 mA			
Equipotential bonding connection	4 mm ²			
Operating temperature range (acc. to EN 60065)	-20...+50°C			
Dimensions (W × H × D) appr.	220 x 70 x 45 mm			
Weight	0.470 kg			
Protection class	IP 20			

	Type Part No.	Product description	GTIN	PU
2 SAT positions premium-line				
 <p>KLASSE A CLASS</p>	SPU 94-09 SPU09409	Active multiswitch 9 in 4 premium-line ✓ For up to 4 subscribers ✓ Active satellite path, passive terrestrial path ✓ Suitable for Quad LNB ✓ Suitable for return path ✓ Switching power supply unit (detachable up to 10 m)	7611682130942	1
	SPU 96-09 SPU09609	Active multiswitch 9 in 6 premium-line ✓ For up to 6 subscribers ✓ Active satellite and terrestrial path ✓ Terrestrial adjustable, switchable to passive ✓ Cascadable ✓ Suitable for return path ✓ Suitable for Quad LNB ✓ Switching power supply unit (detachable up to 10 m)	7611682130966	1
	SPU 910-09 SPU91009	Same as SPU 96-09, but 9 in 10, for up to 10 subscribers	7611682130980	1
	SPU 916-09 SPU91609	Same as SPU 96-09, but 9 in 16, for up to 16 subscribers	7611682139167	1
Type	SPU 94-09	SPU 96-09	SPU 910-09	SPU 916-09
Inputs				
Number	9			
Frequency range	5...65 MHz 85...862 MHz 950...2200 MHz			
Attenuator adjustment range TERR, switchable to passive	-	20 dB	20 dB	20 dB
Subscriber ports				
Number	4	6	10	16
Switch commands	13/18 V, 0/22 kHz, DiSEqC 2.0			
Gain SAT	-6...0 dB	-6...0 dB	-7...-0 dB	-8...-2 dB
Gain TERR active	-	-6...-3 dB	-7...-5 dB	-10...-8 dB
Gain TERR passive	-20 dB	-22...-29 dB	-24...-30 dB	-26...-34 dB
Isolation	>26 dB			
Switching isolation	>26 dB			
Max. output level SAT (3rd order SAT EN 50083-3 35dB KMA, 2 sender test method)	94 dB μ V			
Current consumption per port (without LNB supply)	25 mA			
Trunk outputs				
Number	-	9	9	9
Gain TERR active	-	11...17 dB	11...17 dB	11...16 dB
Gain TERR passive	-	-6...-9 dB	-6...-9 dB	-6...-10 dB
Gain SAT	-	12 dB	11 dB	10 dB
Max. output level TERR (3rd order EN 50083-3, 60 dB KMA)	-	103 dB μ V	103 dB μ V	103 dB μ V
Max. output level trunk SAT (3rd order EN 50083-3, 35 dB KMA, 2 sender test method)	-	113 dB μ V	112 dB μ V	111 dB μ V
Isolation	-	>26 dB	>26 dB	>26 dB
Rejection (SAT TERR)	-	>40 dB	>40 dB	>40 dB
Connectors				
Connector type	F			
General				
Switching power supply	90...250 V~ 47-63 Hz 18 V= / 1.2 A			
Power indicator	LED			
Power consumption without LNB supply (TERR passive active)	4.8 W -	5.9 7.8 W	5.9 7.8 W	5.9 7.8 W
Power consumption in Stand-by (TERR passive active)	0.9 W -	2.3 4.1 W	2.3 4.1 W	2.3 4.1 W
Equipotential bonding connection	4 mm ²			
Operating temperature range (acc. to EN 60065)	-20...+50°C			
Dimensions (W x H x D) appr.	255 x 145 x 85 mm	255 x 145 x 85 mm	255 x 180 x 85 mm	255 x 255 x 85 mm
Weight	0.930 kg	1.030 kg	1.210 kg	1.460 kg
Protection class	IP 20			

	Type Part No.	Product description				GTIN	PU
 <p>KLASSE A CLASS</p>	SPU 996-09 SPU99609	Cascade unit 9 in 6 premium-line ✓ For up to 6 subscribers ✓ Passive satellite and terrestrial path ✓ For cascadable 9 in x SAT systems ✓ Optimized for the use with SPU 9xx-09 ✓ Suitable for return path				7611682139952	1
	SPU 998-09 SPU99809	Same as SPU 996-09, but 9 in 8, for up to 8 subscribers				7611682139969	1
	SPU 9912-09 SPU991209	Same as SPU 996-09, but 9 in 12, for up to 12 subscribers				7611682139983	1
	SPU 9918-09 SPU991809	Same as SPU 996-09, but 9 in 18, for up to 18 subscribers				7611682139129	1
	SPU 9918-19 SPU991819	Same as SPU 9918-09, but SAT active				7611682004533	1
Type	SPU 996-09	SPU 998-09	SPU 9912-09	SPU 9918-09	SPU 9918-19		
Inputs							
Number	9						
Frequency range	5...65 MHz 85...862 MHz 950...2200 MHz						
Subscriber ports							
Number	6	8	12	18	18		
Tap loss TERR	20 dB	22 dB	25 dB	28 dB	25...29 dB		
Tap loss SAT	19...16 dB	19...16 dB	19...16 dB	21...18 dB	-		
Tap loss SAT active	-	-	-	-	6...3dB		
Isolation	>26 dB						
Switching isolation	>26 dB						
Max. output level SAT (3rd order SAT EN 50083-3 35dB KMA, 2 sender test method)	-	-	-	-	98 dBμV		
Current consumption per port (without LNB supply)	-	-	-	-	55 mA		
Trunk outputs							
Number	9						
Through loss TERR	5 dB	5 dB	5 dB	6 dB	7 dB		
Through loss SAT	2...5 dB	2...5 dB	3...6 dB	3...7 dB	3...7 dB		
Isolation	>30 dB						
Rejection (SAT TERR)	>40 dB						
Connectors							
Connector type	F						
General							
Operating temperature range (acc. to EN 60065)	-20...+50°C						
Dimensions (W × H × D) appr.	230 × 125 × 40 mm	230 × 145 × 40 mm	230 × 180 × 40 mm	230 × 255 × 40 mm	230 × 255 × 40 mm		
Weight	0.606 kg	0.700 kg	0.870 kg	1.135 kg	0.980 kg		

Type Part No.	Product description	GTIN	PU
SVS 990-09 SVS99009	Headamplifier 9 in 9 premium-line <ul style="list-style-type: none"> ✓ For use with SPU 9xx-09 systems ✓ 8 × SAT 950...2200 MHz Gain 21...27 dB ✓ 1 × TERR 5...862 MHz Gain 15 dB ✓ Built-in attenuators 0...15 dB ✓ Switching power supply unit (detachable up to 10 m) ✓ 9 termination resistors CFA 11-00 included 	7611682002850	1
			
Type	SVS 990-09		
Inputs			
Number	9		
Frequency range	5...65 MHz 85...862 MHz 950...2200 MHz		
Attenuator adjustment range	0...15 dB		
Gain TERR	15 dB		
Gain SAT	21...27 dB		
Gain return path (passive)	-2 dB		
Isolation SAT inputs SAT inputs	40 dB		
Isolation TERR SAT	40 dB		
Trunk outputs			
Number	9		
Max. output level TERR (3rd order EN 50083-3, 60 dB KMA)	109 dB μ V		
Max. output level trunk SAT (3rd order EN 50083-3, 35 dB KMA, 2 sender test method)	114 dB μ V		
Isolation TERR SAT	40 dB		
Isolation SAT SAT	40 dB		
Connectors			
Connector type	F		
General			
Switching power supply	90...250 V~ 47...63 Hz 18 V=/1.2 A		
Power consumption	14 W		
Equipotential bonding connection	4 mm ²		
Operating temperature range (acc. to EN 60065)	-20...+50°C		
Dimensions (W × H × D) appr.	255 × 145 × 85 mm		
Weight	1.340 kg		
Protection class	IP 20		

3 SAT positions | basic-line

Type Part No.	Product description	GTIN	PU
 <p>KLASSE A CLASS</p>	SPU 1308-06 SPU130806 Multiswitch stand-alone/cascade unit 13 in 8 basic-line ✓ For up to 8 subscribers ✓ Subscriber ports SAT active, terrestrial passive ✓ Suitable for return path ✓ Powered by ext. power supply SZU 99-06 (not included in delivery) or via the SAT-IF trunk lines ✓ Cascadable - Cascade outputs must be terminated with DC-isolated 75 Ohm terminating resistors (e.g. CFA 11-00, not included in delivery)	7611682005431	1
	SPU 1312-06 SPU131206 Same as SPU 1308-06, but 13 in 12, for up to 12 subscribers	7611682005448	1
	SPU 1316-06 SPU131606 Same as SPU 1308-06, but 13 in 16, for up to 16 subscribers	7611682005455	1
	SPU 1324-06 SPU132406 Same as SPU 1308-06, but 13 in 24, for up to 24 subscribers	7611682005462	1
	SPU 1332-06 SPU133206 Same as SPU 1308-06, but 13 in 32, for up to 32 subscribers	7611682005479	1


Type	SPU 1308-06	SPU 1312-06	SPU 1316-06	SPU 1324-06	SPU 1332-06
Inputs					
Number	13				
Frequency range	5...862 MHz 950...2400 MHz				
Max. LNB current	1500 mA				
Isolation V H.	>30 dB				
Isolation TERR SAT	30 dB				
Subscriber ports					
Number	8	12	16	24	32
Switch commands	13/18 V, 0/22 kHz, DiSEqC 1.0				
Tap loss TERR	24 dB ±3 dB	28 dB ±3 dB	28 dB ±3 dB	32 dB ±3 dB	32 dB ±3 dB
Tap loss SAT	2...0 dB ±2 dB	3...0 dB ±2 dB	3...0 dB ±2 dB	2...0 dB ±2 dB	2...0 dB ±2 dB
Max. output level SAT (3rd order SAT EN 50083-3 35dB KMA, 2 sender test method)	102 dBµV				
Current consumption per port (without LNB supply)	< 35 mA				
Trunk outputs					
Number	13				
Through loss TERR	2...5 dB ±1.5 dB	2...5 dB ±1.5 dB	2...5 dB ±1.5 dB	3...5 dB ±1.5 dB	3...5 dB ±1.5 dB
Through loss SAT	1...3 dB ±1.5 dB	1...3 dB ±1.5 dB	1...3 dB ±1.5 dB	2.5...5 dB ±1.5 dB	2.5...5 dB ±1.5 dB
Connectors					
Connector type	F				
General					
Equipotential bonding connection	4 mm ²				
Operating temperature range (acc. to EN 60065)	-20...+50°C				
Dimensions (W × H × D) appr.	291 x 128 x 63 mm	291 x 189 x 63 mm	291 x 189 x 63 mm	291 x 308 x 63 mm	291 x 308 x 63 mm
Weight	0.700 kg	0.910 kg	0.930 kg	1.410 kg	1.440 kg
Protection class	IP 20				

Type Part No.	Product description	GTIN	PU
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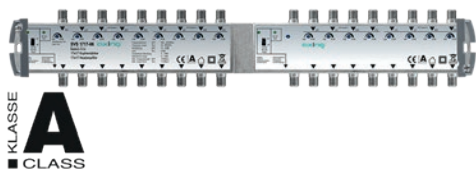


SVS 1313-06 SVS131306	Headamplifier 13 in 13 basic-line ✓ For use with SPU 13xx-06 systems ✓ 12 × SAT 950...2200 MHz Gain 15...20 dB ✓ 1 × TERR 5...862 MHz Gain 20 dB ✓ Built-in attenuators 0...15 dB ✓ Powered by ext. power supply SZU 99-06 (not included in delivery) or via the SAT-IF trunk lines ✓ Die cast housing	7611682005561	1
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Type	SVS 1313-06
Inputs	
Number	13
Frequency range	40...862 MHz 950...2200 MHz
Attenuator adjustment range	0...15 dB
Gain TERR	20 dB
Gain SAT	15...20 dB
Output	
Noise figure	12 dB
Trunk outputs	
Number	13
Max. output level TERR (3rd order EN 50083-3, 60 dB KMA)	112 dB μ V
Max. output level trunk SAT (3rd order EN 50083-3, 35 dB KMA, 2 sender test method)	105 dB μ V
Noise figure	5 dB
Connectors	
Connector type	F
Return loss	12 dB
General	
Operating voltage	15 VDC
Current consumption	620 mA
Equipotential bonding connection	4 mm ²
Operating temperature range (acc. to EN 60065)	-20...+50°C
Dimensions (W × H × D) appr.	360 x 70 x 45 mm
Weight	0.800 kg
Protection class	IP 20

Type Part No.	Product description	GTIN	PU		
4 SAT positions basic-line					
 <p>KLASSE A CLASS</p>	SPU 1708-06 Multiswitch stand-alone/cascade unit 17 in 8 basic-line ✓ For up to 8 subscribers ✓ Subscriber ports SAT active, terrestrial passive ✓ Suitable for return path ✓ Powered by ext. power supply SZU 99-06 (not included in delivery) or via the SAT-IF trunk lines ✓ Cascadable - Cascade outputs must be terminated with DC-isolated 75 Ohm terminating resistors (e.g. CFA 11-00, not included in delivery)	7611682005486	1		
	SPU 1712-06 Same as SPU 1708-06, but 17 in 12, for up to 12 subscribers	7611682005493	1		
	SPU 1716-06 Same as SPU 1708-06, but 17 in 16, for up to 16 subscribers	7611682005509	1		
	SPU 1724-06 Same as SPU 1708-06, but 17 in 24, for up to 24 subscribers	7611682005516	1		
	SPU 1732-06 Same as SPU 1708-06, but 17 in 32, for up to 32 subscribers	7611682005523	1		
Type	SPU 1708-06	SPU 1712-06	SPU 1716-06	SPU 1724-06	SPU 1732-06
Inputs					
Number	17				
Frequency range	5...862 MHz 950...2400 MHz				
Max. LNB current	1500 mA				
Subscriber ports					
Number	8	12	16	24	32
Switch commands	13/18 V, 0/22 kHz, DiSEqC 1.0				
Tap loss TERR	24 dB ±2 dB	28 dB ±3 dB	28 dB ±3 dB	32 dB ±3 dB	32 dB ±3 dB
Tap loss SAT	2...0 dB ±2 dB	3...0 dB ±2 dB	3...0 dB ±2 dB	2...0 dB ±2 dB	2...0 dB ±2 dB
Max. output level SAT (3rd order SAT EN 50083-3 35dB KMA, 2 sender test method)	102 dBµV				
Current consumption per port (without LNB supply)	< 35 mA				
Trunk outputs					
Number	17				
Through loss TERR	3 dB ±1.5 dB	2...5 dB ±1.5 dB	2...5 dB ±1.5 dB	3...5 dB ±1.5 dB	3...5 dB ±1.5 dB
Through loss SAT	1...3 dB ±1.5 dB	1...3 dB ±1.5 dB	1...3 dB ±1.5 dB	2.5...5 dB ±1.5 dB	2.5...5 dB ±1.5 dB
Connectors					
Connector type	-				
General					
Current consumption	10 mA				
Equipotential bonding connection	4 mm ²				
Operating temperature range (acc. to EN 60065)	-20...+50°C				
Dimensions (W × H × D) appr.	291 x 128 x 63 mm	291 x 189 x 63 mm	291 x 189 x 63 mm	291 x 308 x 63 mm	291 x 308 x 63 mm
Weight	0.730 kg	0.910 kg	0.870 kg	1.420 kg	1.450 kg
Protection class	IP 20				

Type Part No. Product description GTIN PU





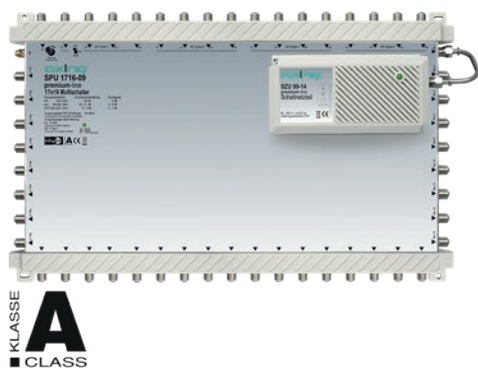
SVS 1717-06
SVS171706



Headamplifier | 17 in 17 | basic-line
 ✓ For use with SPU 17xx-06 systems
 ✓ 16 × SAT 950...2200 MHz | Gain 15...20 dB
 ✓ 1 × TERR 5...862 MHz | Gain 20 dB
 ✓ Built-in attenuators 0...15 dB
 ✓ Powered by ext. power supply SZU 99-06 (not included in delivery) or via the SAT-IF trunk lines
 ✓ Die cast housing

7611682005578 1

Type	SVS 1717-06
Inputs	
Number	17
Frequency range	40...862 MHz 950...2200 MHz
Attenuator adjustment range	0...15 dB
Gain TERR	20 dB
Gain SAT	15...20 dB
Output	
Noise figure	12 dB
Trunk outputs	
Number	17
Max. output level TERR (3rd order EN 50083-3, 60 dB KMA)	112 dBμV
Max. output level trunk SAT (3rd order EN 50083-3, 35 dB KMA, 2 sender test method)	105 dBμV
Noise figure	5 dB
Connectors	
Connector type	F
Return loss	12 dB
General	
Operating voltage	15 VDC
Current consumption	800 mA
Equipotential bonding connection	4 mm ²
Operating temperature range (acc. to EN 60065)	-20...+50°C
Dimensions (W × H × D) appr.	440 x 70 x 45 mm
Weight	1.010 kg
Protection class	IP 20

Type Part No.	Product description	GTIN	PU
4 SAT positions premium-line			
 SPU 1708-09 SPU170809	Active standalone multiswitch 17 in 8 premium-line ✓ For up to 8 subscribers ✓ Active satellite and terrestrial path ✓ Terrestrial adjustable and switchable to passive ✓ Switching power supply unit (detachable up to 10 m) ✓ Suitable for Quad LNB ✓ Suitable for return path	7611682001730	1
			
Type	SPU 1708-09		
Inputs			
Number	17		
Frequency range	5...65 MHz 85...862 MHz 950...2200 MHz		
Attenuator adjustment range TERR, switchable to passive	20 dB		
Subscriber ports			
Number	8		
Switch commands	13/18 V, 0/22 kHz, DiSEqC 2.0		
Gain SAT	-10...-4 dB		
Gain TERR active	-0...-3 dB		
Gain TERR passive	-22...-28 dB		
Isolation	>26 dB		
Switching isolation	>26 dB		
Max. output level SAT (3rd order SAT EN 50083-3 35dB KMA, 2 sender test method)	94 dB μ V		
Trunk outputs			
Rejection (SAT TERR)	>40 dB		
Connectors			
Connector type	F		
General			
Switching power supply	90...250 V~ 47...63 Hz 18 V=/2 A		
Power indicator	LED		
Power consumption without LNB supply (TERR passive active)	8.3 10.2 W		
Power consumption in Stand-by (TERR passive active)	2.2 4.0 W		
Equipotential bonding connection	4 mm ²		
Operating temperature range (acc. to EN 60065)	-20...+50°C		
Dimensions (W x H x D) appr.	407 (432)* x 170 x 85 mm		
Weight	1.680 kg		
Protection class	IP 20		
Comments	* incl. DC bridge		

Type	Part No.	Product description	GTIN	PU
 <p>KLASSE A CLASS</p>	SPU 1716-09 SPU171609	Active multiswitch 17 in 16 premium-line <ul style="list-style-type: none"> ✓ For up to 16 subscribers ✓ Active satellite and terrestrial path ✓ Terrestrial adjustable and switchable to passive ✓ Switching power supply unit (detachable up to 10 m) ✓ Suitable for Quad LNB ✓ Suitable for return path 	7611682001754	1
	SPU 1710-09 SPU171009	Cascade unit 17 in 10 premium-line <ul style="list-style-type: none"> ✓ For up to 10 subscribers ✓ Passive satellite and terrestrial path ✓ For cascadable 17 in x SAT systems ✓ Optimized for the use with SPU 1716-09 ✓ Suitable for return path 	7611682001747	1
	SPU 1718-19 SPU171819	Same as SPU 1710-09, but 17 in 18, for up to 18 subscribers, SAT active	7611682003451	1
Type	SPU 1716-09	SPU 1710-09	SPU 1718-19	
Inputs				
Number		17		
Frequency range		5...65 MHz 85...862 MHz 950...2200 MHz		
Attenuator adjustment range TERR, switchable to passive	20 dB	-	-	
Subscriber ports				
Number	16	10	18	
Switch commands		13/18 V, 0/22 kHz, DiSEqC 2.0		
Gain SAT	-9...-3 dB	-	-	
Gain TERR active	-8...-6 dB	-	-	
Gain TERR passive	-27...-35 dB	-	-	
Tap loss TERR	-	23 dB	25...31 dB	
Tap loss SAT	-	23...20 dB	-	
Tap loss SAT active	-	-	6...3 dB	
Isolation		>26 dB		
Switching isolation		>26 dB		
Max. output level SAT (3rd order SAT EN 50083-3 35dB KMA, 2 sender test method)	94 dB μ V	-	102 dB μ V	
Current consumption per port (without LNB supply)	25 mA	-	-	
Trunk outputs				
Number		17		
Gain TERR active	11...17 dB	-	-	
Gain TERR passive	-6...-9 dB	-	-	
Gain SAT	12 dB	-	-	
Max. output level TERR (3rd order EN 50083-3, 60 dB KMA)	103 dB μ V	-	-	
Max. output level trunk SAT (3rd order EN 50083-3, 35 dB KMA, 2 sender test method)	111 dB μ V	-	-	
Through loss TERR	-	5 dB	3...5 dB	
Through loss SAT	-	2...5 dB	3...7 dB	
Isolation		>26 dB		
Rejection (SAT TERR)		>40 dB		
Connectors				
Connector type		F		
General				
Switching power supply	90...250 V~ 47-63 Hz 18 V= /2 A	-	-	
Power indicator	LED	-	-	
Power consumption without LNB supply (TERR passive active)	8.3 10.2 W	-	-	
Power consumption in Stand-by (TERR passive active)	2.2 4.0 W	-	-	
Equipotential bonding connection		4 mm ²		
Operating temperature range (acc. to EN 60065)		-20...+50°C		
Dimensions (W x H x D) appr.	407 (432)* x 255 x 85 mm	407 x 170 x 40 mm	407 x 255 x 40 mm	
Weight	2.420 kg	1.420 kg	2.050 kg	
Protection class		IP 20		
Comments	* incl. DC bridge	-	-	

Type Part No.	Product description	GTIN	PU
 SVS 1717-09 SVS171709	Headamplifier 17 in 17 ✓ For use with SPU 17xx-09 systems ✓ 16 × SAT 950...2200 MHz Gain 21...27 dB ✓ 1 × TERR 5...862 MHz Gain 15 dB ✓ Built-in attenuators 0...15 dB ✓ Switching power supply unit (detachable up to 10 m) ✓ 17 termination resistors CFA 11-00 included	7611682003321	1
			
Type	SVS 1717-09		
Inputs			
Number	17		
Frequency range	5...65 MHz 85...862 MHz 950...2200 MHz		
Attenuator adjustment range	0...15 dB		
Gain TERR	15 dB		
Gain SAT	21...27 dB		
Gain return path (passive)	-2 dB		
Isolation SAT inputs SAT inputs	40 dB		
Isolation TERR SAT	40 dB		
Trunk outputs			
Number	17		
Max. output level TERR (3rd order EN 50083-3, 60 dB KMA)	109 dBμV		
Max. output level trunk SAT (3rd order EN 50083-3, 35 dB KMA, 2 sender test method)	114 dBμV		
Isolation TERR SAT	40 dB		
Isolation SAT SAT	40 dB		
Connectors			
Connector type	F		
General			
Switching power supply	90...250 V~ 47...63 Hz 18 V=/2 A		
Power consumption	22 W		
Equipotential bonding connection	4 mm ²		
Operating temperature range (acc. to EN 60065)	-20...+50°C		
Dimensions (W × H × D) appr.	407 (432)* × 145 × 85 mm		
Weight	1.600 kg		
Protection class	IP 20		
Comments	* incl. DC bridge		

Type Part No. Product description GTIN PU

Single cable multiswitches | premium-line



SES 5532-19
SES553219

Programmable Unicable II multiswitch | premium-line

- ✓ 1 SAT position with quattro LNB
- ✓ 2 SAT-positions when using a wideband-LNB
- ✓ 4 SAT positions by connecting two SES 5532-19 using a system connector SZU 55-02
- ✓ With terrestrial feed-in
- ✓ Cascadable
- ✓ Up to 32 user bands
- ✓ Alternatively 32 fixed transponders (static-mode) for unlimited numbers of receivers
- ✓ According to EN 50607 (Unicable II) and EN 50494 (Unicable I)
- ✓ Interference-free, no interference across flats when using programmable SSD 6-xx antenna wall outlets
- ✓ Including power supply and power inserter

7611682004762 1

Type	SES 5532-19
Inputs	
Number	5
Frequency range	5...862 MHz @ TERR 250...2350 MHz @ SAT
Level	59...94 dBµV
Isolation V H.	>25 dB
Subscriber ports	
Number	2
Supported standards	EN 50494, EN 50607
Tap loss TERR	13 dB
Frequency range (SAT)	950...2150 MHz
User bands	32
Gain SAT Unicable II (SCR/CSS)	25 dB
Gain SAT (Legacy)	10 dB
Output level SAT (SCR/CSS)	84 dBµV
Trunk outputs	
Number	5
Through loss TERR	3 dB
Through loss SAT	3 dB
Connectors	
Connector type	F
General	
Current consumption	500 mA
Equipotential bonding connection	4 mm ²
Dimensions (W × H × D) appr.	195 × 145 × 85 mm
Weight	0.210 kg
Protection class	IP 20
External accessories	
Switching power supply	100...240 VAC / 50...60 Hz 19 VDC/940 mA
Power inserter	5...2400 MHz 18V/750 mA




SZU 55-02
SZU05502

Singlecable system combiner

- ✓ To combine two singlecable multiswitches to one system
- ✓ For receiving of four satellite positions
- ✓ 5...2400 MHz

7611682006247 1

Type	SZU 55-02
Frequency range	5...2400 MHz
Trunk line	
Through loss @ 5...65 MHz	≤ 7.5 dB
Connectors	
Connector type	F
General	
Dimensions (W × H × D) appr.	67 × 55 × 30 mm
Weight	0.069 kg

Type Part No.	Product description	GTIN	PU
SES 522-06 SES52206	Single cable multiswitch II (SCR) 5 in 2 × 2 premium-line <ul style="list-style-type: none"> ✓ 1 SAT position with quattro LNB ✓ 2 SAT positions with wideband LNBs ✓ With terrestrial feed-in ✓ Cascadable ✓ 2 outputs and 4 user bands ✓ Single cable I and II compatible (according to EN 50607 and EN 50494) ✓ Interference-free, no interference across flats when using programmable SSD 6-xx antenna wall outlets ✓ Receiver-fed if one Quattro LNB is used ✓ If more than one LNB is used, ext. power supply SZU 99-06 needed (not included in delivery) 	7611682006070	1
 <div style="position: absolute; left: -100px; top: 50px; font-weight: bold; font-size: 2em;">A</div> <div style="position: absolute; left: -100px; top: 70px; font-size: 0.8em;"> KLASSE CLASS </div>			
Type	SES 522-06		
Inputs			
Number	5		
Frequency range	5...862 MHz @ TERR 250...2350 MHz @ SAT		
LNB voltage	12 V		
Max. LNB current	500 mA per LNB 1000 mA total		
Level	60... 90 dB μ V		
Isolation V H.	30 dB		
Subscriber ports			
Number	2		
Supported standards	EN 50494, EN 50607		
Tap loss TERR	17 dB		
Frequency range (SAT)	950...2150 MHz		
User bands	4		
User band frequencies	1331/1382/1433/1484 MHz		
Output level SAT (SCR/CSS)	91 dB μ V \pm 2 dB		
Current consumption from STB (SCR/CSS)	180 mA		
Trunk outputs			
Number	5		
Through loss TERR	2 dB \pm 2.0 dB		
Through loss SAT	2 dB \pm 2.0 dB		
Connectors			
Connector type	F		
Return loss	\geq 10 dB		
General			
Equipotential bonding connection	4 mm ²		
Operating temperature range (acc. to EN 60065)	-20...70°C		
Dimensions (W × H × D) appr.	140 x 111 x 63 mm		
Weight	0.318 kg		

Type Part No.	Product description	GTIN	PU
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SES 984-06
SES98406

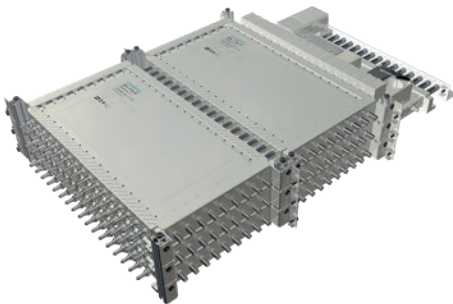
- Single cable multiswitch II (SCR) | 9 in 8 x 4 | premium-line**
- ✓ 2 SAT positions with quattro LNB
 - ✓ 4 SAT positions with wideband LNBs (EN 50607 only)
 - ✓ 2 out of 4 SAT positions with wideband LNBs (EN 50494)
 - ✓ With terrestrial feed-in
 - ✓ Cascadable
 - ✓ 8 outputs with 4 user bands each
 - ✓ Single cable I and II compatible (according to EN 50607 and EN 50494)
 - ✓ Interference-free, no interference across flats when using programmable SSD 6-xx antenna wall outlets
 - ✓ Alternatively up to 8 legacy outputs (not with wideband LNBs or SSD 6-xx)
 - ✓ Ext. power supply SZU 99-06 needed (not included in delivery)

7611682006100 1


Type	SES 984-06
Inputs	
Number	9
Frequency range	5...862 MHz @ TERR 250...2350 MHz @ SAT
LNB voltage	12 V
Max. LNB current	500 mA per LNB 1000 mA total
Level	60... 90 dB μ V
Isolation V H.	30 dB
Subscriber ports	
Number	8
Supported standards	EN 50494, EN 50607
Tap loss TERR	22 dB
Frequency range (SAT)	950...2150 MHz
User bands	8 x 4
User band frequencies	1331/1382/1433/1484 MHz
Output level SAT (SCR/CSS)	83/82 dB μ V*
Output level SAT (Legacy)	83/82 dB μ V*
Current consumption from STB (SCR/CSS)	180 mA
Current consumption from STB (Legacy)	60 mA
Trunk outputs	
Number	9
Through loss TERR	2 dB \pm 2.0 dB
Through loss SAT	5 dB \pm 2.0 dB
Connectors	
Connector type	F
Return loss	\geq 10 dB
General	
Equipotential bonding connection	4 mm ²
Operating temperature range (acc. to EN 60065)	-20...70°C
Dimensions (W x H x D) appr.	205 x 310 x 63 mm
Weight	1.05 kg
Comments	*AGC


Type Part No.	Product description	GTIN	PU
 <p> SES 5216-06 SES521606 </p>	Single cable multiswitch II (SCR) 5 in 2 × 16 premium-line <ul style="list-style-type: none"> ✓ 1 SAT position with quattro LNB ✓ 2 SAT positions with wideband LNBS ✓ With terrestrial feed-in ✓ Cascadable ✓ 2 outputs and 16 user bands ✓ Single cable I and II compatible (customised user band configuration possible) ✓ No interference across flats when using programmable SSD 6-xx antenna wall outlets ✓ Alternatively up to 2 legacy outputs (not with wideband LNBS or SSD 6-00) ✓ Supply via external power supply unit SZU 99-06 (not included in delivery), for cascades up to 3 × SES 5216-06 usually only one power supply unit is needed 	7611682007831	1
Type SES 5216-06			
Inputs			
Number	5		
Frequency range	5...862 MHz @ TERR 250...2350 MHz @ SAT		
LNB voltage	18 V		
Level	60... 90 dBµV		
Isolation V H.	25 dB		
Subscriber ports			
Number	2		
Supported standards	EN 50494, EN 50607		
Tap loss TERR	17 dB ±2 dB		
Frequency range (SAT)	950...2150 MHz		
User bands	2 × 16		
User band frequencies	975/1025/1075/1125/1175/1225/1275/1325 MHz @ EN 50494/50607* 1375/1425/1475/1525/1575/1625/1675/1725 MHz @ EN 50607*		
Output level SAT (SCR/CSS)	98 dBµV ±2 dB**		
Output level SAT (Legacy)	85 dBµV ±2 dB		
Current consumption from STB (SCR/CSS)	180 mA		
Current consumption from STB (Legacy)	60 mA		
Trunk outputs			
Number	5		
Through loss TERR	2 dB ±1.0 dB		
Through loss SAT	2 dB ±2.0 dB		
Connectors			
Connector type	F		
Return loss	≥ 10 dB		
General			
Operating voltage	18 VDC		
Current consumption	max. 250 mA		
Connector DC	F-female		
Maximum supply current	1 A***		
Equipotential bonding connection	4 mm ²		
Operating temperature range (acc. to EN 60065)	-20...50°C		
Dimensions (W × H × D) appr.	140 x 100 x 63 mm		
Comments	* Customised user band configuration possible. ** Automatic Gain Control (AGC) *** The LNBS, the SES 5216-06 and any connected cascade units are supplied via the DC input.		

	Type Part No.	Product description	GTIN	PU
Stackable multiswitch system mini				
	SZU 521-00 SZU52100	Stackable multiswitch system Mini ✓ For compact mounting and safe connection of 2 × SPU 5518-09/-19 multi-switches and 1 × SVS 550-09 head amplifier (multi-switch and head amplifier not included in delivery) ✓ 1 × 2-times stacked, for distributing the signals of one satellite position to 36 subscribers ✓ Consisting of: ✓ 5 × SVE 2-09 input splitter ✓ 4 × SZU 89-09 mounting rail 2-way ✓ 4 × QEW 9-90 earthing bracket for subscriber outputs incl. CFA 17-99 ✓ 8 × M5 × 6 screw ✓ 5 × CFA 11-00 terminating resistor	7611682005035	1
	SZU 522-00 SZU52200	Same as 521-00, but 2 x 2-times stacked for 2 satellites, 72 subscribers	7611682005097	1
	SZU 531-00 SZU53100	Same as 521-00, but 1 x 3-times stacked, 2 satellites, 54 subscribers	7611682005066	1
	SZU 532-00 SZU53200	Same as 521-00, but 2 x 3-times stacked, 2 satellites, 108 subscribers	7611682005127	1
	Type	SZU 521-00	SZU 522-00	SZU 531-00
SAT positions	1			
Subscriber ports				
Number	36	72	54	108
	SZU 921-00 SZU92100	Stackable multiswitch system Mini ✓ For compact mounting and safe connection of 2 × SPU 9918-09/-19 multi-switches and 1 × SVS 990-09 head amplifier (multi-switch and head amplifier not included in delivery) ✓ 1 × 2-times stacked, for distributing the signals of two satellite positions to 36 subscribers ✓ Consisting of: ✓ 9 × SVE 2-09 input splitter ✓ 4 × SZU 89-09 mounting rail 2-way ✓ 4 × QEW 9-90 earthing bracket for subscriber outputs incl. CFA 17-99 ✓ 8 × M5 × 6 screw ✓ 9 × CFA 11-00 terminating resistor	7611682005042	1
	SZU 922-00 SZU92200	Same as 921-00, but 2 x 2-times stacked for 2 satellites, 72 subscribers	7611682005103	1
	SZU 931-00 SZU93100	Same as 921-00, but 1 x 3-times stacked, 2 satellites, 54 subscribers	7611682005073	1
	SZU 932-00 SZU93200	Same as 921-00, but 2 x 3-times stacked, 2 satellites, 108 subscribers	7611682005134	1
	Type	SZU 921-00	SZU 922-00	SZU 931-00
SAT positions	2			
Subscriber ports				
Number	36	72	54	108

Type	Part No.	Product description	GTIN	PU
	SZU 1721-00 SZU172100	Stackable multiswitch system Mini <ul style="list-style-type: none"> ✓ For compact mounting and safe connection of 2 × SPU 1718-19 multi-switches and 1 × SVS 1717-09 head amplifier (multi-switch and head amplifier not included in delivery) ✓ 1 × 2-times stacked, for distributing the signals of four satellite positions to 36 subscribers ✓ Consisting of: ✓ 17 × SVE 2-09 input splitter ✓ 4 × SZU 89-09 mounting rail 2-way ✓ 4 × QEW 9-90 earthing bracket for subscriber outputs incl. CFA 17-99 ✓ 8 × M5 × 6 screw ✓ 17 × CFA 11-00 terminating resistor 	7611682005059	1
	SZU 1722-00 SZU172200	Same as 1721-00, but 2 x 2-times stacked for 2 satellites, 72 subscribers	7611682005110	1
	SZU 1731-00 SZU173100	Same as 1721-00, but 1 x 3-times stacked, 2 satellites, 54 subscribers	7611682005080	1
	SZU 1732-00 SZU173200	Same as 1721-00, but 2 x 3-times stacked, 2 satellites, 108 subscribers	7611682005141	1
Type	SZU 1721-00	SZU 1722-00	SZU 1731-00	SZU 1732-00
SAT positions	4			
Subscriber ports				
Number	36	72	54	108

DiSEqC switches

	SPU 21-01 SPU02101	DiSEqC switch indoor <ul style="list-style-type: none"> ✓ 2 in 1 ✓ Cascadable ✓ With sliding switch to determine between "Option", Tone Burst / "Position" and 22 kHz / "Band" 	7611682130218	1
	SPU 21-02 SPU02102	DiSEqC switch outdoor <ul style="list-style-type: none"> ✓ 2 in 1 ✓ DC power pass ✓ Outdoor types in weather-proof housing (easy to mount with cable binders) 	7611682131215	1
	SPU 41-02 SPU04102	DiSEqC switch outdoor <ul style="list-style-type: none"> ✓ 4 in 1 ✓ DC power pass ✓ Outdoor types in weather-proof housing (easy to mount with cable binders) 	7611682131413	1
	SPU 82-00 SPU08200	DiSEqC switch outdoor <ul style="list-style-type: none"> ✓ 2 × 4 in 1 ✓ DC power pass ✓ Outdoor types in weather-proof housing (easy to mount with cable binders) 	7611682000290	1
Type	SPU 21-01	SPU 21-02	SPU 41-02	SPU 82-00
Inputs				
Number	2	2	4	2 × 4
Frequency range	5...65 MHz 85...862 MHz 950...2200 MHz	950...2200 MHz	950...2200 MHz	950...2200 MHz
Isolation SAT inputs SAT inputs	≥ 25 dB	≥ 20 dB	≥ 30 dB	≥ 30 dB
Subscriber ports				
Number	1	1	1	2
Switch commands	Band (22kHz) Position (Tone Burst) Option	Position	Position Option	Position Option
Supported DiSEqC level	1.0 2.0			
Tap loss SAT	≤ 2 dB	typ. 4 dB	typ. 4 dB	typ. 4 dB
Connectors				
Connector type	F			
General				
Operating temperature range (acc. to EN 60065)	-20...+50°C			
Dimensions (W × H × D) appr.	110 × 80 × 35 mm	70 × 120 × 30 mm	110 × 120 × 30 mm	110 × 120 × 50 mm
Weight	0.142 kg	0.100 kg	0.150 kg	0.258 kg

	Type Part No.	Product description	GTIN	PU
	SPU 81-00 SPU08100	DiSEqC switch outdoor ✓ 8 in 1 ✓ DC power pass ✓ Outdoor types in weather-proof housing (easy to mount with cable binders) ✓ Suitable to control a DiSEqC motor	7611682000597	1
	SPU 81-02 SPU08102	DiSEqC switch outdoor ✓ 2 × 8 in 1 ✓ DC power pass ✓ Outdoor types in weather-proof housing (easy to mount with cable binders) ✓ Suitable to control a DiSEqC motor	7611682000603	1
Type	SPU 81-00		SPU 81-02	
Inputs				
Number	8		2 × 8	
Frequency range	950...2200 MHz			
Isolation SAT inputs SAT inputs	≥ 30 dB			
Subscriber ports				
Number	1		2	
Switch commands	Position + Option + Uncommitted_1 DiseqC 1.2 "drive to position x" (6Bh)			
Supported DiSEqC level	1.1 2.1 1.2 2.2			
Tap loss SAT	typ. 2.5 dB			
Connectors				
Connector type	F			
General				
Operating temperature range (acc. to EN 60065)	-20...+50°C			
Dimensions (W × H × D) appr.	150 × 110 × 30		155 × 110 × 50	
Weight	0.256 kg		0.454 kg	

Type Part No.	Product description	GTIN	PU
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Earthing and equipotential bonding


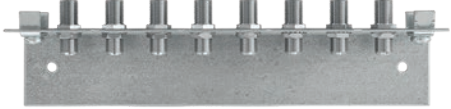
Earthing angles | Vodafone Kabel Deutschland


Vodafone
Kabel
Deutschland





QEW 5-50 QEW00550	Earthing angle Vodafone Kabel Deutschland approved <ul style="list-style-type: none"> ✓ 5-way, two-rowed ✓ Earthing and Equipotential bonding acc. to EN 60728-11 ✓ For CATV cabinets ✓ With premium-line double F-sockets CFA 26-02 ✓ Screening factor >105 dB 	7611682006421	1
QEW 6-50 QEW00650	Same as QEW 5-50, but 6-way	7611682006438	1
QEW 7-50 QEW00750	Same as QEW 5-50, but 7-way	7611682006445	1
QEW 8-50 QEW00850	Same as QEW 5-50, but 8-way	7611682006469	1
QEW 9-50 QEW00950	Same as QEW 5-50, but 9-way	7611682006452	1
QEW 11-50 QEW01150	Same as QEW 5-50, but 11-way	7611682006476	1
QEW 13-50 QEW01350	Same as QEW 5-50, but 13-way	7611682006483	1
QEW 17-50 QEW01750	Same as QEW 5-50, but 17-way	7611682006490	1
QEW 25-50 QEW02550	Same as QEW 5-50, but 25-way	7611682006506	1

Type	QEW 5-50	QEW 6-50	QEW 7-50	QEW 8-50	QEW 9-50	QEW 11-50	QEW 13-50	QEW 17-50	QEW 25-50
Application	CATV								
Screening factor acc. to EN 50083-2	> 105 dB								
Frequency range	5...2200 MHz								
Through loss	< 0.1 dB								
Connectors									
Connector type	F								
Number	5	6	7	8	9	11	13	17	25
Return loss	>28 dB								
General									
Material	surface treated								
Weight	0.114 kg	0.132 kg	0.148 kg	0.166 kg	0.194 kg	0.228 kg	0.264 kg	0.332 kg	0.458 kg



	Type Part No.	Product description	GTIN	PU			
Earthing angles single-rowed							
	QEW 3-12 QEW00312	Earthing angle single-rowed quickfix ✓ 3-way ✓ Earthing and equipotential bonding acc. to EN 60728-11 ✓ For AXING multiswitches SPU xxx-09 at subscriber outputs ✓ With premium-line double F-sockets CFA 26-02 and quickfix adapter CFA 4-01	7611682004434	1			
	QEW 4-12 QEW00412	Same as QEW 3-12, but 4-way	7611682004441	1			
	QEW 5-12 QEW00512	Same as QEW 3-12, but 5-way	4026423990793	1			
	QEW 6-12 QEW00612	Same as QEW 3-12, but 6-way	7611682004458	1			
	QEW 9-12 QEW00912	Same as QEW 3-12, but 9-way	4026423990816	1			
	QEW 9-22 QEW00922	Same as QEW 3-12, but 9-way for SPU 9x-05	4026423990946	1			
	QEW 17-12 QEW01712	Same as QEW 3-12, but 17-way for SPU 17xx-09	4026423990847	1			
	Type	QEW 3-12	QEW 4-12	QEW 5-12	QEW 6-12	QEW 9-12	QEW 9-22
Application	SPU xxx-09	SPU xxx-09	SPU xxx-09	SPU xxx-09	SPU xxx-09	SPU 9xx-05	SPU 17xx-09
Screening factor acc. to EN 50083-2	> 90 dB						
Frequency range	5...2500 MHz						
Connectors							
Connector type	F						
Number	3	4	5	6	9	9	17
Return loss	20 dB -1.5dB/Okt.						
General							
Material	surface treated						
Weight	0.174 kg	0.230 kg	0.218 kg	0.295 kg	0.348 kg	0.348 kg	0.650 kg
	QEW 4-06 QEW00406	Earthing angle single-rowed ✓ 4-way ✓ Earthing and equipotential bonding acc. to EN 60728-11 ✓ For AXING multiswitches SPU xx8-06, SES 544-06 and SES 984-06 at subscriber outputs (patch cable SAK 21/41-02 required) ✓ With premium-line double F-sockets CFA 26-02	7611682006735	1			
	QEW 6-06 QEW00606	Same as QEW 4-06, but 6-way	7611682006742	1			
	QEW 8-06 QEW00806	Same as QEW 4-06, but 8-way	7611682006759	1			
	QEW 12-06 QEW01206	Same as QEW 4-06, but 12-way	7611682006766	1			
	QEW 16-06 QEW01606	Same as QEW 4-06, but 16-way	7611682006773	1			
Type	QEW 4-06	QEW 6-06	QEW 8-06	QEW 12-06	QEW 16-06		
Application	SPU xx8-06 / SES 544-06 / SES 984-06	SPU xx12-06	SPU x16-06	SPU xx24-06	SPU x32-06		
Screening factor acc. to EN 50083-2	> 90 dB						
Connectors							
Connector type	F						
Number	4	6	8	12	16		
Return loss	20 dB -1.5dB/Okt.						
General							
Material	surface treated						
Weight	0.156 kg	0.214 kg	0.268 kg	0.38 kg	0.486 kg		


Type Part No.	Product description	GTIN	PU																																																																																										
Earthing angles single-rowed surge protection																																																																																													
	QEW 4-20 QEW00420	Earthing angle single-rowed surge protection ✓ 4-way ✓ Earthing and equipotential bonding acc. to EN 60728-11 ✓ For AXING multiswitches SPU 5xx-05 at input ✓ Incl. surge protection devices SZU 6-02 ✓ With premium-line double F-sockets CFA 26-02 and quickfix adapter CFA 4-01	4026423990960 1																																																																																										
	QEW 5-10 QEW00510	Same as QEW 4-20, but 5-way for SPU 5xx-09	4026423971778 1																																																																																										
	QEW 9-10 QEW00910	Same as QEW 4-20, but 9-way for SPU 9x-09	4026423971785 1																																																																																										
	QEW 9-20 QEW00920	Same as QEW 4-20, but 9-way for SPU 9x-05	4026423990922 1																																																																																										
	QEW 17-10 QEW01710	Same as QEW 4-20, but 17-way for SPU 17xx-09	4026423990762 1																																																																																										
	<table border="1"> <thead> <tr> <th>Type</th> <th>QEW 4-20</th> <th>QEW 5-10</th> <th>QEW 9-10</th> <th>QEW 9-20</th> <th>QEW 17-10</th> </tr> </thead> <tbody> <tr> <td>Application</td> <td>SPU xxx-05</td> <td>SPU 5xx-09 / SVS 5x-09</td> <td>SPU 9xx-09 / SVS 9xx-09</td> <td>SPU 9xx-05</td> <td>SPU 17xx-09 / SVS 17x-09</td> </tr> <tr> <td>Screening factor acc. to EN 50083-2</td> <td colspan="3">> 90 dB</td> <td colspan="2"></td> </tr> <tr> <td>Frequency range</td> <td colspan="3">5...2500 MHz</td> <td colspan="2"></td> </tr> <tr> <td>Through loss</td> <td colspan="3">≤ 0.5 dB</td> <td colspan="2"></td> </tr> <tr> <td>DC power pass</td> <td colspan="3">yes</td> <td colspan="2"></td> </tr> <tr> <td>Max. through current</td> <td colspan="3">0.5 A @ 30 VDC</td> <td colspan="2"></td> </tr> <tr> <td>Impulse discharge current</td> <td colspan="3">5 KA @ 8/20 μs</td> <td colspan="2"></td> </tr> <tr> <td colspan="6">Connectors</td> </tr> <tr> <td>Connector type</td> <td colspan="5">F</td> </tr> <tr> <td>Number</td> <td>4</td> <td>5</td> <td>9</td> <td>9</td> <td>17</td> </tr> <tr> <td>Return loss</td> <td colspan="5">20 dB -1.5dB/Okt.</td> </tr> <tr> <td colspan="6">General</td> </tr> <tr> <td>Material</td> <td colspan="5">surface treated</td> </tr> <tr> <td>Weight</td> <td>0.226 kg</td> <td>0.314 kg</td> <td>0.568 kg</td> <td>0.564 kg</td> <td>0.915 kg</td> </tr> </tbody> </table>				Type	QEW 4-20	QEW 5-10	QEW 9-10	QEW 9-20	QEW 17-10	Application	SPU xxx-05	SPU 5xx-09 / SVS 5x-09	SPU 9xx-09 / SVS 9xx-09	SPU 9xx-05	SPU 17xx-09 / SVS 17x-09	Screening factor acc. to EN 50083-2	> 90 dB					Frequency range	5...2500 MHz					Through loss	≤ 0.5 dB					DC power pass	yes					Max. through current	0.5 A @ 30 VDC					Impulse discharge current	5 KA @ 8/20 μs					Connectors						Connector type	F					Number	4	5	9	9	17	Return loss	20 dB -1.5dB/Okt.					General						Material	surface treated					Weight	0.226 kg	0.314 kg	0.568 kg	0.564 kg
Type	QEW 4-20	QEW 5-10	QEW 9-10	QEW 9-20	QEW 17-10																																																																																								
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	Type Part No.	Product description	GTIN	PU		
	QEW 5-06 QEW00506	Earthing angle single-rowed surge protection ✓ 5-way ✓ Earthing and equipotential bonding acc. to EN 60728-11 ✓ For AXING multiswitches SPU/SES 5xx-06 at input ✓ Incl. surge protection devices SZU 6-02 ✓ With premium-line double F-sockets CFA 26-02 and quickfix adapter CFA 4-01	7611682006674	1		
	QEW 9-06 QEW00906	Same as QEW 5-06, but 9-way, two-rowed	7611682006681	1		
	QEW 13-06 QEW01306	Same as QEW 5-06, but 13-way, two-rowed	7611682006698	1		
	QEW 17-06 QEW01706	Same as QEW 5-06, but 17-way, two-rowed	7611682006704	1		
	QEW 513-06 QEW51306	Earthing angle single-rowed surge protection ✓ 5-way ✓ Earthing and equipotential bonding acc. to EN 60728-11 ✓ For AXING headamplifiers SVS 550-06 and SVS 1313-06 (for SVS 1313-06 an additional QEW 917-06 is required) ✓ Incl. surge protection devices SZU 6-02 ✓ With premium-line double F-sockets CFA 26-02 and quickfix adapter CFA 4-01	7611682006711	1		
	QEW 917-06 QEW91706	Same as QEW 513-06, but 9-way for AXING headamplifiers SVS 990-06 and SVS 1717-06 (for SVS 1717-06 2 × QEW 917-06 are required)	7611682006728	1		
	Type	QEW 5-06	QEW 9-06	QEW 13-06	QEW 17-06	QEW 513-06
Application	SPU 5xx-06 / SES 5xx-06	SPU 9xx-06 / SES 9xx-06	SPU 13xx-06	SPU 17xx-06	SVS 550-06 / SVS 1313-06	SVS 990-06 / SVS 1717-06
Screening factor acc. to EN 50083-2	> 90 dB					
Frequency range	5...2500 MHz					
Through loss	≤ 0.5 dB					
DC power pass	yes					
Max. through current	0.5 A @ 30 VDC					
Impulse discharge current	5 KA @ 8/20 µs					
Connectors						
Connector type	F					
Number	5	9	13	17	5	9
Return loss	20 dB -1.5dB/Okt.					
General						
Material	surface treated					
Weight	0.352 kg	0.494 kg	0.752 kg	0.904 kg	0.3 kg	0.526 kg

	Type Part No.	Product description	GTIN	PU
Surge protection				
 KLASSE A CLASS	SZU 6-01 SZU00601	Surge protection device IEC-male IEC-female ✓ For terrestrial, CATV and satellite TV networks ✓ Complies with EN 61643-21	7611682160611	1
	SZU 6-02 SZU00602	Same as SZU 6-01, but F-male F-female	7611682160628	1
Type	SZU 6-01		SZU 6-02	
Screening factor acc. to EN 50083-2	Class A			
Frequency range	5...2400 MHz			
Through loss	0.8 dB @ 5...1000 MHz 1.2 dB @ 1000...2400 MHz			
Max. through current	0.5 A @ 30 VDC			
DC breakdown voltage	230 ± 42 V @ 100 V/s			
Impulse spark-over voltage	≤ 800 V @ 1 kV/μs			
Alternating discharge current	5 A @ 50Hz/1s			
Impulse discharge current	5 kA @ 8/20 μs			
Impedance	75 Ω			
Connectors				
Connector type	IEC-male (input) IEC-female (output)		F-male (input) F-female (output)	
Return loss	12 dB		20 dB -1.5dB/Okt.	
General				
Dimensions (W × H)	Ø 13 x 58 mm		Ø 14 x 46 mm	
Weight			0.019 kg	

Earth connection blocks



	CFA 7-00 CFA00700	Earth connection block single F F wall mounting ✓ 1 × female to female	7611682280074	100
	CFA 9-00 CFA00900	Earth connection block double F F wall mounting ✓ 2 × female to female	7611682280098	100
Type	CFA 7-00		CFA 9-00	
Connectors				
Connector type	F-female			
General				
Equipotential bonding connection	4 mm ²			
Weight	0.023 kg		0.040 kg	
 Vodafone Kabel Deutschland	CFA 7-01 CFA00701	✓ Earth connection block single F F wall mounting 1 × female to female ✓ High return loss	7611682280715	100
	CFA 9-01 CFA00901	Same as CFA 9-00, but high return loss	7611682280913	100
Type	CFA 7-01		CFA 9-01	
Connectors				
Connector type	F-female			
Return loss	>30 dB			
General				
Equipotential bonding connection	4 mm ²			
Weight	0.313 kg		0.046 kg	


Type	Part No.	Product description	GTIN	PU
CHP – Compact High Performance Headends				
DVB headends				
 <p>KLASSE A CLASS</p>	MK 8-00 MK00800	DVB headend ✓ Eight independent multitrainer inputs ✓ Transmodulates 8 × DVB-S/S2/S2x/T/T2/C into 8 × DVB-C or DVB-T ✓ Output modulation configurable ✓ Remux Crossmultiplex ✓ NIT editing option (software extension required) ✓ PID Filtering (software extension required) ✓ Interface for CASimulcrypt Server (software extension required) ✓ Class A according to EN 50083-2 ✓ Web-based configuration, remote maintenance (SMARTPortal) ✓ Supports SNMPv1 and SNMPv2c ✓ Can be used for wall mounting or as a 19" unit	7611682005950	1
	MK 8-06 MK00806	Same as MK 8-00, but additionally decryption of encrypted programs via six CA modules possible	7611682005967	1
	MK 16-00 MK01600	Same as MK 8-00, but 16 independent multitrainer inputs	7611682005974	1
	MK 16-06 MK01606	Same as MK 16-00, but additionally decryption of encrypted programs via six CA modules possible	7611682005981	1
Type	MK 8-00	MK 8-06	MK 16-00	MK 16-06
Inputs				
Number of tuner	8 × DVB-S/S2/S2x/T/T2/C	8 × DVB-S/S2/S2x/T/T2/C	16 × DVB-S/S2/S2x/T/T2/C	16 × DVB-S/S2/S2x/T/T2/C
Connector	8 × F-female	8 × F-female	16 × F-female	16 × F-female
Frequency range		900...2150 MHz @ DVB-S/S2/S2X 50...898 MHz @ DVB-C 50...898 MHz @ DVB-T/T2		
Channel bandwidth	5/6/7/8 MHz @ DVB-T/T2	5/6/7/8 MHz @ DVB-T/T2	5/6/7/8 MHz @ DVB-T/T2	5/6/7/8 MHz @ DVB-T/T2
Input level		43...84 dBµV @ DVB-S/S2/S2X 49...84 dBµV @ DVB-C 39...84 dBµV @ DVB-T/T2		
LNB voltage		13/17 V; 22 kHz on/off; DiSEqC 1.0		
Max. LNB current		250 mA per input 1000 mA per device		
CI slots	-	6	-	6
Input modulation				
Type		QPSK/8PSK/ 8APSK/16APSK/32APSK @ DVB-S/S2/S2X QAM16, QAM32, QAM64, QAM128, QAM256 @ DVB-C QPSK, QAM16, QAM66 @ DVB-T QPSK, QAM16, QAM64, QAM256 @ DVB-T2		
Compliance		DVB-S = EN 300 421 DVB-S2 = EN 302 307-1V1.4.1 DVB-S2X = EN 302 307-2V1.1.1 DVB-C = EN 300 429/ITU-TJ.83 Annex A/C DVB-T = EN 300 744 DVB-T2 = ETSI EN 302 755		
Supported input transport streams		MPEG-2 ISO/IEC 13818 MPEG-4 ISO/IEC 14496		
Error correction		auto		
Symbol rate		1.5...45 MS/s (<40MSymbol/s in 32APSK) @ DVB-S 1...7.2 Mbaud @ DVB-C		
Transportstreams				
Modifiable program information		Program name, SID remapping, PID remapping, PID filtering* TSID, ONID		
LCN		Yes		
NIT handling @ DVB-C		auto off manual*		
Encryption		DVB-CSA*, DVB-CISSA*, ATIS-IDSA*, AES-ECB*, AES-CBC*		
Output				
Number of channels	8 × DVB-C/DVB-T	8 × DVB-C/DVB-T	16 × DVB-C/DVB-T	16 × DVB-C/DVB-T
Frequency range		109...1006 MHz @ DVB-C 109...862 MHz @ DVB-T		
Channels selectable		S2...K87 @ DVB-C S2...K69 @ DVB-T		
Channel bandwidth		7/8 MHz @ DVB-T		
Possible frequency shift		-4...+4 MHz (0.5 MHz steps)		
Connector		1 × F-female		
Test port		1 × F-female (-30 dB)		






Type	Part No.	Product description	GTIN	PU
Impedance		75 Ω		
Output level adjustable		80...100 dBμV @ DVB-C 77...98 dBμV @ DVB-T		
Output modulation				
Compliance		DVB-T (EN 300 744) DVB-C (EN 300 429/ITU-TJ.83 AnnexA/C)		
Type		32QAM, 64QAM, 128QAM, 256-QAM @ DVB-C 16QAM, 64QAM @ DVB-T		
MER		≥ 40 dB @ DVB-C ≥ 36 dB @ DVB-T		
Bit rate, max		50.87 Mbps @ DVB-C 31.668 Mbps @ DVB-T		
FFT		2K mode @ DVB-T		
FEC		1/2, 2/3, 3/4, 5/6, 7/8 @ DVB-T		
Guard interval		1/4, 1/8, 1/16, 1/32		
Symbol rate		1...7.5 MBaud/s		
Interfaces				
Control/CAS		1 × RJ-45		
Compliance Control/CAS		IEEE 802.3, 100 Base-T		
Supported configuration protocols		HTTP, SNMP v1, SNMP, v2c, AXING SMARTPortal**		
General				
Operating voltage		100...240 VAC/50...60 Hz		
Power consumption	50 W	50 W	60 W	60 W
Equipotential bonding connection		4 mm ²		
Operating temperature range (acc. to EN 60065)		-10°C...+50°C		
Dimensions (W × H × D) appr.		480 × 253 × 47 mm		
Weight	2.550 kg	2.800 kg	2.900 kg	3.150 kg
Comments		* with software extension only ** encrypted, cloud-based application for configuration, monitoring and remote maintenance		




Software extensions


	MKS 1-00 MKS00100	Software extension to edit a NIT ✓ For MK headends ✓ Reading, editing and uploading the Network Information Table ✓ Activation by means of a license file (specify serial number of the headend when purchasing) ✓ If necessary, assistance from our technical support	–	1
	MKS 1-01 MKS00101	Software extension for PID filtering ✓ For MK and MIP headends ✓ For filtering out individual elementary streams from the transport stream ✓ Reassignment of the Service ID ✓ Activation by means of a license file (specify serial number of the headend when purchasing) ✓ If necessary, assistance from our technical support	–	1
	MKS 1-02 MKS00102	Software extension for CASimulcrypt ✓ For MK, MIE and MIP headends ✓ Offers the possibility to encrypt programmes ✓ Requires the installation and configuration of a CAS server ✓ Activation by means of a license file (specify serial number of the headend when purchasing)	–	1
	MKS 8-16 MKS00816	Software extension from 8 to 16 output modulators ✓ For MK 8-00 and MK 8-06 ✓ Distribution of programs from 8 input channels to 16 output channels in cross-multiplex mode ✓ Ideal for transmodulation into DVB-T ✓ Activation by means of a license file (specify serial number of the headend when purchasing) ✓ If necessary, assistance from our technical support	–	1
Type	MKS 1-00	MKS 1-01	MKS 1-02	MKS 8-16
General				
Weight	-	-	-	-


	Type Part No.	Product description	GTIN	PU
Accessories for compact headends				
 	SKF 42-00 SKF04200	Multituner FM quattro 19 unit AAC-LC + RDS ✓ Four independent multituner inputs ✓ Transmodulates 4 × DVB-S/S2/S2x/T/T2/C into 8 FM radio output signals ✓ Supports AAC-LC and DVB-SI to RDS ✓ Web-based configuration Remote maintenance ✓ 19", 1RU, build-in power supply	7611682008227	1
	SKF 82-00 SKF08200	Multituner FM octo 19 unit AAC-LC + RDSEight independent ✓ Multituner inputs ✓ Transmodulates 4 × DVB-S/S2/S2x/T/T2/C into 16 FM radio output signals ✓ Supports AAC-LC and DVB-SI to RDS ✓ Web-based configuration Remote maintenance ✓ 19", 1RU, build-in power supply	7611682008234	1
	SKS 1-00 SKS00100	Software extension for AAC-LC decoding ✓ For SKF 40-00M and SKF 41-00M ✓ For decoding the Advanced Audio Coding (LC) ✓ Reduces the available channels to 8	-	1
Type	SKF 42-00	SKF 82-00	SKS 1-00	
Inputs				
Number of tuner	4 × DVB-S/S2/S2x/T/T2/C	8 × DVB-S/S2/S2x/T/T2/C	-	
Connector	4 × F-female	8 × F-female	-	
Frequency range	900...2150 MHz @ DVB-S/S2/S2X 50...898 MHz @ DVB-C 50...898 MHz @ DVB-T/T2	900...2150 MHz @ DVB-S/S2/S2X 50...898 MHz @ DVB-C 50...898 MHz @ DVB-T/T2	-	
Channel bandwidth	5/6/7/8 MHz @ DVB-T/T2	5/6/7/8 MHz @ DVB-T/T2	-	
Input level	43...84 dBµV @ DVB-S/S2/S2X 49...84 dBµV @ DVB-C 39...84 dBµV @ DVB-T/T2	43...84 dBµV @ DVB-S/S2/S2X 49...84 dBµV @ DVB-C 39...84 dBµV @ DVB-T/T2	-	
LNB voltage	13/17 V; 22 kHz on/off; DiSEqC 1.0	13/17 V; 22 kHz on/off; DiSEqC 1.0	-	
Max. LNB current	250 mA per input 500 mA per device	250 mA per input 500 mA per device	-	
Input modulation				
Type	QPSK/8PSK/ 8APSK/16APSK/32APSK @ DVB-S/S2/S2X QAM16, QAM32, QAM64, QAM128, QAM256 @ DVB-C QPSK, QAM16, QAM64 @ DVB-T QPSK, QAM16, QAM64, QAM256 @ DVB-T2	QPSK/8PSK/ 8APSK/16APSK/32APSK @ DVB-S/S2/S2X QAM16, QAM32, QAM64, QAM128, QAM256 @ DVB-C QPSK, QAM16, QAM64 @ DVB-T QPSK, QAM16, QAM64, QAM256 @ DVB-T2	-	
Compliance	DVB-S = EN 300 421 DVB-S2 = EN 302 307-1V1.4.1 DVB-S2X = EN 302 307-2V1.1.1 DVB-C = EN 300 429/ITU-TJ.83 Annex A/C DVB-T = EN 300 744 DVB-T2 = ETSI EN 302 755	DVB-S = EN 300 421 DVB-S2 = EN 302 307-1V1.4.1 DVB-S2X = EN 302 307-2V1.1.1 DVB-C = EN 300 429/ITU-TJ.83 Annex A/C DVB-T = EN 300 744 DVB-T2 = ETSI EN 302 755	-	
Supported input transport streams	MPEG-4 ISO/IEC 14496-3 AAC-Pro- file Level 2 (AAC-LC)	MPEG-4 ISO/IEC 14496-3 AAC-Pro- file Level 2 (AAC-LC)	-	
Error correction	auto	auto	-	
Symbol rate	1.5...45 MS/s (<40MSymbol/s in 32APSK) @ DVB-S 1...7.2 Mbaud @ DVB-C	1.5...45 MS/s (<40MSymbol/s in 32APSK) @ DVB-S 1...7.2 Mbaud @ DVB-C	-	
Output				
Number of channels	8 × FM-Stereo	16 × FM-Stereo	-	
Frequency range	87.5...108 MHz	87.5...108 MHz	-	
Connector	1 × F-female	1 × F-female	-	
Impedance	75 Ω	75 Ω	-	
Output level adjustable	65...85 dBµV	65...85 dBµV	-	
Output modulation				
Type	FM	FM	-	
Data service	RDS (service name converted from DVB-SI data)	RDS (service name converted from DVB-SI data)	-	
Interfaces				
Configuration interface	1 × RJ-45	1 × RJ-45	-	
Compliance configuration interface	IEEE 802.3, 100 Base-T	IEEE 802.3, 100 Base-T	-	
General				


	Type Part No.	Product description	GTIN	PU
Operating voltage	100...240 VAC/50...60 Hz	100...240 VAC/50...60 Hz	-	
Power consumption	30 W	50 W	-	
Operating temperature range (acc. to EN 60065)	-10°C...+50°C	-10°C...+50°C	-	
Dimensions (W × H × D) appr.	480 × 253 × 47 mm	480 × 253 × 47 mm	-	
Weight	4.00 kg	4.50 kg	-	
	DCC 1-00 DCC00100	DAB+ Channel Converter <ul style="list-style-type: none"> ✓ For feeding terrestrially received DAB/DAB+ signals into CATV cable systems ✓ Converts one input channel into an freely selectable output channel (5A to 13F) ✓ Multiple DCC 1-00s enable the merging of multiple, distributed DAB channels, thus saves bandwidth in the CATV spectrum ✓ Cleans the frequency band using a SAW filter ✓ Incl. power supply unit 	7611682007794	1
	Type	DCC 1-00		
Inputs				
Connector	IEC-female			
Frequency range	174.928...239.200 MHz			
Intputs				
Channels selectable	5A...13F			
Inputs				
Channel bandwidth	1.6 MHz			
Level	48...80 dBμV			
Output				
Frequency range	174.928...239.200 MHz			
Channels selectable	5A...13F			
Channel bandwidth	1.6 MHz			
Output level	92...112 dBμV			
Connector	F-female			
General				
Current consumption	500 mA @ 15 VDC			
Operating temperature range	-0° C...+50°C			
Dimensions (W × H × D) appr.	130 × 110 × 40 mm			


Type	Part No.	Product description	GTIN	PU																																																																																												
 	UIM 1-00 UIM00100	Universal input modulator <ul style="list-style-type: none"> ✓ For feeding videos and IP streams into cable networks (DVB-C/ DVB-T). ✓ Signal feed via HDMI (computer/set-top box/cameras), via Ethernet/Internet (YouTube live streaming or similar IP streams) or USB (AVI, MOV, MPEG etc.) ✓ To supplement head-ends, enables a TV channel for information or events (online church services, fitness videos, YouTube live streams) ✓ For use in hotels, retirement homes or in the housing industry ✓ Configuration in the web browser, remote maintenance possible ✓ Incl. power supply unit 	7611682008135	1																																																																																												
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	MKZ 1-00 MKZ00100	Front panel for 19" usage <ul style="list-style-type: none"> ✓ For conversion of MK8/16-00 from wall-mount to 19" chassis 	7611682005998	1																																																																																												
	MKZ 1-01 MKZ00101	Same as MKZ 1-00, but with cut-outs for CI slots	7611682006001	1																																																																																												
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Type	Part No.	Product description	GTIN	PU	
Encoders premium-line					
		HKM 40-02 HKM04002	HDMI DVB-C/T encoder/modulator ✓ 4 x HDMI into 1 or 2 x DVB-C/T ✓ H.264 ✓ Converts the HDMI resolution 1080p@50/60 Hz to DVB-compliant 1080p@25/30 Hz ✓ Class A according to EN 50083-2 ✓ Web-based configuration, remote maintenance (SMARTPortal) ✓ Built in power supply ✓ Can be used for wall mounting or as a 19" unit, 1 RU (with HKZ 1-00)	7611682006650	1
Type	HKM 40-02				
Inputs					
Number	4 x HDMI				
Supported protocols	HDCP 1.x				
Video resolution	1080p@50 Hz 1080p@60 Hz				
Max. bit rate per channel	16 Mbit/s				
Audio Encoder	MPEG-1 audio layer II				
Video Encoder	H.264 (MPEG-4)				
Output					
Number of channels	1 oder 2 x DVB-C/DVB-T				
Frequency range	45.....862 MHz				
Channels selectable	E2.....E69				
Connector	1 x F-female				
Test port	1 x F-female (-30 dB)				
Impedance	75 Ω				
Output level adjustable	90...105 dBμV @ 1 channel 87...102 dBμV @ 2 channels				
Video resolution	1080p@25 Hz 1080p@30 Hz				
Output modulation					
Type	16QAM, 32QAM, 64QAM, 128QAM, 256-QAM @ DVB-C 16QAM, 64QAM @ DVB-T				
MER	≥ 40 dB @ DVB-C ≥ 36 dB @ DVB-T				
Bit rate, max	50.87 Mbps @ DVB-C 31.668 Mbps @ DVB-T				
FFT	2K, 8K mode @ DVB-T				
FEC	1/2, 2/3, 3/4, 5/6, 7/8 @ DVB-T				
Guard interval	1/4, 1/8, 1/16, 1/32				
Symbol rate	1...7.5 MBaud/s				
Interfaces					
Configuration interface	1 x RJ-45				
Compliance configuration interface	IEEE 802.3, 100 Base-T				
Supported configuration protocols	HTTP, AXING SMARTPortal*				
General					
Operating voltage	100...240 VAC/50...60 Hz				
Power consumption	50 W				
Operating temperature range (acc. to EN 60065)	-10°C...+50°C				
Dimensions (W x H x D) appr.	480 x 253 x 47 mm				
Weight	2.350 kg				
Comments	* encrypted, cloud-based application for configuration, monitoring and remote maintenance				
	HKZ 1-00 HKZ00100	Front panel for 19" usage ✓ For conversion of HKM from wall-mount to 19" chassis	7611682006209	1	
Type	HKZ 1-00				
General					
Dimensions (W x H x D) appr.	482 x 44 x 3 mm				
Weight	0.100 kg				

Type	Part No.	Product description	GTIN	PU
IPQAM				
 <p>KLASSE A CLASS</p>	MIE 8-00 MIE00800	IPQAM ✓ Modular system, includes 1 module ✓ Two redundant IPTV inputs (900 Mbps) ✓ Supports SPTS and MPTS (also mixed) ✓ Transmodulates max. 512 input streams in 8 × DVB-C (J.83 Annex A/C) or 6 × DVB-T output channels ✓ Re-Multiplexing and PID Filtering ✓ Program duplication ✓ Device redundancy configurable (software extension required) ✓ OTA upgrade e.g. for Set Top Boxes possible ✓ Interface for CASimulcrypt Server (software extension required) ✓ Class A according to EN 50083-2 ✓ Web-based configuration, suitable for AXING SMARTPortal ✓ Supports SNMPv1 and SNMPv2c ✓ 2 × redundant power supply units ✓ 19" housing, 1RU	7611682007299	1
	MIE 16-00 MIE01600	Same as MIE 8-00, 16 × DVB-C (J.83 Annex A/C) or 12 × DVB-T output channels	7611682007213	1
	MIE 32-00 MIE03200	Same as MIE 16-00, but includes 2 modules, thereby 2 × 512 input streams in 2 × 16 DVB-C (J.83 Annex A/C) or 2 × 12 DVB-T output channels	7611682007220	1
	MIM 16-00 MIM01600	Extension module for MIE 8-00 or MIE 16-00 ✓ Extension to additional 512 input streams and additional 16 DVB-C or 12 DVB-T output channels	7611682007275	1
Type	MIE 8-00	MIE 16-00	MIE 32-00	MIM 16-00
IPTV input				
Supported input transport streams	SPTS, MPTS (CBR/VBR)			
Max. number (out of SPTS or MPTS)	512	512	2 × 512	512
Supported protocols	IP V4; UDP; RTP; IGMP v2, v3			
Total net data rate	1 × 900 Mbps	1 × 900 Mbps	2 × 900 Mbps	1 × 900 Mbps
Transportstreams				
Modifiable program information	Program name, SID remapping, PID filtering, TSID, ONID			
PCR correction	automatic adaptive PCR-correction, <500 ns			
LCN	Yes			
NIT handling @ DVB-C	auto manual off			
EPG regeneration	Yes			
Encryption	DVB-CSA* DVB-CISSA* ATIS-IDSA* AES-ECB* AES-CBC*			
Output				
Number of channels	1 × 8 @ DVB-C 1 × 6 @ DVB-T	1 × 16 DVB-C 1 × 12 DVB-T	2 × 16 DVB-C 2 × 12 DVB-T	1 × 16 DVB-C 1 × 12 DVB-T
Frequency range	109...1006 MHz @ DVB-C 109...862 MHz @ DVB-T			
Channels selectable	S2...K87 @ DVB-C S2...K69 @ DVB-T			
Channel bandwidth	7/8 MHz @ DVB-T			
Possible frequency shift	-4...+4 MHz (0.5 MHz steps)			
Connector	1 × F-female	1 × F-female	2 × F-female	1 × F-female
Test port	1 × F-female (-30 dB)	1 × F-female (-30 dB)	2 × F-female (-30 dB)	1 × F-female (-30 dB)
Impedance	75 Ω			
Output level adjustable	80...105 dBμV @ DVB-C 77...102 dBμV @ DVB-T			
Output modulation				
Compliance	EN 50083-9 ETSI TS 101 154 ETSI EN300 429 ETSI EN 300 744 ITU-T J.83A/C			
Type	QAM32, QAM64, QAM128, QAM256 @ DVB-C QPSK, QAM16, QAM64 @ DVB-T			
Supported output formats	MPEG-2/H.262, MPEG-4/H.264 and HEVC/H.265			
MER	≥ 40 dB @ DVB-C ≥ 36 dB @ DVB-T			
BER	≥9x10 ⁻⁹			
Roll off	15 %			
Shoulder attenuation	≥ 56 dB			
C/N	≥45 dB			
Reflection	>14 dB			
Bit rate, max	50.87 Mbps @ DVB-C 31.668 Mbps @ DVB-T			
FFT	2K mode @ DVB-T			


Type	Part No.	Product description			GTIN	PU
FEC		1/2, 2/3, 3/4, 5/6, 7/8 @ DVB-T				
Guard interval		1/4, 1/8, 1/16, 1/32 @ DVB-T				
Symbol rate		1...7.5 MBaud/s				
Interfaces						
IPTV input	1 x RJ45	1 x RJ45	2 x RJ45	1 x RJ45		
CAS/IPTV (redundant)	1 x RJ45	1 x RJ45	2 x RJ45	1 x RJ45		
Compliance IPTV/CAS interfaces		IEEE 802.3, 1000 Base-T (GigE)				
Control/CAS	1 x RJ-45	1 x RJ-45	2 x RJ-45	1 x RJ-45		
Compliance Control/CAS		IEEE 802.3, 10/100 Base-T				
Software control and upgrading		Via Remote Access				
Supported configuration protocols		HTTP, SNMP v1, SNMP, v2c, AXING SMARTPortal**				
General						
Operating voltage	100...240 VAC/50...60 Hz 48 VDC	100...240 VAC/50...60 Hz 48 VDC	100...240 VAC/50...60 Hz 48 VDC	-		
Power consumption	30 W	30 W	60 W	-		
Redundant power supply	2 x Hot pluggable	2 x Hot pluggable	2 x Hot pluggable	-		
Equipotential bonding connection	4 mm ²	4 mm ²	4 mm ²	-		
Operating temperature range (acc. to EN 60065)	-10°C...+50°C					
Storage temperature range (acc. to EN 60065)	-20 °C...+80 °C					
Dimensions (W x H x D) appr.	480 x 43 x 275 mm	480 x 43 x 275 mm	480 x 43 x 275 mm	-		
Weight	3.150 kg	3.150 kg	3.670 kg	0.516 kg		
Comments	* with software extension MKS 1-02 only					
	** encrypted, cloud-based application for configuration, monitoring and remote maintenance					
	MIS 8-16 MIS00816	Software extension for MIE 8-00	-	1		
		<ul style="list-style-type: none"> ✓ Extension from 8 to 16 x DVB-C (J.83 Annex A/C) or from 6 to 12 x DVB-T output channels ✓ Activation by means of a license file (specify serial number of the headend when purchasing) ✓ If necessary, assistance from our technical support 				
	MIS 1-11 MIS00111	Software extension for MIE device redundancy	-	1		
		<ul style="list-style-type: none"> ✓ Offers the possibility to replace a device with another device, e.g. in case of failure. ✓ Monitored parameters: Input error, output error, RF level, supply voltage, operating temperature, ethernet connection 				
	MKS 1-02 MKS00102	Software extension for CASimulcrypt	-	1		
		<ul style="list-style-type: none"> ✓ For MK, MIE and MIP headends ✓ Offers the possibility to encrypt programmes ✓ Requires the installation and configuration of a CAS server ✓ Activation by means of a license file (specify serial number of the headend when purchasing) 				
Type	MIS 8-16	MIS 1-11	MKS 1-02			
General						
Weight	-	-	-			




Type	Part No.	Product description	GTIN	PU
IP to DVB-T2 4K 47.7 Mbps				
 <p>KLASSE A CLASS</p>	MIE 4-02 MIE00402	IP to DVB-T2 4K 47.7 Mbps ✓ Modular system, includes 1 module ✓ Two redundant IPTV inputs (900 Mbps) ✓ Supports SPTS and MPTS (also mixed) ✓ Transmodulates max. 512 input streams in 4 DVB-T2 output channels ✓ FFT max. 4k Bitrate max. 47.7 Mbps ✓ Re-Multiplexing and PID Filtering ✓ Program duplication ✓ Device redundancy configurable (software extension required) ✓ OTA upgrade e.g. for Set Top Boxes possible ✓ Interface for CASimulcrypt Server (software extension required) ✓ Class A according to EN 50083-2 ✓ Web-based configuration, suitable for AXING SMARTPortal ✓ Supports SNMPv1 and SNMPv2c ✓ 2 × redundant power supply units ✓ 19" housing, 1RU	7611682007237	1
	MIE 8-02 MIE00802	Same as MIE 4-02, but includes 2 modules, thereby 2 × 512 input streams in 2 × 4 DVB-T2 output channels	7611682007244	1
	MIM 4-02 MIM00402	Extension modul for MIE 4-02 ✓ Extension to additional 512 input streams and additional 4 DVB-T2 output channels	7611682007282	1
	Type	MIE 4-02	MIE 8-02	MIM 4-02
IPTV input				
Supported input transport streams	SPTS, MPTS (CBR/VBR)			
Max. number (out of SPTS or MPTS)	512	2 × 512	512	
Supported protocols	IP V4; UDP; RTP; IGMP v2, v3			
Total net data rate	1 × 900 Mbps	2 × 900 Mbps	1 × 900 Mbps	
Transportstreams				
Modifiable program information	Program name, SID remapping, PID filtering, TSID, ONID			
PCR correction	automatic, adaptive, <500 ns			
LCN	Yes			
EPG regeneration	Yes			
Encryption	DVB-CSA* DVB-CISSA* ATIS-IDSA* AES-ECB* AES-CBC*			
Output				
Number of channels	1 × 4 × DVB-T2	2 × 4 × DVB-T2	1 × 4 × DVB-T2	
Frequency range	109...862 MHz			
Channels selectable	S2...K69			
Channel bandwidth	7/8 MHz			
Net mode	MFN			
Possible frequency shift	-4...+4 MHz (0.5 MHz steps)			
Connector	1 × F-female	2 × F-female	1 × F-female	
Test port	1 × F-female (-30 dB)	2 × F-female (-30 dB)	1 × F-female (-30 dB)	
Impedance	75 Ω			
Output level adjustable	85...105 dBμV			
Output modulation				
Compliance	EN 50083-9 ETSI TS 101 154 ETSI EN300 429 ETSI EN 300 744 DVB-T2** acc. to EN 302 755, mode A (single PLP)			
L1 post signalling	BPSK, QPSK, 16QAM, 64QAM			
Type	QPSK, QAM16, QAM64, QAM256			
Supported output formats	MPEG-2/H.262, MPEG-4/H.264 and HEVC/H.265			
MER	≥ 43 dB			
BER	≥9x10 ⁻⁹			
Shoulder attenuation	≥ 56 dB			
C/N	≥45 dB			
Reflection	>14 dB			
Bit rate, max	47.7 Mbps			
FFT	1K, 2K, 4K mode			
FEC type	BCH, LDPC			
FEC length	16200, 64800			
FEC	1/2, 3/5, 2/3, 3/4, 4/5, 5/6			
Pilot pattern	PP1...PP8			
Guard interval	1/4, 1/8, 1/16, 1/32			
Interfaces				



	Type Part No.	Product description	GTIN	PU
IPTV input	1 x RJ45	2 x RJ45	1 x RJ45	
CAS/IPTV (redundant)	1 x RJ45	2 x RJ45	1 x RJ45	
Compliance IPTV/CAS interfaces		IEEE 802.3, 1000 Base-T (GigE)		
Control/CAS	1 x RJ-45	2 x RJ-45	1 x RJ-45	
Compliance Control/CAS		IEEE 802.3, 10/100 Base-T		
Software control and upgrading		Via Remote Access		
Supported configuration protocols		HTTP, SNMP v1, SNMP, v2c, AXING SMARTPortal***		
General				
Operating voltage	100...240 VAC/50...60 Hz 48 VDC	100...240 VAC/50...60 Hz 48 VDC	-	
Power consumption	30 W	60 W	-	
Redundant power supply	2 x Hot pluggable	2 x Hot pluggable	-	
Equipotential bonding connection	4 mm ²	4 mm ²	-	
Operating temperature range (acc. to EN 60065)		-10°C...+50°C		
Storage temperature range (acc. to EN 60065)		-20 °C...+80 °C		
Dimensions (W x H x D) appr.	480 x 43 x 275 mm	480 x 43 x 275 mm	-	
Weight	3.150 kg	3.670 kg	0.516 kg	
Comments		* with software extension MKS 1-02 only ** switchable to DVB-T by license key *** encrypted, cloud-based application for configuration, monitoring and remote maintenance		
	MIS 1-11 MIS00111	Software extension for MIE device redundancy ✓ Offers the possibility to replace a device with another device, e.g. in case of failure. ✓ Monitored parameters: Input error, output error, RF level, supply voltage, operating temperature, ethernet connection	-	1
	MKS 1-02 MKS00102	Software extension for CASimulcrypt ✓ For MK, MIE and MIP headends ✓ Offers the possibility to encrypt programmes ✓ Requires the installation and configuration of a CAS server ✓ Activation by means of a license file (specify serial number of the headend when purchasing)	-	1
Type		MIS 1-11	MKS 1-02	

Type	Part No.	Product description	GTIN	PU
IP zu DVB-T2 8Kext 49.8 Mbps				
	MIE 3-02 MIE00302	IP to DVB-T2 8Kext 49.8 Mbps <ul style="list-style-type: none"> ✓ Modular system, includes 1 module ✓ Two redundant IPTV inputs (900 Mbps) ✓ Supports SPTS and MPTS (also mixed) ✓ Transmodulates max. 512 input streams in 3 DVB-T2 output channels ✓ FFT max. 8kext Bitrate max. 49.8 Mbps ✓ Re-Multiplexing and PID Filtering ✓ Program duplication ✓ Device redundancy configurable (software extension required) ✓ OTA upgrade e.g. for Set Top Boxes possible ✓ Interface for CASimulcrypt Server (software extension required) ✓ Class A according to EN 50083-2 ✓ Web-based configuration, suitable for AXING SMARTPortal ✓ Supports SNMPv1 and SNMPv2c ✓ 2 × redundant power supply units ✓ 19" housing, 1RU 	7611682007497	1
	MIE 6-02 MIE00602	Same as MIE 3-02, but includes 2 modules, thereby 2 × 512 input streams in 2 × 3 DVB-T2 output channels	7611682007503	1
	MIM 3-02 MIM00302	Extension modul for MIE 3-02 <ul style="list-style-type: none"> ✓ Extension to additional 512 input streams and additional 3 DVB-T2 output channels 	7611682007510	1
Type	MIE 3-02	MIE 6-02	MIM 3-02	
IPTV input				
Supported input transport streams	SPTS, MPTS (CBR/VBR)			
Max. number (out of SPTS or MPTS)	512	2 × 512	512	
Supported protocols	IP V4; UDP; RTP; IGMP v2, v3			
Total net data rate	1 × 900 Mbps	2 × 900 Mbps	1 × 900 Mbps	
Transportstreams				
Modifiable program information	Program name, SID remapping, PID filtering, TSID, ONID			
PCR correction	automatic, adaptive, <500 ns			
LCN	Yes			
EPG regeneration	Yes			
Encryption	DVB-CSA* DVB-CISSA* ATIS-IDSA* AES-ECB* AES-CBC*			
Output				
Number of channels	1 × 3 × DVB-T2	2 × 3 × DVB-T2	1 × 3 × DVB-T2	
Frequency range	109...862 MHz			
Channels selectable	S2...K69			
Channel bandwidth	7/8 MHz			
Net mode	MFN			
Possible frequency shift	-4...+4 MHz (0.5 MHz steps)			
Connector	1 × F-female	2 × F-female	1 × F-female	
Test port	1 × F-female (-30 dB)	2 × F-female (-30 dB)	1 × F-female (-30 dB)	
Impedance	75 Ω			
Output level adjustable	85...105 dBμV			
Output modulation				
Compliance	EN 50083-9 ETSI TS 101 154 ETSI EN300 429 ETSI EN 300 744 DVB-T2** acc. to EN 302 755, mode A (single PLP)			
L1 post signalling	BPSK, QPSK, 16QAM, 64QAM			
Type	QPSK, QAM16, QAM64, QAM256			
Supported output formats	MPEG-2/H.262, MPEG-4/H.264 and HEVC/H.265			
MER	≥ 43 dB			
BER	≥9x10 ⁻⁹			
Shoulder attenuation	≥ 56 dB			
C/N	≥45 dB			
Reflection	>14 dB			
Bit rate, max	49.8 Mbps			
FFT	1K, 2K, 4K, 8K, 8Kext mode			
FEC type	BCH, LDPC			
FEC length	16200, 64800			
FEC	1/2, 3/5, 2/3, 3/4, 4/5, 5/6			
Pilot pattern	PP1...PP8			
Guard interval	1/4, 19/128, 1/8, 19/256, 1/16, 1/32, 1/128			
Interfaces				




	Type Part No.	Product description	GTIN	PU
IPTV input	1 x RJ45	2 x RJ45	1 x RJ45	
CAS/IPTV (redundant)	1 x RJ45	2 x RJ45	1 x RJ45	
Compliance IPTV/CAS interfaces		IEEE 802.3, 1000 Base-T (GigE)		
Control/CAS	1 x RJ-45	2 x RJ-45	1 x RJ-45	
Compliance Control/CAS		IEEE 802.3, 10/100 Base-T		
Software control and upgrading		Via Remote Access		
Supported configuration protocols		HTTP, SNMP v1, SNMP, v2c, AXING SMARTPortal***		
General				
Operating voltage	100...240 VAC/50...60 Hz 48 VDC	100...240 VAC/50...60 Hz 48 VDC	-	
Power consumption	30 W	60 W	-	
Redundant power supply	2 x Hot pluggable	2 x Hot pluggable	-	
Equipotential bonding connection	4 mm ²	4 mm ²	-	
Operating temperature range (acc. to EN 60065)		-10°C...+50°C		
Storage temperature range (acc. to EN 60065)		-20 °C...+80 °C		
Dimensions (W x H x D) appr.	480 x 43 x 275 mm	480 x 43 x 275 mm	-	
Weight	3.150 kg	3.150 kg	0.516 kg	
Comments		* with software extension MKS 1-02 only ** switchable to DVB-T by license key *** encrypted, cloud-based application for configuration, monitoring and remote maintenance		
	MIS 1-11 MIS00111	Software extension for MIE device redundancy ✓ Offers the possibility to replace a device with another device, e.g. in case of failure. ✓ Monitored parameters: Input error, output error, RF level, supply voltage, operating temperature, ethernet connection	-	1
	MKS 1-02 MKS00102	Software extension for CASimulcrypt ✓ For MK, MIE and MIP headends ✓ Offers the possibility to encrypt programmes ✓ Requires the installation and configuration of a CAS server ✓ Activation by means of a license file (specify serial number of the headend when purchasing)	-	1
Type		MIS 1-11	MKS 1-02	


	Type Part No.	Product description	GTIN	PU	
Streamers					
  	MIP 4-00L MIP00400L	Multituner IPTV quattro streamer FTA ✓ Four independent multituner inputs ✓ Transmodulates 4 × DVB-S/S2/S2x/T/T2/C into 128 SPTS/4 MPTS ✓ GbE-interface with max. 900 Mbps ✓ Web-based configuration, remote maintenance (SMARTPortal) ✓ Supports SNMPv1 and SNMPv2c ✓ M3U playlist for the TV/radio programs of the transport stream ✓ Class A according to EN 50083-2 ✓ 19" housing, 1RU ✓ One power supply	7611682008197	1	
	MIP 8-00 MIP00800	Same as MIP 4-00L, but 8 × DVB-S/S2/S2x/T/T2/C into 512 SPTS/16 MPTS and two redundant power supplies (hot pluggable)	7611682006605	1	
	MIP 8-06 MIP00806	Same as MIP 8-00, but additionally decryption of encrypted programs via six CA modules possible	7611682006612	1	
	MIP 16-00 MIP01600	Same as MIP 8-00, but 16 × DVB-S/S2/S2x/T/T2/C into 512 SPTS/16 MPTS	7611682006629	1	
	MIP 16-06 MIP01606	Same as MIP 16-00, but additionally decryption of encrypted programs via six CA modules possible	7611682006636	1	
Type	MIP 4-00L	MIP 8-00	MIP 8-06	MIP 16-00	MIP 16-06
Inputs					
Number of tuner	4 × DVB-S/S2/S2x/T/T2/C	8 × DVB-S/S2/S2x/T/T2/C	8 × DVB-S/S2/S2x/T/T2/C	16 × DVB-S/S2/S2x/T/T2/C	16 × DVB-S/S2/S2x/T/T2/C
Connector	4 × F-female	8 × F-female	8 × F-female	16 × F-female	16 × F-female
Frequency range	900...2150 MHz @ DVB-S/S2/S2X 50...898 MHz @ DVB-C 50...898 MHz @ DVB-T/T2				
Input level	43...84 dBµV @ DVB-S/S2/S2X 49...84 dBµV @ DVB-C 39...84 dBµV @ DVB-T/T2				
LNB voltage	13/17 V; 22 kHz on/off; DiSEqC 1.0				
Max. LNB current	250 mA per input 1000 mA per device				
CI slots	-	-	6	-	6
Input modulation					
Type	QPSK, 8PSK, 8APSK, 16APSK, 32APSK @ DVB-S/S2/S2X QAM16, QAM32, QAM64, QAM128, QAM256 @ DVB-C QPSK, QAM16, QAM64 @ DVB-T QPSK, QAM16, QAM64, QAM256 @ DVB-T2				
Compliance	DVB-S = EN 300 421 DVB-S2 = EN 302 307-1V1.4.1 DVB-S2X = EN 302 307-2V1.1.1 DVB-C = EN 300 429/ITU-TJ.83 Annex A/C DVB-T = EN 300 744 DVB-T2 = ETSI EN 302 755				
Supported input transport streams	MPEG-2 ISO/IEC 13818 MPEG-4 ISO/IEC 14496				
Error correction	auto				
Symbol rate	1.5...45 MS/s (<40MSymbol/s in 32APSK) @ DVB-S 1...7.2 Mbaud @ DVB-C				
Transportstreams					
Modifiable program information	Program name, SID remapping, PID remapping, PID filtering* TSID, ONID				
LCN	Yes				
Encryption	DVB-CSA*, DVB-CISSA*, ATIS-IDSA*, AES-ECB*, AES-CBC*				
IPTV output					
Transportstreams SPTS MPTS	124 4	512 8	512 8	512 16	512 16
Total net data rate	900 Mbps				
Data rate per tuner	125 Mbps				
Supported transport protocols	UDP				
Supported application protocols	RTP				
Interfaces					
IPTV output	1 × RJ-45				
Compliance IPTV interface	IEEE 802.3, 1000 Base-T /1 GbE				
Configuration interface	1 × RJ-45				
Compliance configuration interface	IEEE 802.3, 100 Base-T				
Supported configuration protocols	HTTP, SNMP v1, SNMP, v2c, AXING SMARTPortal**				


Type Part No.	Product description	GTIN	PU
General			
Operating voltage	100...240 VAC/50...60 Hz		
Power consumption	70 W		
Switching mode power supplies	1	2 (redundant)	2 (redundant) 2 (redundant)
Operating temperature range (acc. to EN 60065)	-10°C...+50°C		
Dimensions (W × H × D) appr.	480 × 47 × 253 mm		
Weight	-	3.550 kg	3.750 kg 3.750 kg 3.950 kg
Comments	* with software extension only ** encrypted, cloud-based application for configuration, monitoring and remote maintenance		
 	MKS 1-02 MKS00102	Software extension for CASimulcrypt ✓ For MK, MIE and MIP headends ✓ Offers the possibility to encrypt programmes ✓ Requires the installation and configuration of a CAS server ✓ Activation by means of a license file (specify serial number of the headend when purchasing)	- 1
Type	MKS 1-02		

Stream type	IN PID	OUT PID	FIXED	BLOCK	SCRAMBLE
TSMT	44	44	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MPEG2 Video	103	103	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MPEG1 Audio (sp)	104	104	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Private data	108	108	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teletext (desc)	105	105	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AC-3 Audio (sp)	106	106	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Subtitles (desc)	110	110	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DSM-CC	111	111	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DSM-CC	112	112	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Encoders

	HKI 41-34 HKI04134	H.264 IPTV Encoder ✓ H.264 coding ✓ 4 × HDMI in 4 × SPTS ✓ Web-based configuration, remote maintenance (SMARTPortal) ✓ Two redundant power supplies (hot pluggable)	7611682005868	1
	HKI 81-34 HKI08134	Same as HKI 41-34, but 8 × HDMI in 8 × SPTS	7611682005882	1
	HKI 41-35 HKI04135	H.265 IPTV Encoder ✓ H.265 coding (HEVC) ✓ 4 × HDMI in 4 × SPTS ✓ Web-based configuration, remote maintenance (SMARTPortal) ✓ Two redundant power supplies (hot pluggable)	7611682005875	1
	HKI 81-35 HKI08135	Same as HKI 41-35, but 8 × HDMI in 8 × SPTS	7611682005899	1
Type	HKI 41-34	HKI 81-34	HKI 41-35	HKI 81-35
Inputs				
Connector	4 × HDMI	8 × HDMI	4 × HDMI	8 × HDMI
Video resolution	1080p@60 Hz			
Max. bit rate per channel	16 Mbit/s			
Audio Encoder	AAC, AAC+, AAC++, MP3			
Video Encoder	H.264	H.264	H.265 (HEVC)	H.265 (HEVC)
IPTV output				
Supported protocols	UDP, HTTP, RTSP, RTMP, ONVIF			
Interfaces				
IPTV output	4×RJ-45, IEEE 802.3, 10/100/1000 Base-T	8×RJ-45, IEEE 802.3, 10/100/1000 Base-T	4×RJ-45, IEEE 802.3, 10/100/1000 Base-T	8×RJ-45, IEEE 802.3, 10/100/1000 Base-T
Configuration interface	1 × RJ-45			
Compliance configuration interface	IEEE 802.3, 10/100 Base-T			
Supported configuration protocols	HTTP, AXING SMARTPortal*			
General				
Operating voltage	2 × 100...240 VAC/50...60 Hz			
Power consumption	25 W	35 W	35 W	50 W
Redundant power supply	2 × Hot pluggable			
Operating temperature range (acc. to EN 60065)	0°C...+45°C			
Dimensions (W × H × D) appr.	482 × 267 × 47 mm			
Weight	4.100 kg	4.150 kg	4.100 kg	4.150 kg
Comments	* encrypted, cloud-based application for configuration, monitoring and remote maintenance			

	Type Part No.	Product description	GTIN	PU
Set-Top Boxes				
	ISW ISW	Set-Top-Boxes for IPTVSolutions are available on request	–	1
Type	ISW			

Modular headends				
	SKS SKS	Modules and accessories for the SKS modular headend are available on request	–	1
Type	SKS			

Type
Part No.

Product description

GTIN

PU

Optic

Optical distribution | SAT - SC/APC







OTX 51-00
OTX05100

Optical transmitter


- ✓ For optical transmission of satellite signals and 16 CATV channels
- ✓ Incoming RF signals are converted into optical signals
- ✓ Automatic gain control
- ✓ 1 optical output (SC/APC)
- ✓ 5 cascade RF outputs







7611682006919 1

Type	OTX 51-00
Inputs	
Number	5
Frequency range	87 ... 862 MHz @ DVB-C/T/T2 950 ... 2150 MHz @ DVB-S/S2/S2X
Number of channels (DVB-C/T/T2)	max. 16
Input level	74 ... 80 dBμV @ DVB-C/T/T2 69 ... 86 dBμV @ DVB-S/S2/S2X
AGC level dynamics	20 dB
Max. LNB current	250 mA per input @ 14 V
Test ports	2
Test port frequency range (TERR SAT HH)	87 ... 862 950 ... 2150 MHz
Trunk outputs	
Number	5
Thru loss	< 2 dB
Type	F-female
Return loss	10 dB
Output	
Number of optical outputs	1
Optical connector	SC/APC
Optical return loss	> 45 dB
Optical level	+7.5 dBm
Wavelength	1310 nm
Safety class	1M
General	
Operating voltage	184 ... 264 VAC/50 ... 60Hz
Power consumption	15 W
Operating temperature range	-5 ... +50°C
Dimensions (W × H × D) appr.	230 × 230 × 50 mm
Weight	1.880 kg

Type	Part No.	Product description	GTIN	PU
   	ORX 14-00 ORX01400	Optical receiver Quad <ul style="list-style-type: none"> ✓ For receiving optical signals ✓ Converts optical signals into four independent subscriber outputs (SAT + TERR) ✓ For connection of four end devices (receivers) ✓ Power supply via receiver or external power supply unit (not included in delivery) 	7611682008111	1
	ORX 14-01 ORX01401	Optical receiver Single cable /SCR/CSS) <ul style="list-style-type: none"> ✓ For receiving optical signals ✓ Converts optical signals into 2 outputs with 16 user bands each ✓ Single cable I and II compatible (according to EN 50607 and EN 50494) ✓ In addition, 2 legacy outputs are available ✓ Power supply via external power supply unit (not included) 	7611682008128	1


Type	ORX 14-00	ORX 14-01
Input		
Optical connector	SC/APC	
Optical level	-14 ... -8 dBm	
Wavelength	1290 ... 1580 nm	
Optical return loss	> 45 dB	
Subscriber ports		
Number	4	
Type	4 × LEGACY (SAT + TERR)	2 × SCR (TERR + 16 UB) 2 × LEGACY (TERR + SAT)
Frequency range	87 ... 862 MHz @ DVB-C/T/T2 950 ... 2150 MHz @ DVB-S/S2/S2X	87 ... 862 MHz @ DVB-C/T/T2 950...2150 MHz @ DVB-S/S2/S2X
User band frequencies	-	975/1025/1075/1125/1175/1225/1275/1325 MHz @ EN 50494/50607 1375/1425/1475/1525/1575/1625/1675/1725 MHz @ EN 50607
Output level SAT (SCR/CSS)	-	82 dBμV ±2 dB
Output level SAT (Legacy)	-	65 ... 80 dBμV
RF connectors		
Type	F-female	
General		
Operating voltage	12 ... 18 VDC	
Power consumption	2.8 W	7.5 W
Current consumption	155 mA @ 18 VDC 200 mA @ 12 DC	430 mA @ 18 VDC 620 mA @ 12 VDV
Operating temperature range	-5 ... +50 °C	-5 ... +50 °C
Dimensions (W × H × D) appr.	120 × 100 × 30 mm	160 × 100 × 30 mm
Weight	0.300 kg	0.450 kg




Type Part No.	Product description	GTIN	PU
 <p>ORX 15-00 ORX01500</p>	<p>Optical receiver Quattro</p> <ul style="list-style-type: none"> ✓ For the reception of optical signals ✓ Converts optical signals into SAT IF (with fixed satellite polarisation planes) and CATV signals ✓ To connect to a multiswitch ✓ Power supply via multiswitch 	7611682006926	1
Type		ORX 15-00	
Input			
Optical connector		SC/APC	
Optical level		-14 ... -8 dBm	
Wavelength		1310 nm	
Optical return loss		> 45 dB	
Output			
Type		TERR VL VH HL HH	
Level @ 21 dB optical attenuation		82 dBμV @ DVB-C/T/T2 88 dBμV @ DVB-S/S2/S2X	
Frequency range		87 ... 862 MHz @ DVB-C/T/T2 950 ... 2150 MHz @ DVB-S/S2/S2X	
RF connectors			
Type		F female	
Return loss		10 dB	
General			
Operating voltage		14 ... 18 VDC	
Power consumption		3.3 W	
Current consumption		330 mA @ 18 VDC 380 mA @ 14 VDC	
Operating temperature range		-5 ... +50°C	
Dimensions (W × H × D) appr.		125 × 100 × 30 mm	
Weight		0.324 kg	



	Type Part No.	Product description	GTIN	PU			
Optical distribution HFC							
 	ONX 1550-01 ONX155001	Micro Fibre Node 85...1218 MHz/5...65 MHz (1310 nm) ✓ For FTTH/FTTB applications/RFoG networks ✓ Low noise optical receiver ✓ Constant RF output level for the wide optical operating range, OLC function ✓ Adjustable interstage equalization ✓ Adjustable upstream attenuation ✓ DFB Laser (CW mode/Burst mode) ✓ Local power supply ✓ Al-die-cast housing ✓ Testports for up- and downstream	7611682006841	1			
	ONX 1550-02 ONX155002	Same as ONX 1550-01, but US 1610 nm	Auf Anfrage	1			
	ONX 1550-03 ONX155003	Same as ONX 1550-01, but FB laser	Auf Anfrage	1			
 	ONX 1550-11 ONX155011	Micro Fibre Node 102...1218 MHz/5...85 MHz (1310 nm) ✓ For FTTH/FTTB applications/RFoG networks ✓ Low noise optical receiver ✓ Constant RF output level for the wide optical operating range, OLC function ✓ Adjustable interstage equalization ✓ Adjustable upstream attenuation ✓ DFB Laser (CW mode/Burst mode) ✓ Local power supply ✓ Al-die-cast housing ✓ Testports for up- and downstream	Auf Anfrage	1			
	ONX 1550-12 ONX155012	Same as 1550-11, but US 1610 nm	Auf Anfrage	1			
 	ONX 1550-21 ONX155021	Micro Fibre Node ✓ For FTTH/FTTB applications/RFoG networks ✓ Low noise optical receiver ✓ Constant RF output level for the wide optical operating range, OLC function ✓ Adjustable interstage equalization ✓ Adjustable upstream attenuation ✓ DFB Laser (CW mode/Burst mode) ✓ Local power supply ✓ Al-die-cast housing ✓ Testports for up- and downstream	Auf Anfrage	1			
	ONX 1550-22 ONX155022	Same as ONX 1550-21, but 1610 nm	Auf Anfrage	1			
Type	ONX 1550-01	ONX 1550-02	ONX 1550-03	ONX 1550-11	ONX 1550-12	ONX 1550-21	ONX 1550-22
Input							
Optical connector	1 × SC/APC						
Optical return loss	≥ 40 dB						
Downstream							
Wavelength	1540...1560 nm						
Optical input level	-8...+1 dBm						
Optical OLC range	0...-6 dBm						
Frequency range	85...1218 MHz	85...1218 MHz	85...1218 MHz	102...1218 MHz	102...1218 MHz	258...1218 MHz	258...1218 MHz
Output level @ OMI 3.5% (flat)	96 dBμV						
CSO (Cenelec 42, OMI 3.5%)	> 60 dBc						
CTB (Cenelec 42, OMI 3.5%)	> 60 dBc						
Flatness	±1 dB						
Noise current density	7.4 pA/√Hz						
Equalization interstage: pluggable with jumpers	0/2/4/6 dB						
Return loss	≥ 18 dB (-1.5 dB/Octave)						
Test port	-20 dB						
Upstream							
Laser type	DFB	DFB	FP	DFB	DFB	DFB	DFB
Wavelength	1310 nm	1610 nm	1310 nm	1310 nm	1610 nm	1310 nm	1610 nm
Laser mode (switchable)	CW/Burst						
Optical output level	+3 ±1 dBm						
Laser switch-on time	≤ 1.3 μsec						
RF level for laser on off	67 dBμV 58 dBμV						




	Type Part No.	Product description				GTIN	PU
Frequency range	5...65 MHz	5...65 MHz	5...65 MHz	5...85 MHz	5...85 MHz	5...204 MHz	5...204 MHz
OMI @ 75 dBµV US input level				15 %			
Flatness				±1 dB			
Return loss				≥ 18 dB (-1.5 dB/Octave)			
Attenuation: adjustable in 2 dB steps				0...30 dB			
Test port				-20 dB			
RF connectors							
Type				F-female			
General							
Operating voltage				100...240 VAC			
Power consumption	6 W	6 W	6 W	7.8 W	7.8 W	7.8 W	7.8 W
Operating temperature range				0...50 °C			
Dimensions (W × H × D) appr.				195 x 90 x 55 mm			
Weight				0.750 kg			

Optical distribution | Accessories

	OVE 2-03 OVE00203	Optical 2-way splitter ✓ For distribution of optical signals ✓ With SC/APC connectors female		7611682007008	1
	OVE 3-03 OVE00303	Same as OVE 2-03, but 3-way		7611682007015	1
	OVE 4-03 OVE00403	Same as OVE 2-03, but 4-way		7611682007022	1
	OVE 8-03 OVE00803	Same as OVE 2-03, but 8-way		7611682007039	1
	Type	OVE 2-03	OVE 3-03	OVE 4-03	OVE 8-03
Input					
Wavelength	1310...1550 nm ±40 nm				
Distribution					
Distribution loss	3.5 dB	5.7 dB	6.9 dB	10.0 dB	
Directivity	> 55 dB				
Connectors					
Connector type	SC/APC female				
Return loss	55 dB				
General					
Operating temperature range	-40...+85°C				
Dimensions (W × H × D) appr.	148 x 115 x 21 mm				
Weight	0.408 kg	0.444 kg	0.406 kg	0.428 kg	

	Type Part No.	Product description	GTIN	PU		
	OAK 1-03 OAK00103	Optic cable ✓ 1 m in polybag ✓ Assembled with SC / APC plugs ✓ Type single-mode ✓ Colour grey	7611682006940	1		
	OAK 5-03 OAK00503	Same as OAK 1-03, but 5 m	7611682006957	1		
	OAK 10-03 OAK01003	Same as OAK 1-03, but 10 m and steel armoured	7611682006964	1		
	OAK 50-03 OAK05003	Same as OAK 1-03, but 50 m and steel armoured	7611682006971	1		
	OAK 100-03 OAK10003	Same as OAK 1-03, but 100 m on wooden drum and steel armoured	7611682006988	1		
	OAK 500-03 OAK50003	Same as OAK 1-03, but 500 m on wooden drum and steel armoured	7611682006995	1		
Type	OAK 1-03	OAK 5-03	OAK 10-03	OAK 50-03	OAK 100-03	OAK 500-03
Through loss	0.3 dB/km					
Connectors						
Connector type	SC/APC male					
Mechanical data						
Cable length	1 m	5 m	10 m	50 m	100 m	500 m
Bending radius single multiple	>10 mm					
General						
Weight	0.017 kg	0.039 kg	0.137 kg	0.614 kg	1.232 kg	6.160 kg
	OZU 3-01 OZU00301	Optical attenuator 1 dB ✓ SC/APC connectors ✓ To attenuate the optical power level	7611682007251	1		
	OZU 3-03 OZU00303	Same as OZU 3-01, but 3 dB through loss	7611682007268	1		
	OZU 3-05 OZU00305	Same as OZU 3-01, but 5 dB through loss	7611682007053	1		
	OZU 3-10 OZU00310	Same as OZU 3-01, but 10 dB through loss	7611682007060	1		
	OZU 3-15 OZU00315	Same as OZU 3-01, but 15 dB through loss	7611682007077	1		
	OZU 3-20 OZU00320	Same as OZU 3-01, but 20 dB through loss	7611682007084	1		
Type	OZU 3-01	OZU 3-03	OZU 3-05	OZU 3-10	OZU 3-15	OZU 3-20
Through loss	1 dB	3 dB	5 dB	10 dB	15 dB	20 dB
Connectors						
Connector type	SC/APC male female					
General						
Weight	0.010 kg	0.010 kg	0.009 kg	0.009 kg	0.009 kg	0.009 kg
	OZU 1-03 OZU00103	Optical joint ✓ SC/APC connector ✓ female female	7611682007046	1		
	OZU 5-00 OZU00500	Optical adapter FC/PC to SC/APC ✓ FC/PC female SC/APC male ✓ For connecting an FC/PC cable to an device with female SC/APC connector	7611682007169	1		
Type	OZU 1-03		OZU 5-00			
Connectors						
Connector type	SC/APC female			FC/PC female SC/APC male		
General						
Weight	0.003 kg			0.05 kg		


Type	Part No.	Product description	GTIN	PU
Optical distribution SAT - FC/PC				
				
	OCO 2-00 OCO00200	Optical transmitter LNB set <ul style="list-style-type: none"> ✓ Transmits a satellite signal into an optical signal ✓ 1310 nm technology ✓ Incl. 12V power supply unit and optical transmitter ✓ Terrestrial input ✓ Two optical outputs 	7611682003062	1
Type	OCO 2-00			
Frequency range	10.7...12.75 GHz @ SAT 88...108 MHz @ FM 174...240 MHz @ DAB 470...862 MHz @ DVB-T			
Input				
Input level range TERR	67 dBµV...97 dBµV			
Recommended DVB-T input level @6 multiplex carriers	70 dBµV			
Cross polarisation isolation	typ. 30 dB			
Output				
Noise figure	0.5 dB			
Number of optical outputs	2			
Optical connector	FC/PC			
Optical level	6.5...7.5 dBm			
Wavelength	1310 nm			
General				
Operating voltage	12 ...20 V=			
Current consumption	<500 mA			
Output voltage for remote supply	11.5V / <80 mA			
Operating temperature range (acc. to EN 60065)	-20...+50°C			
Mechanical data				
Diameter of feed	40 mm			
General				
Weight	1.800 kg			
				
	OVE 2-01 OVE00201	Optical 2-way splitter <ul style="list-style-type: none"> ✓ For distribution of optical signals ✓ With FC/PC connectors female 	7611682003109	1
	OVE 3-01 OVE00301	Same as OVE 2-01, but 3-way	7611682003116	1
	OVE 4-01 OVE00401	Same as OVE 2-01, but 4-way	7611682003123	1
	OVE 8-01 OVE00801	Same as OVE 2-01, but 8-way	7611682003130	1
Type	OVE 2-01	OVE 3-01	OVE 4-01	OVE 8-01
Input				
Wavelength	1310 nm + 1550 nm			
Distribution				
Method	Dual Window			
Distribution loss	4 dB	5.5 dB	7 dB	10.1 dB
Directivity	> 50 dB			
Connectors				
Connector type	FC/PC female			
General				
Operating temperature range	-20...+50°C			
Dimensions (W x H x D) appr.	148 x 115 x 21 mm			
Weight	0.226 kg	0.240 kg	0.258 kg	0.282 kg

	Type Part No.	Product description	GTIN	PU			
	OVE 2-02 OVE00202	Optical 2-way splitter ✓ For distribution of optical signals ✓ With 1 m pigtailed with FC/PC connectors male	7611682003628	1			
	OVE 3-02 OVE00302	Same as OVE 2-02, but 3-way	7611682003635	1			
	OVE 4-02 OVE00402	Same as OVE 2-02, but 4-way	7611682003642	1			
	OVE 8-02 OVE00802	Same as OVE 2-02, but 8-way	7611682003659	1			
Type	OVE 2-02	OVE 3-02	OVE 4-02	OVE 8-02			
Input							
Wavelength	1310 nm + 1550 nm						
Distribution							
Method	PLC						
Distribution loss	4.3 dB	5.3 dB	7.6 dB	10.8 dB			
Directivity	> 55 dB						
Connectors							
Connector type	FC PC male						
General							
Operating temperature range	-20...+50°C						
Dimensions (W × H × D) appr.	98 × 79 × 10 mm						
Weight	0.098 kg	0.098 kg	0.950 kg	0.095 kg			
	OAK 10-01 OAK01001	Optic cable steel armoured ✓ 10 m in polybag ✓ FC/PC male ✓ Colour gray	7611682002973	1			
	OAK 50-01 OAK05001	Same as OAK 10-01, but 50 m	7611682003000	1			
	OAK 200-01 OAK20001	Same as OAK 10-01, but 200 m on wooden drum	7611682003024	1			
Type	OAK 10-01	OAK 50-01	OAK 200-01				
Mechanical data							
Cable length	10.00 m	50.00 m	200.00 m				
General							
Weight	0.146 kg	0.602 kg	2.600 kg				
	OAK 1-02 OAK00102	Optic cable ✓ 1 m in polybag ✓ FC/PC male ✓ Colour white	7611682003529	1			
	OAK 5-02 OAK00502	Same as OAK 1-02, but 5 m	7611682003536	1			
	OAK 10-02 OAK01002	Same as OAK 1-02, but 10 m	7611682003550	1			
	OAK 20-02 OAK02002	Same as OAK 1-02, but 20 m	7611682003567	1			
	OAK 100-02 OAK10002	Same as OAK 1-02, but 100 m on plastic drum	7611682003598	1			
	OAK 200-02 OAK20002	Same as OAK 1-02, but 200 m on plastic drum	7611682003604	1			
OAK 500-02 OAK50002	Same as OAK 1-02, but 500 m on wooden drum	7611682003611	1				
Type	OAK 1-02	OAK 5-02	OAK 10-02	OAK 20-02	OAK 100-02	OAK 200-02	OAK 500-02
Mechanical data							
Cable length	1.00 m	5.00 m	10.00 m	20.00 m	100.00 m	200.00 m	500.00 m
General							
Weight	0.016 kg	0.044 kg	0.078 kg	0.115 kg	0.650 kg	3.300 kg	4.750 kg


Type Part No.	Product description	GTIN	PU
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Amplifiers


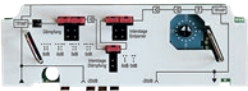
CATV amplifiers | premium-line | 1218 MHz


 KLASSE A CLASS	BVS 14-69P BVS01469P	CATV amplifier 40 dB 111 dBμV CSO/CTB <ul style="list-style-type: none"> ✓ GaAs technology ✓ Downstream 85...1218 MHz ✓ Attenuation and equalization adjustable with PCB switches ✓ Interstage attenuation and equalization pluggable with jumpers ✓ Cable simulator BZU 80-02 pluggable ✓ Upstream 5...65 MHz ✓ Active/passive pluggable with jumpers ✓ Attenuation adjustable with PCB switch ✓ Interstage attenuation and equalization pluggable with jumpers ✓ Test ports at in- and output 	7611682006827	1
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Type	BVS 14-69P
EMC	according to EN 50083-2, class A
Downstream	
Frequency range	85...1218 MHz
Gain	40 dB
Max. output level CSO/CTB (CENELEC raster, 41 channels, 60 dB IMA)	111 dBμV
Max. output level 112 channels QAM (flat, BER<1x10-9)	106 dBμV
Max. output level 112 channels QAM256 (6 dB Slope, BER<1x10-9)	108 dBμV
Attenuation: adjustable in 1 dB steps	0...15 dB
Equalization: adjustable in 1 dB steps	0...15 dB
Attenuation interstage: pluggable with jumpers	0 2 4 6 dB
Equalization interstage: pluggable with jumpers	0 2 4 6 dB
Gain interstage: pluggable with jumpers	40 30 dB
Return loss	≥ 18 dB (-1.5 dB/Octave)
Noise figure typ.	< 7dB
Upstream	
Frequency range	5...65 MHz
Gain	30 dB
Attenuation: adjustable in 1 dB steps	0...15 dB
Equalization interstage: pluggable with jumpers	0 3 6 9 dB
Attenuation interstage: pluggable with jumpers	0 6 dB
RF connectors	
Type	F-female
Test port at in-/output	-20 ±2.5 dB/-20 ±1.0 dB
General	
Switching power supply	100...240 VAC / 50...60 Hz
Power indicator	LED
Power consumption	14 W
Equipotential bonding connection	4 mm ²
Operating temperature range (acc. to EN 60065)	-20...+50°C
Dimensions (W × H × D) appr.	182 × 146 × 71 mm
Weight	1.123 kg
Protection class	IP 54

Type	Part No.	Product description	GTIN	PU
CATV amplifiers premium-line 1006 MHz				
	BVS 12-69N BVS01269N	CATV amplifier 20 dB 100 dBμV CSO/CTB ✓ KDG 1 TS 140: B(1.2) ✓ Downstream 85...1006 MHz ✓ Adjustable attenuator and equalizer ✓ Upstream 5...65 MHz ✓ Adjustable attenuator ✓ Al-die-cast/plastic housing	7611682004816	1
	BVS 13-69N BVS01369N	CATV amplifier 30 dB 100 dBμV CSO/CTB ✓ KDG 1 TS 140: B(3.2) ✓ Downstream 85...1006 MHz ✓ Adjustable attenuator and equalizer ✓ Upstream 5...65 MHz ✓ Adjustable attenuator ✓ Al-die-cast/plastic housing	7611682004823	1
Type	BVS 12-69N		BVS 13-69N	
EMC	according to EN 50083-2, class A			
Classification according to 1 TS 140	B(1.2)		B(3.2)	
Downstream				
Frequency range	85...1006 MHz			
Gain	17...20 dB		27...30 dB	
Max. output level CSO/CTB (CENELEC raster, 41 channels, 60 dB IMA)	100/98 dB μ V*		100/98 dB μ V	
Attenuation: continuously adjustable	0...20 dB			
Equalization: continuously adjustable	0...18 dB			
Return loss	≥ 14 dB (-1.5 dB/Octave)			
Noise figure typ.	7 dB			
Upstream				
Frequency range	5...65 MHz			
Gain	17...20 dB		25...28 dB	
Attenuation: continuously adjustable	0...20 dB			
RF connectors				
Type	F-female			
General				
Power supply	230 VAC / 50 Hz			
Power indicator	LED			
Power consumption	6 W			
Equipotential bonding connection	4 mm ²			
Operating temperature range (acc. to EN 60065)	-20...+50°C			
Dimensions (W × H × D) appr.	192 × 89 × 40 mm			
Weight	0.360 kg			
Protection class	IP 20			
Comments	* @ 3dB slope, 100 dB μ V @ flat 0dB slope, 98 dB μ V			

Type	Part No.	Product description	GTIN	PU
  	BVS 13-68 BVS01368	CATV amplifier 30 dB 100 dBμV CSO/CTB <ul style="list-style-type: none"> ✓ Downstream 85...1006 MHz ✓ Attenuation and equalization adjustable ✓ Interstage attenuation/equalization pluggable with jumpers ✓ Upstream 5...65 MHz ✓ Attenuation adjustable ✓ Interstage attenuation/equalization pluggable with jumpers ✓ Al-die-cast/plastic housing ✓ Test ports at in- and output 	7611682003703	1
	BVS 15-68 BVS01568	CATV amplifier 38 dB 100 dBμV CSO/CTB <ul style="list-style-type: none"> ✓ KDG 1 TS 140: C(4.2) ✓ Downstream 85...1006 MHz ✓ Attenuation and equalization adjustable ✓ Interstage attenuation/equalization pluggable with jumpers ✓ Upstream 5...65 MHz ✓ Return path attenuation adjustable ✓ Interstage attenuation/equalization pluggable with jumpers ✓ Al-die-cast/plastic housing ✓ Test ports at in- and output 	7611682003710	1
Type	BVS 13-68		BVS 15-68	
EMC	according to EN 50083-2, class A			
Classification according to 1 TS 140	C(3.2)		C(4.2)	
Downstream				
Frequency range		85...1006 MHz		
Gain	30 dB		38 dB	
Max. output level CSO/CTB (CENELEC raster, 41 channels, 60 dB IMA)		100 dB μ V		
Attenuation: continuously adjustable		0...20 dB		
Equalization: continuously adjustable		0...18 dB		
Attenuation interstage: pluggable with jumpers		0/6 dB		
Equalization interstage: pluggable with jumpers		0/2/4/6 dB		
Return loss		≥ 18 dB (-1.5 dB/Octave)		
Noise figure typ.		≤ 7 dB		
Upstream				
Frequency range		5...65 MHz		
Gain		30 dB		
Noise figure		≤ 7 dB		
Attenuation: continuously adjustable		0...20 dB		
Equalization interstage: pluggable with jumpers		0/3/6/9 dB		
Attenuation interstage: pluggable with jumpers		0/6 dB		
RF connectors				
Type		F-female		
Test port at in-/output		-20 \pm 2.5 dB / -20 \pm 1.0 dB		
General				
Switching power supply		100...240 VAC / 50...60 Hz		
Power indicator		LED		
Power consumption		5.5 W		
Equipotential bonding connection		4 mm ²		
Operating temperature range (acc. to EN 60065)		-20...+50°C		
Dimensions (W x H x D) appr.		200 x 90 x 50 mm		
Weight	0.480 kg		0.474 kg	
Protection class		IP 20		

	Type Part No.	Product description	GTIN	PU
 <p>KLASSE A CLASS</p>	BVS 20-00 BVS02000	CATV amplifier 36 dB 107 dBμV CSO/CTB ✓ Downstream 85...1006 MHz ✓ Attenuation and equalization adjustable PCB switches ✓ Interstage attenuation/equalization pluggable with jumpers ✓ Upstream via pluggable return path module 5...65 MHz (not included in delivery) ✓ Al-die-cast housing ✓ Test ports at in- and output	7611682001587	1
	BVS 20-46 BVS02046	CATV amplifier 30 dB 107 dBμV CSO/CTB ✓ Downstream 47/85...1006 MHz ✓ Attenuation and equalization adjustable PCB switches ✓ Interstage attenuation/equalization pluggable with jumpers ✓ Upstream via pluggable return path module 5...65 MHz (not included in delivery) ✓ Al-die-cast housing ✓ Test ports at in- and output	7611682003444	1
	BVS 20-47 BVS02047	CATV amplifier 36 dB 107 dBμV CSO/CTB ✓ Downstream 47/85...1006 MHz ✓ Attenuation and equalization adjustable PCB switches ✓ Interstage attenuation/equalization pluggable with jumpers ✓ Upstream via pluggable return path module 5...65 MHz (not included in delivery) ✓ Al-die-cast housing ✓ Test ports at in- and output	7611682003215	1
Type	BVS 20-00	BVS 20-46	BVS 20-47	
EMC	according to EN 50083-2, class A			
Downstream				
Frequency range	85...1006 MHz	47*/ 85... 1006 MHz	47*/ 85... 1006 MHz	
Gain	36 dB	30 dB	36 dB	
Max. output level CSO/CTB (CENELEC raster, 41 channels, 60 dB IMA)		107 dB μ V		
Attenuation: adjustable in 1 dB steps		0...15 dB		
Equalization: adjustable in 1 dB steps		0...15 dB		
Attenuation interstage: pluggable with jumpers		0 2 4 6 dB		
Equalization interstage: pluggable with jumpers		0 2 4 6 dB		
Return loss		≥ 18 dB (-1.5 dB/Octave)		
Noise figure typ.		≤ 6.5 dB		
RF connectors				
Type		F-female		
Test port at in-/output		-20 ±2.5 dB/-20 ±1.0 dB		
General				
Switching power supply		100...240 VAC / 50...60 Hz		
Power indicator		LED		
Power consumption		8 W		
Equipotential bonding connection		4 mm ²		
Operating temperature range (acc. to EN 60065)		-20...+50°C		
Dimensions (W × H × D) appr.		195 × 90 × 55 mm		
Weight		0.480 kg		
Protection class		IP 54		
Comments		- * Without return path module	* Without return path module	
	BZU 20-65 BZU02065	Return path module, active ✓ 5...65 MHz ✓ Gain 30 dB ✓ For BVS 20-00, BVS 20-46, BVS 20-47	7611682002164	1
	Type	BZU 20-65		
Upstream				
Frequency range	5...65 MHz			
Gain	30 dB			
Attenuation: adjustable in 1 dB steps	0...15 dB			
Equalization interstage: pluggable with jumpers	0/6 dB			
Attenuation interstage: pluggable with jumpers	0/3/6/9 dB			
Attenuation output pluggable	0/3/6/9 dB			
General				
Weight	0.028 kg			

Type Part No.	Product description	GTIN	PU
BVS 20-66 BVS02066	CATV amplifier 38 dB 107 dBμV CSO/CTB <ul style="list-style-type: none"> ✓ Remote power supply at input/output ✓ Downstream 85...1006 MHz ✓ Attenuation and equalization adjustable ✓ Interstage attenuation/equalization pluggable with jumpers ✓ Upstream 5...65 MHz ✓ Interstage attenuation/equalization pluggable with jumpers ✓ Al-die-cast housing ✓ Test ports at in- and output 	7611682003345	1
			
Type	BVS 20-66		
EMC	according to EN 50083-2, class A		
Downstream			
Frequency range	85...1006 MHz		
Gain	38 dB		
Max. output level CSO/CTB (CENELEC raster, 41 channels, 60 dB IMA)	107 dB μ V		
Attenuation: adjustable in 1 dB steps	0...15 dB		
Equalization: adjustable in 1 dB steps	0...15 dB		
Attenuation interstage: pluggable with jumpers	0 2 4 6 dB		
Equalization interstage: pluggable with jumpers	0 2 4 6 dB		
Return loss	≥ 18 dB (-1.5 dB/Octave)		
Noise figure typ.	≤ 5.5 dB		
Upstream			
Frequency range	5...65 MHz		
Gain	30 dB		
Noise figure	≤ 7 dB		
Attenuation: continuously adjustable	0...15 dB		
Equalization interstage: pluggable with jumpers	0 3 6 9 dB		
Attenuation interstage: pluggable with jumpers	0 6 dB		
RF connectors			
Type	F-female		
Test port at in-/output	-20 ± 2.5 dB / -20 ± 1.0 dB		
General			
Switching power supply	30...65 VAC / 50...60 Hz		
Power indicator	LED		
Power consumption	10 W		
Equipotential bonding connection	4 mm ²		
Operating temperature range (acc. to EN 60065)	$-20 \dots +50^{\circ}\text{C}$		
Dimensions (W x H x D) appr.	195 x 90 x 55 mm		
Weight	0.480 kg		
Protection class	IP 54		

Type Part No.	Product description	GTIN	PU
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Vodafone
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Deutschland

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A
CLASS



BVS 20-69N
BVS02069N




CATV amplifier 38 dB | 107 dBμV CSO/CTB

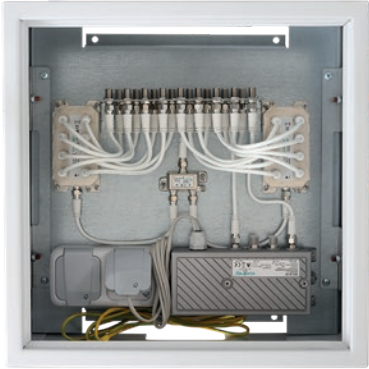
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- ✓ Local power supply
- ✓ Downstream 85...1006 MHz
- ✓ Attenuation and equalization adjustable
- ✓ Interstage attenuation/equalization pluggable with jumpers
- ✓ Upstream 5...65 MHz
- ✓ Interstage attenuation/equalization pluggable with jumpers
- ✓ Al-die-cast housing
- ✓ Test ports at in- and output


Type	BVS 20-69N
EMC	according to EN 50083-2, class A
Classification according to 1 TS 140	D(4.3)
Downstream	
Frequency range	85...1006 MHz
Gain	38 dB
Max. output level CSO/CTB (CENELEC raster, 41 channels, 60 dB IMA)	107 dBμV
Max. output level 112 channels QAM (flat, BER<1x10-9)	104 dBμV
Attenuation: adjustable in 1 dB steps	0...15 dB
Equalization: adjustable in 1 dB steps	0...15 dB
Attenuation interstage: pluggable with jumpers	0 2 4 6 dB
Equalization interstage: pluggable with jumpers	0 2 4 6 dB
Return loss	≥ 18 dB (-1.5 dB/Octave)
Noise figure typ.	≤ 5.5 dB
Upstream	
Frequency range	5...65 MHz
Gain	30 dB
Noise figure	≤ 7 dB
Attenuation: continuously adjustable	0...15 dB
Equalization interstage: pluggable with jumpers	0 3 6 9 dB
Attenuation interstage: pluggable with jumpers	0 6 dB
RF connectors	
Type	F-female
Test port at in-/output	-20 ±2.5 dB/-20 ±1.0 dB
General	
Switching power supply	100...240 VAC / 50...60 Hz
Power indicator	LED
Power consumption	10 W
Equipotential bonding connection	4 mm²
Operating temperature range (acc. to EN 60065)	-20...+50°C
Dimensions (W × H × D) appr.	195 × 90 × 55 mm
Weight	0.480 kg
Protection class	IP 54



	Type Part No.	Product description	GTIN	PU																																																											
 	BVS 14-66 BVS01466	CATV amplifier 40 dB 111 dBμV CSO/CTB <ul style="list-style-type: none"> ✓ Remote power supply at input/output ✓ GaAs technology ✓ Downstream 85...1006 MHz ✓ Attenuation/equalization adjustable with PCB switches ✓ Interstage attenuation/equalization pluggable with jumpers ✓ Cable simulator BZU 80-02 pluggable ✓ Upstream 5...65 MHz ✓ Active/passive pluggable with jumpers ✓ Attenuation adjustable with PCB switch ✓ Interstage attenuation/equalization pluggable with jumpers ✓ Al-die-cast housing ✓ Test ports at in- and output 	7611682004052	1																																																											
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	BZU 80-02 BZU08002	Cable simulator <ul style="list-style-type: none"> ✓ For BVS 14-6x ✓ 0...10 dB 	7611682004069	1																																																											
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Type	Part No.	Product description	GTIN	PU
CATV cabinets				
	BZU 40-08 BZU04008	Cabinet CATV max. 8 subscribers pre-assembled ✓ 1 × BVS 13-69N CATV amplifier 30 dB 100 dBμV CSO/CTB ✓ 1 × BVE 8-02P 8-way splitter 5...1218 MHz ✓ 1 × QEW 9-50 Earthing angle ✓ 1 × MAK 20-80 Patch cable ✓ 9 × MAK 30-80 Patch cable ✓ 1 × SZU 89-04 Double power socket ✓ 1 × QAS 4045 Mounting cabinet	7611682004694	1
	BZU 40-16 BZU04016	Cabinet CATV max. 16 subscribers pre-assembled ✓ 1 × BVS 20-69 CATV amplifier 38 dB 107 dBμV CSO/CTB ✓ 2 × BVE 8-02P 8-way splitter 5...1218 MHz ✓ 1 × BVE 2-01P 2-way splitter 5...1218 MHz ✓ 1 × QEW 17-50 Earthing angle ✓ 19 × MAK 20-80 Patch cable ✓ 1 × MAK 30-80 Patch cable ✓ 1 × SZU 89-04 Double power socket ✓ 1 × QAS 4045 Mounting cabinet	7611682004700	1
Type	BZU 40-08		BZU 40-16	
EMC	according to EN 50083-2, class A			
Downstream				
Frequency range	85...1006 MHz			
Gain	27...30 dB		38 dB	
Max. output level CSO/CTB (CENELEC raster, 41 channels, 60 dB IMA)	85 dBμV			
Upstream				
Frequency range	5...65 MHz			
Gain	25...28 dB		30 dB	
Connectors				
Connector type	F-female			
General				
Power supply	230 VAC / 50 Hz			
Power consumption	6 W		10 W	
Dimensions (W × H × D) appr.	400 × 400 × 200 mm			
Weight	9.300 kg		9.100 kg	


■ KLASSE
A
 ■ CLASS


	Type Part No.	Product description	GTIN	PU
CATV amplifiers basic-line				
 <p>KLASSE A CLASS</p>	BVS 2-01 BVS00201	CATV amplifier 25 98 dBμV ✓ Downstream 47...862 MHz ✓ Adjustable attenuator and equalizer	7611682030020	1
	BVS 2-65 BVS00265	CATV amplifier 25 dB 98 dBμV ✓ Downstream 85...862 MHz ✓ Adjustable attenuator and equalizer ✓ Upstream 5...65 MHz, passive	7611682032024	1
	BVS 3-01 BVS00301	CATV amplifier 30 dB 98 dBμV 862 MHz ✓ Downstream 47...862 MHz ✓ Adjustable attenuator and equalizer ✓ Upstream 5...30 MHz, passive	7611682031034	1
	BVS 3-65 BVS00365	CATV amplifier 30 dB 98 dBμV ✓ Downstream 85...862 MHz ✓ Adjustable attenuator and equalizer ✓ Upstream 5...65 MHz, passive	7611682034035	1
Type	BVS 2-01	BVS 2-65	BVS 3-01	BVS 3-65
EMC	according to EN 50083-2, class A			
Downstream				
Frequency range	47...862 MHz	85...862 MHz	47...862 MHz	85...862 MHz
Gain	25 dB	25 dB	30 dB	30 dB
Max. output level CSO/CTB (CENELEC raster, 41 channels, 60 dB IMA)				98 dB μ V
Attenuation: continuously adjustable				0...20 dB
Equalization: continuously adjustable				0...18 dB
Return loss				≥ 14 dB (-1.5 dB/Oktave)
Noise figure typ.				≤ 7 dB
Upstream				
Frequency range	-	5...65 MHz	5...30 MHz	5...65 MHz
RF connectors				
Type	F-female			
General				
Power supply	230 VAC / 50 Hz			
Power indicator	LED			
Power consumption	6 W			
Equipotential bonding connection	4 mm ²			
Operating temperature range (acc. to EN 60065)	-20...+50°C			
Dimensions (W x H x D) appr.	160 x 100 x 45 mm			
Weight	0.488 kg	0.488 kg	0.478 kg	0.478 kg
Protection class	IP 20			


Type	Part No.	Product description	GTIN	PU
	TVS 10-00 TVS01000	Broadband amplifier <ul style="list-style-type: none"> ✓ For small CATV networks ✓ 47...862 MHz ✓ Adjustable attenuator ✓ Incl. 2 adapters (IEC-male / F-male) 	7611682060102	1
Type	TVS 10-00			
Downstream				
Frequency range	47...862 MHz			
Gain	22 dB			
Max. output level (3rd order, EN 50083-3, 60 dB KMA)	108 dB μ V			
Attenuation: continuously adjustable	0...20 dB			
Noise figure typ.	≤ 7 dB			
Output				
Noise figure	≤ 7 dB			
RF connectors				
Type	IEC-female			
General				
Power supply	230 V~ / 50 Hz			
Power indicator	LED			
Power consumption	3 W			
Equipotential bonding connection	4 mm ²			
Operating temperature range (acc. to EN 60065)	-20...+50°C			
Dimensions (W x H x D) appr.	160 x 100 x 45 mm			
Weight	0.488 kg			
Protection class	IP 20			



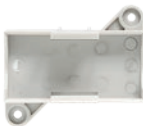
	Type Part No.	Product description	GTIN	PU																																																																																																									
	BVS 10-00 BVS01000	CATV inline amplifier 20 dB 862 MHz ✓ Remote power supply via input or output ✓ Mounting bracket ✓ Die-cast housing	7611682031003	1																																																																																																									
	BVS 10-01 BVS01001	Amplifier set ✓ Amplifier BVS 10-00 ✓ Power supply TZU 11-04 ✓ Power inserter TZU 15-04 ✓ Mounting bracket TZU 14-00	7611682031010	1																																																																																																									
	BVS 10-30 BVS01030	CATV inline amplifier 30 dB ✓ Remote power supply via input or output ✓ 47...862 MHz ✓ Mounting bracket ✓ Die-cast housing ✓ With adjustable attenuator - for indoor use only	7611682000313	1																																																																																																									
	BVS 10-02 BVS01002	CATV inline amplifier 10 dB ✓ 47...862 MHz ✓ In die-cast housing ✓ Remote feedable	7611682031041	1																																																																																																									
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Power supply unit	-	230 VAC/50 Hz 12 V/200 mA	-	-																																																																																																									
	TZU 14-00 TZU01400	Mounting bracket ✓ For miniature inline amplifiers (e.g. BVS 10-xx/SVS 2-xx)	7611682007145	1																																																																																																									
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	Type Part No.	Product description	GTIN	PU
	TVS 14-00 TVS01400	CATV Distribution amplifier ✓ For small CATV networks ✓ To plug on to a wall outlet ✓ 4-way distribution	7611682000368	1
	TVS 16-00 TVS01600	CATV Distribution amplifier ✓ For small CATV networks ✓ To plug on to a wall outlet ✓ 47...862 MHz ✓ 6-way distribution	7611682060164	1
Type		TVS 14-00	TVS 16-00	
Downstream				
Frequency range		47...862 MHz		
Gain		4 × 10 dB	6 × 10 dB	
Max. output level (3rd order, EN 50083-3, 60 dB KMA)		93 dB μ V		
Attenuation: continuously adjustable		0...18 dB		
Return loss		≤ 7 dB		
Noise figure typ.		≤ 7 dB		
RF connectors				
Type		1 × IEC-female @ input 4 × IEC-male @ output	1 × IEC-female @ input 6 × IEC-male @ output	
General				
Power supply		230 VAC / 50 Hz		
Power consumption		3.0 W		
Dimensions (W × H × D) appr.		80 × 140 × 60 mm		
Weight		0.362 kg	0.374 kg	
Protection class		IP 20		
	TVS 8-01 TVS00801	CATV amplifier for inhouse distribution ✓ 47...862 MHz ✓ 2-way distribution	7611682060089	1
	TVS 9-02 TVS00902	CATV amplifier for inhouse distribution ✓ 47...862 MHz ✓ 3-way distribution	7611682060096	1
	TVS 21-00 TVS02100	CATV amplifier for inhouse distribution ✓ 47...862 MHz ✓ 2-way distribution ✓ Plug-on type on antenna wall outlets ✓ Incl. power supply	7611682000337	1
Type		TVS 8-01	TVS 9-02	TVS 21-00
Downstream				
Frequency range		47...862 MHz		
Gain		2 × 12 dB	R+TV 5dB R/TV 15 dB	1 × 0 dB 1 × 12 dB
Max. output level (3rd order, EN 50083-3, 60 dB KMA)		92 dB μ V	96 dB μ V	93 dB μ V
Noise figure typ.		≤ 7 dB	≤ 7 dB	-
Output				
Noise figure		≤ 7 dB	≤ 7 dB	-
RF connectors				
Type		1 × IEC-female with cable @ input 2 × IEC male @ output	1 × IEC female/1 × IEC male @ input* 2 × IEC female/1 × IEC male @ output	1 × IEC female @ input 1 × IEC male/1 × F male @ output
General				
Operating voltage		-	-	12 VDC
Power supply		230 V~ / 50 Hz	230 V~ / 50 Hz	-
Power consumption		2.8 W	3 W	-
Current consumption		-	-	120 mA
Dimensions (W × H × D) appr.		60 × 90 × 90 mm	80 × 140 × 60 mm	40 × 50 × 30 mm
Weight		0.230 kg	0.356 kg	0.340 kg
Protection class		IP 20		
External accessories				
Plug-in power supply		-	-	230 VAC/2.4 W
General				
Comments		-	*At rear side to plug on to a antenna wall outlet	-


Type Part No.	Product description	GTIN	PU																							
CATV accessories																										
	BZU 30-65 BZU03065	Passive return channel bypass ✓ EoC signals can be routed around a broadband amplifier ✓ Separates the downstream and upstream in the entrance area ✓ Connects upstream and downstream in the output area.	7611682007091 1																							
	<table border="1"> <tr> <td>Type</td> <td>BZU 30-65</td> </tr> <tr> <td>Screening factor acc. to EN 50083-2</td> <td>Class A</td> </tr> <tr> <td>Frequency range</td> <td>5...1218 MHz @ COM1/2 85...1218 MHz @ V1/2</td> </tr> <tr> <td>Through loss</td> <td>2.5 dB</td> </tr> <tr> <td>Isolation</td> <td>≥ 35 dB</td> </tr> <tr> <td colspan="2">Connectors</td> </tr> <tr> <td>Connector type</td> <td>F-female</td> </tr> <tr> <td>Return loss</td> <td>≥ 14 dB (-1 dB/Oct.)</td> </tr> <tr> <td colspan="2">General</td> </tr> <tr> <td>Operating temperature range</td> <td>-20°C...+40°C</td> </tr> <tr> <td>Weight</td> <td>0.262 kg</td> </tr> <tr> <td>Protection class</td> <td>IP 20</td> </tr> </table>			Type	BZU 30-65	Screening factor acc. to EN 50083-2	Class A	Frequency range	5...1218 MHz @ COM1/2 85...1218 MHz @ V1/2	Through loss	2.5 dB	Isolation	≥ 35 dB	Connectors		Connector type	F-female	Return loss	≥ 14 dB (-1 dB/Oct.)	General		Operating temperature range	-20°C...+40°C	Weight	0.262 kg	Protection class
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DVB-T/T2 amplifiers basic-line																																				
	TVS 5-00 TVS00500	Multiband amplifier with 4 inputs ✓ For use in terrestrial head ends ✓ 4 inputs, UKW, Ch 2...4, Ch 5...12, Ch 21...69	7611682060058 1																																	
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Weight	0.500 kg																																			
Protection class	IP 20																																			


Type	Part No.	Product description	GTIN	PU
SAT amplifiers				
	SVS 1-00 SVS00100	SAT wideband amplifier <ul style="list-style-type: none"> ✓ Can be used as inline amplifier for combined terrestrial, CATV and satellite TV signals ✓ 47...2200 MHz ✓ 18...25 dB ✓ 22 kHz-compatible ✓ DiSEqC-compatible ✓ Unicable-compatible 	7611682150018	1
Type	SVS 1-00			
Frequency range	47 ... 2200 MHz			
Gain	18 ... 25 dB			
Inputs				
Attenuator adjustment range	0...20 dB			
Output				
Max. output level TERR (3rd order, EN 50083-3, 60 dB KMA)	101 dB μ V			
Max. output level SAT (3rd order SAT, EN 50083-3, 35 dB KMA)	108 dB μ V			
Noise figure	8 dB			
RF connectors				
Type	F-female			
General				
DC power pass	yes			
Power supply	230 V~ / 50 Hz			
Power indicator	LED			
Power consumption	3 W			
Equipotential bonding connection	4 mm ²			
Dimensions (W × H × D) appr.	160 × 100 × 45 mm			
Weight	0.486 kg			
Protection class	IP 20			



	Type Part No.	Product description	GTIN	PU																																																																																																												
 	SVS 2-01 SVS00201	SAT inline amplifier 950...2400 MHz 20 dB ✓ DC bypass ✓ 22 kHz-compatible ✓ DiSEqC-compatible ✓ Unicable-compatible ✓ The amplifier is powered through the coaxial cable	7611682151022	1																																																																																																												
	SVS 2-02 SVS00202	Same as SVS 2-0, but 47...2400 MHz 16...20 dB	7611682152029	1																																																																																																												
	SVS 2-04 SVS00204	Same as SVS 2-0, but 47...2400 MHz 10 dB	7611682000221	1																																																																																																												
	SVS 2-05 SVS00205	Same as SVS 2-0, but 47...2400 MHz 8...15 dB	7611682003338	1																																																																																																												
	SVS 4-00 SVS00400	Same as SVS 2-0, but 47...862 MHz 950...2400 MHz 12...14 dB 14...17 dB	7611682150049	1																																																																																																												
	<table border="1"> <thead> <tr> <th>Type</th> <th>SVS 2-01</th> <th>SVS 2-02</th> <th>SVS 2-04</th> <th>SVS 2-05</th> <th>SVS 4-00</th> </tr> </thead> <tbody> <tr> <td>EMC</td> <td colspan="5">according to EN 50083-2, class A</td> </tr> <tr> <td>Frequency range</td> <td>950...2400 MHz</td> <td>47...2400 MHz</td> <td>47...2400 MHz</td> <td>5...65 85...2400 MHz</td> <td>47...862 MHz 950...2400 MHz</td> </tr> <tr> <td>Gain</td> <td>20 dB</td> <td>16...20 dB</td> <td>10 dB</td> <td>8...15 dB TERR 8...15 dB SAT</td> <td>12...14 dB 14...17 dB</td> </tr> <tr> <td>Equalization</td> <td>-</td> <td>4 dB</td> <td>-</td> <td>7 dB</td> <td>2 dB 3 dB</td> </tr> <tr> <td colspan="6">Output</td> </tr> <tr> <td>Max. output level TERR (3rd order, EN 50083-3, 60 dB KMA)</td> <td>-</td> <td>-</td> <td>95 dBμV</td> <td>94 dBμV</td> <td>101 dBμV</td> </tr> <tr> <td>Max. output level SAT (3rd order SAT, EN 50083-3, 35 dB KMA)</td> <td>110 dBμV</td> <td>105 dBμV</td> <td>97 dBμV</td> <td>114 dBμV</td> <td>113 dBμV</td> </tr> <tr> <td>Noise figure</td> <td>-</td> <td>-</td> <td>-</td> <td>8 dB</td> <td>6 dB</td> </tr> <tr> <td colspan="6">RF connectors</td> </tr> <tr> <td>Type</td> <td colspan="5">F-female</td> </tr> <tr> <td colspan="6">General</td> </tr> <tr> <td>DC power pass</td> <td colspan="5">yes</td> </tr> <tr> <td>Remote voltage</td> <td>14...18 V=</td> <td>max. 30 V=</td> <td>14...18 V=</td> <td>14...18 V=</td> <td>14...18 V=</td> </tr> <tr> <td>Current consumption</td> <td>≤ 70 mA</td> <td>≤ 80 mA</td> <td>≤ 40 mA</td> <td>45 mA</td> <td>≤ 40 mA</td> </tr> <tr> <td>Max. through-current</td> <td>500 mA</td> <td>2000 mA</td> <td>600 mA</td> <td>1000 mA</td> <td>400 mA</td> </tr> <tr> <td>Dimensions (W × H × D) appr.</td> <td>85 × 26 × 20 mm</td> <td>85 × 26 × 20 mm</td> <td>54 × 15 × 15 mm</td> <td>85 × 26 × 20 mm</td> <td>100 × 35 × 25 mm</td> </tr> <tr> <td>Weight</td> <td>0.070 kg</td> <td>0.070 kg</td> <td>0.030 kg</td> <td>0.050 kg</td> <td>0.113 kg</td> </tr> </tbody> </table>					Type	SVS 2-01	SVS 2-02	SVS 2-04	SVS 2-05	SVS 4-00	EMC	according to EN 50083-2, class A					Frequency range	950...2400 MHz	47...2400 MHz	47...2400 MHz	5...65 85...2400 MHz	47...862 MHz 950...2400 MHz	Gain	20 dB	16...20 dB	10 dB	8...15 dB TERR 8...15 dB SAT	12...14 dB 14...17 dB	Equalization	-	4 dB	-	7 dB	2 dB 3 dB	Output						Max. output level TERR (3rd order, EN 50083-3, 60 dB KMA)	-	-	95 dBμV	94 dBμV	101 dBμV	Max. output level SAT (3rd order SAT, EN 50083-3, 35 dB KMA)	110 dBμV	105 dBμV	97 dBμV	114 dBμV	113 dBμV	Noise figure	-	-	-	8 dB	6 dB	RF connectors						Type	F-female					General						DC power pass	yes					Remote voltage	14...18 V=	max. 30 V=	14...18 V=	14...18 V=	14...18 V=	Current consumption	≤ 70 mA	≤ 80 mA	≤ 40 mA	45 mA	≤ 40 mA	Max. through-current	500 mA	2000 mA	600 mA	1000 mA	400 mA	Dimensions (W × H × D) appr.	85 × 26 × 20 mm	85 × 26 × 20 mm	54 × 15 × 15 mm	85 × 26 × 20 mm	100 × 35 × 25 mm	Weight	0.070 kg	0.070 kg	0.030 kg	0.050 kg
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	TZU 14-00 TZU01400	Mounting bracket ✓ For miniature inline amplifiers (e.g. BVS 10-xx/SVS 2-xx)	7611682007145	1																																																																																																												
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Type Part No.	Product description	GTIN	PU
 <p>KLASSE A CLASS</p>	SVS 440-06 SVS44006 Wideband headamplifier 4 in 4 <ul style="list-style-type: none"> ✓ 4 × SAT 250...2400 MHz ✓ Gain 14...20 dB ✓ Input attenuators 0...15 dB ✓ External power supply SZU 99-06 needed (not included in delivery) 	7611682006858	1
Type	SVS 440-06		
Inputs			
Number	4		
Frequency range	250...2400 MHz		
Attenuator adjustment range	0...15 dB		
Gain SAT	14...20 dB ±2 dB		
Output			
Max. output level SAT (3rd order SAT, EN 50083-3, 35 dB KMA)	114 dB μ V		
Trunk line			
Isolation internal	>38 dB		
General			
Operating voltage	18 V		
Current consumption	220 mA ±12 mA		
Equipotential bonding connection	4 mm ²		
Operating temperature range (acc. to EN 60065)	-20...+50°C		
Dimensions (W × H × D) appr.	170 × 145 × 40 mm		
Weight	0.464 kg		
Protection class	IP 20		

Type	Part No.	Product description	GTIN	PU			
Mechanical accessories							
Mounting cabinet							
	QAS 3045 QAS3045	Mounting cabinet 300 x 400 x 200 mm ✓ Steel plate cabinet with recessed, removable door ✓ Surface powder-coated ✓ Colour: RAL 7035 ✓ Four-way locking incl. locking cylinder and 2 x key ✓ Incl. perforated mounting plate and earthing cable	7611682007589	1			
	QAS 4045 QAS4045	Same as QAS 3045, but 400 x 400 x 200 mm	7611682007596	1			
	QAS 4065 QAS4065	Same as QAS 3045, but 400 x 600 x 200 mm	7611682007602	1			
	QAS 6065 QAS6065	Same as QAS 3045, but 600 x 600 x 200 mm	7611682007619	1			
	QAS 6085 QAS6085	Same as QAS 3045, but 600 x 800 x 200 mm	7611682007626	1			
	QAS6010501 QAS6010501	✓ Mounting cabinet 600 x 1000 x 200 mm Steel plate cabinet with recessed, removable door ✓ Surface powder-coated ✓ Colour: RAL 7035 ✓ Four-way locking incl. locking cylinder and 2 x key ✓ Incl. perforated mounting plate and earthing cable	7611682004113	1			
	QAS8010501 QAS8010501	✓ Mounting cabinet 800 x 1000 x 200 mm Steel plate cabinet with recessed, removable door ✓ Surface powder-coated ✓ Colour: RAL 7035 ✓ Four-way locking incl. locking cylinder and 2 x key ✓ Incl. perforated mounting plate and earthing cable	7611682004144	1			
Type	QAS 3045	QAS 4045	QAS 4065	QAS 6065	QAS 6085	QAS6010501	QAS8010501
General							
Dimensions (W x H x D) appr.	300 x 400 x 200 mm	400 x 400 x 200 mm	400 x 600 x 200 mm	600 x 600 x 200 mm	600 x 800 x 200 mm	600 x 1000 x 200 mm	800 x 1000 x 200 mm
Weight	6.7 kg	8.2 kg	10.5 kg	16.0 kg	19.0 kg	22.0 kg	26.0 kg

Perforated mounting plate



	QMP 3045 QMP3045	Perforated mounting plate 300 x 400 mm ✓ Galvanized sheet steel	7611682007633	1		
	QMP 4045 QMP4045	Same as QMP 3045, but 400 x 400 mm	7611682007640	1		
	QMP 4065 QMP4065	Same as QMP 3045, but 400 x 600 mm	7611682007657	1		
	QMP 601-05 QMP60105	Same as QMP 3045, but 600 x 1000 mm	7611682007664	1		
	QMP 6065 QMP6065	Same as QMP 3045, but 600 x 600 mm	7611682007671	1		
	QMP 6085 QMP6085	Same as QMP 3045, but 600 x 600 mm	7611682007688	1		
	Type	QMP 3045	QMP 4045	QMP 4065	QMP 601-05	QMP 6065
General						
Dimensions (W x H x D) appr.	300 x 400 x 20 mm	400 x 400 x 20 mm	400 x 600 x 20 mm	600 x 1000 x 20 mm	600 x 600 x 20 mm	600 x 800 x 20 mm
Weight	1.2 kg	1.6 kg	2.4 kg	-	3.5 kg	4.5 kg

Type	Part No.	Product description	GTIN	PU
19" Racks				
	QRA 200 QRA00200	19" Rack 2 RU ✓ Steplessly adjustable depth 22 to 40 cm ✓ Including screws, cage nuts and wall mounting ✓ Material: sturdy sheet steel, surface powder-coated	7611682007725	1
	QRA 400 QRA00400	Same as QRA 400, but 4 RU	7611682007732	1
Type	QRA 200		QRA 400	
General				
Dimensions (W × H × D) appr.	497 x 95 x 225...400 mm		497 x 185 x 225...400 mm	
Weight	1.84 kg		2.72 kg	
	SWZ 4-00 SWZ00400		7611682007749	1
	Type	SWZ 4-00		


Type Part No. Product description GTIN PU

Splitters and Taps

Splitters CATV | premium-line | 1218 MHz

 	BVE 2-01P BVE00201P	2-way splitters 5...1218 MHz type 01 <ul style="list-style-type: none"> ✓ High return loss ✓ For multimedia-use ✓ Inputs and outputs hum-suppressed ✓ High intermodulation suppression ✓ Class A (+10 dB) according to EN 50083-2 ✓ Return loss and isolation according to VFKD TS 220 ✓ Vodafone Kabel Deutschland approved 	7611682005592	1
	BVE 3-01P BVE00301P	Same as BVE 2-01P, but 3-way splitter	7611682005608	1
	BVE 4-01P BVE00401P	Same as BVE 2-01P, but 4-way splitter	7611682005615	1
	BVE 6-01P BVE00601P	Same as BVE 2-01P, but 6-way splitter	7611682005622	1
	BVE 8-01P BVE00801P	Same as BVE 2-01P, but 8-way splitter	7611682005639	1

Type	BVE 2-01P	BVE 3-01P	BVE 4-01P	BVE 6-01P	BVE 8-01P
Frequency range	5...1218 MHz				
Intermodulation ratio (EN 60728-4)	118.5 dB μ V	115 dB μ V	120 dB μ V	120 dB μ V	113.5 dB μ V
Splitting	2-way	3-way	4-way	6-way	8-way
Distribution loss					
5...94 MHz	≤ 3.3 dB	≤ 5.2 dB	≤ 6.9 dB	≤ 8.5 dB	≤ 10.2 dB
94...188 MHz	≤ 3.3 dB	≤ 5.2 dB	≤ 6.6 dB	≤ 8.4 dB	≤ 10 dB
188...376 MHz	≤ 3.4 dB	≤ 5.3 dB	≤ 6.8 dB	≤ 8.6 dB	≤ 10.2 dB
376...752 MHz	≤ 3.5 dB	≤ 5.6 dB	≤ 7.3 dB	≤ 8.9 dB	≤ 10.8 dB
752...950 MHz	≤ 3.5 dB	≤ 5.7 dB	≤ 7.4 dB	≤ 9.5 dB	≤ 11.4 dB
950...1218 MHz	≤ 3.9 dB	≤ 6.3 dB	≤ 8 dB	≤ 10.1 dB	≤ 12.3 dB
Return loss					
5...94 MHz	≥ 18 dB				
94...188 MHz	≥ 16.5 dB				
188...376 MHz	≥ 15 dB				
376...752 MHz	≥ 13.5 dB				
752...1218 MHz	≥ 12 dB				
Isolation					
Output-output @ 10...94 MHz	≥ 22 dB				
Output-output @ 94...188 MHz	≥ 20.5 dB				
Output-output @ 188...376 MHz	≥ 19 dB				
Output-output @ 376...752 MHz	≥ 17.5 dB				
Output-output @ 752...950 MHz	≥ 16 dB				
Output-output @ 950...1218 MHz	≥ 14 dB				
Connectors					
Connector type	F				
General					
Dimensions (W × H × D) appr.	48 × 50 × 26 mm	72 × 50 × 26 mm	72 × 50 × 26 mm	117 × 60 × 27 mm	117 × 60 × 27 mm
Weight	0.045 kg	0.063 kg	0.063 kg	0.120 kg	0.120 kg

	Type Part No.	Product description	GTIN	PU
	BVE 4-02P BVE00402P	4-way splitter 5...1218 MHz type 02 ✓ High return loss ✓ For multimedia-use ✓ Inputs and outputs hum-suppressed ✓ High intermodulation suppression ✓ Class A (+10 dB) according to EN 50083-2 ✓ Return loss and isolation according to VFKD TS 220 ✓ Vodafone Kabel Deutschland approved	7611682006216	1
	BVE 6-02P BVE00602P	Same as BVE 4-02P, but 6-way splitter	7611682006223	1
	BVE 8-02P BVE00802P	Same as BVE 4-02P, but 8-way splitter	7611682006230	1
Type	BVE 4-02P	BVE 6-02P	BVE 8-02P	
Frequency range		5...1218 MHz		
Intermodulation ratio (EN 60728-4)		120 dB μ V		
Splitting	4-way	6-way	8-way	
Distribution loss				
5...40 MHz	$\leq 6.9 \pm 1$ dB	≤ 8.5 dB	$\leq 10.2 \pm 1$ dB	
40...470 MHz	$\leq 6.8 \pm 1$ dB	≤ 8.8 dB	≤ 10.5 dB	
470...862 MHz	$\leq 7.2 \pm 1$ dB	≤ 9.3 dB	≤ 11.5 dB	
862...1006 MHz	$\leq 7.4 \pm 1$ dB	≤ 9.6 dB	≤ 12.0 dB	
1006...1300 MHz	$\leq 8 \pm 1$ dB	≤ 10.8 dB	≤ 14.5 dB	
Return loss				
5...40 MHz		≥ 20 dB		
40...470 MHz		≥ 22 dB		
470...862 MHz		≥ 20 dB		
862...1006 MHz		≥ 20 dB		
1006...1300 MHz		≥ 20 dB		
Isolation				
Output-output @ 5...40 MHz		≥ 27 dB		
Output-output @ 40...470 MHz		≥ 32 dB		
Output-output @ 470...862 MHz		≥ 30 dB		
Output-output @ 862...1006 MHz		≥ 28 dB		
output-output @ 1006...1300 MHz		≥ 26 dB		
Connectors				
Connector type		F		
General				
Dimensions (W x H x D) appr.	89 x 39 x 54 mm	89 x 39 x 54 mm	115 x 39 x 54 mm	
Weight	0.165 kg	0.175 kg	0.220 kg	

Type Part No.	Product description	GTIN	PU
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Splitters CATV | basic-line

KLASSE
A
CLASS



BVE 20-01 BVE02001	2-way splitter 5...1006 MHz ✓ For multimedia-use ✓ Inputs and outputs hum-suppressed	7611682240207	1
BVE 30-01 BVE03001	Same as BVE 20-01, but 3-way splitter	7611682240306	1
BVE 40-01 BVE04001	Same as BVE 20-01, but 4-way splitter	7611682240504	1
BVE 60-01 BVE06001	Same as BVE 20-01, but 6-way splitter	7611682240702	1
BVE 80-01 BVE08001	Same as BVE 20-01, but 8-way splitter	7611682240900	1



Type	BVE 20-01	BVE 30-01	BVE 40-01	BVE 60-01	BVE 80-01
Frequency range	5...1006 MHz				
Splitting	2-way	3-way	4-way	6-way	8-way
Distribution loss					
5...470 MHz	≤ 3.5 dB	≤ 5.5 dB	≤ 7.5 dB	≤ 9.0 dB	≤ 10.3 dB
470...1006 MHz	≤ 4.0 dB	≤ 6.3 dB	≤ 7.7 dB	≤ 11.5 dB	≤ 11.3 dB
Isolation					
Internal @ 5...470 MHz	≥ 30 dB				
Internal @ 470...1006 MHz	≥ 30 dB	≥ 25 dB	≥ 25 dB	≥ 25 dB	≥ 25 dB
Connectors					
Connector type	F				
General					
Dimensions (W × H × D) appr.	42 × 52 × 17 mm	77 × 52 × 17 mm	89 × 50 × 17 mm	125 × 63 × 20 mm	118 × 60 × 17 mm
Weight	0.061 kg	0.081 kg	0.082 kg	0.151 kg	0.155 kg



Splitters for two devices







TVE 1-03 TVE00103	Same as TVE 1-01, but 0.1...2200 MHz	7611682000030	1
TVE 2-03 TVE00203	Same as TVE 2-01, but 0.1...2200 MHz	7611682050042	1



Type	TVE 1-03	TVE 2-03
Application	TV	Radio
Frequency range	0.1...2200 MHz	
Isolation @ 0.1...1006 MHz	22 dB	
DC power pass	yes	
Distribution loss		
0.1...1006 MHz	3.5 dB	
Connectors		
Connector type	1 × IEC-female/2 × IEC-male	2 × IEC-female/1 × IEC-male
General		
Dimensions (W × H × D) appr.	55 × 34 × 18 mm	60 × 31 × 18 mm
Weight	0.032 kg	0.036 kg



	Type Part No.	Product description	GTIN	PU
 	TZU 40-01 TZU04001	Splitter for two devices Multimedia ✓ To plug on to a multimedia connector ✓ 0,1...1006 MHz ✓ 4 dB through loss between input and outputs ✓ Connector 1: Input ✓ Connector 2: Output ✓ Connector 3: Output	7611682002591	1
	TZU 40-02 TZU04002	Splitter for two devices SAT ✓ To plug on to a SAT connector ✓ 0.1...2200 MHz ✓ 4 dB through loss between input and outputs ✓ Connector 1: Input ✓ Connector 2: Output ✓ Connector 3: Output	7611682002607	1
Type		TZU 40-01	TZU 40-02	
Application		Multimedia	SAT	
Frequency range		0.1...1006 MHz	0.1...2200 MHz	
Through loss		4 dB	4 dB	
DC power pass		-	yes	
Connectors				
Connector 1		IEC-female	F-male, quickfix	
Connector 2		IEC-male	F-female	
Connector 3			F-female	
General				
Dimensions (W × H × D) appr.		55 × 34 × 18 mm		
Weight		0.029 kg		0.025 kg



Type Part No.	Product description	GTIN	PU				
Taps CATV premium-line 1218 MHz							
 	BAB 1-06P BAB00106P <ul style="list-style-type: none"> ✓ 1-way tap 6 dB 5...1218 MHz ✓ High return loss ✓ For multimedia-use ✓ Inputs and outputs hum-suppressed ✓ High intermodulation suppression ✓ Class A (+10 dB) according to EN 50083-2 ✓ Return loss and isolation according to VFKD TS 220 ✓ Vodafone Kabel Deutschland approved 	7611682005646	1				
	BAB 1-08P BAB00108P <p>Same as BAB 1-06P, but 8 dB tap loss</p>	7611682005653	1				
	BAB 1-10P BAB00110P <p>Same as BAB 1-06P, but 10 dB tap loss</p>	7611682005660	1				
	BAB 1-12P BAB00112P <p>Same as BAB 1-06P, but 12 dB tap loss</p>	7611682005677	1				
	BAB 1-16P BAB00116P <p>Same as BAB 1-06P, but 16 dB tap loss</p>	7611682005684	1				
	BAB 1-20P BAB00120P <p>Same as BAB 1-06P, but 20 dB tap loss</p>	7611682005691	1				
	BAB 1-24P BAB00124P <p>Same as BAB 1-06P, but 24 dB tap loss</p>	7611682005707	1				
Type	BAB 1-06P	BAB 1-08P	BAB 1-10P	BAB 1-12P	BAB 1-16P	BAB 1-20P	BAB 1-24P
Frequency range	5...1218 MHz						
Intermodulation ratio (EN 60728-4)	120 dB μ V	120 dB μ V	120 dB μ V	120 dB μ V	118 dB μ V	118 dB μ V	118 dB μ V
Tap loss							
5...94 MHz	≤ 7.8 dB	≤ 9.1 dB	≤ 10.5 dB	≤ 12.2 dB	≤ 16.8 dB	≤ 20.2 dB	≤ 23.8 dB
94...188 MHz	≤ 6.1 dB	≤ 8.9 dB	≤ 10.4 dB	≤ 12.1 dB	≤ 16.7 dB	≤ 20.1 dB	≤ 23.8 dB
188...376 MHz	≤ 6.2 dB	≤ 8.7 dB	≤ 10.3 dB	≤ 12 dB	≤ 16.7 dB	≤ 20.1 dB	≤ 23.7 dB
376...752 MHz	≤ 6.5 dB	≤ 8.7 dB	≤ 10.3 dB	≤ 12 dB	≤ 16.8 dB	≤ 20.2 dB	≤ 23.7 dB
752...950 MHz	≤ 6.4 dB	≤ 7.7 dB	≤ 9.9 dB	≤ 11.8 dB	≤ 16.9 dB	≤ 20.3 dB	≤ 23.7 dB
950...1218 MHz	≤ 6.3 dB	≤ 7.2 dB	≤ 10.9 dB	≤ 11.9 dB	≤ 17.4 dB	≤ 20.9 dB	≤ 24.3 dB
Through loss							
5...94 MHz	≤ 2.1 dB	≤ 1.4 dB	≤ 0.9 dB	≤ 0.6 dB	≤ 0.4 dB	≤ 0.4 dB	≤ 0.4 dB
94...188 MHz	≤ 2.2 dB	≤ 1.3 dB	≤ 1 dB	≤ 0.5 dB	≤ 0.4 dB	≤ 0.4 dB	≤ 0.3 dB
188...376 MHz	≤ 2.2 dB	≤ 1.4 dB	≤ 1 dB	≤ 0.6 dB	≤ 0.5 dB	≤ 0.4 dB	≤ 0.5 dB
376...752 MHz	≤ 2.3 dB	≤ 1.7 dB	≤ 1.3 dB	≤ 0.9 dB	≤ 0.6 dB	≤ 0.6 dB	≤ 0.7 dB
752...950 MHz	≤ 2.5 dB	≤ 1.9 dB	≤ 1.5 dB	≤ 1 dB	≤ 0.8 dB	≤ 0.7 dB	≤ 0.9 dB
950...1218 MHz	≤ 3.4 dB	≤ 2.4 dB	≤ 2.4 dB	≤ 1.3 dB	≤ 1.1 dB	≤ 1.1 dB	≤ 1.4 dB
Return loss							
5...94 MHz	≥ 18 dB						
94...188 MHz	≥ 16.5 dB						
188...376 MHz	≥ 15 dB						
376...752 MHz	≥ 13.5 dB						
752...1218 MHz	≥ 12 dB						
Connectors							
Connector type	F						
General							
Dimensions (W × H × D) appr.	67 × 55 × 30 mm						
Weight	0.045 kg						

Type	Part No.	Product description	GTIN	PU		
 	BAB 2-08P BAB00208P	2-way tap 8 dB 5...1218 MHz ✓ High return loss ✓ For multimedia-use ✓ Inputs and outputs hum-suppressed ✓ High intermodulation suppression ✓ Class A (+10 dB) according to EN 50083-2 ✓ Return loss and isolation according to VFKD TS 220 ✓ Vodafone Kabel Deutschland approved	7611682005714	1		
	BAB 2-10P BAB00210P	Same as BAB 2-08P, but 10 dB tap loss	7611682005721	1		
	BAB 2-12P BAB00212P	Same as BAB 2-08P, but 12 dB tap loss	7611682005738	1		
	BAB 2-16P BAB00216P	Same as BAB 2-08P, but 16 dB tap loss	7611682005745	1		
	BAB 2-20P BAB00220P	Same as BAB 2-08P, but 20 dB tap loss	7611682005752	1		
	BAB 2-24P BAB00224P	Same as BAB 2-08P, but 24 dB tap loss	7611682005769	1		
	Type	BAB 2-08P	BAB 2-10P	BAB 2-12P	BAB 2-16P	BAB 2-20P
Frequency range	5...1218 MHz					
Intermodulation ratio (EN 60728-4)	120 dB μ V					
Tap loss						
5...94 MHz	≤ 9.7 dB	≤ 10.6 dB	≤ 12.5 dB	≤ 16.9 dB	≤ 20.3 dB	≤ 23.9 dB
94...188 MHz	≤ 8.5 dB	≤ 10.4 dB	≤ 12.1 dB	≤ 16.8 dB	≤ 20.2 dB	≤ 23.9 dB
188...376 MHz	≤ 8.3 dB	≤ 10.5 dB	≤ 12.2 dB	≤ 16.8 dB	≤ 20.2 dB	≤ 24 dB
376...752 MHz	≤ 8.8 dB	≤ 10.5 dB	≤ 12.6 dB	≤ 17.3 dB	≤ 20.7 dB	≤ 24.5 dB
752...950 MHz	≤ 9 dB	≤ 10.4 dB	≤ 12.6 dB	≤ 17.3 dB	≤ 20.6 dB	≤ 24.8 dB
950...1218 MHz	≤ 9.2 dB	≤ 11.2 dB	≤ 12.9 dB	≤ 17.5 dB	≤ 21.5 dB	≤ 25 dB
Through loss						
5...94 MHz	≤ 3.6 dB	≤ 2.1 dB	≤ 1.5 dB	≤ 0.8 dB	≤ 0.7 dB	≤ 0.7 dB
94...188 MHz	≤ 3.6 dB	≤ 2 dB	≤ 1.5 dB	≤ 0.7 dB	≤ 0.6 dB	≤ 0.8 dB
188...376 MHz	≤ 3.8 dB	≤ 2.3 dB	≤ 1.7 dB	≤ 0.7 dB	≤ 0.6 dB	≤ 0.8 dB
376...752 MHz	≤ 4 dB	≤ 2.9 dB	≤ 1.9 dB	≤ 1.1 dB	≤ 1.1 dB	≤ 1 dB
752...950 MHz	≤ 4.1 dB	≤ 3.2 dB	≤ 1.9 dB	≤ 1.3 dB	≤ 1.3 dB	≤ 1.3 dB
950...1218 MHz	≤ 4.7 dB	≤ 4.4 dB	≤ 2.4 dB	≤ 1.7 dB	≤ 1.8 dB	≤ 1.7 dB
Return loss						
5...94 MHz	≥ 18 dB					
94...188 MHz	≥ 16.5 dB					
188...376 MHz	≥ 15 dB					
376...752 MHz	≥ 13.5 dB					
752...1218 MHz	≥ 12 dB					
Isolation						
Tap-tap @ 47...862 MHz	≥ 32 dB					
Tap-tap @ 862...950 MHz	≥ 30 dB					
Tap-tap @ 950...1218 MHz	≥ 20 dB					
Connectors						
Connector type	F					
General						
Dimensions (W × H × D) appr.	70 × 55 × 25 mm					
Weight	0.063 kg					



Type Part No.	Product description	GTIN	PU																																																																																																																																																																																																
 	BAB 3-10P BAB00310P 3-way tap 10 dB 5...1218 MHz ✓ High return loss ✓ For multimedia-use ✓ Inputs and outputs hum-suppressed ✓ High intermodulation suppression ✓ Class A (+10 dB) according to EN 50083-2 ✓ Return loss and isolation according to VFKD TS 220 ✓ Vodafone Kabel Deutschland approved	7611682005776	1																																																																																																																																																																																																
	BAB 3-12P BAB00312P Same as BAB 3-10P, but 12 dB tap loss	7611682005783	1																																																																																																																																																																																																
	BAB 3-16P BAB00316P Same as BAB 3-10P, but 16 dB tap loss	7611682005790	1																																																																																																																																																																																																
	BAB 3-20P BAB00320P Same as BAB 3-10P, but 20 dB tap loss	7611682005806	1																																																																																																																																																																																																
	BAB 3-24P BAB00324P Same as BAB 3-10P, but 24 dB tap loss	7611682005813	1																																																																																																																																																																																																
	<table border="1"> <thead> <tr> <th>Type</th> <th>BAB 3-10P</th> <th>BAB 3-12P</th> <th>BAB 3-16P</th> <th>BAB 3-20P</th> <th>BAB 3-24P</th> </tr> </thead> <tbody> <tr> <td>Frequency range</td> <td colspan="5">5...1218 MHz</td> </tr> <tr> <td>Intermodulation ratio (EN 60728-4)</td> <td colspan="5">120 dBμV</td> </tr> <tr> <td colspan="6">Tap loss</td> </tr> <tr> <td>5...94 MHz</td> <td>≤ 10.8 dB</td> <td>≤ 12.7 dB</td> <td>≤ 16.8 dB</td> <td>≤ 20.2 dB</td> <td>≤ 24.5 dB</td> </tr> <tr> <td>94...188 MHz</td> <td>≤ 10.8 dB</td> <td>≤ 12.7 dB</td> <td>≤ 16.8 dB</td> <td>≤ 20.2 dB</td> <td>≤ 24.5 dB</td> </tr> <tr> <td>188...376 MHz</td> <td>≤ 10.9 dB</td> <td>≤ 12.7 dB</td> <td>≤ 16.9 dB</td> <td>≤ 20.3 dB</td> <td>≤ 24.5 dB</td> </tr> <tr> <td>376...752 MHz</td> <td>≤ 10.5 dB</td> <td>≤ 12.8 dB</td> <td>≤ 17 dB</td> <td>≤ 20.6 dB</td> <td>≤ 24.6 dB</td> </tr> <tr> <td>752...950 MHz</td> <td>≤ 10.5 dB</td> <td>≤ 13.1 dB</td> <td>≤ 17 dB</td> <td>≤ 20.8 dB</td> <td>≤ 24.8 dB</td> </tr> <tr> <td>950...1218 MHz</td> <td>≤ 11.3 dB</td> <td>≤ 13.9 dB</td> <td>≤ 17.4 dB</td> <td>≤ 21.1 dB</td> <td>≤ 25.3 dB</td> </tr> <tr> <td colspan="6">Through loss</td> </tr> <tr> <td>5...94 MHz</td> <td>≤ 2.7 dB</td> <td>≤ 2.1 dB</td> <td>≤ 1.8 dB</td> <td>≤ 1.8 dB</td> <td>≤ 1.8 dB</td> </tr> <tr> <td>94...188 MHz</td> <td>≤ 2.6 dB</td> <td>≤ 2.1 dB</td> <td>≤ 1.7 dB</td> <td>≤ 1.7 dB</td> <td>≤ 1.8 dB</td> </tr> <tr> <td>188...376 MHz</td> <td>≤ 3 dB</td> <td>≤ 2.2 dB</td> <td>≤ 1.8 dB</td> <td>≤ 1.8 dB</td> <td>≤ 1.8 dB</td> </tr> <tr> <td>376...752 MHz</td> <td>≤ 3.5 dB</td> <td>≤ 2.7 dB</td> <td>≤ 2.2 dB</td> <td>≤ 2 dB</td> <td>≤ 1.9 dB</td> </tr> <tr> <td>752...950 MHz</td> <td>≤ 4.1 dB</td> <td>≤ 3.2 dB</td> <td>≤ 2.4 dB</td> <td>≤ 2.2 dB</td> <td>≤ 2 dB</td> </tr> <tr> <td>950...1218 MHz</td> <td>≤ 5.5 dB</td> <td>≤ 4.1 dB</td> <td>≤ 3.1 dB</td> <td>≤ 2.9 dB</td> <td>≤ 2.7 dB</td> </tr> <tr> <td colspan="6">Return loss</td> </tr> <tr> <td>5...94 MHz</td> <td colspan="5">≥ 18 dB</td> </tr> <tr> <td>94...188 MHz</td> <td colspan="5">≥ 16.5 dB</td> </tr> <tr> <td>188...376 MHz</td> <td colspan="5">≥ 15 dB</td> </tr> <tr> <td>376...752 MHz</td> <td colspan="5">≥ 13.5 dB</td> </tr> <tr> <td>752...1218 MHz</td> <td colspan="5">≥ 12 dB</td> </tr> <tr> <td colspan="6">Isolation</td> </tr> <tr> <td>Tap-tap @ 47...862 MHz</td> <td colspan="5">≥ 32 dB</td> </tr> <tr> <td>Tap-tap @ 862...950 MHz</td> <td colspan="5">≥ 30 dB</td> </tr> <tr> <td>Tap-tap @ 950...1218 MHz</td> <td colspan="5">≥ 20 dB</td> </tr> <tr> <td colspan="6">Connectors</td> </tr> <tr> <td>Connector type</td> <td colspan="5">F</td> </tr> <tr> <td colspan="6">General</td> </tr> <tr> <td>Dimensions (W × H × D) appr.</td> <td colspan="5">70 × 55 × 25 mm</td> </tr> <tr> <td>Weight</td> <td colspan="5">0.074 kg</td> </tr> </tbody> </table>				Type	BAB 3-10P	BAB 3-12P	BAB 3-16P	BAB 3-20P	BAB 3-24P	Frequency range	5...1218 MHz					Intermodulation ratio (EN 60728-4)	120 dB μ V					Tap loss						5...94 MHz	≤ 10.8 dB	≤ 12.7 dB	≤ 16.8 dB	≤ 20.2 dB	≤ 24.5 dB	94...188 MHz	≤ 10.8 dB	≤ 12.7 dB	≤ 16.8 dB	≤ 20.2 dB	≤ 24.5 dB	188...376 MHz	≤ 10.9 dB	≤ 12.7 dB	≤ 16.9 dB	≤ 20.3 dB	≤ 24.5 dB	376...752 MHz	≤ 10.5 dB	≤ 12.8 dB	≤ 17 dB	≤ 20.6 dB	≤ 24.6 dB	752...950 MHz	≤ 10.5 dB	≤ 13.1 dB	≤ 17 dB	≤ 20.8 dB	≤ 24.8 dB	950...1218 MHz	≤ 11.3 dB	≤ 13.9 dB	≤ 17.4 dB	≤ 21.1 dB	≤ 25.3 dB	Through loss						5...94 MHz	≤ 2.7 dB	≤ 2.1 dB	≤ 1.8 dB	≤ 1.8 dB	≤ 1.8 dB	94...188 MHz	≤ 2.6 dB	≤ 2.1 dB	≤ 1.7 dB	≤ 1.7 dB	≤ 1.8 dB	188...376 MHz	≤ 3 dB	≤ 2.2 dB	≤ 1.8 dB	≤ 1.8 dB	≤ 1.8 dB	376...752 MHz	≤ 3.5 dB	≤ 2.7 dB	≤ 2.2 dB	≤ 2 dB	≤ 1.9 dB	752...950 MHz	≤ 4.1 dB	≤ 3.2 dB	≤ 2.4 dB	≤ 2.2 dB	≤ 2 dB	950...1218 MHz	≤ 5.5 dB	≤ 4.1 dB	≤ 3.1 dB	≤ 2.9 dB	≤ 2.7 dB	Return loss						5...94 MHz	≥ 18 dB					94...188 MHz	≥ 16.5 dB					188...376 MHz	≥ 15 dB					376...752 MHz	≥ 13.5 dB					752...1218 MHz	≥ 12 dB					Isolation						Tap-tap @ 47...862 MHz	≥ 32 dB					Tap-tap @ 862...950 MHz	≥ 30 dB					Tap-tap @ 950...1218 MHz	≥ 20 dB					Connectors						Connector type	F					General						Dimensions (W × H × D) appr.	70 × 55 × 25 mm					Weight	0.074 kg			
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Type	Part No.	Product description	GTIN	PU
 	BAB 4-12P BAB00412P	4-way tap 12 dB 5...1218 MHz ✓ High return loss ✓ For multimedia-use ✓ Inputs and outputs hum-suppressed ✓ High intermodulation suppression ✓ Class A (+10 dB) according to EN 50083-2 ✓ Return loss and isolation according to VFKD TS 220 ✓ Vodafone Kabel Deutschland approved	7611682005820	1
	BAB 4-16P BAB00416P	Same as BAB 4-12P, but 16 dB tap loss	7611682005837	1
	BAB 4-20P BAB00420P	Same as BAB 4-12P, but 20 dB tap loss	7611682005844	1
	BAB 4-24P BAB00424P	Same as BAB 4-12P, but 24 dB tap loss	7611682005851	1
	Type	BAB 4-12P	BAB 4-16P	BAB 4-20P
Frequency range	5...1218 MHz			
Intermodulation ratio (EN 60728-4)	120 dB μ V	119 dB μ V	120 dB μ V	120 dB μ V
Tap loss				
5...94 MHz	≤ 12.6 dB	≤ 16.9 dB	≤ 19.8 dB	≤ 24.5 dB
94...188 MHz	≤ 12.6 dB	≤ 16.9 dB	≤ 19.8 dB	≤ 24.4 dB
188...376 MHz	≤ 12.6 dB	≤ 16.9 dB	≤ 19.8 dB	≤ 24.3 dB
376...752 MHz	≤ 12.5 dB	≤ 16.8 dB	≤ 20.2 dB	≤ 24.4 dB
752...950 MHz	≤ 12.6 dB	≤ 16.8 dB	≤ 20.4 dB	≤ 24.5 dB
950...1218 MHz	≤ 13.3 dB	≤ 17.2 dB	≤ 21.2 dB	≤ 24.9 dB
Through loss				
5...94 MHz	≤ 2.8 dB	≤ 2.0 dB	≤ 1.8 dB	≤ 1.7 dB
94...188 MHz	≤ 2.9 dB	≤ 1.9 dB	≤ 1.8 dB	≤ 1.7 dB
188...376 MHz	≤ 3 dB	≤ 2.0 dB	≤ 1.8 dB	≤ 1.8 dB
376...752 MHz	≤ 3.3 dB	≤ 2.4 dB	≤ 2.3 dB	≤ 2.2 dB
752...950 MHz	≤ 3.5 dB	≤ 2.9 dB	≤ 2.7 dB	≤ 2.8 dB
950...1218 MHz	≤ 5.1 dB	≤ 4.0 dB	≤ 3.8 dB	≤ 4.3 dB
Return loss				
5...94 MHz	≥ 18 dB			
94...188 MHz	≥ 16.5 dB			
188...376 MHz	≥ 15 dB			
376...752 MHz	≥ 13.5 dB			
752...1218 MHz	≥ 12 dB			
Isolation				
Tap-tap @ 47...862 MHz	≥ 32 dB			
Tap-tap @ 862...950 MHz	≥ 30 dB			
Tap-tap @ 950...1218 MHz	≥ 20 dB			
Connectors				
Connector type	F			
General				
Dimensions (W x H x D) appr.	67 x 55 x 30 mm			
Weight	0.063 kg			


	Type Part No.	Product description	GTIN	PU
 	BAB 4-01P BAB00401P	4-way tap 12.5...15.5 dB 5...1218 MHz ✓ High return loss ✓ For multimedia-use ✓ Inputs and outputs hum-suppressed ✓ High intermodulation suppression ✓ Class A (+10 dB) according to EN 50083-2 ✓ Return loss and isolation according to VFKD TS 220 ✓ Vodafone Kabel Deutschland approved	7611682005929	1
	BAB 6-01P BAB00601P	Same as BAB 4-01P, but 6-way tap, 12.5 ... 17.5 dB tap loss	7611682005936	1
	BAB 8-01P BAB00801P	Same as BAB 4-01P, but 8-way tap, 12.5...19.5 dB tap loss	7611682005943	1
Type	BAB 4-01P	BAB 6-01P	BAB 8-01P	
Frequency range		5...1218 MHz		
Intermodulation ratio (EN 60728-4)	120 dB μ V	119 dB μ V	119 dB μ V	
Taps	4	6	8	
Tap loss				
Tap 1		12.5 \pm 1 dB		
Tap 2		13.5 \pm 1 dB		
Tap 3		14.5 \pm 1 dB		
Tap 4	15.5 \pm 1dB	15.5 \pm 1 dB	15.5 \pm 1 dB	
Tap 5	-	16.5 \pm 1 dB	16.5 \pm 1 dB	
Tap 6	-	17.5 \pm 1 dB	17.5 \pm 1 dB	
Tap 7	-	-	18.5 \pm 1 dB	
Tap 8	-	-	19.5 \pm 1 dB	
Through loss				
5...94 MHz	\leq 4 dB	\leq 5.8 dB	\leq 8.2 dB	
94...188 MHz	\leq 3.4 dB	\leq 4.8 dB	\leq 7 dB	
188...376 MHz	\leq 3.5 dB	\leq 4.9 dB	\leq 7 dB	
376...752 MHz	\leq 4 dB	\leq 5.8 dB	\leq 7.8 dB	
752...950 MHz	\leq 4.3 dB	\leq 6.5 dB	\leq 8.5 dB	
950...1218 MHz	\leq 5 dB	\leq 7.7 dB	\leq 9.9 dB	
Return loss				
5...94 MHz		\geq 18 dB		
94...188 MHz		\geq 16.5 dB		
188...376 MHz		\geq 15 dB		
376...752 MHz		\geq 13.5 dB		
752...1218 MHz		\geq 12 dB		
Isolation				
Tap-tap @ 47...862 MHz		\geq 32 dB		
Tap-tap @ 862...950 MHz		\geq 30 dB		
Tap-tap @ 950...1218 MHz		\geq 20 dB		
Connectors				
Connector type		F		
General				
Dimensions (W x H x D) appr.	93 x 54 x 39 mm	93 x 54 x 39 mm	115 x 54 x 39 mm	
Weight	0.172 kg	0.178 kg	0.224 kg	

Type	Part No.	Product description	GTIN	PU
 	BAB 4-02P BAB00402P	4-way terminal taps 13.0...14.5 dB 5...1218 MHz ✓ High return loss ✓ For multimedia-use ✓ Inputs hum-suppressed ✓ High intermodulation suppression ✓ Screening factor Class A +10 dB, according to EN 50083-2 ✓ Return loss and isolation according to VFKD TS 220 ✓ Vodafone Kabel Deutschland approved	7611682006339	1
	BAB 6-02P BAB00602P	Same as BAB 4-02P, but 6-way tap, 13.0...15.5 dB tap loss	7611682006346	1
	BAB 8-02P BAB00802P	Same as BAB 4-02P, but 8-way tap, 13.0...16.5 dB tap loss	7611682006353	1
Type				
	BAB 4-02P	BAB 6-02P	BAB 8-02P	
Frequency range				
		5...1218 MHz		
Intermodulation ratio (EN 60728-4)				
		120 dB μ V		
Taps				
	4	6	8	
Tap loss				
Tap 1				
		13.0 \pm 2.5 dB		
Tap 2				
		13.0 \pm 2.5 dB		
Tap 3				
	14.5 \pm 2.5 dB	14.5 \pm 2.5 dB	14.0 \pm 2.5 dB	
Tap 4				
	14.5 \pm 2.5 dB	14.5 \pm 2.5 dB	14.0 \pm 2.5 dB	
Tap 5				
	-	15.5 \pm 2.5 dB	15.5 \pm 2.5 dB	
Tap 6				
	-	15.5 \pm 2.5 dB	15.5 \pm 2.5 dB	
Tap 7				
	-	-	16.5 \pm 2.5 dB	
Tap 8				
	-	-	16.5 \pm 2.5 dB	
Return loss				
5...40 MHz				
		\geq 18 dB		
40...470 MHz				
		\geq 18 dB		
470...862 MHz				
		\geq 16 dB		
862...1006 MHz				
		\geq 14 dB		
1006...1300 MHz				
		\geq 14 dB		
Isolation				
Tap-tap @ 5...40 MHz				
		\geq 30 dB		
Tap-tap @ 40...470 MHz				
		\geq 32 dB		
Tap-tap @ 470...862 MHz				
		\geq 30 dB		
Tap-tap @ 862...1006 MHz				
		\geq 30 dB		
Tap-tap @ 1006...1300 MHz				
		\geq 25 dB		
Connectors				
Connector type				
		F		
General				
Dimensions (W x H x D) appr.				
	93 x 54 x 39 mm	93 x 54 x 39 mm	115 x 54 x 39 mm	
Weight				
	0.167 kg	0.175 kg	0.220 kg	

Taps CATV | premium-line

 	BAB 12-02 BAB01202	12-way tap 5...1006 MHz terminal type ✓ 13...21 dB tap loss ✓ High return loss ✓ For multimedia-use ✓ Inputs and outputs hum-suppressed	7611682250121	1
	BAB 16-02 BAB01602	Same as BAB 12-02, but 16-way tap, with 13...25 dB tap loss	7611682250169	1
Type				
	BAB 12-02	BAB 16-02		
General				
Weight				
	0.542 kg	0.586 kg		



	Type Part No.	Product description	GTIN	PU		
Taps CATV basic-line						
 	BAB 10-08 BAB01008	1-way tap 8 dB 5...1006 MHz ✓ High return loss ✓ For multimedia-use ✓ Inputs and outputs hum-suppressed	7611682000962	1		
	BAB 10-10 BAB01010	Same as BAB 10-08, but 10 dB tap loss	7611682000979	1		
	BAB 10-12 BAB01012	Same as BAB 10-08, but 12 dB tap loss	7611682251005	1		
	BAB 10-16 BAB01016	Same as BAB 10-08, but 16 dB tap loss	7611682000993	1		
	BAB 10-18 BAB01018	Same as BAB 10-08, but 18 dB tap loss	7611682001006	1		
	BAB 10-20 BAB01020	Same as BAB 10-08, but 20 dB tap loss	7611682001013	1		
Type	BAB 10-08	BAB 10-10	BAB 10-12	BAB 10-16	BAB 10-18	BAB 10-20
Screening factor acc. to EN 50083-2	> 90 dB					
Frequency range	5...1006 MHz	5...1006 MHz	5...1006 MHz	5...1006 MHz	5...1006 MHz	5...1006 MHz
Tap loss	8 ±1 dB	10 ±1 dB	12 ±1 dB	16 ±1 dB	18 ±1 dB	20 ±1 dB
Through loss						
5...40 MHz	≤ 2.0 dB	≤ 1.2 dB	≤ 1.0 dB	≤ 0.8 dB	≤ 0.8 dB	≤ 0.8 dB
40...470 MHz	≤ 2.0 dB	≤ 1.2 dB	≤ 1.0 dB	≤ 1.0 dB	≤ 1.0 dB	≤ 0.8 dB
470...862 MHz	≤ 2.5 dB	≤ 1.5 dB	≤ 1.2 dB	≤ 1.0 dB	≤ 1.2 dB	≤ 1.0 dB
862...1006 MHz	≤ 2.5 dB	≤ 1.6 dB	≤ 1.4 dB	≤ 1.2 dB	≤ 1.5 dB	≤ 1.4 dB
Connectors						
Connector type	F					
Return loss	≥ 20 dB					
General						
Dimensions (W × H × D) appr.	42 × 52 × 17 mm					
Weight	0.058 kg					



	Type Part No.	Product description	GTIN	PU			
	BAB 20-08 BAB02008	2-way tap 8 dB 5...1006 MHz ✓ High return loss ✓ For multimedia-use ✓ Inputs and outputs hum-suppressed	7611682001020	1			
	BAB 20-10 BAB02010	Same as BAB 20-08, but 10 dB tap loss	7611682001037	1			
	BAB 20-12 BAB02012	Same as BAB 20-08, but 12 dB tap loss	7611682250206	1			
	BAB 20-14 BAB02014	Same as BAB 20-08, but 14 dB tap loss	7611682001044	1			
	BAB 20-16 BAB02016	Same as BAB 20-08, but 16 dB tap loss	7611682001051	1			
	BAB 20-18 BAB02018	Same as BAB 20-08, but 18 dB tap loss	7611682001068	1			
	BAB 20-20 BAB02020	Same as BAB 20-08, but 20 dB tap loss	7611682001075	1			
	Type	BAB 20-08	BAB 20-10	BAB 20-12	BAB 20-14	BAB 20-16	BAB 20-18
Screening factor acc. to EN 50083-2	> 90 dB						
Frequency range	5...1006 MHz	5...1006 MHz	5...1006 MHz	5...1006 MHz	5...1006 MHz	5...1006 MHz	5...1006 MHz
Tap loss	8 ±1 dB	10 ±1 dB	12 ±1 dB	14 ±1 dB	16 ±1 dB	18 ±1 dB	20 ±1 dB
Through loss							
5...40 MHz	≤ 4 dB	≤ 2.8 dB	≤ 1.5 dB	≤ 1.3 dB	≤ 1.2 dB	≤ 1.0 dB	≤ 0.8 dB
40...470 MHz	≤ 4 dB	≤ 2.8 dB	≤ 1.5 dB	≤ 1.4 dB	≤ 1.2 dB	≤ 1.0 dB	≤ 0.8 dB
470...862 MHz	≤ 4.5 dB	≤ 3.2 dB	≤ 1.8 dB	≤ 1.7 dB	≤ 1.7 dB	≤ 1.0 dB	≤ 1.0 dB
862...1006 MHz	≤ 5 dB	≤ 3.2 dB	≤ 2.5 dB	≤ 1.9 dB	≤ 1.5 dB	≤ 1.2 dB	≤ 1.3 dB
Connectors							
Connector type	F						
Return loss	≥ 18	≥ 19	≥ 17	≥ 17	≥ 21	≥ 19	≥ 17
General							
Dimensions (W × H × D) appr.	89 × 55 × 30 mm						
Weight	0.079 kg						



Type	Part No.	Product description	GTIN	PU
Splitters/Taps CATV Outdoor				
	BVE 202-00 BVE20200	2-way splitter 5...1006 MHz outdoor ✓ Distribution method transformer ✓ DC/AC suitable with max. 65V~/10A ✓ 5/8" connectors ✓ Al die-cast housing with wall mounting bow ✓ Protection class IP 55	7611682242027	1
	BVE 203-00 BVE20300	Same as BVE 202-00, but 3-way splitter	7611682242034	1
	BAB 201-08 BAB20108	1-way tap 8 dB 5...1006 MHz outdoor ✓ Tap method - directional coupler ✓ Trunk and tap DC/AC suitable with max. 65V~/10 A ✓ 5/8" Connectors ✓ Al die-cast housing with wall mounting bow ✓ Protection class IP 55	7611682259087	1
	BAB 201-12 BAB20112	Same as BAB 201-08, but 12 dB tap loss	7611682259124	1
	BAB 201-16 BAB20116	Same as BAB 201-08, but 16 dB tap loss	7611682259162	1
	BAB 202-08 BAB20208	2-way tap 8 dB 5...1006 MHz outdoor ✓ Tap method - directional coupler ✓ Trunk and tap DC/AC suitable with max. 65V~/10 A ✓ 5/8" Connectors ✓ Al die-cast housing with wall mounting bow ✓ Protection class IP 55	7611682258080	1
	BAB 202-12 BAB20212	Same as BAB 202-08, but 12 dB tap loss	7611682258127	1
	BAB 202-16 BAB20216	Same as BAB 202-08, but 16 dB tap loss	7611682258165	1
	BWE 200-00 BWE20000	AC remote feed diplexer outdoor ✓ 5/8" Connectors ✓ Max. power feeding current 65V~/10 A ✓ Al die-cast housing with wall mounting bow ✓ Protection class IP 55	7611682082005	1

Type	BVE 202-00	BVE 203-00	BAB 201-08	BAB 201-12	BAB 201-16	BAB 202-08	BAB 202-12	BAB 202-16	BWE 200-00
Screening factor acc. to EN 50083-2	> 90 dB								
Frequency range	5...1006 MHz								
Tap loss	-	-	8 ±1 dB	12 ±1 dB	16 ±1 dB	8 ±1.5 dB	12 ±1 dB	16 ±1 dB	-
Splitting	2-way	3-way	-	-	-	-	-	-	-
Isolation	≥ 25 dB	≥ 25 dB	≥ 25 dB	≥ 25 dB	≥ 25 dB	≥ 25 dB	≥ 25 dB	≥ 25 dB	-
Distribution loss									
5...40 MHz	≤ 3.5 dB	≤ 7.0 dB	-	-	-	-	-	-	-
40...470 MHz	≤ 3.8 dB	≤ 7.5 dB	-	-	-	-	-	-	-
470...862 MHz	≤ 4.1 dB	≤ 8.0 dB	-	-	-	-	-	-	-
862...1006 MHz	≤ 4.5 dB	≤ 8.2 dB	-	-	-	-	-	-	-
Through loss									
5...40 MHz	-	-	≤ 2.0 dB	≤ 1.0 dB	≤ 1.2 dB	≤ 3.5 dB	≤ 2.0dB	≤ 1.3dB	< 1dB
40...470 MHz	-	-	≤ 2.3 dB	≤ 1.0 dB	≤ 1.5 dB	≤ 3.8 dB	≤ 2.3 dB	≤ 1.4 dB	-
470...862 MHz	-	-	≤ 2.8 dB	≤ 1.3dB	≤ 1.8 dB	≤ 4.2 dB	≤ 2.8 dB	≤ 1.7 dB	< 1dB
862...1006 MHz	-	-	≤ 3.1 dB	≤ 1.6 dB	≤ 2.0 dB	≤ 4.3 dB	≤ 3.1 dB	≤ 1.9 dB	< 1dB
Connectors									
Connector type	5/8"								
Return loss	≥ 20 dB	≥ 20 dB	≥ 20 dB	≥ 20 dB	≥ 20 dB	≥ 18 dB	≥ 18 dB	≥ 18 dB	-
General									
Dimensions (W × H × D) appr.	140 × 120 × 80 mm								
Weight	0.727 kg	0.727 kg	0.719 kg	0.719 kg	0.719 kg	0.737 kg	0.737 kg	0.737 kg	0.725 kg
Protection class	IP 55								



	Type Part No.	Product description	GTIN	PU
Splitters SAT				
 	SVE 20-01 SVE02001	2-way SAT splitter 5...2400 MHz ✓ DC-isolated with diodes ✓ DC power pass ✓ Suitable for single cable	7611682260205	1
	SVE 30-01 SVE03001	Same as SVE 20-01, but 3-way SAT splitter	7611682260304	1
	SVE 40-01 SVE04001	Same as SVE 20-01, but 4-way SAT splitter	7611682260403	1
	SVE 60-01 SVE06001	Same as SVE 20-01, but 6-way SAT splitter	7611682002874	1
Type	SVE 20-01	SVE 30-01	SVE 40-01	SVE 60-01
Frequency range	5...2400 MHz			
DC power pass	yes			
Splitting	2-way	3-way	4-way	6-way
Isolation	≥ 18 dB	≥ 18 dB	≥ 18 dB	≥ 18 dB
Distribution				
Distribution loss	≤ 8.0 dB	≤ 12 dB	≤ 14 dB	≤ 16 dB
Connectors				
Connector type	F	F	F	F
General				
Dimensions (W × H × D) appr.	52 x 52 x 17 mm	77 x 52 x 17 mm	77 x 52 x 17 mm	120 x 78 x 30 mm
Weight	0.058 kg	0.083 kg	0.085 kg	0.152 kg

	Type Part No.	Product description	GTIN	PU
Taps SAT				
 	SAB 1-12 SAB00112	1-way SAT tap 12 dB 5...2400 MHz ✓ DC power pass on trunk ✓ With detachable mounting brackets ✓ Connectors gold-plated	7611682271126	1
	SAB 1-16 SAB00116	Same as SAB 1-12, but 16 dB tap loss	7611682271164	1
	SAB 1-20 SAB00120	Same as SAB 1-12, but 20 dB tap loss	7611682271201	1
	Technical Specifications			
Type	SAB 1-12	SAB 1-16	SAB 1-20	
Screening factor acc. to EN 50083-2		> 90 dB		
Frequency range		5...2400 MHz		
DC power pass		yes		
Tap loss				
5...862 MHz	≤ 13.0 dB	≤ 16 dB	≤ 20 dB	
Isolation				
950...1750 MHz	-	-	-	
1750...2400 MHz	≤ 13.0 dB	≤ 19 dB	≤ 23.5 dB	
Through loss				
5...862 MHz	< 1.1 dB	< 0.5 dB	< 0.5 dB	
950...1750 MHz	< 1.1 dB	< 0.7 dB	< 0.7 dB	
1750...2400 MHz	< 2.0 dB	< 2.0 dB	< 2.3 dB	
Directivity				
5...862 MHz	≥ 30 dB	≥ 30 dB	≥ 40 dB	
950...1750 MHz	≥ 25 dB	≥ 30 dB	≥ 40 dB	
1750...2400 MHz	≥ 25 dB	≥ 20 dB	≥ 30 dB	
Return loss				
Taps @ 5...862 MHz	≥ 15 dB	≥ 20 dB	≥ 15 dB	
Input @ 5...862 MHz		≥ 20 dB		
Taps @ 950...1750 MHz	≥ 15 dB	≥ 15 dB	≥ 18 dB	
Input @ 950...1750 MHz		≥ 20 dB		
Taps @ 1750...2400 MHz	≥ 15 dB	≥ 15 dB	≥ 18 dB	
Input @ 1750...2400 MHz		≥ 15 dB		
Output @ 5...862 MHz		≥ 20 dB		
Output @ 950...1750 MHz		≥ 20 dB		
Output @ 1750...2400 MHz	≥ 20 dB	≥ 15 dB	≥ 15 dB	
Connectors				
Connector type		F		
General				
Dimensions (W × H × D) appr.		67 × 55 × 33 mm		
Weight		0.069 kg		

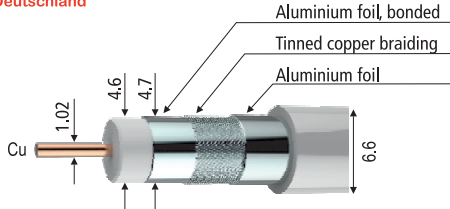
	Type Part No.	Product description	GTIN	PU
 	SAB 2-12 SAB00212	2-way SAT tap 12 dB 5...2400 MHz ✓ DC power pass on trunk ✓ With detachable mounting brackets ✓ Connectors gold-plated	7611682272123	1
	SAB 4-16 SAB00416	4-way SAT tap 16 dB 5...2400 MHz ✓ DC power pass on trunk ✓ Connectors gold-plated	7611682274165	1
Type	SAB 2-12		SAB 4-16	
Screening factor acc. to EN 50083-2			> 90 dB	
Frequency range			5...2400 MHz	
DC power pass			yes	
Tap loss				
5...862 MHz	12±1 dB		16 ±1.5 dB	
Isolation				
950...1750 MHz	≥ 25 dB		≥ 22 dB	
1750...2400 MHz	12±1 dB		16 ±1.5 dB	
Through loss				
5...862 MHz	< 2.2 dB		< 3.5 dB	
950...1750 MHz			< 2.5 dB	
1750...2400 MHz	< 5.0 dB		< 6.0 dB	
Directivity				
5...862 MHz	> 15 dB		≥ 35 dB	
950...1750 MHz	> 15 dB		≥ 30 dB	
1750...2400 MHz	> 18 dB		≥ 22 dB	
Return loss				
Taps @ 5...862 MHz	≥ 15 dB		≥ 12 dB	
Input @ 5...862 MHz	≥ 20 dB		≥ 15 dB	
Taps @ 950...1750 MHz			≥ 10 dB	
Input @ 950...1750 MHz	≥ 20 dB		≥ 15 dB	
Taps @ 1750...2400 MHz	≥ 15 dB		≥ 10 dB	
Input @ 1750...2400 MHz	≥ 14 dB		≥ 12 dB	
Output @ 5...862 MHz	≥ 15 dB		≥ 12 dB	
Output @ 950...1750 MHz	≥ 15 dB		≥ 12 dB	
Output @ 1750...2400 MHz	≥ 15 dB		≥ 12 dB	
Isolation				
5...862 MHz	≥ 25 dB		≥ 22 dB	
950...1750 MHz	≥ 25 dB		≥ 22 dB	
Tap loss				
1750...2400 MHz	≥ 22 dB		≥ 16 dB	
Connectors				
Connector type	F			
General				
Dimensions (W × H × D) appr.	89 × 55 × 30 mm		93 × 65 × 18 mm	
Weight	0.097 kg		0.112 kg	

Type Part No.	Product description	GTIN	PU
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Coaxial cable

premium-line

Vodafone
Kabel
Deutschland

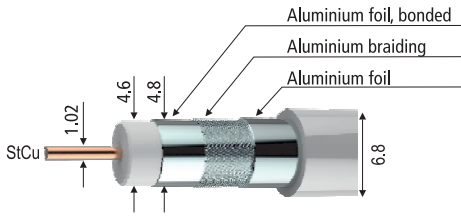


KLASSE
A
+10 dB
CLASS

SKB 94-01 SKB09401	Coaxial cable 3-way shielded Vodafone Kabel Deutschland approved 100 m ✓ For SAT or CATV indoor installation ✓ According to KDG 1 TS 153 ✓ Class A+ according to EN 50117-2-4 ✓ Fire behavior Eca acc. to EN 50575 ✓ Inner conductor Cu, diameter 1.02 mm ✓ Physically-foamed dielectric, diameter 4.6 mm ✓ Screening alum. foil, bonded/tinned copper braiding/alum. foil ✓ Jacket PVC, white ✓ UV resistant ✓ Degressive metering ✓ 100 m on a cardboard spool	7611682004021	4
SKB 94-03 SKB09403	Same as SKB 94-01, but 500 m on wooden drum	7611682004038	1
SKB 94-04 SKB09404	Same as SKB 94-01, but 250 m in a opti-box	7611682004045	2

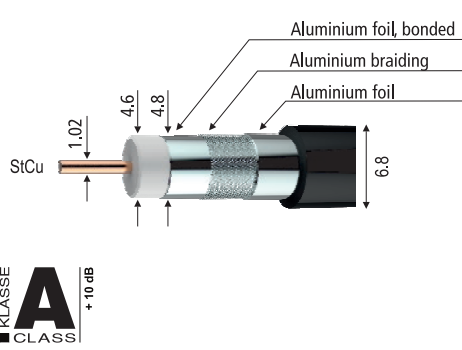
Type	SKB 94-01	SKB 94-03	SKB 94-04
Electrical data			
Impedance		75 Ω	
Attenuation		8.7 dB / 100 m @ 200 MHz 18.4 dB / 100 m @ 800 MHz 33.2 dB / 100 m @ 2400 MHz	
Screening factor		≥110 dB @ 30...1000 MHz ≥110 dB @ 1000...2000 MHz ≥110 dB @ 2000...3000 MHz	
Coupling resistance		<1.5 mOhm/m	
Mechanical data			
Inner conductor material diameter	Cu 1.02 mm	Cu 1.02 mm	Cu 1.02 mm
Dielectric diameter		4.60 mm	
Dielectric diameter, incl. bonded foil		4.70 mm	
Braiding opt. coverage		120 x 0.1 mm 65%	
Jacket material diameter		PVC 6.60 mm	
Bending radius single multiple		24 mm 68 mm	
General			
Application temperature range		-5...+50°C	
Operating temperature range		-20...+75°C	
Fire behavior		Eca	
Weight	4.500 kg	23.900 kg	11.490 kg

Type Part No.	Product description	GTIN	PU
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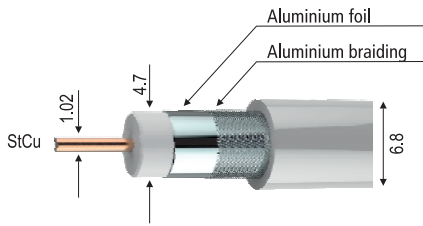
SKB 395-01 SKB39501	Coaxial cable 3-way shielded 100 m ✓ For SAT or CATV indoor installation ✓ Class A+ according to EN 50117-2-4 ✓ Fire behavior Eca acc. to EN 50575 ✓ Inner conductor StCu, diameter 1.02 mm ✓ Physically-foamed dielectric, diameter 4.6 mm ✓ Screening alum. foil, bonded/alum. braiding/alum. foil ✓ Jacket PVC, white ✓ UV resistant ✓ Degressive metering ✓ 100 m on a cardboard spool	7611682113952	4
SKB 395-03 SKB39503	Same as SKB 395-01, but 500 m on wooden drum	7611682113969	1
SKB 395-04 SKB39504	Same as SKB 395-01, but 250 m in a opti-box	7611682113976	2

Type	SKB 395-01	SKB 395-03	SKB 395-04
Electrical data			
Impedance	75 Ω		
Attenuation	8.7 dB / 100 m @ 200 MHz 18.0 dB / 100 m @ 800 MHz 32.9 dB / 100 m @ 2400 MHz		
Screening factor	>100 dB @ 30...1000 MHz >100 dB @ 1000...2000 MHz >100 dB @ 2000...3000 MHz		
Coupling resistance	<2.5mOhm/m		
Mechanical data			
Inner conductor material diameter	StCu 1.02 mm		
Dielectric diameter	4.6 m		
Braiding opt. coverage	80 x 0.12 mm 55%		
Jacket material diameter	PVC 6.8 mm		
Bending radius single multiple	24 mm 68 mm		
General			
Application temperature range	-5...+50°C		
Operating temperature range	-20...+75°C		
Fire behavior	Eca		
Weight	3.805 kg	22.900 kg	10.660 kg

Type	Part No.	Product description	GTIN	PU
	SKB 395-11 SKB39511	Coaxial cable 3-way shielded 100 m ✓ For SAT or CATV indoor installation ✓ Class A+ according to EN 50117-2-4 ✓ Fire behavior Eca acc. to EN 50575 ✓ Inner conductor StCu, diameter 1.02 mm ✓ Physically-foamed dielectric, diameter 4.6 mm ✓ Screening alum. foil, bonded/alum. braiding/alum. foil ✓ Jacket PE, black ✓ UV resistant ✓ Degressive metering ✓ 100 m on a cardboard spool	7611682001648	4
	SKB 395-13 SKB39513	Same as SKB 395-11, but 500 m on wooden drum	7611682002522	1
	SKB 395-14 SKB39514	Same as SKB 395-11, but 250 m in a opti-box	7611682002539	2
	Type	SKB 395-11	SKB 395-13	SKB 395-14
Electrical data				
Impedance	75 Ω			
Attenuation	8.7 dB / 100 m @ 200 MHz 18.0 dB / 100 m @ 800 MHz 32.9 dB / 100 m @ 2400 MHz			
Screening factor	>100 dB @ 30...1000 MHz >100 dB @ 1000...2000 MHz >100 dB @ 2000...3000 MHz			
Coupling resistance	<2.5mOhm/m			
Mechanical data				
Inner conductor material diameter	StCu 1.02 mm			
Dielectric diameter	4.6 mm			
Braiding opt. coverage	80 x 0.12 mm 55%			
Jacket material diameter	PE 6.8 mm			
Bending radius single multiple	24 mm 68 mm			
General				
Application temperature range	-5...+50°C			
Operating temperature range	-20...+75°C			
Fire behavior	Eca			
Weight	3.235 kg	15.860 kg	8.360 kg	

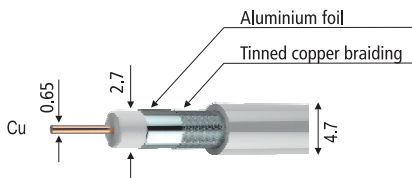
Type Part No. Product description GTIN PU

basic-line



SKB 88-01 SKB08801	Coaxial cable 2-way shielded 100 m <ul style="list-style-type: none"> ✓ For SAT or CATV indoor installation ✓ Fire behavior Eca acc. to EN 50575 ✓ Inner conductor StCu, diameter 1.02 mm ✓ Physically-foamed dielectric, diameter 4.7 mm ✓ Screening alum. foil/alum. braiding ✓ Jacket PVC, white ✓ Degressive metering ✓ 100 m on a cardboard spool 	7611682000054	4
SKB 88-03 SKB08803	Same as SKB 88-01, but 500 m on wooden drum	7611682000061	1
SKB 88-04 SKB08804	Same as SKB 88-01, but 250 m in a opti-box	7611682118742	2

Type	SKB 88-01	SKB 88-03	SKB 88-04
Electrical data			
Impedance	75 Ω		
Attenuation	8.4 dB / 100 m @ 200 MHz 17.8 dB / 100 m @ 800 MHz 32.1 dB / 100 m @ 2400 MHz		
Screening factor	> 85 dB @ 30...1000 MHz > 80 dB @ 1000...2000 MHz > 80 dB @ 2000...3000 MHz		
Coupling resistance	<16mOhm/m		
Mechanical data			
Inner conductor material diameter	StCu 1.02 mm		
Dielectric diameter	4.7 mm		
Braiding opt. coverage	64 x 0.12 mm 45%		
Jacket material diameter	PVC 6.8 mm		
Bending radius single multiple	24 mm 68 mm		
General			
Application temperature range	-5...+50°C		
Operating temperature range	-20...+75°C		
Fire behavior	Eca		
Weight	3.685 kg	19.340 kg	9.675 kg



SKB 75-01 SKB07501	Mini coaxial cable 100 m <ul style="list-style-type: none"> ✓ For SAT or CATV indoor installation ✓ Fire behavior Eca acc. to EN 50575 ✓ Inner conductor Cu, diameter 0.65 mm ✓ Physically-foamed dielectric, diameter 2.7 mm ✓ Screening alum. foil and tinned copper braiding ✓ Jacket PVC, white ✓ Degressive metering ✓ 100 m on a cardboard spool 	7611682110753	8
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Type	SKB 75-01
Electrical data	
Impedance	75 Ω
Attenuation	14.9 dB / 100 m @ 200 MHz 30.3 dB / 100 m @ 800 MHz 53.4 dB / 100 m @ 2400 MHz
Screening factor	>90 dB @ 30...1000 MHz >85 dB @ 1000...2000 MHz >80 dB @ 2000...3000 MHz
Coupling resistance	<20mOhm/m
Mechanical data	
Inner conductor material diameter	Cu 0.65 mm
Dielectric diameter	2.7 mm
Braiding opt. coverage	80 x 0.1 mm 70%
Jacket material diameter	PVC 4.7 mm
Bending radius single multiple	14 mm 46 mm
General	
Application temperature range	-5...+50°C
Operating temperature range	-20...+75°C
Fire behavior	Eca
Weight	2.333 kg

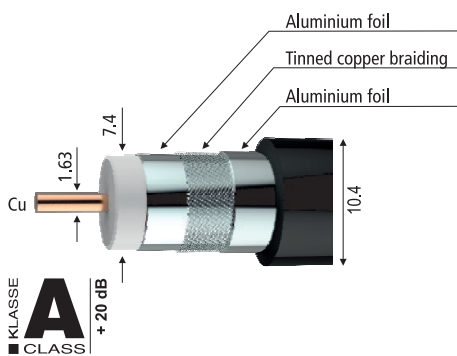
Type
Part No.

Product description

GTIN

PU

Underground cable



SKB 11-13
SKB01113

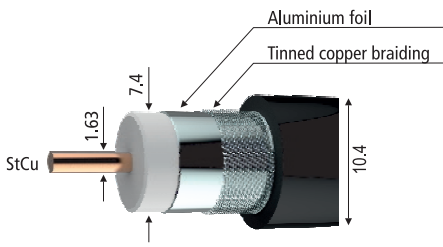
RG11 Coaxial cable CATV | SAT | 300 m

7611682007756 1

- ✓ 3-way shielded
- ✓ Class A++ according to EN 50117-2-3
- ✓ Screening factor ≥ 105 dB @ 30...1000 MHz
- ✓ Coupling resistance ≤ 0.9 m Ω /m @ 5...30 MHz
- ✓ Inner conductor made of solid copper, diameter 1.63 mm
- ✓ Physically-foamed dielectric, diameter 7.4 mm
- ✓ Screening alum. foil, tinned copper braiding, alum. foil
- ✓ Jacket PE, black
- ✓ UV resistant
- ✓ Degressive metering
- ✓ Fire behavior Fca acc. to EN 50575
- ✓ Suitable for underground installation in a ductwork for cables
- ✓ 300 m on wooden drum
- ✓ Compression plug, compression tool and stripping tool available on request.

Type	SKB 11-13
Electrical data	
Impedance	75 Ohm
Attenuation	5.4 dB / 100 m @ 200 MHz 13.5 dB / 100 m @ 1000 MHz 22.0 dB / 100 m @ 2400 MHz
Screening factor	>105 dB @ 30...1000 MHz >95 dB @ 1000...2000 MHz >85 dB @ 2000...3000 MHz
Coupling resistance	<0.9 m Ω /m @ 5...30 MHz
Mechanical data	
Inner conductor material diameter	Cu 1.63 mm
Dielectric diameter	7.3 mm
Braiding opt. coverage	144 x 0.15 mm 85%
Jacket material diameter	PE 10.3 mm
Bending radius single multiple	36 100 mm
General	
Application temperature range	-5...+50°C
Operating temperature range	-40° C ... +85° C
Fire behavior	Fca

Type	Part No.	Product description	GTIN	PU
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SKB 11-03 SKB01103	RG11 Coaxial cable CATV SAT 300 m ✓ Suitable for underground installation in a ductwork for cables ✓ Fire behavior Fca acc. to EN 50575 ✓ Inner conductor StCu, diameter 1.63 mm ✓ Physically-foamed dielectric, diameter 7.4 mm ✓ Screening alum. foil and tinned copper braiding ✓ Jacket PE, black ✓ UV resistant ✓ Degressive metering ✓ 300 m on wooden drum	7611682110128	1
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Type	SKB 11-03
Electrical data	
Impedance	75 Ω
Attenuation	5.3 dB / 100 m @ 200 MHz 11.4 dB / 100 m @ 800 MHz 20.8 dB / 100 m @ 2400 MHz
Screening factor	>90 dB @ 30...1000 MHz >85 dB @ 1000...2000 MHz >80 dB @ 2000...3000 MHz
Mechanical data	
Inner conductor material diameter	StCu 1.63 mm
Dielectric diameter	7.4 mm
Braiding opt. coverage	96 x 0.15 mm 60%
Jacket material diameter	PE 10.4 mm
Bending radius single multiple	38 mm 100 mm
General	
Application temperature range	-5...+50°C
Operating temperature range	-20...+75°C
Fire behavior	Fca
Weight	22.960 kg


Accessories





SZU 11-01 SZU01101	Water protection sleeve ✓ Neopren for coaxial cable SKB 88-xx, 395-xx, 94-xx ✓ UV-resistant	7611682160116	100
TZU 20-01 TZU02001	Carrying strap ✓ Carrying strap for opti-box ✓ Length adjustable	7611682080216	1
SKA 1-00 SKA00100	Cable dispenser ✓ For all AXING SKB xxx-01 100 m. spools (except SKB 11-01) ✓ Integrated rollbrake ✓ Easy, tool-free exchange of coaxial cable reels	7611682003871	1

Type	SZU 11-01	TZU 20-01	SKA 1-00
General			
Weight	0.003 kg	0.630 kg	1.850 kg

		Type Part No.	Product description	GTIN	PU
Coaxial connectors					
Compression premium-line					
		CKS 7-48 CKS00748	IEC male compression ✓ NITIN coated (anti-allergie) ✓ To mount with compression tool BWZ 8-00 ✓ For coaxial cable with diameter of dielectricum 4.9 mm (SKB 94-xx/SKB 395-xx/SKB 88-xx)	7611682003482	100
		CKS 7-51 CKS00751	Same as CKS 7-48, but for coaxial cable with diameter of dielectricum 5.1 mm	7611682003499	100
Type		CKS 7-48		CKS 7-51	
Electrical data					
Impedance		75 Ω			
General					
Weight		0.009 kg			
		CKK 7-48 CKK00748	IEC female compression ✓ NITIN coated (anti-allergie) ✓ To mount with compression tool BWZ 8-00 ✓ For coaxial cable with diameter of dielectricum 4.9 mm (SKB 94-xx/SKB 395-xx/SKB 88-x)	7611682003505	50
		CKK 7-51 CKK00751	Same as CKK 7-48, but for coaxial cable with diameter of dielectricum 5.1 mm	7611682003512	50
Type		CKK 7-48		CKK 7-51	
Electrical data					
Impedance		75 Ω			
General					
Weight		0.009 kg			
		CFS 97-48 CFS09748	F male compression ✓ NITIN coated (anti-allergie) ✓ To mount with Compression tool BWZ 7-00 ✓ For coaxial cable with diameter of dielectricum 4.9 mm (SKB 94-xx/SKB 395-xx/SKB 88-x)	7611682001655	50
		Type		CFS 97-48	
Screening factor acc. to EN 50083-2		> 100 dB			
Electrical data					
Impedance		75 Ω			
Mechanical data					
Width across flats		11 mm			
General					
Weight		0.007 kg			
		CFS 99-48 CFS09948	F male compression Quickfix ✓ Axial ✓ NITIN coated (anti-allergie) ✓ To mount with Compression tool BWZ 8-00 ✓ For coaxial cable with diameter of dielectricum 4.9 mm (SKB 94-xx/SKB 395-xx/SKB 88-x)	7611682002089	50
		CFS 99-51 CFS09951	Same as CFS 99-48, but for coaxial cable with diameter of dielectricum 5.1 mm	7611682002096	50
		CFS 100-48 CFS10048	Same as CFS 99-48, but right-angled	7611682002102	50
		CFS 100-51 CFS10051	Same as CFS 99-51, but right-angled	7611682002119	50
Type		CFS 99-48	CFS 99-51	CFS 100-48	CFS 100-51
Screening factor acc. to EN 50083-2		> 100 dB	> 100 dB	> 100 dB	> 100 dB
Electrical data					
Impedance		75 Ω			
General					
Weight		0.007 kg	0.009 kg	0.017 kg	0.017 kg



Type	Part No.	Product description	GTIN	PU
	BZU 60-00 BZU06000	Assortment box compression connectors, empty ✓ Empty assorting box for AXING compression connectors	7611682002133	1
	BZU 60-01 BZU06001	Assortment box compression connectors standard ✓ 1 x BWZ 7-00 ✓ 1 x BWZ 5-02 ✓ 100 x CFS 97-48	7611682002140	1
	BZU 60-02 BZU06002	Assortment box compression connectors professional ✓ 1 x BWZ 8-00 ✓ 1 x BWZ 7-00 ✓ 1 x BWZ 5-02 ✓ 100 x CFS 97-48 ✓ 10 x CFS 100-48 10 x CFS 100-51 ✓ 10 x CFS 99-48 10 x CFS 99-51	7611682002157	1

Type	BZU 60-00	BZU 60-01	BZU 60-02
General			
Dimensions (W x H x D) appr.	400 x 300 x 90 mm		
Weight	0.720 kg	1.791 kg	2.646 kg


 	CFS 93-48 CFS09348	F Opti-fix male self compression ✓ To mount without compression tool ✓ NITIN coated (anti-allergie) ✓ Usable for coaxial cable with diameter of dielectricum 4.9 mm (SKB 94-xx/SKB 395-xx/SKB 88-x)	7611682002225	50
	Type	CFS 93-48		

Electrical data			
Impedance	75 Ω		
Mechanical data			
Width across flats	11 mm		
General			
Weight	0.007 kg		


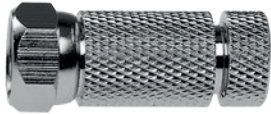
IEC | premium-line


 	CKS 4-00 CKS00400	IEC male ✓ Die-cast housing, high shielded ✓ Right-angel with screw clamp	7611682340044	100
	CKS 5-00 CKS00500	Same as CKS 4-00, but axial	7611682340051	100
	CKK 4-00 CKK00400	IEC female ✓ Die-cast housing, high shielded ✓ Right-angel with screw clamp	7611682350043	100
	CKK 5-00 CKK00500	Same as CKK 4-00, but axial	7611682350050	100


Type	CKS 4-00	CKS 5-00	CKK 4-00	CKK 5-00
Electrical data				
Impedance	75 Ω			
General				
Weight	0.029 kg	0.023 kg	0.030 kg	0.024 kg


	Type Part No.	Product description	GTIN	PU		
IEC basic-line						
	CKS 1-00 CKS00100	IEC male ✓ With screw clamp ✓ Metal/plastic	7611682340013	100		
	CKS 6-00 CKS00600	IEC male ✓ Easy to fit, for direct mounting on the cable ✓ Solid metal	7611682350067	100		
	CKS 20-00 CKS02000	IEC male ✓ With screw clamp ✓ Metal/plastic	7611682340204	100		
	CKK 1-00 CKK00100	IEC female ✓ With screw clamp ✓ metal/plastic	7611682350012	100		
	CKK 6-00 CKK00600	IEC female ✓ Easy to fit, for direct mounting on the cable ✓ Solid metal	7611682340068	100		
	CKK 21-00 CKK02100	IEC female ✓ With screw clamp ✓ Metal/plastic	7611682350210	100		
Type	CKS 1-00	CKS 6-00	CKS 20-00	CKK 1-00	CKK 6-00	CKK 21-00
Electrical data						
Impedance	75 Ω					
General						
Weight	0.007 kg	0.012 kg	0.006 kg	0.006 kg	0.015 kg	0.006 kg


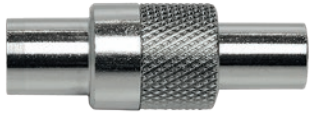

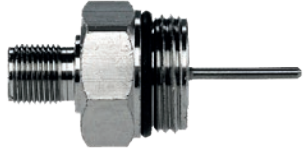
F | premium-line

		CFS 89-01	F male screw type for SKB 89-xx	7611682368918	100
		CFS08901	✓ Double rubber gasket (from front and backside)		
Type	CFS 89-01				
Electrical data					
Impedance	75 Ω				
Mechanical data					
Width across flats	12 mm				
General					
Weight	0.015 kg				




	Type Part No.	Product description	GTIN	PU
	CFS 0-00 CFS00000	F male screw type ✓ For cable diameter 7 mm	7611682360004	100
	CFS 0-02 CFS00002	Same as CFS 0-00, but waterproof with rubber seal	7611682360011	100
	CFS 1-00 CFS00100	F male screw type ✓ for cable diameter 6.5 mm	7611682360103	100
	CFS 2-00 CFS00200	F male screw type ✓ for cable diameter 5.2 mm	7611682360202	100
	CFS 3-00 CFS00300	F male screw type ✓ for cable diameter 4 mm	7611682360301	100
	CFS 4-00 CFS00400	F male screw type ✓ for cable diameter 4.7 mm	7611682360400	100
	CFS 7-02 CFS00702	F male screw type ✓ For cable diameter 10.4 mm ✓ Incl. 2 center pin for 1.1 mm ID and 1.6 mm ID inner conductor	7611682360714	1


Type	CFS 0-00	CFS 0-02	CFS 1-00	CFS 2-00	CFS 3-00	CFS 4-00	CFS 7-02	
Electrical data								
Impedance	75 Ω							
Mechanical data								
Width across flats	11 mm							
General								
Weight	0.004 kg	0.004 kg	0.004 kg	0.006 kg	0.006 kg	0.006 kg	0.020 kg	
	CFS 7-00 CFS00700	F male crimp type ✓ For cable diameter 7.5 mm ✓ Incl. 2 center pin for 1.1 mm ID and 1.6 mm ID inner conductor					7611682360707	100
	CFS 20-00 CFS02000	F Quickfix ✓ For cable diameter 4.5...7 mm					7611682362008	100
Type	CFS 7-00			CFS 20-00				
Electrical data								
Impedance	75 Ω							
Mechanical data								
Width across flats	11 mm			-				
General								
Weight	0.013 kg			0.006 kg				

Adapters premium-line				
	CFA 4-01 CFA00401	Adapter F/F Quickfix ✓ Male to male, Quickfix ✓ Professional version ✓ High return loss	7611682280401 100	
	CFA 26-02 CFA02602	Adapter F F ✓ Female to female, with lock nut ✓ Professional version, 29 mm long ✓ High return loss	7611682006254 100	
Type	CFA 4-01		CFA 26-02	
Electrical data				
Impedance	75 Ω			
Connectors				
Return loss	>50 dB @ 5...65 MHz >22 dB @ 86...862 MHz >22 dB @ 950...2200 MHz		>50 dB @ 5...65 MHz >40 dB @ 86...862 MHz >28 dB @ 950...2200 MHz	
General				
Weight	0.006 kg		0.014 kg	


	Type Part No.	Product description	GTIN	PU	
 	CFA 13-01 CFA01301	Adapter F IEC laboratory-type ✓ IEC-female to F-female ✓ High return loss	7611682004601	1	
	CFA 14-01 CFA01401	Same as CFA 13-01, but IEC-male to F-female	7611682004809	1	
	CFA 15-00 CFA01500	Same as CFA 13-01, but IEC-male to F-male	7611682002065	1	
	CFA 16-01 CFA01601	Same as CFA 13-01, but IEC-female to F-male, Quickfix	7611682007404	1	
	CFA 17-00 CFA01700	Same as CFA 13-01, but F-male, Quickfix to IEC-female	7611682002614	1	
Type	CFA 13-01	CFA 14-01	CFA 15-00	CFA 16-01	CFA 17-00
Electrical data					
Impedance	75 Ω	75 Ω	75 Ω	75 Ω	-
General					
Weight	0.012 kg	0.012 kg	0.017 kg	0.017 kg	0.017 kg
 	CFA 12-00 CFA01200	Adapter PG11 F ✓ PG11 to F female ✓ for BVS 14-66	7611682280128	1	
	CKA 12-00 CKA01200	PG 11 to IEC female for BVS 14-66	7611682320121	1	
Type		CFA 12-00		CKA 12-00	
Electrical data					
Impedance			75 Ω		
General					
Weight			0.040 kg		









Adapters | basic-line

	CFA 1-00 CFA00100	Adapter F IEC ✓ F-male to IEC-female	7611682280012	100
	CFA 2-00 CFA00200	Adapter F IEC ✓ F-female to IEC-female	7611682280029	100
	CFA 5-00 CFA00500	Adapter F IEC ✓ F-female to IEC-male	7611682280050	100
	CFA 10-00 CFA01000	Adapter F IEC ✓ F-male to IEC-male	7611682280104	100
Type	CFA 1-00	CFA 2-00	CFA 5-00	CFA 10-00
Electrical data				
Impedance			75 Ω	
General				
Weight	0.009 kg	0.008 kg	0.007 kg	0.008 kg
 	CKA 1-00 CKA00100	IEC-male to IEC-male	7611682320015	100
	CKA 2-00 CKA00200	IEC-female to IEC-female	7611682320022	100
	CKA 5-00 CKA00500	For cable with diameter up to 7 mm 0.1...2400 MHz, suitable for CATV and SAT	7611682320053	100
Type	CKA 1-00	CKA 2-00	CKA 5-00	
Electrical data				
Impedance			75 Ω	
General				
Weight	0.005 kg	0.005 kg	0.032 kg	

	Type Part No.	Product description	GTIN	PU	
	CFA 3-00 CFA00300	Adapter F F ✓ F female to F female	7611682280036	100	
	CFA 3-02 CFA00302	Adapter F F ✓ F female to F female ✓ U-shaped	7611682280326	100	
	CFA 4-00 CFA00400	Adapter F F ✓ F male to F male	7611682280043	100	
	CFA 6-02 CFA00602	Adapter F F ✓ F female to F male ✓ Right-angled	7611682280609	100	
	CFA 18-00 CFA01800	Adapter F F ✓ F male, screw type to F male, Quickfix	7611682002928	1	
Type	CFA 3-00	CFA 3-02	CFA 4-00	CFA 6-02	CFA 18-00
Electrical data					
Impedance	75 Ω				
General					
Weight	0.005 kg	0.021 kg	0.007 kg	0.014 kg	0.007 kg

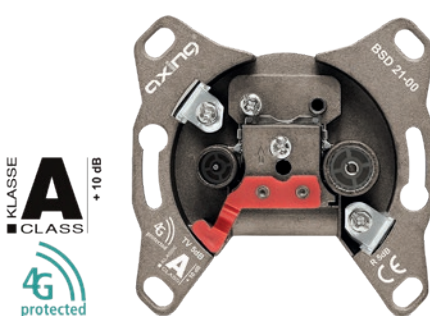
Terminal resistors

	Type Part No.	Product description	GTIN	PU	
	CFA 8-00 CFA00800	Terminating resistor 75 Ohm ✓ F male	7611682280081	100	
	CFA 11-00 CFA01100	Terminating resistor 75 Ohm DC isolated ✓ F male ✓ DC isolated	7611682280111	100	
	TZU 3-00 TZU00300	Terminating resistor ✓ 75 Ohm ✓ For CATV loop-through wall outlets CATV	7611682080032	100	
	TZU 3-01 TZU00301	Terminating resistor, DC-isolated ✓ 75 Ohm ✓ For CATV and SAT loop-through wall outlets	7611682080308	100	
Type	CFA 8-00	CFA 11-00	TZU 3-00	TZU 3-01	
Electrical data					
Impedance	75 Ω				
General					
Weight	0.003 kg	0.005 kg	0.001 kg	0.001 kg	

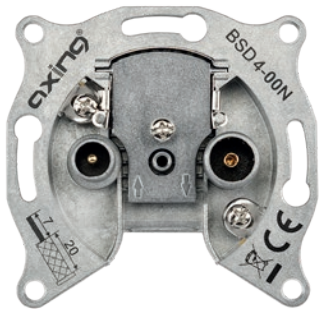
	Type Part No.	Product description	GTIN	PU				
Tools								
       	BWZ 1-00 BWZ00100	Crimping tool ✓ For crimping-type F connectors ✓ Cable diameter 5...7 mm	7611682330014	1				
	BWZ 3-00 BWZ00300	F connector wrench ✓ Tightening aid ✓ 11 mm across the flats	7611682330038	1				
	BWZ 4-01 BWZ00401	Crimping aid ✓ For use when assembling F connectors	7611682330045	1				
	BWZ 5-02 BWZ00502	Universal cable stripping tool ✓ For stripping of coax cables (e. g. SKB 75, SKB 88, SKB 94, SKB 395) ✓ Insertable stripping block 13/8 mm (premium-line wall outlets) and 7/6 mm (AXING F compression connectors)	7611682002942	1				
	BWZ 5-12 BWZ00512	Replacement block for BWZ 5-02 ✓ 13/8 mm (premium-line wall outlets) and 7/6 mm (AXING F compression connectors)	7611682003369	1				
	BWZ 7-00 BWZ00700	Compression tool ✓ For AXING F compression connectors CFS 97-xx	7611682000955	1				
	BWZ 8-00 BWZ00800	Compression tool ✓ Adjustable compression ✓ Three tool inserts ✓ For all AXING-F compression connectors	7611682002058	1				
	BWZ 11-00 BWZ01100	Special open-ended wrench ✓ Open-ended/open ring wrench ✓ For small F-socket distances ✓ 11 mm across the flats	7611682002898	1				
Type	BWZ 1-00	BWZ 3-00	BWZ 4-01	BWZ 5-02	BWZ 5-12	BWZ 7-00	BWZ 8-00	BWZ 11-00
General								
Weight	0.729 kg	0.016 kg	0.034 kg	0.078 kg	0.008 kg	0.286 kg	0.488 kg	0.036 kg





Antenna wall outlets


CATV | premium-line



Type Part No.	Product description	GTIN	PU	
	BSD 21-00 BSD02100	Extended wideband end outlet 5...2200 MHz CATV SAT ✓ Class A (+10 dB) according to EN 50083-2 ✓ Suitable for broadband return path ✓ Easy to install ✓ Stripping length 8/13 mm ✓ Surface treated	7611682002416	1
	BSD 21-01 BSD02101	Same as BSD 21-00, but with DC power pass	7611682002423	1
	BSD 21-07 BSD02107	Same as BSD 21-00, but loop-through type with 7 dB tap loss, frequency range 5...1006 MHz	7611682002430	1
	BSD 21-10 BSD02110	Same as BSD 21-00, but loop-through type with 10 dB tap loss	7611682002447	1
	BSD 21-11 BSD02111	Same as BSD 21-10, but with DC power pass	7611682002454	1
	BSD 21-14 BSD02114	Same as BSD 21-00, but loop-through type with 14 dB tap loss	7611682002461	1
	BSD 21-18 BSD02118	Same as BSD 21-00, but loop-through type with 18 dB tap loss	7611682002478	1
	BSD 21-22 BSD02122	Same as BSD 21-00, but loop-through type with 22 dB tap loss	7611682002485	1


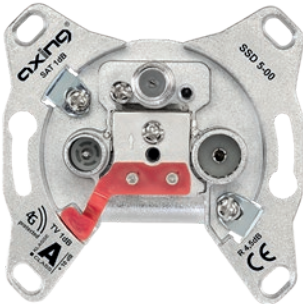
Type	BSD 21-00	BSD 21-01	BSD 21-07	BSD 21-10	BSD 21-11	BSD 21-14	BSD 21-18	BSD 21-22
Screening factor acc. to EN 50083-2	Class A (+ 10 dB)							
Tap method	Ferrite splitter	Ferrite splitter	Directional couple + ferrite splitter	Double directional coupler	Double directional coupler	Directional couple + ferrite splitter	Directional couple + ferrite splitter	Directional couple + ferrite splitter
Trunk line								
Frequency range input	5...2200 MHz	5...2200 MHz	5...1006 MHz	5...2200 MHz	5...2200 MHz	5...2200 MHz	5...2200 MHz	5...2200 MHz
Through loss @ 5...862 MHz	-	-	≤ 5.3 dB	≤ 3.5 dB	≤ 3.5 dB	≤ 1.5 dB	≤ 0.9 dB	≤ 0.9 dB
Through loss @ 862...2200 MHz	-	-	-	≤ 4.0 dB	≤ 4.2 dB	≤ 2.5 dB	≤ 1.8 dB	≤ 1.8 dB
Isolation internal	≥ 15 dB	≥ 15 dB	≥ 20 dB	≥ 25 dB	≥ 25 dB	≥ 15 dB	≥ 15 dB	≥ 20 dB
Frequency range output	-	-	5...1006 MHz	5...2200 MHz	5...2200 MHz	5...2200 MHz	5...2200 MHz	5...2200 MHz
Suitable cables (Inner conductor outer diameter)	0.63...1.13 mm 4.70...7.35 mm							
TV connector								
Connector type	IEC-male							
Frequency range	5...2200 MHz	5...2200 MHz	5...1006 MHz	5...2200 MHz	5...2200 MHz	5...2200 MHz	5...2200 MHz	5...2200 MHz
Tap loss	5 dB ±1.5 dB	5 dB ±1.5 dB	7.5 dB ±1.5 dB	10 dB ±1.5 dB	10 dB ±1.5 dB	14 dB ±1.5 dB	18 dB ±1.5 dB	22 dB ±1.5 dB
DC power pass to trunk	-	yes	-	-	yes	-	-	-
Radio connector								
Connector type	IEC-female							
Frequency range	5...2200 MHz	5...2200 MHz	5...1006 MHz	5...2200 MHz	5...2200 MHz	5...2200 MHz	5...2200 MHz	5...2200 MHz
Tap loss	5 dB ±1.5 dB	5 dB ±1.5 dB	7.5 dB ±1.5 dB	10 dB ±1.5 dB	10 dB ±1.5 dB	14 dB ±1.5 dB	18 dB ±1.5 dB	22 dB ±1.5 dB
General								
Dimensions (W × H × D) appr.	68 × 68 × 35 mm							
Weight	0.092 kg							


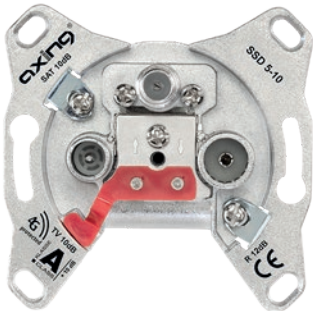
	Type Part No.	Product description	GTIN	PU		
CATV basic-line						
 <p>KLASSE A CLASS</p>	BSD 4-00N BSD00400N	CATV end outlet 5...1006 MHz ✓ Suitable for broadband return path ✓ Surface treated	7611682007305	1		
	BSD 4-07N BSD00407N	Same as BSD 4-00N, but loop-through type with 7 dB tap loss	7611682007312	1		
	BSD 4-10N BSD00410N	Same as BSD 4-00N, but loop-through type with 10 dB tap loss	7611682007329	1		
	BSD 4-14N BSD00414N	Same as BSD 4-00N, but loop-through type with 14 dB tap loss	7611682007336	1		
	BSD 4-18N BSD00418N	Same as BSD 4-00N, but loop-through type with 18 dB tap loss	7611682007343	1		
	BSD 4-22N BSD00422N	Same as BSD 4-00N, but loop-through type with 22 dB tap loss	7611682007350	1		
	Type	BSD 4-00N	BSD 4-07N	BSD 4-10N	BSD 4-14N	BSD 4-18N
Tap method	Ferrite splitter	Double directional coupler	Double directional coupler	Double directional coupler	Double directional coupler	Double directional coupler
Through loss	-	3.9...6.7 dB	2.5...4.0 dB	2.0...3.8 dB	1.5...2.5 dB	1.2...2.5 dB
Trunk line						
Frequency range input	5...1006 MHz					
Through loss @ 5...1006 MHz	-	<5.5 dB	<4.0 dB	<3.8 dB	<2.5 dB	<2.5 dB
Isolation internal	> 15 dB	≥ 15 dB	≥ 20 dB	≥ 25 dB	≥ 28 dB	≥ 30 dB
Frequency range output	5...1006 MHz					
Suitable cables (Inner conductor outer diameter)	0.63...1.13 mm 4.7...7.35 mm					
TV connector						
Connector type	IEC-male					
Frequency range	5...1006 MHz					
Tap loss	4 dB ±2 dB	7 dB ±2 dB	10 dB ±2 dB	14 dB ±2 dB	18 dB ±2 dB	22 dB ±2 dB
Radio connector						
Connector type	IEC-female					
Frequency range	5...1006 MHz					
Tap loss	4 dB ±2 dB	7 dB ±2 dB	10 dB ±2 dB	14 dB ±2 dB	18 dB ±2 dB	22 dB ±2 dB
General						
Dimensions (W × H × D) appr.	70 × 66 × 32 mm					
Weight	0.091 kg					



Type Part No.	Product description	GTIN	PU					
Multimedia premium-line								
   	BSD 963-00N BSD96300N	Multimedia end outlet 5...1006 MHz CATV DATA ✓ Class A (+10 dB) according to EN 50083-2 ✓ Suitable for broadband return path ✓ Easy to install ✓ Stripping length 8/13 mm ✓ Extended F socket ✓ Surface treaded ✓ Vodafone Kabel Deutschland approved	7611682001501	1				
	BSD 963-10N BSD96310N	Same as BSD 963-00N, but loop-through type with 10 dB tap loss	7611682002218	1				
	BSD 963-11N BSD96311N	Same as BSD 963-00N, but terminal type type with 10 dB tap loss	7611682000832	1				
	BSD 963-12N BSD96312N	Same as BSD 963-00N, but loop-through type with 12 dB tap loss	7611682001525	1				
	BSD 963-13N BSD96313N	Same as BSD 963-00N, but loop-through type with 14 dB tap loss and with high pass filter on the trunk (blocked return path)	7611682001532	1				
	BSD 963-14N BSD96314N	Same as BSD 963-00N, but loop-through type with 14 dB tap loss	7611682001549	1				
	BSD 963-17N BSD96317N	Same as BSD 963-00N, but loop-through type with 17 dB tap loss	7611682001563	1				
	BSD 963-20N BSD96320N	Same as BSD 963-00N, but loop-through type with 20 dB tap loss	7611682001556	1				
Type	BSD 963-00N	BSD 963-10N	BSD 963-11N	BSD 963-12N	BSD 963-13N	BSD 963-14N	BSD 963-17N	BSD 963-20N
Screening factor acc. to EN 50083-2	Class A (+ 10 dB)							
Trunk line								
Frequency range input	5...1006 MHz							
Through loss @ 5...65 MHz	-	-	-	-	≥ 45 dB	-	-	-
Through loss @ 5...1006 MHz	-	≤ 4.5 dB	-	≤ 3.5 dB	-	≤ 2.5 dB	≤ 2.2 dB	≤ 1.9 dB
Through loss @ 85...1006 MHz	-	-	-	-	≤ 3.3 dB	-	-	-
Frequency range output	-	5...1006 MHz	-	5...1006 MHz	87.5...1006 MHz	5...1006 MHz	5...1006 MHz	5...1006 MHz
Suitable cables (Inner conductor outer diameter)	0.63...1.13 mm 4.70...7.35 mm							
TV connector								
Connector type	IEC-male							
Frequency range	109...1006 MHz							
Tap loss	6 dB ±1 dB	10 dB ±1 dB	10 dB ±1 dB	12 dB ±1 dB	14 dB ±1 dB	14 dB ±1 dB	17 dB ±1 dB	20 dB ±1 dB
Radio connector								
Connector type	IEC-female							
Frequency range	87.5...125 MHz							
Tap loss	8 dB ±1.5 dB	12 dB ±1.5 dB	12 dB ±1.5 dB	14 dB ±1.5 dB	16 dB ±1.5 dB	16 dB ±1.5 dB	18 dB ±1.5 dB	21 dB ±1.5 dB
DATA connector								
Connector type	F-female							
Frequency range	5...1006 MHz							
Tap loss	6 dB ±1 dB	10 dB ±1 dB	10 dB ±1 dB	12 dB ±1 dB	14 dB ±1 dB	14 dB ±1 dB	17 dB ±1 dB	20dB ±1 dB
Isolation TV DATA @ 5...65 MHz	≥ 70 dB							
Isolation TV DATA @ 109...1006 MHz	≥ 30 dB							
General								
Dimensions (W × H × D) appr.	68 × 68 × 39 mm							
Weight	0.100 kg							



Type Part No.	Product description	GTIN	PU				
 <p>KLASSE A CLASS +10 dB 4G protected</p>	BSD 961-08K Multimedia end outlet 8 dB 5...1006 MHz CATV DATA BSD96108K DATA ✓ Class A (+10 dB) according to EN 50083-2 ✓ High intermodulation suppression ✓ Suitable for broadband return path ✓ Easy to install ✓ Stripping length 8/13 mm ✓ Extended F sockets ✓ Surface treaded	7611682005240	1				
	BSD 961-11K Same as BSD 961-08K, but terminal type with 12 dB tap loss BSD96111K	7611682005257	1				
	BSD 961-12K Same as BSD 961-08K, but loop-through type with 12 dB tap loss BSD96112K	7611682005264	1				
	BSD 961-13K Same as BSD 961-08K, but loop-through type with 15 dB tap loss and with high pass filter on the trunk (blocked return path) BSD96113K	7611682005271	1				
	BSD 961-15K Same as BSD 961-08K, but loop-through type with 15 dB tap loss BSD96115K	7611682005288	1				
	BSD 961-17K Same as BSD 961-08K, but loop-through type with 17 dB tap loss BSD96117K	7611682005295	1				
	BSD 961-20K Same as BSD 961-08K, but loop-through type with 20 dB tap loss BSD96120K	7611682005301	1				
Type	BSD 961-08K	BSD 961-11K	BSD 961-12K	BSD 961-13K	BSD 961-15K	BSD 961-17K	BSD 961-20K
Screening factor acc. to EN 50083-2	Class A (+ 10 dB)						
Trunk line							
Frequency range input	5...1006 MHz						
Through loss @ 5...65 MHz	-	-	-	≤ 45 dB	-	-	-
Through loss @ 5...1006 MHz	-	-	≤ 4.5 dB	-	≤ 2.8 dB	≤ 1.8 dB	≤ 1.6 dB
Through loss @ 85...1006 MHz	-	-	-	≤ 3.2 dB	-	-	-
Frequency range output	-	-	5...1006 MHz	87.5...1006 MHz	5...1006 MHz	5...1006 MHz	5...1006 MHz
Suitable cables (Inner conductor outer diameter)	0.63...1.13 mm 4.70...7.35 mm						
TV connector							
Connector type	IEC-male						
Frequency range	109...1006 MHz						
Tap loss	8 dB ±1.0 dB	12 dB ±1.0 dB	12 dB ±1.0 dB	15 dB ±1.5 dB	15 dB ±1.0 dB	17 dB ±1.0 dB	20 dB ±1.0 dB
Radio connector							
Connector type	IEC-female						
Frequency range	87.5...125 MHz						
Tap loss	9 dB ±1.5 dB	14 dB ±1.5 dB	13 dB ±1.5 dB	16 dB ±1.5 dB	16 dB ±1.5 dB	18 dB ±1.5 dB	21 dB ±1.5 dB
DATA connector							
Connector type	F-female						
Frequency range	5...1006 MHz						
Tap loss	8 dB ±1.0 dB	12 dB ±1.0 dB	12 dB ±1.0 dB	15 dB ±1.0 dB	15 dB ±1.0 dB	17 dB ±1.0 dB	20 dB ±1.0 dB
Isolation TV DATA @ 5...65 MHz	≥ 60 dB						
Isolation TV DATA @ 109...1006 MHz	≥ 30 dB						
Isolation R DATA 1/2 @ 5...65 MHz	≥ 60 dB						
Isolation R DATA 1/2 @ 87.5...108 MHz	≥ 30 dB						
General							
Dimensions (W × H × D) appr.	68 × 68 × 39 mm						
Weight	0.104 kg						





Type	Part No.	Product description	GTIN	PU
 	BSD 960-00N BSD96000N	Multimedia end outlet 5...2200 MHz CATV DATA SAT ✓ Class A (+10 dB) according to EN 50083-2 ✓ Suitable for broadband return path ✓ Easy to install ✓ Stripping length 8/13 mm ✓ Extended F sockets ✓ Surface treated ✓ Vodafone Kabel Deutschland approved	7611682002638	1
	BSD 960-10N BSD96010N	Same as BSD 960-00N, but loop-through type with 10 dB tap loss	7611682003420	1
Type	BSD 960-00N		BSD 960-10N	
Screening factor acc. to EN 50083-2			Class A (+ 10 dB)	
Trunk line				
Frequency range input			5...2200 MHz	
Through loss @ 5...2200 MHz	-		≤ 3.7 dB	
Frequency range output	-		5...2200 MHz	
Suitable cables (Inner conductor outer diameter)			0.63...1.13 mm 4.70...7.35 mm	
TV connector				
Connector type			IEC-male	
Frequency range			109...862 MHz	
Tap loss	8.0 dB ±1.5 dB		17 dB ±1.5 dB	
Radio connector				
Connector type			IEC-female	
Frequency range			87.5...125 MHz	
Tap loss	9.0 dB ±1.5 dB		18 dB ±1.5 dB	
SAT connector				
Connector type			F-female	
Frequency range			950...2200 MHz	
Tap loss	1.0 dB ±1.5 dB		10 dB ±1.5 dB	
DATA connector				
Connector type			F-female	
Frequency range			5...862 MHz	
Tap loss	8.0 dB ±1.5 dB		12 dB ±1.5 dB	
Isolation TV DATA @ 5...65 MHz			≥ 60 dB	
Isolation TV DATA @ 109...1006 MHz			≥ 25 dB	
General				
Dimensions (W × H × D) appr.			68 × 68 × 39 mm	
Weight	0.103 kg		0.082 kg	


Type Part No.	Product description	GTIN	PU
SAT premium-line			
 	SSD 5-00 SSD00500	SAT end outlet 5...2200 MHz CATV SAT ✓ Class A (+10 dB) according to EN 50083-2 ✓ Suitable for return path 5...65 MHz ✓ Easy to install ✓ Stripping length 8/13 mm ✓ Extended F socket ✓ Surface treaded ✓ Vodafone Kabel Deutschland approved	7611682000894 1
	SSD 5-07 SSD00507	Same as SSD 5-00, but terminal type with 7 dB tap loss, suitable for Unicable I (EN50494) and Unicable II (EN50607)	7611682001662 1
Type	SSD 5-00	SSD 5-07	
Screening factor acc. to EN 50083-2	Class A (+ 10 dB)		
Tap method	Filter circuit/directional coupler		
Trunk line			
Frequency range input	5...2200 MHz		
Suitable cables (Inner conductor outer diameter)	0.63...1.13 mm 4.70...7.35 mm		
TV connector			
Connector type	IEC-male		
Frequency range	109...862 MHz / 5...65 MHz		
Tap loss	≤ 1.5 dB	7 dB ±1.5 dB	
Radio connector			
Connector type	IEC-female		
Frequency range	87.5...125 MHz	87.5...125 MHz	
Tap loss	≤ 4.5 dB	9 dB ±2.0 dB	
SAT connector			
Connector type	F female		
Frequency range	950...2200 MHz		
Tap loss	≤1.5 dB	7 dB ±1.5 dB	
DC power pass to trunk	yes		
General			
Dimensions (W × H × D) appr.	68 × 68 × 39 mm		
Weight	0.104 kg		



Type Part No.	Product description	GTIN	PU	
 	SSD 5-10 SSD00510	SAT multimedia loop-through outlet 15 dB 5...2200 MHz CATV SAT DATA ✓ Class A (+10 dB) according to EN 50083-2 ✓ With high pass filter on the trunk (blocked return path) ✓ Suitable for return path 5...65 MHz ✓ Suitable for Unicable I (EN50494) and Unicable II (EN50607) ✓ Easy to install ✓ Stripping length 8/13 mm ✓ Extended F socket ✓ Surface treaded	7611682000900	1
	SSD 5-14 SSD00514	Same as SSD 5-10, but 14 dB tap loss	7611682000917	1
	SSD 5-18 SSD00518	Same as SSD 5-10, but 18 dB tap loss	7611682000948	1
Type	SSD 5-10	SSD 5-14	SSD 5-18	
Screening factor acc. to EN 50083-2		Class A (+ 10 dB)		
Tap method	Filter circuit/directional coupler			
Trunk line				
Frequency range input		5...2200 MHz		
Through loss @ 5...862 MHz	≤ 2.0 dB	≤ 1.3 dB	≤ 1.3 dB	
Through loss @ 862...2200 MHz	≤ 3.0 dB	≤ 2.5 dB	≤ 2.5 dB	
Frequency range output		5...2200 MHz		
DC power pass		yes		
Suitable cables (Inner conductor outer diameter)		0.63...1.13 mm 4.70...7.35 mm		
TV connector				
Connector type		IEC-male		
Frequency range		109...862 MHz / 5...65 MHz		
Tap loss	10 dB ±1.5 dB	14 dB ±1.5 dB	18 dB ±1.5 dB	
Radio connector				
Connector type		IEC-female		
Frequency range	87.5...125 MHz	87.5...125 MHz	87.5...125 MHz	
Tap loss	13 dB ±2.0 dB	16 dB ±2.0 dB	22 dB ±2.0 dB	
SAT connector				
Connector type		F female		
Frequency range		950...2200 MHz		
Tap loss	10 dB ±1.5 dB	14 dB ±1.5 dB	18 dB ±1.5 dB	
DC power pass to trunk		yes		
General				
Dimensions (W × H × D) appr.		68 × 68 × 39 mm		
Weight		0.104 kg		

Type Part No.	Product description	GTIN	PU
 	SSD 5-15 SSD00515 SAT multimedia loop-through outlet 15 dB 5...2200 MHz CATV SAT DATA <ul style="list-style-type: none"> ✓ Class A (+10 dB) according to EN 50083-2 ✓ With high pass filter on the trunk (blocked return path) ✓ Suitable for return path 5...65 MHz ✓ Suitable for Unicable I (EN50494) and Unicable II (EN50607) ✓ Easy to install ✓ Stripping length 8/13 mm ✓ Extended F socket ✓ Surface treaded 	7611682003673	1
Type	SSD 5-15		
Screening factor acc. to EN 50083-2	Class A (+ 10 dB)		
Tap method	Filter circuit/directional coupler		
Trunk line			
Frequency range input	5...2200 MHz		
Through loss @ 5...65 MHz	≤ 45 dB		
Through loss @ 85...862 MHz	≤ 4 dB		
Through loss @ 862...2200 MHz	≤ 6 dB		
Frequency range output	5...2200 MHz		
DC power pass	yes		
Suitable cables (Inner conductor outer diameter)	0.63...1.13 mm 4.70...7.35 mm		
TV connector			
Connector type	IEC-male		
Frequency range	109...862 MHz		
Tap loss	15 dB +1.5/-2.0 dB		
Radio connector			
Connector type	IEC-female		
Frequency range	87.5...125 MHz		
Tap loss	17 dB ±2.0 dB		
SAT connector			
Connector type	F-female		
Frequency range	950...2200 MHz		
Tap loss	15 dB ±1.5 dB		
DC power pass to trunk	yes		
DATA connector			
Connector type	F-female		
Frequency range	5...65 MHz 85...862 MHz		
Tap loss	<3.5 dB 15 dB ±1.5 dB		
General			
Dimensions (W × H × D) appr.	68 × 68 × 39 mm		
Weight	0.095 kg		

	Type Part No.	Product description	GTIN	PU	
 <p> KLASSE A CLASS +10 dB 4G protected </p>	SSD 6-07 SSD00607	Programmable single cable end outlet terminated 7 dB 5 ... 2200 MHz CATV SAT ✓ Class A (+10 dB) according to EN 50083-2 ✓ Suitable for return path 5 ... 65 MHz ✓ Suitable for Unicable I (EN50494) and Unicable II (EN50607) ✓ Each socket can be allocated to one ore more user-bands (programming with the SZU 60-00 programmer and the free-of charge software AnDoKon (www.axing.com download)) ✓ Easy to install ✓ Stripping length 8/13 mm ✓ Extended F socket ✓ Surface treated	7611682002294	1	
	SSD 6-10 SSD00610	Same as SSD 6-07, but loop-through type with 10 dB tap loss	7611682002300	1	
	SSD 6-14 SSD00614	Same as SSD 6-07, but loop-through type with 14 dB tap loss	7611682002317	1	
	SSD 6-18 SSD00618	Same as SSD 6-07, but loop-through type with 18 dB tap loss	7611682002324	1	
Type					
Type		SSD 6-07	SSD 6-10	SSD 6-14	SSD 6-18
Screening factor acc. to EN 50083-2		Class A (+ 10 dB)			
Tap method		Filter circuit/directional coupler			
Trunk line					
Frequency range input		5 ... 2200 MHz			
Through loss @ 5...862 MHz		-	≤ 2.0 dB	≤ 1.3 dB	≤ 1.3 dB
Through loss @ 862...2200 MHz		-	≤ 3.0 dB	≤ 2.5 dB	≤ 2.5 dB
Frequency range output		-	5 ... 2200 MHz	5 ... 2200 MHz	5 ... 2200 MHz
DC power pass		-	yes	yes	yes
Suitable cables (Inner conductor outer diameter)		0.63 ... 1.13 mm 4.70...7.35 mm			
TV connector					
Connector type		IEC-male			
Frequency range		109 ... 862 MHz 5...65MHz			
Tap loss		7 dB ±1.5 dB	10 dB ±1.5 dB	14 dB ±1.5 dB	18 dB ±1.5 dB
Radio connector					
Connector type		IEC-female			
Frequency range		87.5 ... 108 MHz			
Tap loss		9 dB ±2.0 dB	12 dB ±2.0 dB	16 dB ±2.0 dB	20 dB ±2.0 dB
SAT connector					
Connector type		F female			
Frequency range		950 ... 2200 MHz			
Tap loss		-	-	-	-
DC power pass to trunk		yes			
General					
Dimensions (W × H × D) appr.		68 × 68 × 39 mm			
Weight		0.102 kg			
 <p> KLASSE A CLASS </p>	SZU 60-00 SZU06000	Antenna wall outlet programmer for SSD 6-xx ✓ To programm the user bands ✓ Software AnDoKon available at www.axing.com Downloads for free ✓ Including F connecting cable and USB connecting cable	7611682002331	1	
	Type		SZU 60-00		
Interfaces					
USB		USB Mini			
SAT connector					
Connector type		F-female			
General					
Weight		0.172 kg			


Type Part No.	Product description	GTIN	PU	
   	SSD 7-00 SSD00700	SAT twin end outlet 5...2200 MHz CATV SAT SAT ✓ Class A (+10 dB) according to EN 50083-2 ✓ Suitable for return path 5...65 MHz ✓ Suitable for Unicable I (EN50494) and Unicable II (EN50607) ✓ Easy to install ✓ Stripping length 8/13 mm ✓ Extended F sockets ✓ Surface treaded ✓ Vodafone Kabel Deutschland approved	7611682002751	1
Type	SSD 7-00			
Screening factor acc. to EN 50083-2	Class A (+ 10 dB)			
Tap method	Filter circuit/directional coupler			
Trunk line				
Frequency range input right	950...2200 MHz			
Frequency range input left	5...2200 MHz			
Isolation internal	≥ 30 dB			
Suitable cables (Inner conductor outer diameter)	0.63...1.13 mm 4.70...7.35 mm			
TV connector				
Connector type	IEC-male			
Frequency range	109...862 MHz 5...65MHz			
Tap loss	2 dB ±1.0 dB			
Radio connector				
Connector type	IEC-female			
Frequency range	87.5...125 MHz			
Tap loss	2 dB ±1.0 dB			
SAT connector left				
Connector type	F-female			
Frequency range	950...2200 MHz			
Tap loss	2 dB ±1.0 dB			
DC power pass to trunk	yes			
SAT connector right				
Connector type	F-female			
Frequency range	950...2200 MHz			
Tap loss	2 dB ±1.0 dB			
DC power pass to trunk	yes			
General				
Dimensions (W × H × D) appr.	68 × 68 × 39 mm			
Weight	0.107 kg			

Type	Part No.	Product description	GTIN	PU
SAT basic-line				
	SSD 2-00 SSD00200	SAT end outlet 5...2200 MHz CATV SAT ✓ Suitable for return path 5...65 MHz ✓ F connector gold-plated ✓ With cover plate and frame	7611682180022	1
	SSD 2-10 SSD00210	Same as SSD 2-00, but loop-through type with 10 dB tap loss	7611682180206	1
Type	SSD 2-00		SSD 2-10	
Tap method	Filter circuit/directional coupler			
Trunk line				
Frequency range input	5...2200 MHz			
Through loss @ 5...2200 MHz	-		2...5 dB	
Isolation internal	20...40 dB			
Frequency range output	-		5...2200 MHz	
Suitable cables (Inner conductor outer diameter)	0.63...1.13 mm 4.70...7.35 mm			
TV connector				
Connector type	IEC-male			
Frequency range	174...862 MHz 5...65MHz			
Tap loss	≤ 2 dB ≤ 1 dB		≤ 10 dB ≤ 11 dB	
Radio connector				
Connector type	IEC-female			
Frequency range	87.5...125 MHz			
Tap loss	≤ 1 dB		≤ 10 dB	
SAT connector				
Connector type	F female			
Frequency range	950...2200 MHz			
Tap loss	-		-	
DC power pass to trunk	yes			
General				
Dimensions (W × H × D) appr.	78 × 78 × 44 mm			
Weight	0.149 kg			


	Type Part No.	Product description	GTIN	PU																																																							
 	SSD 4-00 SSD00400	SAT twin end outlet 5...2200 MHz CATV SAT SAT ✓ Suitable for return path 5...65 MHz ✓ With cover plate and frame	7611682180046	1																																																							
	<table border="1"> <tr> <td>Type</td> <td>SSD 4-00</td> </tr> <tr> <td>Tap method</td> <td>Filter circuit/directional coupler</td> </tr> <tr> <td colspan="2">Trunk line</td> </tr> <tr> <td>Frequency range input right</td> <td>5...2200 MHz</td> </tr> <tr> <td>Frequency range input left</td> <td>5...2200 MHz</td> </tr> <tr> <td>Isolation internal</td> <td>≥ 20 dB</td> </tr> <tr> <td>Suitable cables (Inner conductor outer diameter)</td> <td>0.63...1.13 mm 4.70...7.35 mm</td> </tr> <tr> <td colspan="2">TV connector</td> </tr> <tr> <td>Connector type</td> <td>IEC-male</td> </tr> <tr> <td>Frequency range</td> <td>125...862 MHz 5...65MHz</td> </tr> <tr> <td>Tap loss</td> <td>≤ 2 dB ≤ 2 dB</td> </tr> <tr> <td colspan="2">Radio connector</td> </tr> <tr> <td>Connector type</td> <td>IEC-female</td> </tr> <tr> <td>Frequency range</td> <td>87.5...125 MHz</td> </tr> <tr> <td>Tap loss</td> <td>≤ 2 dB</td> </tr> <tr> <td colspan="2">SAT connector left</td> </tr> <tr> <td>Connector type</td> <td>F-female</td> </tr> <tr> <td>Frequency range</td> <td>950...2200 MHz</td> </tr> <tr> <td>Tap loss</td> <td>≤ 2 dB</td> </tr> <tr> <td>DC power pass to trunk</td> <td>yes</td> </tr> <tr> <td colspan="2">SAT connector right</td> </tr> <tr> <td>Connector type</td> <td>F-female</td> </tr> <tr> <td>Frequency range</td> <td>5...2200 MHz</td> </tr> <tr> <td>Tap loss</td> <td>≤ 2 dB</td> </tr> <tr> <td>DC power pass to trunk</td> <td>yes</td> </tr> <tr> <td colspan="2">General</td> </tr> <tr> <td>Dimensions (W × H × D) appr.</td> <td>78 × 78 × 46 mm</td> </tr> <tr> <td>Weight</td> <td>0.149 kg</td> </tr> </table>				Type	SSD 4-00	Tap method	Filter circuit/directional coupler	Trunk line		Frequency range input right	5...2200 MHz	Frequency range input left	5...2200 MHz	Isolation internal	≥ 20 dB	Suitable cables (Inner conductor outer diameter)	0.63...1.13 mm 4.70...7.35 mm	TV connector		Connector type	IEC-male	Frequency range	125...862 MHz 5...65MHz	Tap loss	≤ 2 dB ≤ 2 dB	Radio connector		Connector type	IEC-female	Frequency range	87.5...125 MHz	Tap loss	≤ 2 dB	SAT connector left		Connector type	F-female	Frequency range	950...2200 MHz	Tap loss	≤ 2 dB	DC power pass to trunk	yes	SAT connector right		Connector type	F-female	Frequency range	5...2200 MHz	Tap loss	≤ 2 dB	DC power pass to trunk	yes	General		Dimensions (W × H × D) appr.	78 × 78 × 46 mm	Weight
Type	SSD 4-00																																																										
Tap method	Filter circuit/directional coupler																																																										
Trunk line																																																											
Frequency range input right	5...2200 MHz																																																										
Frequency range input left	5...2200 MHz																																																										
Isolation internal	≥ 20 dB																																																										
Suitable cables (Inner conductor outer diameter)	0.63...1.13 mm 4.70...7.35 mm																																																										
TV connector																																																											
Connector type	IEC-male																																																										
Frequency range	125...862 MHz 5...65MHz																																																										
Tap loss	≤ 2 dB ≤ 2 dB																																																										
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Weight	0.149 kg																																																										

Type	Part No.	Product description	GTIN	PU
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Accessories

	TZU 21-65	Plug-on adapter Multimedia	7611682082166	1
	TZU02165	<ul style="list-style-type: none"> ✓ Return path 5...65MHz ✓ Can be plugged Radio/TV antenna wall outlets either in wide band or filter technique ✓ F-Port to connect an interactive unit (e. g. cable modem) 		

Type	TZU 21-65
Upstream	
Frequency range	5...65 MHz
TV connector	
Frequency range	85...1006 MHz
Tap loss	3.5 dB
DATA connector	
Connector type	F-female
Tap loss	3.5 dB
Isolation TV DATA @ 5...65 MHz	> 75 dB
Isolation TV DATA @ 109...1006 MHz	≥ 30 dB
Connectors	
Connector antenna wall outlet	IEC-female
Connector TV	IEC-male
Return loss	> 18 dB (-1.5 dB/Oktave)
General	
Weight	0.073 kg

	SZU 2-00	Cover plate TV/R/SAT single piece	7611682160208	1
	SZU00200	<ul style="list-style-type: none"> ✓ Dimensions 80 x 80 mm ✓ Suitable for antenna wall outlets SSD 5-xx and SSD 6-xx ✓ Suitable surface frame TZU 1-00 		
	SZU 2-01	Same as SZU 2-00, but TV/R/DATA for antenna wall outlets BSD 963xxN	7611682160215	1
	SZU00201			
	SZU 2-02	Same as SZU 2-00, but TV/R/SAT/DATA for antenna wall outlets BSD 960-xx	7611682002362	1
	SZU00202			
	SZU 2-03	Same as SZU 2-00, but TV/R/DATA/DATA for antenna wall outlets BSD 961-xxK	7611682002379	1
	SZU00203			
SZU 2-04	Same as SZU 2-00, but TV/R/SAT/SAT for antenna wall outlet SSD 7-00	7611682002386	1	
SZU00204				
TZU 2-00	Same as SZU 2-00, but TV/R for antenna wall outlets BSD 21-xx and BSD 4-xx	7611682080025	1	
TZU00200				
TZU 1-00	Surface frame	7611682080018	1	
TZU00100	<ul style="list-style-type: none"> ✓ For single piece cover ✓ Dimensions 80 x 80 mm 			


Type	SZU 2-00	SZU 2-01	SZU 2-02	SZU 2-03	SZU 2-04	TZU 2-00	TZU 1-00
General							
Dimensions (W × H)	80 x 80 mm	80 x 80 mm	80 x 80 mm	80 x 80 mm	80 x 80 mm	80 x 80 mm	80 x 80 mm
Weight	0.017 kg	0.016 kg	0.018 kg	0.018 kg	0.018 kg	0.016 kg	0.042 kg

	Type Part No.	Product description	GTIN	PU		
	SZU 2-10 SZU00210	Cover plate TV/R/SAT two-parts ✓ Dimensions 75 × 75 mm ✓ Suitable for antenna wall outlets SSD 5-xx and SSD 6-xx ✓ Suitable surface frame TZU 1-10	7611682002560	1		
	SZU 2-12 SZU00212	Same as SZU 2-10, but TV/R/SAT/SAT for antenna wall outlets BSD 960-xx	7611682004489	1		
	SZU 2-13 SZU00213	Same as SZU 2-10, but TV/R/DATA/DATA for antenna wall outlets BSD 961-xxK	7611682004496	1		
	SZU 2-14 SZU00214	Same as SZU 2-10, but TV/R/SAT/SAT for antenna wall outlet SSD 7-00	7611682002577	1		
	TZU 2-10 TZU00210	Same as SZU 2-10, but TV/R for antenna wall outlets BSD 21-xx and BSD 4-xx	7611682002553	1		
	TZU 1-10 TZU00110	Surface frame ✓ For two-part cover ✓ Dimensions 75 x 75 mm	7611682002546	1		
Type	SZU 2-10	SZU 2-12	SZU 2-13	SZU 2-14	TZU 2-10	TZU 1-10
General						
Dimensions (W × H)	75 × 75 mm (55 × 55 mm)	75 × 75 mm (55 × 55 mm)	75 × 75 mm (55 × 55 mm)	75 × 75 mm (55 × 55 mm)	75 × 75 mm (55 × 55 mm)	75 × 75 mm (55 × 55 mm)
Weight	0.008 kg	0.016 kg	0.016 kg	0.012 kg	0.016 kg	0.034 kg
	TZU 3-00 TZU00300	Terminating resistor ✓ 75 Ohm ✓ For CATV loop-through wall outlets CATV	7611682080032	100		
	TZU 3-01 TZU00301	Terminating resistor, DC-isolated ✓ 75 Ohm ✓ For CATV and SAT loop-through wall outlets	7611682080308	100		
Type		TZU 3-00			TZU 3-01	
Electrical data						
Impedance				75 Ω		
General						
Weight				0.001 kg		
	TZU 23-00 TZU02300	Electronic level ✓ Digital display ✓ Magnetic base	7611682002171	1		
	Type				TZU 23-00	
	General					
Weight				0.070 kg		

Type Part No. Product description GTIN PU

Connection cables

CATV | connection cables


 <p>KLASSE A CLASS</p>	BAK 152-00 BAK15200	Connection cable IEC axial connectors male female high shielded sheath current filter ✓ 1.50 m ✓ Screening factor according to EN 60966-2-5, class A ✓ White, in polybag with self service card	7611682011555	1
	BAK 252-00 BAK25200	Same as BAK 152-00, but 2.50 m	7611682012552	1
	BAK 502-00 BAK50200	Same as BAK 152-00, but 5.00 m	7611682015041	1
	BAK 752-00 BAK75200	Same as BAK 152-00, but 7.50 m	7611682017557	1
	BAK 992-00 BAK99200	Same as BAK 152-00, but 10.00 m	7611682019957	1

Type	BAK 152-00	BAK 252-00	BAK 502-00	BAK 752-00	BAK 992-00
Screening factor acc. to EN 60966-2-5	Class A				

Connectors					
Connector type	IEC-male, axial IEC-female, axial				

Mechanical data					
Cable length	1.50 m	2.50 m	5.00 m	7.50 m	10.00 m

General					
Weight	0.080 kg	0.108 kg	0.194 kg	0.282 kg	0.392 kg



 <p>KLASSE A CLASS</p>	BAK 125-90 BAK12590	Connection cable IEC axial connectors male female high shielded ✓ 1.25 m ✓ Screening factor according to EN 60966-2-5, class A ✓ White, in polybag with self service card	7611682011258	1
	BAK 150-90 BAK15090	✓ Connection cable IEC axial connectors male female high shielded 1.50 m ✓ Screening factor according to EN 60966-2-5, class A ✓ White, in polybag with self service card	7611682011500	1
	BAK 250-90 BAK25090	Same as BAK 125-90, but 2.50 m	7611682012507	1
	BAK 375-90 BAK37590	Same as BAK 125-90, but 3.75 m	7611682013757	1
	BAK 500-90 BAK50090	Same as BAK 125-90, but 5.00 m	7611682015003	1
	BAK 750-90 BAK75090	Same as BAK 125-90, but 7.50 m	7611682017502	1
	BAK 999-90 BAK99990	Same as BAK 125-90, but 10.00 m	7611682019995	1





Type	BAK 125-90	BAK 150-90	BAK 250-90	BAK 375-90	BAK 500-90	BAK 750-90	BAK 999-90
Screening factor acc. to EN 60966-2-5	Class A						


Connectors							
Connector type	IEC-male, axial IEC-female, axial						


Mechanical data							
Cable length	1.25 m	1.50 m	2.50 m	3.75 m	5.00 m	7.50 m	10.00 m



General							
Weight	0.054 kg	0.066 kg	0.100 kg	0.144 kg	0.190 kg	0.274 kg	0.362 kg


	Type Part No.	Product description	GTIN	PU			
 <p>KLASSE A CLASS</p>	BAK 153-00 BAK15300	Connection cable IEC right-angle connectors male female high shielded ✓ 1.50 m ✓ Screening factor according to EN 60966-2-5, class A ✓ White, in polybag with self service card	7611682011562	1			
	BAK 253-00 BAK25300	Same as BAK 153-00, but 2.50 m	7611682012569	1			
	BAK 373-00 BAK37300	Same as BAK 153-00, but 3.75 m	7611682013764	1			
	BAK 503-00 BAK50300	Same as BAK 153-00, but 5.00 m	7611682015058	1			
	BAK 753-00 BAK75300	Same as BAK 153-00, but 7.50 m	7611682017564	1			
	BAK 993-00 BAK99300	Same as BAK 153-00, but 10.00 m	7611682019964	1			
	Type	BAK 153-00	BAK 253-00	BAK 373-00	BAK 503-00	BAK 753-00	BAK 993-00
Screening factor acc. to EN 60966-2-5	Class A						
Connectors							
Connector type	IEC-male, right-angled IEC-female, right-angled						
Mechanical data							
Cable length	1.50 m	2.50 m	3.75 m	5.00 m	7.50 m	10.00 m	
General							
Weight	0.074 kg	0.108 kg	0.190 kg	0.220 kg	0.284 kg	0.384 kg	
 <p>Vodafone Kabel Deutschland</p> <p>KLASSE A CLASS</p>	BAK 150-80 BAK15080	Connection cable IEC axial connectors male female high shielded ✓ 1.50 m ✓ Type according to Vodafone KDG 1 TS 152 ✓ Screening factor according to EN 60966-2-5, class A ✓ White, in polybag with self service card	7611682001204	1			
	BAK 200-80 BAK20080	Same as BAK 150-80, but 2.00 m	7611682001211	1			
	BAK 250-80 BAK25080	Same as BAK 150-80, but 2.50 m	7611682001631	1			
	BAK 350-80 BAK35080	Same as BAK 150-80, but 3.50 m	7611682001228	1			
	BAK 500-80 BAK50080	Same as BAK 150-80, but 5.00 m	7611682001235	1			
	BAK 750-80 BAK75080	Same as BAK 150-80, but 7.50 m	7611682001242	1			
	BAK 999-80 BAK99980	Same as BAK 150-80, but 10.00 m	7611682001259	1			
	Type	BAK 150-80	BAK 200-80	BAK 250-80	BAK 350-80	BAK 500-80	BAK 750-80
Screening factor acc. to EN 60966-2-5	Class A						
Connectors							
Connector type	IEC-male, axial IEC-female, axial						
Mechanical data							
Cable length	1.50 m	2.00 m	2.50 m	3.50 m	5.00 m	7.50 m	10.00 m
General							
Weight	0.066 kg	0.080 kg	0.100 kg	0.136 kg	0.190 kg	0.274 kg	0.362 kg





	Type Part No.	Product description	GTIN	PU		
CATV patch/modem cable						
 	MAK 20-80 MAK02080	F patch cable axial connectors male double shielded ✓ 0.20 m ✓ Type according to Vodafone KDG 1 TS 151 ✓ Screening factor according to EN 60966-2-6, class A ✓ White, in polybag	7611682001105	10		
	MAK 30-80 MAK03080	Same as MAK 20-80, but 0.30 m	7611682001112	10		
	MAK 40-80 MAK04080	Same as MAK 20-80, but 0.40 m	7611682001129	10		
	MAK 50-80 MAK05080	Same as MAK 20-80, but 0.50 m	7611682001136	10		
	Type	MAK 20-80	MAK 30-80	MAK 40-80	MAK 50-80	
Screening factor acc. to EN 60966-2-5	Class A					
Connectors						
Connector type	F-male, screw type F-male, screw type					
Mechanical data						
Cable length	0.20 m	0.30 m	0.40 m	0.50 m		
General						
Weight	0.021 kg	0.022 kg	0.029 kg	0.032 kg		
 	MAK 150-80 MAK15080	F modem cable axial connectors male double shielded ✓ 1.50 m ✓ Type according to Vodafone KDG 1 TS 151 ✓ Screening factor according to EN 60966-2-6, class A ✓ To establish a connection of a cable modem to a multimedia antenna wall outlet ✓ White, in polybag	7611682001143	1		
	MAK 200-80 MAK20080	Same as MAK 150-80, but 2.00 m	7611682001150	1		
	MAK 350-80 MAK35080	Same as MAK 150-80, but 3.50 m	7611682001167	1		
	MAK 500-80 MAK50080	Same as MAK 150-80, but 5.00 m	7611682001174	1		
	MAK 750-80 MAK75080	Same as MAK 150-80, but 7.50 m	7611682001181	1		
	MAK 999-80 MAK99980	Same as MAK 150-80, but 10.00 m	7611682001198	1		
Type	MAK 150-80	MAK 200-80	MAK 350-80	MAK 500-80	MAK 750-80	MAK 999-80
Screening factor acc. to EN 60966-2-5	Class A					
Connectors						
Connector type	F-male, screw type F-male, screw type					
Mechanical data						
Cable length	1.50 m	2.00 m	3.50 m	5.00 m	7.50 m	10.00 m
General						
Weight	0.068 kg	0.082 kg	0.136 kg	0.196 kg	0.279 kg	0.364 kg

	Type Part No.	Product description	GTIN	PU
SAT connection cables				
 KLASSE A CLASS	SAK 151-00 SAK15100	F Quickfix cable axial connectors male high shielded ✓ 1.50 m ✓ Screening factor according to EN 60966-2-7, class A ✓ White, in polybag with self service card	7611682091519	1
	SAK 251-00 SAK25100	Same as SAK 151-00, but 2.50 m	7611682092516	1
	SAK 501-00 SAK50100	Same as SAK 151-00, but 5.00 m	7611682095012	1
	SAK 991-00 SAK99100	Same as SAK 151-00, but 10.00 m	7611682099911	1
Type	SAK 151-00	SAK 251-00	SAK 501-00	SAK 991-00
Screening factor acc. to EN 60966-2-5	Class A			
Connectors				
Connector type	F-male, quickfix F-male, quickfix			
Mechanical data				
Cable length	1.50 m	2.50 m	5.00 m	10.00 m
General				
Weight	0.066 kg	0.104 kg	0.192 kg	0.360 kg

CATV patch cables				
 KLASSE A CLASS	SAK 21-02 SAK02102	F Quickfix patch cable right-angle connectors double shielded ✓ 0.20 m ✓ Screening factor according to EN 60966-2-6, class A ✓ White, in polybag	7611682006582	1
	SAK 41-02 SAK04102	F Quickfix patch cable right-angle connectors double shielded ✓ 0.40 m ✓ Screening factor according to EN 60966-2-6, class A ✓ White, in polybag	7611682006599	1
Type	SAK 21-02	SAK 41-02		
Connectors				
Connector type	F-male, quickfix, right-angled F-male, quickfix, right-angled			
Mechanical data				
Cable length	0.20 m	0.40 m		
General				
Weight	0.024 kg	0.03 kg		

Type	Part No.	Product description	GTIN	PU		
Power supplies						
For CATV/TERR components						
	BZU 100-00 BZU10000	Remote feed transformer 50V~/2A ✓ External power supply to be used exclusively as spare part for BVS 14-66 or BVS 20-66 ✓ Primary voltage: 230V~/50-60Hz ✓ Secondary voltage: 50V~/2A	7611682371000	1		
	BZU 150-00 BZU15000	Remote feed cable ✓ Accessory or spare part for BZU 100-00 ✓ F-male to 2 × 1.5 mm ² (tinned) ✓ 1.5 m	7611682371505	1		
Type	BZU 100-00		BZU 150-00			
General						
Operating voltage	230VAC/50-60Hz		-			
Output voltage	50 VAC		-			
Output current	2 A		-			
Mechanical data						
Cable length	-		1.5 m			
General						
Operating temperature range	-20 - +55°C		-			
Weight	2.150 kg		0.070 kg			
Protection class	II		-			
	TZU 11-02 TZU01102	Power supply 6V~/100 mA ✓ External power supply to be used exclusively as spare part for BVS 10-02	7611682000542	1		
	TZU 11-04 TZU01104	Power supply 12V~/200 mA ✓ External power supply to be used exclusively as spare part for BVS 10-00, BVS 10-30, TVS 21-00 or TAA 3-20	7611682006179	1		
	TZU 15-01 TZU01501	Power inserter for CATV ✓ For remote feeding of BVS 10-xx ✓ 5...862 MHz ✓ Max. remote feed voltage 65 VAC/DC/2 A	7611682080162	1		
	TZU 15-03 TZU01503	Power inserter for SES ✓ For remote feeding of SES 5532-19 ✓ Frequency range 5...2400 MHz ✓ Remote feed current 18V/750 mA	7611682005202	1		
	TZU 15-04 TZU01504	Power inserter ✓ For remote feeding of CATV and SAT amplifiers ✓ Frequency range 5...2400 MHz ✓ Remote feed current 24 V/1 A	7611682005219	1		
	TZU 110-04 TZU11004	DC insertion set 12 V~/200 mA ✓ For DVB-C/S ✓ Power supply 12 V~/200 mA TZU 11-04 ✓ Power inserter TZU 15-04	7611682007527	1		
	Type	TZU 11-02	TZU 11-04	TZU 15-01	TZU 15-03	TZU 15-04
Application	-	-	TERR/CATV	Unicable II	-	-
Screening factor acc. to EN 50083-2	-	-	> 90 dB	-	> 90 dB	> 90 dB
Frequency range	-	-	5...862 MHz	5...2400 MHz	5...2400 MHz	5...2400 MHz
Connectors						
Connector type	-	-	F-male/F-female	F-female	F-male F-female	F-male F-female
General						
Operating voltage	230 VAC / 50 Hz	100...240 VAC 50...60 Hz	-	-	-	230 VAC / 50 Hz
Remote voltage	-	-	65 VAC	18 V	24 V	24 V
Power consumption	2.0 W	2.4 W	-	-	-	5.4 W
Power consumption open-circuit	0.2 W	0.3 W	-	-	-	-
Remote feed current	-	-	2A	750 mA	1 A	1 A
Connector DC	F-female	1.8 m cable with F-male	F-female	-	-	1.8 m cable with f connector
Output voltage	6 VDC	12 VDC	-	-	-	12 VDC
Output current	100 mA	200 mA	-	-	-	200 mA
Dimensions (W × H × D) appr.	-	-	53 × 55 × 16 mm	53 × 55 × 16 mm	53 × 55 × 16 mm	-
Weight	0.178 kg	0.076 kg	0.075 kg	0.075 kg	0.048 kg	0.114 kg







	Type Part No.	Product description	GTIN	PU
For SAT components				
	SZU 99-06 SZU09906	Switching mode power supply 18 V=/2 A ✓ External power supply to be used exclusively as spare part for OPU 14-03, SES 522-06, SES 544-06, SES 984-06, SPU 1308-06, SPU 1312-06, SPU 1316-06, SPU 1324-06, SPU 1332-06, SPU 1708-06, SPU 1712-06, SPU 1716-06, SPU 1724-06, SPU 1732-06, SPU 512-06, SPU 516-06, SPU 524-06, SPU 532-06, SPU 58-06, SPU 912-06, SPU 916-06, SPU 924-06, SPU 932-06, SPU 98-06, SVS 1313-06, SVS 1717-06, SVS 1717-09, SVS 440-06, SVS 550-06, SVS 990-06 ✓ Consisting of switching mode power supply SZU 99-15 and adapter cable with barrel connector 5.5 /2.1 mm	7611682005530	1
	SZU 99-22 SZU09922	Switching mode power supply 18 V=/700 mA ✓ External power supply to be used exclusively as spare part for SPU 510-09, SPU 516-09, SPU 54-09, SPU 56-09, SPU 58-09 ✓ Incl. adapters F to RCA and F-male to F-male	7611682160185	1
Type		SZU 99-06	SZU 99-22	
General				
Operating voltage		90...250 VAC / 47-63 Hz		
Power consumption		39 W	18 W	
Power consumption open-circuit		0.4 W	0.2 W	
Connector DC		F-female		
Output voltage		18 VDC		
Output current		2 A	0.7 A	
Weight		0.260 kg	0.220 kg	
Protection class		II		

Type	Part No.	Product description	GTIN	PU		
Attenuation Equalization Filters Combiners						
Attenuators						
 	BZU 91-03 BZU09103	CATV attenuator F-female F-male ✓ 5...1006MHz ✓ 3 dB	7611682000375	1		
	BZU 91-06 BZU09106	Same as BZU 91-03, but 6 dB	7611682000382	1		
	BZU 91-10 BZU09110	Same as BZU 91-03, but 10 dB	7611682000399	1		
	BZU 92-03 BZU09203	Return path attenuator F-female F-male ✓ Attenuation in return path 3 dB ✓ No attenuation in forward path	7611682002805	1		
	BZU 92-06 BZU09206	Same as BZU 92-03, but 6 dB	7611682002812	1		
	BZU 92-09 BZU09209	Same as BZU 92-03, but 10 dB	7611682002829	1		
Type	BZU 91-03	BZU 91-06	BZU 91-10	BZU 92-03	BZU 92-06	BZU 92-09
Frequency range	5...1218 MHz	5...1218 MHz	5...1218 MHz	5...1006 MHz	5...1006 MHz	5...1006 MHz
Through loss	3 dB	6 dB	10 dB	-	-	-
Downstream						
Attenuation	-	-	-	0 dB	0 dB	0 dB
Upstream						
Attenuation	-	-	-	3 dB	6 dB	9 dB
Connectors						
Connector type	F-female/F-male					
General						
Weight	0.013 kg	0.013 kg	0.013 kg	0.022 kg	0.022 kg	0.022 kg
 	TZU 4-00 TZU00400	Adjustable attenuator, CATV IEC-female IEC-male ✓ 0.5 - 20 dB	7611682080407	1		
	TZU 4-01 TZU00401	Same as TZU 4-00, but F-female F-male	7611682080414	1		
Type	TZU 4-00			TZU 4-01		
Screening factor acc. to EN 50083-2	> 75 dB					
Frequency range	0.1...1006 MHz					
Inputs						
Attenuator adjustment range	0.5...20 dB					
Connectors						
Connector type	IEC-female/IEC-male			F-female/F-male		
General						
Weight	0.058 kg					

	Type Part No.	Product description	GTIN	PU
	SZU 3-00 SZU00300	SAT adjustable attenuator F-female F-male ✓ DC power pass ✓ die-cast housing ✓ 0.5...20 dB	7611682160307	1
	SZU 44-00 SZU04400	SAT attenuator block F-female F-Quickfix ✓ Plug-on type for multiswitches SPU 5xx-09 SPU 9xx-09 SPU 17xx-09 ✓ For individual adjustment of the SAT input levels	7611682160444	1
	SZU 91-01 SZU09101	Attenuator F-female F-male ✓ 10 dB attenuation ✓ DC power pass ✓ 0.1...2400 MHz	7611682160918	1
Type	SZU 3-00	SZU 44-00	SZU 91-01	
Frequency range	0.1...2400 MHz	950...2200MHz	0.1...2400 MHz	
DC power pass	-	yes	-	
Inputs				
Attenuator adjustment range	0.5...20 dB	0...20 dB	-	
Connectors				
Connector type	F-female/F-male			
General				
Weight	0.060 kg	0.125 kg	0.020 kg	

Equalizers | Filters | Combiners

	TZU 9-00 TZU00900	Adjustable equalizer F-female F-male ✓ 5...862 MHz	7611682080094	1
	Type	TZU 9-00		
Frequency range	5...862 MHz			
Through loss	≤ 1.5 dB			
DATA connector				
Isolation TV DATA @ 109...1006 MHz	0...18 dB			
Connectors				
Connector type	F-female/F-male			
Return loss	≥ 12 dB			
General				
Weight	0.059 kg			
	SZU 8-00 SZU00800	SAT equalizer F-female F-male ✓ Frequency range 47...2200 MHz ✓ Equalization range 950...2200 MHz	7611682160086	1
	Type	SZU 8-00		
Frequency range	47...2200 MHz			
Equalization	12 dB @ 950...2200 MHz			
Return loss TERR	≤ 10 dB			
Return loss SAT	≥ 6 dB			
Trunk outputs				
Through loss TERR	15 dB @ 47...862 MHz			
Connectors				
Connector type	F-female/F-male			
General				
Weight	0.057 kg			


		Type Part No.	Product description	GTIN	PU
		TZU 198-62 TZU19862	DVB-T Low-pass filter 5...862 MHz F ✓ Blocking depth >40 dB @ 950...2200 MHz ✓ For prevention of interferences from mobile phones ✓ F-female F-male	7611682081985	1
		TZU 198-63 TZU19863	Same as TZU 198-02, but IEC	7611682081992	1
Type		TZU 198-62		TZU 198-63	
Screening factor acc. to EN 50083-2			> 90 dB		
Frequency range			5...862 MHz		
Frequency range blocked			950...2200 MHz		
Blocking depth			> 40 dB		
Through loss			0...2.5 dB		
DC power pass			yes		
Connectors					
Connector type			F-male/F-female		IEC male/IEC female
Return loss			> 18 dB...1.5 dB/Oktave (min. >10 dB)		
General					
Weight			0.027 kg		
		TZU 19-65 TZU01965	High-pass filter return path blocker 5...65 MHz ✓ Frequency range 85...862 MHz ✓ Frequency range blocked 5...68 MHz	7611682081961	1
		TZU 19-66 TZU01966	High-pass filter return path blocker 5...65 MHz ✓ Frequency range 85...2400 MHz ✓ Frequency range blocked 5...68 MHz ✓ DC power pass	7611682000627	1
Type		TZU 19-65		TZU 19-66	
Screening factor acc. to EN 50083-2			> 90 dB		
Frequency range		85...862 MHz		85...2200 MHz	
Frequency range blocked			5...65 MHz		
Blocking depth			> 50 dB		
Through loss		1.5...0.5 dB		1.5 dB	
DC power pass		-		yes	
Connectors					
Connector type			F-female/F-male		
Return loss			> 18 dB...1.5 dB/Oktave		
General					
Weight			0.021 kg		0.028 kg
		TZU 10-00 TZU01000	Sheath current filter IEC-female IEC-male ✓ Hum suppressor-choke, isolator ✓ Galvanic and capacitive isolation of inner/outer conductor ✓ IEC/IEC	7611682000245	1
		TZU 10-01 TZU01001	Same as TZU 10-00, but F-female F-male	7611682080100	1
		TZU 10-02 TZU01002	Sheath current filter F-female F-male ✓ Hum suppressor-choke, isolator ✓ Galvanic and capacitive isolation of inner/outer conductor ✓ Plastic housing	7611682081022	1
Type		TZU 10-00		TZU 10-01	TZU 10-02
Frequency range			5...1006 MHz		
Through loss		< 2 dB	< 2 dB	< 0.5 dB	
Connectors					
Connector type		IEC-female/IEC-male	IEC-female/IEC-male	F-female/F-female	
Return loss		≥14 dB – 1.5 dB/Okt.	≥14 dB – 1.5 dB/Okt.	≥18 dB – 1.5 dB/Okt.	
General					
Weight		0.024 kg	0.030 kg	0.167 kg	


		Type Part No.	Product description	GTIN	PU
		SZU 12-00 SZU01200	22 kHz blocker F-female F-male ✓ 47...2400 MHz	7611682160123	1
		SZU 13-00 SZU01300	Test port ✓ 47...2400 MHz	7611682160130	1
		SZU 14-00 SZU01400	DC blocker F-female F-male ✓ 5...2200 MHz	7611682160147	1
		Trunk outputs			
Type		SZU 12-00	SZU 13-00	SZU 14-00	
Frequency range		47...2200 MHz	5...2200 MHz	5...2200 MHz	
Return loss TERR		≤ 15 dB	≤ 14 dB...1.5 dB/Okt. (≤ 10 dB)	≤ 20 dB...1.5 dB/Okt. (≤ 15 dB)	
Return loss SAT		≥ 10 dB	≥ 10 dB	≥ 15 dB	
DC power pass		yes	-	-	
Through loss TERR		≤ 1 dB	≤ 1 dB	≤ 0.25 dB	
Through loss SAT		≤ 2.5 dB	≤ 1.5 dB	≤ 0.5 dB	
Connectors					
Test port TERR SAT		-	20 dB ± 1.0 dB/20 dB ± 1.5 dB	-	
Connector type		F-female/F-male	F-female/F-male/IEC-female	F-female/F-male	
General					
Weight		0.037 kg	0.060 kg	0.013 kg	
		SWE 2-10 SWE00210	SAT combiner F ✓ For combining of two satellite inputs onto a common line	7611682004588	1
		SWE 20-01 SWE02001	SAT/terrestrial combiner 2-way F ✓ For combining terr. and satellite (single LNB) inputs onto a common line ✓ DC power pass	7611682290028	1
		SWE 30-01 SWE03001	Same as SWE 20-01, but 3-way for twin-LNB	7611682290301	1
		SWE 40-01 SWE04001	4-way combiner for Quad-LNBs F ✓ To feed in terrestrial signals in a SAT system with Quad-LNB (LNB with integrated multiswitch)	7611682003468	1
Type		SWE 2-10	SWE 20-01	SWE 30-01	SWE 40-01
Screening factor acc. to EN 50083-2		> 90 dB	> 90 dB	> 90 dB	-
Inputs					
Frequency range		950...1100 MHz 1150...2200 MHz	5...862 MHz @ TERR 950...2400 MHz @ SAT	5...862 MHz @ TERR 950...2400 MHz @ SAT	5...862 MHz @ TERR 950...2400 MHz @ SAT
Trunk outputs					
Through loss TERR		-	< 2.5 dB	< 5 dB	< 8.5 dB
Through loss SAT		≤ 6 dB	< 2.5 dB	< 2 dB	< 1.5 dB
Connectors					
Connector type		F female			
General					
Dimensions (W × H × D) appr.		81 × 60 × 22 mm	52 × 52 × 17 mm	95 × 60 × 20 mm	-
Weight		0.070 kg	0.058 kg	0.110 kg	0.195 kg


Type Part No. Product description GTIN PU


SMARTSolutions



CMTS (Cable Modem Termination System)

	<p>CMTS 2-00 CMTS00200</p>	<p>Cable Modem Termination System</p> <ul style="list-style-type: none"> ✓ Feeding in Internet services in small cable systems ✓ According to DOCSIS and EuroDOCSIS 3.0 / 2.0 ✓ 32 downstream channels ✓ 8 upstream channels ✓ 1600 Mbps in the downstream ✓ 240 Mbps in the upstream ✓ Web-based configuration ✓ Supports SNMP ✓ 19" housing, 1RU ✓ Suitable cable modems on request 	<p>7611682007206</p>	<p>1</p>
Type		CMTS 2-00		
Max. number of modems in the network		1000		
Downstream				
Number of channels		32		
Data rate		1600 Mbps		
Frequency range		87...1002 MHz		
Channel bandwidth		6 MHz / 8 MHz		
Modulation		QAM64, QAM256		
Output level		40 dBmV = 100 dBµV @ 32 chs 43 dBmV = 103 dBµV @ 16 chs 46 dBmV = 106 dBµV @ 8 chs 49 dBmV = 109 dBµV @ 4 chs 52 dBmV = 112 dBµV @ 2 chs 55 dBmV = 115 dBµV @ 1 ch		
MER		≥39 dB @ Equalizer off ≥43 dB @ Equalizer on		
Upstream				
Number of channels		8		
Data rate		240 Mbps		
Frequency range		5...65 MHz		
Channel bandwidth		1.6 MHz / 3.2 MHz/ 6.4 MHz		
Output level		-7...+23 dBmV @ 6.4 MHz -10...+20 dBmV @ 3.2MHz -13...+17 dBmV @ 1.6MHz		
Demodulation		QPSK, QAM16, QAM32, QAM64		
Connectors				
Connector type		F-female		
Return loss		≥12 dB		
Interfaces				
Internet		1 × RJ45, IEEE 802.3ah, 1000 Base-T 1 × SFP (GPON/EPON/GE ONU)		
Configuration interface		1 × RJ45, IEEE 802.3ah, 1000 Base-T 1 × RJ45, IEEE 802.3ah, 100 Base-T		
General				
Operating voltage		90...264 VAC 47...63Hz		
Power consumption		70 W		
Operating temperature range		0...+40°C		
Operating humidity (non-condensing)		10...90%		
Dimensions (W × H × D) appr.		483 mm × 44 mm × 300 mm		
Weight		4.800 kg		

	Type Part No.	Product description	GTIN	PU
CMTS Accessories				
	BZU 65-85 BZU06585	Diplexer ✓ For splitting or merging the return path (upstream) and forward path (downstream) for the signals of a Cable Modem Termination System (CMTS) ✓ Class A + 10 dB according to EN 50083-2	7611682007480	1
	CZU 2-00 CZU00200	Additional power supply unit CMTS 2-00 ✓ To be used exclusively as spare part or as redundant power supply for the CMTS 2-00	7611682007572	1
Type	BZU 65-85		CZU 2-00	
Frequency range	5 ... 1218 MHz 5 ... 65 MHz @ Upstream 85 ... 1218 MHz @ Downstream		-	
Through loss	≤ 1.0 dB @ 5 ... 65 MHz Upstream IN ≥ 48 dB @ 85 ... 1218 MHz Upstream IN ≥ 50 dB @ 5 ... 65 MHz Downstream IN ≤ 2.2 dB @ 85 ... 1218 MHz. Downstream IN		-	
Impedance	75 Ω		-	
RF connectors				
Type	F-female		-	
Connectors				
Return loss	≥ 13 dB		-	
General				
Operating voltage	-		90...264 VAC 47...63 Hz	
Current consumption	-		2.5 A @ 100 VAC 1.25 A @ 240 VAC	
Output voltage	-		12 VDC	
Output current	-		6.67 A	
Operating temperature range	-		-10°C...+70°C	
Dimensions (W × H × D) appr.	75 × 35 × 18 mm		-	
Weight	0.980 kg		-	

Type	Part No.	Product description	GTIN	PU
Cable modems				
	CMO 1-01 CMO00101	DOCSIS/EuroDOCSIS cable modem <ul style="list-style-type: none"> ✓ Full-Band Capture Tuner ✓ Dynamic downstream/upstream combinations ✓ Supports up to 8 downstream and 4 upstream channels ✓ Downstream data rate up to 400 Mbps ✓ Upstream data rate up to 160 Mbps ✓ GbE port for 10/100/1000Base-T Ethernet with auto-negotiation 	7611682007435	1
	CMO 2-01 CMO00201	DOCSIS/EuroDOCSIS cable modem WiFi <ul style="list-style-type: none"> ✓ Full-Band Capture Tuner ✓ Dynamic downstream/upstream combinations ✓ Supports up to 8 downstream and 4 upstream channels ✓ Downstream data rate up to 400 Mbps ✓ Upstream data rate up to 160 Mbps ✓ Two GbE ports for 10/100/1000Base-T Ethernet with auto-negotiation ✓ WiFi according to IEEE 802.11b/g/n 	7611682007442	1
Type		CMO 1-01	CMO 2-01	
Downstream				
Data rate		Max. 320 Mbps @ DOCSIS Max. 400 Mbps @ EuroDOCSIS		
Frequency range		108...1002 MHz		
Channel bandwidth		6 MHz @ DOCSIS 8 MHz @ EuroDOCSIS		
Channel bonding		≤8		
Input level		-15 dBmV...+15 dBmV		
Demodulation		QAM64, QAM256		
Upstream				
Data rate		120 Mbps @ TDMA 160 Mbps @ S-CDMA		
Frequency range		5...42 MHz @ DOCSIS 5...65 MHz @ EuroDOCSIS		
Channel bandwidth		200/400/800/1600/3200/6400 KHz		
Output level		8...58 dBmV @ QPSK 8...54 dBmV @ 64 QAM 8...54 dBmV @ 32 QAM 8...53 dBmV @ S-CDMA		
Channel bonding		≤4		
Modulation		QPSK, QAM8, QAM16, QAM32, QAM64, QAM128 (SCDMA)		
Interfaces				
Ethernet connectors (LAN)		1 × RJ 45	2 × RJ 45	
Ethernet standards		IEEE 802.3 10Base-T 802.3u 100Base-TX 802.3ab 1000Base-T (GigE)		
WiFi standard		-	IEEE 802.11b/g/n	
WiFi band		-	2.4 GHz single-band	
Wifi signal rate		-	300 Mbps	
WiFi encryption		-	WPA/WPA2	
Supported transport protocols		IP, TCP, UDP, ARP	IP, TCP, UDP, ARP, TR-069	
Supported application protocols		HTTP, ICMP, DHCP, TFTP, SNMP		
DOCSIS		F-female (75 Ohm)		
General				
Operating voltage		12 VDC		
Operating temperature range		0...40 °C		
Storage temperature range		-20...70 °C	-10...60 °C	
Operating humidity (non-condensing)		10...90%		
Dimensions (W × H × D) appr.		160 × 125 × 33 mm	167 × 125 × 38 mm	
Weight		0.200 kg	0.320 kg	
External accessories				
Plug-in power supply		100...240 V/50...60 Hz 12 V=1 A	110...240 V/50...60 Hz 12 V=1.5 A	

Type Part No.	Product description	GTIN	PU	
Ethernet over Coax Peer-to-Peer				
	EOC 1-31 EOC00131	Ethernet over Coax Peer-to-Peer 720 Mbps ✓ Feeding IP signals into SAT, CATV orDVB-T systems or headends ✓ Transmission range 5...65 MHz ✓ Net data rate 720 Mbps (PHY) ✓ 128 bit AES encryption ✓ 2 x RJ 45 Connectors ✓ Incl. external switching power supply	7611682007770 1	
	EOC 2-31 EOC00231	Same as EOC 1-31, but with WiFi access point	7611682007787 1	
	EOC 1-32 EOC00132	Ethernet over Coax Peer-to-Peer 1800 Mbps ✓ Feeding IP signals into SAT, CATV orDVB-T systems or headends ✓ Transmission range 5...204 MHz, may only be used if the forward path frequency range starts from 258 MHz ✓ Net data rate 1800 Mbps (PHY) ✓ 128 bit AES encryption ✓ 2 x RJ 45 Connectors ✓ Incl. external switching power supply	7611682007800 1	
	EOC 2-32 EOC00232	Same as EOC 1-32, but with WiFi access point	7611682007817 1	
Type	EOC 1-31	EOC 2-31	EOC 1-32	EOC 2-32
Frequency range	5...1218 MHz	5...1218 MHz	5...1800 MHz	5...1800 MHz
Frequency range transmission	5...65 MHz	5...65 MHz	5...204 MHz	5...204 MHz
Frequency range TV bypass	258...1218 MHz	258...1218 MHz	258...1800 MHz	258...1800 MHz
Maximum allowed attenuation in coaxial network	77 dB			
Transmission level in coaxial network	113 dBµV ± 1dB			
EoC				
Standard	ITU-T G.9960/G.9961 G.hn over Coax			
Net data rate (PHY)	720 Mbps	720 Mbps	1800 Mbps*	1800 Mbps*
Encryption	AES 128 Bit			
Max. number of devices in EoC network	16			
Connectors (G.hn TV)	2 x F-female			
Interfaces				
Ethernet connectors (LAN)	2 x RJ 45			
Ethernet standards	IEEE 802.3u 100BaseT Fast Ethernet, IEEE 802.3ab 1000BaseT Gigabit Ethernet			
WiFi standard	-	MIMO 2x2 IEEE 802.11b/g/n/a/ac	-	MIMO 2x2 IEEE 802.11b/g/n/a/ac
WiFi encryption	-	WEP, WPA/WPA2, WPA/WPA2 m. PSK	-	WEP, WPA/WPA2, WPA/WPA2 m. PSK
General				
Operating voltage	12 VDC			
Power consumption	4 W	8 W	4 W	8 W
Operating temperature range	0°C...40°C			
Dimensions (W x H x D) appr.	130 x 95 x 32 mm			
External accessories				
Switching power supply	100...240 V~/50...60 Hz 12 V=/0.5 A	100...240 V~/50...60 Hz 12 V=/1 A	100...240 V~/50...60 Hz 12 V=/0.5 A	100...240 V~/50...60 Hz 12 V=/1 A
General				
Comments	-	-	* The data rate indicates the data throughput between the EoC devices. For technical reasons, a maximum of 1000 Mbps is available at each Ethernet interface.	* The data rate indicates the data throughput between the EoC devices. For technical reasons, a maximum of 1000 Mbps is available at each Ethernet interface.

	Type Part No.	Product description	GTIN	PU
Ethernet over Coax Master-Endpoint				
	EOC 30-01 EOC03001	Ethernet over Coax Master 1800 Mbps ✓ Feeding IP signals into existing coax cable networks for max. 16 Endpoints ✓ Data transmission range 5...204 MHz ✓ Net data rate 1800 Mbps (PHY) ✓ 128 bit-AES-Encryption ✓ Web interface for configuration ✓ 2 x RJ 45 Connectors for internet modem and configuration ✓ Incl. external switching power supply	7611682008074	1
	EOC 30-21 EOC03021	Same as EOC 30-01, but max. 32 Endpoints	7611682008104	1
	EOC 30-02 EOC03002	Ethernet over Coax Endpoint WiFi ✓ Connects WiFi and Ethernet devices over established coaxial cable to the EoC 30-01/-21 Master ✓ Data transmission range 5...204 MHz ✓ Net data rate 1800 Mbps (PHY) ✓ WiFi access point for tablet, smartphone, notebook (2,4/5 GHz band) ✓ 2 x RJ 45 connectors for PC/Notebook ✓ Incl. external switching power supply	7611682008081	1
	EOC 30-03 EOC03003	Same as EOC 30-02, but without WiFi	7611682008098	1
Type	EOC 30-01	EOC 30-21	EOC 30-02	EOC 30-03
Frequency range			5...1800 MHz	
Frequency range transmission			5...204 MHz	
Frequency range TV bypass			258...1800 MHz	
Maximum allowed attenuation in coaxial network			77 dB	
Transmission level in coaxial network	113 dBµV ± 1dB	109 dBµV ± 1dB	113 dBµV ± 1dB	113 dBµV ± 1dB
EoC				
Standard			ITU-T G.9960 G.hn over Coax	
Net data rate (PHY)			1800 Mbps*	
Encryption			AES 128 Bit	
Max. number of devices in EoC network	16	32	16/32**	16/32**
Connectors (G.hn TV)			2 x F-female	
Interfaces				
Ethernet connectors (LAN)			2 x RJ 45	
Ethernet standards	IEEE 802.3u 100BaseT Fast Ethernet IEEE 802.3ab 1000BaseT Gigabit Ethernet IEEE 802.3az Energy Efficiency Ethernet			
WiFi standard	-	-	IEEE 802.11 b/g/n/a/ac	-
WiFi encryption	-	-	WEP, WPA/WPA2, WPA/WPA2 with PSK	-
General				
Operating voltage			12 VDC	
Power consumption	<5 W	<7 W	8 W	4 W
Operating voltage over Coax	60 VAC ± 20%	60 VAC ± 20%	-	-
Operating voltage over LAN (PoE)	37...57 V	37...57 V	-	-
Operating temperature range	-10°C...55°C	-10°C...55 °C	0°C...50°C	0°C...50°C
Operating humidity (non-condensing)			10...95%	
Dimensions (W x H x D) appr.	178 x 136 x 35 mm	178 x 136 x 35 mm	130 x 95 x 32 mm	130 x 95 x 32 mm
Weight	0.375 kg	0.380 kg	0.210 kg	0.150 kg
External accessories				
Switching power supply	100...240 V~/50/60Hz 12 V=/1 A	100...240 V~/50/60Hz 12 V=/1 A	100...240 V~/50/60Hz 12 V=/1 A	100...240 V~/50/60Hz 12 V=/0,5 A
General				
Comments	* The data rate indicates the data throughput between the EoC devices. For technical reasons, a maximum of 1000 Mbps is available at each Ethernet interface.	* The data rate indicates the data throughput between the EoC devices. For technical reasons, a maximum of 1000 Mbps is available at each Ethernet interface.	* The data rate indicates the data throughput between the EoC devices. For technical reasons, a maximum of 1000 Mbps is available at each Ethernet interface. ** depending on the EoC Master	* The data rate indicates the data throughput between the EoC devices. For technical reasons, a maximum of 1000 Mbps is available at each Ethernet interface. ** depending on the EoC Master

Ethernet over Coax Accessories		Type Part No.	Product description	GTIN	PU
	TZU 40-03 TZU04003	EoC inserter 4 dB ✓ For feeding in RF-modulated IP signals ✓ 5...1006 MHz 85...1006 MHz (with 85 MHz high-pass filter) ✓ 4 dB EoC loss between connector "EoC" and connector "Eingang/Ausgang" ✓ 4 dB through loss between the connector "terr. Signale" and the connector "Eingang/Ausgang" ✓ Connection 1: terr. Signale ✓ Connection 2: EoC ✓ Connection 3: Eingang/Ausgang	7611682003475	1	
	TZU 40-04 TZU04004	EoC inserter 15 dB ✓ To feed in RF modulated IP signals ✓ 5...1006 MHz 85...1006 MHz (with high pass filter 85 MHz) ✓ 15 dB EoC loss between connector "EoC" and connector "Input/Output" ✓ 1,3 dB through loss between connector „terr. Signale" and connector „Eingang/Ausgang" ✓ Connector 1: terr. Signale ✓ Connector 2: Eingang/Ausgang ✓ Connector 3: EoC	7611682004472	1	
	TZU 40-05 TZU04005	RF and EoC inserter ✓ 5 ...1218 MHz ✓ Tap loss 4 dB ✓ To feed in RF modulated IP signals ✓ With high pass filter 258 MHz	7611682008142	1	
Connectors		Connector 1 Connector 2 Connector 3	TZU 40-03 EoC 5...1006 MHz 85...1006 MHz 4 dB 4 dB F-male, quickfix	TZU 40-04 EoC 5...1006 MHz 85...1006 MHz 15 dB 1.3 dB -	TZU 40-05 RF/EoC 5...1218 MHz 258...1218 MHz 4 dB 4 dB F-male, quickfix
General		Dimensions (W × H × D) appr. Weight	55 × 34 × 18 mm 0.029 kg	0.290 kg 0,029 kg	

Type Part No.	Product description	GTIN	PU
TZU 19-65 TZU01965	High-pass filter return path blocker 5...65 MHz ✓ Frequency range 85...862 MHz ✓ Frequency range blocked 5...68 MHz	7611682081961	1
TZU 19-66 TZU01966	High-pass filter return path blocker 5...65 MHz ✓ Frequency range 85...2400 MHz ✓ Frequency range blocked 5...68 MHz ✓ DC power pass	7611682000627	1
TZU 19-68X TZU01968X	High-pass filter return path blocker 5...204 MHz ✓ Frequency range 258...2200 MHz ✓ Frequency range blocked 5...204 MHz ✓ Blocking depth 45 dB ✓ DC power pass	7611682007961	1
BSD 963-13N BSD96313N	Same as BSD 963-00N, but loop-through type with 14 dB tap loss and with high pass filter on the trunk (blocked return path)	7611682001532	1
BZU 30-65 BZU03065	Passive return channel bypass ✓ EoC signals can be routed around a broadband amplifier ✓ Separates the downstream and upstream in the entrance area ✓ Connects upstream and downstream in the output area.	7611682007091	1



Type	TZU 19-65	TZU 19-66	TZU 19-68X	BSD 963-13N	BZU 30-65
Screening factor acc. to EN 50083-2	> 90 dB	> 90 dB	> 90 dB	Class A (+ 10 dB)	Class A
Frequency range	85...862 MHz	85...2200 MHz	258...2200 MHz	-	5...1218 MHz @ COM1/2 85...1218 MHz @ V1/2
Frequency range blocked	5...65 MHz	5...65 MHz	5...204 MHz	-	-
Blocking depth	> 50 dB	> 50 dB	50 dB	-	-
Through loss	1.5...0.5 dB	1.5 dB	0.7...1.7 dB	-	2.5 dB
DC power pass	-	yes	yes	-	-
Isolation	-	-	-	-	≥ 35 dB
Trunk line					
Frequency range input	-	-	-	5...1006 MHz	-
Through loss @ 5...65 MHz	-	-	-	≥ 45 dB	-
Through loss @ 85...1006 MHz	-	-	-	≤ 3.3 dB	-
Frequency range output	-	-	-	87.5...1006 MHz	-
Suitable cables (Inner conductor outer diameter)	-	-	-	0.63...1.13 mm 4.70...7.35 mm	-
TV connector					
Connector type	-	-	-	IEC-male	-
Frequency range	-	-	-	109...1006 MHz	-
Tap loss	-	-	-	14 dB ±1 dB	-
Radio connector					
Connector type	-	-	-	IEC-female	-
Frequency range	-	-	-	87.5...125 MHz	-
Tap loss	-	-	-	16 dB ±1.5 dB	-
DATA connector					
Connector type	-	-	-	F-female	-
Frequency range	-	-	-	5...1006 MHz	-
Tap loss	-	-	-	14 dB ±1 dB	-
Isolation TV DATA @ 5...65 MHz	-	-	-	≥ 70 dB	-
Isolation TV DATA @ 109...1006 MHz	-	-	-	≥ 30 dB	-
Connectors					
Connector type	F-female/F-male	F-female/F-male	F-female/F-male	-	F-female
Return loss	> 18 dB...1.5 dB/ Oktave	> 18 dB...1.5 dB/ Oktave	> 15 dB	-	≥ 14 dB (-1 dB/Oct.)
General					
Operating temperature range	-	-	-	-	-20°C...+40°C
Dimensions (W × H × D) appr.	-	-	-	68 × 68 × 39 mm	-
Weight	0.021 kg	0.028 kg	0.028 kg	0.100 kg	0.262 kg
Protection class	-	-	-	-	IP 20

Type Part No.	Product description	GTIN	PU
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Audio/Video

Audio/Video modulators



AVM 3-00 **TWIN Audio/video modulator | mono | UHF** 7611682001716 1
AVM00300


- ✓ Modulates an AV signal into a RF signal
- ✓ CCD camera, video camera etc. can be connected
- ✓ RF output UHF 470...862 MHz, PAL B/G
- ✓ Active RF-loop through
- ✓ Output level 70...90 dBµV adjustable
- ✓ LED display for channel indication
- ✓ With plug-in power supply

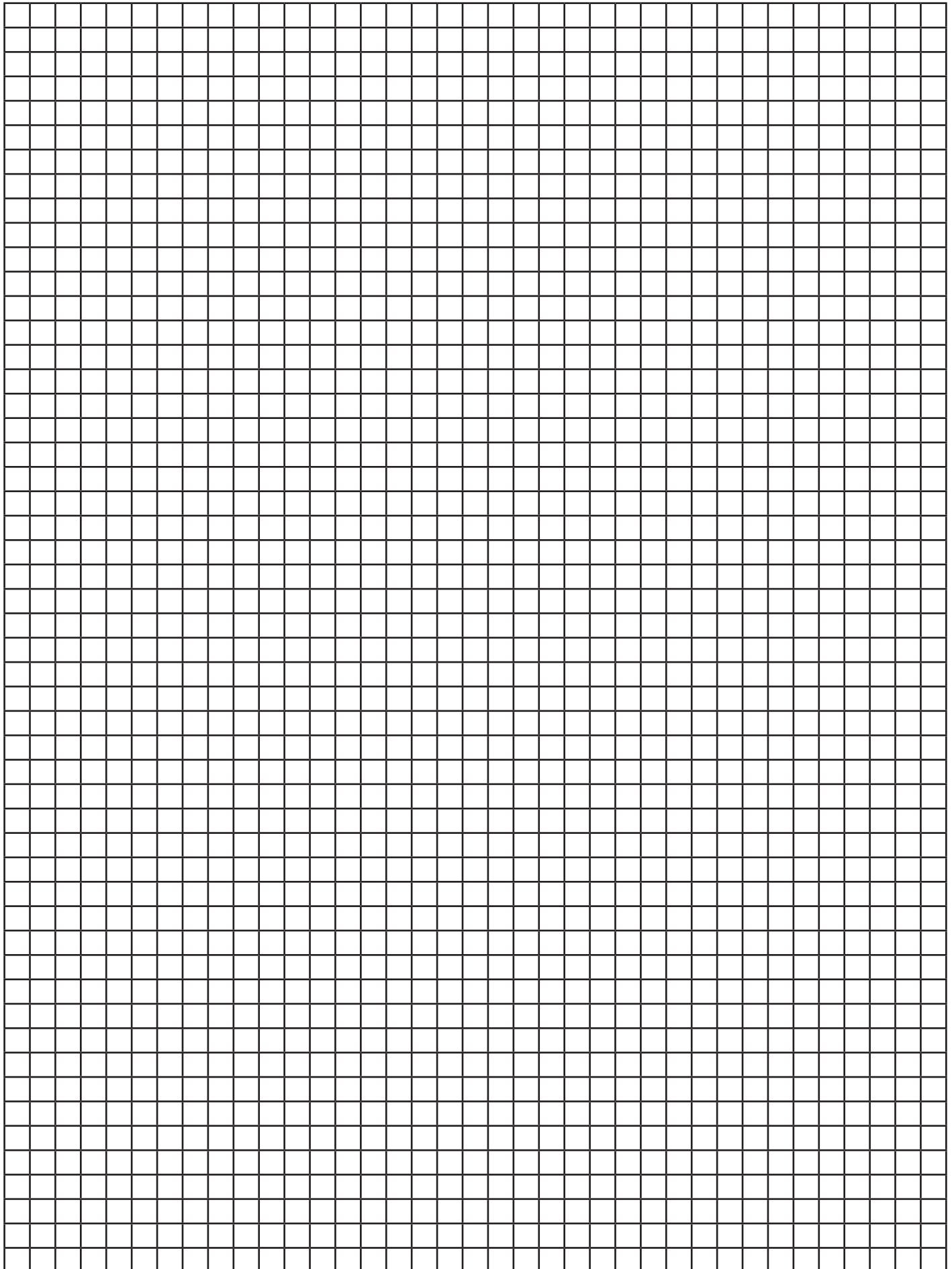
AVM 6-00 **Audio/video modulator | stereo | VHF | UHF** 7611682001693 1
AVM00600

- ✓ Modulates an AV signal into a RF signal
- ✓ CCD camera, video camera or DVD player etc. can be connected
- ✓ RF output 85 dBµV, VHF/UHF/S11-S41, 47...862 MHz, PAL B/G
- ✓ LED display for channel indication
- ✓ With plug-in power supply, cinch/SCART cable, 2 x F to IEC cable

Type	AVM 3-00	AVM 6-00
Inputs		
Video level		1 VSS
Video impedance		75 Ohm
Audio level typ.		1 VSS
Audio impedance typ.		10 kOhm
Connectors audio/video	RCA/Cinch + SCART	RCA/cinch female
Output		
Verstärkung	2...4 dB	- 4 dB
Frequency range	470...862 MHz	47...862 MHz
Channels selectable	PAL BG / PAL I / SECAM L	5...12 S 2...40 21...69
Output level	-	85 dBµV
Output level adjustable	70...90 dBµV	-
RF connectors		
Type		F-female
General		
Dimensions (W x H x D) appr.	190 x 170 x 40 mm	120 x 90 x 30 mm
Weight	0.564 kg	0.562 kg
External accessories		
Plug-in power supply	100...240 V~/50...60 Hz/3 W 6 V~/500 mA	230 V~/50 Hz 9 V~/600 mA

Audio/Video converters

	<p>Part No. AVC 1-00 AVC00100</p>	<p>Product description Audio/Video converter HDMI ✓ Converts one analogue CVBS-signal into HDMI ✓ Resolution is switchable between 720p and 1080p ✓ Incl. power supply and HDMI cable (1 m)</p>	<p>Order No. 7611682006261 1</p>
Type		AVC 1-00	
Inputs			
Connector		3 × Cinch (yellow, white, red)	
Processable signals		PAL, PAL-M, PAL-N, NTSC3.58, NTSC4.43, SECAM	
Output			
Connector		1 × HDMI	
Video resolution		1080p/60 Hz, 720p/60 Hz	
General			
Dimensions (W × H × D) appr.		100 x 102 x 25 mm	
Weight		0.238 kg	
External accessories			
Switching power supply		110...230 VAC/5 VDC	



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