



HIRSCHMANN MOBILITY

**Cellular/ GNSS
Screw Antenna**

CGN 1890 LP S/Series

Part Number 602-434-XXX

Features

- Combination antenna for satellite reception for telematics applications (e.g. fleet management, vehicle location or e-call systems)
- Cellular multiband coverage
- Mounting on any surface (e.g. plastics, metal ...)

Technical Data

Dimensions (without rod)	124 mm x 80 mm x 21 mm
Weight	340 g
Temperature range	-40°C - +85°C
Protection class	IP6K9K (acc. ISO 20653)
Cable type	RG 174

Technical Data

Cellular	
Frequency range	Low: 824 - 960 MHz High: 1710 - 2170 MHz
Services	2G: GSM 850/900 MHz GSM 1800/1900 MHz 3G: UMTS
Gain	0 dBi ¹⁾
Polarization	linear, vertical
Load capacity	max. 10 W pulsed acc. GSM standard
Diagnostic Resistor	10 kOhm
GNSS	
Frequency range	GPS: 1.57542 GHz \pm 1.023 MHz (L1-band) QZSS: 1563 - 1587 MHz (L1) Galileo: 1559 - 1591 MHz (E1) GLONASS: 1602.0 - 1614.94 MHz
Center frequency	1595.0 \pm 5 MHz
Polarization	right hand circular
Gain	4.5 dBic ²⁾
Voltage supply	3 - 5.5 VDC (remotely fed)
Current consumption	typ. 29 mA @ 3,3 \pm 0,3 V
Amplification (LNA)	20 \pm 2 dB @ 3.3 \pm 0.3 V
Bandwidth (LNA)	100 MHz
Impedance (LNA)	50 Ohm
VSWR	< 1.5
Noise figure (LNA)	\leq 3.0 dB

¹⁾ dBi: referenced to an isotropic radiator

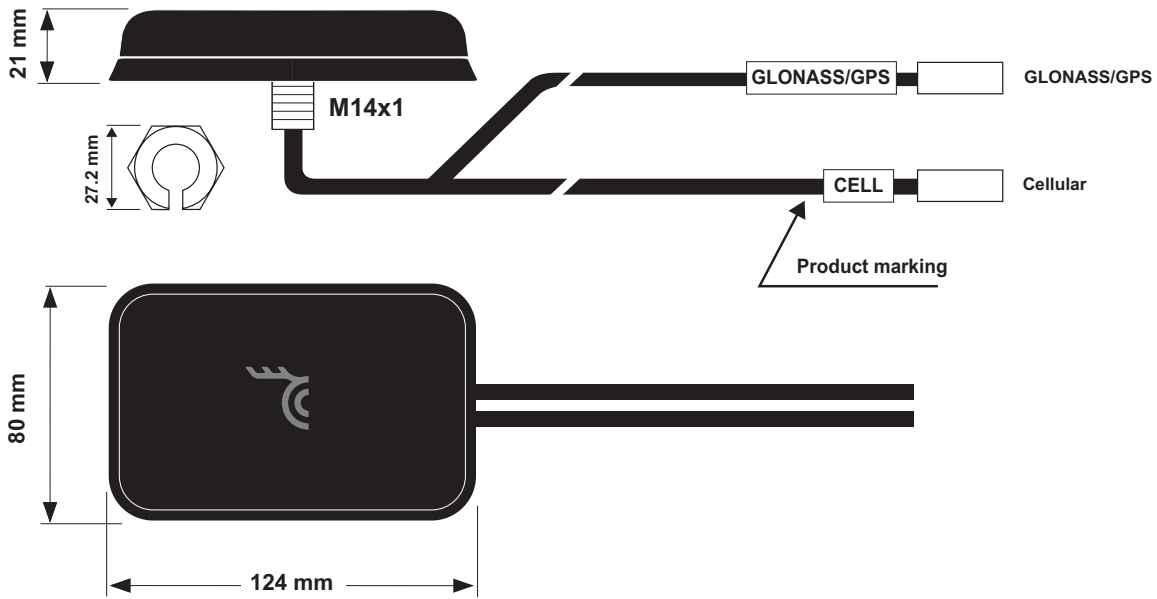
²⁾ dBic: referenced to an isotropic radiator, circular polarization

Versions

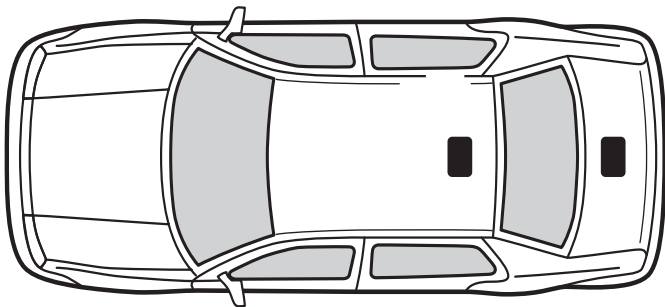
PN	Description	CELL	GNSS
602-434-001	CGN 1890 LP S/FAKRA/3.0	3000 +30 mm FAKRAf, D bordeaux	3000 +30 mm FAKRAf, C blue
602-434-002	CGN 1890 LP S/FAKRA A/5.0	5000 +50 mm FAKRAf, D bordeaux (AIMMET)	5000 +50 mm FAKRAf, C blue (AIMMET)

Other cable lengths and connectors on request

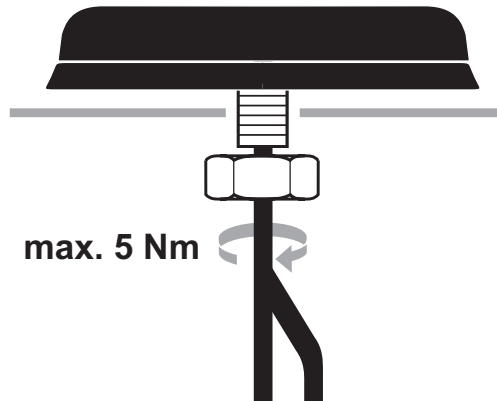
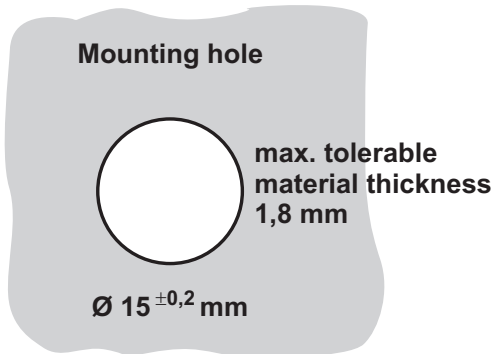
Technical Drawing



Installation



Recommended place of installation

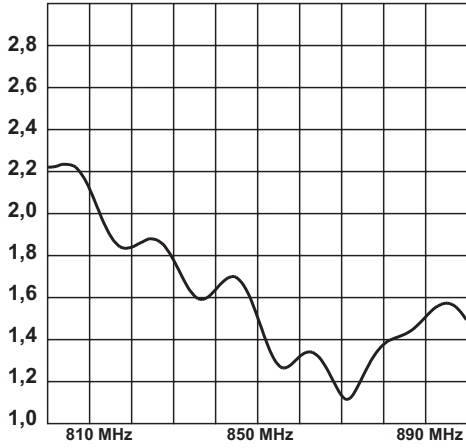


Installation on ground plane

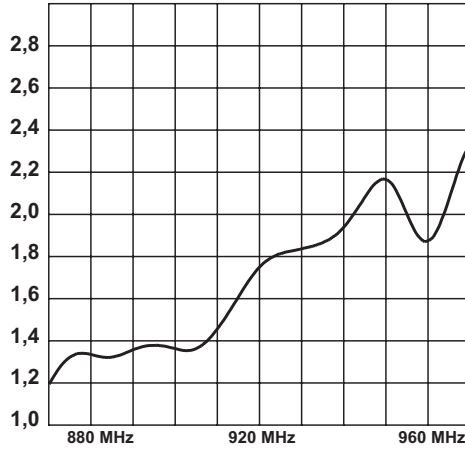
Antenna diagrams

Typ. VSWR

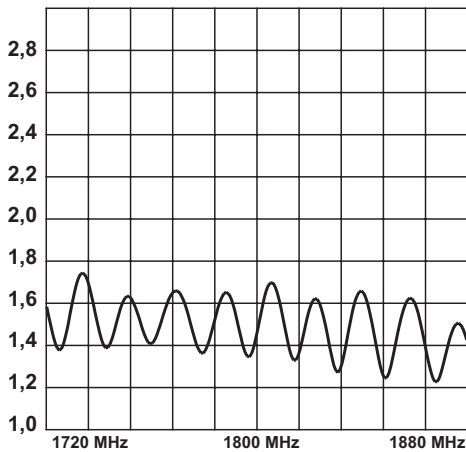
GSM 850



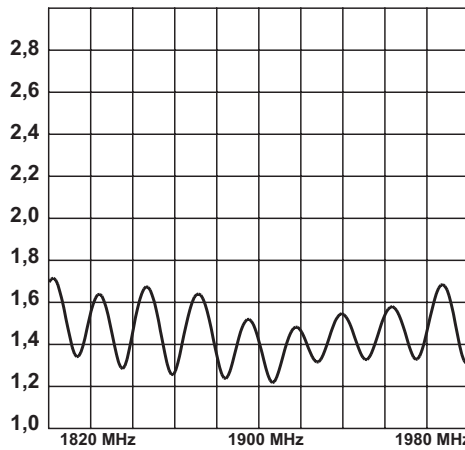
GSM 900



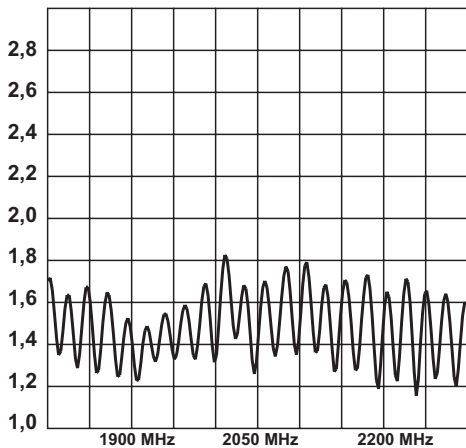
GSM 1800



GSM 1900



UMTS

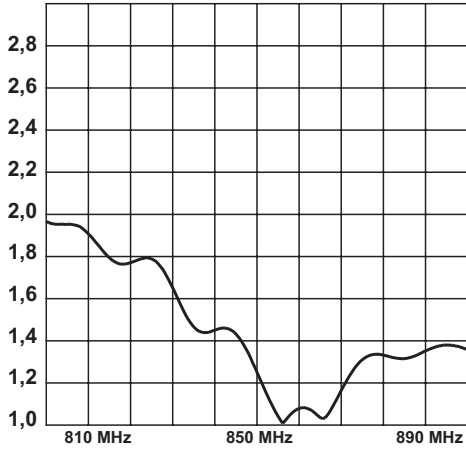


Installation on non-conductible plane

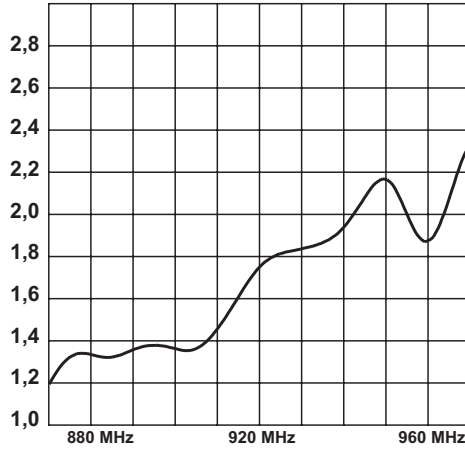
Antenna diagrams

Typ. VSWR

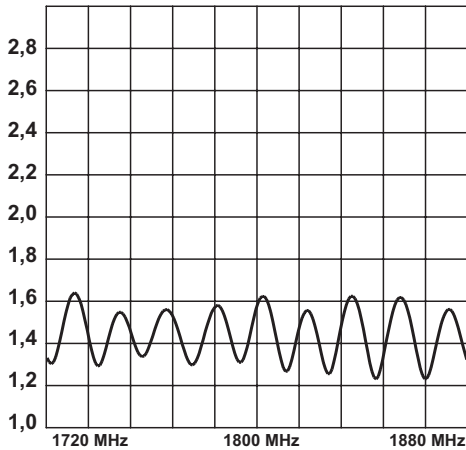
GSM 850



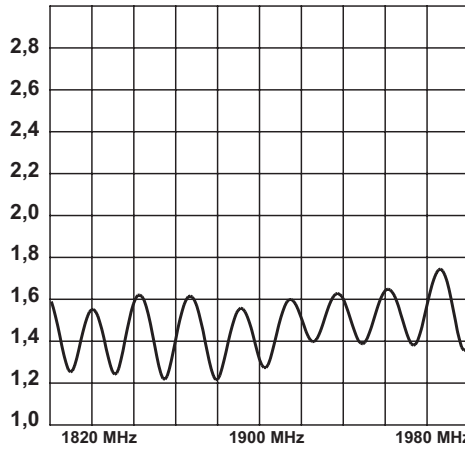
GSM 900



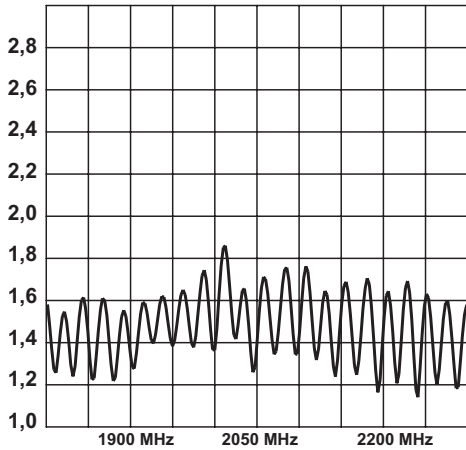
GSM 1800



GSM 1900



UMTS

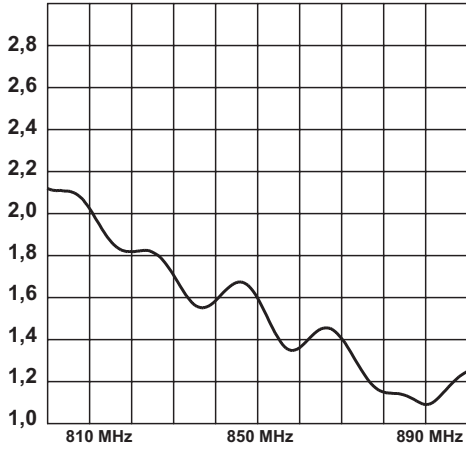


Installation between 2 metal parts

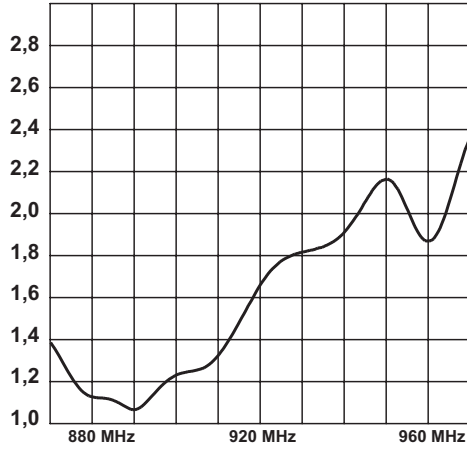
Antenna diagrams

Typ. VSWR

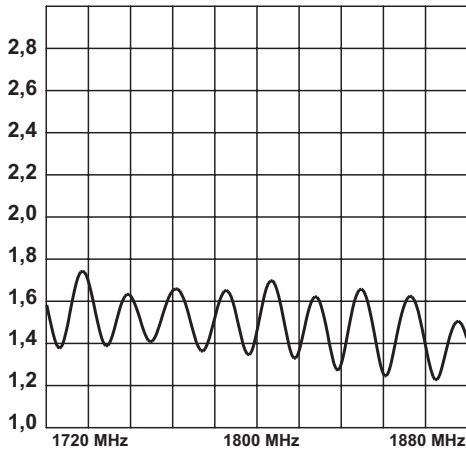
GSM 850



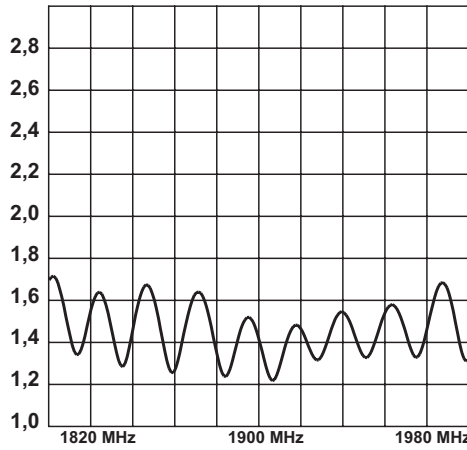
GSM 900



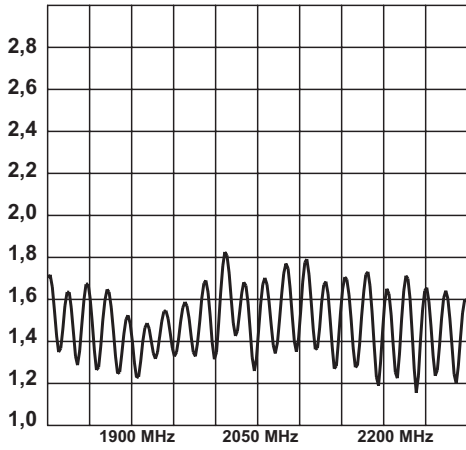
GSM 1800



GSM 1900



UMTS

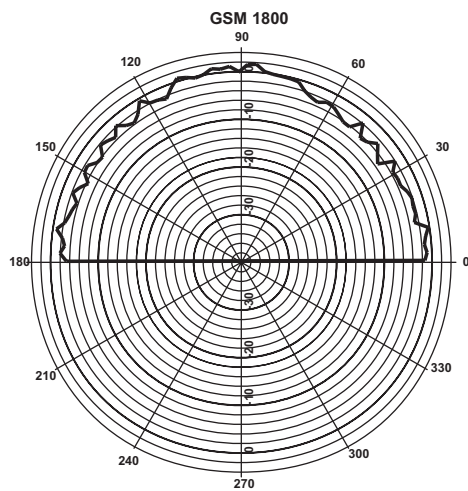
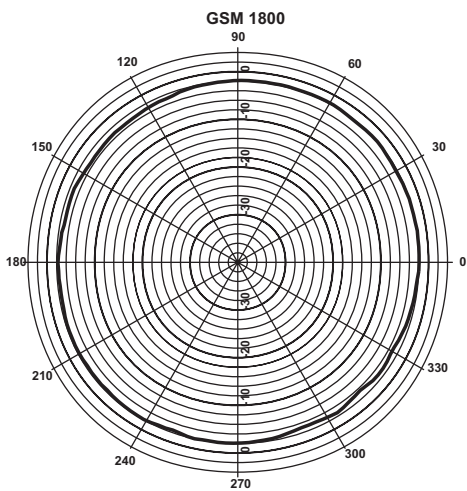
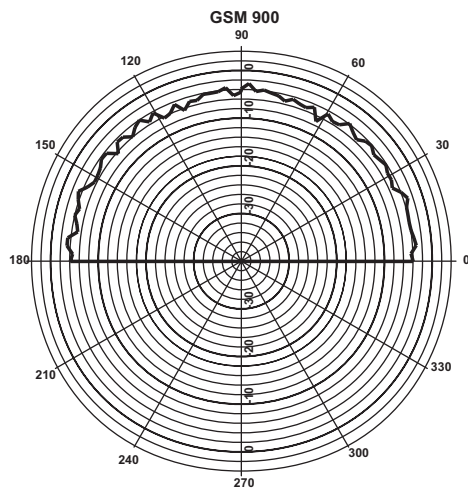
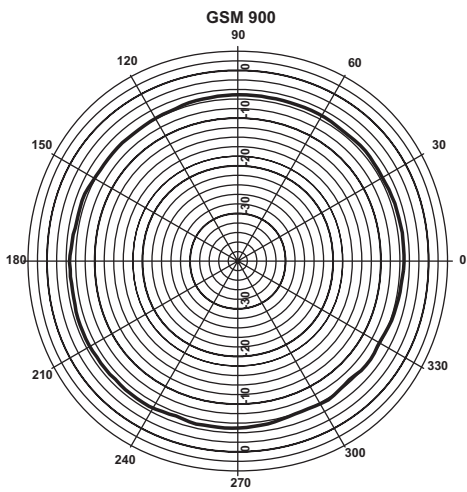
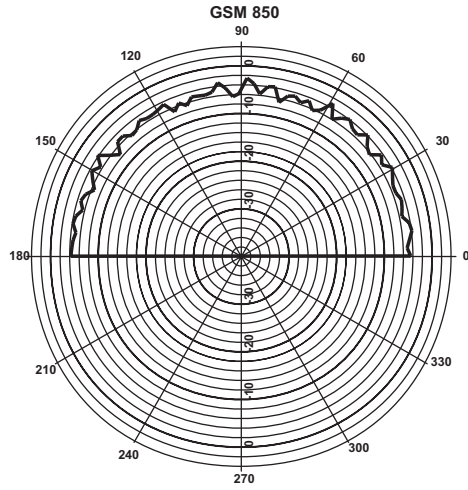
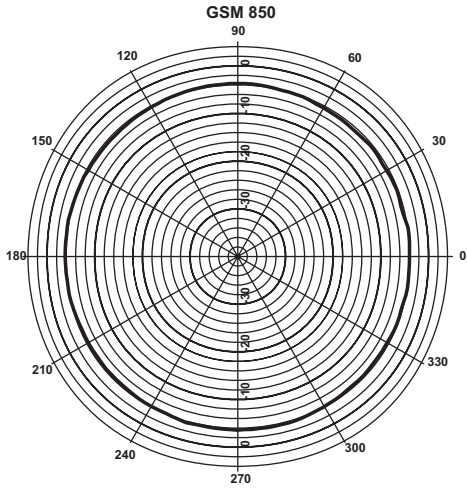


Antenna diagrams

Typ. Radiation Pattern

horizontal / Azimuth

vertical / Elevation

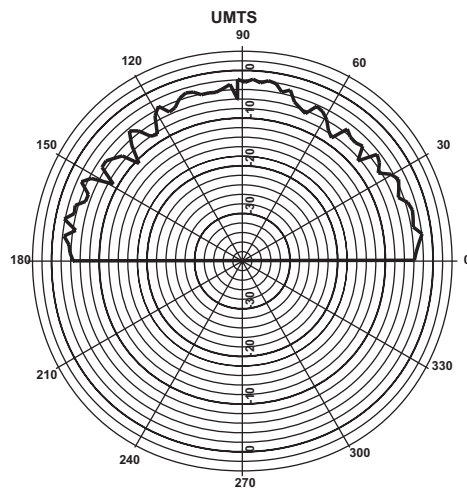
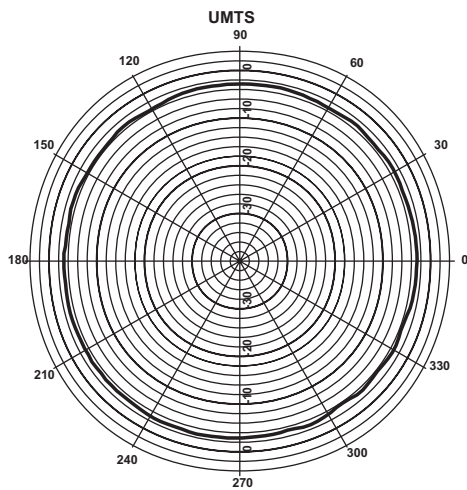
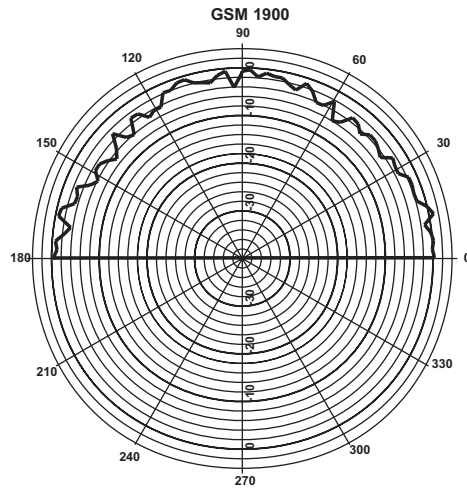
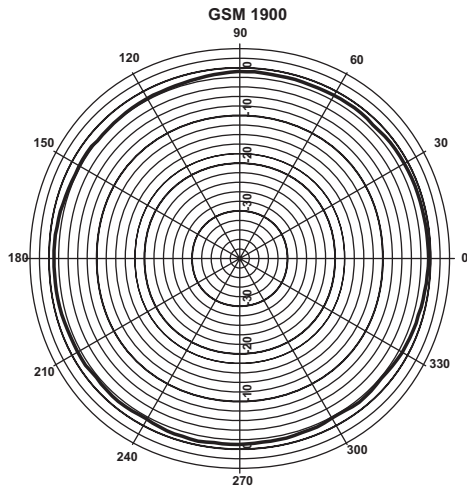


Antenna diagrams

Typ. Radiation Pattern

horizontal / Azimuth

vertical / Elevation



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