

PROFESSIONAL AUDIO²⁰⁰⁵



ABOUT US

dB TECHNOLOGIES

AEB, the **ACOUSTIC ENGINEERING BUREAU**, headquartered in Bologna, one of the most industrialized areas in Italy today, which today is one of the most industrialized areas in Italy. AEB has been designing and manufacturing electronic and electro acoustic products for the professional audio world for over 25 years under its trademark **dB Technologies**. Over the years, dB Technologies products have gained substantial recognition for their technological innovations, as well as their inherent standard of quality. Years of continuous significant investments in design, R&D and manufacturing technologies have made their mark on the industry.

AEB's ability to develop innovative products, in a remarkably short "time to market" is the key ingredient for an ever-increasing market share and success. Since its early beginnings AEB has pioneered and specialized itself in two specific technologies: Wireless technology as used in professional wireless microphones and in-ear monitoring systems, and modern audio amplification technology. Professional power amplifiers, active loudspeakers and audio mixers complete the comprehensive line of products developed and produced in our extensive facilities. It came naturally to AEB, that in the continuous quest to improve interrelated performance between the various components in active speaker systems, AEB is now also designing and manufacturing most of the speaker components used in its enclosures. This process allows us to optimize and match the performance of the electronic components to the electro acoustic transducers. With the introduction of the worlds first digital wireless System **DWS2400**, dB Technologies again leads the market to a new standard in wireless technology.

A further mark of distinction of **dB Technologies** products is the major emphasis given to details and design.

dB Technologies aim is to provide the audio professional, as well as musicians and sound designers, with products that combine high performance with world renowned Italian flair and design. With the cooperation between Italy's finest designers it has been possible to develop truly elegant loudspeakers, which make their own significant contribution to a magnificent stage setting.





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DWS2400

2.4 GHz Digital Wireless System



2400 MD/MC Handheld Transmitter

- 16-channel Dual-Band transmitter
- 2.4 GHz data carrier
- 770-870 MHz Servicelayer
- 2400 MD with beyerdynamic's TG-X 58[®] dynamic supercardioid capsule
- 2400 MC with beyerdynamic's M21[®] condenser cardioid capsule.
- Delta-Sigma 20 Bit AD-converter
- Sampling Frequency 44.1 KHz
- LCD display
- average 6 hours operation (9V alkaline)



2400 P

The future in wireless technology

The DWS2400 is the worlds first digital wireless system operating in the 2.4GHz range, leading the way to the future of wireless transmission. Digital Wireless brings a new dimension to the sound, dynamics and the noise ratio of wireless systems, avoiding the limitations of analog systems.

Dynamics unlimited

Analog Wireless Systems always require a compander system to reduce the signal to noise ratio to an useable level, meaning the signal is being compressed in the transmitter and on the other side decompressed in the receiver. This method is required in every analog wireless system. Unfortunately this limits the range of dynamic, in particular for guitarists and bass players. However, with the digital wireless transmission the analog technology will become outdated. The signal is converted through a high profile Delta Sigma 20bit AD-Converter in the transmitter into digital data. Those data packages are sent to the receiver to be converted back into an analog signal. This technology allows a natural, full dynamic range. The data transmission also avoids also the frequency modulation of an analog system. The result is a crystal clear sound without hissing.

Transmission from 20-22KHz

The frequency range of a DWS2400 System means CD-Quality. The sampling rate of 44.1KHz gives an unbelievable range of 20Hz to 22KHz. Analog systems only manage a range of 50Hz up to 15KHz due to the method of construction.

Gigahertz

The DWS 2400 works on a 2.4GHz basis in the upper UHF range, allowing an enormous amount of broadband data transmission. This method requires a special antenna technique, which was implemented in the 2400 R receiver, the so-called PATCH - Antenna, that is mounted on top of the receiver so that it can be flipped up easily. The DWS2400 System works on the principle of true diversity technology, meaning two separate receiver channels work independently, and are controlled by intelligent electronics to always process the best incoming signal allowing for an absolutely reliable system!

Digitally yours

The known latency (delay) of digital signal processing is an outstanding 2 ms and therefore not noticeable for the user.

2400 P Pocket Transmitter

- 16-channel Dual-Band transmitter
- 2.4 GHz data carrier
- 770-870 MHz Servicelayer
- Delta-Sigma 20 Bit AD-converter
- Sampling Frequency 44.1 KHz
- Input gain control
- Peak signal LED
- average 6 hours operation (9V alkaline)
- 2400 G incl. guitar cable

Digital Receiver 2400R

- 16-channel Dual-Band receiver
- intelligent frequency-scan software
- UHF True-Diversity
- Digital Code Squelch
- 2,4Ghz Patch-Antenna
- LCD display for frequency signal strength and audio status
- Battery status LED (from transmitter)
- Balanced XLR & unbal. Jack output
- output level adjustable
- connectors for external Antennas or Splitter
- Robust metal 9,5" housing



Safety of operation

In addition to the transmission of digital data packages on the 2.4 GHz basis in true diversity technology, the DWS 2400 offers a second, independent analog signal path for maximum safety. This "service channel" works parallel to the digital transmission, so that in the unlikely event dropouts do occur off the digital signal, they are then auto-correlated in real-time via the service channel. The service channel also transfers data such as the mute control for noiseless on/off switching of the transmitter, identity codes, and battery status to the receiver.

Intelligent Receiver

The latest Version of the DWS2400 incorporates intelligent software to allow management of frequency scans for multi channel setups. In addition to the 16 pre programmed frequency Combinations, there are also a further 24 different combinations (patterns) available.

DWS 2400 G

The DWS2400 G addresses professional guitarists and bass players who want wireless technology without any compromise. The DWS2400G comes in a carbon fiber housing with an adaptor cable (6.3mm Jack) for instrumental amplifiers.

DWS 2400 M/MC

For Vocal Artists with high expectations to sound performance, the ergonomically shaped handheld microphone, made out of rugged metal with an integrated display is available either with a dynamic hypercardoid beyerdynamic TG-X 58 capsule or with a high quality beyerdynamic condenser capsule.

AS4X

Suitable for professional multichannel setups, up to 4 DWS 2400 Systems can be daisy chained via SMB connectors. The active antenna splitter AS4X provides the best possible reliability for multichannel operation and allows flexible antenna positioning. The AS4X provides phantom power if active antennas need to be used.

RDA 2400/900

The dual band directional antenna RDA2400/900 can be connected directly to the receiver and provides +6dB more RF-signal, or in conjunction with the AS4X, as an active Antenna with a gain of up to +19dB - for best performance in long distance applications.

PU910

Digital Controlled 16 Channel System



"The sound of the PU 910-Systems is very good. This is due to the high quality transducers as well as the system dynamic of more than 105 dB nominal."

Soundcheck Magazine 9/02

The PU 910 sets new standards in the area of wireless transmission technology.

The latest 4 layer PCB structure in SMD technology with components only 0.07 x 0.15 mm in size, this technology, also used in mobile phones of the latest generation, makes an excellent audio performance possible with the highest operating reliability and long battery life, due to low current consumption.

The newly developed digital squelch control offers extremely high operating reliability.

The simultaneous transmission of the battery status of the transmitter to the receiver provides convenience and security at the same time.

If the battery capacity is only sufficient for 30 - 45 minutes, the "Battery Low" warning is passed on to the receiver, which can be seen by the sound technician by the use of a red LED.

The professional audio design, achieved through high-grade, low noise pre-amplifiers, in conjunction with the polished PLL UHF technology with 16 bit microprocessors, make the PU 910 the first choice for professional users.

The newly developed compander circuit uses the latest components for high linearity and minimal interference noise. Dynamics, audio quality, and operation set new standards at this price/performance ratio.



Handheld transmitter PU 910M

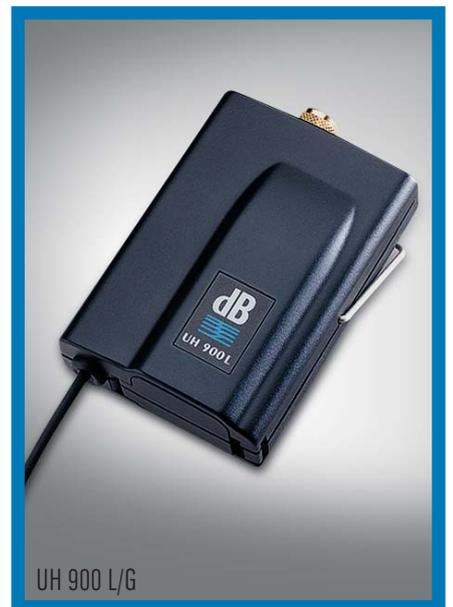
- with beyerdynamic TG-X 58[®]-capsule

Handheld Transmitter UH 910 M

- Robust metal housing
- Digital Pilot Tone control
- Integrated antenna
- Single switch operation
- Battery status LED
- Ergonomic design
- An average of 50% reduction of battery costs (AAA batteries) and average 12-hour operation

Pocket Transmitter UH 900 L/G

- Very compact design
- 3.5 mm, lockable mini-jack connector
- Phantom power 5V (L Version)
- Audio-Mute switch
- Input gain control
- Peak signal LED
- Battery status LED



PU 910 R Receiver

- Diversity PLL UHF
- 16 switchable frequencies
- Robust metal 9,5" housing
- Digital squelch control LED
- Battery status LED
- LCD display for frequency signal strength and audio status
- Detachable antennae with BNC connectors
- Balanced XLR output



Multi-channel-Applications

The receiver in a 9.5" metal casing provides information on all the essential operating parameters, such as operating frequency, HF and audio level and also the battery status of the transmitter, through its large illuminated display. The antennae are mounted on the front and can be removed allowing them to be repositioned or permitting the use of the optional active antenna splitter AS6 in multi-channel applications.

The active antenna splitter AS6 is recommended for the maximum in operating reliability and high range where more than two PU 910s are operated in parallel. Up to six PU 910 receivers can be connected to the AS6. For more than six systems, several AS6s can be cascaded. For the use of the active AA 900 antenna amplifier, the AS6 provides a switched phantom feed.

The AA 900 antenna amplifier is recommended to compensate for RF signal loss on long antenna cables.

There is a choice of +8dB or +16dB amplification available. If for example high ranges are required, for instance in open-air applications or in large halls, the RDA-900 directional antennae set will increase the possible range considerably and optimize operating reliability.

The directional antennae can be installed on microphone and loudspeaker stands or, for instance, in a truss system.

In addition to the connection cables, the delivery specification for the RDA 900 set also includes a rain hood for outdoor applications.



Directivity-Antenna-Set
RDA 900/2400

Touring Rack 910X



VH 512 Headset

- Condenser capsule
- cardioid



VH 531 Headset

- Condenser capsule
- cardioid
- black or flesh

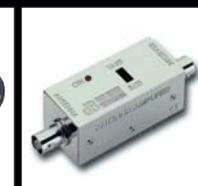


VH506 Guitar Cable



VH 504 Lavalier

- Condenser capsule
- cardioid
- incl. windshield & clamp



Antenna amplifier

- +8/+16 dB with long antenna cables



AS 6 Antennasplitter

Active 19" Antenna splitter for up to six PU910 Diversity-Receiver.

PU901

Digital Controlled Wireless System



Based on the modern technology of the **PU910 series** the **PU901** provides a high-quality wireless connection with ease of use and high reliability. In it's price class unique features such as the digital pilot tone, wich controls squelch as well as supports the battery management system are integrated to help make the PU 901 series the first choice for multi-channel systems, for example in combination with the active antenna splitter AS6.

Two sets are available:

The **PU 901 M** set consists of the hand held transmitter UH 901MC. The specially suspended cardioid condenser capsule assures a most natural voice transmission and significantly reduces any possible handling noise to a bare minimum. The ergonomic, well-balanced design also offers easy access to all essential controls. The UH 901R receiver completes the system.

The **PU901 P** set consists of the pocket transmitter UH900P which can be combined with a selection of lavalier, headset or instrumental microphones or with the adapter cable VH506L to 6.3mm jack for instruments. 5V phantom power is supplied to accommodate condenser microphone capsules, and input signal levels can be precisely controlled by the adjustable Input-Level Control with LED indicator. The UH 901R receiver completes the system.



UH901 M - Front



UH901 M - Rear

Receiver UH 901 R

- 16 switchable frequencies
- Digital squelch control LED
- Battery status LED
- Detachable antennas with BNC connectors
- Balanced XLR output

Handheld Transmitter UH 901 MC/MD

- 16 switchable frequencies
- Version MD with beyerdynamic TG-X 58[®]-capsule
- Digital Pilot Tone control
- ON-/OFF and MUTE-Switch
- An average of 50% reduction of battery costs (9V battery) and average 12-hour operation

Pocket Transmitter UH 901 P

- 16 switchable frequencies
- Digital Pilot Tone control
- 3.5 mm, lockable mini-jack connector
- 5V Phantom power
- Input gain control
- 9V-battery (10-13 hr)



UH 900 P



Accessory:

- | | |
|--------|--|
| AS 6 | Antenna Splitter for up to 6 PU901 R |
| RDA900 | Directivity-Antenna-Set |
| AA900 | Antenna-Amplifier |
| VH507 | 19" Rackmount-Kit for 2 x PU901 R |
| VH504 | Condenser Lavalier Microphone |
| VH512 | Condenser Headset Microphone |
| VH531 | Condenser Headset Microphone |
| VH506L | Adapter cable 6.3mm Jack for Instruments |

PU120/150

UHF Diversity System

The **PU Performer series** offers professionals the combination of UHF frequency operation with the highest audio performance at an extremely affordable price. The quartz-controlled design ensures frequency stability and a high level of rejection of unwanted signals.

The **PU series** offers a variety of transmitters and receivers, which can be combined for a wide range of applications.

The series is available in 12 fixed frequencies and up to 6 frequencies simultaneously.

The combination of quartz control and fixed frequency stability makes this series ideal for the most demanding fixed site installations and traveling performers.

The **PU series' transmitters** are available with either dynamic or condenser capsules with the addition of the TG-X 58[®] dynamic capsule from beyerdynamic.



Handheld Transmitter PU 120M/MD

- Cardioid dynamic capsule
- Version MD with beyerdynamic TG-X58-Capsule
- Integrated antenna
- Audio-Mute switch
- Battery status LED
- Ergonomic design



Pocket Transmitter PU 150 L/G

- Very compact design
- 3.5 mm, lockable mini-jack connector
- Phantom power 5 V (L Version)
- Audio-Mute switch
- Input gain control
- Peak signal LED
- Battery status LED



Optional AFP Anti Feedback Processor

- Automatically eliminates Feedback
- 15 self adjusting Notch-Filters
- Up to 30dB more Headroom
- 2 programs switchable (Music/Speech)
- Individual Filters per Microphone
- Better Sound



Presenter-Sets - PU 150 L

UH 150 L pocketpack transmitter is supplied with a condenser tie-clip microphone.



Guitar-Sets - PU 150 G

The UH 150 G guitar transmitter is supplied with a VH 506 cable which terminates in a 6,3mm mono guitar plug.



Head-Sets - PU 150 DHM

For applications requiring a headworn-microphone, the pocket transmitter UH 150 L is supplied with a VH 512 headworn condenser microphone.

WM210PRO

VHF Single Antenna System

The **WM 210 Series** is the entry-level wireless product from dB Technologies. This system offers a great price/ performance ratio with simple Plug&Play operation.

Despite its competitive price point, the system offers many professional features such as balanced XLR connectors, variable squelch control, and output level control.

This fixed frequency system is ideal for AV, educational and installation markets. Due to its selectivity, up to 5 systems can be operated simultaneously.

Handheld Transmitter VH 210 M

- Cardioid dynamic capsule
- Integrated antenna
- Audio-Mute switch
- Battery status LED
- Ergonomic design



WM 210 R Receiver

- 1 telescopic antenna
- Robust construction
- On/Mute- and RF-Signal-LED
- Squelch and volume control on front panel
- Balanced XLR output
- 9.5" Rackspace

WM 210 M Vocal-Set

The Vocal-Set consists of the VH 210 M handheld transmitter and the WM 210 R receiver. Due to its cardioid capsule the transmitter offers good feedback rejection with superior vocal performance.

WM 210 L Presenter-Set

The WM 210 L Presenter-Set includes a condenser tie-clip microphone and is ideal for Lecturer's / Presenter's, video and theatre applications.

WM 210 G Guitar-Set

The Guitar-Set comes complete with an inter-connect cable with a 6.3 mm jack plug. The low input sensitivity makes this system ideal for all instruments including bass guitar.

WM 210 DHM Head-Set

Ideal for presenter's, drummers, keyboard players or anywhere where hands-free operation is necessary. The system comes complete with a VH512 headworn microphone.



WM220PRO

VHF Diversity System

The **WM 220 system** operates in the VHF range employing diversity technology. The diversity technique uses two antennae to ensure trouble-free reception. The system automatically detects the best signal and switches to the best signal without any noise.

The **WM220-Series** is also available with **AFP Anti-Feedback-Processor**.

AFP

- Automatically eliminates Feedback
- 15 self adjusting Notch-Filters
- Up to 30dB more Headroom
- 2 programs switchable (Music/Speech)
- Individual Filters per Microphone
- Better Sound



WM 220 Receiver

- VHF Diversity
- 2 telescopic antennae
- On/Mute and RF Signal LED
- Squelch and volume control on front panel
- Balanced XLR output
- 9.5" Rackspace

WM 220 M Vocal-Set

The WM 220 M Vocal-Set consists of the VH 210 M handheld transmitter equipped with a cardioid dynamic capsule and the WM 220 R diversity receiver.

WM 220 L Presenter-Set

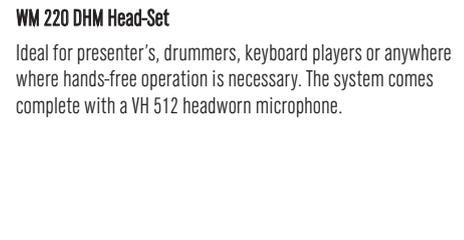
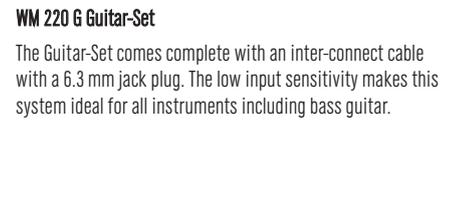
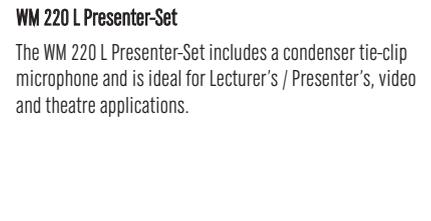
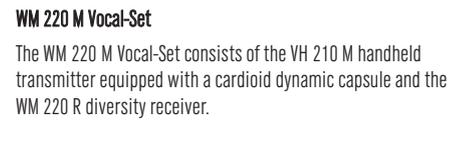
The WM 220 L Presenter-Set includes a condenser tie-clip microphone and is ideal for Lecturer's / Presenter's, video and theatre applications.

WM 220 G Guitar-Set

The Guitar-Set comes complete with an inter-connect cable with a 6.3 mm jack plug. The low input sensitivity makes this system ideal for all instruments including bass guitar.

WM 220 DHM Head-Set

Ideal for presenter's, drummers, keyboard players or anywhere where hands-free operation is necessary. The system comes complete with a VH 512 headworn microphone.



KS

VHF Multi-Channel Systems

KS Multi-Receiver

To meet the demands of specialist markets, dB Technologies has developed the **KS 22 series** and **KS 44** series wireless system.

The **KS 22 series** offers the space and cost saving benefits of two separate receivers built into one housing. The KS 2R diversity receiver housed in a half 19" 1U case has mute LED's, diversity operation and individual squelch and output controls. The system can be supplied with either handheld or bodypack transmitters. This system is ideal for karaoke or when two presenters perform simultaneously.

The **KS 44 series** is supplied with a four frequency, triversity **KS 4R** receiver. This metal cased, 1U 19" rackmount receiver features on/mute LED, diversity A/B LED, squelch and volume controls for four separate channels. The system offers tremendous flexibility with cost and space saving advantages.

KS 22 Set

Complete with two VH 210 M dynamic, cardioid handheld transmitters.

KS 2 R Receiver

This two frequency VHF diversity receiver can be combined with any combination of transmitters from the WM and PV series.

KS 44 Set

Complete with four VH 210 M dynamic, cardioid handheld transmitters.

KS 4 R Receiver

This 19" four frequency VHF diversity receiver can be combined with any combination of transmitters from the WM and PV series.



Pocket Transmitter VH 210 L/G

- 3,5 mm, lockable mini-jack connector
- Phantom power 5 V (L Version)
- Audio-Mute switch
- Input gain control
- Peak signal LED
- Battery status LED



Headset VH 512

Hands-Free!

Operation is possible with the headworn VH 512 condenser microphone. Used in conjunction with any of our pocketpack transmitters, this microphone offers superb vocal performance with comfort and stability.



Handheld Transmitter VH 210 M

- Cardioid dynamic capsule
- Integrated antenna
- Audio-Mute switch
- Battery status LED
- Ergonomic design

KS 4R Receiver

- Triversity VHF 4 channel receiver
- 3 telescopic antennae
- 19" metal housing
- On/Mute and channel A/B LED
- Squelch and volume control per channel on front panel
- Four balanced XLR outputs



KS 2R Receiver

- VHF diversity, two channel receiver
- 2 telescopic antennae
- Robust construction
- On/Mute and RF Signal LED
- Squelch and volume control on front panel
- Balanced XLR output
- 95" Rackspace



IEM 1100

UHF Mono In-Ear System

A new standard is establishing itself In-Ear Monitoring!

In common use on the world's stages, these systems have been out of reach for most musicians... until now. In-Ear monitoring offers all musicians many advantages over conventional stage monitors... individual mixes with complete control, feedback on stage is eliminated, faster sound checks, reduced audio level on stage, less equipment to transport and greater individual safety and comfort when performing.

FREE YOUR PERFORMANCE with the IEM 1100.

The IEM 1100 from dB Technologies offers professional In-Ear monitoring at an incredible price/ performance ratio. No compromise UHF technology combined with rugged construction and easy plug & play operation makes the IEM 1100 an ideal choice for the working musician. Housed in a metal case the transmitter features a dual input section with link-out, detachable antennae and full monitoring facilities. Two separate, balanced signals can be mixed to the mono output offering a wider range of mixes. Transmitters can be cascaded offering multi-mix opportunities. The battery belt-pack receiver comes complete with Sony™ headphones.



IEM 1100 R In-Ear Receiver

- Shatterproof carbon fiber casing
- Output level control
- Battery low indicator
- Soft squelch function
- Limiter and compander circuits



IEM 1100 T In-Ear Transmitter

- UHF quartz controlled
- 9,5" metal housing
- Detachable antennae
- Balanced two-channel mix in/out
- Limiter and compander circuits
- Input level and LED monitoring of both input channels

What sets dB Technologies' In-Ear Systems above the competition ?

Dynamic Range

As a musician, you will appreciate the difference between live and reproduced music. Any system for music reproduction, by nature alters the dynamic range of sounds. Our latest systems have been developed employing unique compander technology coupled with a dynamic range of 105 dBm to produce a level of performance unavailable in previous systems.

All wireless systems use compression in the transmitter and expansion within the receiver to control the transmitted signal. Our unique approach to IEM ensures the minimum loss of dynamic range and the highest signal-to-noise ratio.

Frequency Response

For critical applications such as monitoring it is vital that you hear the widest possible frequency range including low bass frequencies. Our IEM systems are designed to deliver bass frequencies, which other competitors cut to enhance

battery life. Also included with each system are SONY™ professional performance earpieces, which are capable of reproducing the full frequency spectrum that our wireless systems are capable of delivering. The result is obvious if you compare our systems with any competitor.

All Included:

Supplied with each system are SONY™ headphones, their frequency response of 20 – 20000 Hz ensures the highest possible audio performance.

IEM 1100
IEM 1100 R
MPH 100

Complete set with earpiece set
Receiver without earpiece set
SONY™ High Resolution earpiece set



IEM 2200

UHF Stereo In-Ear System

The **IEM 2200 system** has every conceivable feature and operates in stereo or the dual-mono function. This system is the ultimate in professional In-Ear monitoring!

Operating in the UHF band with 16 switchable frequencies, it can perform under the most rigorous conditions in multi-channel installations.

The system can operate in stereo or via the dual-mono function, and the receiver can be fed with two individual audio signals.

It is possible to mix two separate channels on either the transmitter or receiver, thus offering the ultimate in personalized mixes.

The 19" metal-housed rackmount transmitter features a large LCD display for frequency, RF, and AF levels. There is a front-mounted pan control for stereo balance, which can be configured as a L+R mix control to combine audio sources.

The output can be monitored with a gain control from either a 35 mm or 65 mm stereo jack socket. Balanced XLR inputs and outputs allow units to be cascaded.

The **IEM 2200 system** offers user safety by using limiter circuits in both the transmitter and receiver.

IEM 2200 T Stereo Transmitter

- Stereo, mono, dual mono mode
- UHF 16 switchable frequencies
- 19" rackmount housing
- LCD display for frequency and AF level
- Input level control
- Output level control
- Dual headphone monitoring output 6.3 mm and 3.5 mm
- Limiter and compander circuitry



IEM 2200 R InEar-Receiver

- Stereo, mono, dual mono mode
- UHF 16 switchable frequencies
- LCD display for frequency and AF level
- Battery level status LED
- Output level control
- Shatterproof carbon fiber casing
- Soft squelch function
- Limiter and compander circuitry
- 6 – 9 hrs. operation 9V alkaline battery (with originally supplied headphone)



The advantages of In-Ear Monitoring

- Wireless operation enables total freedom of movement
- Individual monitoring mix with controlled levels offers hearing safety
- Greater immunity to feedback combined with cleaner mixes
- Less equipment to carry and more space on stage
- Faster sound checks and the capability for more individual mixes
- Lower sound levels on stage offering improved audience clarity
- Easier set-up of monitor mixes, as stage acoustics no longer apply

Supplied with each system are **SONY™** headphones, their frequency response of 20 – 20000 Hz ensures the highest possible audio performance.

IEM 2200	Complete set with earpiece set
IEM 2200 R	Receiver without earpiece set
MPH 100	SONY™ High Resolution earpiece set



FIFTY LINE

Processor Controlled System

FL10 Passive

- 10" woofer horn loaded
- 1" B&C compr. driver
- driven by FL15
- 250 - 19.000 Hz
- SPL 131 dB peak
- Dispersion 60° x 50°
- Speakon4 Connector
- 23.5 kg / 52 lb
- 500x500x650 mm
- 20x20x25.5 in

FL15 3-Amp Active

- 100+300+500W RMS
- 15" Bandpass-Woofer
- 53- 250 Hz
- Max. SPL 132 dB
- crossover out at 250 Hz
- 2 x Neutrik Powercon
- 1 x Neutrik Speakon4-Out for Bi-Amping FL10
- 42 kg / 92.4 lb
- 500x500x650 mm
- 20x20x25.5 in

FL18 Active

- 800W RMS
- 18" RCF-Speaker, 4" Voice coil
- 40- 100 Hz
- Max. SPL 133.5 dB
- crossover out at 100 Hz
- 2 x Neutrik Powercon
- 50 kg / 110 lb
- 500x700x650 mm
- 20x27.5x25.5 in



With the new electronically controlled active system **FIFTY LINE** system, dB Technologies is able to offer the professional user an extremely flexible and compact PA system. Directly available are three main components:

The FL10, a passive mid and high frequency unit, is equipped with a 10" horn loaded mid-range driver, and a 1" B&C® compression driver.

dB Technologies long history and experience in developing high performance horns in fiberglass technologies has paid off once again.

The horn for the 10" mid-range driver is made of fiberglass, and therefore extremely lightweight and efficient, allowing for a maximum output level.

The specially designed high-frequency horn achieves an extremely homogeneous frequency and angle output.

By combining lightweight horns with 19 mm Birch-multiplex, dB Technologies has created a very compact, lightweight, and highly efficient enclosure.

Six integrated M10 flying points make for easy rigging, along with optional space bars, which are useful for stacking situations.

The **FL10** produces 131 dB peak output in a radiation of 60° x 50° with a frequency band of 250 Hz - 19.000 Hz. The 2-channel amplification for the FL10 is integrated into the FL15 unit. **FL15** is the mid-bass range unit of the system. The FL15 has both a 500Watt/RMS power amp, and a 300 + 100 Watt/RMS power amp, used to power the mid and high unit FL10 by using a 4-channel speaker cable.

The combination FL10/FL15 is in fact already a complete full range PA system.

The 3 channel integrated power amplifier is electronically controlled and offers several professional features such as; Powercon connections with link out,

4 speed fan with an easy access filter system, a -3dB switch to link the FL10, and an independent full-wave limiter for each power amp channel.

Additionally, an intelligent status LED is used to indicate failures such as low electrical power, limiter activities, and so on.

The standard cut frequencies of the internal crossover are: 250 Hz and 1.8kHz.

In a full range situation, the 15" bass of the **FL15** offers a frequency response of 52Hz to 250Hz in band pass design. In combination with the FL18 Sub bass unit, the FL15 is responsible for frequencies above 100Hz and gives a 132dB peak output. The unit offers two 35mm flanges for the use of space bars, four M10 rigging points and nine align points on the top side for stacking the top unit, in face or with an angle.



The Sub bass unit **FL18** is the perfect solution if there is a high power output needed in the low frequencies. Depending on the situation one or two FL18 units can be combined with a FL10/FL15 set.

The bass reflex unit is driven by an 18" RCF woofer with a 4" oscillation coil that moves from 40Hz up to 100Hz. Together with the internal 600 Watt/RMS class-H power amp, a peak output of 133.5dB can be reached.

The internal cross over separates at 100Hz.

The unit also includes all common protective circuits such as over-temperature, short circuit and RFI and also a full-wave limiter at the input side.

The cross over output towards the FL15 has a 0°/180° phase switch for phase corrections. Six Grips will help for easy handling of this 50kg/110 lb weight unit. When using two FL18 units, the top unit FL10 will reach a height of more than 2 mtr./6.5 ft without the use of any additional material.

The FL18 is equipped with a Neutric Powercon power connector. The link output can provide the power to the other (FL15) units.

All **FIFTY LINE** units have an extremely strong 2-component Polyurethane outside protection and are fitted with a 1.5mm steel grill.

There are wheel sets available for the FL18 and FL15 for easy transport. These wheel sets can be easily set with two M10 fly points at the back of the unit.

For the full range use of the FL15/FL10 set, a space bar set is available with angle correction (up to 4°) for the FL10.

Besides high quality, **FIFTY LINE** offers an exceptional acoustical sound and professional look in an extremely flexible and compact system.

The possibilities are endless, from the full range set up FL10/FL15 for smaller productions and speech applications, to gala and concert productions with the use of a FL18 unit, up to a high powered set up with the use of two FL18 units in Disco, Top 40 or Rock 'n' Roll productions.

FIFTY LINE. The flexible PA for the professional. The compact reliable partner for concert halls and open-air productions.



FORTY LINE

Processor Controlled Active System

QL 12 Passive High-Mid-Unit

- 12" Woofer 2.5" Voice coil
- 1" compr. driver
- 90°x60° dispersion
- 200 - 19,000 Hz
- 128 dB SPL peak
- 3 x M10 flying points
- 1 x Speakon NL4 Connector
- 435/140x600x400mm / 17,1/5,5x23,5x15,75 in
- 23.5 kg / 51,8 lb

QL 15 Active Woofer

- 15" Woofer with 3" Voice-Coil
- TriAmp-amplifier with 500+200+100 Watts/RMS
- Integrated Audiocontroller
- Full-Wave-Limiter per channel
- 4-speed fan
- 130 dB SPL peak
- 55 - 200 Hz (90-200 Hz with QL215)
- 1 x XLR/Jack Input
- 1 x XLR Parallel-Out
- 1 x Speakon NL4 Output
- 435x700x500mm / 17,1x27,56x19,7 in
- 31.2 kg / 68,8 lb

QL 152 Active Subwoofer

- 2 x 15" Woofer 2.5" Voice coil
- Class H-amplifier with 800 W/RMS
- Integrated Audio controller
- Full-Wave-Limiter
- 4-speed Fan
- 134 dB SPL peak
- 40 - 90 Hz
- 1 x XLR/Jack Input
- 1 x XLR Parallel-Out
- 435x700x700mm / 17,1x27,56x27,56 in
- 42 kg / 92,6 lb





Based on the amplification concept of the successful FIFTY LINE system, the new FORTY LINE system offers high sound pressure levels with professional audio quality. Compact cabinet measurements, and lightweight enclosures, make the FORTY LINE the perfect choice for professional public address systems. Useful for most sophisticated applications, the FORTY LINE is easy to handle, small in size and totally portable, making it the ideal solution for single person installations.

The basic-set consists of two QL15 active subwoofers and two passive QL12 tops. The QL15 subwoofer is a solid bass-reflex subwoofer with a highly stressable 15" woofer with a 3" voice coil. The 3-channel amplifier, which is integrated in the QL15, supplies 500watt/RMS for the internal 15" and 200+400 watt/RMS on the four-core speakon connector. A digital processor, which handles the active frequency crossover, also has an integrated time and phase correction unit, active EQ unit, and extensive protective circuitry, which ensures perfect sound reproduction and the safe operation of the power amplifier stages at all times.

The QL12 top uses a 12" mid woofer and a 1" driver with a pure titanium diaphragm. All speaker components are designed by dB Technologies and are produced under the highest quality criteria. The specially designed HF-horn offers a wide and clear dispersion (90°x60°). As a result of these selective measures utilizing high-class components and superior assembly processes, together with active separation and delay adjustment, the QL12 top reaches a sound pressure level of up to 128dB of crystal clear sound.

A high frequency boost switch is incorporated to adapt the high frequencies to a particular acoustical environment when required.

If additional Bass SPL is required, for example during open-air performances, the basic FORTY LINE System may be enlarged with the addition of 2 QL152 subwoofers. Given the fact that the frequency response of the QL15 is reduced to the frequency range of 90 - 200 Hz, not only is the bass sound reflection much more powerful, the low mids profit too! Due to its multi-chamber band-pass construction and the 2 efficient 15" woofers, the QL152 subwoofer, which is powered by the integrated 800watt/RMS Class-H amplifier, supplies an incredible 134dB in the frequency range of 40-90 Hz.

All amplifiers of the FORTY LINE system are equipped with powercon mains connections with loop through. The internal fan is controlled by temperature and all amplifiers are protected from dust by a special filter. The enclosures are made of multiplex and coated with a robust lacquer in Cobalt Blue. The subwoofer features mounting points for a trolley, and the top features a flange for a stand and three M10 threaded fly points. Due to their optimized position, the threaded fly points automatically offer an inclination of 20°. The QL15 subwoofer also has a compartment built in to accommodate the main cable and the 4-core speaker cable to connect to the QL12 top unit. Mains cable and the interconnecting cable for the QL12 are included with the QL15.



QLS 152 System

4-Way Active, 3.200W RMS

QLS 151 System

3-Way Active, 1.600W RMS



STAGE OPERA

STAGE OPERA

After the great success of the active models of the OPERA series, the obvious thing to do was to put the knowledge gained into effect in larger systems that are more powerful.

Active systems enjoy great popularity and not without reason:

The possibility of being able to tune the output stage and the loudspeaker system perfectly to each other, and the use of active separation of the output stages for each frequency band, allows unequalled sound at the highest level of effectiveness.

Class H output stages are used exclusively in all power amplifiers. These convince with their high efficiency, low heat generation, and high reliability.

The 2 way model 42.12 uses a class H bi-amped amplifier system, with 300 W/RMS for the 2 12" woofers and 100 W/RMS for the 1" compression driver.

The 3 way model 82.15 (2 x 15", 6.5", 1") is driven by a TriAmp amplifier with 500 W/RMS for the 2 15" woofers, 200 W/RMS for the 6.5" B&C midrange driver, and 100 W/RMS for the 1" B&C pressure compression driver.

Due to the specially developed constant directivity horns designed to fit into the housing, the high-grade B&C drivers achieve a very clean radiation characteristic with angle of 90° x 60°. Thus for smaller set-ups an adequate radiation is already guaranteed with two systems.

The 3 way model 82.15 shows its true strengths mainly in the mid to high frequency area.

The 6.5" B&C mid-frequency driver with phase plug exhibits a unique soft and natural mid-range with high speech clarity that achieves a long throw, which can be attributed to the special horn adaptor. Due to the reduced strain on the 1" driver in the mid frequencies, this exhibits an extremely smooth response.

All active STAGE OPERA models are fitted with a dynamic limiter, which protects the system from overload and engages softly and is virtually inaudible.



TriAmp STAGE OPERA 82.15

- 2x15", 1x6,5" B&C, 1x1" B&C
- 500+200+100 W/RMS
- 50 - 20000 Hz
- SPL max. 130 dB SPL
- XLR/Jack-Input
- Parallel-Out
- dynamic Limiter



BiAmp STAGE OPERA 42.12

- 2 x 12", 1 x 1" B&C
- 300+100 W/RMS
- 60 - 20000 Hz
- Max. SPL 127 dB
- XLR/jack input
- Parallel output
- Dynamic limiter

	STAGE OPERA 42.12	STAGE OPERA 82.15
Amplifier	Bi Amp Class H	Tri-Amp Class H
Output (RMS)	300+100 W	500+200+100 W
Loudspeaker	2x12" Bass	2x15" dB Bass
	1" compr.B&C HF	6,5" B&C Mid.
Frequency response	60 - 20000 Hz	1" compr.B&C HF
Max. SPL	127 dB	50 - 20000 Hz
Cross-over	2,2 KHz	130 dB
Input Sensitivity	max. 0 dBm	700 Hz/3 KHz
Input connection	Neutrik Combo®	max. 0 dB
Output connection	XLR balanced, parallel	Neutrik Combo®
Impedance	20 K Ohm balanced,	XLR balanced, parallel
Dimension	1000 x 430 x 480	10 K Ohm unbalanced
Weight	39 kg/ 86 lb	1400 x 500 x 500
		59 kg/ 130 lb

STAGE OPERA

BiAmp ClassH Monitor

STAGE OPERA M12-4

- 2 way bi-amplified active monitor
- 12" dB Technologies Woofer
- 1" B&C Compr. 90°x60°, adjustable
- 225 + 50 Watt/RMS, 550 Watt/PRG
- 70 - 18000 Hz
- Max. SPL: 126 dB
- Housing made of 20mm black lacquered multiplex
- Two set-up angels, 45° & 60°
- Standmount
- Weight: only 19kg/ 42 lb



A monitor is not just a simple loudspeaker. Much higher demands are made on a monitor... It should reproduce the performance of a musician as a reliable control, often in a very loud environment, with a high feedback limit.

With this guideline, chief development engineer Claudio Ottani has made the M 12-4 into a high level event, developed more on the stage than at the work bench, he has designed an unusual top-class active monitor in collaboration with many musicians and sound engineers.

The acoustic requirements can only be achieved by perfect sound control and the highest quality of components, so only a Bi-Amp operated active concept was worth considering. The active separation enables a clean linear frequency response and thus a very high feedback limit.

The two integral output stages in class H technology provide 225 W/RMS to the 12" dB Woofer and 50 W/RMS to the B&C 1" pressure compression driver, which has a 90° x 60° pivoting horn.

In this way, a maximum sound pressure of 128 dB SPL is achieved.

To optimize the highest backward attenuation on microphones with cardioid or hypercardioid characteristics, the two loudspeakers are arranged one over the other, making perfect positioning possible.

The stand mount plus 3 M10 flying points, integrated in the extremely compact housing expands the range of use and makes the M 12-4 into a versatile public address system with many possibilities for use.

The input sensitivity is switchable between microphone and line level. A balanced XLR parallel out is available for looping through the input signal.

The integral dynamic soft clip limiter protects the system from overload and enables reliable operation right up to the power limit.

For any application where more LF performance is needed, the M15-4 active Monitor with 15" woofer is the right choice...

The custom made 15" dB Technologies woofer, designed for monitor applications, with a 64mm coil, is driven by a 225 W Class H amplifier and the B&C 1" compression driver has its own 50W/RMS amplifier. The M15-4 reaches a peak pressure of 128 dB, in a frequency range down to 60 Hz.

Similar to the M12-4, both drivers are placed *in phase*, to eliminate feedback phenomena.

A soft-clip limiter, indicated by a duo colored LED on its control panel protects the M15-4. Input gain can be adjusted and switched from MIC to Line, thus giving maximum flexibility for all types of applications.

Making the monitor even more flexible, are 3 integrated M10 flying points for suspended installation.

STAGE OPERA M15-4

- 2 way bi-amplified active monitor
- 15" dB Technologies Woofer
- 1" B&C Compr. 80°x60°
- 225 + 50 Watt/RMS, 550 Watt/PRG
- 60 - 18000 Hz
- Max. SPL: 128 dB
- Housing made of 20mm black lacquered multiplex
- Weight: only 21 kg/ 51 lb

	STAGE OPERA M12-4	STAGE OPERA M15-4
Power, RMS	225 + 50 W	225 + 50 W
Power, Musik	450 + 100 W	450 + 100 W
Speaker	12" dB Technologies Bass 1" B&C Compr. 90°x60°	15" dB Technologies Bass 1" B&C Compr. 80°x60°
Frequency response	68 - 20000 Hz	60 - 18000 Hz
Max. SPL	126 dB SPL	128 dB SPL
Crossover	2 KHz Active, 24 dB/oct.	2 KHz Active, 24 dB/oct.
Sensitivity	-50 bis 0dB, adjustable, Mic-/Line switch	-50 bis 0dB, adjustable Mic-/Line switch
Connection, Input	Neutrik Combo® 6,3 mm Jack/ XLR bal.	Neutrik Combo® 6,3 mm Jack/ XLR bal.
Connection, Output	XLR bal., parallel	XLR bal., parallel
Impedance	20 K Ohm sym., 10 K Ohm unsym.	20 K Ohm sym., 10 K Ohm unsym.
Dimension	400 x 410 x 510 mm	470 x 680 x 470 mm
Weight	19 kg / 42 lb	21 kg / 51 lb



OPERA LIVE

OPERA Live 202/205/402/405

OPERA Live 210



	OPERA Live 210	OPERA Live 202	OPERA Live 205	OPERA Live 402	OPERA Live 405
Power (RMS)	150 + 50 W	150 + 50 W	150 + 50 W	250 + 50 W	250 + 50 W
Power (Music)	300 + 100 W	300 + 100 W	300 + 100 W	500 + 100 W	500 + 100 W
Speaker	10" dB Bass 1" HF	12" dB Bass/2" Voice coil 1" HF	15" dB Bass/2" Voice coil 1" HF	12" dB Bass/2,5" Voice coil 1" dB Compr.	15" dB Bass/2,5" Voice coil 1" dB Compr.
Frequency response	68-18000 Hz	68 - 18000 Hz	68 - 18000 Hz	60 - 18000 Hz	60 - 18000 Hz
Max. SPL	120dB	120dB	121dB	128dB	128dB
Crossover	2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Sensitivity	-50 bis 0dB	-50 bis 0dB	-50 bis 0dB	-50 bis 0dB	-50 bis 0dB
Input connection	6,3 mm Jack unbal. / XLR bal.				
Output connection	XLR bal., parallel				
Impedance	20 K Ohm bal., 10 K Ohm unbal.				
Dimension	312 x 550 x 280 mm 12,5x21,75x11 inch	406 x 650 x 350 mm 16x 25,6x13,7 inch	406 x 650 x 350 mm 16x 25,6x13,7 inch	406 x 650 x 350 mm 16x 25,6x13,7 inch	406 x 650 x 350 mm 16x 25,6x13,7 inch
Weight	13 kg / 28,7 lb	16,5 kg / 36,4 lb	17,3 kg / 38 lb	18 kg / 39,7 lb	19 kg / 41,9 lb

OPERA - for many years, this term has stood for high quality active speakers, with professional audio performance and a superior price-performance ratio.

LIVE-SERIES, the newest generation of the OPERA family, has been adapted to the requirements of musicians and DJs. As a result of its switchable sound set-up, it offers the best possible characteristics of sound reflection for live music as well as playback or speech.

The new, more compact multi-functional cabinet creates an optimal connection between acoustic necessity and practical handling, in a very modern design.

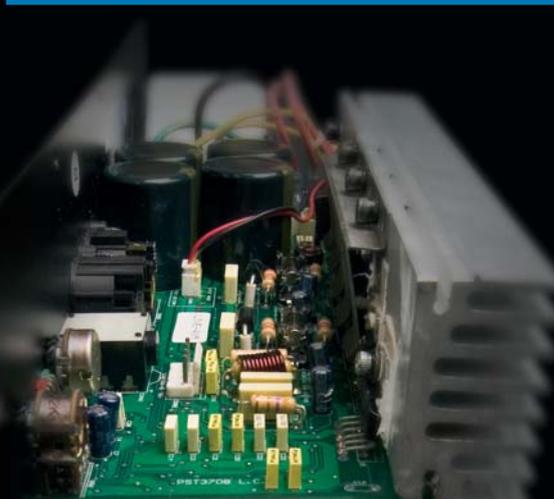
The LIVE SERIES offers maximum flexibility and unique features such as a slanted rear side for monitor applications, integrated flange for stands, and 3 integrated M10 threaded fly points. Together with the bass speakers that have been specifically designed for the OPERA LIVE series, the cabinet presents a very full and clear bass sound reflection (high sound pressure) with reduced resonance and little noise. The integrated tweeter offers a clear dispersion of 90°x60°.

Three grips, one above, and two to the side make it very easy to handle.

All models have a bi-amp amplifier, which is regulated by an integrated audio controller.

In addition to the active separation of the two ways, the audio controller facilitates a particularly clear sound in the range of the crossover frequency by phase and delay adjustment. Furthermore, the audio controller guarantees a flat and linear frequency range over the entire audio range. The limiter ensures a maximum of operational reliability, even when driving the speaker beyond its limits, and shows its function by means of a control LED.

All models* of the LIVE series offer three switchable sound set-ups - FLAT (neutral), MUSIC and SPEECH. This makes it possible to adapt it to the respective application without any further external equipment. The models 402 and 405 are equipped with a special compression driver. As a result of its 1.5" pure titanium diaphragm the sound is clear, linear, and feedback resistant.



* not OPERA LIVE 210

OPERA MODULAR

Lightweight Speaker

The fourth generation of this worldwide, highly successful active speaker from dB Technologies, is equipped with new, innovative features like a module slot for optional plug-in modules, three switchable sound characteristics and infrared remote control.

Intelligent Speaker

All models in the OPERA series are fitted with high-grade Bi-Amp Class H output stages and have intelligent electronics, such as the active phase-optimized diplexer or the dynamic soft clip limiter, which protects the system from overload and allows reliable operation right up to the power limit. Bi-Amp means that there is a designated power output stage for the woofer and the tweeter, operating these components at their optimum level.

This separation of the audio spectrum results in effortless performance and high SPL. Each driver component operates in the frequency band for which it has been designed.

Moulded by Sound

Owing to its optimal shape, the integral 90° x 60° tweeter with 1" fittings, achieves a clean and uniform sound distribution, which radiates an even and coherent sound stage of the upper frequency band. The low resonance multi-function casing made of extremely rugged polypropylene has a standard stand flange (35 mm Ø) with fixing screw. The slanted rear side of the cabinet also permit the use as a stage/floor monitor. The system can be safely installed permanently or easily mounted using the optional wall bracket WB02.

Flexibility

Balanced XLR and jack input with switched mic/line sensitivity plus an XLR parallel out, ensure the right connection anywhere.

Freedom to choose

The new OPERA MODULAR has a module slot integrated into the back control panel. This module slot will accept a choice of various available add-on modules such as VHF/UHF wireless receivers, the all-new Anti-Feedback module AFP, or even a Time Delay module. OPERA MODULAR is the solution as a flexible, convertible speaker tool and as an intelligent speaker system.

3 different sound-setups

OPERA MODULAR offers three switchable sound presets For perfect tailoring to the application. The FLAT position, without correction, is used in live music situations. By using the MUSIC position, the very low and high frequencies will be increased, which is ideal for dance, or background music applications with a HIFI sound. VOICE will increase the speech clarity, to ensure the highest level of verbal intelligibility.

Infrared remote control

With the optional RC1 control, the three sound setups, the output level and a mute function can be remotely controlled. Suited perfectly for fixed installations with multiple speakers, where each speakers' level can be easily adjusted, or where the system will be controlled from a distance.

In combination with the Delay module, the delay line can be adjusted in the listeners place, for best audio results.



	OPERA 212M	OPERA 215M	OPERA 412M	OPERA 415M
Power (RMS)	120 + 40 W	120 + 40 W	250 + 50 W	250 + 50 W
Power (Music)	240 + 80 W	240 + 80 W	450 + 100 W	450 + 100 W
Speaker	12" dB Bass 1" HF	15" dB Bass 1" HF	12" dB Bass 1" B&C Compr.	15" dB Bass 1" B&C Compr.
Frequency response	65 - 20000 Hz	50 - 20000 Hz	50 - 20000 Hz	50 - 20000 Hz
max. SPL	120dB	123dB	128dB	126dB
Crossover	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Sensitivity	-50 bis 0dB	-50 bis 0dB	-50 bis 0dB	-50 bis 0dB
Input connection	Neutrik Combo® 6,3 mm Jack unbal. / XLR bal.			
Output connection	XLR bal., parallel			
Impedance	20 K Ohm bal., 10 K Ohm unbal.			
Dimension	700 x 440 x 320 mm			
Weight	15 kg	16 kg	19 kg	20 kg



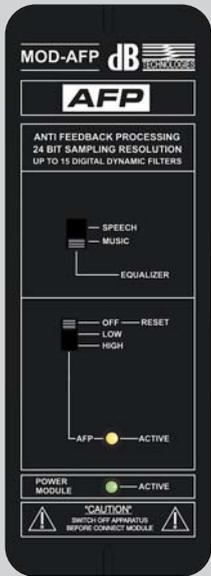
MOD-VR

- VHF receiver
- fixed frequency
- Line-Out for wireless signal
- for use with WM210/220 series microphones



MOD-UR

- UHF receiver
- 16 frequencies selectable
- Line-Out for wireless signal
- for use with PU 900 series microphones



MOD-AFP

- anti feedback processor
- speech/music EQ
- ideal for use in monitor applications



MOD-VR-DD

- VHF receiver & Digital Delay module
- fixed frequency
- Line-Out for wireless signal
- for use with WM210/220 series microphones
- designed for long distance Delay Line applications



MOD-UR-DD

- UHF receiver & Digital Delay module
- 16 frequencies selectable
- Line-Out for wireless signal
- for use with PU 900 series microphones
- designed for long distance Delay Line applications



MOD-DD

- Digital Delay module
- Line-Out signal
- designed for long distance Delay Line applications

BASIC LINE



This new Speaker Line from dB Technologies is made for the price sensitive segment of the market, providing a high quality product with great audio features and performance.

BASIC LINE is designed to match the demands of entry-level applications, such as DJ's, schools, and churches alike, where budget orientated solutions are required. In spite of the very attractive price, dB Technologies has not compromised the reliability and performance of these enclosures.

There are two different models available with power amps of 160W, 275 W RMS respectively.

Both Models are equipped with a dB Technologies 12" -woofer and a 1" driver, powered by 2 separate amplifiers with integrated phase and sound correction circuits.

The speaker is protected against overload and distortion through a built in Limiter, with a Status-LED indicator.

The input sensitivity can be switched from Line to Microphone level, using the XLR or Jack input plug.

The output level can be adjusted with a volume control.

BASIC 100

- 2 way bi-amplified active loudspeaker
- 10" Bass / 1" HF 90°x60°
- 70+20 Watts
- Freq. response: 70-20000 Hz
- Max. SPL: 117 dB SPL
- Multi-function housing
- XLR and jack input
- Mic-/Line input, switchable
- XLR-Parallel-Out
- Dynamic softclip limiter
- Weight: 9 kg

BASIC 200

- 2 way bi-amplified active loudspeaker
- 12" Woofer / 1" HF driver
- 120 + 40 Watts
- Freq. response: 65-18,000 Hz
- Max. SPL: 118 dB
- Multi-function housing
- XLR and jack input
- Mic-/Line input, switchable
- Dynamic softclip limiter
- Dimensions 400x600x345mm (LxHxD)
- Weight: 14.5 kg / 32 lb

BASIC 400

- 2 way bi-amplified active loudspeaker
- 12" Woofer / 1" HF driver
- 225 + 50 Watts
- Freq. response: 60-18,000 Hz
- Max. SPL: 125 dB
- Multi-function housing
- XLR and jack input
- Mic-/Line input, switchable
- Dynamic softclip limiter
- Dimensions 400x600x345mm (LxHxD)
- Weight: 16.5 kg / 36,4 lb

BASIC 100



BASIC 200/400



	BASIC 100	BASIC 200	BASIC 400
Power RMS	70 + 20W	120 + 40W	225 + 50W
Freq. response	70-20000 Hz	65-18000 Hz	60-18000 Hz
Crossover	2000 Hz	2000 Hz	2000 Hz
SPL max.	117 dB	118 dB	125 dB
Speaker	1 woofer 10" 1 driver 1"	1 woofer 12" 1 driver 1"	1 woofer 12" 1 compression driver 1"
Sensitivity	-40dB/0dB (switchable)	-40dB/0dB ((switchable)	-40dB/0dB ((switchable)
Dimension	312x550x280 mm 12,5x21,75x11 inch	400x600x345 mm 15,75x23,6x13,6 inch	400x600x345 mm 15,75x23,6x13,6 inch
Weight	9 kg / 19,8 lb	14.5 Kg / 32 lb	16.5 Kg / 36,4 lb

ACCESSORIES

OPERA Live
202/205/402/405



Gig-Bag
TT 04



wallmount bracket
WB 08

BASIC 200/400



Gig-Bag
TT 03



wallmount bracket
WB 07

OPERA Modular
212/215/412/415



Gig-Bag TT 01



Bracket WB 05



wallmount bracket WB 02



remote control RC1

OPERA Live 210 - TWIN 128 - TWIN 228 - OPERA 110 MOBILE - BASIC 100



Gig-Bag
TT 02



Bracket
WB 06



wallmount bracket
WB 04/WB 04 White



tilting adaptor
AFL 02

Speaker Stand
KTSP 120

SUB 15

SUB 15 Active ClassH 15" Subwoofer

The new SUB 15 sets a new standard in ultra compact active subwoofers.

The "friendly smile" in its front design will automatically find its way to the audiences' face, after listening to just a few beats.

The heart of the SUB15 is the new high power 15"-woofer with 3" coil, designed and manufactured by dB Technologies, made to give peak performance to this bandpass enclosure.

Massive power reserves are guaranteed with the new processor controlled Class H amplifier, delivering a solid 800 W/RMS. Operational safety is assured with DC, Overheat, RFI protection circuitry, as well as a full wave Peak Limiter.

The combination of our custom designed woofer with our MT amplifier, achieves a maximum SPL of 133 dB at a weight of only 32 kg / 70,5 lb.

The integrated active crossover, used in mono or stereo mode, gives max. flexibility - the SUB 15 can be used both as a single subwoofer supplying low-cut signals to 2 satellite speakers, or in mono mode with one subwoofer per side.

The crossover frequency is switchable from 80/100 to 120 Hz and provides a very narrow rollover of 24dB / octave.

The phase can be turned by 180° if the position of the SUB15 is not in line with the satellite speakers.

As in any dB Technologies subwoofer, the amplifier module is placed in a separate compartment inside the enclosure of the SUB15, to avoid "air noises" from the woofer through the cooling slots.

The 4-speed temperature controlled fan assures safe operation even under hardest driving conditions. The fan is covered with a removable dust filter. Four control LED's mirror the operating status of the system, to ease set-up, and safe operation.

The SUB15 can be used in combination with OPERA and Stage Opera Hi/MID speakers, or as a high performance low extension for existing systems.



SUB 15

- 15" Active-subwoofer
- MT-Amp 800 W/RMS
- 40 - 120 Hz (± 3 dB)
- Max. SPL 133dB
- 2 x Neutrik Combo Input
- 2 x XLR Parallel-Out
- 2 x XLR X-Over-Out
- Phase reverse switch
- Dynamic softclip limiter
- Weight: only 32 kg / 70,5 lb

SUB 15 Active ClassH Subwoofer

Output	800 W/RMS@40hm
Loudspeaker	15" dB Technologies, 3" coil
Frequency response	40 - 120 Hz
Max. SPL	133 dB SPL/peak
X-Over	Mono/Stereo active 24 dB/Octave
X-Over Frequency	switchable: 80, 100, 120 Hz
Limiter	Full-Wave-Fast-Clip-Detector
Protections	short circuit, temperature, power supply, RFI and DC
Connection	2 x Neutrik™ Combo-Input 2 x Neutrik™ XLR-Parallel-Output 2 x Neutrik™ XLR-XOver-Output
Cooling	4-speed fan with dust cover
Enclosure	19mm Multiplex, black
Dimension	430x600x600mm (19,9x23,6x23,6 inch)
Weight	32 kg / 70,5 lb

STAGE OPERA

STAGE OPERA 41.15

- 1 x 15"
- 400 W/RMS active
- 30 - 150 Hz
- max SPL: 127 dB
- XLR/jack input
- Parallel output
- HF-Out XLR
- Stereo-Crossover
- Dynamic limiter
- cutoff frequency 100 Hz
- 480 x 500 x 500 mm
- Weight 24 kg/ 43 lb



STAGE OPERA 41.15

To extend the bass reproduction of the **OPERA Series** we have developed an active 15" subwoofer. This unit can be used in combination with any of the Active or Passive loudspeakers in the OPERA Series. The driver is powered by a 400 W/RMS Class H amplifier and achieves 127 dB SPL.

As an ideal complement to the active OPERA models or even the STAGE OPERA 42.12, it offers high sound pressure (127 dB max.) with powerful bass down to 30 Hz. The housing, constructed of 20 mm poplar multiplex, painted with black textured paint, along with the highly efficient class H output stage is mainly responsible for the extremely low weight of only 24 kg/ 43 lb and therefore very easy to use. The integral active crossover separates the frequency bands very precisely, and is phase coherent, with a slope of 24 dB/octave at 100 Hz and can be used in both Mono and Stereo mode.

The connection panel provides a high level of flexibility with its two balanced Neutrik Combo XLR / jack inputs, two XLR parallel outputs and two XLR diplexer outputs. The integral soft clip limiter protects the system from overload and allows the clean and clear reproduction even at the power limit.

Like all dB Technologies active subwoofers, the integral fan cooled amplifier has a completely enclosed compartment to isolate it from the loudspeaker enclosure.



STAGE OPERA 61.18

- 1 x 18"
- 600 W/RMS active
- 20 - 150 Hz
- max SPL: 130 dB
- 2 x XLR/jack-Input
- Parallel output
- HF-Out XLR
- Stereo-Crossover
- Dynamic limiter
- cutoff frequency 90/120/150 Hz (24 dB/oct.)
- 600 x 800 x 600 mm
- Weight: 54 kg/ 119 lb

STAGE OPERA 61.18

This active subwoofer offers an earth shattering like performance at a unique price-/performance ratio.

Powerful, clearly defined bass frequencies from 20Hz to 150 Hz with a maximum SPL of 130 dB are reproduced with ease. The integral class H high efficiency amplifier 600 W/RMS of power assures high dynamics and clean reproduction right up to the power limit. The cut off frequency of the active crossover can be set at 90 / 120 or 150 Hz. The filters have an attenuation of 24 dB/octave. The 61.18 can be operated in MONO or STEREO mode.

The connection panel provides a high level of flexibility with its two balanced Neutrik Combo XLR / jack inputs, two XLR parallel outputs and two XLR high-pass outputs. The integral soft clip limiter protects the system from overload and allows the clean and clear reproduction even at the power limit. Like all dB Technologies active subwoofers, the integral fan cooled amplifier has a completely enclosed compartment to isolate it from the loudspeaker enclosure.

combination possibilities

"The power of these small speakers impresses when they are pushed with a hard, punchy Kick Drum."

Sound check Magazine 03/2003

SUB 12

Active Subwoofer

Active • Compact • 19kg/42lb • 400W/RMS • 127dB SPL

The ideal complement to OPERA 110 and TWIN 128 is our new 12" active subwoofer in a sexy outfit with exciting technical specifications and powerful thrust.

The 12" long stroke woofer with 3" voice coil moves up to top form in the band-pass housing. The 400W/RMS output stage designed like the new innovative MT Amplifier Series provides the necessary propulsion at an extremely low weight.

The MT amp design, produced in SMD technology, combines high-grade class H technology with high-power components, to produce a lighter and more efficient unit. In addition to the lighter weight, less space requirements allow for a unique and most reliable performance.

The integrated active crossover allows for easy set-up of active systems. Filters are set at 24 dB/octave at 100 Hz and can run both in Mono and Stereo mode.

The temperature-controlled fan ensures adequate cooling, as the amplifier module is housed in an enclosed casing to reduce interference. The connection features are also flexible: on the input side Neutrik Combo sockets are provided for jack and XLR, while on the output side there are two XLR Parallel Outs and two XLR HF-X Over Outs available.

The integrated dynamic soft clip limiter protects the system from overload.

The 35 mm flange permits the use of a spacer bar.



SUB 12

- 12" Active-subwoofer
- MT-Amp 400 W/RMS
- 40 - 150 Hz (± 3 dB)
 - Max. SPL 127dB
- Active stereo frequency softening
 - 24 dB/oct. @ 100 Hz
- 2 x Neutrik Combo Input
 - 2 x XLR Parallel-Out
 - 2 x XLR X-Over-Out
 - Phase reverse switch
- Dynamic soft-clip limiter
- Weight: only 18,9 kg/ 42lb



	SUB 12
Power (RMS)	400 W
Power (Music)	800 W
Freq. response	40 - 150Hz
SPL max.	127 dB
Speaker	12" dB Bass
Inputs	Jack/XLR bal.
Outputs	HF-Out XLR bal. link-out XLR bal.
Sensitivity	-50 bis 0 dBm, adjustable
Impedance	20 KOhm bal., 10 KOhm unbal.
Dimension	520 x 360 x 500 mm
Weight	18.9 kg

TWIN128/228

Compact speaker



TWIN 128 TWIN 128 White

- 2 way bi-amplified
- 2 x 8" Bass / 1" HF 90°x60°
- 70+20 W/RMS, 180 W/PRG
- Freq. response: 80-18,000 Hz
- Max. SPL: 118 dB
- Multi-function housing
- Combined XLR/ jack input
- Mic-/Line input, switchable
- XLR parallel output
- Dynamic limiter
- Weight: 10 kg/22 lb

TWIN 228 TWIN 228 White

- 2 way bi-amplified
- 2 x 8" Bass / 1" HF 90°x60°
- 150+50 W/RMS, 300 W/PRG
- Freq. response: 68-18,000 Hz
- Max. SPL: 121 dB
- Multi-function housing
- Combined XLR/ jack input
- Mic-/Line input, switchable
- XLR parallel output
- Dynamic limiter
- Weight: 12 kg/26 lb



Wallmount Bracket WB 04

Bracket
WB 06

Gig-Bag TT02

TWIN 128/228

The TWIN series consists of two models with identical measurements. The TWIN 128/228 is equipped with 2 x 8" woofers in combination with a 1" tweeter. The overall mechanical design, with its full front metal grill, make this enclosure particularly suitable for fixed installations and touring applications. The two 8" long-throw woofers and the 1" tweeter with 90°x60° horn, create a very homogeneous and linear sound characteristics with extensive reach.

This multifunctional cabinet offers many placement options, for instance as a floor monitor (60° or 45°) by turning the horn. In addition horizontal and vertical mounting hardware is available. For permanent installation, the optional loudspeaker mount WB04 or the clamp WB06 is available, and the integrated flange permits installation on a standard speaker stand.

The integrated bi-amp amplifier offers separated amplification for tweeter and bass, and in addition, the input stage is also equipped with a soft clip limiter.

Both models can be used with various active dB Technologies Subwoofers.



LM/SERIES

Active Compact Speakers



L80/L160

M80/M160



wallmount bracket WB 03 W

wallmount bracket WB 03

Mic stand adapter SN120

The **LIVE Series loudspeakers** were designed for portable or installed applications.

Two models are available:

the **L 80 35 W/RMS** and the **L 160 65 W/RMS** – both versions come in the same compact enclosure which can be wall mounted, used free-standing or mounted on a microphone stand.

These cabinets feature two full range, 5" double cone loudspeakers with mechanical phase correction.

Their tailored frequency response makes them ideal for speech and music reproduction.

Featuring soft-clip limiters for total protection against overloading, these compact loudspeakers have both microphone and line-level signal inputs via a combo XLR/1/4" jack connector.

For applications such as recording studios and monitoring we have developed the **MONITOR Series**. These two-way loudspeaker systems offer the widest frequency response in a compact design with accurate sound reproduction.

Two models are available: the **M 160** is a bi-amped system (60 + 20 W/RMS) with a 1" soft-dome tweeter and a 6" bass loudspeaker with a max. SPL of 99 dB. The **M 80** handles 40 W/RMS with a 1" soft-dome tweeter and a 6" bass loudspeaker with a max. SPL of 96 dB.

Also available is the **ProSound 60 system** – this active stereo system has been specifically developed for use with computer systems.

It offers audio performance not previously available for this particular type of application.

The two-way loudspeaker system and 60 W/RMS output per channel provide studio reproduction from computers, MP3 players or CDs.

All the **MONITOR Series'** cabinets feature magnetic shielding.

	M 80	M 160	Prosound 60
Power (RMS)	40 W	60 + 20 W	2 x 40 W
Power (Music)	80 W	120 + 40 W	2 x 80 W
Freq. response	60 - 19000 Hz	50 - 20000 Hz	60 - 19000 Hz
Spl, max	96 dB SPL	99 dB SPL	100 dB SPL
Speaker	1 x 6" + Tweeter	1x6" + 1" Soft-Dome	6" Bass + 1" Soft-Dome
Inputs	Neutrik Combo®	6,3 mm Jack/XLR bal.	2 x RCA Cinch
Outputs		LINK-OUT XLR bal. LINK-OUT RCA Cinch	
Sensitivity	-50 to +10 dBm	-50 to +10 dBm	fixed -10 dBm
Impedance	200 Ohms	-47 kOhms	47 kOhm
Dimension		195 x 195 x 317 mm	
Weight	4.2 kg	5.5 kg	4.2/3 kg

	L 80	L 160
Power (RMS)	35 W	65 W
Power (Music)	80 W	160 W
Freq. response		65 Hz - 18 kHz
Spl, max	100	110
Speaker	2 x 5"	2 x 5"
Inputs		Neutrik Combo® 6,3mm Jack/XLR bal. RCA Cinch
Outputs		LINK-OUT XLR bal. LINK-OUT RCA Cinch
Sensitivity		-50 - +10 dBm, adjustable
Impedance		200 Ohms - 47 kOhms
Dimension		195 x 195 x 317mm
Weight	3.1 kg	4.6 kg



Prosound 60 System - Stereo

SYSTEMS

Entertainer M500

2 x BASIC 100 + 1 x SUB 12
3-Way Active, 580 W/RMS



Entertainer L600

2 x BASIC 100
+ 1 x STAGE OPERA 41.15
3-Way Active, 580 W/RMS



Entertainer X1100

2 x OPERA Live 202 + 1 x SUB15
3-Way Active, 1200 W/RMS



Compact 1200

2 x OPERA 210 + 2 x SUB12
3-Way Active, 1200 W/RMS



CLUB System

2 x OPERA LIVE 202
+ 2 x STAGEOPERA 41.15
3-Way Active, 1200 W/RMS



CLUB EX System

2 x OPERA LIVE 402 + 2 x SUB15
3-Way Active, 2200 W/RMS



FORTY LINE QLS 151
2 x QL12 + 2 x QL15
3-Way Active, 1600 W/RMS



FORTY LINE QLS 152
2 x QL12 + 2 x QL15 + 2 x QL152
4-Way Active, 3200 W/RMS



FIFTY LINE System 115
2 x FL10 + 2 x FL15
3-Way Active, 1600 W/RMS



FIFTY LINE System 118
2 x FL10 + 2 x FL15 + 2 x FL18
3-Way Active, 3200 W/RMS



FIFTY LINE System 218
2 x FL10 + 2 x FL15 + 4 x FL18
3-Way Active, 4800 W/RMS



ENTERTAINER S 350

ENTERTAINER S 350

Small. Compact. Powerful.

As a unique active system from dB Technologies, the 12-inch band-pass sub-woofer houses all three power stages for the entire system.

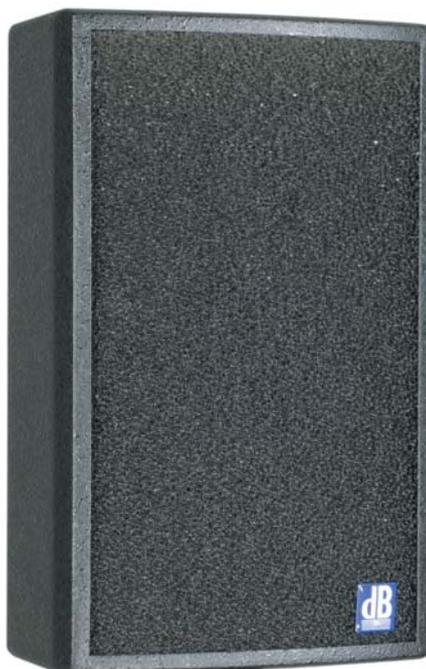
The newly designed MT Amplifier allows for an extremely compact and lightweight output stage in class H with 300 W/RMS for the sub-woofer and 2 x 50 W/RMS for the two satellites, having a 6.5" midrange speaker and a 1" Dome-Tweeter

The integrated sub-woofer/satellite balance regulator allows individual sound tuning., from a round hi-fi sound right up to a professional, very linear, frequency response.

In view of the compact dimensions and the low weight of the system, the overall sound, bass pressure, and maximum sound levels are more than impressive. Ideal for solo entertainers, small bands presentations or even fixed installations in pubs etc..

With its low weight of 20 kg/44 lb (sub) and 5.3kg/11.7 lb (satellite), and extremely compact size, comfortable handling is guaranteed. In fact, the ENTERTAINER S 350 System will even fit into the smallest of cars!

The input section provides a mix section with stereo line input, microphone input, and stereo auxiliary input with cinch sockets, which are regulated separately. An integrated soft clip limiter protects the system from overload and permits safe operation even if driven to the

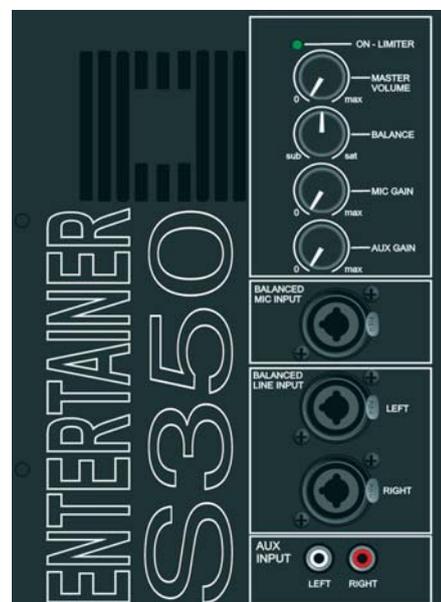


power limit. The amplifier module is installed in a separate compartment to minimize mechanical interference and is cooled by a temperature-controlled fan for maximum operating reliability.

ENTERTAINER S 350 SYSTEM

Active 2-way system with 400 W/RMS

- 12" Bandpass-subwoofer with integrated 3 channel output 300 W/RMS + 2 x 50W/RMS
- 2 x 2-way satellite 6,5"/1" passive
- 1 x Stereo-Line-Input
- 1 x Mic-Input, separately adjustable
- 1 x Stereo-Cinch-Input, separately adjustable
- Soft-Clip-Limiter
- Dimensions Sub: 520 x 360 x 500mm, 20 kg/ 44 lb
- Dimensions Top: 205 x 360 x 220mm, 5,3 kg/ 10 lb
- Stands for satellite speakers not included in set



S 350 SAT



Accessory
Speaker Stand
KTSP 120

TECHNOLOGY

Why dB?

The term "dB" is synonymous with the measurement and power of audio systems – especially loudspeakers!

Therefore, it is not only appropriate but natural that dB Technologies manufactures loudspeakers. It is also part of the company's mission statement to develop products employing innovative designs and modern manufacturing techniques.

Active loudspeakers are the natural extension of our quest to offer the optimum solution at the best price/ performance ratio.

Why Active?

The matching of components in audio systems can cause losses in performance and efficiency. By mounting the power amplifier inside the loudspeaker cabinet, it then becomes possible for both components to be optimized to obtain the best audio performance while offering significant cost advantages. The design engineer can then consider any particular feature or characteristic of the driver units, cabinet material, and amplifier specification to produce the most linear result.

No Loudspeaker Cables

Conventional passive systems require loudspeaker cables. All cables can and will affect the performance and seriously reduce system efficiency! With active loudspeaker systems, these losses are minimized and it is possible to keep the signal path in the balanced mode, which ensures cancellation of external hums, buzzes, and interference.

Bi-Amp with Active Frequency Filtering

In the OPERA and STAGE OPERA series, each cabinet is powered with two separate power amplifiers. One amplifier powering the bass unit the other driving the high frequency section. The signal is electronically processed before reaching each transducer, and cleanly separated and filtered frequency bands ensure optimum dispersion capability. In conventional loudspeakers passive cross-overs using coils and capacitors are employed to carry out this filtering process. These cross-over networks suffer from insertion losses and typically the slope of the filter is only 6 – 12 dB/Octave – this type of cross-over inherently leads to phase distortion, loss in amplifier performance and therefore is inefficient. dB Technologies active cross-over filtering employing precise active processing offers steep filters with 24 dB/Octave and insignificant phase distortion to ensure the cleanest possible signal.

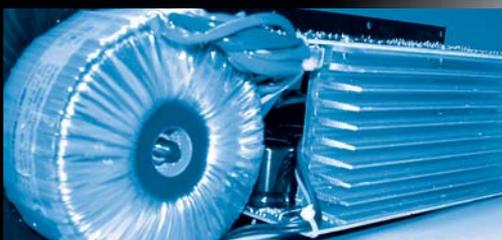
Active Systems... the process

With an active loudspeaker system, it is possible to match or tune pre-amplifier sections, frequency filtering, and power amplification during the design and manufacturing process.

It is also possible to optimiseoptimize the circuit for phase correction, which gives the maximum control over all parameters and ensures optimum performance

Efficiency

All of the features of an active loudspeaker such as active filters and signal processing result in very high efficiency. Typically loudspeaker systems are defined by their power handling capacity expressed in "Watts", more specifically you should measure the performance of a loudspeaker in terms of Sound Pressure Level (SPL) in "dB's" for a stated power input. All of the design features of an active loudspeaker produce a more efficient loudspeaker, therefore producing higher dB/SPL levels.



OPERA 110 MOBILE

Active Portable Speakers



UH 900 M

The UH 900 M handheld microphone handles like a traditional microphone.

The excellent TG-X 58[®] capsule from beyerdynamic uses the quality of the HF strength and is ideal for speech and vocals, even under difficult acoustic conditions.

The 16 frequencies are switchable.

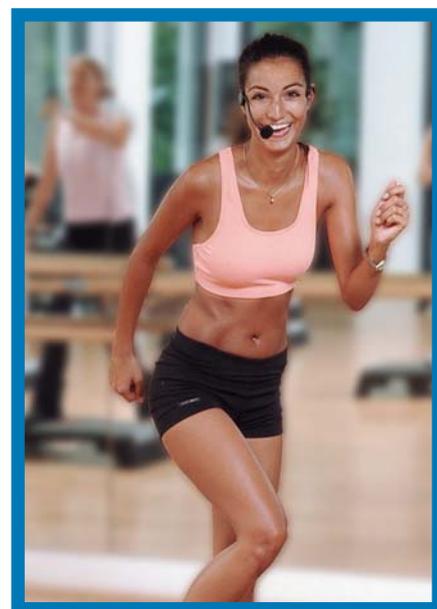
UH 900 L

A very compact pocketpack with 16 switchable frequencies.

When used with a condenser capsule, phantom power is available.



- 2 way bi-amplified active loudspeaker
- 12V battery or electric
- 10" Bass / 1" HF 90°x60°
- 70+20 Watt/RMS, 180 Watt/PRG
- Frequency response:70-18,000 Hz
- Max. SPL: 117 dB
- Adjustable XLR/ jack input
- Combined XLR/ jack input
- Mic-/Line input, switchable
- Microphone presence adjuster
- Low voltage output with choice of 3-12V
- Cinch input, separately adjustable
- Mixed line out, 6.3mm jack
- Dynamic soft-clip limiter
- Weight: 12 kg/ 26 lb
- optionally Integrated 16 channel UHF Diversity receiver with DCS
- optionally Integrated Delay



OPERA 110 MOBILE No Plug - just Play.

The compact active OPERA 110 mobile loudspeaker with integrated mixer, optional wireless UHF receiver, and switchable powering through the integrated A/C, 12V or normal 230V power supply.

Maximum flexibility, easy to use with endless application possibilities. The specially designed power amplifier with auto-sleep mode allows powering, regardless of the volume level for up to 12 hours. There are inputs for mics, CD player, or laptop, which can be separately adjusted adjustable. For the voltage supply of a portable CD player or the master slave unit, a power socket with adjustable voltage is available on the control panel.

The 10"/ 1" components of the OPERA 110 convince through high speech intelligibility with a pleasant vocal sound and impressive sound reproduction with full frequency range. For use with a loudspeaker stand, a 35mm standard flange is built in the housing.

The optional integrated wireless receivers can be combined with either handheld or pocketpack with lavalieri or headsets. The optional time delay can be adjusted by two rotary switches and can be bypassed.

Multi-Purpose.

If you need several loudspeakers, you can drive as many OPERA 110 MOBILES as you like from only one transmitter, within the possible range of the transmitter (Example1). The range of the transmitter is between 70 and 100 m, heavily

dependent on the environment. For longer distances the optional directional antenna set RDA 900 should be used for better operating reliability. With this, distances well above 100 m can be achieved.

If the audio signal, as well as a microphone signal, applied to the first unit (e.g. CD) is to be sent to other OPERA 110 MOBILES, this can be achieved with the MS 110 set (Example2).

The optional RMS 110 master - slave set contains a directional antenna with integrated transmitter for transmitting the complete audio signal from the first unit to other OPERA 110 MOBILES using a second carrier frequency. For simple connection there is both a low volt output with adjustable voltage between 3 - 12 volts and a mix output for 6.3 mm jack available.



Beispiel 1



Beispiel 2



There are 4 different versions available:

Opera 110 Mobile (standard)

- integrated 16 channel UHF receiver

Opera 110 Mobile TD

- integrated 16 channel UHF receiver
- integrated delay

Opera 110 Mobile C

- without wireless receiver

Opera 110 Mobile CTD

- without wireless receiver
- integrated delay



VH 504 Lavalier Microphone

- Condenser capsule
- Cardioid characteristic
- 30 - 20.000 Hz
- inc. clamp and windshield



VH 531 Neckworn Microphone

- Condenser capsule
- Cardioid characteristic
- 40 - 17.000 Hz
- inc. clamp and windshield
- High gain before feedback



VH 512 Neckworn Microphone

- Condenser capsule
- Cardioid characteristic
- 50 - 17.000 Hz
- inc. clamp and windshield

OPERA Mobile with Antenna MS110

Gig-Bag TT02



STAGE OPERA

Passive Speaker

STAGE OPERA PASSIVE

The Stage Opera Passive range of loudspeakers has been specifically designed to meet the requirements of the professional, when PA-systems are to be powered by means of a conventional external power amplifier.

The advanced electronics, unsurpassed acoustical engineering and meticulous craftsmanship makes the rugged and sophisticated Stage Opera series a perfect solution for the challenging sound environments, incorporating the legendary high-quality B&C speaker components and custom dB Technologies components, guaranteeing a superb sound with a wide dispersion delivering this sound precision to all areas of the venue.

The 2 way model 42.12 P (2 x 12", 1") with a wide variety of applications and designed to take sound reinforcement to a new level of accuracy is capable of delivering exceptional sound quality predominantly complimenting its excellent bass extension.

The 3 way model 82.15 P (2 x 15", 6.5", 1") shows its true strengths mainly in the mid to high frequency area. The 6.5" B&C loudspeaker with phase plug exhibits a unique soft and natural mid-range with high speech clarity, which achieves a long throw due to the special horn adaptor. In addition, the reduced strain on the 1" compression driver in the mid frequencies, allows this unit to exhibit an extremely overall smooth response.



STAGE OPERA 82.15 Passive

- 2 x 15", 1 x 6.5", 1 x 1" B&C
- 800 W/RMS, 1600 W/Peak
- 50 – 20000 Hz
- Max. SPL 130 dB
- 4 Ohm
- 2 x Speakon
- Electronic mid-high tone protection
- Optional as flown model



STAGE OPERA 42.12 Passive

- 2 x 12", 1 x 1" B&C
- 400 W/RMS, 800 W/Peak
- 60 – 20000 Hz
- Max. SPL 127 dB
- 4 Ohm
- 2 Speakon
- PTC limiter

	STAGE OPERA 42.12 P	STAGE OPERA 82.15 P	STAGE OPERA 41.15 P	STAGE OPERA 61.18 P
Power (RMS)	400 W	800 W	400 W	600 W
Power (PEAK)	800 W	1600 W	800 W	1200 W
Impedance	4 Ohms	4 Ohms	8 Ohms	8 Ohms
Speaker	2x12" Bass - 1" comp. B&C HF	2x15" Bass 6,5" B&C Mid. 1" comp. B&C HF	15" dB Bass - -	18" Bass - -
Freq. response	60 – 20000 Hz	50 – 20000 Hz	30 – 150 Hz	20 – 150 Hz
Sensitivity	101 dB 1W/1m	101 dB 1W/1m	98 dB 1W/1m	99.5 dB 1W/1m
Spl max.	127 dB	130 dB	127 dB	130 dB
Crossover	2 KHz	750 Hz / 3,5 KHz	-	-
Connectors	2 x Speakon 4	2 x Speakon 4	2 x Speakon 4	2 x Speakon 4
Dimension	1000 x 430 x 480	1400 x 500 x 500	450 x 500 x 500	600 x 800 x 600
Weight	37 kg	54 kg	20 kg	45 kg

STAGE OPERA

Passive Speaker



STAGE OPERA 61.18 Passive

- 1 x 18" EighteenSound®
- 600 W RMS/8 Ohm
- 20 - 150 Hz
- max SPL: 130 dB
- 2 x Speakon4
- 8 Ohm

STAGE OPERA 61.18 P

In contrast to other passive versions of our active loudspeakers, the 61.18 P uses a different loudspeaker from the active version.

In collaboration with the Italian loudspeaker manufacturer 18Sound an 18" chassis was developed, which due to its light diaphragm material and high power 3" voice coil knows how to convince with its extremely fast response. This is NOT an everyday occurrence for an 18" loudspeaker chassis!

18" performance with the attack of a 15" chassis is how the impressive results can be described in brief. Since a passive separation in this power class makes little sense, we offer the active ASX18 crossover with cut-off frequency for external Bi-Amping.

STAGE OPERA 41.15 Passive

- 1 x 15"
- 400 W RMS /8 Ohm
- 30 - 150 Hz
- max SPL: 127 dB
- 2 Speakon
- 8 Ohm

STAGE OPERA 41.15 P

In applications where the use of an active system does not seem appropriate, the passive 41.15 P with its outstanding sound properties and simple handling is recommended. It can take a load of 400 W/RMS. Since a passive separation in this power class makes little sense, we offer the active ASX18 crossover with cut-off frequency for external Bi-Amping.

A high stand adapter allows the use of spacer rods with both models.

ASX 18

- Active 2-way crossover
- variable frequency
- 2 x XLR-/Jack input
- 2 x HF-XLR-Output
- 2 x LF-XLR-Output



OPERA

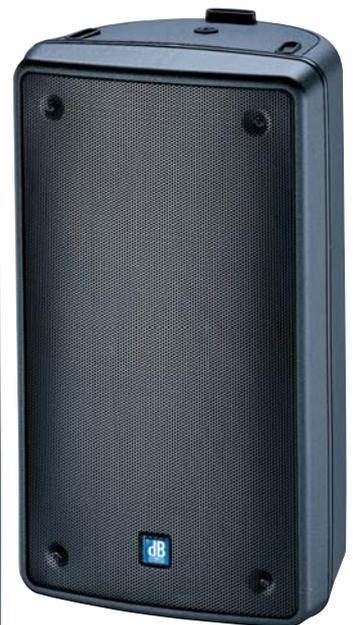
Passive Speaker



OPERA 302/305



OPERA 201



TWIN 208

	OPERA 201	TWIN 208	OPERA 302	OPERA 305
Power (RMS)	200 W	200 W	250 W	350 W
Power (PRG)	400 W	400 W	500 W	700 W
Speaker	10" dB Bass 1" HF	2 x 8" dB Bass 1" HF	12" dB Bass 1" HF	15" dB Bass 1" B&C Compression
Freq. response	68 - 18000 Hz	63 - 18000 Hz	65 - 18000 Hz	50 - 20000 Hz
Spl max.	121 dB	122 dB	125 dB	127,5 dB
Sensitivity	95 dB 1W/1m	96 dB 1W/1m	97 dB 1W/1m	99 dB 1W/1m
Crossover	2,3 KHz 12 dB/Oct.	2,3 KHz 12 dB/Oct.	2,3 KHz 12 dB/Oct.	2 KHz 12 dB/Oct.
Protection	PTC	PTC	PTC	PTC
Connectors	2 x Neutrik Speakon®	2 x Neutrik Speakon®	2 x Neutrik Speakon®	2 x Neutrik Speakon®
Impedance	8 Ohms	8 Ohms	8 Ohms	8 Ohms
Dimension	312 x 550 x 290 mm	312 x 550 x 290 mm	700 x 440 x 320 mm	700 x 440 x 320 mm
Weight	8.6 kg	9.1 kg	14 kg	16 kg

OPERA PASSIVE

The new standard passive OPERA 302 model with 12"/1" components and OPERA 305 15"/1" with B&C components as well as the follow up versions of the successful OPERA 110 & TWIN 128 - the new compact models OPERA 201 & TWIN 208 are passive versions which make them ideal where external amplification is preferred, such as in fixed installations.

All models feature PTC high protection circuitry, which operates in a similar fashion to a compressor/limiter. In contrast to conventional protection switching in passive loudspeakers, the PTC protection limits power when overload is reached without switching off. This protection is barely audible. All versions feature 2 Speakon® connectors.

The integrated 90°x60° high frequency horn with 1" components achieves a clean wide signal dispersion of the high frequencies due to the speakers' optimized shape.

The extremely resonance proof and stable housing made of Polypropylene features a standard mount (35mm Ø) with a fixing bolt.

The speakers' angled rear allows it to be used as a floor monitor- the OPERA 201 and TWIN 208 have two set-up positions, 60° or 45°. Finally, using the WB02 wall mount bracket, the system can be safely secured to a wall or flown.

STAGE OPERA

Passive Speaker

STAGE OPERA M12-4P



STAGE OPERA M12-4P

The passive Stage Opera Monitor M12-4P is a compact and lightweight monitor, with high sound pressure performance.

The M12-4P is equipped with a dB Technologies 12" woofer and a B&C 1" driver, which has a pivoting 90° x 60° horn that achieves a maximum sound pressure of 126 dB SPL.

The M12-4P can handle up to 350W of RMS power and can be wired through by two parallel Neutrik Speakon connectors.

The driver is protected against overload by a PTC circuit.

The stand mount plus three M10 flying points, integrated in the extremely compact housing, expands the range of use and makes the M 12-4 a very a versatile system.

	M12-4 P
Power, RMS	350 W
Power, PRG	700 W
Speaker	12" dB Bass 1" B&C Compression
Dispersion	90°x60°, rotatable
Freq. response	68 - 20000 Hz, +3dB
Spl max.	126,5 dB SPL
Impedance	8 Ohms
Crossover	2 KHz 12 dB/oct.
Input	Neutrik Speakon
Output	Neutrik Speakon
Dimension	400 x 500 x 410 mm
Weight	9.5 kg

MT/MPA SERIES

MT 530

- 2 x 275 W/RMS @ 4 Ohm
- 2 x 180 W/RMS @ 8 Ohm
- 2 HE, 12,5 kg/ 28 lb



MT 1060

- 2 x 530 W/RMS @ 4 Ohm
- 2 x 265 W/RMS @ 8 Ohm
- 2 HE, 15 kg/ 33 lb



MT-Series Power Amplifiers

Multiple technology is the slogan for the new class H amplifiers from dB Technologies. A new and unique circuitry technology allows their manufacture in SMD technology. SMD design and production offers fantastic specifications (slew rate 50 V/μs) total reliability and high end sound, which is otherwise the realm of much more expensive amplifier designs.

The combination of classic class H technology and the latest generation of Darlington transistors enables maximum

efficiency with low heat generation and very high pulse accuracy (slew rate 50 V/μs). The 2U amplifiers at 2 x 265 W or 2 x 530 W respectively into 4 ohms are equipped complete with temperature-controlled fan cooling, , and all common protective circuits such as over-temperature, short circuit, RFI, a Soft-Start plus Speakon® connectors. At 12.5 kg/ 28 lb and 15 kg/ 33 lb their low weight is the convincing factor. The integrated soft clip limiter protects against damage to the connected loudspeakers. The activity of a protective circuit, signal and limiter are shown for each channel by LED's.

MPA204 Power Amplifier

The MPA 204 with convection cooling is particularly well suited for studio applications. Classic MOSFET design and features such as hand wound toroidal transformers, limiter, 6.3 mm jack/XLR input connectors; temperature control and complete power protection cover all the key specifications required from an amplifier.



	MPA 204
Power, Stereo	2 x 100 / 4
Watt/RMS@Ohm	2 x 75 / 8
Output (W) bridged	1 x 200 / 8
Frequency response ±1dB	20 - 20.000 Hz
THD + N	0,05 % @ 1 KHz
Dampening factor	> 200:1 (8 Ohm)
Input sensitivity	0 dBm (0,775 V RMS)
Input impedance	20 KOhm
Protection	Thermal, short circuit, RFI
Input connection	2 x XLR / 6,3mm jack
Output connection	2 x Neutrik Speakon4
Cooling	convencional cooling
Dimensions	19", 1HE
Weight	7 kg

	MT 530	MT 1060
Power, Stereo	2 x 275 / 4	2 x 530 / 4
Watt/RMS@Ohm	2 x 180 / 8	2 x 265 / 8
Output (W) bridged @ 8 Ohm	1 x 550 / 8	1 x 1110 / 8
Mono, one channel	1 x 310 / 4	1 x 570 / 4
	1 x 195 / 8	1 x 325 / 8
Frequency response ±1dB	20 - 20.000 Hz	20 - 20.000 Hz
Frequency response ±3dB	20 - 57.000 Hz	20 - 57.000 Hz
THD + N		0,05 % @ 1 KHz
SMPT E IMD		< 0,03% max. Power@4 Ohm
Dampening factor		> 200:1 (8 Ohm)
Slew Rate	50V/μS	50V/μS
Self noise		> 105 dB, A-weighted
Signal to noise ratio		> 70dB@ 1 KHz
Input sensitivity		0 dBm (0,775 V RMS)
Input impedance		20 KOhm balanced, 10 KOhm unbalanced
Protection		Thermal, direct current, RFI, short circuit, thermal protection of transformer
Input connection		2 x XLR balanced, 6,3mm jack unbalanced
Output connection		2 x Neutrik Speakon4
Cooling		1 x temperature controlled ventilator
Current consumption	max. 6A	max. 10A
Dimensions		88 x 482 x 350 mm + Handles 40mm
Built-in dimensions	2 HE	2 HE
Weight	12,5 kg/ 28 lb	15 kg/ 33 lb

PA SERIES



PA-Series Power Amplifier

These amplifiers working in class H mode, provide from 2 x 800 W up to 1 x 3000 W respectively, at an efficiency of around 85%.

A massive transformer based power supply and hand selected components make these power ratings possible with staggering audio quality and absolute reliability, even in the 2 ohm mode.

The PA Series amplifiers are equipped complete with temperature-controlled fan cooling, all common protective circuits such as over-temperature, short circuit, RFI, a Soft-Start and speakon connectors.

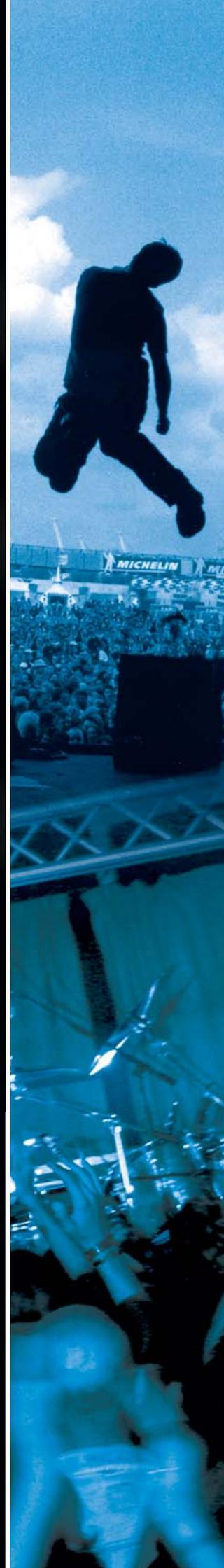
The integrated soft clip limiter protects against damage to the connected loudspeakers.

The activity of a protective circuit, signal and limiter is shown for each channel by LED's.

	PA 1.5	PA 2.0	PA 3.0
Output (W) Stereo per Channel @ Ohm	800/2 650/4 350/8	1000/2 800/4 500/8	1500/2 1100/4 700/8
Output (W) bridged @ 8 Ohm	1300	1000	2200
Output (W) bridged @ 4 Ohm	1600	2000	3000
Frequency response ±0,2 dB		20Hz – 20 KHz	
Frequency response ±3 dB		10Hz – 65 KHz	
THD + N		0,02 % at 1 KHz 0,1 % to 20 KHz	
Input sensitivity		0,775 V	
Input impedance		20 kOhm balanced / 10 kOhm unbalanced	
Dampening factor		200:1 (80hm)	
Slew Rate		50V/µS	
Input connection		2 x 6,3mm jack and XLR / balanced	
Output connection		2 x Speakon 4	
Protection		thermal temperature, direct current, short circuit, RFI	
Dimensions	19", 2 HE	19", 2 HE	19", 3 HE
Weight	17 kg/ 37 lb	18 kg/ 40 lb	29 kg/ 64 lb

ASX 18

- Active 2-way crossover
- variable frequency
- 2 x XLR-/Jack input
- 2 x HF-XLR-Output
- 2 x LF-XLR-Output



TECHNICAL SPECIFICATIONS

Wireless Systems

Transmitter VH 210 M/L/G

Frequency range	VHF, (174 - 223 MHz)
Modulation	FM
Frequency response	70 Hz - 15 KHz
Frequency stability	-10°/+50° / 10 KHz
Deviation	35 KHz min. @ 1 KHz
Output power	+ 3 dBm ERP
Distortion	< 1%
Compander	RMS
Signal-to-noise ratio	> 100 dB (A)
Audio Input (L/G)	3,5 mm jack, locking
Input Sensitivity	adjustable L: 50 mV - 5 V RMS G: 1,5 V - 15 V RMS
Current consumption	M: < 42 mA L/G: < 38 mA
Power source	9 V battery Alkaline 6 LR61
Operating time	6 - 8 hours
Weight	200 g - 240 g (model specific)

Receivers WM 210 R, 220 R

Frequency Range	VHF, (174 - 223 MHz)
Modulation	FM
Frequency response	70 Hz - 15 KHz
Frequency stability	-10°/+50° / 10 KHz
Deviation	35 Hz min. @ 1 KHz
Distortion	< 1%
Compander	RMS
Signal-to-noise ratio	> 100 dB (A)
Audio output unbalanced	6,3 mm jack (model specific)
Audio input unbalanced	XLR (model specific)
Current consumption	< 61 mA (WM 205 R < 50 mA)
Power source	12 V AC, external mains
Dimensions/ weight	210/220/230: 35 x 110 x 220 mm / < 400 g 205: 30 x 12 x 70 mm / 150 g 550: 45 x 150 x 485 mm / 900 g

Transmitter UH 150/160 M/L

Frequency range	UHF 798 - 830 MHz
Modulation	Wideband, Pre-emphasis
Frequency response	50 Hz - 15 KHz
Deviation	35 KHz
Output power	50 mW
Distortion	< 1%
Compander	LN-compander
Signal-to-noise ratio	> 100 dB (A)
Audio input (L/G)	3,5 mm jack, lockable
Input sensitivity	adjustable 50 mV - 5 V RMS
Current consumption	M: 2 x AAA Alkaline battery L: 9 V Alkaline battery 6LR61
Operating time	> 8 hours
Dimensions	L: 70 x 50 x 20 mm M: length 180 mm Ø 31 mm

Receiver 150 R/160 R

Frequency range	UHF 798 - 830 MHz
Modulation	Wideband, Pre-emphasis
Frequency response	70 Hz - 15 KHz
Frequency stability	-10°/+50°/10 KHz
Deviation	35 KHz min. @ 1 KHz
Distortion	< 1%
Expander	LN-compander
Signal-to-noise ratio	> 100 dB (A)
Audio output balanced	XLR
Current consumption	< 61 mA (WM 205 R < 50 mA)
Power source	12 V AC, external mains
Dimensions/Weight	35 x 110 x 220 mm / < 400 g

Transmitter DWS2400 G/M

Frequency range	2.4GHz Band 860 MHz range, Servicechannel
Output power	<10 mW ERP
A/D conversion	20bit, Bitstream
Sampling frequency	28,3 KHz
Telemetry Data	Battery status, identifier code, realtime error correction
Input	asymmetric, 47KOhm
Input sensitivity	adjustable 80 mV - 8 V RMS
THD	<0,5%
Current consumption	60 mA (typ) @ 9V
Dimmensions	110 x 65 x 25 mm

Receiver DWS2400 R

Operating mode	true diversity with 2 separate receivers
A/D conversion	20bit, Bitstream
Sampling frequency	28,3 KHz
Audio output	0 dBm / 600 ohm, balanced XLR +6dbm/600 ohm, Jack
Power source	external, 12 V - AC
Dimmensions	130 x 223 x 140 mm

Transmitter UH 901 / UH 910

Frequency range	UHF 770 - 870 MHz, 16 switchable frequencies
Modulation	FM
Deviation	35 KHz
Output power	<10 mW ERP
Frequency response	35 Hz - 16 KHz ±3 dB
Distortion	< 1%
Frequency stability	-10°/+50° 3 KHz
Power source	3V (2xAAA alkaline)
Operating time	>10 hours

Receiver 901 R / 910 R

Frequency range	UHF 770 - 870 MHz, 16 switchable frequencies
Modulation	FM
Deviation	55 KHz
Frequency response	35 Hz - 16 KHz ±3 dB
Distortion	< 1%
Signal-to-noise ratio	115 dB Typ.
Audio output	0 dBm / 600 ohm, balanced
Power source	12 V - AC

When operating wireless systems, there are several key issues that have to be taken into consideration:

It is necessary to select the frequencies very carefully. Interference can be caused by what is called "intermodulation" – in simple terms, this means the effect created when two frequencies interact. You must ensure that in any multi-channel system, no two frequencies are the same and care should be exercised because the possibility exists for some frequencies to interfere with each other.

Please consult your **dB Technologies** dealer for assistance.

VHF Standard Frequencies

173.800	BLACK
174.500	BROWN
175.000	GREY
175.750	ORANGE
184.175	LIGHT GREEN
184.500	PINK
216.250	LIGHT BLUE
218.750	VIOLET
222.625	RED
233.125	DARK BLUE
234.625	LIGHT BROWN
236.575	DARK RED
237.775	WHITE

Six frequencies can operate simultaneously

UHF Standard Frequencies

799.475	A
799.600	B
801.400	D
801.550	E
803.800	F
806.750	G
810.650	H
854.900	I
808.975	M
810.025	N
863.400	Q
864.000	R
864.600	S
771.630	T
774.465	U
778.210	V

IEM 2200

Band A:	801.000 – 820.650 MHz
Band U-N:	801.000 – 819.650 MHz
Band U-UK:	854.900 – 864.950 MHz
Band K:	774.200 – 781.800 MHz

PU901/PU910

Band U-N:	801.100 – 819.650 MHz
Band U-UK:	854.900 – 864.950 MHz
Band K:	774.200 – 781.800 MHz
Band ISM:	863.050 – 864.175 MHz

ALL SPECIFICATIONS TO CHANGE WITHOUT NOTICE, ERROR OMITTED.

Transmitter IEM 2200 T

Frequency range	UHF 774 – 865 MHz, 16 switchable frequencies
Modulation	FM
Deviation	55 KHz
Output power	25 mW
Frequency response	50 Hz – 15 KHz ± 3 dB
Distortion	< 1 %
Audio Input	2 x Neutrik-Combo® 6,3 mm jack/XLR balanced
Audio Output	2 x 6,3 mm Stereo-jack balanced LINK-OUT 1 x 3,5 mm Stereo-jack headphone output 1 x 6,3 mm Stereo-jack headphone output
Input Sensitivity	< 0 dBV / 600 Ohm, per channel adjustable
Power source	12 V AC 250 mA, external mains

Receiver IEM 2200 R

Frequency range	UHF 774 – 865 MHz,
Modulation	FM
Deviation	55 KHz
Frequency response	50 Hz – 15 KHz ±3 dB
Distortion	< 1 %
Deviation	40 dB @ 1 KHz
Signal-to-noise ratio	>105 dB Mono >100 dB Stereo
Headphone output	200 mW / 16 Ohm per channel
Current consumption	9 V Alkaline battery 6LR61
Operating time	6,5 – 8 hours
Operating mode	Mono, Dual-Mono, Stereo
Special features	Switchable limiter, Soft-Squelch

Transmitter IEM 1100 T

Frequency range	UHF 774 – 865 MHz
Modulation	FM
Deviation	55 KHz
Output power	25 mW
Frequency range	50 Hz – 15 KHz ±3 dB
Distortion	< 1 %
Audio input	2 x XLR, female, balanced
Audio output	2 x XLR, male, balanced
Input sensitivity	< 0 dBV / 600 Ohm, per channel adjustable
Power source	12 V AC 250 mA, external mains

Receiver IEM 1100 R

Frequency range	UHF 774 – 865 MHz, 16 switchable frequencies
Modulation	FM
Deviation	55 KHz
Frequency response	50 Hz – 15 KHz ±3 dB
Distortion	< 1 %
Deviation	40 dB @ 1 KHz
Signal-to-noise ratio	>105 dB Mono
Headphone output	200 mW / 16 Ohm per channel
Current consumption	9 V Alkaline battery 6 LR 61
Operating time	6,5 – 8 hours
Operating mode	Mono
Special features	Limiter, Soft-Squelch

TECHNICAL SPECIFICATIONS

Active Speaker Systems

FIFTY LINE			
Product	FL18	FL15	FL10
Type	Active SUB	Active MID/Hi	Passive HI
Power RMS	600W	500+300+100W	—
Power Peak	1200W	1800W	—
Freq. response	40-100 Hz	53-250 Hz	250-19000 Hz
SPL peak	133.5 dB	132 dB	131 dB
Crossover Freq.	100 Hz	250 Hz	2000 Hz
Coverage angle	omni	omni	60°x50°
Speaker/Driver	18" B&C®	15" dB	10" dB/1"B&C
Input connector	XLR bal.	XLR bal.	Speakon 4
Output connector	XLR bal.	Speakon 4	—
Dimensions (WxHxD)	500x700x650	500x500x650	500x500x650
Weight	50 kg	42 kg	23.5 kg

FORTY LINE			
Product	QL152	QL15	QL12
Type	Active SUB	3 Amps Active	Passive HI
Power RMS	800W	500+300+100W	—
Power Peak	1600W	1600W	—
Freq. response	40-90 Hz	55-200 Hz	200-19000 Hz
SPL peak	134 dB	130 dB	128 dB
Crossover Freq.	90 Hz	200 Hz	2000 Hz
Coverage angle	omni	omni	90°x60°
Speaker/Driver	2x15" dB /2.5" Voice	15" dB/3" Voice	12" dB/2.5" Voice
Input connector	Neutrik Combo	Neutrik Combo	Speakon 4
Output connector	2 x XLR bal.	XLR/Speakon4	—
Dimensions (WxHxD)	435x700x700	435x700x500	435x600x400
Weight	42 kg	31 kg	17.4 kg

STAGE OPERA						
Product	SO 42.12	SO 82.15	SO 41.15	SO 61.18	SO M12-4	SO M15-4
Type	Active FR	Active FR	Active SUB	Active SUB	Active Monitor	Active Monitor
Power RMS	300+100W	500+200+100W	400W	600W	225+50W	225+50W
Power Peak	800W	1600W	800W	1200W	450+100W	450+100W
Freq. response	60-20000 Hz	50-20000 Hz	30-150 Hz	20-150 Hz	68-20000 Hz	60-18000 Hz
SPL peak	127 dB	130 dB	127 dB	130 dB	126 dB	128 dB
Crossover Freq.	2200 Hz	700/3000 Hz	100 Hz	90/120/150 Hz	2000 Hz	2000 Hz
Speaker/Driver	2x12" dB 1" B&C®	2x15" dB/6.5" dB 1" B&C®	15" dB	18" B&C®	12" dB 1" B&C®	15" dB 1" B&C®
Input connector	Neutrik Combo	Neutrik Combo	Neutrik Combo	Neutrik Combo	Neutrik Combo	Neutrik Combo
Output connector	XLR parallel	XLR parallel	2 x XLR parallel 2 x XLR Xover	2 x XLR parallel 2 x XLR Xover	XLR parallel	XLR parallel
Dimensions (WxHxD)	1000x430x480	1400x500x500	450x500x500	600x800x600	400x410x510	470x680x470
Weight	39 kg	59 kg	24 kg	54 kg	19 kg	21 kg

Product	OPERA MODULAR				OPERA SUBWOOFER	
	Opera 212M	Opera 215M	Opera 412M	Opera 415M	SUB12	SUB15
Power RMS	150+50W	150+50W	250+50W	250+50W	400W	800W
Power Peak	300+100W	300+100W	500+100W	500+100W	800W	1600W
Freq. response	65-18000 Hz	50-18000 Hz	50-18000 Hz	50-18000 Hz	40-150 Hz	40-120 Hz
SPL peak	120 dB	121 dB	126 dB	127 dB	127 dB	133 dB
Crossover Freq.	2000 Hz	2000 Hz	2000 Hz	2000 Hz	100 Hz	80/100/120 Hz
Speaker/Driver	12" dB 1" dB	15" dB 1" dB	12" dB 1" B&C [®]	15" dB 1" B&C [®]	12" dB	15" dB
Input connector	XLR/Jack	XLR/Jack	XLR/Jack	XLR/Jack	2 x Neutrik Combo	
Output connector	XLR parallel	XLR parallel	XLR parallel	XLR parallel	2 x XLR parallel 2 x XLR Xover	
Dimensions (WxHxD)	700x440x320	700x440x320	700x440x320	700x440x320	520x360x500	430x600x600
Weight	15 kg	16 kg	19 kg	20 kg	18.9 kg	32 kg

Product	OPERA LIVE				
	Live 210	Live 202	Live 205	Live 402	Live 405
Power RMS	150+50W	150+50W	150+50W	250+50W	250+50W
Power Peak	300+100W	300+100W	300+100W	500+100W	500+100W
Freq. response	68-18000 Hz	68-18000 Hz	68-18000 Hz	60-18000 Hz	60-18000 Hz
SPL peak	120 dB	120 dB	121 dB	128 dB	128 dB
Crossover Freq.	2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Speaker/Driver	10" dB 1" dB	12" dB 1" dB	15" dB 1" dB	12" dB 1" Compr. dB	15" dB 1" Compr. dB
Input connector	XLR/Jack	XLR/Jack	XLR/Jack	XLR/Jack	XLR/Jack
Output connector	XLR parallel	XLR parallel	XLR parallel	XLR parallel	XLR parallel
Dimensions (WxHxD)	312x550x280	406x650x350	406x650x350	406x650x350	406x650x350
Weight	11.4 kg	14 kg	15 kg	18 kg	19 kg

Product	BASIC LINE			TWIN SERIES	
	Basic 100	Basic 200	Basic 400	Twin 128	Twin 228
Power RMS	70+20W	120+40W	225+50W	70+20W	150+50W
Power Peak	140+40W	240+80W	280+80W	140+40W	300+100W
Freq. response	70-18000 Hz	65-18000 Hz	68-18000 Hz	80-18000 Hz	68-18000 Hz
SPL peak	117 dB	118 dB	121 dB	118 dB	121 dB
Crossover Freq.	2000 Hz	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Speaker/Driver	10" dB 1" dB	12" dB 1" dB	15" dB 1" dB	2x8" dB 1" dB	2x8" dB 1" dB
Input connector	XLR/Jack	XLR/Jack	XLR/Jack	XLR/Jack	XLR/Jack
Output connector	XLR parallel	XLR parallel	XLR parallel	XLR parallel	XLR parallel
Dimensions (WxHxD)	312x550x280	400x600x345	400x600x345	312x550x280	312x550x280
Weight	9 kg	14.5 kg	16.5 kg	10 kg	11.9 kg





english

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