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Wireless Microphone Systems

beyerdynamic

Wireless Microphone Systems

The modular Opus 800 wireless system from beyerdynamic provides perfect transmission, a very wide range and easy operation.

The Opus 800 wireless system, which has been developed especially for professional use, features an excellent audio quality, many functions and an extraordinary price/performance ratio. The extensive accessories allow a wide range of applications. The PC-controlled Opus 800 wireless system meets even the highest demands of professional applications with a simple and safe operation.

The use of PLL synthesiser technology ensures superior frequency agility. Within the TV-channels 54-57, 59-61, 62-64 or 68-70 it is possible to select from 100 pre-programmed frequencies each (with software control from max. 961 frequencies) and up to 16 channels per frequency range can be operated simultaneously without any interference. The number of the maximal possible channels depends on the regulations in each country. True diversity and an adjustable squelch guarantee a noise-free reception.

With the innovative ACT function (Automatic Channel Targeting) the Opus 800 receiver is automatically searching for a free frequency that is transmitted via infra red to the transmitter.

Opus 800

Modular Wireless System

Opus 800 MF
Receiver Mainframe

Rack for up to four NE 800 C receiver modules
- 19"/1HU-metal housing
- including 4-channel audio mixer and antenna splitter, removable TNC antennas and switching power supply
- Receiver modules can be also exchanged when the mainframe is switched on
- Monitoring / headphone output with volume control and channel selector
- Facility for front antenna mounting

- TNC antenna sockets with power supply (+ 8 V) for remote antenna amplifiers
- AF output (3-pin XLR male, balanced), master output of all receiver modules with MIC/LINE level switch
- One AF output per receiver module (3-pin XLR male, balanced) with LINE level
- A forced head radiation design ensures stable operation of systems for up to 24 hours in high-density installations
- PC interface to connect to IBM compatible PCs and notebooks (RS 232 or USB) Windows 98 or higher version
- Switching power supply (110 V – 240 V AC)

Opus 800 MF/ NE 800 C Receiver

Operating principle	True diversity receiver (UHF)
Frequency range	740 - 764 MHz
	774 - 798 MHz
	798 - 822 MHz
	850 - 874 MHz
	more frequency ranges on request
Switching bandwidth	24 MHz
Sensitivity	2 µV
Antenna connection	2 x TNC female
Nominal deviation	± 40 kHz
Output level	1.2 V (+ 4 dBm)
Compander system	NE572
Signal-to-noise-ratio	> 110 dB(A)
T.H.D	< 0.5% at 1 kHz
Squelch	2 µV - 1 mV, adjustable
Power supply	12 V - 15 V DC
Mains	110 V - 240 V AC
Dimensions (L x W x H)	240 x 482 x 44 mm (Opus 800 MF)
	140 x 80 x 35 mm (NE 800 C)
Weight	4.2 kg (Opus 800 MF)
	250 g (NE 800 C)

Receiving Modules – Plug and Play!

Opus 800 MF mainframe with 4 NE 800 C modules

NE 800 C Receiver Modules

The plug and play principle of the receiver modules allows immediate operation. All functions can be controlled manually on the module panel. The colour LC-Display indicates frequency, group and channel, squelch, battery status, user's name, RF and AF level.
A sophisticated adjustable squelch system prevents unwanted noise effectively.

ACT - Automatic Channel Targeting

When the SCAN button is pressed the receiver will scan the environment and stop automatically when a frequency is found that is free from interference. The ACT button on the receiver provides rapid and precise frequency setting of the transmitter. It automatically locks the receiver and the transmitter into the same operating frequency. As an option one of the 100 pre-programmed frequencies can be selected manually.

Legendary beyerdynamic Sound

With the Opus 800 handheld transmitters you acquire state-of-the-art wireless technology combined with the legendary beyerdynamic sound.

- 100 pre-programmed UHF frequencies
- ACT Automatic Channel Targeting for frequency selection
- Clear LC-Display
- Adjustable input sensitivity (2-stage)
- The integrated optical limiter reduces extremely loud inputs without suppressing instantly following extremely soft sounds
- Integrated transmitting antenna
- No interference from mobile phones in a distance of more than 10 cm

Handheld Transmitters

SDM 860 M SDM 860/869 SEM 881

The mass-reduced diaphragm made of Hostaphan® ensures extraordinary sound features and a high gain-before-feedback. The elastic suspension of the capsule reduces handling noise to a minimum.

The LC-Display clearly indicates the selected channel or group and the battery status (5-stage). The handheld transmitter is powered with two 1.5 V AA batteries, which allow an operating time of more than 20 hours. The operating time with two Mignon AA rechargeable NiMH batteries (1400 mAh) is 14 hours.

Absolutely silent on/off-switch:
The pilot tone system avoids noise when the transmitter is switched on or off and mutes the receiver automatically when the transmitter is switched off.

Using the ACT infra red interface the selected frequency can be transmitted from the receiver to the transmitter.

The removable cap of the SDM 860 M avoids that the transmitter is switched on or off unintentionally. The protection cap (RH 77 M) is available in different colours (see page 9). Each handheld transmitter will be delivered with three caps (black, blue and red).

Removable cap (RH 77) is available in different colours (see page 9).

SDM 860 M

The ultimate touring microphone for rock and pop singers. Extremely powerful and solid. Suitable for Opus 800 and Opus 500 Mk II wireless systems.

- Metal housing
- TG-X 60 microphone capsule (dynamic, hypercardioid)

SDM 860/869

The allround microphones for vocals and speech. The SDM 860 handheld transmitter is fitted with the TG-X 60 microphone capsule and the SDM 869 with the Opus 69 microphone capsule.

SEM 881

The SEM 881 handheld transmitter features studio quality for stage applications. The integrated Opus 81 condenser capsule ensures an excellent sound with a warm bass, balanced mids and transparent highs. Also suitable for permanent installations.

Practical Features

The TS 800 beltpack transmitter has been designed for multifunctional applications. For example for theatre applications with a clip-on microphone or on stage as a guitar transmitter. The beltpack transmitter is available in a rugged plastic housing (TS 800) or metal housing (TS 800 M). With its integrated clip it can be attached to belts, waistbands or guitar straps.

Beltpack Transmitters

TS 800

The 4-pin mini XLR input connector (plug-in and screw-type) is utilised for the connection of microphones or instruments. Due to the pilot tone system there is no mute-switch needed, because the receiver is muted automatically when the transmitter is switched off.
Low costs: The operating time with two 1.5 V AA batteries is more than 20 hours and with two Mignon AA rechargeable NiMH batteries (1400 mAh) 14 hours.

Gain control:
For many microphones and instruments the signals can be matched to an optimum level by using the gain control.
With the MT-/GT-switch it is possible to select between microphone and instrument inputs. In the GT-mode (GT for guitar) the gain control is deactivated, in the MT-mode (MT for microphone) it is activated.

TS 800 M

Ultimate touring beltpack transmitter (metal housing) for Opus 800 and Opus 500 Mk II wireless systems.

SDM 860 (M) / SDM 869 / SEM 881 Handheld Transmitters

Polar pattern	Hypercardioid (SDM 860), Supercardioid (SDM 869), Cardioid (SEM 881)
Transducer type	Dynamic (SDM 860 / SDM 869), Electret condenser (SEM 881)
Frequency range	740 - 764 MHz 774 - 798 MHz 798 - 822 MHz 850 - 874 MHz more frequency ranges on request
Modulation	FM
Nominal deviation	± 40 kHz
Radiated transmitter power	> 10 mW
Compander system	NE572
Gain	switchable with internal switch, - 10 dB = 0.7 mV/Pa
AF transmission range	55 - 18,000 Hz (SDM 860) 65 - 16,000 Hz (SDM 869) 70 - 20,000 Hz (SEM 881)
Signal-to-noise-ratio	> 110 dB
T.H.D.	< 0.5% at 1 kHz
Transmission range	> 100 m
Power supply	2 x 1.5 V batteries (AA) or rechargeable batteries
Operating time	> 20 hours with alkaline batteries
Dimensions (with mic head)	Length 258 mm (SDM 860/869, SEM 881) Length 236 mm (SDM 860 M) Shaft 33/37 mm (SDM 860/869, SEM 881) Shaft 32/38 mm (SDM 860 M)
Weight	230 g (SDM 860), 220 g (SDM 869), 265 g (SEM 881), 280 g (SDM 860 M)

TS 800 / TS 800 M Beltpack Transmitter

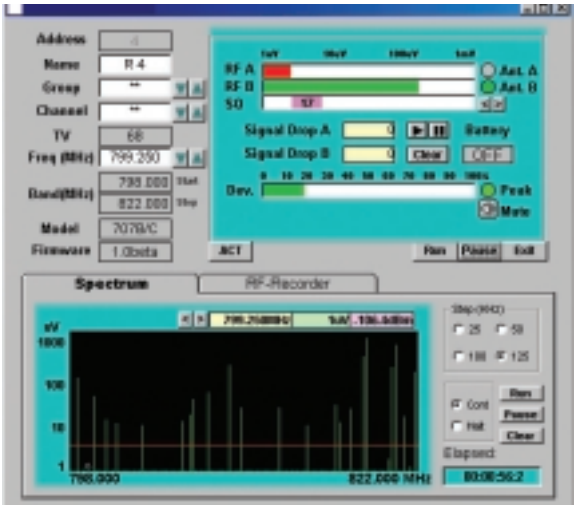
Frequency range	740 - 764 MHz 774 - 798 MHz 798 - 822 MHz 850 - 874 MHz more frequency ranges on request
Modulation	FM
Nominal deviation	± 40 kHz
Radiated transmitter power	> 10 mW
Compander system	NE572
AF transmission range	50 - 18,000 Hz
Transmission range	> 100 m
Gain	10 mV - 0.3 V adjustable, at nominal deviation
Signal-to-noise-ratio	> 110 dB
T.H.D.	< 0.5% at 1 kHz
Power supply	2 x 1.5 V batteries (AA) or rechargeable batteries
Current consumption	approx. 85 mA
Operating time	> 20 hours with alkaline batteries
Dimensions (L x W x H)	105 x 60 x 20 mm (TS 800) 105 x 63 x 21 mm (TS 800 M)
Weight	115 g (TS 800), 145 g (TS 800 M)
4-pin connection	Pin 1 = Ground, Pin 2 = IN1, Pin 3 = IN2, Pin 4 = + 5 V

Opus 800 Software

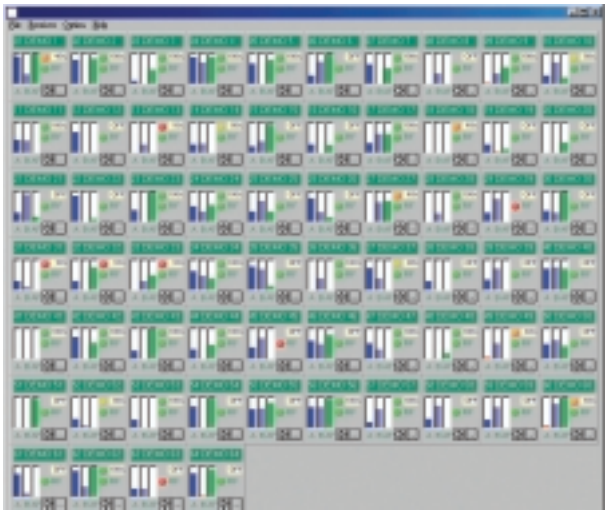
Complex control — easy to handle

The Opus 800 software is a flexible and time-saving solution for applications on tour or in permanent installations. Any number of sets can form a multi-channel system, which can be adjusted, monitored and controlled via PC.

- Real time control of max. 64 channels or 64 NE 800 C receiver modules per software (961 pre-programmed frequencies per channel)
- User-friendly surface, easy to handle
- Manual frequency selection or via integrated spectrum analyser
- Using the spectrum analyser the environment can be scanned for free and clear frequencies. (Measuring the incoming signal level.)
- Setup and/or monitoring of AF and RF level, diversity status, battery status, channel/frequency, etc.
- Memory function for system settings
- Signal history
- PC control via RS 232 or USB-interface and supplied signal converter up to 1,000 m cable length. Can be cascaded: all mainframes are connected in parallel!

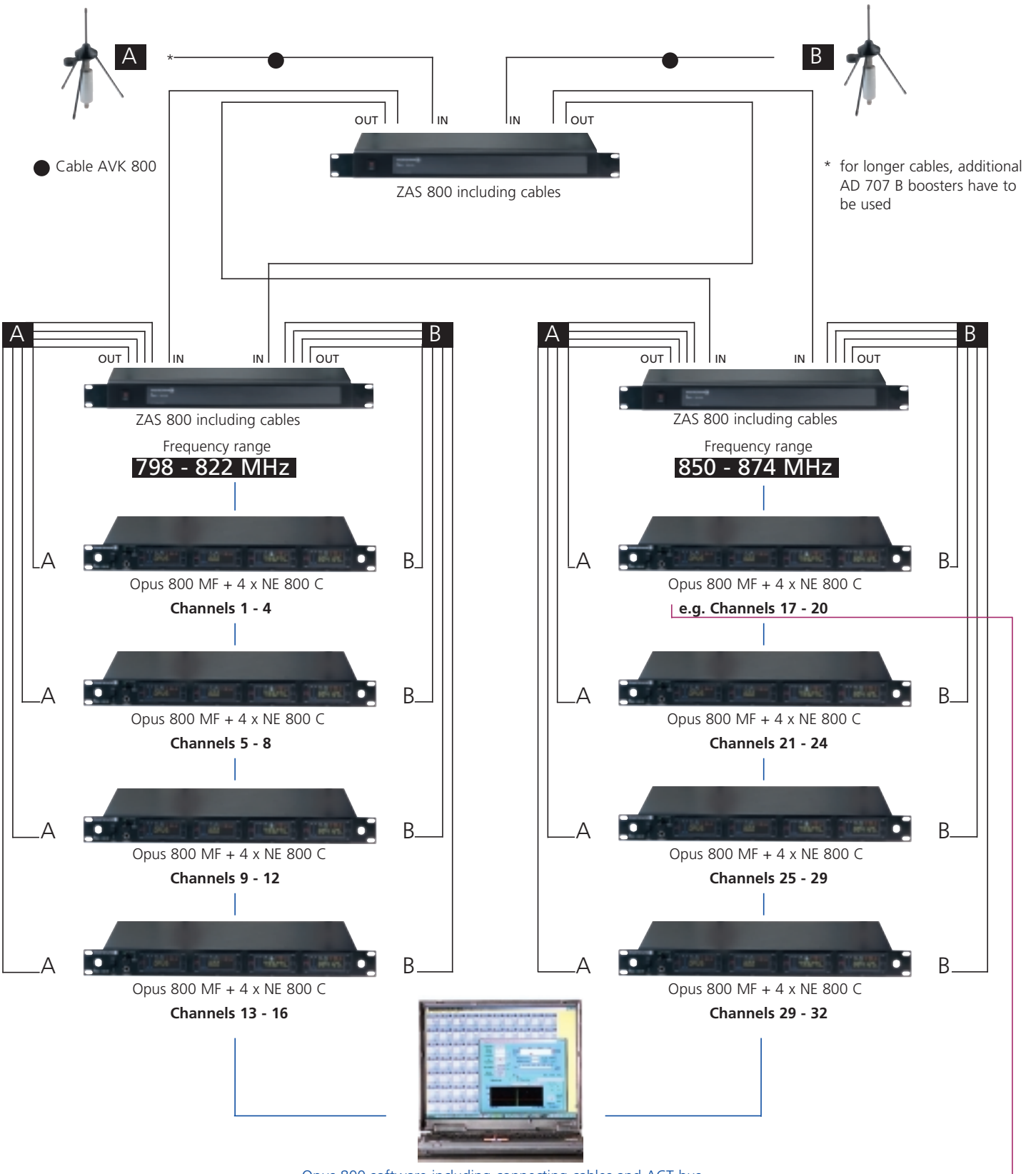


Detailed view of a module. All parameters can be controlled and adjusted easily.



Overall view of all modules. AF-level, antenna signal and the battery status per module/ transmitter (name) are displayed. Using the mute switch each receiver can be activated or muted.

Opus 800 — Example of a 32-channel system



Opus 800 software including connecting cables and ACT bus

Example	Channel 17	SDM 860 M
for channel 17 - 20	Channel 18	TS 800 with MCE 60.18
	Channel 19	TS 800 with Opus 54.18
	Channel 20	TS 800 with MJ 41 G instrument cable

Connection possibilities to TS 300 and TS 800 (M) beltpack transmitters!

For connection to TS 100/200 beltpack transmitters the following microphones are available as .100 version.

MCE 5.18

Clip-on microphone for speech and miking instruments, especially in broadcasting, films and for performances on stage

- Electret condenser, omnidirectional
- Studio quality
- Wide frequency response
- Small, unobtrusive design
- Rugged construction
- Very low cable and handling noise

MCE 10.18

Clip-on microphone for presentations

- Electret condenser, hypercardioid
- High gain-before-feedback
- Smooth and wide frequency response
- Excellent side-attenuation
- Unobtrusive design

MCE 7.18

Extremely small clip-on microphone for vocals and speech in theatres/musicals

- Electret condenser, omnidirectional
- Wide frequency response
- Insensitive to handling noise
- Small, unobtrusive design
- Removable wire mesh windscreen
- Also available in tan tone

MCE 60.18

Clip-on microphone for stage and studio applications

- Electret condenser, omnidirectional
- For vocals and speech
- Absolute studio quality
- High sensitivity
- Small and unobtrusive

Opus 54.18

Neckworn condenser microphone (electret) for performers

- For vocals and speech
- Cardioid polar pattern
- High gain-before-feedback
- Lightweight, adjustable neckband
- Slim, flexible gooseneck
- Soon available in tan tone

Opus 56.18

Headworn condenser microphone (electret) for presentations and vocals

- Cardioid polar pattern
- Adjustable headband
- Flexible gooseneck for optimum positioning
- Secure fit
- Rugged construction

Opus 55.18

High-performance neckworn condenser microphone (electret) for presentations

- Omnidirectional polar pattern
- High gain-before-feedback
- Lightweight, adjustable neckband
- Ultra slim, flexible gooseneck for easy positioning
- Soon available in tan tone

MJ 41 G

Instrument cable with 6.35 mm (1/4") jack and 4-pin mini XLR to connect to TS 800 (M) and TS 300 beltpack transmitters

Accessories
for Opus Wireless Systems

ZAS 800 Antenna Splitter

Active UHF antenna splitter, 4-way, 19"/1HU-housing incl. rack mount for antenna front mounting and cables for up to four Opus 800 MF mainframes resp. four NE 300 S, NE 500 S or D receivers

ZAS 800 Antenna Splitter

Frequency range	740 - 764 MHz 774 - 798 MHz 798 - 822 MHz 850 - 874 MHz more frequency ranges on request
Inputs	2 x 50 Ω (TNC)
Outputs	8 x 50 Ω (TNC)
Amplification	0 dB ±3 dB
Decoupling attenuation	> 15 dB
Power supply	12 V - 15 V DC, 1A current min.
Mains	110 V - 240 V AC
Current consumption	approx. 170 mA
Dimensions (L x W x H)	190 x 482 x 44.3 mm
Weight	1.55 kg

AD 707 A/B
UHF Antenna Set

UHF antenna set consisting of two AD 707 B boosters (+ 13 dB, TNC), two AD 707 A ground-plane antennas (TNC) and antenna mounting kit, for Opus 300, 500 Mk II and Opus 800 wireless systems

FBC 71

Antenna cables (TNC) for antenna front mounting, one pair, for Opus 800 MF mainframe, ZAS 800 antenna splitter and NE 500 D receiver

FB 71

Mounting bracket (metal) for antenna front mounting, for one NE 500 S receiver in 19"-rack on 1 HU

FB 72

Mounting bracket (metal) for antenna front mounting, for one NE 500 D receiver or one ZAS 800 antenna splitter on 1 HU

ZTE 100

Mounting bracket (metal) for 19" mounting of one NE 100 receiver

ZAA TNC(M)-N(F)

Adapter TNC(M) to N(F) for Opus 300, 500 Mk II and Opus 800 wireless systems when antenna cable AVK N(HF)-N(HF) is used

AVK

Antenna cables (Aircell 7) for Opus 300, 500 Mk II and Opus 800 wireless systems, various lengths, low attenuation, TNC male – TNC male

Versions:

AVK 800/1 TNC(M)AC7 = 1 m
AVK 800/3 TNC(M)AC7 = 3 m
AVK 800/10 TNC(M)AC7 = 10 m
AVK 800/25 TNC(M)AC7 = 25 m

RH 77

Colour rings for SDM 860 / 869 and SEM 881 handheld transmitters
(1 set = 10 pcs. in different colours)

RH 77 M

Coloured protection caps for SDM 860 M handheld transmitters
(1 set = 10 pcs. in different colours)

Wireless System

Opus 500 Mk II

Perfect transmission —
easy operation

The Opus 500 Mk II wireless system, based on the technology of the modular Opus 800 system, features legendary beyerdynamic audio quality and reliability as well as many innovative functions at an extraordinary price/performance ratio.
With the innovative Auto Scan / ACT function even most complicated system-setups can easily and quickly be programmed on-site. The NE 500 receiver automatically searches for a free channel/frequency that then can be transmitted via infra red to the transmitter.

The use of PLL synthesised technology ensures superior frequency agility. Within the available frequency bands it is possible to select from 100 pre-programmed frequencies (with software control from max. 961 frequencies) and up to 16 channels per band can be operated simultaneously without any interference. The number of maximal possible channels depends on the regulation in each country. True diversity and an adjustable squelch guarantee a noise-free reception.

All functions can be controlled or setup manually on the receiver panel. The colour LC-Display indicates frequency, group and channel, squelch, battery status, user's name, RF and AF level.

The extensive accessories allow a wide range of applications. The PC-controllable Opus 500 Mk II wireless system meets even the highest demands of professional applications with a simple and safe operation.

ACT - Automatic Channel Targeting

When the SCAN button is pressed the receiver will scan the environment and stop automatically when a frequency is found that is free from interference. The ACT button on the receiver provides rapid and precise frequency setting of the transmitter. It automatically locks the receiver and the transmitter into the same operating frequency.

Six different sets and many more individual system combinations with handheld transmitters, neckworn microphones, lavaliere microphones and instrument applications, incl. the TG-X 60, Opus 69, Opus 81, Opus 54 and MCE 60 provide a wide range of options for every situation.

Receiver

NE 500 S

- 1-channel true diversity receiver (UHF) rugged 1/2 19" metal housing
- Removable antennas (TNC), antenna sockets with power supply (+ 8 V) for remote antenna amplifiers
- PC interface to connect to IBM compatible PCs and notebooks (RS 232 or USB), Windows 98 or higher version
- Audio outputs: 1 AF output (3-pin XLR male, balanced) and 1 AF output (6.35 mm jack, unbalanced) with MIC/LINE level switch each
- External power supply unit (100 V - 240 V AC adapter)

NE 500 D

- 2-channel true diversity receiver (UHF), rugged 19" metal housing
- Removable antennas (TNC) antenna sockets with power supply (+ 8 V) for remote antenna amplifiers
- PC interface to connect to IBM compatible PCs and notebooks (RS 232 or USB), Windows 98 or higher version
- Audio outputs: 1 AF output (3-pin XLR male, balanced) per channel and 1 AF output (6.35 mm jack, unbalanced, sum) with MIC/LINE level switch each
- External power supply unit (100 V - 240 V AC adapter)

Beltpack Transmitter

TS 800

Opus 500 Mk II Set

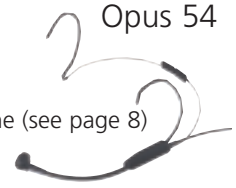
consisting of
NE 500 S true diversity receiver
+ TS 800 beltpack transmitter

MCE 60

Opus 550 Mk II Lavaliere Set

consisting of NE 500 S true diversity receiver + TS 800 beltpack transmitter + MCE 60.18 lavaliere microphone (see page 8)

Opus 54



Opus 554 Mk II Neckworn Set

consisting of NE 500 S true diversity receiver + TS 800 beltpack transmitter + Opus 54.18 neckworn microphone (see page 8)

NE 500 S/D True Diversity Receiver

Operating principle	True diversity receiver (UHF)
Frequency range	740 - 764 MHz 774 - 798 MHz 798 - 822 MHz 850 - 874 MHz more frequency ranges on request
Switching bandwidth	24 MHz
Sensitivity	2 µV
Antenna connection	2 x TNC female
Nominal deviation	± 40 kHz
Output level	1.2 V (+ 4 dBm)
Compander system	NE572
Signal-to-noise-ratio	> 110 dB(A)
T.H.D.	< 0.5% at 1 kHz
Squelch	2 µV - 1 mV, adjustable
Power supply	12 V - 15 V DC
Mains	100 V - 240 V AC
Dimensions (L x W x H)	210 x 206 x 44 mm (NE 500 S) 420 x 204 x 44 mm (NE 500 D)
Weight	1.0 kg (NE 500 S), 3.0 kg (NE 500 D)

SDM 860 (M) / SDM 869 / SEM 881 Handheld Transmitters

All handheld and beltpack transmitters of the modular Opus 800 wireless system are compatible to Opus 500 Mk II.

Technical specifications see page 5

TS 800 / TS 800 M Beltpack Transmitters

Technical specifications see page 5

Opus 800 Software see page 6

Accessories for Opus 500 Mk II see page 8 + 9

With the Opus handheld transmitters you acquire state-of-the-art wireless technology combined with the legendary beyerdynamic sound.

Opus 560 Mk II Handheld Set

consisting of NE 500 S true diversity receiver
+ SDM 860 handheld transmitter

The ultimate touring microphone for rock and pop singers. Extremely powerful. The SDM 860 handheld transmitter includes the legendary TG-X 60 microphone capsule. The mass reduced diaphragm made in Germany ensures extraordinary sound features and a high gain-before-feedback. The elastic suspension of the capsule reduces handling noise to a minimum.

Opus 569 Mk II Handheld Set

consisting of NE 500 S true diversity receiver
+ SDM 869 handheld transmitter

The allround microphone for vocals and speech. The SDM 869 handheld transmitter is fitted with the Opus 69 microphone capsule. Due to its high sound pressure capability and rugged construction the SDM 869 can also be used for close miking instruments.

Opus 581 Mk II Handheld Set

consisting of NE 500 S true diversity receiver
+ SEM 881 handheld transmitter

The SEM 881 transmitter features studio quality for stage applications. The integrated Opus 81 condenser capsule (electret) ensures an excellent sound with a warm bass, balanced mids and transparent highs. Also suitable for sound contracting applications.

Handheld Transmitters

SDM 860 / 869

SEM 881

Versions:
SDM 860 (dynamic, hypercardioid)
SDM 869 (dynamic, supercardioid)
SEM 881 (condenser, cardioid)

Wireless System

Opus 300

Professional technology at very reasonable prices

The new Opus 300 wireless system (UHF) from beyerdynamic offers professional wireless technology at amateur prices. Also equipped with the innovative Auto Scan / ACT function and 16 switchable, pre-programmed frequencies, the Opus 300 system can be operated simultaneously with up to 16 channels per frequency range without any interference. Via the Auto Scan / ACT function, the receiver automatically searches for a noise-free channel, which then easily can be locked into the transmitter via infra red.
True diversity, the pilot tone mode and an adjustable squelch guarantee high-quality reception without any "soughing" noise.
Opus 300 features legendary beyerdynamic audio quality and reliability.

Five different sets, each supplied in a rugged transport case, are available. All Opus 300 sets are ready for use straight after switching itself on, are easy to handle and with various accessories they provide a wide range of options for every situation.

Opus 300 Set

consisting of
NE 300 S true diversity receiver
+ TS 300 beltpack transmitter

Receiver

NE 300 S

- 1-channel true diversity receiver (UHF)
- Space saving and rugged 1/2 19" plastic housing
- Auto Scan / ACT function
- LEDs to indicate channel, AF and RF level
- PLL synthesised technology
- Removable antennas (TNC)
  antenna sockets with power supply (+ 8 V) for remote antenna amplifiers
- Audio outputs: 1 AF output (3-pin XLR male, balanced) and
  1 AF output (6.35 mm jack, unbalanced) with MIC/LINE level switch each
- External power supply unit (100 V - 240 V AC adapter)

Opus 350 Lavaliere Set

consisting of NE 300 S true diversity receiver + TS 300 beltpack transmitter
+ MCE 60.18 lavaliere microphone (see page 8)

MCE 60

For theatre, musical or presentations where lavaliere microphones are commonly used, the Opus 350 set combines the TS 300 beltpack transmitter with the MCE 60 microphone. The MCE 60 has an omnidirectional polar pattern and is insensitive to handling and pop noise. The microphone attaches via the supplied microphone clip to clothing and due to its small size, it also can easily be concealed in the hair or in makeup for theatre applications.

Opus 354 Neckworn Set

consisting of NE 300 S true diversity receiver
+ TS 300 beltpack transmitter + Opus 54.18 neckworn microphone (see page 8)

Opus 54

The Opus 354 set has been created for "hands free" applications that require a high quality and lightweight microphone. It is ideal for entertainers, dancers, drummers, keyboard players, etc. The Opus 54 will interface with the TS 300 beltpack transmitter to provide a low profile neckworn microphone for aerobics instructors, theatre use and stage musicals. Its cardioid polar pattern allows a high gain-before-feedback. The Opus 54 features a rugged yet adjustable neck-band and flexible ear bows that can be shaped for personal comfort with a secure fit. The Opus 54 is also suited for people who wear glasses.

Beltpack Transmitter

TS 300

- Rugged plastic housing
- ACT infra red interface for the frequency transmission from receiver to transmitter
- 4-pin mini XLR input connector (plug-in and screw-type)
- Gain control for input level adjustment
- Silent On/Off-switch
- Low-Battery-LED
- Operating time > 15 hours
- Swivelling clip to attach to belts or guitar straps

The handheld sets, available with different capsules, are the perfect solution for all vocal applications on stage. Each handheld transmitter features an adjustable input sensitivity, an absolutely silent On/Off-switch and a Low-Battery-Warning.

Opus 369 Handheld Set

consisting of NE 300 S true diversity receiver
+ SDM 369 handheld transmitter
with the Opus 69 microphone capsule
(dynamic, supercardioid)

Opus 381 Handheld Set

consisting of NE 300 S true diversity receiver
+ SEM 381 handheld transmitter
with the Opus 81 microphone capsule
(electret condenser, cardioid)

Handheld Transmitters

- Rugged plastic housing
- ACT infra red interface
- Adjustable input sensitivity
- Very high SPL capability
- Low-Battery-Warning
- Integrated transmitting antenna
- Operating time > 15 hours

Removable cap (RH 77), available in different colours (see page 9)

All Opus 300 components
are compatible to Opus 500 Mk II
and Opus 800 wireless systems.

Accessories for Opus 300 (see page 8 + 9)

NE 300 S True Diversity Receiver

Operating principle	True diversity receiver (UHF)
Frequency range	740 - 764 MHz 774 - 798 MHz 798 - 822 MHz 850 - 874 MHz more frequency ranges on request
Switching bandwidth	24 MHz
Antenna connection	2 x TNC female
Nominal deviation	± 40 kHz
Compander system	NE572
Signal-to-noise-ratio	> 105 dB(A)
T.H.D.	< 0.5% at 1 kHz
Squelch	adjustable
Power supply	12 V - 15 V DC
Mains	100 V - 240 V AC
Dimensions (L x W x H)	210 x 170 x 44 mm
Weight	0.7 kg

SDM 369 / SEM 381 Handheld Transmitters

Polar pattern	Supercardioid (SDM 369), Cardioid (SEM 381)
Transducer type	Dynamic (SDM 369), Electret condenser (SEM 381)
Frequency range	740 - 764 MHz 774 - 798 MHz 798 - 822 MHz 850 - 874 MHz more frequency ranges on request
Modulation	FM
Nominal deviation	± 40 kHz
Radiated transmitter power	> 10 mW
Compander system	NE572
Gain	switchable with internal switch, (- 10 dB)
AF transmission range	65 - 16,000 Hz (SDM 369) 70 - 20,000 Hz (SEM 381)
Transmission range	> 100 m
Signal-to-noise-ratio	> 105 dB
T.H.D.	< 0.5% at 1 kHz
Power supply	1 x 9 V battery (alkaline) or rechargeable battery
Operating time	> 15 hours with alkaline battery
Dimensions (with mic head)	Length 258 mm, Shaft 33/37 mm
Weight	220 g (SDM 369), 265 g (SEM 381)

TS 300 Beltpack Transmitter

Frequency range	740 - 764 MHz 774 - 798 MHz 798 - 822 MHz 850 - 874 MHz more frequency ranges on request
Modulation	FM
Nominal deviation	± 40 kHz
Radiated transmitter power	> 10 mW
Compander system	NE572
AF transmission range	50 - 18,000 Hz
Transmission range	> 100 m
Gain	10 mV - 0.3 V adjustable
Signal-to-noise-ratio	> 105 dB
T.H.D.	< 0.5% at 1 kHz
Power supply	1 x 9 V battery (alkaline) or rechargeable battery
Operating time	> 15 hours with alkaline battery
Dimensions (L x W x H)	105 x 63 x 21 mm
Weight	85 g

Wireless System

Opus 100

The entrance to wireless technology

The Opus 100 series of wireless systems are available in both the VHF and the UHF range of frequencies. To meet the demand of performers using multiple systems, we have developed four systems to cover the frequency spectrum allocated for the use of wireless microphones providing a wide range of options for every application. There is a common misconception that UHF is better than VHF; the fact is there is no difference in audio quality. The issue is interference and how many wireless channels you want to use in one place. When choosing your wireless system talk to your dealer – discuss the band, the gigs and find out which Opus system to use and you'll be sure of a great show.

Opus 100 wireless systems combine impeccable audio quality, easy operation and modern design at very low prices.

Six different sets are available.
A softbag for transporting the set is included.

Opus 100 Guitar Set

consisting of NE 100 diversity receiver + TS 100 beltpack transmitter + TPK 100 G instrument cable.

The Opus 100 system includes the NE 100 diversity receiver (adjustable squelch, output level control, LEDs for power/mute and diversity) and the low profile TS 100 beltpack transmitter (gain control, On/Off- and mute switch, LEDs for peak level, power). A cable is provided to interface the TS 100 with a standard jack.
Not FCC approved!

Beltpack Transmitter TS 100

Receiver NE 100

Opus 150 Lavaliere Set

consisting of NE 100 diversity receiver + TS 100 beltpack transmitter + MCE 60.100 neckworn microphone (see page 8).

On the theatrical stage, especially for singers, your mood and expression are an essential part of a great performance. The Opus 150 gives you the chance to catch the emotion, simply, professionally and without wires. The stunning MCE 60 microphone has been chosen for the Opus 150 set and is connected to a diminuitive beltpack transmitter ready for you to deliver the performance of lifetime knowing everyone can hear!
Not FCC approved!

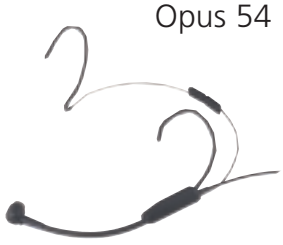
MCE 60

Opus 154 Neckworn Set

consisting of NE 100 diversity receiver + TS 100 beltpack transmitter + Opus 54.100 neckworn microphone (see page 8).

The Opus 154 set is ideal for musicians who need to keep their hands free. The cardioid Opus 54 condenser microphone (electret) features a rugged, adjustable neckband and flexible ear loops that can be shaped for personal comfort to ensure a secure fit.
Not FCC approved!

Opus 54



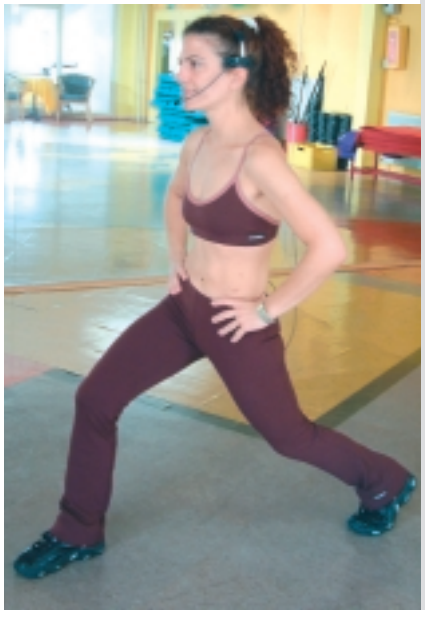
The Opus 100 handheld sets are ideal for on-stage applications and are comprised of the NE 100 diversity receiver and one handheld transmitter with microphone clamp.

Opus 159/169/181 Handheld Sets

consisting of NE 100 diversity receiver
+ SDM 159 or SDM 169 or SEM 181 handheld transmitter

The Opus 159 set includes the supercardioid SDM 159 dynamic microphone, the Opus 169 set features the supercardioid SDM dynamic microphone and the Opus 181 set includes the SEM 181 transmitter with a cardioid condenser capsule.
Not FCC approved!

Handheld Transmitters



NE 100 Diversity Receiver

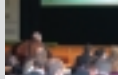
Operating principle	Diversity receiver (VHF or UHF)
Frequency range	
NE 100 V (VHF)	1 frequency between 174 and 236 MHz
NE 100 U (UHF)	1 frequency between 798 and 862 MHz
Nominal deviation	35 kHz
AF transmission range	50 - 15,000 Hz
Noise reduction	LN compander
T.H.D.	< 1% (30 kHz) transmitter and receiver
Signal-to-noise-ratio	
at RF-level 70 dBm	> 100 dB(A)
at RF-level 85 dBm	> 90 dB(A)
RF-bandwidth	< 200 kHz
Audio output	3-pin XLR male, balanced
Power supply	External power supply unit 11 V - 15 V, 200 mA, DC/AC
Dimensions (L x W x H)	226 x 39 x 115 mm
Weight	0.65 kg

SDM 159 / SDM 169 / SEM 181 Handheld Transmitters

Polar pattern	Supercardioid (SDM 159 / SDM 169), Cardioid (SEM 181)
Transducer type	Dynamic (SDM 159 / SDM 169), Electret condenser (SEM 181)
Frequency range	
SDM 159 V / SDM 169 V / SEM 181 V	1 frequency between 174 and 236 MHz
SDM 159 U / SDM 169 U / SEM 181 U	1 frequency between 798 and 862 MHz
RF output power	> 10 mW (output power)
Nominal deviation	35 kHz
AF transmission range	50 - 15,000 Hz
Noise reduction	LN compander
Sensitivity	Fixed
Max. SPL	130 dB
Antenna	Integrated in housing
Power supply	2 x 1.5 V batteries (alkaline, AAA type “micro”)
Current consumption	100 mA (VHF), 130 mA (UHF)
Operating time	> 5 hours with alkaline batteries
Dimensions (with mic head)	Length 180 mm, Shaft 31 mm
Weight	166 g (SDM 159), 159 g (SDM 169), 145 g (SEM 181)

TS 100 Beltpack Transmitter

Frequency range	
TS 100 V	1 frequency between 174 and 236 MHz
TS 100 U	1 frequency between 798 and 862 MHz
RF output power	> 10 mW (output power)
Nominal deviation	35 kHz
AF transmission range	50 - 15,000 Hz
Noise reduction	LN compander
Signal-to-noise-ratio	
at RF-level 70 dBm	> 100 dB(A)
Sensitivity	adjustable, 40 mV - 1 V
Audio input	3.5 mm jack (female), 3-pin, screw-type
Power supply	1 x 9 V battery (alkaline) or rechargeable battery
Current consumption	50 mA (VHF), 65 mA (UHF)
Operating time	> 8 Std. (VHF), > 6 Std. (UHF) with 9 V alkaline batteries
Dimensions (L x W x H)	70 x 50 x 20 mm
Weight	60 g



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