

# OPUS 910 UHF WIRELESS SYSTEM



# OPUS 910

## FLEXIBLE, RELIABLE & FUTURE-PROOF WITH SUPERIOR AUDIO QUALITY

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Designed for use either on tour or in fixed installations, the Opus 910 professional UHF wireless system from beyerdynamic offers the highest levels of reliability, audio and transmission quality.

A wide selection of receivers, transmitters and interchangeable microphone capsules are available for the system, plus an extensive range of accessories and the option for PC control for advanced system set-up. The UHF bandwidth of 72 MHz is treble that of its predecessor the Opus 900, and offers up to 2880 selectable frequencies per frequency range plus an automatic channel targeting function (ACT), making the system both future-proof and highly flexible, regardless of the venue it is used in.



## Receivers

Three receiver versions are available for the Opus 910 system, each with 2880 selectable UHF frequencies per frequency range. To ease the set up of multi-channel systems there are also a number of pre-programmed frequency groups available. Pressing the SCAN button searches these groups for interference-free frequencies. The carrier frequency is then transmitted to the transmitter via an infrared signal and set up automatically by the ACT interface. The front panel of the receiver has a volume-controlled headphone output for monitoring individual receiver channels.

All other system settings, such as squelch or the output level of the receiver (0 dB, -10 dB, -20 dB, -30 dB), are made centrally by using the optimised jog wheel.

The colour LCD is easily readable from any angle and shows important system information such as the frequency, group/channel, user name, field strength, audio level and remaining battery capacity of the transmitter. A lock function prevents the settings from being changed inadvertently while the unit is in use.

All receivers are fitted with an internal switching power supply (100 - 240 V), while the dual and quad channel receivers each contain an integrated antenna splitter. The rear of the device has a balanced 3-pin XLR output per channel and a remote connection (In/Out) which can be used to connect and control several receivers remotely from a PC. The single channel NE 911 also features an unbalanced ¼" jack connection.



## Handheld Transmitters and Interchangeable Microphone Capsules

There are two ergonomically designed handheld transmitters available for use with the Opus 910 wireless system each with different frequency ranges and featuring a 36 MHz UHF bandwidth. In order to maximise the flexibility of the Opus 910 system, both transmitters can be combined with five top quality interchangeable beyerdynamic microphone capsules. The system's four microphone gain settings provide a high degree of flexibility in even the most diverse applications.

Both the S 910 M (with metal housing) and S 910 C (with plastic housing) are equipped with an ACT interface to detect the carrier frequency from the receiver and set up the transmitter automatically. All transmitters also have a noiseless on/off switch and LCD showing channel/group and remaining battery capacity.

Two 1.5 V AA alkaline batteries (included) power the S 910 M for over 20 hours, whilst the S 910 C has integrated charging contacts and is delivered with built-in rechargeable batteries (2 x Mignon AA NiMH) which provide an operating time of over 23 hours.



### RM 510

Ribbon, Cardioid

An absolute highlight – The RM 510 microphone head is the world's only ribbon capsule with cardioid polar pattern and delivers a fantastic, unobtrusive vocal sound, typical for all beyerdynamic ribbon microphones, even on the loudest stages.



### CM 930

True Condenser, Cardioid

A top class vocal microphone – Because vocal microphones are typically used at close distance, the close miking effect has been compensated to achieve completely neutral transmission of even the most delicate vocal nuances. The subtle treble boost ensures a sound pattern that is open and detailed without ever becoming obtrusive.



### DM 960

Dynamic, Hypercardioid

An exceptionally powerful microphone with a distinctive close miking effect, which moves singers firmly into the foreground. The hypercardioid polar pattern ensures maximum gain-before-feedback.

### Switching Bandwidth and Intermodulation

You may be wondering why our transmitters have a frequency range of 36 MHz, even though our receivers are equipped with a range that is twice as big at 72 MHz. The answer is simple – to ensure optimum HF performance even in large multi-channel systems and difficult environmental conditions.

Our decision to reduce the frequency range in our transmitters reduces the number and strength of unwanted intermodulation products, which in turn reduces the likelihood of possible “interfering frequencies”.

This allows more systems to be operated in parallel and free of interference within the predefined bandwidth. This is especially beneficial in difficult wireless environments, for example in the vicinity of DVB-T (Digital Video Broadcasting Terrestrial) transmitters.

The pre-programmed, interference-free frequencies of the receiver are matched to the frequency range of the transmitter, offering group and channel spacing ideally suited for multi-channel operation.



#### DM 969

Dynamic, Supercardioid

A reliable all-rounder for both vocals and speech: Excellent sound, extremely robust and high gain-before-feedback.



#### EM 981

Electret Condenser, Cardioid

The EM 981 interchangeable capsule delivers a high level of clarity in conferences, addresses, reports and live radio and television broadcasts.



LCD showing channel / group and battery status (5 levels).



Adjustable microphone gain setting (0 dB, 10 dB, 20 dB and 30 dB).



The S 910 C can be recharged using the SLG 900 battery charger (2 charging compartments).

## Beltpack Transmitters

The TS 910 M (with metal housing) and TS 910 C (with plastic housing) beltpack transmitters have been designed for use with clip-on lavalier and headset microphones as well as electric guitars.

The 4-pin mini XLR threaded plug can be used to connect either microphones or instruments and the input signal can be optimised using the transmitters' gain control. An onboard MT/GT setting lets you switch between microphones and instruments: In GT (guitar) mode, the gain control is inactive; in MT mode it is active. As with the handheld transmitters, the beltpack transmitters also have a 36 MHz UHF bandwidth.

### Note

You will find a large selection of lavalier and headset (neckworn) microphones for a wide variety of applications on our website at [www.beyerdynamic.com](http://www.beyerdynamic.com).

LCD showing channel / group and battery status (5 levels).

Noiseless on/off switch. The pilot tone system means that no mute-switch is required, because the receiver is muted automatically when the transmitter is switched off. This eliminates a common source of error during live operation.



The TS 910 C can be fitted with the optionally available TS 900 AP rechargeable battery pack providing an operating time of 11 hours.

This battery pack can be recharged using the SLG 900 battery charger with two charging compartments. Two 1.5 V AA batteries power the S 910 M for at least 20 hours.

## OPUS 910 Frequency Ranges

TRANSMITTERS	RECEIVERS			
S 910 M / C - TS 910 M / C	NE 911, NE 912 and NE 914			
	502 - 574 MHz	574 - 646 MHz	646 - 718 MHz	718 - 790 MHz
502 - 538 MHz	×	–	–	–
538 - 574 MHz	×	–	–	–
574 - 610 MHz	–	×	–	–
610 - 646 MHz	–	×	–	–
646 - 682 MHz	–	–	×	–
682 - 718 MHz	–	–	×	–
718 - 754 MHz	–	–	–	×
754 - 790 MHz	–	–	–	×

More frequency ranges on request.

## Accessories

We also offer an extensive range of accessories for the Opus 910 UHF system: from the ZAS 900 UHF wide-band antenna splitter (480 - 800 MHz), directional antennae, antenna amplifiers and cables right through to monitoring and control software, we have everything you need for your application.

Please visit our website  
[www.beyerdynamic.com](http://www.beyerdynamic.com) for a complete list of all our accessories.



SLG 900



ZAS 900



True Diversity Receivers	NE 911	NE 912	NE 914
Switching bandwidth	72 MHz	72 MHz	72 MHz
Channels	1	2	4
Sensitivity	2 µV	2 µV	2 µV
Antenna connection	2 x TNC	2 x TNC	2 x TNC
Nominal deviation	± 40 kHz	± 40 kHz	± 40 kHz
Output level	1.2 V	1.2 V	1.2 V
Signal-to-noise-ratio	> 110 dB(A)	> 110 dB(A)	> 110 dB(A)
T.H.D.	< 0.5% at 1 kHz	< 0.5% at 1 kHz	< 0.5% at 1 kHz
Squelch	2 µV - 1 mV adjustable	2 µV - 1 mV adjustable	2 µV - 1 mV adjustable
Mains	Internal switching power supply 100 - 240 V	Internal switching power supply 100 - 240 V	Internal switching power supply 100 - 240 V
Dimensions	210 x 235 x 43 mm	482 x 270 x 43 mm	482 x 270 x 43 mm
Weight	1.36 kg	2.75 kg	3.1 kg

Transmitters	S 910 M and S 910 C	TS 910 M and TS 910 C
Modulation	FM	FM
Nominal deviation	± 40 kHz	± 40 kHz
Radiated transmitter power	20 mW	20 mW
Max. SPL	125 dB / 135 dB	
Gain	Switchable 0, 10, 20 und 30 dB	10mV - 0.3 V adjustable @ nominal deviation
Signal-to-noise-ratio	> 110 dB	> 110 dB
T.H.D.	< 0,5% at 1 kHz	< 0,5% at 1 kHz
Transmission range	100 m	100 m
Dimensions	S 910 M: 210.5 x 38 mm S 910 C: 188 x 38 mm	TS 910 C: 110 x 63 x 21.5 mm TS 910 M: 110 x 65.5 x 24.5 mm
Weight	S 910 M: 172 g S 910 C: 169 g	TS 910 C: 155 g TS 910 M: 156 g

Interchangeable Microphone Capsules	RM 510	CM 930	DM 960	DM 960	EM 981
Transducer type	Ribbon	True Condenser	Dynamic	Dynamic	Electret Condenser
Polar pattern	Cardioid	Cardioid	Hypercardioid	Supercardioid	Cardioid
Frequency range	50 - 15,000 Hz	40 - 20,000 Hz	90 - 16,000 Hz	95 - 14,000 Hz	50 - 18,000 Hz
Further features	Multilayer metal gauze pop screen	Multilayer metal gauze pop screen, switchable low-cut filter	Multilayer metal gauze pop screen		Multilayer metal gauze pop screen, switchable low-cut filter
Colour	Silver	Black or Silver	Black or Silver	Silver	Silver

[www.beyerdynamic.com](http://www.beyerdynamic.com)

