



## 2000 IEM Series

### EK 2000 IEM | Adaptive Diversity Receiver



#### FEATURES

- Robust bodypack receiver with sturdy all-metal housing delivering clarity along the whole frequency spectrum for daily use on stage
- Easy and flexible wireless synchronization between transmitter and receiver via infrared
- Compatible with Sennheiser WSM control software for flexible frequency allocation
- 20 fixed frequency banks with up to 32 compatible presets in up to 75 MHz switching bandwidth and 6 user banks
- Adaptive diversity technology for high reliability

Robust bodypack receiver delivering clarity along the whole frequency spectrum for daily use on stage with 2000 IEM Series In Ear Monitoring systems.

This wireless monitoring receiver uses adaptive diversity technology. The earphone cable serves as a second antenna, which considerably reduces the number of drop-outs. Combined with IE 4 ear-canal phones for precise sound reproduction, EK 2000 IEM conveys an authentic acoustic pattern of live sound and allows you to monitor your own performance perfectly.

#### DELIVERY INCLUDES

- EK 2000 IEM adaptive diversity receiver
- IE 4 earphones
- quick guide
- safety guide
- manufacturer declaration sheet

#### PRODUCT VARIANTS

<b>EK 2000 IEM-Aw+</b>	470 – 558 MHz	Art. no. 508645
<b>EK 2000 IEM-Gw</b>	558 – 626 MHz	Art. no. 503863
<b>EK 2000 IEM-Gw1</b>	558 – 608 MHz	Art. no. 508627
<b>EK 2000 IEM-GBw</b>	606 – 678 MHz	Art. no. 504947
<b>EK 2000 IEM-Bw</b>	626 – 698 MHz	Art. no. 503865

#### ACCESSORIES

<b>BA 2015</b>	rechargeable battery	Art. no. 009950
<b>L 2015</b>	charger	Art. no. 009828

In-ear monitoring headphones:

<b>IE 40 PRO BLACK</b>	Art. no. 507481
<b>IE 40 PRO CLEAR</b>	Art. no. 507482
<b>IE 400 PRO SMOKY BLACK</b>	Art. no. 507483
<b>IE 400 PRO CLEAR</b>	Art. no. 507484
<b>IE 500 PRO SMOKY BLACK</b>	Art. no. 507479
<b>IE 500 PRO CLEAR</b>	Art. no. 507480



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### SPECIFICATIONS

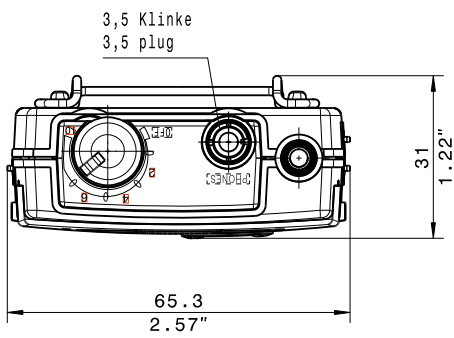
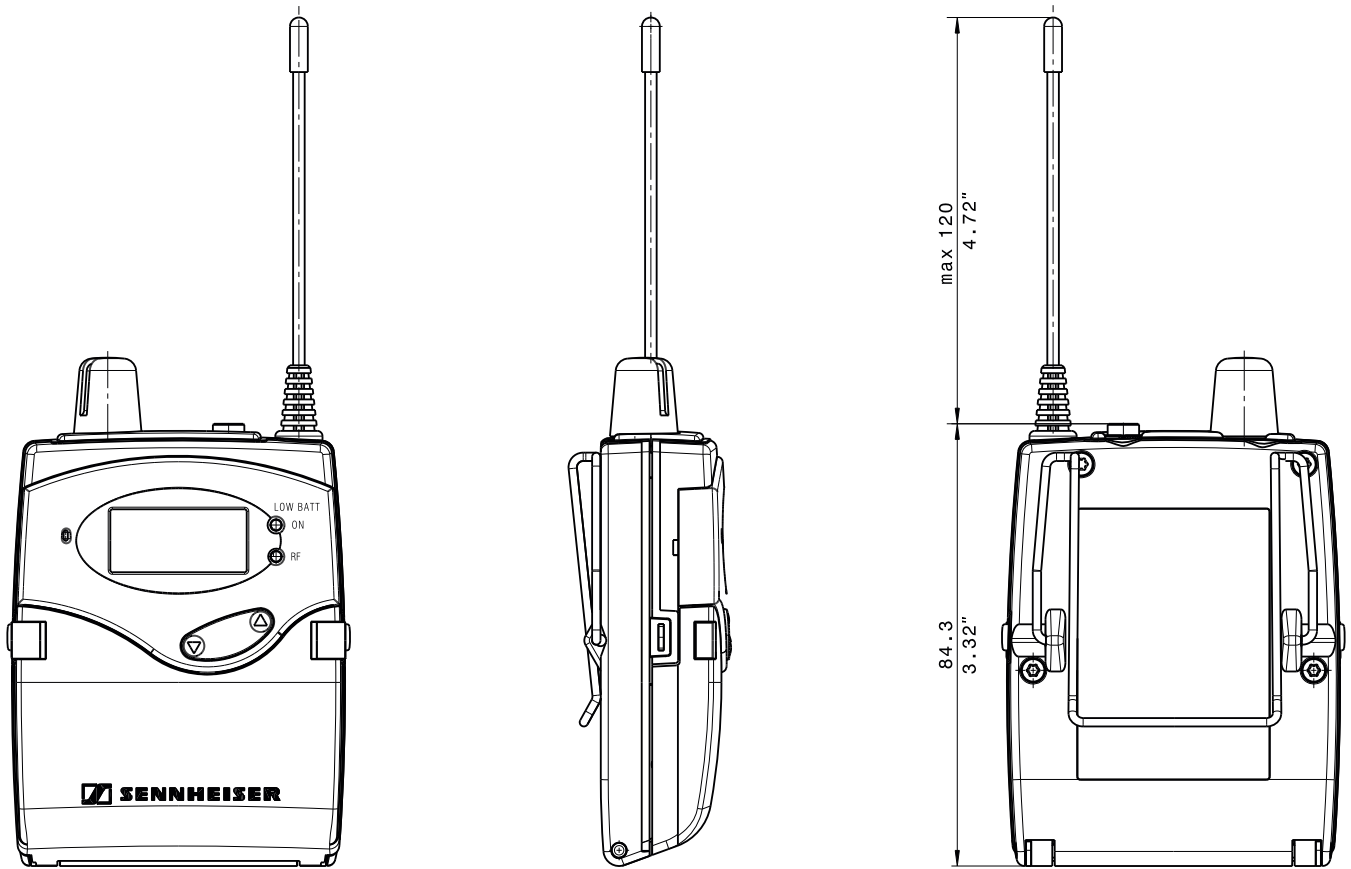
RF characteristics		AF characteristics	
Modulation	Wideband FM	Compander system	Sennheiser HDX
Frequency ranges	Aw+ 470 – 558 MHz Gw 558 – 626 MHz Gw1 558 – 608 MHz GBw 606 – 678 MHz Bw 626 – 698 MHz	Signal-to-noise ratio (1 mV, peak deviation)	approx. 90 dBA
Receiving frequencies	up to 3,000 receiving frequencies, tuneable in steps of 25 kHz  20 frequency banks, each with up to 32 factory-preset channels  6 frequency banks, each with up to 32 user programmable channels	Total harmonic distortion (THD)	≤ 0.9 %
Switching bandwidth	up to 75 MHz	Output power at 2.4 V, 5 % THD, nominal deviation	2 x 200 mW at 32 Ω
Nominal/peak deviation	±24 kHz / ±48 kHz	High Boost	+8 dB at 10 kHz
Receiver principle	adaptive diversity	Limiter	-18 dB to -6 dB, adjustable in steps of 3 dB, can be switched off
Sensitivity (with HDX, peak deviation)	< 4 μV, typ. 1.6 μV for 52 dBA <sub>eff S/N</sub>	<b>Overall device</b>	
Adjacent channel selection	Typically ≥ 80 dB	Temperature range	-10 °C to +55 °C (14 °F to 131 °F)
Intermodulation attenuation	Typically ≥ 78 dB	Power supply	2 AA batteries, 1.5 V (alkali manganese) or BA 2015 accupack
Blocking	≥ 80 dB	Nominal voltage	2.4 V DC
Squelch	off, 5 to 25 dBμV, adjustable in steps of 2 dB	Current consumption at nominal voltage: transmitter switched off:	approx. 140 mA ≤ 25 μA
Pilot tone squelch	can be switched off	Operating time	approx. 4 to 6 hours (depending on volume level)
		Dimensions	Approx. 82 x 64 x 24 mm (3.23" x 2.52" x 0.95")
		Weight (incl. batteries)	approx. 140 g (0.31 lbs)



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### DIMENSIONS





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#### ARCHITECT'S SPECIFICATION

The compact monitor receiver with adaptive diversity technology shall be for use with a companion transmitter as part of a wireless RF monitoring system.

The receiver shall operate within five UHF frequency ranges, with a switching bandwidth of up to 75 MHz: 470 – 558 MHz, 558 – 626 MHz, 558 – 608 MHz, 606 – 678 MHz, 626 – 698 MHz; receiving frequencies shall be 3,000 per range and shall be tunable in 25 kHz steps. The receiver shall feature 20 fixed frequency banks with up to 32 compatible frequency pre-sets and 6 user banks with up to 32 user programmable frequencies.

The receiver shall be menu-driven with a backlit LC display showing the current frequency, frequency bank and channel number, metering of RF level, metering of AF level, lock status, battery status, muting function or audio channels, and pilot tone evaluation. An auto-lock feature shall be provided to prevent settings from being accidentally altered.

The receiver parameters shall either be configurable in the associated transmitter's menu and synchronized with the receiver via an integrated infrared interface or shall be programmable in the receiver menu.

Nominal/peak deviation shall be  $\pm 24$  kHz/ $\pm 48$  kHz. Squelch threshold shall be defeatable (off) or adjustable from 5 - 25 dB $\mu$ V in steps of 2 dB.

The receiver shall incorporate the Sennheiser HDX compander system and a defeatable pilot tone squelch. Sensitivity shall be  $< 4$   $\mu$ V, 1.6  $\mu$ V (typical) for 52 dBA eff S/N with HDX engaged at peak deviation. Adjacent channel rejection shall be  $\geq 80$  dB (typical). Intermodulation attenuation shall be  $\geq 78$  dB (typical); blocking shall be  $\geq 80$  dB.

Signal-to-noise ratio at 1 mV and peak deviation shall be approx. 90 dB. Total harmonic distortion (THD) shall be  $\leq 0.9$  %. The earphone output shall utilize a 3.5 mm stereo jack socket with an output level of 2.4 V with 5 % THD at nominal deviation and an output power of 2x 200 mW at 32  $\Omega$ .

The receiver shall include a switchable High Boost and a multi-level limiter. The High Boost shall be +8 dB at 10 kHz. The limiter shall be adjustable from -18 dB to -6 dB in 6 dB steps or defeatable (off). The receiver shall provide two audio input modes, Stereo or Focus, and an adjustable balance.

Power shall be supplied to the receiver by two 1.5 V AA size batteries or by one Sennheiser BA 2015 rechargeable battery. Nominal voltage shall be 2.4 V, current consumption shall be typical 140 mA at nominal voltage;  $\leq 25$   $\mu$ A when the receiver is switched off. Operating time shall be approximately 4 to 6 hours (depending on volume level).

The receiver shall have a rugged metal housing; dimensions shall be approximately 82 x 64 x 24 mm (3.23" x 2.52" x 0.94"). Weight including the batteries shall be approximately 140 grams (0.31 lbs). Operating temperature shall range from -10 °C to +55 °C (+14 °F to +131 °F).

The receiver shall be the Sennheiser EK 2000 IEM.