



# evolution wireless G4

## EK IEM G4 | Stereo Receiver



### FEATURES

- Robust bodypack receiver 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
- Up to 16 compatible channels
- Up to 42 MHz bandwidth with 1680 selectable frequencies, fully tunable in a stable UHF range
- Transmission Range: up to 100 meters / 300 feet
- High RF output power (up to 30 mW) depending on country regulations

Robust bodypack receiver delivering clarity along the whole frequency spectrum for daily use on stage with evolution wireless G4 In Ear Monitoring systems.

### DELIVERY INCLUDES

- EK IEM G4 stereo receiver
- 2 AA batteries
- IE 4 earphones
- quick guide
- safety guide
- manufacturer declaration sheet

### ACCESSORIES

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

### PRODUCT VARIANTS

#### Made in Germany

<b>EK IEM G4-A1</b>	470 - 516 MHz	Art. no. 507849
<b>EK IEM G4-A</b>	516 - 558 MHz	Art. no. 507850
<b>EK IEM G4-GB</b>	606 - 648 MHz	Art. no. 507851
<b>EK IEM G4-G</b>	566 - 608 MHz	Art. no. 507852
<b>EK IEM G4-B</b>	626 - 668 MHz	Art. no. 507853
<b>EK IEM G4-C</b>	734 - 776 MHz	Art. no. 507854
<b>EK IEM G4-E</b>	823 - 865 MHz	Art. no. 507855

#### Assembled in USA

<b>EK IEM G4-A1</b>	470 - 516 MHz	Art. no. 508188
<b>EK IEM G4-A</b>	516 - 558 MHz	Art. no. 508189
<b>EK IEM G4-AS</b>	520 - 558 MHz	Art. no. 508190
<b>EK IEM G4-G</b>	566 - 608 MHz	Art. no. 508191
<b>EK IEM G4-B</b>	626 - 668 MHz	Art. no. 508192
<b>EK IEM G4-C</b>	734 - 776 MHz	Art. no. 508193
<b>EK IEM G4-D</b>	780 - 822 MHz	Art. no. 508194



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### SPECIFICATIONS

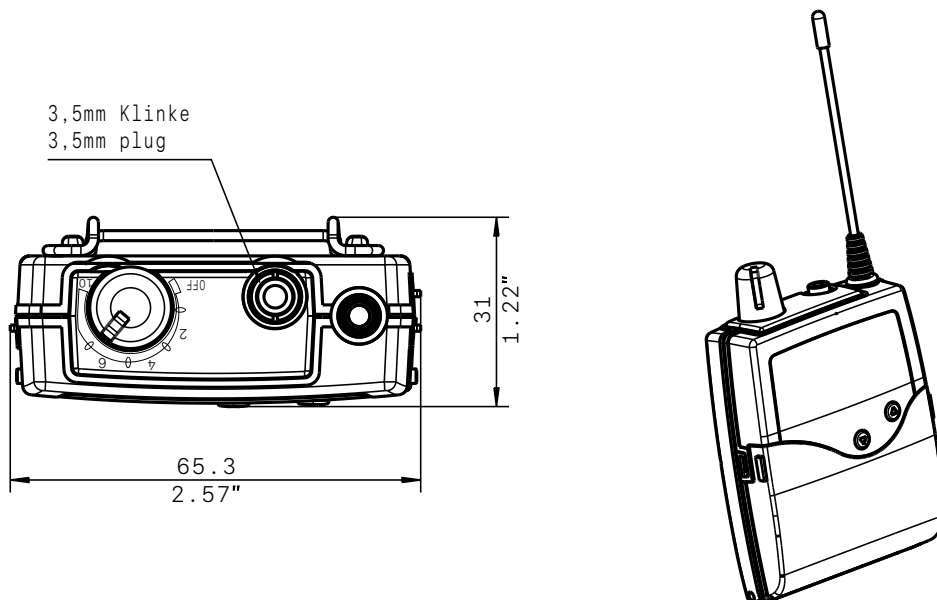
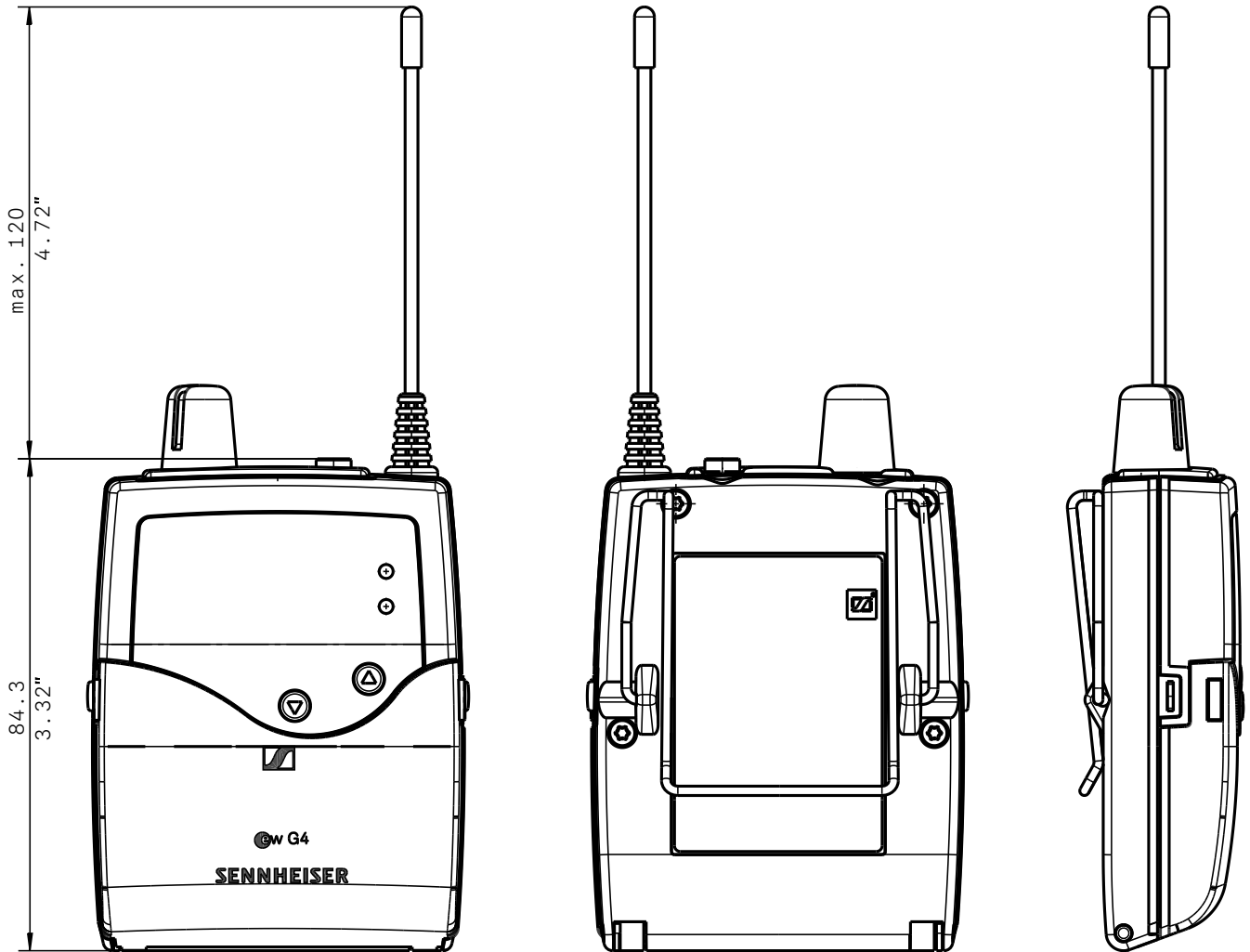
RF characteristics		AF characteristics	
Modulation	Wideband FM	Compander system	Sennheiser HDX
Frequency ranges	A1: 470 - 516 MHz A: 516 - 558 MHz AS: 520 - 558 MHz G: 566 - 608 MHz GB: 606 - 648 MHz B: 626 - 668 MHz C: 734 - 776 MHz D: 780 - 822 MHz E: 823 - 865 MHz	Signal-to-noise ratio (1 mV, peak deviation)	approx. 90 dBA
Receiving frequencies	Max. 1680 frequencies, adjustable in 25 kHz steps  20 frequency banks, each with up to 16 factory-preset channels, no intermodulation  6 frequency banks with up to 16 programmable channels	Total harmonic distortion (THD)	≤ 0.9 %
Switching bandwidth	up to 42 MHz	Output power at 2.4 V, 5 % THD, nominal deviation	2 x 100 mW at 32 Ω
Nominal/peak deviation	±24 kHz / ±48 kHz	High Boost	+8 dB at 80 kHz
Receiver principle	Adaptive diversity	Limiter	-18 dB to -6 dB, adjustable in steps of 6 dB, can be switched off
Sensitivity (with HDX, peak deviation)	< 4 μV, typ. 1.6 μV for 52 dBA <sub>rms S/N</sub>	<b>Overall device</b>	
Adjacent channel selection	Typically ≥ 65 dB	Temperature range	-10 °C to +55 °C
Intermodulation attenuation	Typically ≥ 70 dB	Power supply	2 AA batteries, 1.5 V or BA 2015 accupack
Blocking	≥ 80 dB	Nominal voltage	3 V battery / 2.4 V rechargeable battery
Squelch	5 to 25 dBμV, adjustable in steps of 2 dB	Current consumption	at nominal voltage: approx. 140 mA with transmitter switched off: ≤ 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
		Weight (incl. batteries)	approx. 125 g



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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 nine UHF frequency ranges, with a switching bandwidth of up to 42 MHz: 470 – 516 MHz, 516 – 558 MHz, 520 – 558 MHz, 626 – 668 MHz, 734 – 776 MHz, 780 – 822 MHz, 823 – 865 MHz, 566 – 608 MHz, 606 – 648 MHz; transmission frequencies shall be 1,680 per range and shall be tunable in 25 kHz steps. The receiver shall feature 20 fixed frequency banks with up to 16 compatible frequency presets and 6 user banks with up to 16 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.

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 100 mW at 32  $\Omega$ .

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 dBArms S/N with HDX engaged at peak deviation. Adjacent channel rejection shall be  $\geq 65$  dB (typical). Intermodulation attenuation shall be  $\geq 70$  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 100 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 80 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 output modes, stereo or Focus, and an adjustable balance.

Power shall be supplied to the receiver by two 1.5V AA size batteries or by one Sennheiser BA 2015 rechargeable ac-cupack. Nominal voltage shall be 2.4 V, current consumption shall be typical 140 mA at nominal voltage;  $\leq 25$   $\mu$ A when 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 125 grams (0.28 lbs). Operating temperature shall range from -10  $^{\circ}$ C to +55  $^{\circ}$ C (+14  $^{\circ}$ F to +131  $^{\circ}$ F).

The receiver shall be the Sennheiser EK IEM G4.