



evolution wireless G4

EM 300-500 G4 | True Diversity Receiver



True diversity half-rack receiver in a full-metal housing with intuitive OLED display for full control with increased bandwidth and transmission power for evolution wireless G4 300 Series systems, delivering exceptional speech intelligibility in Business and Education.

FEATURES

- True diversity half-rack receiver in a full-metal housing with intuitive OLED display
- Easy to use, fast setup time
- Integrated network port allows control, monitoring and setup via Sennheiser Control Cockpit and WSM Software
- Broad range of products and existing accessories (such as microphones) allows usage in any kind of environment
- Up to 88 MHz bandwidth, up to 32 channels
- Increased RF output power (10/30/50 mW)
- Transmission Range: up to 100 meters / 330 feet
- Compatible with wireless speaker system LSP 500 PRO
- RC (remote control) switch available for the bodypack transmitter

DELIVERY INCLUDES

- EM 300-500 G4 true diversity receiver
- 2 rod antennas
- power supply
- GA 3 rackmount set
- quick guide
- safety guide
- manufacturer declaration sheet

PRODUCT VARIANTS

Made in Germany

EM 300-500 G4-K+	925 - 937.5 MHz	Art. no. 507790
EM 300-500 G4-GBw	606 - 678 MHz	Art. no. 507791
EM 300-500 G4-Gw	558 - 626 MHz	Art. no. 507792
EM 300-500 G4-Bw	626 - 698 MHz	Art. no. 507793
EM 300-500 G4-Cw	718 - 790 MHz	Art. no. 507794
EM 300-500 G4-Dw	790 - 865 MHz	Art. no. 507795
EM 300-500 G4-Aw+	470 - 558 MHz	Art. no. 508415

Assembled in USA

EM 300-500 G4-AS	520 - 558 MHz	Art. no. 508129
EM 300-500 G4-JB	806 - 810 MHz	Art. no. 508130
EM 300-500 G4-Gw	558 - 626 MHz	Art. no. 508131
EM 300-500 G4-Bw	626 - 698 MHz	Art. no. 508132
EM 300-500 G4-Cw	718 - 790 MHz	Art. no. 508133
EM 300-500 G4-Dw	790 - 865 MHz	Art. no. 508134
EM 300-500 G4-Aw+	470 - 558 MHz	Art. no. 508136
EM 300-500 G4-Gw1	558 - 608 MHz	Art. no. 508457



evolution wireless G4

EM 300-500 G4 | True Diversity Receiver

SPECIFICATIONS

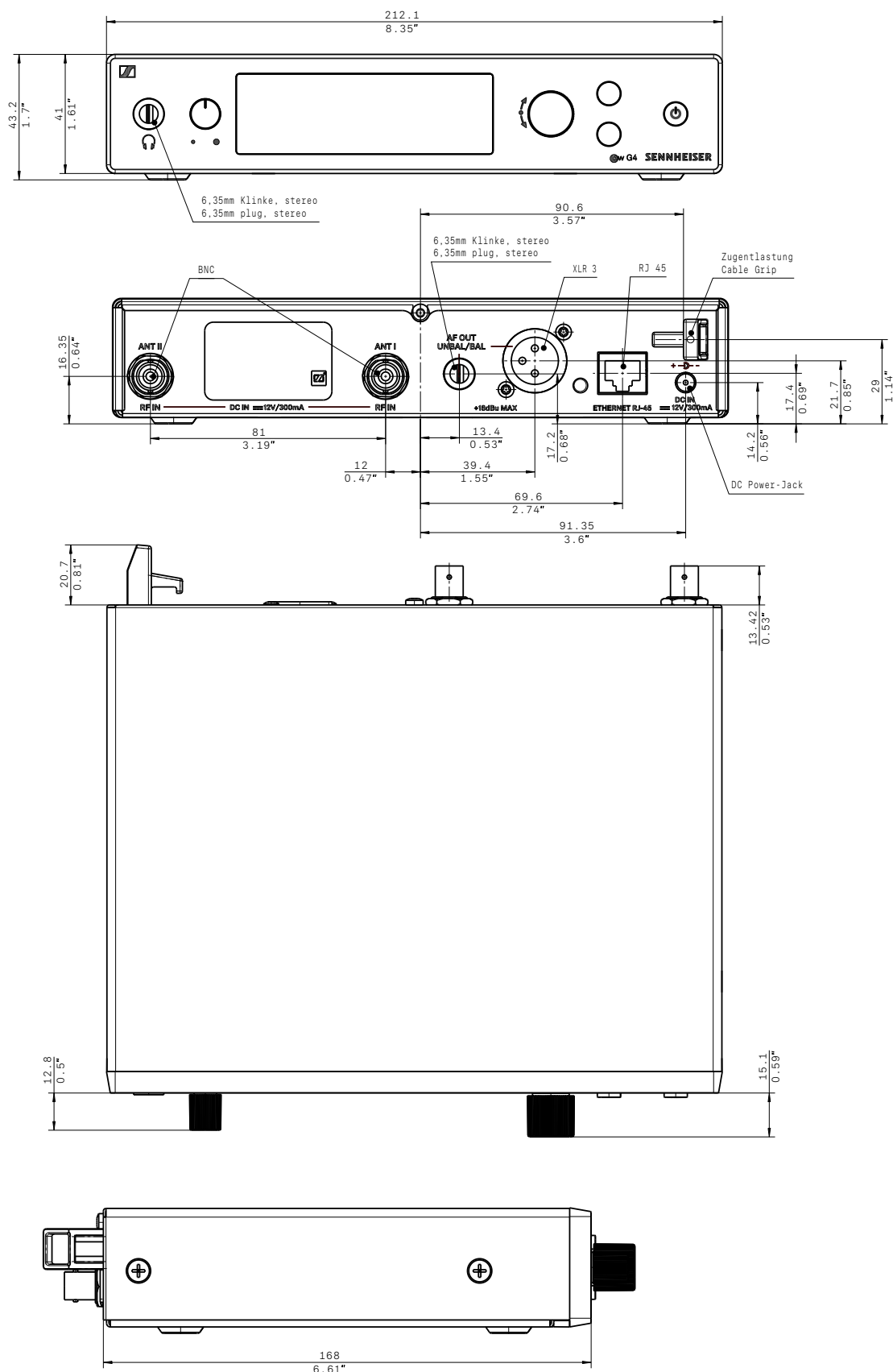
RF characteristics			
Modulation	Wideband FM	Pilot tone squelch	Can be switched off
Frequency ranges	Aw+: 470 - 558 MHz AS: 520 - 558 MHz Gw1: 558 - 608 MHz Gw: 558 - 626 MHz GBw: 606 - 678 MHz Bw: 526 - 698 MHz Cw: 718 - 790 MHz Dw: 790 - 865 MHz JB: 806 - 810 MHz K+: 925 - 937.5 MHz	Antenna inputs	2 BNC sockets
Receiving frequencies	Max. 3520 receiving frequencies, adjustable in 25 kHz steps 20 frequency banks, each with up to 32 factory-pre-set channels, no intermodulation 6 frequency banks with up to 32 programmable channels	AF characteristics	
Switching bandwidth	up to 88 MHz	Compander system	Sennheiser HDX
Nominal/peak deviation	±24 kHz / ±48 kHz	EQ presets (switchable, act on line and monitor outputs)	Preset 1: Flat Preset 2: Low Cut (-3 dB at 180 Hz) Preset 3: Low Cut/High Boost (-3 dB at 180 Hz, +6 dB at 10 kHz) Preset 4: High Boost (+6 dB at 10 kHz)
Receiver principle	True diversity	Signal-to-noise ratio (1 mV, peak deviation)	≥ 115 dBA
Sensitivity (with HDX, peak deviation)	< 2.5 µV for 52 dBA _{eff S/N}	Total harmonic distortion (THD)	≤ 0.9 %
Adjacent channel selection	Typically ≥ 75 dB	AF output voltage (at peak deviation, 1 kHz AF)	6.3 mm jack socket (unbalanced): +12 dBu XLR socket (balanced): +18 dBu
Intermodulation attenuation	Typically ≥ 70 dB	Setting range "AF Out"	48 dB (3 dB steps)
Blocking	≥ 75 dB	Overall device	
Squelch	5 to 25 dBµV in steps of 2 dB	Temperature range	-10 °C to +55 °C
		Power supply	12 V DC
		Current consumption	350 mA
		Dimensions	Approx. 202 x 212 x 43 mm
		Weight	Approx. 980 g

CONNECTIONS



evolution wireless G4
EM 300-500 G4 | True Diversity Receiver

DIMENSIONS





evolution wireless G4

EM 300-500 G4 | True Diversity Receiver

ARCHITECT'S SPECIFICATION

The stationary receiver with true diversity technology shall be for use with a companion transmitter as part of a wireless RF transmission system.

The receiver shall operate within ten UHF frequency ranges, with a switching bandwidth of up to 88 MHz: 470 – 558 MHz, 520 – 558 MHz, 558 – 608 MHz, 558 – 626 MHz, 606 – 678 MHz, 626 – 698 MHz, 718 – 790 MHz, 790 – 865 MHz, 806 – 810 MHz, 925 – 937.5 MHz; receiving frequencies shall be 3520 per range and shall be tunable in 25 kHz steps. The receiver shall feature 20 fixed frequency banks with up to 32 compatible frequency presets and 6 user banks with up to 32 user programmable frequencies.

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

Some receiver parameters such as receiving frequency, receiver name and pilot tone setting shall be synchronizable with the associated transmitter via an integrated infrared interface.

The receiver shall feature a balanced XLR-3M audio output with a maximum output of +18 dBu along with an unbalanced ¼" (6.3 mm) audio output with a maximum output of +12 dBu. A headphone output with headphone volume control shall be provided and shall utilize a ¼" (6.3 mm) stereo jack socket. The receiver shall have an Ethernet port (RJ-45) for remote network-based monitoring and control using the Sennheiser Control Cockpit or the Sennheiser Wireless System Manager software. Two BNC-type input sockets shall be provided for connecting the antennas.

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

The receiver shall incorporate the Sennheiser HDX compander system and a defeatable pilot tone squelch. Sensitivity shall be < 2 μ V for 52 dBA eff S/N with HDX engaged at peak deviation. Adjacent channel rejection shall be ≥ 75 dB (typical). Intermodulation attenuation shall be ≥ 70 dB (typical); blocking shall be ≥ 75 dB. Four selectable equalizer presets shall be provided: "Flat", "Low Cut" (-3 dB at 180 Hz), "Low Cut/High Boost" (-3 dB at 180 Hz/ $+5.5$ dB at 10 kHz) and "High Boost" ($+5.5$ dB at 10 kHz). Signal-to-noise ratio at 1 mV and peak deviation shall be ≥ 115 dBA. Total harmonic distortion (THD) shall be ≤ 0.9 %. The audio output level shall be adjustable within a 48 dB range in steps of 3 dB.

The receiver shall operate on 12 V power supplied from the NT 2-3 CW mains unit (for 100 – 240 V AC, 50/60 Hz). Power consumption shall be 350 mA. The receiver shall have a rugged metal housing; dimensions shall be approximately 202 x 212 x 43 mm (7.95" x 8.35" x 1.69"). Weight shall be approximately 980 grams (2.16 lbs). Operating temperature shall range from -10 °C to $+55$ °C ($+14$ °F to $+131$ °F).

The receiver shall be the Sennheiser EM 300-500 G4.