



Evolution Wireless Digital EW-DX EM 2 | Rack Receiver



Half-rack (9.5") receiver for use with Evolution Wireless Digital handheld, bodypack and tablestand transmitters.

FEATURES

- 2 channel half rack (9.5')
- Up to 88 MHz switching bandwidth
- PoE IEEE 802.3af Class 3
- Equidistant Channel Spacing: 146 channels in standard mode; 293 channels in Link Density Mode
- Network enabled for control with Sennheiser Control Cockpit/ media control system through a number of 3rd party modules
- Clear and easy focused user interface with OLED display
- Ethernet connectivity (IPv4 and IPv6)
- Secure AES 256 encryption
- External PSU 12V/1A
- All-metal housing

DELIVERY INCLUDES

- EW-DX EM 2 rack receiver
- 2 rod antennas
- power supply with country adapters
- GA 3 rackmount set
- 4 rubber feet
- quick guide
- safety guide
- manufacturer declaration sheet

SPECIFICATIONS

| System | | |
|---|--|---|
| Audio link frequency ranges | Q1-9 | 470.2 - 550 MHz |
| | R1-9 | 520 - 607.8 MHz |
| | S1-10 | 606.2 - 693.8 MHz |
| | S2-10 | 614.2 - 693.8 MHz |
| | S4-10 | 630 - 693.8 MHz |
| | U1/5 | 823.2 - 831.8 MHz & 863.2 - 864.8 MHz |
| | V3-4 | 925.2 - 937.3 MHz |
| | V5-7 | 941.7 - 951.8 MHz & 953.05 - 956.05 MHz & 956.65 - 959.65 MHz |
| | X1-6 | 1350.2 - 1398.8 MHz |
| | X9-18 | 1435.2 - 1524.8 MHz |
| Y1-3 | 1785.2 - 1799.8 MHz | |
| Bluetooth® Low Energy (BLE) frequency range | 2402 - 2480 MHz | |
| Audio frequency response | 20 Hz - 20 kHz (-3 dB) | |
| Audio THD | ≤ -60 dB for 1 kHz @ -3 dBfs input level | |
| Dynamic range | 134 dB | |
| System latency | 1.9 ms | |
| Operating temperature | -10 °C - +55 °C (14 °F - 131 °F) | |
| Relative humidity | 5 - 95 % (non-condensing) | |

| EW-DX EM 2 (Rack Receiver) | |
|----------------------------|---|
| Input voltage | 11 - 13 V $\overline{\text{---}}$ or PoE IEEE 802.3af Class 0 (CAT5e or higher) |
| Input current | ≤ 1 A |
| Transmit power (radiated) | BLE: max. 10 mW EIRP |
| Audio output power | 18 dBu max. |
| Headphone output | 2x 70 mW @ 32 Ω |
| Ethernet | RJ-45 socket, IEEE802.3 100Base-TX (half+full duplex) 10Base-T (half+full duplex) (CAT5e or higher) |
| Dimensions | 212 x 44 x 189 mm (8.35" x 1.73" x 7.44") |
| Weight | approx. 1000 g (2.2 lbs) (without antennas and power supply) |



Evolution Wireless Digital

EW-DX EM 2 | Rack Receiver



PRODUCT VARIANTS

| | | |
|---------------------------|---|-----------------|
| EW-DX EM 2 (Q1-9) | 470.2 - 550 MHz | Art. no. 509342 |
| EW-DX EM 2 (R1-9) | 520 - 607.8 MHz | Art. no. 509343 |
| EW-DX EM 2 (S1-10) | 606.2 - 693.8 MHz | Art. no. 509344 |
| EW-DX EM 2 (S1/10) | 606.2 - 637.8 MHz & 650.2 - 693.8 MHz | Art. no. 509345 |
| EW-DX EM 2 (S2-10) | 614.2 - 693.8 MHz | Art. no. 509347 |
| EW-DX EM 2 (S4-10) | 630 - 693.8 MHz | Art. no. 509348 |
| EW-DX EM 2 (U1/5) | 823.2 - 831.8 MHz & 863.2 - 864.8 MHz | Art. no. 509349 |
| EW-DX EM 2 (V3-4) | 925.2 - 937.3 MHz | Art. no. 509351 |
| EW-DX EM 2 (V5-7) | 941.7 - 951.8 MHz & 953.05 - 956.05 MHz & 956.65 - 959.65 MHz | Art. no. 509352 |
| EW-DX EM 2 (X1-6) | 1350.2 - 1398.8 MHz | Art. no. 509353 |
| EW-DX EM 2 (X9-18) | 1435.2 - 1524.8 MHz | Art. no. 509354 |
| EW-DX EM 2 (Y1-3) | 1785.2 - 1799.8 MHz | Art. no. 509355 |

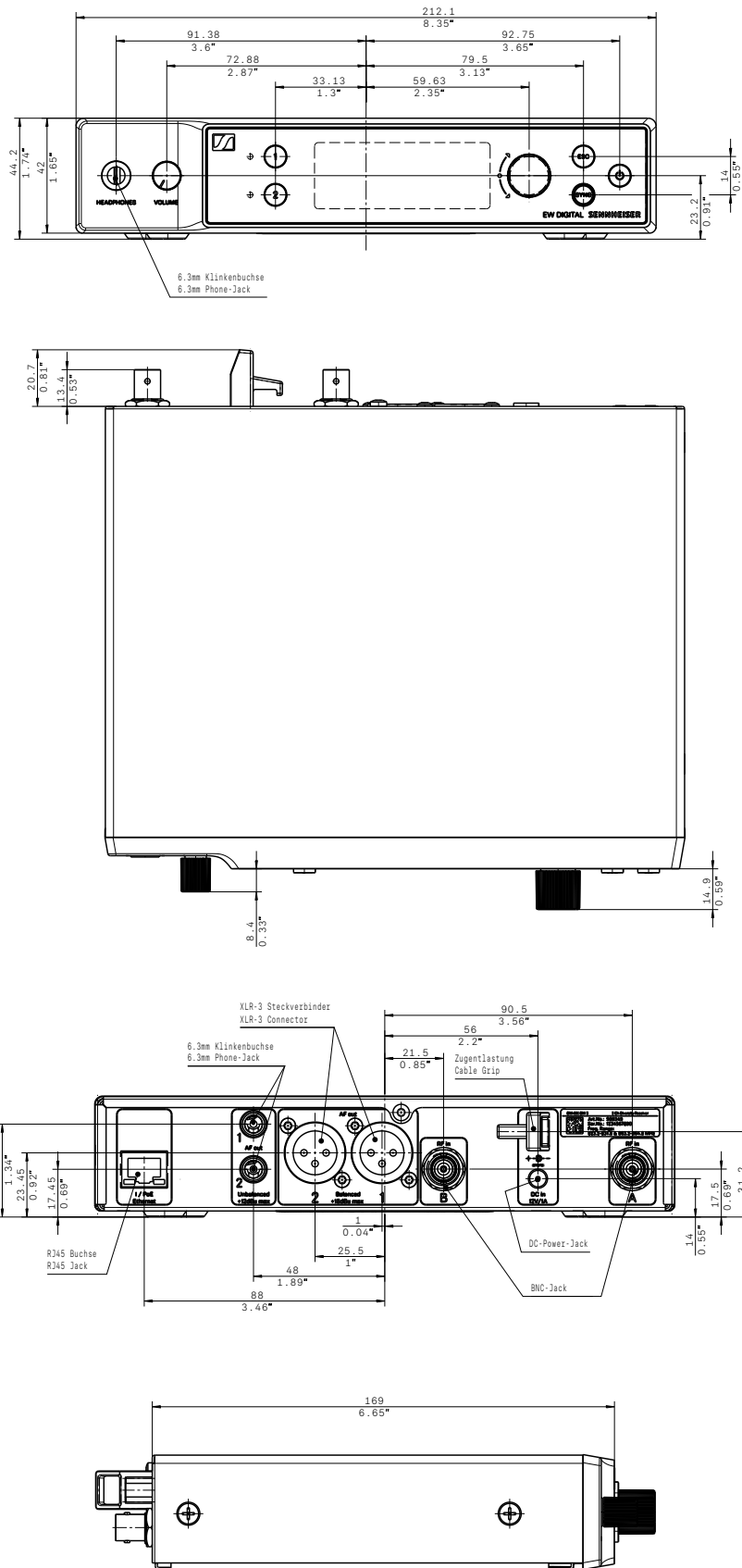
ACCESSORIES

| | | | |
|---------------------------------|--|-----------------|-----------------|
| EW-D ASA (Q-R-S) | Active Antenna Splitter | 470 - 694 MHz | Art. no. 508879 |
| EW-D ASA (T-U-V-W) | Active Antenna Splitter | 694 - 1075 MHz | Art. no. 508880 |
| EW-D ASA (X-Y) | Active Antenna Splitter | 1350 - 1805 MHz | Art. no. 508881 |
| EW-D ASA CN/ANZ (Q-R-S) | Active Antenna Splitter | 470 - 694 MHz | Art. no. 508998 |
| EW-D AB (Q) | Antenna Booster | 470 - 550 MHz | Art. no. 508873 |
| EW-D AB (R) | Antenna Booster | 520 - 608 MHz | Art. no. 508874 |
| EW-D AB (S) | Antenna Booster | 606 - 694 MHz | Art. no. 508875 |
| EW-D AB (U) | Antenna Booster | 823 - 865 MHz | Art. no. 508876 |
| EW-D AB (V) | Antenna Booster | 902 - 960 MHz | Art. no. 508877 |
| EW-D AB (Y) | Antenna Booster | 1785 - 1805 MHz | Art. no. 508878 |
| ADP UHF (470 - 1075 MHz) | Passive directional antenna | 470 - 1075 MHz | Art. no. 508863 |
| BA 70 | Rechargeable battery pack for SK and SKM | | Art. no. 508860 |
| L 70 USB | Charger for BA 70 rechargeable battery pack | | Art. no. 508861 |
| EW-D CHARGING SET | Set of L 70 USB charger and 2 BA 70 rechargeable battery packs | | Art. no. 508862 |



Evolution Wireless Digital EW-DX EM 2 | Rack Receiver

DIMENSIONS





Evolution Wireless Digital

EW-DX EM 2 | Rack Receiver

ARCHITECT'S SPECIFICATION

EW-DX EM 2 rack receiver

The stationary two-channel receiver with switching diversity technology shall be for use with up to two companion transmitters as part of a digital wireless RF transmission system.

The receiver shall operate within the following UHF frequency ranges, with a switching bandwidth of up to 88 MHz: 470.2 – 550 MHz, 520 – 607.8 MHz, 606.2 – 693.8 MHz, 614.2 – 693.8 MHz, 630 – 693.8 MHz, 823.2 – 831.8 MHz, 863.2 – 846.8 MHz, 925.2 – 937.3 MHz, 941.7 – 951.8 MHz, 953.05 – 956.05 MHz, 956.65 – 959.65 MHz, 1350.2 – 1398.8 MHz, 1435.2 – 1524.8 MHz, 1785.2 – 1799.8 MHz. Different frequency variants shall be available depending on country-specific regulations.

The receiver shall feature Bluetooth® Low Energy (BLE) at a frequency range between 2402 and 2480 MHz for remote controlling the devices via a control App for iOS and Android.

The receiver shall feature an automatic frequency setup function with spectrum scan functionality in order to establish an equidistant frequency grid with 146 channels in standard mode and 293 channels in Link Density Mode.

The audio frequency response shall be between 20 Hz and 20 kHz (-3 dB). Audio total harmonic distortion (THD) shall be ≤ -60 dB for 1 kHz @ -3 dBfs input level. Dynamic range shall be 134 dB. System latency shall be 1.9 ms.

The receiver shall be menu-driven with an OLED display showing the current frequency, channel number, metering of RF level, metering of AF level, lock status, muting function, antenna switching diversity, app connection, gain, audio output level, menu and battery status for each of the two associated transmitters. An auto-lock feature shall be provided to prevent settings from being accidentally altered.

The following settings shall be configurable by function buttons and an encoder for each channel in the menu: frequency, channel name, gain, trim, AF output, low cut, AES 256 encryption, test tone, network settings, integrated antenna booster settings, display brightness, device name, auto setup settings for automatic frequency setup.

For each of the two channels the receiver shall feature a balanced XLR-3M audio output with a maximum output of +18 dBu along with an unbalanced 6.3 mm (¼") audio output with a maximum output of +12 dBu.

For secure transmission the receiver shall feature AES 256 encryption.

The receiver shall provide a walktest mode for monitoring the RF and AF signal status in the location over time.

Two BNC-type input sockets shall be provided for connecting the antennas. The receiver shall be usable with active and passive wide range UHF antennas for the entire supported RF spectrum.

A headphone output with headphone volume control shall be provided and shall utilize a 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 software or the Sennheiser Wireless Systems Manager software.

The receiver shall operate on 12 V DC power supplied from the power supply unit or on Power over Ethernet (PoE IEEE 802.af Class 0). Power consumption shall be ≤ 1 A.

The receiver shall have a rugged metal housing; dimensions shall be approximately 212 x 44 x 206 mm (8.35" x 1.73" x 8.11"). Weight shall be approximately 1000 grams (2.2 lbs) without antennas and power supply. Operating temperature shall range from -10 °C to $+50$ °C ($+14$ °F to $+122$ °F).

The receiver shall be the Sennheiser EW-DX EM 2.