

EM 2050 True Diversity Twin Receiver

FEATURES

- 20 fixed frequency banks with up to 64 compatible presets in up to 75 MHz switching bandwidth and 6 user banks
- Integrated antenna splitter for cascading up to 8 devices without using additional splitters
- Rugged 19" all-metal housing with integrated power supply unit
- Ethernet for monitoring and control using Sennheiser WSM Mac or PC software
- Transmitters can be configured in the receiver menu and can be synchronized via the infrared interface
- Enhanced AF frequency response (25....18000 Hz)

Equipped with the same features as EM 2000 but designed as a twin receiver, EM 2050 makes it possible for the RF signal to be looped through with the help of an integrated active splitter. With this design, you can set up systems with up to 16 channels without using external splitters. An integrated equalizer and guitar tuning device complete the package.



ARCHITECT'S SPECIFICATIONS

The device shall be a dual channel, true diversity (two tuners per receiver channel) receiver for use with two discrete companion transmitters as part of a high reliability, true diversity, dual channel wireless radio frequency transmission system. Each channel of the stationary receiver shall provide the following features and performance: The receiver shall operate within a RF frequency range of 516 – 865 MHz in 20 fixed frequency banks and 6 user banks, each with a maximum of 64 presets with a switching bandwidth of maximum 75 MHz tunable in 25 kHz steps; carrier frequencies shall be maximum 3000. Squelch threshold shall be defeatable (off) or adjustable from 5 – 25 dB μ V in 2dB steps. Nominal/peak deviation shall be ± 24 kHz/ ± 48 kHz. Intermodulation spacing shall be ≥ 75 dB. A compander feature shall be included and shall be Sennheiser HDX system with pilot-tone squelch (switchable). Sensitivity shall be < 2.0 μ V for 52 dBArms S/N with HDX engaged at peak deviation.

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TECHNICAL DATA

RF frequency range	516 – 865 MHz
Carrier frequencies	max. 3000
Presets	max. 64, max. 75 MHz, tuneable in 25 kHz steps
Nominal / Peak deviation.....	± 24 kHz / ± 48 kHz
Squelch threshold.....	Off, 5 – 25 dB μ V: Can be set in 2 dB steps
Intermodulation spacing.....	≥ 75 dB
Sensitivity (with HDX, peak deviation)	≤ 2 μ V for 52 dBArms S/N
Adjacent channel rejection	typ. ≥ 80 dB
Blocking	≥ 80 dB
Antenna connector.....	2 BNC (50 OHM)
Cascadable	2 BNC (50 OHM)
Gain	0 dB $\pm 0,5$ dB : Based on antenna inputs
Compander.....	HDX
Frequency response	25 ... 18000 Hz
Signal-to-noise ratio	> 120 dB(A)
THD, total harmonic distortion	$< 0,9$ %
Audio-XLR connector	2 x XLR-3 + 2 x 6,3 mm: Jack
Audio output level (balanced)	+18 dBu max : Setting range: 49 dB in 1 dB steps + 6 dB gain reserve
Booster Feed	12 V DC, 2 x 200 mA: Short-circuit proof

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ARCHITECT'S SPECIFICATIONS

Adjacent channel rejection shall be ≥ 80 dB (typical); blocking shall be ≥ 80 dB. Audio frequency response shall be 25 – 18,000 Hz; total harmonic distortion (THD) shall be < 0.9 %. Audio frequency output level shall be adjustable within a 49 dB range in 1 dB steps to a maximum of level of +18 dBu (balanced). Signal-to-noise ratio shall be > 120 dB(A). The audio output shall utilize a transformer-balanced male XLR-3 audio socket along with a transformer-balanced $\frac{1}{4}$ " (6.3 mm) audio socket; a stereo headphone output with local level control shall be provided on the front panel and shall utilize a $\frac{1}{4}$ " (6.3 mm) stereo audio socket. Menu-based software adjustments shall be made using a backlit LCD user display; associated transmitters shall be configured in the receiver menu and synchronized with the receiver via an integrated infrared interface. Four selectable equalizer presets shall be provided. An integrated guitar tuner shall be provided. The following features and performance shall be provided to support both receiver channels: Two 50 Ω BNC connectors shall provide attachment points for the main receiver antennae and two additional 50 Ω BNC connectors with an integrated antenna splitter shall provide for cascading the antennae for up to 8 receivers without the use of external splitters; gain shall be 0 dB ± 0.5 dB (based on antenna inputs). To supply active antennas or an antenna booster, a direct voltage of 12 Vdc (200 mA with short circuit protection) shall be provided via the antenna sockets. An Ethernet port (RJ45) shall be provided to allow remote network-based monitoring and control of the receiver using Sennheiser Wireless System Manager Mac or PC software. The receiver shall be fully compatible with all Sennheiser 2000 series and G3 transmitters; partial compatibility shall be provided for Sennheiser ew G2 and G1 transmitters. Power shall be supplied to the receiver by the internal power supply with auto-switching mains voltage of 100 – 240 VAC at 50/60 Hz. Current draw shall be maximum 0.25 A. The receiver chassis shall be fabricated from metal and shall be capable of mounting in a standard 19" equipment rack without additional hardware; case dimensions shall be approximately 8.54" x 19.02" x 1.69" (217 x 483 x 43 mm). Weight shall be 102.29 oz (2900 grams). Operating conditions shall be ambient temperature +14°F to +131°F (-10°C to +55°C). The dual channel receiver shall be Sennheiser model EM 2050.

TECHNICAL DATA

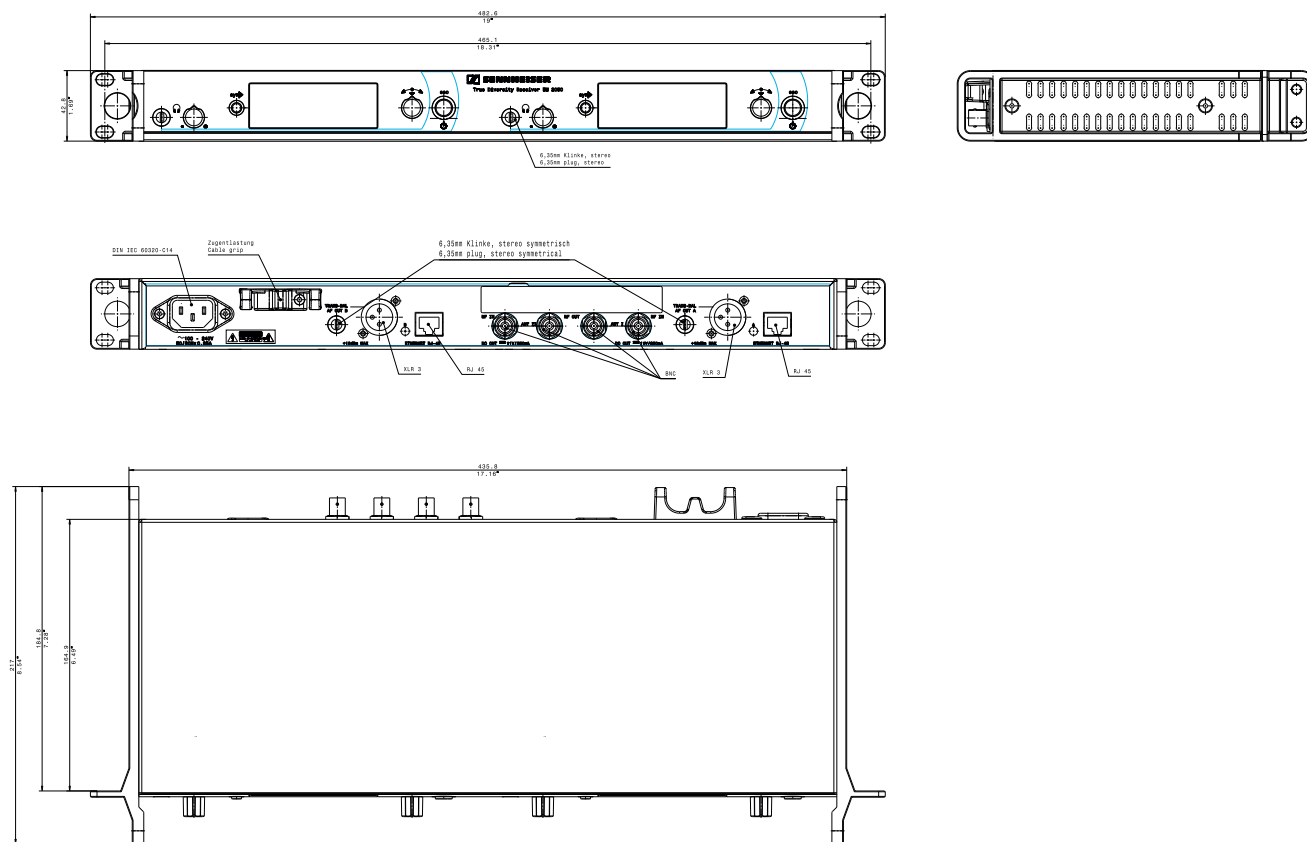
Operating temperature	-10 °C – +55 °C
Power supply	100 - 240 V AC, 50/60 Hz
Current consumption	max. 0,25 A
Dimensions	217 x 483 x 43 mm
Weight	2900 g

DELIVERY INCLUDES

- 1 EM 2050 stationary twin receiver
- 3 mains cables (EU, UK, and US)
- 2 rod antennas
- 4 self-adhesive device feet
- 1 instruction manual
- 1 supplementary frequency sheet
- 1 supplementary RF power sheet

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DIMENSIONS



PRODUCT VARIANTS

EM 2050 AW 516 ... 558 MHz	Cat. No. 503144
EM 2050 AW-X 516 ... 558 MHz / Europe	Cat. No. 503739
EM 2050 GW 558 ... 626 MHz	Cat. No. 503742
EM 2050 GW-X 558 ... 626 MHz / Europe	Cat. No. 503743
EM 2050 BW 626 ... 698 MHz	Cat. No. 503746
EM 2050 BW-X 626 ... 698 MHz / Europe	Cat. No. 503747
EM 2050 CW 718 ... 790 MHz	Cat. No. 503750
EM 2050 CW-X 718 ... 790 MHz / Europe	Cat. No. 503751
EM 2050 DW 790 ... 865 MHz	Cat. No. 503754
EM 2050 DW-X 790 ... 865 MHz / Europe	Cat. No. 503755

RECOMMENDED ACCESSORIES

AB 3700 broadband antenna booster	Cat. No. 502196
AD 3700 directional antenna	Cat. No. 502197
A 3700 omni-directional antenna	Cat. No. 502195
GA 3030-AM antenna mount	Cat. No. 4368
A 2003-UHF directional antenna	Cat. No. 3658

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