

EM 3532-U

RF Wireless Systems | 3000 Series Receivers

Cat. No. 004400

General Description

The EM 3532-U consists of two complete true diversity receivers with tunable receiving frequencies in the UHF band. Due to its high level of operational reliability, menu-assisted operation and flexibility, this receiver is especially suitable for demanding theatre and broadcast applications.



General Features

- Up to 32 programmable receiving frequencies per receiver
- Switching bandwidth max. 24 MHz
- HiDyn plus™ noise reduction system with 117 dB(A)_{rms} signal-to-noise ratio
- Multi-function LC display panel
- Indication of transmitter battery status (only with Sennheiser transmitters transmitting battery status information)
- 19" 1 U metal housing with built-in mains power supply unit
- Suitable for multi-channel applications

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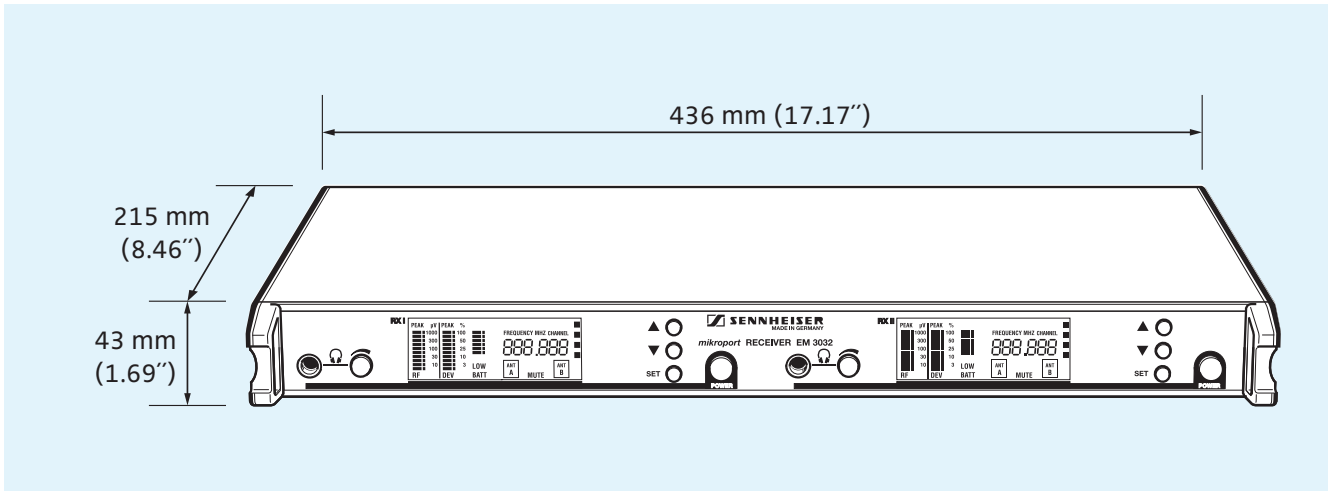
- Two 32-channel true diversity receivers, 19", 1 U
- Integral antenna splitter, 2 x 1 : 2
- Tunable receiving frequencies
- Scan function (transmitter search tuning)
- DC socket
- Remote-controllable via PC with S-MCD software
- Delivery includes: 1 EM 3532 receiver, 2 telescopic antennas
1 mains cable, 19" rack mount ears

Technical Data

Receiving frequencies.....	tunable in 5 kHz steps (4,800 frequencies)
Frequency memories.....	32
Frequency range	450–960 MHz
Switching bandwidth.....	24 MHz
Modulation	wideband FM
Nominal/peak deviation.....	± 40 kHz / ± 56 kHz
RF squelch.....	0–100 µV, adjustable
Noise reduction system.....	HiDyn plus™
AF frequency response.....	45–20,000 Hz (–3 dB)
Signal-to-noise ratio	117 dB(A) _{rms}
THD (1 kHz)	≥ 0.3 % (typ. 0.15 %)
RF inputs	2 BNC sockets, 50 Ω
AF output voltage.....	max. 18 dBu, adjustable
Headphone output	max. 12 dBu, adjustable
Output impedance.....	≤ 50 Ω
Power supply.....	115 / 230 V AC (+10 % / –15 %), 11.3–18 V DC / 0.8 A
Housing	19", 1 U
Dimensions	436 x 43 x 215 mm (17.17" x 1.69" x 8.46")
Weight.....	appx. 4.0 kg (8.83 lbs)
In compliance with.....	ETS 300 422 and 300 445

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EM 3532 dimensions

Accessories for EM 3532

■ GA 3030 AM antenna mount	Cat. No. 004368
■ A 12 AD UHF active directional antenna	Cat. No. 004156
■ A 1031-U passive omni-directional antenna	Cat. No. 004645
■ GZA 1036-9 ground plane antenna	Cat. No. 002336
■ N/BNC adaptor	Cat. No. 033839
■ RG 58 co-axial antenna cable	
GZL 1019 A1 (1 m/3.28 ft)	Cat. No. 002324
GZL 1019 A5 (5 m/16.40 ft)	Cat. No. 002325
GZL 1019 A10 (10 m/32.81 ft)	Cat. No. 002326
■ GZV 1019A BNC coupler	Cat. No. 002368
■ S-MCD 3000-HP Mikroport Computer Display	Cat. No. 004617
■ KX 3500.S-MCD RX/RX connection cable	Cat. No. 004619
■ RX/PC connection cable (please specify length when ordering)	Cat. No. 075525
■ ASA 3000-EU active antenna splitter	Cat. No. 009423
■ ASA 3000-UK	Cat. No. 008408
■ ASA 3000-US	Cat. No. 009407

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- 1 Display for the "FREQUENCY MHz" menu
- 2 Display for the "BOOSTER FEED" menu
- 3 Display for the "CHANNEL" menu
- 4 Display for the "STAND BY" menu
- 5 Alphanumeric main display
- 6 10-step bargraph for the received RF signal, with peak warning
- 7 10-step bargraph for the received AF signal, with peak warning
- 8 6-step bargraph for the transmitter battery status, with "Low Batt" warning
- 9 Diversity antenna A active
- 10 Display for the "REMOTE" menu
- 11 Squelch active (MUTE)
- 12 Diversity antenna B active
- 13 Menu selection with display via LC dots

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The EM 3532-U consists of two complete true diversity receivers in a 19" housing. The EM 3532-U has been specially designed for demanding theatre and broadcast applications; it is fully suitable for multi-channel applications and can be used with any UHF transmitter of the 3000, and 5000 series.

Each receiver of the EM 3532-U has 32 frequency memories to store up to 32 frequencies with their respective channel numbers. The frequencies are tunable in 5 kHz steps within a switching bandwidth of 24 MHz max. (i.e., each receiver has 4,800 freely selectable frequencies), so that, if a frequency has interference or is overloaded, you can simply switch to a different frequency.

The EM 3532-U is very flexible and reliable due to its menu-assisted operation. It is also extremely easy to use: via the operating menu you can select and store receiving frequencies, select channel numbers and assign them to the receiving frequencies, adjust the RF squelch, activate and deactivate the scan function (transmitter search tuning), and switch on and off the booster supply voltage.

The multi-functional LC display shows either the selected receiving frequency or the allocated channel number. On the display, two bargraphs represent the received RF signal ("RF") and the deviation of the AF signal ("DEV"). Furthermore – and provided that a Sennheiser transmitter transmitting a battery status signal is used – the transmitter battery/accupack status is indicated in %. A flashing "LOW BATT" display indicates that there are about 20 to 30 minutes of operation left. In addition, the display shows the currently selected menu and all possible settings.

The EM 3532-U features a scan function (transmitter search tuning) for scanning the frequency range for field strength levels. If a transmitter with a sufficient field strength (at least 5 µV) is found, this frequency is automatically shown on the display and can then be stored. For complex multi-channel applications, we recommend controlling the receivers via a PC using the matching S-MCD software.

Reading off the LC display

- 1 Headphone socket 1/4" (6.3 mm) Ø
- 2 Headphone volume control
- 3 Multi-function LC display
- 4 ▲ and ▼ buttons for selecting and programming the menus
- 5 SET/storage button
- 6 On/off switch

EM 3532 front panel operating controls

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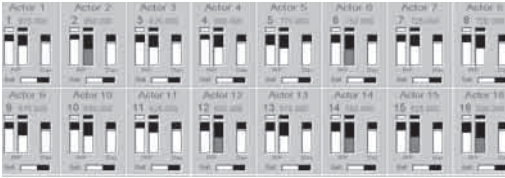


Fig. 1: Display of a scene configuration with many actors on the S-MCD Mikroport computer display



Fig. 2: Display of a scene configuration with four actors on the S-MCD Mikroport computer display

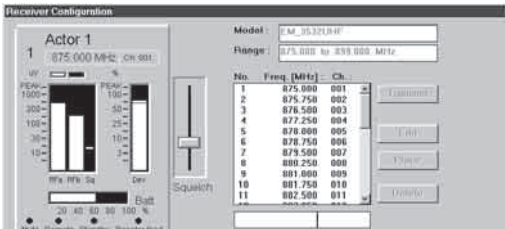


Fig. 3: Window "Receiver Configuration"

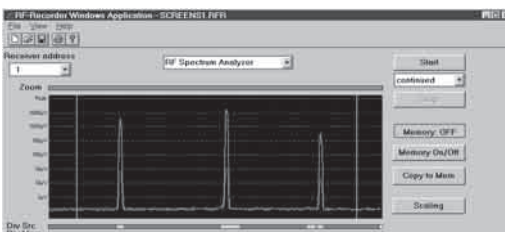


Fig. 4: Window "RF Recorder", "RF Spectrum Analyzer"

You can use the S-MCD to manage and control up to 126 EM 3532-U and EM 1046 receivers. The EM 3532 receivers are coupled in series by means of data cables and are subsequently connected to the PC via an RS 485 interface — additional interface modules are not required. The EM 1046 receivers are connected to the parallel interface of the PC via the EM 1046 DI display interface. For detailed information of the installation of the EM 1046 receivers, please refer to the chapter "5000 Series Receiver Systems".

Using S-MCD you can program entire sequences of scenes with several actors without having to change the transmitter/receiver unit. Each actor keeps his or her transmitter and can be switched in when necessary. During operation you can monitor battery status, volume level, and transmission frequency. If necessary, you can switch to another frequency.

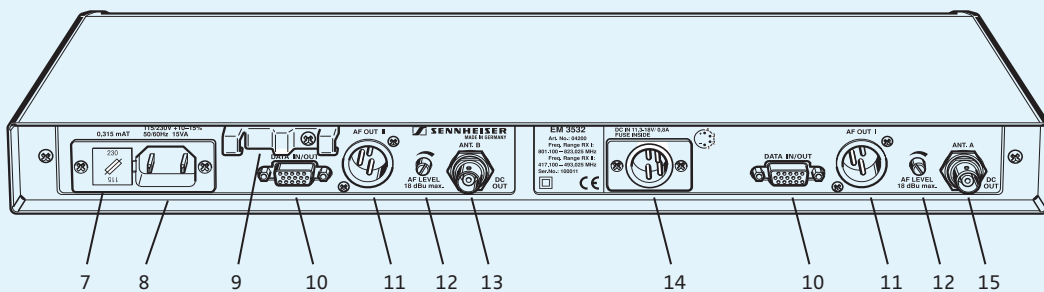
The "Receiver Configuration" window (see fig. 3) offers about the same displays and menus that are also directly available on the receiver. The "RF" and "Dev" bargraphs provide information on RF and AF levels. The "Batt" bargraph indicates the battery status. With the "Squelch" control, you can determine the operating threshold for the RF squelch. The frequency list shows the frequencies and their allocated channel numbers.

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By clicking the “Scan up” and “Scan down” buttons, the EM 3532’s scan function is activated. If a frequency is found, it is displayed in the frequency list.

The RF recorder menu offers two operating modes. In the “RF Level Recorder” mode you can record measuring values over a certain period of time. In the “RF Spectrum Analyzer” mode (EM 3532 only) (see fig. 4) you can record measuring data of a defined frequency range.



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|---|---|
| <ul style="list-style-type: none"> 7 Fuse holder and mains voltage selector 8 Mains connector 9 Cable grip for mains cable 10 Data interface for connecting a remote computer | <ul style="list-style-type: none"> 11 AF output XLR-3M, balanced 12 Control for the AF output level at the XLR socket 13 Antenna socket B 14 DC socket 15 Antenna socket A |
|---|---|

EM 3532 back panel features