

EM 1046 RX

RF Wireless Systems | 5000 Series Receiver Systems

General Description

The EM 1046 RX receiver module is at the heart of any 5000 series receiver system. All functions can be quickly checked via an alphanumeric multi-function display panel, LED bargraphs and individual LEDs. Due to the menu-assisted operation, parameters can quickly and easily be modified.



Product Variants

- EM 1046 RX-UHF-H: UHF band, 760–960 MHz
- EM 1046 RX-UHF-L: UHF band, 450–790 MHz
- EM 1046 RX-VHF-H: VHF band, 216–260 MHz
- EM 1046 RX-VHF-M: VHF band, 174–233 MHz
- EM 1046 RX-VHF-L: VHF band, 138–181 MHz

- Cat. No. 003247
- Cat. No. 003246
- Cat. No. 003596
- Cat. No. 003594
- Cat. No. 003595

Technical Data VHF version

Frequency setting	in 5 kHz steps, or a max. of 32 frequencies
Frequency range	138 –260 MHz
Min. channel spacing	300 kHz
Switching bandwidth	7 MHz, limited by the RI module's bandwidth
Nominal/peak deviation	± 40 kHz / ± 56 kHz
Limiter threshold (-3 dB)*	≤ 1 μ V
RF sensitivity*	≤ 1.5 μ V / 52 dB(A) S/N
Squelch, adjustable	0–100 μ V
Intermodulation spacing*	≥ 76 dB
Selection of adjacent channels*	≥ 66 dB
Adjacent channel rejection*	≥ 100 dB
Image rejection*	≥ 100 dB
Signal-to-noise ratio	≥ 117 dB(A) (≥ 105 dB CCIR)
Noise reduction system	HiDyn <i>plus</i> TM
AF frequency response	20–20,000 Hz
THD	≤ 1 % (typ. 0.5 %)
Weight	approx. 1 kg

Technical Data UHF version

Frequency setting	in 5 kHz steps, or a max. of 32 frequencies
Frequency range	450–960 MHz
Min. channel spacing	300 kHz
Switching bandwidth	24 MHz
Nominal/peak deviation	± 40 kHz / ± 56 kHz
Limiter threshold (-3 dB)*	≤ 1 μ V
RF sensitivity*	≤ 1.5 μ V / 52 dB(A) S/N
Squelch, adjustable	0–100 μ V
Intermodulation spacing*	≥ 76 dB
Selection of adjacent channels*	≥ 66 dB
Adjacent channel rejection*	≥ 100 dB
Image rejection*	≥ 100 dB
Signal-to-noise ratio	≥ 117 dB(A) (≥ 105 dB CCIR)
Noise reduction system	HiDyn <i>plus</i> TM
AF frequency response	20–20,000 Hz
THD	≤ 1 % (typ. 0.5 %)
Weight	approx. 1 kg

* Data refer to overall system

EM 1046-RX

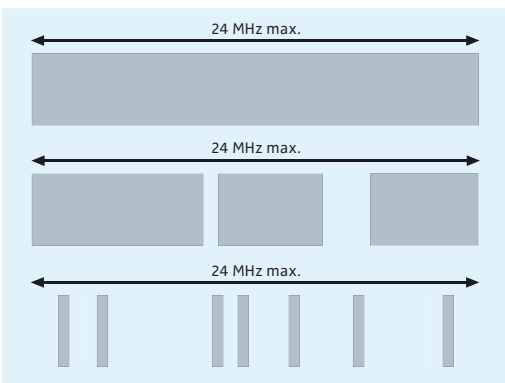
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EM 1046-RX Receiver module

The EM 1046-RX receiver module is available in five frequency ranges between 138 MHz and 960 MHz. The frequency range within which receiver modules can be combined in one mainframe is limited by the RF input module in the EM 1046 MF. Receiving frequencies of a mainframe can be within the bandwidth of 24 MHz at UHF frequencies (7 MHz in the VHF band). In the EM 203 MF, the selective antenna booster limits the bandwidth of the receiving frequencies. The receiving frequencies are set at different levels:

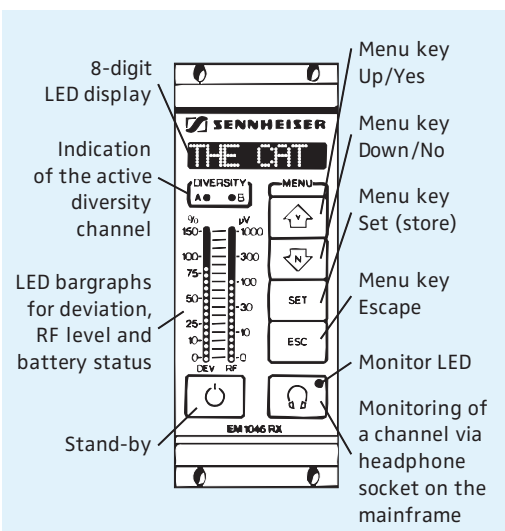
- A wide range is preselected by the hardware.
- The switching bandwidth of 24 MHz is programmed in the factory or by your Sennheiser agent via the service interface.
- The carrier frequency is input via the menu keys at the front.
- Adjustments from a central location are made possible by the computer-assisted remote control.



Frequency preselection via service interface

Setting the switching bandwidth via the service interface can be carried out in three ways:

- In the standard setting, the user can tune through the entire switching bandwidth in 5-kHz steps which preserves optimum flexibility.
- In the range setting, a maximum of 16 receiving ranges are defined and the intermediate spaces are not accessible to the user. The allocated frequency ranges cannot be exceeded by the user.
- The fixed-frequency setting only allows the user a choice between a maximum of 32 fixed carrier frequencies – for example tuned to the switchable frequencies of the SK 50 or SKM 5000 transmitters.



EM 1046 RX operating controls



The following items can be selected in the main menu of a receiver module:

RX-Freq. The receiving frequency can be selected via RX Frequency.

Squelch Squelch determines the threshold of the RF squelch circuit.

BarConf. The function of the LED bargraph is selected with the Bar Configuration item.

DispConf Under Display Configuration, the content of the alphanumeric LED display is selected i.e. whether the frequency or a text is displayed.

TextStr. Text String relates to the entry of text into the LED display.

DeviceID Device Identification is used for calling up identification data internal to the device.

Bat. Test Battery Test activates the return signal of the status information of appropriate transmitters.

RI-Range RI Range checks whether all receiver modules operate in the frequency window of the RF input module.