

PEM-500

PERSONAL EAR MONITOR SYSTEM

*Superior UHF 16-channel
performance and breakthrough
affordability*

The PEM-500 Personal Ear Monitor System offers all the advantages of wireless in-ear monitoring—mobility, more focused audio, freedom from feedback, and elimination of transport issues associated with conventional floor monitors—as well as the longterm health benefits of safe, personally controllable listening levels. For the first time, a wireless in-ear monitor system combines state-of-the-art advanced frequency-agile PLL synthesized UHF technology, high-end performance, and unprecedented affordability. The PEM-500 offers a choice of 16 user selectable UHF channels with both the transmitter and receiver, as well as stereo (MPX system) or mono mode transmission. This system is indispensable for live-stage music performance and is loaded with features previously found only in units costing several times more.



SYSTEM FEATURES

- Available on selected frequency bands within the UHF band for interference-free, long-range performance (up to 8 systems can be operated simultaneously, depending on country and frequency band)
- System consists of PEM-500T transmitter and one bodypack PEM-500R receiver, both of which offer 16 channel user selectability. Any number of additional receivers can be operated with the same transmitter if set to the same channel.
- Proprietary companding circuitry for wide Dynamic Range and clear, natural sound
- Operating Range: up to 300 feet typical (depending on site conditions)
- Rugged, foam-padded traveling case provides easy safe transport and storage.

PEM-500 TRANSMITTER



PEM-500T

- Rugged, all metal half-rack that can be rackmounted singly or side-by-side with optional rack kits
- Microphone input allows wireless cueing of performers on stage
- Front panel features input level control, stereo headphone monitor output jack and volume control, select button for choosing one of 16 UHF channels, LED channel display, and Left/Right 10-segment audio input level displays.
- Back panel provides BNC jack for detachable antenna, a 1/4" TRS balanced microphone input, and an XLR and 1/4" combo jack for Left and Right Line inputs.
- Externally powered by AC/DC power adaptor

PEM-500 RECEIVER



PEM-500R

- Portable bodypack receiver features a switchable built-in volume limiter, output level control, and two-color (red/green) 3-way unit ON/Signal/Low Battery LED indicator.
- Operates up to 6 hours (depending on volume) on a 9V alkaline battery
- Each receiver is supplied with a pair of miniature, lightweight (yet powerful) in-ear speakers with soft rubber mounts in 3 sizes (small, medium, and large) designed for "custom" form-fitted comfort and optimum acoustic transfer and isolation.
- Rear clip can be rotated 90° for attaching receiver vertically or horizontally to clothes.

SPECIFICATIONS

Operating Frequency Range	696-865 MHz, country dependent
Modulation	Mono or stereo (MPX with pilot tone), FM: F3E +/- 60 KHz, nominal
Audio Frequency Response	50 ~ 12,000 Hz
T. H. D.	< 1%
Signal-to-Noise Ratio	> 80 dB, with proprietary companding noise reduction
Operating Range	Up to 300 feet typical (depending on site conditions)

PEM-500T TRANSMITTER

RF Output Power	Max. 50 mW (country dependent)
L/R Audio Line Inputs	
Input Impedance	600 ohms
Nominal Input Level	0 dBm
Max. Input Level	+6 dBm
Headphones Out Power	100 mW max. @ 32 Ω, 190 mW @ 16 Ω
Spurious Emission	> -55 dBc
Frequency Stability	+/- 100 PPM
Controls	Power ON/OFF, STEREO/MONO, and channel select switches; input level, headphones monitor volume controls
Connectors	1/4" stereo headphones monitor out, 1/4" TRS balanced mic input, balanced XLR L& R line input, and 2.1 mm barrel-type DC input jacks; BNC antenna socket
Indicators	Power ON LED; channel and 10-segment L/R audio input LED displays

Antenna	1/4 wave rigid detachable, BNC mount
Power Requirement	12-15V/500mA, AC/DC adaptor supplied (UL/CSA approved 120VAC or CE approved 230VAC)
Dimensions	8.27" x 9.13" x 1.73" (210 x 232 x 44 mm)
Weight	2.98 lbs (1.35 Kg)

PEM-500R RECEIVER

Maximum Audio Output Level	20 mW
Minimum Audio Output	
Load Impedance	16 Ω
RF Sensitivity	2.5uV (-100 dB/12 dB SINAD)
Squelch Threshold	< -90 dB
Spurious Rejection	> 55 dBc
Audio Output Connector	3.5 mm Stereo (Tip=left, Ring=Right, Sleeve=ground)
Controls	Volume adjust; limiter ON/OFF, power ON/OFF, STEREO/MONO select switches; 16-position channel selector switch
Indicators	Two-color (red/green) 3-way unit ON/Signal/Low Battery LED
Power Requirements	9V alkaline battery
Current Drain	< 40 mA
Battery Life	Up to 6 hours, volume dependent
Antenna	Internal
Dimensions	4.2" x 0.9" x 2.6" (106 x 23 x 66 mm)
Weight	2.85 oz (80 Kg)

