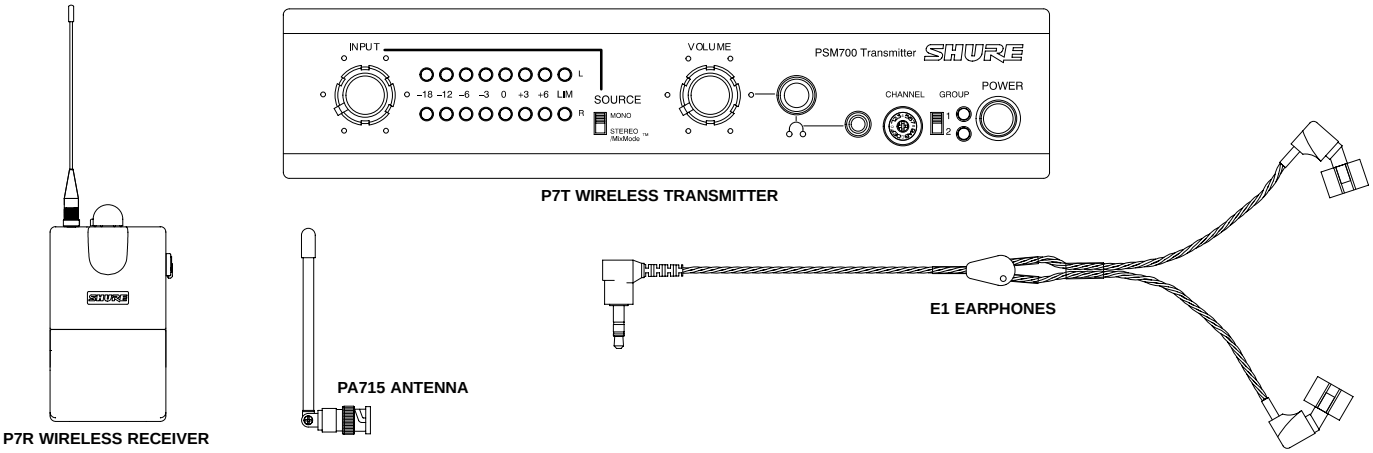
PSM700 In–Ear Monitor System Specification Sheet

PSM 700 IN–EAR MONITOR SYSTEM



SYSTEM FEATURES

The Shure PSM700 Wireless Personal Monitor System is a UHF frequency-agile, two-channel monitoring system designed for onstage applications. The PSM has several advantages over onstage loudspeaker monitors: it is less visible, has better sound, allows freedom of movement, and reduces the chances of feedback. It is a versatile system, designed for use in many different sound reinforcement applications: public address, live music, theater, and electronic news gathering (ENG). The wireless system is frequency compatible with other Shure UHF and VHF wireless systems.

FEATURES

- *UHF operation.*
- *Stereo or MixMode™ control for custom monitor mixes.*
- *32 user-selectable frequencies per system.*
- *Up to 16 compatible frequencies for 16 different mixes.*
- *Frequency compatible with all Shure Wireless systems (country dependent).*
- *MPX Stereo audio transmission.*
- *Switchable high-frequency boost on P7R.*
- *+4 dBu/–10 dBV input level select switch on P7T.*
- *Electronically balanced, combined 1/4-in./XLR connectors on P7T can be used with balanced or unbalanced outputs.*
- *Volume and Balance dials on the P7R Receiver for easy user access.*
- *Internal linear power supply on P7T, switchable between 120 VAC and 230 VAC.*
- *Peak transmitter modulation limiter with fixed threshold and modulation limit indicators.*
- *Loop out connectors on P7T for multiple mix setups and easy installation.*
- *Tone-Key squelch.*
- *Half-rack chassis on P7T complete with mounting hardware.*
- *All metal construction on P7T and P7R*
- *Headphone monitor on P7T for local listening.*
- *Universal Earphones which seal off the ear canal to reduce ambient sound levels.*

SPECIFICATIONS

SYSTEM

RF Carrier Frequency Range
722 to 865 MHz (country dependent)
Operating Range
300 ft. (environment dependent)
Audio Frequency Response
50 to 15k Hz (+0, –3 dB re 1 kHz); earphone dependent
Image Rejection
80 dB typical
Spurious Rejection
80 dB typical
Total Harmonic Distortion (1 kHz)
0.8% typical (Ref. ±35 kHz deviation)
Modulation
FM ±35 kHz Deviation (Nominal), MPX Stereo
Channel Separation: 35 dB typical
Signal-to-Noise Ratio: 80 dB typical (A-weighted)
Operating Temperature
–7° C to +49° C
(+20° F to 120° F)
Battery Life: 4–6 hours, volume dependent
Polarity
P7T audio inputs to P7R audio outputs: Non-inverting
XLR: pin 2 positive with respect to pin 3
$^1/_4$-in. TRS: Tip positive with respect to ring

P7T TRANSMITTER

RF Output Power
100 mW (+20 dBm) typical conducted
(country dependent)

Modulation Limiter

Internal peak limiter (>10:1 compression)

Antenna: External whip, 50 Ω BNC connector

Power Requirements

P7T: 120 Vac, 50/60 Hz, 5 mm X 20 mm

EP7T: 230 Vac, 50/60 Hz, 5 mm X 20 mm

NOTE: This product is not disconnected from the mains power supply when the power switch is in the OFF position.

Current

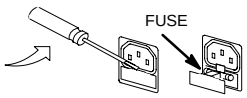
115 mAac maximum at 120 Vac

55 mAac maximum at 230 Vac

Fuse

P7T: 100–120 Vac, 160 mA/250 V (SLO-BLO®)

EP7T: 220–240 Vac, 80 mA/250 V time delay



Dimensions

44.5 mm X 196.8 mm X 241.3 mm
(1 3/4 in. X 7 3/4 in. X 9 1/2 in.)

Net Weight

1.497 kg (3 lbs., 4.8 oz.)

P7R RECEIVER

RF Sensitivity

0.7 µV typical

Squelch Threshold

2 µV typical

Antenna Input Impedance

50 Ω typical

Antenna

External, threaded connector

Power

9 V battery (alkaline recommended),
4–6 hours (volume dependent)

Audio Output Connector

3.5 mm Stereo (Left = tip, Right = ring, Ground = sleeve)

Minimum Load Impedance: 16 Ω

Net Weight: 0.23 kg (0.52 lbs.)

Overall Dimensions

27.18 mm X 64.52 mm X 85.09 mm
(1.070 in. X 2.540 in. X 3.350 in.)

CONNECTORS

P7T Audio Inputs (LEFT/CH.1 and RIGHT/CH.2)

Connector: (XLR and 1/4-inch combined)	XLR (female)	1/4-inch phone jack (female)
Configuration:	electronically balanced	electronically balanced
Actual Impedance:	20 kΩ	20 kΩ
Nominal Input Level:	+4 dBu (+4 input level) –10 dBV (–10 input level)	+4 dBu (+4 input level) –10 dBV (–10 input level)
Maximum Input Level:	+25 dBu (+4 input level) +13 dBu (–10 input level)	+25 dBu (+4 input level) +13 dBu (–10 input level)
Pin Assignments:	Pin 1 = ground Pin 2 = hot Pin 3 = cold	Tip = hot ring = cold sleeve = ground
Phantom Power Protection?	Yes Up to 60 VDC	Yes Up to 60 VDC

P7T L/R LOOP Outputs

Connector:	1/4-inch phone jack (female)
Configuration:	electronically balanced
Actual Impedance:	20 kΩ
Nominal Output Level:	+4 dBu (+4 input level) –10 dBV (–10 input level)
Maximum Output Level:	+25 dBu (+4 input level) +13 dBu (–10 input level)
Pin Assignments:	Tip = hot ring = cold sleeve = ground
Phantom Power Protection?	Yes Up to 60 VDC

Components

P7T Wireless Transmitter
with rack-mounting hardware and detachable antenna

- *Combined 1/4" and XLR Input Connectors*
- *Stereo Input Meter and Input Level Control*
- *Channel Select Control*
- *Mono/Stereo/MixMode Source Switch*
- *Earphone Connector and Volume Control*
- *LOOP Out Connectors*
- *Input Pad Switch*

P7R Wireless Body-Pack Receiver
with detachable antenna

- *Balance Control*
- *Low Battery Indicator*
- *Power LED*
- *ON/OFF/Volume Control*
- *RF LED*
- *Channel Select Control*

One Pair of E1 or E5 Earphones
with foam and flex-tip ear inserts

- *Low-mass, high-energy transducers*
- *Universal fit*
- *Choice of isolating sleeves; Custom molded sleeves available*
- *Carrying pouch for convenient storage*
- *Adjustment tube for securing the cables*
- *Tool for removing wax buildup in the earphone*