PSM 900 In-Ear Personal Monitoring System



THE SOUND OF CONFIDENCE.









PSM 900 In-Ear Personal Monitoring System

With exceptional audio quality, robust RF performance and new-to-market setup features, the new PSM 900 is more reliable and easier to set up than many other systems in its class. For demanding events, touring and installation.











P9R Wireless Bodypack Receiver



P9R Wireless Bodypack Receiver

The low-profile P9R bodypack offers some of the most sophisticated features in the category, with an interface that makes setup and operation simple and intuitive.



Professional Sound Isolating[™] Earphones

The PSM 900 In-Ear Personal Monitoring System works with any Shure Professional Sound Isolating Earphones, for example the SE425. Featuring Dual High-Definition MicroDrivers, it uses a dedicated tweeter and woofer for an accurate and balanced sound stage. Detachable, lockable cable with formable wire enables easy replacement and secure, comfortable fit.



Simple controls and scan & sync access Left: Top: Bit-mapped backlit LCD **Bottom:** LED status indicators for both battery and RF status

Key Features

CueMode* - Instantly listen to any stage mix

This feature allows for auditioning of up to 20 different mixes on a single bodypack at the touch of a button. Simply hear what the performer hears, without the need for any additional equipment.

Scan and Sync - Find channels easily and immediately

Scan the RF environment and assign an identified group and channel to a system over wireless IR link within seconds.

Audio Reference Companding - Sounds like wired

Patented Shure Audio Reference Companding provides the purest in-ear sound.

Enhanced Digital Stereo Encoder - Clear and accurate audio

PSM 900 provides a wider stereo field for enhanced detail and clarity usually lost in an in-ear personal monitoring system.

*patent-pending

P9T Wireless Transmitter



P9T Wireless Transmitter

The P9T half-rack wireless transmitter houses advanced controls and an innovative grouped-menu display in a rugged, roadworthy casing.



Left: Top middle: Bottom middle: Right: RF mute switch prevents RF transmission during setup Easily navigable grouped LCD menu Scan & sync vastly improves setup efficiency Input level adjustment and LED metre

Front End RF Filtering – Higher signal quality

The same advanced filtering found in industry-leading UHF-R wireless systems, significantly reduces RF interference for a cleaner, stronger RF signal, fewer dropouts, and less audible artifacts.

Exceptional Transmitter Linearity – Up to 20 compatible channels

The P9T transmitter vastly reduces frequency intermodulation, allowing up to 20 compatible channels to operate simultaneously in one frequency band.

RF Mute Switch – The "Do Not Disturb" RF button

Ideal for festivals and multi-venue events, the front-panel RF mute switch on the P9T transmitter enables or disables RF transmission, allowing setup operation without disrupting the RF environment.

Active RF Gain Control – Avoid RF Signal Overload

RF signal overload can cause dropouts if the receiver comes too close to the transmitting antenna. Active RF gain control detects any spikes in RF signal and seamlessly reduces RF sensitivity to protect against RF overload.

Technical Specifications

PSM 900 System

RF Carrier Range	470 – 952 MHz (regionally dependent)
Compatible Frequencies	20 per band
Tuning Bandwidth	36 MHz – 40 MHz (regionally dependent)
Operating Range (environment dependent)	90 m (300 ft)
Audio Frequency Response	35 Hz – 15 kHz
Stereo Separation	60 dB
Signal-To-Noise Ratio (A-Weighted)	90 dB (typical)
Total Harmonic Distortion	
(ref. ±34 kHz deviation @1 kHz)	<0.8% (typical)
Companding	Patented Shure Audio Reference Companding
Spurious Rejection (ref. 12 dB SINAD)	>80 dB (typical)
Frequency Stability	±2.5 ppm
MPX Pilot Tone	19 kHz (±0.3 kHz)
Modulation	FM, MPX Stereo (±34 kHz deviation, nominal)
Operating Temperature	-18°C – +57°C

PSM In-Ear Personal **Monitoring Systems also** available



PSM 200

In-Ear Personal Monitoring System

The entry point to Shure In-Ear Monitoring Systems

- Dual-function bodypack receiver (P2R)
- Wireless transmixer (P2T)
- Professional Sound Islolating Earphones



PSM 400 In-Ear Personal Monitoring System

Versatile system for working musicians

- Wireless bodypack receiver (P4R)
- Wireless transmitter (P4T)
- Professional Sound Isolating Earphones

P9R Bodypac	:k	
Receiver		

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P9R Bodypack Receiver		
	Front-End RF Filtering	-3 dB point 30.5 MHz from center frequency
	Active RF Gain Control	31 dB (adjusts RF sensitivity to provide more RF dynamic range)
	RF Sensitivity (20 dB SINAD)	2.2 µV
	Squelch Threshold (±3 dB SINAD)	22 dB SINAD
	Adjacent Channel Rejection	>70 dB
	Intermodulation Attenuation	>70 dB
	Blocking	>80 dB
	Image Rejection	>100 dB
	Audio Output Power (1kHz @ <1% distortion, peak power, @32Ω)	100 mW
	Minimum Load Impedance	9.5 Ω
	High Boost	Selectable: +3 dB, +6 dB @ 10 kHz
	Battery Life	5 – 7 hours (continuous use)
	Net Weight	200 g with batteries
	Dimensions	83 mm x 65 mm x 22 mm
P9T Transmitter		
	RF Output Power	Selectable: 10, 50, 100 mW (regionally dependent)
	RF Output Impedance	50 Ω (typical)
	Net Weight	850 g
	Dimensions	197 mm x 166 mm x 42 mm
	Power Requirement (RF on, 100 mW power mode, no audio)	415 mA, typical
Antenna Combiner Accessories		
	PA421SWB	4 to 1 antenna combiner and power distribution for PSM systems
	PA821SWB	8 to 1 antenna combiner for PSM systems

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