

**SHURE**<sup>®</sup>

LEGENDARY  
PERFORMANCE™

PSM1000

In-Ear Personal Monitoring Systems

PSM1000 In-Ear Personal Systems

**THE SOUND OF CONFIDENCE.**





## PSM 900 and PSM 1000 In-Ear Personal Monitoring Systems

With exceptional audio quality and features, the PSM 900 and PSM 1000 In-Ear Personal Monitoring Systems from Shure are more reliable and easier to set-up than many other systems in their class. The PSM 900 delivers a robust RF performance and with the two antenna diversity bodypack receiver of the PSM 1000 system the best RF performance is guaranteed. The full network integration of the PSM 1000 makes setup and control highly efficient. For the most demanding events, touring and installation.



## PSM 900 In-Ear Personal Monitoring System

### P9RA Wireless Bodypack Receiver



**P9RA Wireless Bodypack Receiver**  
The low-profile, full-metal P9RA bodypack offers some of the most sophisticated features in the category, with an interface that makes setup and operation simple and intuitive. Detachable antenna allows for easy field replacement and flexibility. Switchable gain setting provides an extended battery life. It can alternatively handle Shure rechargeable Li-Ion batteries.



**Sound Isolating™ Earphones**  
The PSM 900 In-Ear Personal Monitoring System works with any Shure 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.



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

### Key Features PSM 900 and PSM 1000

**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.

**Audio Reference Companding – Sounds like wired**  
Patented Shure Audio Reference Companding provides the purest in-ear sound.

**Group Scan and Sync – Find channels easily and immediately**  
Scan the RF environment and identify the group with the most free frequencies. By using the sync-function, these frequencies can be transferred to the transmitter via IR within seconds.

**Rechargeability – Low operating costs and extended battery life**  
The P9RA and the P10R work with an 8-Up battery charger (SBC800). This compact unit charges eight Shure SB900A batteries to full capacity within two hours, with status LEDs to indicate power levels.



# PSM 900 In-Ear Personal Monitoring System

## P9T Wireless Transmitter



### P9T Wireless Transmitter

The P9T half-rack wireless transmitter houses advanced controls such as fast level adjustment, dedicated sync button, RF mute switch and an innovative grouped-menu display in a rugged, roadworthy housing.



- Left:** RF mute switch prevents disturbance of other systems that are in progress during setup
- Top middle:** Easily navigable grouped LCD menu
- Bottom middle:** Scan & Sync vastly improves setup efficiency
- Right:** Input level adjustment and LED metre

### Key Features PSM 900 and PSM 1000

#### 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 40 compatible channels

The P9T and P10T transmitter vastly reduce frequency intermodulation, allowing up to 20 compatible channels for the P9T and 40 compatible channels for the P10T 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 and P10T transmitter enable or disable 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.

# PSM 900 In-Ear Personal Monitoring System

## P10R Wireless Bodypack



### P10R Wireless Bodypack Receiver

The P10R full-metal bodypack offers the same low-profile design as the P9RA bodypack receiver plus two antenna diversity reception for the best in audio and RF performance. Additional menu features enable highly efficient setup and control. Switchable gain setting provides an extended battery life. It can alternatively handle Shure rechargeable Li-Ion batteries.

### Additional Key Features PSM 1000

#### Bodypack Receiver with Two Antenna Diversity – The best in audio and RF performance

The P10R bodypack employs two antenna diversity reception, providing rock-solid coverage from two antennas for the best in audio and RF performance.

#### Backwards Compatibility – Reduced investment costs

The PSM 1000 system is audio and frequency sync compatible with PSM 900 in the same range to facilitate streamlined inventory management.

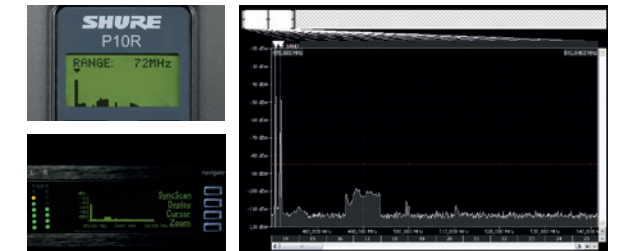
#### Full Range Scan & Sync Capabilities – Most efficient setup and control

Streamlining pre-show setup tasks, the P10R bodypack receiver scans the full range and IR syncs scan data to the P10T transmitter. The P10T then assigns compatible frequencies to additional transmitters over the network or transfers scan data to Wireless Workbench 6.0.



### Sound Isolating™ Earphones

The PSM 1000 In-Ear Personal Monitoring System works with any Shure Sound Isolating Earphones, for example the SE535. Featuring Triple High-Definition MicroDrivers, it uses a single tweeter and dual woofers, for spacious sound with rich bass. Detachable, lockable cable with formable wire enables easy replacement and secure, comfortable fit.



- Left Top:** Full Range Scan provides most accurate RF conditions
- Left Bottom:** Scan data in transmitter after successful spectrum synchronisation
- Right:** Wireless Workbench 6.0 result of scan data

# PSM 900 In-Ear Personal Monitoring System

## P10T Wireless Transmitter



### P10T Wireless Transmitter

The P10T full-rack, dual channel wireless transmitter houses a familiar, user-friendly interface front panel control, two Ethernet ports for cascaded network connectivity with full Wireless Workbench 6.0 integration, and an internal power supply in a professional touring grade chassis construction.



**Left:** Easily navigable grouped LCD menu

**Middle:** RF mute switch and input level LED meter

**Right:** Fast monitoring option for both channels including LED clip indicator

### Additional Key Features PSM 1000

#### Ethernet Port for Shure Network Connectivity – Most efficient setup and control

PSM transmitters can be controlled either by Wireless Workbench 6.0 software, an Axient Spectrum Manager or among themselves via single Ethernet port connection.

#### Internal Power Supply – No more external power supply unit

Efficient, universal power supply with industry standard IEC connectors and daisy-chain capability for comfortable, easy setup and handling.

#### Up to 80 MHz Tuning Bandwidth – Highest RF spectrum flexibility

Up to 80 MHz tuning bandwidth and a frequency choice of seven band versions provide users ultimate flexibility and performance in today's crowded and unpredictable RF environments.

# Technical Specification

	PSM 900 System	PSM 1000 System
<b>RF Carrier Range</b>	470 – 952 MHz (regionally dependent)	470 – 952 MHz (regionally dependent)
<b>Compatible Frequencies</b>	Up to 20 per band	Up to 40 per band
<b>Tuning Bandwidth</b>	36 MHz – 40 MHz (regionally dependent)	72 - 80 MHz (regionally dependent)
<b>Operating Range (environment dependent)</b>	90 m	90 m
<b>Audio Frequency Response</b>	35 Hz – 15 kHz	35 Hz – 15 kHz
<b>Signal-To-Noise Ratio (A-Weighted)</b>	90 dB (typical)	90 dB (typical)
<b>Total Harmonic Distortion (ref. ±34 kHz deviation @1 kHz)</b>	<0.5% (typical)	<0.5% (typical)
<b>Companding</b>	Patented Shure Audio Reference Companding	Patented Shure Audio Reference Companding
<b>Spurious Rejection (ref. 12 dB SINAD)</b>	>80 dB (typical)	>80 dB (typical)
<b>Frequency Stability</b>	±2.5 ppm	±2.5 ppm
<b>MPX Pilot Tone</b>	19 kHz (±0.3 kHz)	19 kHz (±0.3 kHz)
<b>Modulation</b>	FM, MPX Stereo (±34 kHz deviation, nominal)	FM, MPX Stereo (±34 kHz deviation, nominal)
<b>Operating Temperature</b>	-18°C – +57°C	-18°C – +57°C
	<b>P9RA Bodypack Receiver</b>	<b>P10R Bodypack Receiver</b>
<b>Front-End RF Filtering</b>	-3 dB point 30.5 MHz from centre frequency	-3 dB point 30.5 MHz from centre frequency
<b>Active RF Gain Control</b>	31 dB (adjusts RF sensitivity to provide more RF dynamic range)	31 dB (adjusts RF sensitivity to provide more RF dynamic range)
<b>RF Sensitivity (20 dB SINAD)</b>	2.2 µV	2.2 µV
<b>Squelch Threshold (±3 dB SINAD)</b>	22 dB SINAD	22 dB SINAD
<b>Adjacent Channel Rejection</b>	>70 dB	>70 dB
<b>Intermodulation Attenuation</b>	>50 dB	>50 dB
<b>Blocking</b>	>80 dB	>80 dB
<b>Image Rejection</b>	>90 dB	>90 dB
<b>Audio Output Power (1 kHz @ &lt;1% distortion, peak power, @ 32 Ω)</b>	100 mW	100 mW
<b>Minimum Load Impedance</b>	9.5 Ω	9.5 Ω
<b>High Boost</b>	Selectable: +2 dB, +4 dB @ 10 kHz	Selectable: + 2 dB, +4 dB @ 10 kHz
<b>Battery Life</b>	4 - 6 hours (continuous use with Alkaline batteries)	4 - 6 hours (continuous use with Alkaline batteries)
<b>Net Weight</b>	200 g with batteries	201 g with batteries
<b>Dimensions</b>	85 mm x 66 mm x 23 mm	85 mm x 66 mm x 23 mm
	<b>P9T Transmitter</b>	<b>P10T Transmitter</b>
<b>RF Output Power</b>	Selectable: 10, 50, 100 mW (regionally dependent)	Selectable: 10, 50, 100 mW (regionally dependent)
<b>RF Output Impedance</b>	50 Ω (typical)	50 Ω (typical)
<b>Net Weight</b>	850 g	4700 g
<b>Dimensions</b>	197 mm x 166 mm x 42 mm	483 mm x 363 mm x 44 mm
<b>Power Requirement (RF on, 100 mW power mode, no audio)</b>	415 mA, typical	Max. 0.5 A, typical Power pass through: max. 5 A, typical
	<b>Accessories</b>	<b>Accessories</b>
<b>PA421B</b>	4 to 1 antenna combiner and power distribution for PSM systems	4 to 1 antenna combiner and power distribution for PSM systems
<b>PA805SWB</b>	Passive directional antenna	Passive directional antenna
<b>PA821B</b>	8 to 1 antenna combiner for PSM systems	8 to 1 antenna combiner for PSM systems
<b>SBC800</b>	8-Up battery charger	8-Up battery charger
<b>SB900A</b>	Rechargeable battery	Rechargeable battery
<b>SB900A-8</b>	8-Pack rechargeable batteries	8-Pack rechargeable batteries

### PSM In-Ear Personal Monitoring System also available



### PSM 200

The entry point to Shure In-Ear Personal Monitoring Systems

- Dual-function bodypack receiver (P2R)
- Wireless transmitter (P2T)
- Professional Sound Isolating Earphones

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