

## PSM 1000 In-Ear Personal Monitoring System

The PSM 1000 In-Ear Personal Monitoring System from Shure builds on the success of the PSM 900 that set the bar for In-Ear Monitoring. The dual channel, full rack PSM 1000 system offers all functions of PSM 900, like patent-pending CueMode etc. plus additional, new sophisticated features. It is designed to tightly integrate with Shure Wireless Workbench 6.0 software for highly efficient setup and control. Plus with a two antenna diversity, low-profile bodypack receiver, PSM 1000 provides the best in audio and RF performance. For the most demanding events, touring and installation.

### PRODUCT HIGHLIGHTS

Full Rack, Dual Channel Transmitter

Internal Power Supply

Ethernet Port for Shure Network Integration with Wireless Workbench 6.0

Full-metal two Antenna Diversity Bodypack Receiver

Rechargeability

Up to 80 MHz Tuning Bandwidth

Up to 40 compatible channels per band version

Full Range Scan

Patent-Pending CueMode

### APPLICATIONS

Touring Sound

Broadcast

Theater

House of Worship



# System Specifications

<b>RF Carrier Range</b>	470 – 952 MHz (regionally dependent)
<b>Compatible Frequencies</b>	Up to 40 (per band)
<b>Tuning Bandwidth</b>	72 MHz - 80 MHz (regionally dependent)
<b>Operating Range</b> (environment dependent)	90 m
<b>Audio Frequency Response</b>	35 Hz – 15 kHz
<b>Signal-To-Noise Ratio</b> (A-Weighted)	90 dB (typical)
<b>Total Harmonic Distortion</b> (ref. ±34 kHz deviation @1 kHz)	<0.5% (typical)
<b>Comanding</b>	Patented Shure Audio Reference Comanding
<b>Spurious Rejection</b> (ref. 12 dB SINAD)	>80 dB (typical)
<b>Frequency Stability</b>	±2.5 ppm
<b>MPX Pilot Tone</b>	19 kHz (±0.3 kHz)
<b>Modulation</b>	FM, MPX Stereo (±34 kHz deviation, nominal)
<b>Operating Temperature</b>	-18°C – +57°C

## Furnished Accessories

<b>P10R Antenna</b>	
<b>UA700</b>	470 – 542 MHz
<b>UA720</b>	596 – 692 MHz
<b>UA730</b>	692 – 830 MHz
<b>UA740</b>	830 – 952 MHz
<b>P10T Antenna</b>	
<b>UA820G</b>	470 – 530 MHz
<b>UA820G7</b>	500 – 560 MHz
<b>UA820H4</b>	518 – 578 MHz
<b>UA820J</b>	578 – 638 MHz
<b>UA820L3</b>	638 – 698 MHz
<b>UA820B</b>	690 – 746 MHz
<b>UA820P8</b>	710 – 790 MHz
<b>UA820Q</b>	740 – 814 MHz
<b>UA820A</b>	774 – 865 MHz
<b>UA820X</b>	900 – 952 MHz
<b>95A9023</b>	Front Mount Antenna Cable
<b>95A2313</b>	Zipper Bag
<b>95A8247</b>	IEC Power Cable EU
<b>95A8713</b>	IEC Power Cable UK
<b>95B8678</b>	IEC Extension Cable
<b>95B15103</b>	Ethernet Network Cable
<b>85G9098</b>	Wireless Workbench 6.0
<b>95A2313</b>	Receiver Carrying Bag
<b>90VL1371</b>	Rackmount Hardware Kit

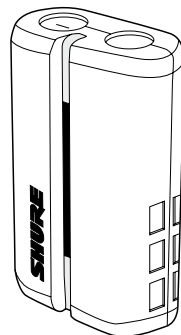
## Frequency Range

Band	Range	RF Output Power*
<b>G10</b>	470 - 542 MHz	10 / 50 / 100 mW
<b>G10E</b>	470 - 542 MHz	10 / 50 / 100 mW
<b>J8</b>	554 - 626 MHz	10 / 50 / 100 mW
<b>J8E</b>	554 - 626 MHz	10 / 50 / 100 mW
<b>K10E</b>	596 - 668 MHz	10 / 50 / 100 mW
<b>L8</b>	626 - 698 MHz	10 / 50 / 100 mW
<b>L8E</b>	626 - 698 MHz	10 / 50 / 100 mW
<b>L9E</b>	670 - 742 MHz	10 / 50 / 100 mW
<b>L10</b>	670 - 742 MHz	10 mW
<b>P8</b>	710 - 790 MHz	10 / 50 / 100 mW
<b>Q21</b>	750 - 787 MHz	10 / 50 / 100 mW
<b>Q22E</b>	750 - 822 MHz	10 / 50 / 100 mW
<b>Q23</b>	750 - 822 MHz	10 mW
<b>R26</b>	794 - 806 MHz	10 mW
<b>R27</b>	794 - 806 MHz	10 / 50 mW
<b>A24</b>	779 - 788, 797 - 806 MHz	10 mW
<b>X1</b>	944 - 952 MHz	10 / 50 / 100 mW

\*Regionally dependent

## Antennas, Combiners and Accessories

<b>PA821SWB</b>	8-to-1 antenna combiner for better RF performance
<b>PA421SWB</b>	4-to-1 antenna combiner with power distribution to 4 transmitters (better RF performance and eliminates need for external power supply)
<b>PA805SWB</b>	Passive Directional Antenna
<b>HA-8089</b>	Helical Antenna (470 – 900 MHz)
<b>HA-8241</b>	Helical Antenna (944 – 952 MHz)
<b>UA860SWB</b>	Passive Omnidirectional Antenna
<b>UA802</b>	Coaxial Cable, BNC, RG58C/U type, 50 Ω, 0.6 m length
<b>UA806</b>	Coaxial Cable, BNC, RG58C/U type, 50 Ω, 2 m length
<b>UA825</b>	Coaxial Cable, BNC, RG8X/U type, 50 Ω, 7.5 m length
<b>UA850</b>	Coaxial Cable, BNC, RG8X/U type, 50 Ω, 15 m length
<b>UA8100</b>	Coaxial Cable, BNC, RG8X/U type, 50 Ω, 30 m length
<b>SBC800</b>	8-Up Battery Charger
<b>SB900</b>	Rechargeable Battery
<b>SB900-8</b>	8-Pack Rechargeable Battery



### SB900 Rechargeable Battery

The P10R bodypack is compatible with the SB900 lithium-ion rechargeable battery, which provides extended usage time of up to 10 hours and precise tracking of remaining life and charge cycle details.

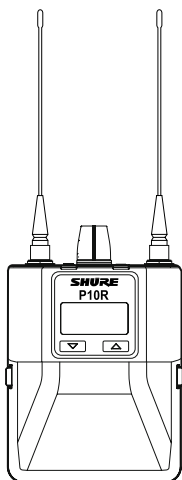
### SBC800 Recharging Station

This compact unit charges up to 8 SB900 batteries to full capacity within 2 hours, with status LEDs to indicate power levels. SB900 batteries fit securely in the charger for easy, efficient storage and transport.

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# Component Specifications

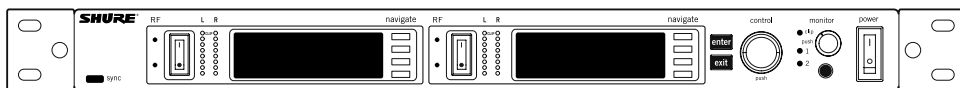
## P10R Wireless Bodypack Receiver



The P10R is a low profile, diversity bodypack receiver for use with the PSM 1000 Wireless Personal Monitor System. It offers premium features like full bandwidth RF scan and Automatic RF Gain Control for unparalleled signal stability and channel availability, all packed in the slimmest form factor available. Patent-pending CueMode allows monitoring of different stage mixes and storing of up to 20 separate channels from one bodypack for quick and easy mix reference. Optional advanced rechargeability eliminates the need for disposable batteries and provides extended usage times with reliable battery life.

<b>Front-End RF Filtering</b>	-3 dB point 30.5 MHz from center frequency
<b>Active RF Gain Control</b>	31 dB (Adjusts sensitivity to provide more RF dynamic range)
<b>RF Sensitivity (20 dB SINAD)</b>	2.2 $\mu$ V
<b>Squelch Threshold (<math>\pm 3</math> dB SINAD)</b>	22 dB SINAD
<b>Adjacent Channel Rejection</b>	>70 dB
<b>Intermodulation Attenuation</b>	>50 dB
<b>Blocking</b>	>80 dB
<b>Image Rejection</b>	>90 dB
<b>Audio Output Power</b> (1kHz @ <1% distortion, peak power, @32 $\Omega$ )	100 mW
<b>Minimum Load Impedance</b>	9.5 $\Omega$
<b>High Boost</b>	Selectable: +2 dB / +4 dB @ 10 kHz
<b>Volume Limiter</b>	Selectable: 3 - 9 (Reduces maximum output level. Selected value corresponds to volume knob increment.)
<b>Battery Life</b>	4 - 6 hours (continuous use with Alkaline batteries)
<b>Net Weight</b>	201 g with batteries
<b>Dimensions</b>	85 mm x 66 mm x 23 mm

## P10T Wireless Transmitter



The P10T is a networkable, full-rack, dual channel wireless transmitter used in conjunction with the P10R Bodypack receiver as part of the PSM 1000 Wireless Personal Monitor System. It offers a up to 80 MHz wide tuning bandwidth, networked remote control via Wireless Workbench software, advanced rechargeability options, and PSM 900 backwards compatibility. Connections include balanced  $\frac{1}{4}$ " and XLR, loop out, dual Ethernet ports, and headphone monitor out. Comes with front or back mountable antennas, and power and Ethernet jumper cables.

<b>RF Output Power</b>	Selectable: 10 / 50 / 100 mW (regionally dependent)
<b>RF Output Impedance</b>	50 $\Omega$ (typical)
<b>Net Weight</b>	4700 g
<b>Dimensions</b>	483 mm x 363 mm x 44 mm
<b>Power Requirement</b> (RF on, 100 mW power mode, no audio)	0.5 A max., typical Power passthrough: 5 A max., typical
<b>Audio Input</b>	
<b>Connector Type</b>	Combination XLR and 6.35 mm (1/4") TRS
<b>Polarity</b>	XLR: Non-inverting (pin 2 positive in respect to pin 3) 6.35 mm (1/4") TRS: Tip positive in respect to ring
<b>Configuration</b>	Electronically balanced
<b>Impedance</b>	70.2 k $\Omega$ (actual)
<b>Nominal Input Level</b>	Switchable: +4 dBu / -10 dBV
<b>Maximum Input Level</b>	+ 4 dBu: +29.2 dBu - 10 dBV: +12.2 dBu
<b>Pin Assignments</b>	XLR: 1 = ground, 2 = hot, 3 = cold 6.35 mm (1/4") TRS: Tip=hot, Ring=cold, Sleeve=ground
<b>Phantom Power Protection</b>	Up to 60 V DC
<b>Audio Output</b>	
<b>Connector Type</b>	6.35 mm (1/4") TRS
<b>Configuration</b>	Electronically balanced
<b>Impedance</b>	Connected directly to inputs

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