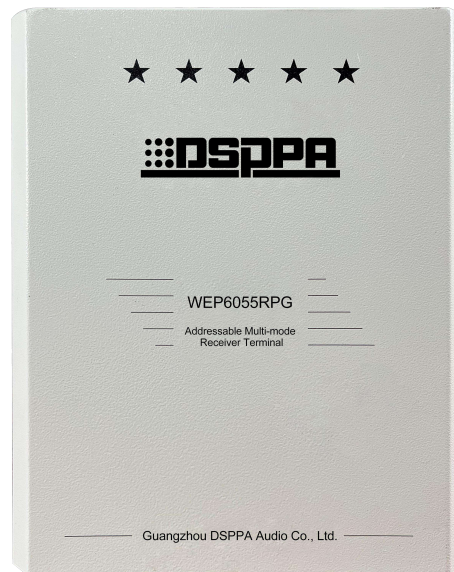# WEP6055RPG

Addressable Multi-mode Receiver Terminal

Description

This terminal is an addressable multi-mode receiver terminal designed specifically for broadcasting systems. It integrates FM reception, audio decoding, signal amplification, and outdoor waterproofing, supporting wireless signal transmission as a professional broadcasting device. The device is powered by DSP digital audio processing technology, delivering high-fidelity audio output. With RDS subcarrier decoding and high-reliability signal encryption technology, it prevents unauthorized interference with broadcasts. The built-in lightning discharge tube protects the device from lightning strikes, ensuring the safety of the broadcasting system. It is suitable for both urban and rural cloud broadcasting systems, and for outdoor or indoor wireless/IP amplification in campuses, factories, parks, squares, amusement parks, and other venues. When used with our wireless transmitter, multifunctional control host, or cloud platform paging station, it forms a complete broadcasting system. It supports IP network management with a built-in 4G/5G module, offering full compatibility with China Mobile, China Unicom, and China Telecom networks, as well as Wi-Fi module connectivity.

Features

- Feature an all-weather waterproof design, suitable for both indoor and outdoor use, offering long lifespan, high sensitivity, and clear, bright amplified sound output.
- Support multi-mode channels, wireless addressable reception, RDS subcarrier decoding, high-reliability encryption methods to ensure broadcast security, and support IP broadcasting, 4G/5G cloud broadcasting, and Wi-Fi broadcast message channel reception.
- With a built-in gas lightning arrester that absorbs high voltage and current, protecting the device from lightning strikes with high reliability.

- Include a digital receiving unit for high-quality audio output.
- Support remote scheduled power-on and digital volume control by the master unit, solving the issue of mechanical potentiometer failure over time.
- Using the DSPPA special control protocol with ultra-high sensitivity reception, it is capable of accurately demodulating control signals even under weak signal conditions.
- Support customizable reception modes to either receive a fixed frequency or automatically track the transmitter frequency, offering exceptional adaptability.
- With a built-in high-fidelity amplifier circuit, with complete protection functions.
- With working status indicator light for easy fault diagnosis.
- With a reserved communication port for convenient parameter setting and future upgrades or maintenance.
- Support multiple power supply options including solar energy, wind energy, and line power (depending on the customer's project requirements).
- Feature automatic standby in the absence of a signal and a mute function for the line output, operating at low power to save energy and extend the device's lifespan.
- Equipped with a unique physical code (non-rewritable) and a remotely modifiable resource code.
- Include a power-on broadcast volume fade-in function, with continuous volume adjustment for daily broadcasts and fixed volume for emergency broadcasts.
- Offer remote Web management function, allowing settings for IP address, server address, receiving frequency, and resource coding parameters.
- Support remote configuration of operational parameters via the management platform (including volume and frequency).
- Support zone-based broadcasting and volume control.
- Capable of receiving and processing upper-level FM signals, demodulating audio signals, and performing corresponding broadcast/start/stop actions.
- Capable of receiving and processing upper-level IP signals (wired and 4G/5G), demodulating both audio and control signals, and performing corresponding broadcast/start/stop actions.
- Equipped with a one-click reset function and amplifier output short-circuit protection.

Specifications

Model		WEP6055RPG
Function Modules	Parameters	Technical Specifications
FM Receiving Section	Receiving Frequency	76-108MHz
	Frequency Response	180Hz-15KHz
	S/N Ratio	≥60dB
	Receiving Sensitivity	2-100dBuV
	Data Demodulation	57KHz, RDS encoding
Network Audio Decoding	Decoding or Encoding	MPEG-1 Layer 2
	Sampling Rate	48KHz
	Sampling Accuracy	24-bit
	Bit Rate	64Kbps
Line Output and Interface Section	1 IP Input	100/1000Mbps, UDP protocol
	Output Interface	2 RCA outputs
	Antenna Interface	1 WIFI antenna, 1 4G antenna, 1 RDS antenna
	Output Level	1Vrms

	Output Impedance	≤100Ω
	Frequency Response	180Hz-15KHz
	S/N Ratio	≥60dB
	Distortion	≤0.3%
	USB Communication Method	USB/TTL serial port
SIM Card Slot	4G/5G Module	Universal network compatibility
Power Supply Section	Two-Channel Peak Audio Output Power	≥25W/8Ω (THD=0.5%)
	Standby Power Consumption	≤0.85W
	Maximum Load Power Consumption	≤60W
	Voltage and Frequency	AC100-240V/50Hz
Package	Device Weight	3KG
	Inner Package Dimensions	290mm*240mm*150mm
	Outer Package Dimensions	592mm*500mm*313mm (8 units per outer box)

Front / Rear Panel
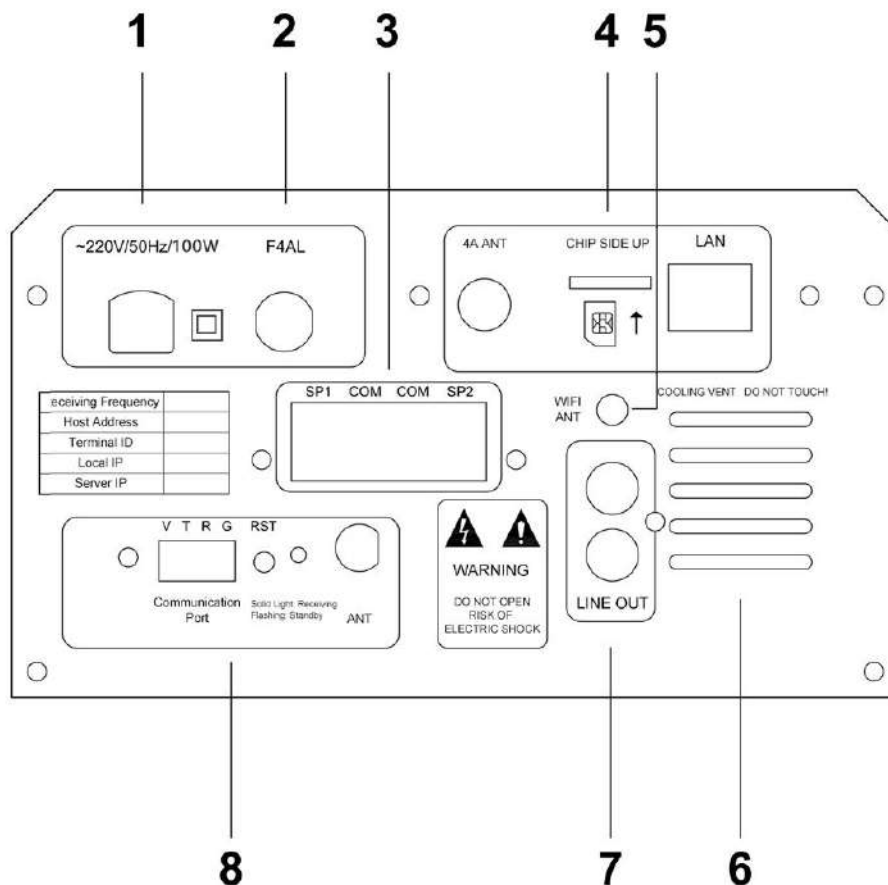
1. AC220V/50Hz/50W Power Input Connection Cable.

2. AC220V Power Fuse (4A).

If the power fuse blows, replace it with a fuse of the same specifications. If the fuse blows repeatedly, it indicates an internal fault. Please eliminate the fault before replacing the fuse.

3. 8Ω/25W Dual Amplifier Output Interface.

Connect to 8Ω constant-resistance speakers.

4. 4G Antenna, SIM Card, Network Port.

5. WIFI Antenna Interface (Operating temperature for WIFI network function: -20℃-50℃).

6. Cooling Ventilation Window.

The ventilation window must not be blocked under any circumstances.

7. Audio Line Output Interface.

Can be connected to a power amplifier.

8. (1) Antenna Interface.

Connect the antenna for RDS wireless reception; connect the coaxial cable for RDS wired reception.

(2) Terminal Working Status Indicator.

The indicator light is solid when the terminal is receiving a signal; it flashes when the terminal is in standby mode.

(3) Reset Button.

Press and hold the reset button for 20 seconds to restore the device to factory settings.

(4) USB Communication TTL Serial Port.

For upgrading, debugging, and maintenance. (For IP/4G/5G versions, do not use this port to insert a Bluetooth configurator to modify parameters.)