

WEP6050RPG

Addressable Multi-mode Receiver Terminal



Description

WEP6050RPG is an addressable multi-mode receiver terminal specially developed for broadcasting systems. This professional device integrates FM reception, audio decoding, signal amplification, and outdoor waterproofing into a single unit, and supports wireless signal transmission. Powered by DSP digital audio processing technology, it delivers high-fidelity audio output. It features RDS subcarrier decoding and high-reliability signal encryption to prevent unauthorized broadcast injection. The built-in lightning discharge tube protects the device from lightning, effectively ensuring system safety. It is suitable for urban and rural cloud broadcasting systems, and for outdoor or indoor wireless/IP sound reinforcement in schools, factories, parks, squares, amusement parks, and other venues. When used with the company's wireless transmitter, multifunctional control unit, or cloud platform paging device, it can form a complete broadcasting system. The built-in 4G/5G wireless module supports IP network management and full compatibility with major carriers (China Mobile, China Unicom, and China Telecom), and also supports WiFi network connectivity.

Features

- The column speaker adopts a waterproof 4-unit mid-high frequency driver design, suitable for both indoor and outdoor use, delivering clear and bright sound.
- Supports RDS FM, wired IP, 4G, and Wi-Fi reception, and can operate across network segments.
- Built-in gas discharge lightning protection tube absorbs high voltage and strong current, safeguarding the device against lightning strikes with high reliability.

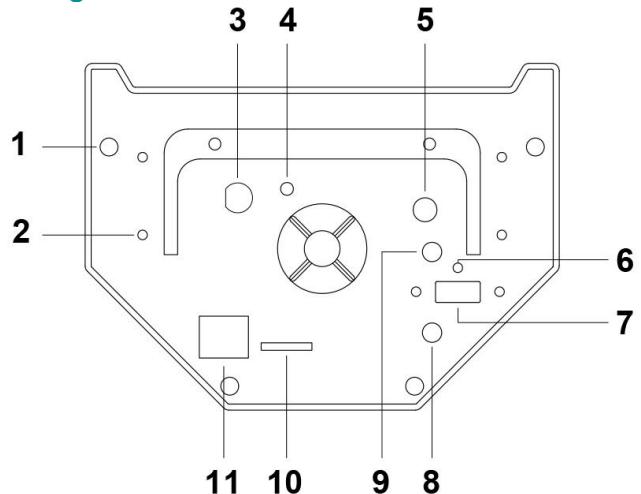
- Supports digital audio decoding with up to 48 kHz sampling rate and 16-bit resolution.
- Supports remote scheduled power-on and digital volume control via the host system, eliminating issues with mechanical potentiometers over time.
- Interfaces include: 1 × RJ45 port, 1 × 4G antenna port, 1 × Wi-Fi antenna port, 1 × F-type RDS antenna port, 1 × USB communication port, 1 × reset button, 1 × SIM card slot, and 1 × status indicator LED.
- Operating status indicator LED facilitates troubleshooting.
- Reserved communication port allows for parameter configuration and firmware upgrades.
- Auto-standby function when no signal is detected, ensuring low power consumption and extended device lifespan.
- Features a unique physical code (non-modifiable) and a remotely configurable resource code.
- Supports volume fade-in during broadcasts; normal broadcast volume is continuously adjustable, while emergency broadcast volume is fixed.
- Remote web management function allows configuration of IP address, server address, reception frequency, resource code, and other parameters.
- Supports remote configuration of operational parameters via the management platform (including volume, FM frequency, etc.).
- Supports zonal broadcast control.
- Network configuration supports return channel functionality.
- Built-in high-performance microphone allows remote monitoring of the column speaker sound in real time.
- One-key factory reset function; the amplifier features short-circuit protection.
- FM range: 76–108 MHz; frequency response: 120 Hz–15 kHz; SNR ≥ 56 dB.
- Supports digital audio decoding at up to 48 kHz/16-bit and uploading of audio files in MP3, WAV, FLAC, AAC, OGG, WMA, WV, AC3, AMR, APE, M4A, M4R, MP2 formats, and video files in AVI, MKV, MPEG, MP4, WMV, MOV, 3GP, RMVB, FLV, F4V, TS formats.
- Network decoding frequency response: 100 Hz–18 kHz; SNR ≥ 78 dB; maximum sound pressure level > 104 dB.
- Continuous power output: 50 W (conditions: 1 kHz sine wave, full frequency THD ≤ 1%, dual channel 8 Ω); amplifier includes protections for power, temperature, and short circuits.
- The column speaker features self-diagnostic audio functionality.

Specifications

Model		WEP6050RPG
FM Reception	Reception Frequency	76-108MHz
	Frequency Response	100Hz-18KHz
	SNR	≥56dB
	FM RF Signal Input Level	2-100dBuV
	Data Demodulation	57 kHz, RDS encoding
Power & Communication	Power	25W× 2 / 8 Ω, Four-speaker Unit Structure
	Frequency Response	100Hz-18KHz
	Total Harmonic Distortion	≤0.5%(1KHz)
	Communication Method	USB TTL232/9600bps
Network Audio Decoding	1-Way IP Input	100/1000Mbps, UDP Protocol
	Decoding/Encoding	MPEG-1 Layer 2
	Sampling Rate	48KHz
	Sampling Precision	24-bit
	SNR	≥78dB

	Bitrate	64Kbps
	Effective Frequency Range	100Hz-18KHz
	Max. SPL	104dB
Power Supply	Standby Power Consumption	≤3W
	Full Load Power Consumption	≤80W
Package	Voltage & Frequency	AC100-240V/50Hz
	Product Net Weight	5.2KG
	Carton Dimensions	722mm×300mm×210mm

Front / Rear Panel



1. Speaker bottom cover fixing screw holes (4 screws).
2. M3 Screw Holes (4 pcs).
3. RDS emergency reception F-type connector.
4. Reset button: press and hold for 20 seconds to restore factory settings.
5. AC 220 V power input.
6. Status indicator: steady on indicates the terminal is under host control; flashing indicates the column speaker is in standby.
7. Configuration port: used with Bluetooth module for parameter configuration or maintenance.
8. WiFi antenna interface.
9. 4G antenna interface.
10. SIM card slot.
11. RJ45 network port.