

PAS-NBS20 | High-Performance Network PoE Box Speaker 15/20 Watt



Key features

- 15 W via PoE; 20 W via PoE+ or 20 W 24 V DC for flexible deployment.
- High-Speed Dual-Core Processing: Advanced ARM + DSP chip for superior performance.
- Versatile Voice Encoding: Supports narrowband (G.711a/u) and broadband (G.722) for clear audio.
- Dynamic Volume Control: Adjusts automatically to ambient noise.
- SIP PBX interoperability plus multicast with at least 10 addresses and priority.
- Web UI, remote management, online firmware upgrade, and serverless HTTP push/SDK triggers.
- At least 2x alarm inputs with action mapping and 1x relay output for integrations.
- ONVIF pull with credentials, RTSP configuration, and acoustic loop self-check status.

Product Overview

The Macsys PAS-NBS20 is a cutting-edge communication device designed to deliver superior audio performance and flexibility. It employs a high-speed, industrial-grade dual-core chip combining ARM and DSP technologies, ensuring robust processing power for optimal performance. The device supports versatile voice encoding options, including both narrowband (G.711a/u) and broadband (G.722), providing crystal-clear voice paging for various applications.

The PAS-NBS20 is engineered to handle paging from SIP phones through 10 dedicated multicast addresses, enhancing its efficiency and scalability. Its multicast scalable function optimizes SIP account resources, making it a practical choice for expansive systems. Fully compatible with standard SIP protocols, the PAS-NBS20 integrates seamlessly with SIP PBX systems.

Additionally, the device supports multiple functionalities, including background music, emergency paging, and alarm signals, all managed through the Macsys management system. It features dynamic volume control that adjusts automatically based on ambient noise levels to ensure consistent audio quality. The PAS-NBS20 offers flexible deployment options with DC 24V, PoE and PoE+ interface support, making installation straightforward and adaptable. Furthermore, its Management is streamlined through web configuration, remote administration, and online firmware upgrades, while scheduling supports server-pushed tasks and HTTP push/SDK for serverless triggers. Integration extends to ONVIF pull with credentials, configurable RTSP, alarm I/O with action mapping, and acoustic loop self-check with server-side status display.

Technical Specification

Feature	Details
Product	20 Watt Network-powered wall/box speaker for IP paging, background music, and emergency alerts in SIP and multicast audio systems.
Power options	15 W via PoE; 20 W via PoE+ or 20 W 24 V DC.
Power supply modes	IEEE 802.3af PoE, PoE+, and DC 24 V/1A supported.
Standby draw	≤3 W in standby.
Processing architecture	High-performance dual-core architecture (e.g., ARM + DSP) for audio handling.
Voice codec support	G.711a/u and G.722.
SIP compatibility	Register and operate with standard SIP PBX platforms; configurable SIP/NAS.
Multicast reception	Receive multicast paging; minimum 10 multicast addresses with priority.
Multicast efficiency	Function to optimize/reduce SIP account usage via multicast.
Acoustic output (SPL)	Maximum SPL approximately 90 dB ±3 dB.
Frequency range	100 Hz - 18 kHz.
Audio sampling/bitrate	8kHz~44.1kHz, 16bit, 8kbps~320kbps.
Sensitivity:	88dB±3dB (1W, 1m)
Ambient noise handling	Automatic ambient noise-based volume (ANC) with calibration and modes.
Task handling priority	Configurable task priority: SIP/NAS > Audio file > Multicast > ONVIF > Line-in.
Alarm inputs	At least 2x alarm inputs (level/edge, NO/NC) with action mapping to file/call.
Alarm relay	1x relay output (NO/NC/COM).
Audio I/O	Line-in provided for external source; input threshold calibration available.
Network Protocol	TCP/IP, UDP, ARP, ICMP, IGMP.
Video/security integration	ONVIF pull enable with credentials; RTSP port configurable.
Management	Web-based configuration, remote management, and online firmware upgrade.
Scheduling/automation	Server-pushed regular tasks; supports HTTP push/SDK tool for serverless task trigger.
Feedback/diagnostics	Acoustic loop self-check with server-side status display.
Time sync	Time zone and NTP server configurable.
Security options	Ability to disable ICMP; toggle Telnet; FTP file transfer option.
Environmental ratings	Operating temperature -20°C to 50°C; humidity 10--90% RH non-condensing.
Mounting Method:	Wall-mounted
Installation Environment:	Dry Indoor Locations Only
Casing Material:	UL94-V0 rated ABS Resin (Thickened/Flame Retardant)

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Feature	Details
Grille Material:	Surface Spraying
Grille Surface Treatment:	Metal Mesh Plate
Color	Off-White
Product Dimensions	292x193x151.5mm
Product Weight:	2.4KG
Accessories	1×2-Pin Pluggable Terminal Block Connector (3.81mm Pitch,AWG 26-16),1×4-Pin Pluggable Terminal Block Connector,1×Waterproof Joint, 1×Quick Installation Guide,1×Quality Certificate&Warranty Card, 1×Wall Mounting Bracket
Certifications	CE, RoHS Compliance.

Dimension

