IP POWER AMPLIFIER 12W IP-A1PA12

■DESCRIPTION

The IP-A1PA12 is a compact 12 W amplifier which is designed to amplify audio signals received through network. It is equipped with 25 V, 70 V and 100 V speaker line outputs to drive wide range of high impedance speakers. With an external amplifier input capability, speaker(s) can be driven by internal amplifier or external amplifier by switching over. It allows integrations with IP camera systems by using ONVIF protocol, paging from IP phone systems by using SIP protocol and group broadcast by multicast streaming. Max. 20 audio files can be registered and they can be played back by control inputs or remote API (HTTP/HTTPS) commands.

■SPECIFICATIONS

Power Source	PoE+ (IEEE802.3at Class 4)
Power Consumption	25 W (rated output) 6 W (IEC62368-1)
Amplifier Rated Output	12 W
Frequency Response	100 Hz – 20 kHz
Audio Codec	Opus, PCMU (G.711u), PCMA (G.711a), G.722
Audio Delay Time	Min. 100 ms (*1)
Broadcasting Mode	SIP Broadcasting/SIP calling Mode: Opus/PCMU/PCMA/G.722, P2P/SIP Server Connection Multicast Broadcasting Mode: Opus/PCMU/PCMA/G.722 Auto codec recognition, 20 ports VMS Broadcasting Mode: PCMU Internal Message Broadcasting Mode Local Broadcasting Mode: Output from LINE/MIC IN to SPEAKER OUT Note: Each broadcast mode can be assigned an order of priority using the Priority Setting function.
Sound Source Files	Max. 20 files (File storage capacity: 80 MB total) Supported file formats: WAV file: 8/16/44.1/48 kHz sampling frequency, 8/16 bit, monaural/stereo MP3 file: 32/44.1/48 kHz sampling frequency, 64 – 320 kbps, CBR/VBR, monaural/stereo Repeat playback: Playcount (1 – 10 times), Duration (5 – 3600 sec) or Timer (from Start time to End time) Interval time: 0 – 99 sec, Delay time: 0 – 99 sec Trigger: Control Input or Remote API (HTTP/HTTPS)
Chime	Pre and post chime tones (applied for Incoming SIP Call and internal audio file broadcast) Preset chime tone ×5, editable tone ×2
Network I/F	100BASE-TX, Auto MDI/MDI-X, RJ45
Network Protocol	IP, TCP, UDP, TLS, HTTP, HTTPS, RTP, SRTP, RTSP, RTCP, SRTCP, ARP, ICMP, IGMPv3, NTP, SIP (RFC3261), SIPS, SIP-TLS, DHCP
Speaker Output	High impedance 100 V line (830 Ω), 70 V line (420 Ω), 25 V line (52 Ω) N (100 V), N (70 V/25 V switchable), R, C removable terminal block (4pins)
External Amplifier Input	High impedance 100 V line, 70 V line, 25 V line N (100 V), N (70 V/25 V switchable), R, C removable terminal block (4pins)
Amplifier Switching Control	Relay switching Swithced to external amplifier when the following functions and operations are activated: mute control input, control input, system mute, remote API control and the unit power off.
Audio Input	1 channel, electronically-balanced, 10 kΩ LINE/MIC selectable (Rated input: LINE: 0 dB (*2), MIC: −60 dB (*2)) PAD function (−20 dB (*2)), Phantom power ON/OFF (12 V DC), volume adjustable removable terminal block (6 pins)
Audio Output	1 channel, electronically-balanced, 600 Ω or less Rated input: 0 dB (*2), removable terminal block (6 pins)
Control Input	2 channels, no-voltage make contact inputs, open voltage: 5 V DC, short-circuit current: 2 mA or less, removable terminal block (6 pins)
Mute Control Input	1 channel, 24 V DC cut-off signal, control current: 5 mA or less, non-polar, removable terminal block (2 pins)
Control Output	1 channel, open collector output, withstand voltage: 30 V DC, control current: 150 mA or less, removable terminal block (6 pins)
Indicator	STATUS (green/blue/yellow/red), LINE/MIC IN (green/red), OUTPUT (green), LINK/ACT (green)
Clock Accuracy	±13 seconds per month
Time Adjustment	Manual time setting, Time adjustment by NTP server
Power Outage Protection Period	24 hours (RTC time retention, at +40 °C (104 °F))
Language	English/Japanese
Feature Expansion	Device Connectivity Cloud Service (*3)
Operating Temperature	−30 °C to +55 °C (−22 °F to 131 °F)
Operating Humidity	90 %RH or less (no condensation)
Finish	Front case: Surface-treated steel plate, black, paint Rear chassis: Surface-treated steel plate
Dimensions	210 (W) × 44 (H) × 81.5 (D) mm (8.27" × 1.73" × 3.21") (excluding projection)

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Weight	940 g (2.07 lb)
Accessory	Removable terminal plug (6 pins, preinstalled on the unit) ···2, Removable terminal plug (4 pins, preinstalled on the unit) ···2, Removable terminal plug (2 pins, preinstalled on the unit) ···1, Rubber feet ···4, Mounting screw (B tight 3 × 6) ···4
Option	Rack mounting bracket: MB-15B-BK (for rack mounting one IP-A1PA12 unit) (*4) Wall mounting bracket: MB-15B (for wall mounting)

(*1) When the mode of local broadcasting is set to Normal, assume audio delay time. Audio input can be output with no delay when the mode of local broadcasting is set to No Delay.
(*2) 0 dB = 1 V
(*3) Available only in Japan. A separate service contract is required.
(*4) Not compatible with jointing 2 units using MB-15B-J.
※ ONVIF is a registered trademark of ONVIF Inc.

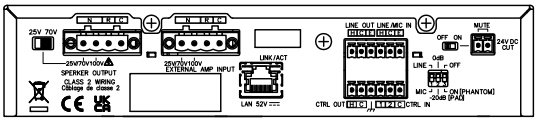
※ These specifications apply to the firmware version 3.6.0 or later. For the latest specifications and firmware, please refer to the TOA DATA Library (https://www.toa-products.com/international/).

Personal Computer Requirements

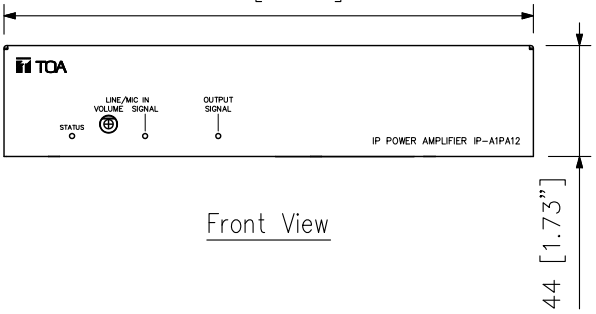
Display	1920 × 1080 resolution or greater
OS	Windows 10 Pro (64-bit edition) Windows 10 Home (64-bit edition) Windows 11 Pro Windows 11 Home
Required Web Browser	Google Chrome Microsoft Edge

※ Windows and Microsoft Edge are registered trademarks of Microsoft Corporation in the United States and other countries.
※ Google Chrome is the trademark of Google LLC in the United States and other countries.
※ Other company names and products are also trademarks of individual companies.

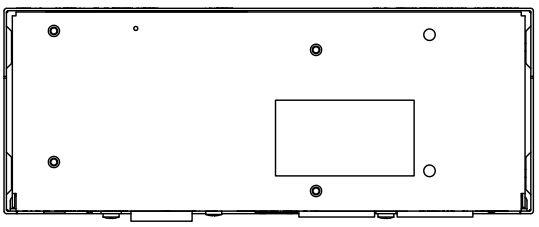
APPEARANCE



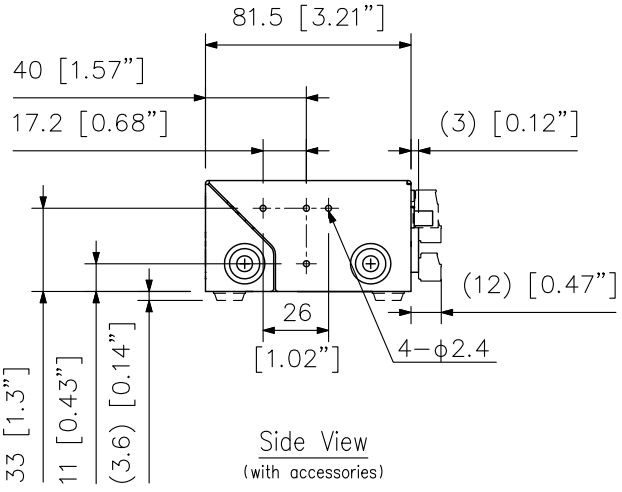
Rear View



Front View



Bottom View



Side View
(with accessories)

UNIT: mm SCALE: 1/3

Note: Numerical values in parentheses are for reference only.