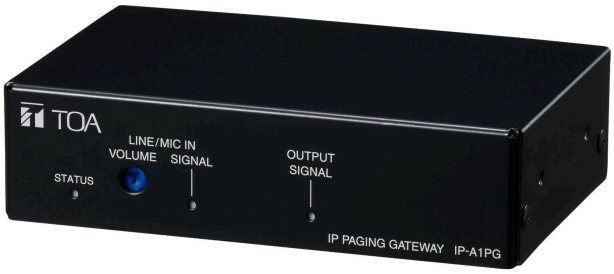
IP-A1PG

IP PAGING GATEWAY



The IP-A1PG is a PoE-powered Gateway Unit that integrates multiple IP Audio devices by converting audio from Video Management Systems using ONVIF or SIP voice from SIP phone systems into multicast audio streaming. It can also transmit built-in sound source or input audio as multicast audio streaming. Moreover, the event broadcasting triggered by control input, scheduler or remote API (HTTP/HTTPS) as well as the command set that sends multiple HTTP/HTTPS commands simultaneously are also available.

Key features

- Convert SIP audio, ONVIF, internal audio files or local audio source into Multicast streaming
- GUI calendar scheduler function (up to 2,000 settings)
- System mute function to mute all broadcasts made by every single IP-A1 series devices within the same network
- 1 local audio input (LINE/MIC selectable, phantom power On/Off)
- 4 control inputs and 1 control output
- HTTP/HTTPS commands (receive/send)
- Audio file storage (20 files, total 80MB, WAV/MP3)
- PoE powered

Specifications

Power Source	PoE(IEEE802.3af Class 3)
Power Consumption	2.5 W
Audio Codec	Opus, PCMU (G.711u), PCMA (G.711a), G.722
Audio Delay Time	Min. 100 ms(*1)
Audio Transmission Method	Multicast Audio Streaming
Network I/F	100BASE-TX, Auto MDI/MDI-X, RJ45 connector
Network Protocol	IP, TCP, UDP, TLS, HTTP, HTTPS, RTP, SRTP, RTSP, RTCP, SRTCP, ARP, ICMP, IGMPv3, NTP, SIP (RFC3261), SIPS, SIP-TLS, DHCP
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)
Control Input	4 channels, no-voltage make contact inputs, open voltage: 5 V DC, short-circuit current: 2 mA or less, removable terminal block (6 pins)
Control Output	1 channel, open collector output, withstand voltage: 30 V DC, control current: 150 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)
Monitor Output	1 channel, unbalanced, 600 Ω or less Rated output: 0 dB (*2), RCA pin jack
Indicator	STATUS (green/blue/orange/red), LINE/MIC IN (green/red), OUTPUT (green),LINK/ACT (green)
Functions	
Broadcasting	Audio transmission Transmit internal messages by multicast audio streaming Transmit audio from audio input connected devices by multicast audio streaming Audio conversion Convert SIP voice to multicast audio stream and transmit Convert audio from Video Management Systems using ONVIF to multicast audio stream and transmit
Scheduler	Scheduled broadcasting and control by WEB-UI (Max. schedule settings: 2000) Configurable actions: Internal message broadcast, audio input broadcast, control output, command set transmission
Event	Execute event triggered by control input Configurable actions: Internal message broadcast, audio input broadcast, command set transmission, broadcast disable, system mute
Sound Source Files	Max. 20 files (File storage capacity: 80 MB total) Supported fie format: 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) or Duration (5 - 3600 sec) Interval time: 0 - 99 sec, Delay time: 0 - 99 sec Control trigger: scheduler, control input, remote API (HTTP/HTTPS)
Chime	Pre and post chime tones (applied for Incoming SIP Call and internal audio file broadcast) Preset chime tone x 5, editable tone x 2
Command Set	20 commands can be registered in each of 10 command sets, GET method, POST method
Clock Accuracy	±13 seconds per month
Time Adjustment	Manual time setting, Time adjustment by NTP server

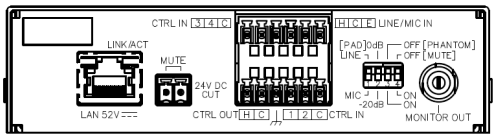
Power Outage Protection Period	24 hours (RTC time retention, at 40 °C (104 °F)
Feature Expansion	Device Connectivity Cloud Service (*3)
Operating Temperature	-30 °C to +55 °C (-22 °F to 131 °F)
Operating Humidity	90 %RH or less (no condensation)
Finish	Front case: Surface-treated steel plate, black, paint Rear chassis: Surface-treated steel plate
Dimensions	126 (W) x 33 (H) x 80 (D) mm (4.96" x 1.3" x 3.15") (excluding projection)
Weight	390 g (0.86 lb)
Included Accessories	Removable terminal plug (6 pins, preinstalled on the unit) x 2, Removable terminal plug (2 pins, preinstalled on the unit) x 1, Rubber feet x 4, Mounting screw (M3 x 6) x 4

(*1) When using Monitor output, assume an audio delay time.
(*2) 0 dB = 1 V
*ONVIF is a registered trademark of ONVIF Inc.
*These specifications apply to the firmware verion 3.6.0 or later. For the latest specifications and firmware, please refer to the TOA DATA Library (https://www.toa-products.com/international/)
(*3) Available only in Japan. A separate service contract is required.

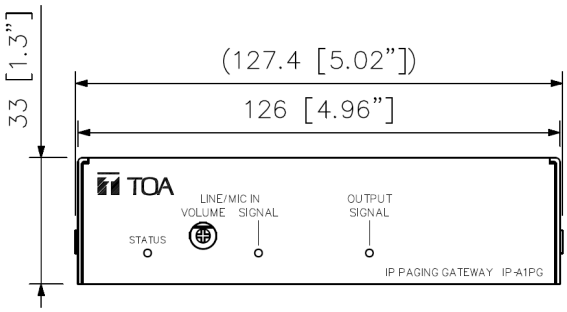
PC requirements

PC Requirements	
Display	1920 x 1080 resolution or greater
OS	Windows 10 Pro (64 bit edition) Windows 10 Home (64 bit editon) Windows 11 Pro Windows 11 Home
Web Browser	Google Chrome Microsoft Edge

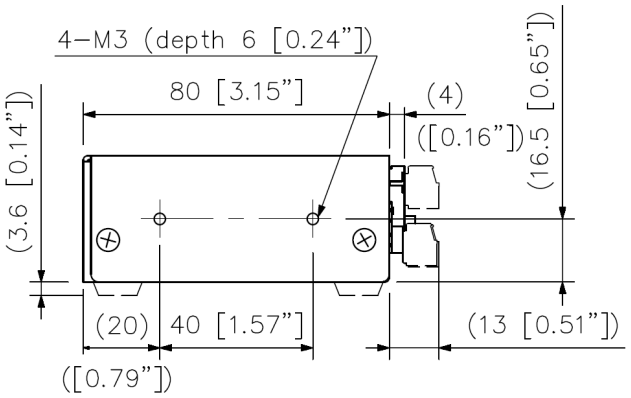
Dimensions



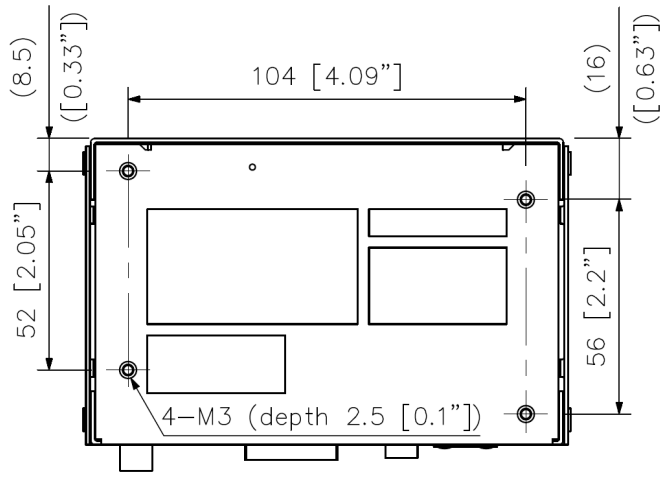
Rear View



Front View



Side View
(with accessories)



Top View

UNIT: mm

Note: Numerical values in parentheses are for reference only.

A&E specifications

The IP paging gateway unit shall be able to convert multiple IP audio protocols such as SIP, ONVIF as well as built in analog audio input signals into multicast streaming for delivering audio to multiple IP speakers and/or other IP endpoints for the purpose of site wide simultaneous paging applications.The IP paging gateway shall have an electronically balanced 10k Ω audio input with LINE/MIC selection with switchable ON/OFF 12 V DC phantom power and a 600 Ω electronically balanced monitoring output. The audio input shall have an independent volume control on the front panel that can be adjusted only by using a screwdriver.Twenty multicast ports shall be available for group paging and shall have the facility of storing up to twenty audio files with the code of WAV or MP3 format internally. The device shall have the flexibility of broadcasting these files from a calendar schedule at predetermined times or repeated when necessary triggered from a control input, or from remote API (HTTP). The IP paging gateway shall be capable of muting other TOA IP-A1 series devices such as IP-A1AF, IP-A1PC238, IP-A1PC580R or IP-A1PC580S within the same network.Remote settings shall be achieved by connection to a Windows® based personal computer and by using the PC's browser, operational settings, functions and system status can be established.The IP paging gateway unit shall have four control inputs and one control output with an additional 24 V DC mute contact.The IP paging gateway shall offer priority status among the various broadcast modes that will override and interrupt a lower priority broadcast.Power source shall be supplied from a PoE switching hub.The IP paging gateway shall be housed in black treated steel plate and its dimension shall be 126 (W) x 33 (H) x 80 (D) mm (4.96" x 1.3" x 3.15") weighing 390 g (0.86 lbs).Manufacturer: TOA Corporation
Model: IP-A1PG