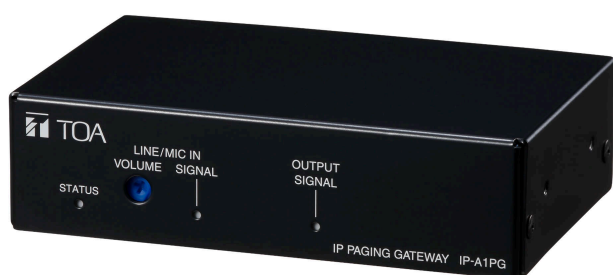


## IP-A1PG

### 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) as well as the command set that sends multiple HTTP 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 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               | TCP/IP, UDP, HTTP, RTP, RTSP, RTCP, ARP, ICMP, IGMPv3, NTP, SIP(RFC3261)                                                                                                                                                                                                                                                                                                      |
| Audio Input                    | 1 channel, electronically-balanced, 10 k $\Omega$<br>LINE/MIC selectable (Rated input: LINE: 0 dB (*2), MIC: -60 dB (*2)<br>PAD function (-20 dB (*2), Phantom power ON/OFF (12 V DC), volume adjustable<br>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 $\Omega$ or less<br>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<br>Transmit internal messages by multicast audio streaming<br>Transmit audio from audio input connected devices by multicast audio streaming<br>Audio conversion<br>Convert SIP voice to multicast audio stream and transmit<br>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)<br>Configurable actions: Internal message broadcast, audio input broadcast, control output, command set transmission                                                                                                                                                                              |
| Event                          | Execute event triggered by control input<br>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)<br>Supported file format:<br>WAV file: 8/16/44.1/48 kHz sampling frequency, 8/16 bit, monaural/stereo<br>MP3 file: 32/44.1/48 kHz sampling frequency, 64 - 320 kbps, CBR/VBR, monaural/stereo<br>Repeat playback: Playcount (1 - 10 times) or Duration (5 - 3600 sec)<br>Interval time: 0 - 99 sec, Delay time: 0 - 99 sec |
| Command Set                    | 20 commands can be registered in each of 10 command sets                                                                                                                                                                                                                                                                                                                      |
| Clock Accuracy                 | $\pm 13$ 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))                                                                                                                                                                                                                                                                                                                              |
| 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<br>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

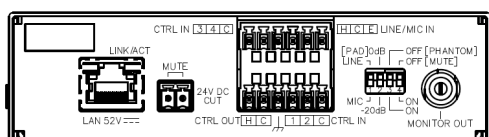
\*ONVIF is a registered trademark of ONVIF Inc.

\*These specifications apply to the firmware version 3.1.0 or later. For the latest specifications and firmware, please refer to the TOA DATA Library (<https://www.toa-products.com/international/>)

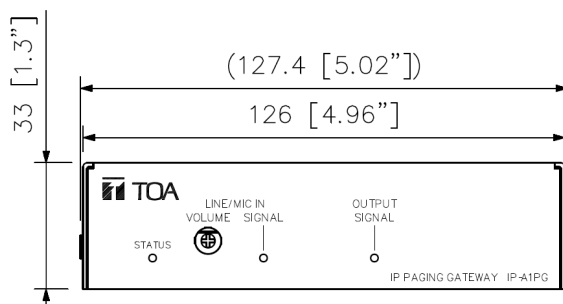
## PC requirements

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

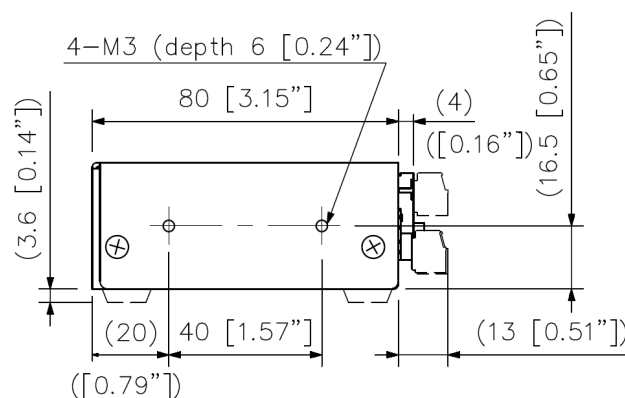
## Dimensions



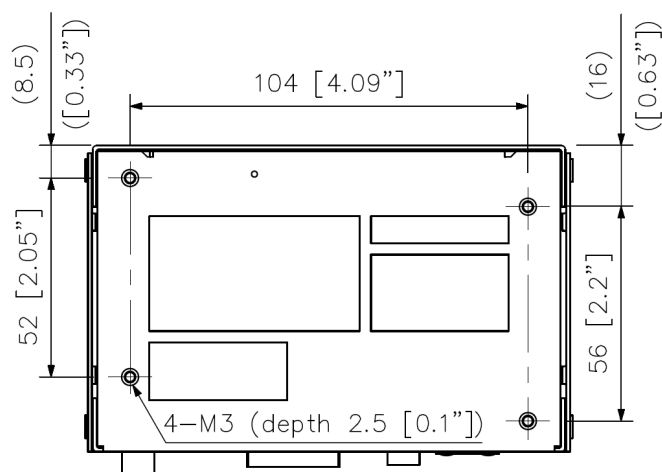
Rear View



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  $\Omega$  audio input with LINE/MIC selection with switchable ON/OFF 12 V DC phantom power and a 600  $\Omega$  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