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## IP Paging Gateway Unit

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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 multi-cast 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

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## IP Audio Interface

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The IP audio interface shall be able to convert analogue and digital audio streams from SIP, ONVIF or Multicast for example, into analogue signals for the purpose of broadcasting public announcements. Broadcast shall be able to be controlled using remote HTTP control API or control inputs from connected external equipment and local inputs.

The IP audio interface shall have an internal 15-watt Class D type amplifier for the purpose of driving external 8  $\Omega$  low impedance loudspeakers and the system shall be able to be expanded by utilizing audio and control outputs to an external amplifier and loudspeakers.

The IP audio interface shall offer priority status among the various broadcast modes that will override and interrupt a lower priority broadcast.

The IP audio interface shall have an electronically balanced 10k  $\Omega$  audio input with LINE/MIC selection and a 600  $\Omega$  electronically balanced output. The audio input shall have an independent volume control on the front panel that can only be adjusted by using a screwdriver.

Twenty multi-cast 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 at predetermined times by setting the start and end time along with the day(s) of the week, or repeated, when necessary, triggered from a control input or from remote API (HTTP). The IP audio interface shall be capable of being muted by TOA IP-A1PG Paging Gateway as the highest priority operation. 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.

Power source shall be supplied from a PoE+ switching hub.

The IP audio interface 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-A1AF

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## Microphone Panel

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The microphone panel shall be equipped with an omni-directional electret condenser microphone, momentary type push switch and a status indicator. It shall be able to be installed with a standard electrical box as surface or flush mounting.

The microphone panel shall have an electronically balanced 200Ω microphone output with a push-in terminal block. The microphone output volume level shall be adjustable.

The microphone panel shall have a no-voltage make contact input and an output with push-in terminal block for external controls. The control output circuit shall be automatically closed while the push switch is pressed.

The status indicator shall be lit when the control input is activated while phantom power is supplied.

The microphone panel shall be housed in white treated steel plate and an accessory ABS resin white plate shall also be supplied for electrical box installation.

The dimension shall be 44.6 (W) x 107 (H) x 29 (D) mm (1.76" x 4.21" x 1.14") weighing 170 g (0.37 lbs.)

### Optional extras:

Flush mount box: YC-801

Wall-mount box: YC-802

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Manufacturer: TOA Corporation

Model: IP-A1MP

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## IP Power Amplifier

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The IP power amplifier shall be able to amplify audio signals connected to audio input terminals or received through network. It shall be equipped with 25V, 70V and 100V speaker line outputs to drive high impedance loudspeakers with an internal 12-watt amplifier. The IP power amplifier shall be able to receive digital audio streams from SIP, ONVIF or Multicast for example, into analogue signals for the purpose of broadcasting public announcements. Broadcast shall be able to be controlled using remote HTTP control API or control inputs from connected external equipment and local inputs. The IP power amplifier shall be equipped with 25V, 70V or 100V line high impedance external amplifier input. The internal connection to loudspeakers shall be able to be switched between the internal amplifier and an external amplifier by mute control input, control input, system mute, remote API control or the unit power off. The IP power amplifier shall have an electronically balanced 10k  $\Omega$  audio input with LINE/MIC selection and a 600  $\Omega$  electronically balanced output. The audio input shall have an independent volume control on the front panel that can only be adjusted by using a screwdriver. The IP power amplifier shall offer priority status among the various broadcast modes that will override and interrupt a lower priority broadcast. The IP power amplifier shall be capable of being muted by TOA IP-A1PG IP Paging Gateway or IP-A1RM IP Remote Microphone as the highest priority operation. Twenty multi-cast 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 at predetermined times by setting the start and end time along with the day(s) of the week, or repeated, when necessary, triggered from a control input or from remote API (HTTP). The IP audio interface shall be capable of being muted by TOA IP-A1PG Paging Gateway or TOA IP-A1RM Remote Microphone as the highest priority operation. 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.

Power source shall be supplied from a PoE+ switching hub.

The IP power amplifier shall be housed in black treated steel plate and its dimension shall be 210 (W) x 44 (H) x 81.5 (D) mm (8.27" x 1.73" x 3.21") weighing 940 g (2.07 lbs).

Optional extras: Rack mounting bracket: MB-15B-BK, Wall mounting bracket: MB-15B

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Manufacturer: TOA Corporation

Model: IP-A1PA12

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## IP Horn Loudspeaker

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The IP horn loudspeaker shall be able to support various standard network protocols and forums such as API (Application Programming Interface), and shall be able to complement VMS (Video Management System) and other network video integration systems.

For the deployment of multiple speakers, multi-cast paging shall be made possible via a SIP microphone or telephone.

The device shall be protected against the ingress of water and dust to IP 66 standards and shall be SIP compliant to broadcast clear and intelligible messages over a wide area via a single network cable.

There shall be two no-voltage control input and an open collector output for broadcast; internal audio source, calling to a SIP telephone and an external beacon, etc.

Remote settings of the IP horn loudspeaker shall be achieved by connection to a Windows® based personal computer and by using the PC's browser, operational settings, functions, speaker volumes and system status can be achieved.

The frequency response of the loudspeaker shall be between 280 Hz – 12.5 kHz measured on axis with a Sound Pressure Level (SPL) of 124 dB measured at 1 meter with a power input of 15 watts or 121dB with a power input of 8 watts measured at 1 meter. The internal class-D amplifier shall be capable of producing up to 8 watts of power using PoE and up to 15 watts of power when using PoE+.

The IP horn loudspeaker shall operate in temperature conditions of between -30 to + 55 °C (-22 to 131 °F) and shall be constructed from aluminum with an ABS resin reflector horn finished in an off-white (RAL 9010 equivalent), bracket, screws and bolts shall be stainless steel. Dimensions shall be 222(W) ×211(H) ×276(D) mm (8.74" × 8.31" × 10.87 ") weighing 1.4kg (3.09 lb).

Optional extras:

Speaker Mount Bracket: SP-131, SP-201, SP-301

Pole Band: YS-60B

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Manufacturer: TOA Corporation

Model: IP-A1SC15

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## IP Ceiling Mount Loudspeaker

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The IP ceiling mount loudspeaker shall be of an in-ceiling type design, with a full lightweight metal construction with no visible fixings and a discreet outer bezel of only 5 mm. Installation shall be via pre-mounted springs allowing it to be mounted quickly and easily into ceilings with a thickness of between 5 – 25 mm (0.2" – 0.98").

The IP ceiling mount loudspeaker shall be SIP compatible to broadcast clear and intelligible VoIP messages via a single network cable and shall support various standard network protocols and forums such as ONVIF (Open Network Video Interface Forum) and shall be able to complement VMS (Video Management System) and other audio network integration systems. Twenty multi-cast ports shall be available for group paging.

The IP ceiling mount loudspeaker 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 at predetermined times by setting the start and end time along with the day(s) of the week or repeated when necessary and triggered from a control input, or remote API (HTTP). There shall be two controlled inputs and one controlled output.

The IP ceiling mount loudspeaker shall be capable of being muted by TOA IP-A1PG Paging Gateway as the highest priority operation.

Remote settings of the IP ceiling mount loudspeaker 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.

There shall be an internal class-D amplifier capable of producing up to 8 watts of power.

The loudspeaker shall incorporate a single 16 cm (6") full-range cone-type transducer with a smooth frequency response of 60 Hz to 20 kHz measured on axis with a Sound Pressure Level (SPL) of 94dB measured at 1 metre with a power input of 1 watt or 103dB with a power input of 8 watts measured at 1 metre. The power source shall be supplied from a PoE switching hub.

The dimensions shall be  $\phi 230 \times 89$  mm (d) (9.06" x 3.5") weighing 880 g (1.94 lbs).

The finish of the loudspeaker shall be: Baffle: steel plate, white (RAL 9016 equivalent). Grille: Steel net, white (RAL 9016 equivalent). Mounting bracket: steel plate.

Manufacturer: TOA Corporation

Model: IP-A1PC238

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## IP Ceiling Mount Loudspeaker

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The IP ceiling mount loudspeaker shall be of an in-ceiling type design, with a full robust metal construction that shall include a class D type amplifier capable of producing up to 8 watts of power. The IP ceiling mount loudspeaker shall be SIP compatible to broadcast clear and intelligible VoIP messages via a single Category 5 or greater network cable and shall support various standard network protocols and forums such as ONVIF (Open Network Video Interface Forum) and shall be able to complement VMS (Video Management System) and other audio network integration systems. Twenty multi-cast ports shall be available for group paging. The IP ceiling mount loudspeaker shall have a LINE/MIC input to accommodate an external microphone allowing the possibility to achieve two-way communication (talk-back) or other external audio devices. Switching between LINE/MIC shall be accomplished by using DIP switches. Phantom power shall be available for the microphone as well as an independent volume adjustment. The IP ceiling mount loudspeaker 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 at predetermined times by setting the start and end time along with the day(s) of the week or repeated when necessary and triggered from a control input, or remote API (HTTP). There shall be two controlled inputs and one controlled output. The IP ceiling mount loudspeaker shall be capable of being muted by TOA IP-A1PG Paging Gateway as the highest priority operation. Remote settings of the IP ceiling mount loudspeaker 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 loudspeaker shall incorporate a single 20 cm (8") full-range dual cone-type transducer with a smooth frequency response of 50 Hz to 16.5 kHz measured on axis with a Sound Pressure Level (SPL) of 97dB measured at 1 metre with a power input of 1 watt or 106dB with a power input of 8 watts measured at 1 metre. The power source shall be supplied from a PoE switching hub. The dimensions shall be  $\phi 324 \times 111$  mm (d) (12.76" x 4.37") weighing 1.8 kg (3.97 lbs). The finish of the loudspeaker shall be: Baffle: steel plate, white (RAL 9016 equivalent). Grille: Steel net, white (RAL 9016 equivalent).

Optional extras; Back can HY-BC580U manufactured by TOA Corporation

Manufacturer: TOA Corporation

Model: IP-A1PC580R

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## IP Square Loudspeaker

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The IP square loudspeaker shall be of a surface mount type design, with a full robust metal construction that shall include a class D type amplifier capable of producing up to 8 watts of power. The IP square loudspeaker shall be SIP compatible to broadcast clear and intelligible VoIP messages via a single Category 5 or greater network cable and shall support various standard network protocols and forums such as ONVIF (Open Network Video Interface Forum) and shall be able to complement VMS (Video Management System) and other audio network integration systems. Twenty multi-cast ports shall be available for group paging. The IP ceiling mount loudspeaker shall have a LINE/MIC input to accommodate an external microphone allowing the possibility to achieve two-way communication (talk-back) or other external audio devices. Switching between LINE/MIC shall be accomplished by using DIP switches. Phantom power shall be available for the microphone as well as an independent volume adjustment. The IP ceiling mount loudspeaker 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 at predetermined times by setting the start and end time along with the day(s) of the week or repeated when necessary and triggered from a control input, or remote API (HTTP). There shall be two controlled inputs and one controlled output. The IP square loudspeaker shall be capable of being muted by TOA IP-A1PG Paging Gateway as the highest priority operation. Remote settings of the IP ceiling mount loudspeaker 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 loudspeaker shall incorporate a single 20 cm (8") full-range dual cone-type transducer with a smooth frequency response of 50 Hz to 16.5 kHz measured on axis with a Sound Pressure Level (SPL) of 97dB measured at 1 metre with a power input of 1 watt or 106dB with a power input of 8 watts measured at 1 metre. The power source shall be supplied from a PoE switching hub. The dimensions shall be 318 (W) x 318 (H) x 108 (D) mm (12.52" x 12.52" x 4.25") weighing 2 kg (4.41 lbs).

The finish of the loudspeaker shall be: Baffle: steel plate, white (RAL 9016 equivalent). Grille: Steel net, white (RAL 9016 equivalent).

Manufacturer: TOA Corporation

Model: IP-A1PC580S



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## IP Remote Microphone

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The IP remote microphone shall be able to make audio broadcasts with a built-in gooseneck microphone to IP audio endpoints via network. It shall be equipped with a built-in audio compressor to avoid distortion and achieve clear microphone announcements. The IP remote microphone shall allow both individual and group broadcast by using SIP and Multicast protocols. The IP remote microphone shall be equipped with ten selection buttons which are function-assignable to activate a variety of different broadcasts and controls. Twenty multi-cast 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 remote microphone shall be capable of muting other TOA IP-A1 series devices such as IP-A1AF, IP-A1PA12, 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 remote microphone shall have an electronically balanced 10k  $\Omega$  AUX audio input with LINE/MIC selection with switchable ON/OFF 12 V DC phantom power and a corn-type monitor speaker.

The built-in monitor speaker shall be able to be used for live broadcast and recorded audio monitoring.

The independent volume control shall be available for AUX audio input and a built-in microphone.

The IP remote microphone shall have two control inputs and one control output with an additional 24 V DC mute contact. The IP remote microphone 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 remote microphone shall be housed in black ABS resin enclosure and its dimension shall be 224 (W) x 47.2 (H) x 136 (D) mm (8.82" x 1.86" x 5.35") weighing 630 g (1.39 lbs.)

Optional extras: Wall mounting bracket: WB-RM500

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Manufacturer: TOA Corporation

Model: IP-A1RM