CX-PA1120 3CU

POWER AMPLIFIER 120W 10SS



The CX-PA1120 is a 120 W amplifier unit equipped with a built-in 10-zone speaker selector, designed for theCX-1000 series IP communication system. It allows audio broadcasts from each intercom station and audio interfaceto each speaker zone. By registering audio files in the unit's built-in memory, Chime broadcast and EV broadcastcan be made. It is equipped with 2 analog inputs, 1 recording output, and 10-zone speaker output which is individuallycontrollable. The input and output volumes can be adjusted using the front panel-mounted volume knobs or bysoftware. The sound quality of the input and output can also be adjusted by software. It features a built-in ANC function that automatically adjusts the output volume according to the ambient noise when an ANC sensor microphone is connected. Even if the connection to the System manager is disconnected, emergency all-zone broadcasts can be made using the unit's audio input and output. Broadcasts and various functions can be started and stopped using the front panel-mounted direct keys.

Key features

- 120 W rated output
- 2 balanced audio inputs with phantom power on input 1
- 10 balanced speaker outputs, selectable 100 V / 70 V output voltage
- Signal processing: Gain, EQ, Comp, AGC, Trim, Gate (VOX), ANC
- Dual RJ45 connectors supporting key network protocols and multicast/unicast
- 10 direct keys and multiple LED indicators
- 10 control inputs and outputs with high capacity relay contacts
- Emergency cutoff input

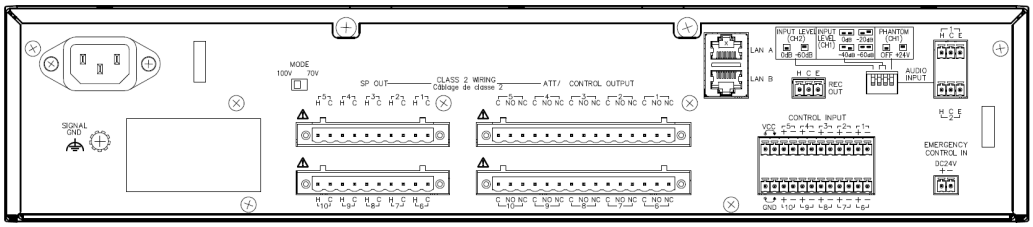
Specifications

Power Source	120 V AC 50/60 Hz
Rated Output	120 W
Power Consumption	180 W (rated output), 55 W (based on EN62368)
Audio Input	channel 1, -60 dB (*1)/-40 dB (*1)/-20 dB (*1)/0 dB (*1) selectable,10 kΩ, electronically-balanced, phantom power supply available, removable terminal block (3 pins) channel 2, -60 dB (*1)/0 dB (*1) selectable, 10 kΩ, electronically-balanced, removable terminal block (3 pins)
Recording Output	1 channel, 0 dB (*1), 10 kΩ, electronically-balanced, removable terminal block (3 pins)
Frequency Response	200 Hz - 16 kHz
Signal to Noise Ratio	60 dB or more
Distortion	1 % or less at 1 kHz, rated power (20 kHz LPF (AUX-0025)
Speaker Line	10 channels, removable terminal block (10 pins x 2)
Output Voltage	100 V/70 V switchable
Volume Control	Audio input volume control x 2, Recording output volume control x 1, Speaker output volume control x 1
Signal Processing	Input channel: Gain, EQ x 2, Comp, AGC, Trim, Gate (for VOX function) Output channel: Gain, EQ x 7, ANC
Network Section	Network I/F: 100Base-TX Network protocol: TCP/IP, UDP, ARP, ICMP, HTTP, RTP, RTSP, I GMP, NTP, SIP, FTP, RSTP, SNMP Audio packet transmission method: Unicast, Multicast Number of broadcasting destinations: Unicast (max. 16), Multicast (max. 2999) Connector: RJ45 connector x 2, LAN A (PoE compatible), LAN B (PoE compatible) Network cable: UTP (Cat5 or greater)
Audio Transmission	Sampling frequency: 48 kHz, 16 kHz (controllable on the software) Audio codec: PCM, G.722 Quantization bit depth: 16-bit Voice packet loss recovery: Silence insertion
User Control	Direct key x 10, Reset key x 1, CPU OFF switch x 1, Output voltage selection switch x 1, Input setting switch (input level setting (MIC/LINE selectable), phantom power setting)x 1
Indicators	LED indicators: LAN (green) x 2, POWER (green) x 1, RUN (green) x 1, STATUS (yellow, red, green) x 1, INPUT (green, red) x 2, REC OUT (green, red) x 1, OUTPUT (green, red) x 1, CPU OFF (red) x 1 Direct keys: SELECT (green) x 10, STATUS (yellow, red, green) x 10
Control Input	10 channels, no-voltage make contact input, open voltage: 24 V DC, short-circuit current: 5 mA or less, removable terminal block (12 pins x 2)
Control Output	10 channels, relay contact output, maximum contact capacity : 125 V AC/24 V DC, 4.0 A, removable terminal block (15 pins x 2)
Emergency Control Input	1 channel, photo coupler input, input current: 5 mA or less, removable terminal block (2 pins)
Installation Method	Desktop, rack, or wall mounting (Rack or wall mounting needs optional brackets.)
Operating Temperature	0 °C to +40 °C (32 °F to 104 °F)
Operating Humidity	90 %RH or less (no condensatio
Finish	Panel, Case: Pre-coated steel plate, black, 30 % gloss Volume control section cover: ABS resin, gray smoke
Dimensions	420 (W) x 88.7 (H) x 326 (D) mm (16.54" X 3.49" X 12.83")

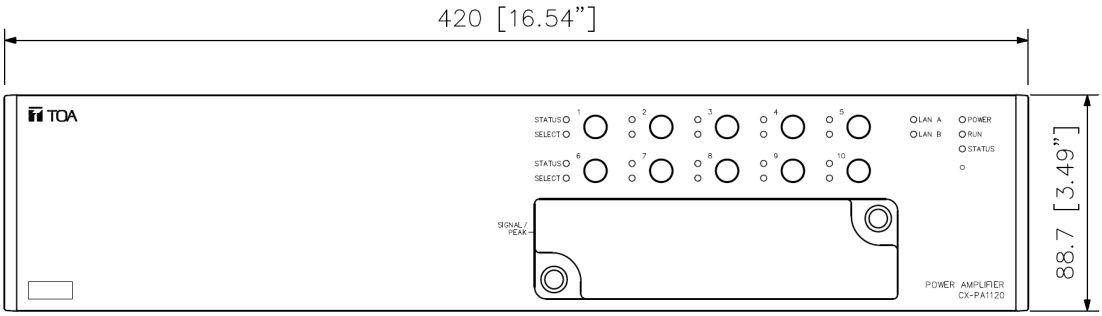
Weight	5.6 kg (12.35 lb)
Included Accessories	Power cord (2 m (6.56 ft) x 1, Removable terminal plug (2 pins) x 1, Removable terminal plug (3 pins) x 3, Removable terminal plug (12 pins) x 2, Removable terminal plug (10 pins) x 2, Removable terminal plug (15 pins) x 2, Plastic foot x 4, Screw for fitting plastic foot x 4
Optional Accessories	Wall mounting bracket: YC-850 Rack mounting bracket: MB-25B

(*1) 0 dB = 1V

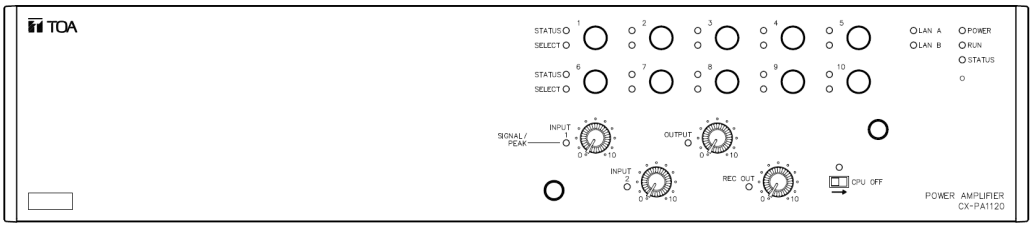
Dimensions



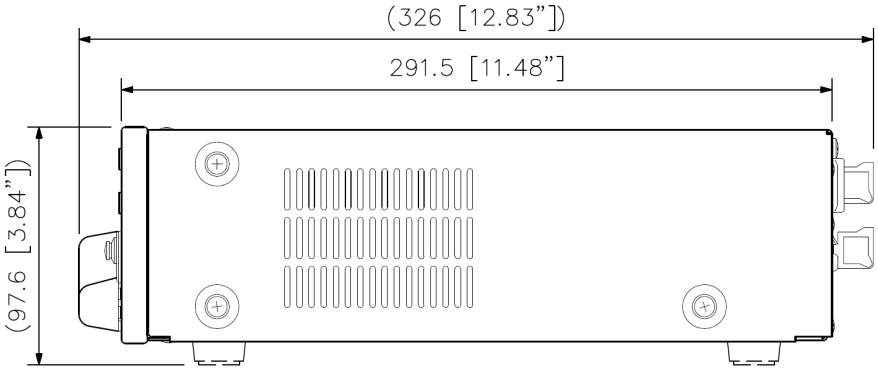
Rear View



Front View



Front View with the volume control cover detached



Side View

UNIT: mm

Note: Numerical values in parentheses are for reference only.

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A&E specifications

The Power Amplifier shall be a network-connected audio power amplifier designed to provide a rated output of 120 W and support both 100 V and 70 V constant voltage speaker lines via ten balanced outputs, as part of TOA's CX-1000 Series IP communication system.
The Power Amplifier shall include two electronically-balanced audio inputs, one of which shall provide phantom power. Both inputs shall offer selectable input levels from -60 dB to 0 dB and shall use removable terminal blocks. One electronically-balanced audio output shall be provided with a removable terminal block.
The Power Amplifier shall include two audio input volume controls, two output volume controls, and one speaker output volume control. Signal processing functions for the audio input channels shall include gain control, 2-band EQ, compressor, Automatic Gain Control (AGC), trim, and VOX (voice-operated switch). Output signal processing shall include gain control, 7-band EQ, and Ambient Noise Control (ANC).
The Power Amplifier shall support data transmission over 100BASE-TX Ethernet. Dual LAN ports shall be provided, with LAN A supporting PoE (IEEE802.3af compliant) and LAN B for redundant network connection. The Power Amplifier shall allow for up to 1 unicast and 2999 multicast audio transmission destinations. Supported protocols shall include TCP/IP, UDP, ARP, ICMP, HTTP, RTP, RTSP, IGMP, NTP, FTP, and RSTP. Audio encoding shall use PCM and G.722 codecs with sampling frequencies of 48 kHz or 16 kHz.
The Power Amplifier shall include automatic silence insertion function for audio packet loss recovery. Manual operation and settings shall be performed using ten direct keys, a reset key, a CPU OFF switch, an output voltage selection switch, input level setting switches, and a phantom power setting switch. Ten control inputs and outputs shall be provided for integration with external systems, together with a 24 V DC emergency cutoff input to mute speaker and audio outputs.
The Power Amplifier shall offer desktop, rack, and wall mounting options using optional brackets. The unit shall operate within a temperature range of 0 °C to +40 °C (32 °F to 104 °F) and relative humidity up to 90 % (non-condensing). The Power Amplifier shall be housed in a black pre-coated steel chassis. Dimensions shall be 420 (W) × 88.7 (H) × 326 (D) mm (16.54" × 3.49" × 12.83"), and weight shall be 5.6 kg (12.35 lbs).
Optional extras: Wall Mounting Bracket (YC-850), Rack Mounting Bracket (MB-25B)
Manufacturer: TOA Corporation
Model: CX-PA1120