

## DA-250DH CU

### DUAL POWER AMPLIFIER



The DA-250DH is a 2-Channel Digital Power Amplifier designed for 70 V line high-impedance distribution and features lightweight, compact, high power output, and high efficiency. It delivers 250 W x 2 channels (40  $\Omega$  output) using a switching power supply. Each channel is equipped with an independent power section. It can be electrically isolated from the high-impedance speaker system by attaching the MT-251H Output Transformer (optional). It can be mounted in an EIA Standard equipment rack (1 unit size).

### Key features

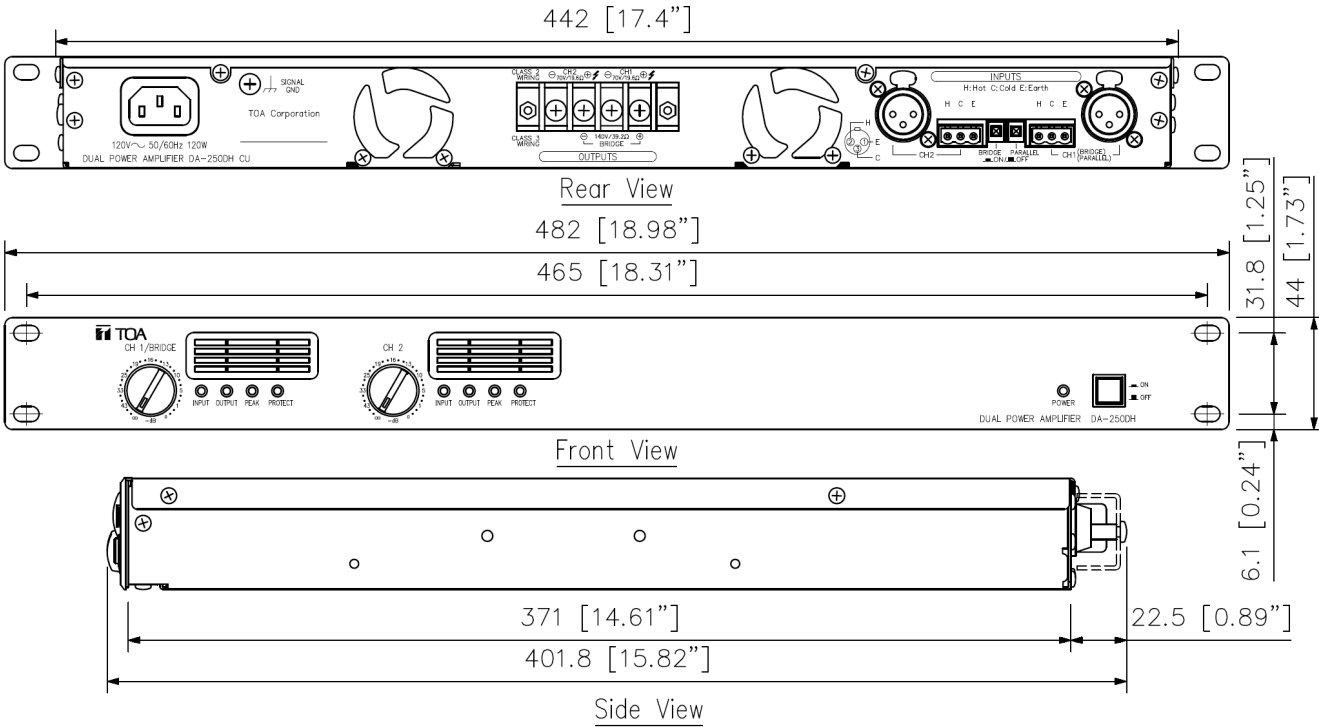
- 70 V speaker outputs
- 2x 250 W rated power
- Class D design 85 % efficient
- Independent power supply for each channel
- Light weight and compact
- Stack up to 5 units without open spaces between units
- Selectable stereo or bridge operation (DA-250D)
- Forced-air cooling system
- Low heat dissipation
- Comprehensive protection circuitry
- Removable dust filters for easy maintenance

## Specifications

\*0 dB = 0.775 V

Power Source	120 V AC, 50/60 Hz
Amplification System	Class D
Power Consumption	120 W (based on UL/CSA standards) 580 W (rated output 70 V line, 19.6 $\Omega$ x 2)
Input	2 circuits, +4 dB* (1.23 V) (input level control in maximum position), 10 k $\Omega$ , electronically-balanced, removable terminal block (3 pins), XLR-3-31 type connector CH 1 mode ON/OFF switch (ON: PARALLEL, OFF: STEREO)
Rated Output	2 channels: 250 W x 2 (70 V line, 19.6 $\Omega$ ) 1 channel (BRIDGE): 500 W x 1 (140 V line, 39.2 $\Omega$ ) M4 screw terminal, distance between barriers: 8.8 mm (0.35)
Frequency Response	20 - 20,000 Hz ( $\pm$ 1 dB): HPF OFF/50 - 20,000 Hz (-3 dB, +1 dB): HPF ON (selectable with the inner jumper)
Total Harmonic Distortion	0.1% (1 kHz), 0.3% (20 - 20,000Hz): HPF OFF 0.1% (1 kHz), 0.3% (100 - 20,000 Hz): HPF ON
Signal to Noise Ratio	100 dB (A-weighted)
Crosstalk	70 dB (A-weighted)
Protection Circuit	Protection against excessive current flow due to overload, short circuit, unusual DC voltage output, temperature rise at power amp. heat sink (100# or more (212#), temperature rise inside the unit (80# or more (176#)
LED Indicator	Power (blue) x 1, Input (green) x 2, Output (yellow) x 2, Peak (red) x 2, Protect (red) x 2
Cooling	Forced air cooling
Operating Temperature	-10 $^{\circ}$ C to +40 $^{\circ}$ C (14 $^{\circ}$ F to 104 $^{\circ}$ F)
Operating Humidity	90% RH or less (no condensation)
Finish	Panel: Aluminum, black, alumite Case: Plated steel sheet
Dimensions	482 (W) x 44 (H) x 401.8 (D) mm (18.98 x 1.73" x 15.82")
Weight	5 kg (11.02 lb)
Included Accessories	Power cord (2 m (6.56 ft) ...1, Removable terminal plug (3 pins) ...2, Tamper-proof cap ...2
Optional Accessories	Matching transformer: MT-251H

# Dimensions



UNIT:mm

## A&E specifications

The dual-channel power amplifier shall use digital class-D circuit topology and shall be configurable to allow two, three or four channel operation. Power output in two-channel mode with all channels driven shall be: 250W per channel into 40 ohms (100V). Total harmonic distortion (THD) shall be less than 0.1% (1kHz), 0.3% (100 to 20,000 Hz). The frequency response shall be 50 to 20,000 Hz (-3 dB, +1 dB). The crosstalk shall be 70 dB (A-weighted). The input impedance shall be 10k ohms for each input into an electronically balanced input circuit. Rear panel switches shall allow selection of bridged operation 1-2 channels. A rear channel input mode switch shall allow the selection of input 1 to all mode, whereby the signal from input 1 is simultaneously fed to other channel. Each input shall feature a 3 pin phoenix block and XLR connector. Rear panel output connector shall be a heavy-gauge M4 screw-terminal barrier strip suitable for use with spade lugs or up to #12 AWG bare wires. The front panel attenuators shall be recessed to prevent accidental level changes and may be removed and replaced by included security covers once levels have been properly set. The front panel shall have two sets of four LED indicators to indicate the following conditions: signal presence at input (greater than -20 dB), signal presence at output (greater than 1 W @ 40 ohms load), peak clipping, and protection circuit activation. The front panel shall also have two removable air filters that may be removed for cleaning without removing the amplifier from the rack. The amplifier shall be forced-air fan cooled with the air intake at the front and exhaust at the rear. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads and disable output during shorts, DC offset or excessive operating temperature at power amp heat sink over 100°C or excessive temperature inside the unit over 80°C via a relay for each channel. The relay shall also delay amplifier connection to the load during turn-on for about 2 seconds, so as to prevent any occurrence of noise at turn-on. Power consumption shall be 120W (based on EN standards) and 580W (rated output 40 ohms x 2 channels). The amplifier shall use only one standard rack-space or 44.5 mm and its dimensions shall be 482 (W) x 44 (H) x 401.8 (D) mm. Front panel finish shall be black anodized aluminum and case finish shall be sheet steel. Weight shall be 5.3 kg. The amplifier shall be a TOA model DA-250DH. The optimal 1:1 line isolation transformer shall be TOA model MT-251H.