

## Overview

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Lo-Z/Hi-Z switchable Class-D mixer amplifier that provide a smart and simple solution.



## Features

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- Easy setup, and a user-friendly interface for effortless operation
- Supporting Lo-Z (120W x 2ch @4Ω or 100W x 2ch @3Ω/8Ω) and Hi-Z (120W x 2ch or 200W x 1ch, 70V/100V) speaker systems
- Flexible 6 mic/line inputs and 2 stereo inputs, with all 6 mic inputs featuring a 24V settings
- DSP functions for music playback and microphone use (Feedback Suppressor, Priority Ducker, Leveler, Compressor, Reverb & Echo)
- Bass and treble stereo source EQ with an enhancer function
- Output EQ for optimizing the sound of each Output channel
- Built-in speaker EQ optimum for Yamaha VXC/VXS series speakers, as well as HPF and selectable LPF settings
- Capable of controlling sources and volumes separately in two areas (Source/volume zoning)
- Service areas or zoning areas can be expanded by adding a PA2120
- Remote volume control and microphone on/off switching via optional DCP control panels (DCP4V4S, DCP1V4S, DCP4S, max 2 units)
- Intelligent protection function ensures safe, reliable operation
- Certified by ENERGY STAR
- Space-saving 1U rack size (\*sufficient space must be provided above and below the unit for airflow and cooling.)

## Specifications

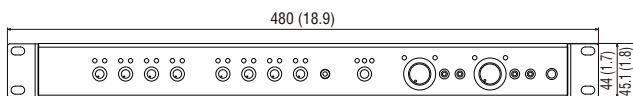
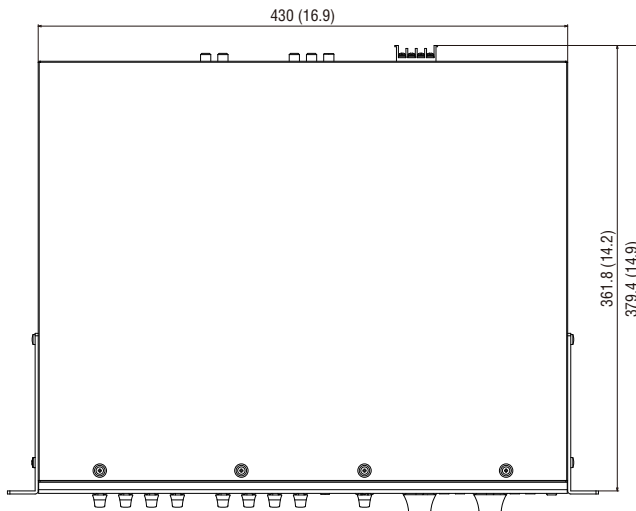
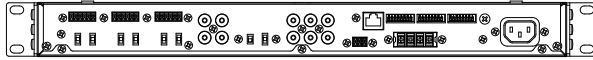
### General Specifications

Output Power	8Ω	100W x 2
(1kHz Non-clip 20msec)	4Ω	120W x 2
Burst Both Channels Driven)	3Ω	100W x 2
	100V Line	120W x 2 or 200W x 1
	70V Line	120W x 2 or 200W x 1
Total Harmonic Distortion	≤0.2% (Line in to Speaker out, Half power @1kHz, 3Ω/4Ω/8Ω), ≤0.2% (Line in to Speaker out, Half Power @1kHz, 70V/100V, 120W/200W)	
Frequency Response	0dB, -2.5dB, +1.0dB (Line in to Line out, 20Hz to 20kHz), 0dB, -3.0dB, +1.0dB (Line in to Speaker out, 50Hz to 20kHz, 1W, 3Ω/4Ω/8Ω), 0dB, -3.0dB, +1.0dB (Line in to Speaker out, 90Hz to 20kHz, 1W, 70V/100V, 120W/200W)	
Crosstalk	≤ -70dB (MIC/LINE input to other MIC/LINE input)	
I/O Connectors	Mic/Line Input	3.5mm Euroblock (6-pin, balanced) x 3
	Line Input	3.5mm Euroblock (6-pin, balanced) x 3
	Line Out	MONO RCA pin x2 (unbalanced)
	Speaker Output	Barrier strip x 2 pairs
	Control Ports	RJ-45 (for DCP4V4S, DCP1V4S, DCP4S), Remote (3.5mm Euro block 3-pin)
Input Level	Mic input: -56dBu (Sensitivity), -36dBu (Nominal), -8dBu (Max before clip) / Line input (unbalanced): -30dBV (Sensitivity), -10dBV (Nominal), +10dBV (Max before clip) / Line input (balanced): -24dBu (Sensitivity), -4dBu (Nominal), +24dBu (Max before clip)	
Output Level	-10dBV (LINE OUT, Nominal)	
Processors	Speaker EQ (VXS: Full Range, VXC, VXS10S/ST), HPF (150Hz), LPF (150Hz, 200Hz)	
Protection Circuit	Load Protection	Power switch on/off: Mute the output*, Output voltage protection: Compress the output*, DC-fault: Power supply shutdown
	Amplifier Protection	Thermal: Limit the output* → Mute* → Shutdown, Over current: Mute the output*, Integrated power limit: Compress the output*
	Power Supply Protection	Thermal: Power supply shutdown, Over voltage: Power supply shutdown, Over current: Limit the output* → Power supply shutdown
Cooling	Conventional cooling, bottom to up airflow	
Power Requirements	100V, 120V, 230V-240V, 50Hz/60Hz	
Power Consumption	60W (1/8 max power, 4Ω, AC100V, pink noise at all channels)	
Dimensions (W x H x D)	480mm x 45mm x 379mm (18.9" x 1.8" x 14.9") incl. knobs, rubber feet and rack-mounting ears	
Net Weight	4.9kg (10.8lbs)	
Accessories	AC power cable, 3.5mm Euroblock plug (6-pin) x 3, Euroblock plug (3-pin) x 1, Owner's manual, Setup guide	
Certificate	ENERGY STAR	
Options	DCP4V4S, DCP1V4S, DCP4S (Digital Control Panel)	
Others	Operating Temperature: 0°C to + 40°C, Storage Temperature: -20°C to + 60°C, Rack-mountable when ensuring sufficient ventilation above and below the unit	

\* Restored automatically

## Dimensions

Unit: mm (inch)



## Options

- Digital Control Panel      DCP1V4S
- Digital Control Panel      DCP4V4S
- Digital Control Panel      DCP4S

## Architectural and Engineering Specifications

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The two-channel power amplifier shall use digital class-D circuit and provide two channels of amplification. The amplifier shall meet the following performance criteria. Power output shall be a 100W into 8 ohms, 120W into 4 ohms, 100W into 3 ohms, and 120W or 200W into a high impedance (70V/100V) load. In the case 200W into high impedance load, only one output available. The power amplifier shall be capable of operation between 100V and 240V at 50Hz or 60Hz. Total harmonic distortion (THD+N) shall be less than 0.2% at 1kHz, half power (8Ω/4Ω/3Ω), and 0.2% at 1kHz, 120W/200W (70V/100V). Frequency response shall be from 50Hz to 20kHz, 0dB/-2.5dB/+1.0dB at 1W into 8Ω/4Ω/3Ω, 8Ω and shall be from 90Hz to 20kHz, 0dB/-3.0dB/+1.0dB at 1W into 70V/100V. Cross talk shall be less than -70dB from MIC/LINE input to other MIC/LINE input. The built in processors shall have speaker EQ, HPF, and LPF. Input shall be electronically balanced, with a minimum impedance of 20k ohm balanced and 10k ohm unbalanced. The built in protection circuitry shall monitor below,

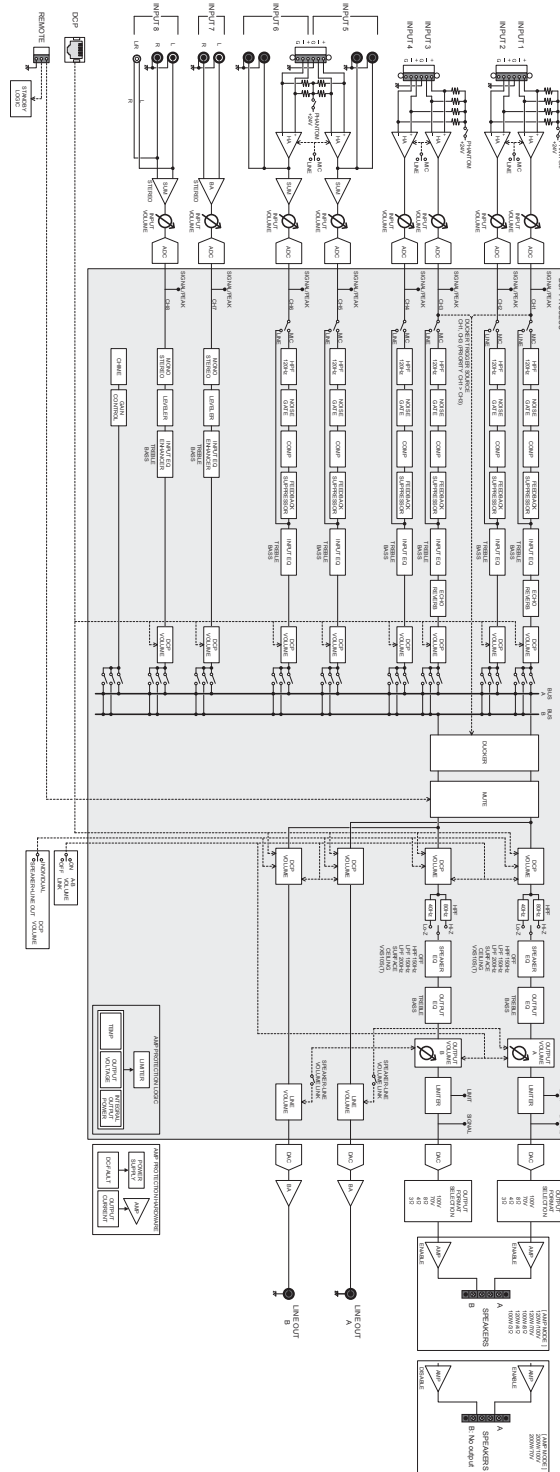
Load protection: Power switch on/off: Mute the output\*, Output voltage protection: Compress the output\*, DC-fault: Power supply shutdown (\*Restored automatically)

Amplifier protection: Thermal: Limit the output, Mute, Shutdown, Over current: Mute the output, Integrated power limit: Compress the output (Restored automatically)

Power supply protection: Thermal: Power supply shutdown, Over voltage: Power supply shutdown, Over current: Limit the output, Power supply shutdown (Restored automatically)

The amplifier shall employ conventional cooling, bottom to up airflow The front panel shall have a recessed standby/on switch, and a LED indicator. The front-panel shall have 2 volume knobs (one per ch), 8 input level knobs and set up knobs. The front-panel shall have an Aux-input. The front-panel shall have 2 BASS and 2 TREBLE controls. Rear panel input connectors shall be a Euroblock, for 1-6 channel. Rear panel input connectors shall be a RCA type, for 7-8 channel. Rear panel mono sum input connectors shall be a RCA type, for 5-6 channel. Rear panel speaker output connectors shall be a Barrier strips for each channel. Rear panel line output connectors shall be a RCA type. Rear panel control ports connectors shall be a RJ45. It shall use only one standard rack-spaces and its dimensions shall be 480 mm W x 379mm D x 45 mm H (18.9" x 14.9" x 1.8"). Weight shall be 4.9 kg (10.8 lbs). The amplifier shall be certified ENERGY STAR. The amplifier shall be YAMAHA MA2120.

# Block Diagrams



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 Created in October, 2017