

Overview

The DSR115 is a compact, high-power 15" 2-way active loudspeaker system capable of achieving 136dB maximum peak SPL output. Equipped with high performance 48-bit DSP and top quality 1500W (LF 1020W, HF 480W) Class-D amplifiers, it delivers sound with resolution at the highest level in its class and superb SPL performance. The DSR115 is perfect for live sound and installation applications that demand bass with extra punch and depth together with accurate high frequency response.



Features

- Ultra-precise 48-bit digital sound processing
- D-CONTOUR (Dynamic-CONTOUR) multi-band dynamic processing
- All-new 1500W Class-D amplifiers with PFC switching mode power supply
- Maximum SPL 136dB peak
- Extensive protection of the transducers, amplifiers and power supply from high performance DSP
- Premium-grade, custom-designed transducers
- Exclusive 90° × 60° CD Waveguide Horn
- Compact and lightweight (28.0kg / 62lbs)
- Stand and pole mountable, with 35mm pole sockets
- Integrated M10 rigging points for suspended applications

Specifications

General Specifications

System Type		2-way, Bi-amp Powered Speaker, Bass-reflex Type
Components	LF	15" cone, 3" voice coil, Neodymium Magnet
	HF	2" Titanium diaphragm compression driver, 1" throat, Neodymium Magnet
Frequency Range	(-10dB)	45Hz-20kHz
Crossover Type		FIR-X tuning™ (linear phase FIR filter)
Crossover Frequency		1.7kHz
Coverage Angle (Horizontal x Vertical)		90° x 60° Constant directivity horn
Output Power*1	Dynamic	1500W (LF: 1020W, HF: 480W)
	Continuous	1300W (LF: 850W, HF: 450W)
Maximum SPL (1m, on axis)		136dB SPL
Processing		D-CONTOUR: ON, OFF
Controls		LEVEL, LINE/MIC, HPF, D-CONTOUR, FRONT LED DISABLE, POWER
Cooling		Natural convection
Power Requirements		100V-240V, 50Hz/60Hz
1/8 Power Consumption		100W
Pole Socket		35mm (Bottom x 1)
Handle		Side x 2
Rigging Points		Top x 2, Rear x 1 (Fits for M10 x 18mm eyebolts)
Material, Finish, Color		Wood, LINE-X®, Black
Dimensions (W×H×D)		442mm x 755mm x 423mm (17.4" x 29.7" x 16.7")
Net Weight		28.0kg (62lbs)

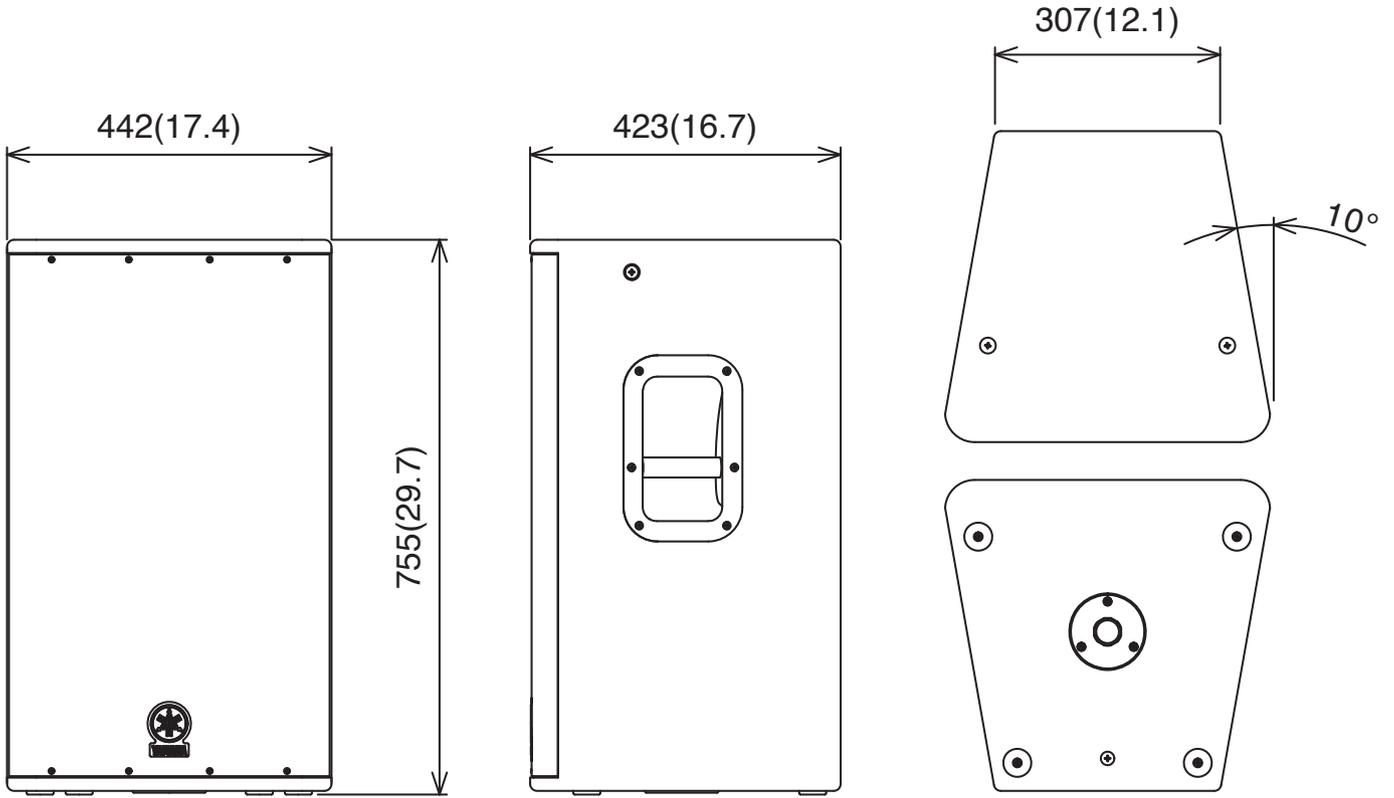
*1 Power rating (120V, 25°C). This is total value of individual output power.

Input/Output Specifications

Connectors	Input	XLR-3-31 x 1 (Balanced), TRS Phone Jack x 1 (Balanced)
	Output	XLR-3-32 x 1 (Balanced), Parallel connection with INPUT
Input Impedance		INPUT1: LINE: 12kΩ, MIC: 8kΩ
Input Sensitivity (LEVEL: Maximum)		INPUT1: LINE: 0dBu, MIC: -25dBu
Input Sensitivity (LEVEL: Center)		INPUT1: LINE: +7dBu, MIC: -18dBu
Maximum Input Level		INPUT1: LINE: +24dBu, MIC: -11dBu

Dimensions

Unit: mm (inch)



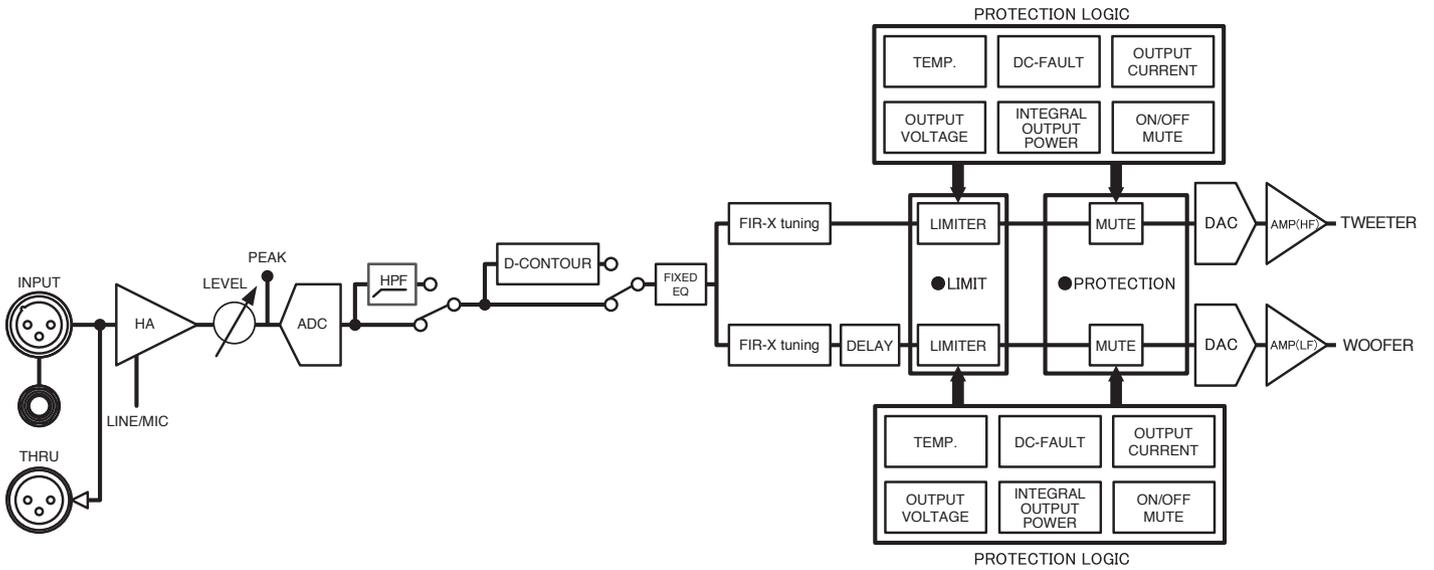
Architectural and Engineering Specifications

The Yamaha DSR115 Powered Loudspeaker shall be a two-way bass-reflex full-range loudspeaker system. The DSR115 shall incorporate a single 15" cone with a 3" voice coil for the low frequencies, and a 2" compression driver with a 1" throat for the high frequencies. The loudspeaker shall incorporate a class-D amplifier (1500 watts dynamic/1300 watts continuous) and DSP functions such as FIR-X tuning (linear phase FIR filters) and D-CONTOUR (multi-band compression). The amplifier section of the loudspeaker shall have a universal power supply that accepts AC line input from 100V to 240V at 50Hz or 60Hz, and shall be cooled by natural convection.

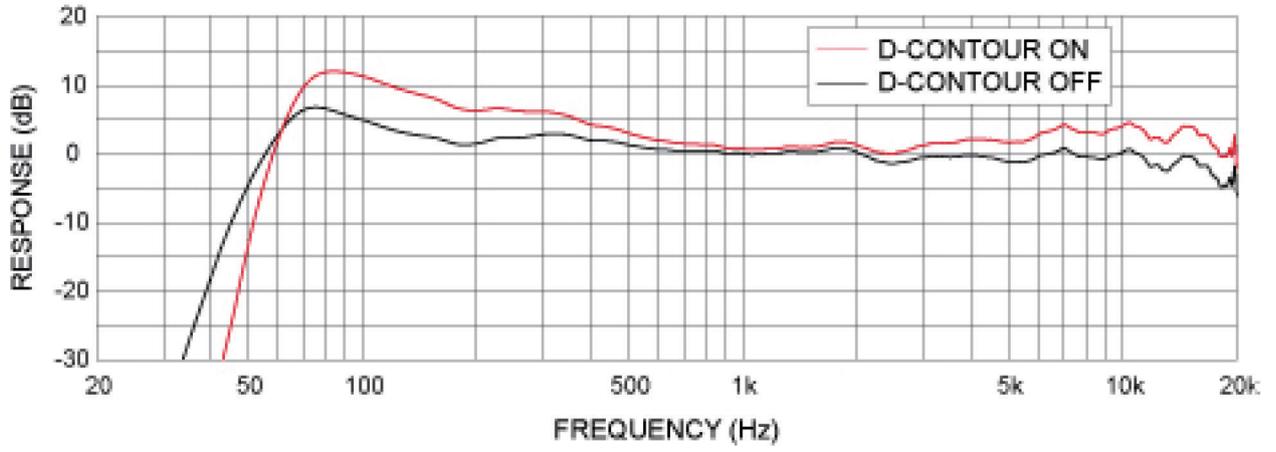
The DSR115 Powered Loudspeaker shall meet the following performance criteria: Maximum SPL shall be 136 dB SPL at 1 meter, frequency response shall be 45 Hz to 20 kHz at 10 dB below rated sensitivity, the frequency dividing network shall have a crossover frequency of 1.7 kHz, and the nominal coverage angle shall be 90° horizontal and 60° vertical via a constant directivity horn.

The loudspeaker shall have one XLR3-31 connector and one TRS phone jack for input, and one XLR3-32 connector for parallel connection with the input. The cabinet shall be constructed of wood and have aluminum die-cast handles. The loudspeaker shall have threaded mounting points for M10 eyebolts (top x 2, rear x 1) and a 35 mm pole socket. Dimensions shall be 442 (W) x 755 (H) x 423 (D) mm. Weight shall be no more than 28 kg.

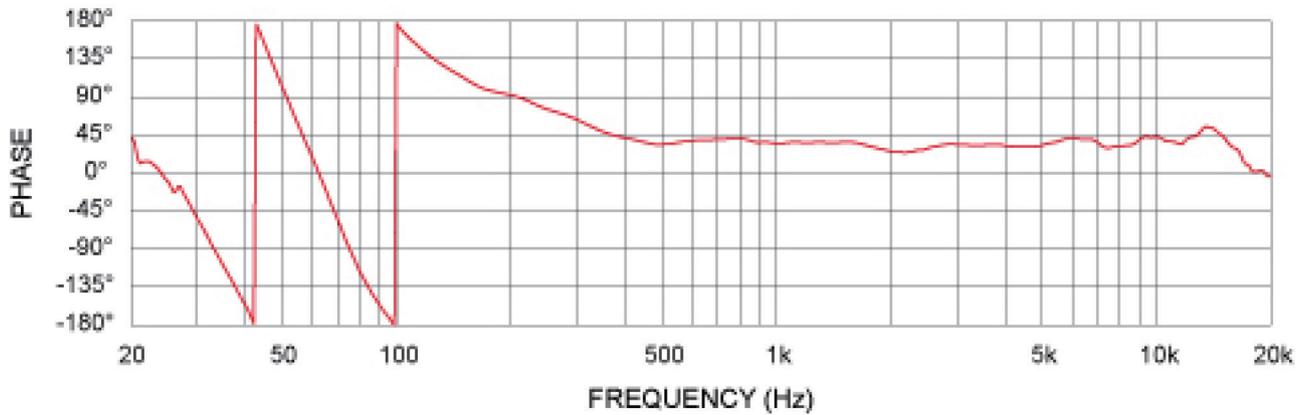
Block Diagrams



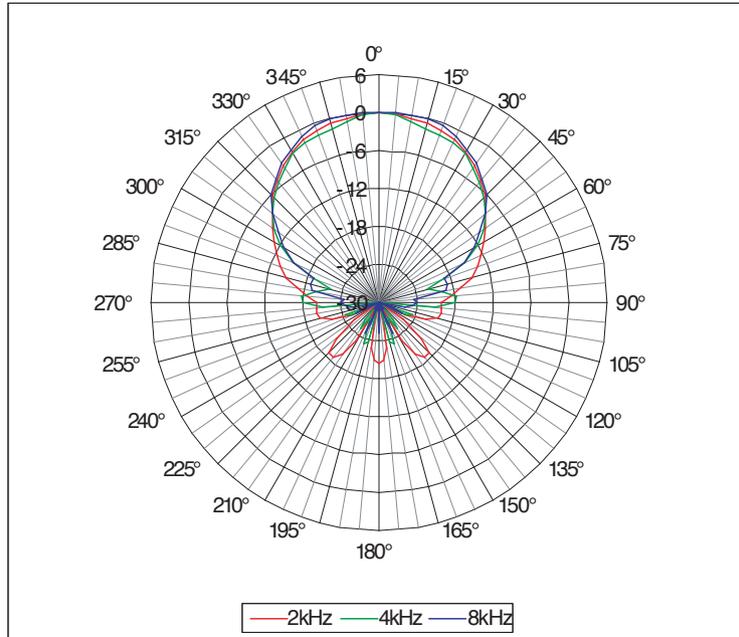
Frequency Response



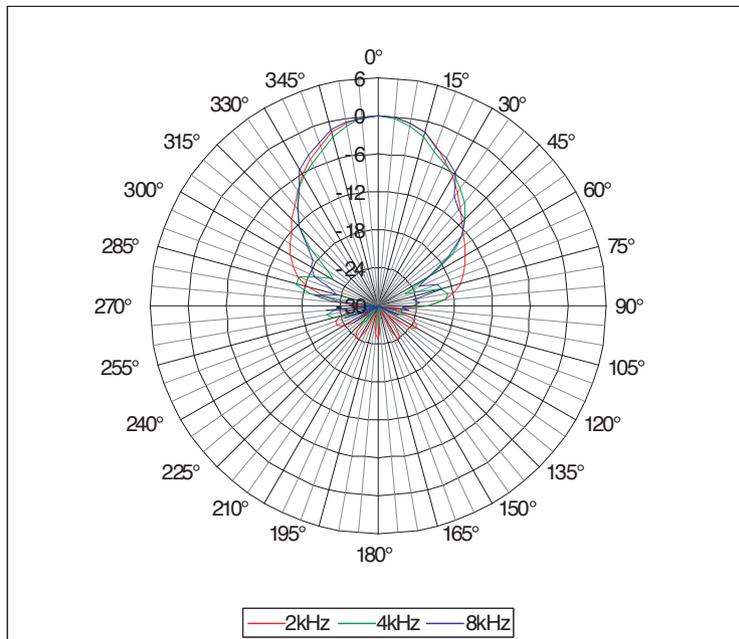
Phase Response



Horizontal Polar Plots



Vertical Polar Plots



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