# **YAMAHA**

### Overview

The DBR12 represents a perfect balance of size and performance, with 1000W of power and outstanding resolution at any output level. Ideal for front-of-house, floor monitoring applications or even the stage side fills, the DBR12 is an ideal choice for a wide range of applications.



### Features

- Output levels up to 131dB SPL with 1000W of power
- Precise DSP processing with Yamaha's proprietry FIR-X tuning<sup>™</sup> delivers high-definition sound
- D-CONTOUR intelligent multi-band dynamic processing delivers powerful, consistently high-quality sound at all output levels in FOH or monitor applications
- Extensive DSP protection functions for maximum output
- Custom-designed transducers and top-quality components add up to unequalled performance
- Extremely accurate 90 x 60 constant directivity horn
- Easy-to-use Onboard 2-channel mixer with flexible IN/OUT connectivity for versatile system integration
- Flexible HPF control allows optimum matching with DXS subwoofers
- Durable, compact plastic enclosures
- Symmetrical enclosure design for mirror-mode floor monitoring



## **Specifications**

#### **General Specifications**

System Type		2-way, Bi-amp Powered Speaker, Bass-reflex Type
Components	LF	12" cone, 2" voice coil, Ferrite Magnet
	HF	1.4" compression driver, 1" throat, Ferrite Magnet
Frequency Range	(-10dB)	52Hz-20kHz
Crossover Type		FIR-X tuning™ (Liner phase FIR filter)
Crossover Frequency		2.1kHz
Coverage Angle (Horizontal x Vertical)		90° x 60° Constant directivity horn
Output Power*1	Dynamic	1000W (LF: 800W, HF: 200W)
	Continuous	465W (LF: 400W, HF: 65W)
Maximum SPL (1m, on axis)		131dB SPL
Processing		D-CONTOUR: FOH/MAIN, MONITOR, OFF
Controls		LEVEL x 2, LINE/MIC, HPF, D-CONTOUR, THUR/MIX, POWER
Cooling		Fan cooling, 4 speeds
Power Requirements		100V, 100-120V, 220-240V, 110/127/220V (Brazil), 50Hz/60Hz
1/8 Power Consumption		74W
Floor Monitor Angle		50° Symmetrical
Pole Socket		35mm (Bottom x 1)
Handle		Side x 2
Rigging Points		Bottom x 2, Rear x 1 (Fit for M8 x 15mm eyebolts)
Material, Finish, Color		Plastic, Black
Dimensions (W×H×D)		376mm x 601mm x 348mm (14.8" x 23.7" x 13.7")
Net Weight		15.8kg (34.8lbs)
Optional Accessories		BBS251, BCS251, BWS251-300, BWS251-400, SPCVR-1201

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

### Input/Output Specifications

Connectors	Input	INPUT1: Combo x 1, INPUT2: Combo x 1 + RCA-pin x 2 (Unbalanced)
	Output	XLR3-32 x 1 (CH1 Parallel Through or CH1 + CH2 Mix)
Input Impedance		INPUT1 (XLR, TRS Phone): $3k\Omega$
		INPUT2: (XLR, TRS Phone, RCA Pin): $10k\Omega$
Input Sensitivity (LEVEL: Maximum)		INPUT1: LINE: 0 dBu, MIC: -32dBu
		INPUT2: 0 dBu
Input Sensitivity (LEVEL: Center)		INPUT1: LINE: +10dBu, MIC: -22dBu
		INPUT2: +10dBu
Maximum Input Level		INPUT1: LINE: +24dBu, MIC: -8 dBu
		INPUT2: +24dBu



Unit: mm (inch)

### **Dimensions**



### Options

- Baton Bracket
- Ceiling Bracket
- Wall Bracket
- Wall Bracket
- Speaker Cover
- BCS251 BWS251-300 BWS251-400 SPCVR-1201

BBS251

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### **Architectural and Engineering Specifications**

The Yamaha DBR12 Powered Loudspeaker shall be a two-way bass-reflex type full-range loudspeaker system having a single 12" cone driver with a 2" voice coil for the low frequencies and a 1.4" compression driver with a 1" throat for the high frequencies. The loudspeaker shall incorporate a class-D amplifier (1000 watts dynamic/465 watts continuous) and DSP functions such as FIR-X tuning (linear phase FIR filters) and D-CONTOUR (multi-band compression). The amplifier section shall have a 4-speed fan for cooling.

The DBR12 Powered Loudspeaker shall meet the following performance criteria: Maximum SPL shall be 131 dB at 1 meter, frequency response shall be 52 Hz to 20 kHz at 10 dB below rated sensitivity, the frequency dividing network shall have a crossover frequency of 2.1 kHz, and the nominal coverage angle shall be 90° horizontal and 60° vertical via a constant directivity horn.

The loudspeaker shall have two Combo connectors and one RCA pin connector for input, and one XLR3-32 connector for CH1 Parallel Through or CH1+CH2 Mix output. The cabinet shall be constructed of plastic and have handles. The cabinet shall also have threaded mounting points for M8 eyebolts (bottom x 2, rear x 1) and a 35 mm pole socket. Dimensions shall be 376 (W) x 601 (H) x 348 (D) mm. Weight shall be no more than 15.8 kg.



### **Block Diagrams**





## **YAMAHA**

### **Frequency Response**



### **Phase Response**





### **Horizontal Polar Plots**



### **Vertical Polar Plots**



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