

## Overview

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The DHR10 is a 2-way bi-amp powered loudspeaker, equipped with a 10-inch woofer and a 1.4-inch HF driver, and perfect for use in fixed installations. Combining a 700W amplifier module and high-performance DSP with the same high-grade plywood construction found on Yamaha's high-end DZR Series, the DHR10 offers best-in-class sound quality and durability.



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## Features

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- Featuring a plywood cabinet that delivers a clear sound with minimal vibration
- Plywood enclosure with a polyurea coating for a robust, scratch resistant surface
- Compact appearance thanks to a 10-inch LF driver that provides excellent low frequency response
- Can be installed in a horizontal or vertical configuration with a rotatable HF horn offering the flexibility needed for installation in a wide range of environments
- Optional UB-DXRDHR10 U-bracket allows both for vertical or horizontal use
- A pole socket for use on a stand
- Rigging points for use with eye bolts
- Proprietary FIR-X™ tuning, provides FIR filtering and corrective EQ, minimizing phase distortion

## Specifications

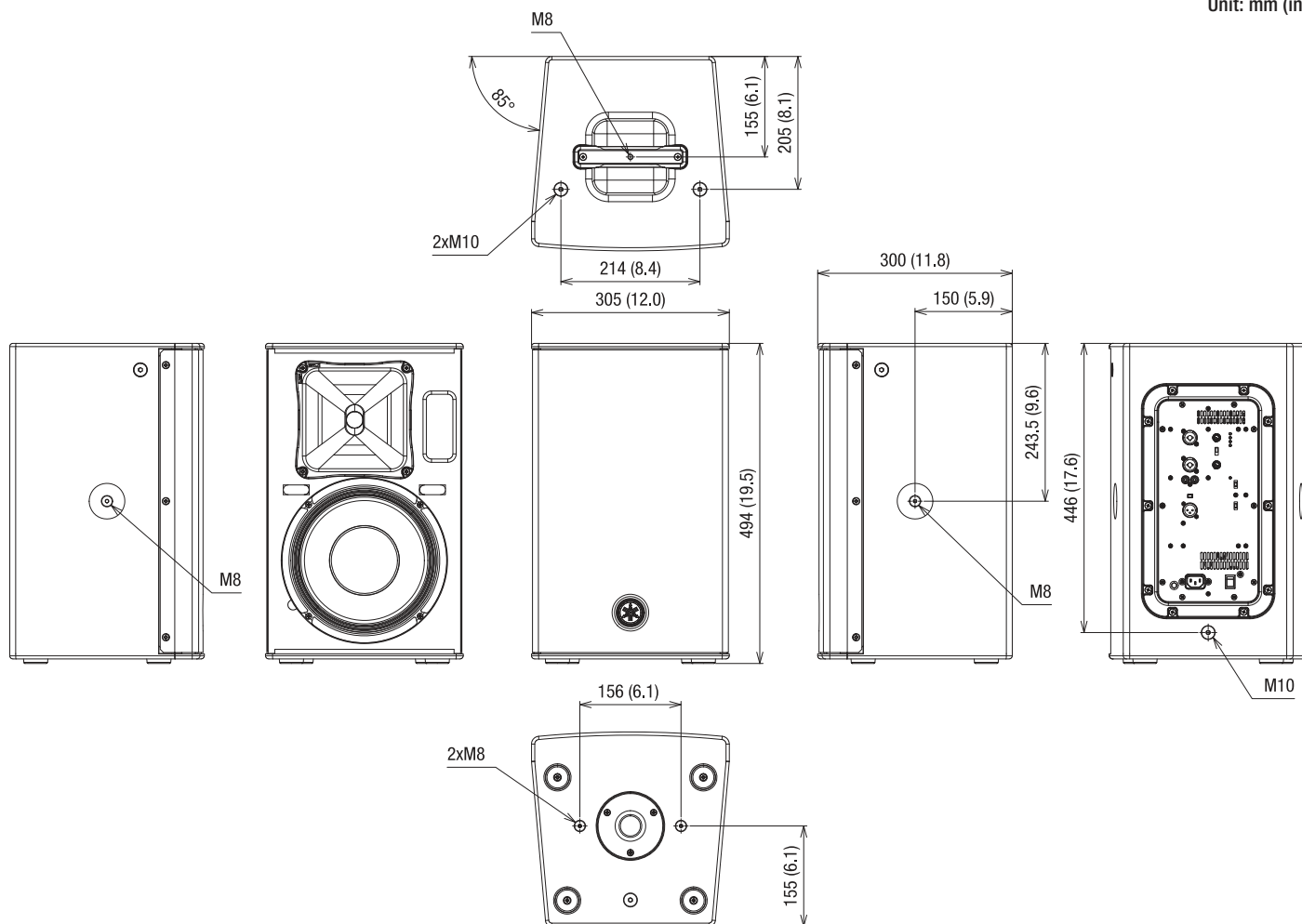
### General Specifications

|                                                      |            |                                                                                                                            |
|------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------|
| System Type                                          |            | 2-way, Bi-amped Powered Speaker, Bass-reflex                                                                               |
| Components                                           | LF         | Diameter: 10" cone, Voice Coil: 2", Magnet: Ferrite                                                                        |
|                                                      | HF         | Diaphragm: 1.4", Type: 1" throat compression driver, Magnet: Ferrite                                                       |
| Frequency Range (-10 dB)                             |            | 52 Hz - 20 kHz                                                                                                             |
| Crossover                                            |            | 1.9 kHz: FIR-X tuning™ (linear phase FIR filter)                                                                           |
| Coverage Angle (Horizontal x Vertical)               |            | H90° x V60° (Rotatable)                                                                                                    |
| Amplifier Type                                       |            | Class-D                                                                                                                    |
| Power Rating                                         | Dynamic    | 700 W (LF: 500 W, HF: 200 W) *1                                                                                            |
|                                                      | Continuous | 325 W (LF: 260 W, HF: 65 W)                                                                                                |
| Maximum Output Level (Measured peak, IEC noise @1 m) |            | 128 dB SPL                                                                                                                 |
| Cooling                                              |            | Fan cooling, 4 speeds                                                                                                      |
| A/D D/A Converters                                   |            | 24 bit 48 kHz Sampling                                                                                                     |
| Processors                                           |            | HPF: OFF, 100 Hz, 120 Hz, 24 dB/Oct.; D-CONTOUR: FOH/MAIN, MONITOR, OFF                                                    |
| I/O Connectors                                       |            | 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) |
| Power Consumption                                    |            | 60 W (1/8power), 18 W (Idle)                                                                                               |
| Power Requirements                                   |            | 100 V, 100-120 V, 220-240 V, 110/127/220 V (Brazil), 50/60 Hz                                                              |
| Cabinet Material                                     |            | Plywood                                                                                                                    |
| Finish                                               |            | Durable Polyurea Painting, Black                                                                                           |
| Handle                                               |            | Top x 1                                                                                                                    |
| Pole Socket                                          |            | Ø35 mm x 1 (Bottom)                                                                                                        |
| Rigging                                              |            | Top x 2, Rear x 1 (Fit for M10 x 30 - 50 mm Eyebolts)                                                                      |
| Floor Monitor Angle                                  |            | -                                                                                                                          |
| Dimensions (W x H x D) (with rubber feet)            |            | 305 mm x 494 mm x 300 mm (12.0" x 19.5" x 11.8")                                                                           |
| Net Weight                                           |            | 15.0 kg (33.1 lbs)                                                                                                         |

\*1: Total peak power of individual outputs (AC 120V, 25°C). This value was measured at minimum load impedance, with protection released.

## Dimensions

Unit: mm (inch)



## Options

- U-Brackets

UB-DXRDHR10

## Architectural and Engineering Specifications

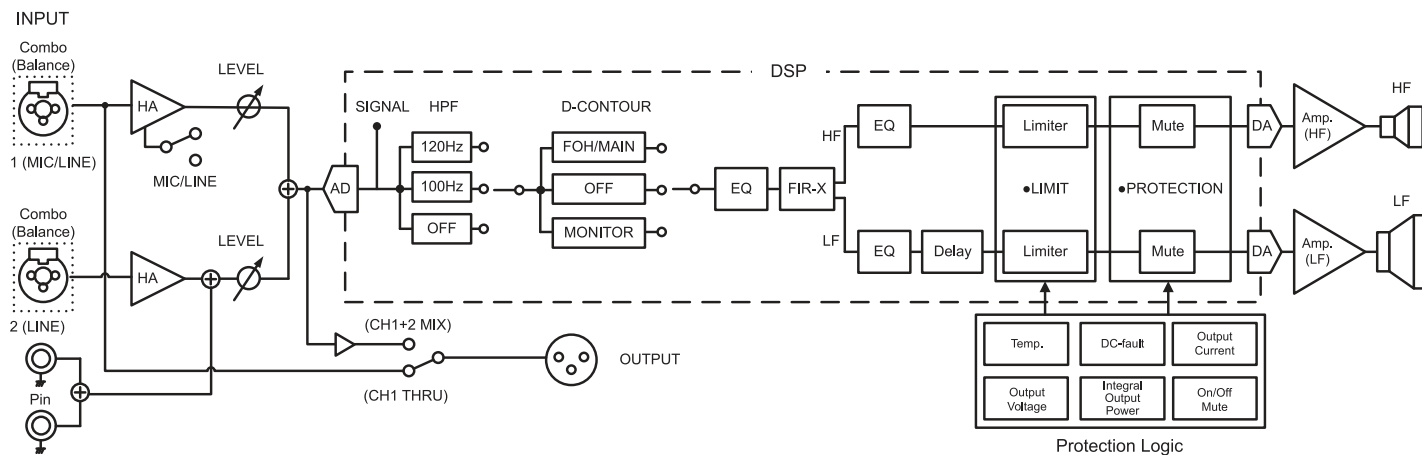
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The Yamaha DHR10 Powered Loudspeaker shall be a two-way bass-reflex type full-range loudspeaker system having a single 10" cone driver with a 2" voice coil for the low frequencies and a 1.4" compression driver with a 1" throat for the high frequencies. The loudspeaker shall incorporate a class-D amplifier capable of delivering 700 watts dynamic or 325 watts continuous power. The amplifier section shall include a 4-speed fan for cooling. The DHR10 Powered Loudspeaker shall meet the following performance criteria: Maximum SPL shall be 128 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 1.9 kHz, and the nominal coverage angle shall be 90° horizontal and 60° vertical via a rotatable constant directivity horn. Built-in 24-bit 48-kHz AD/DA conversion and digital signal processing shall provide FIR-X Tuning (linear phase FIR filters) for smooth crossover and optimum time alignment, plus D-CONTOUR dynamic processing to achieve maximum SPL while maintaining optimum overall response. The D-CONTOUR feature shall include switchable FOH/MAIN and MONITOR modes. A switchable high-pass filter (OFF/100 Hz/120 Hz) shall also be provided.

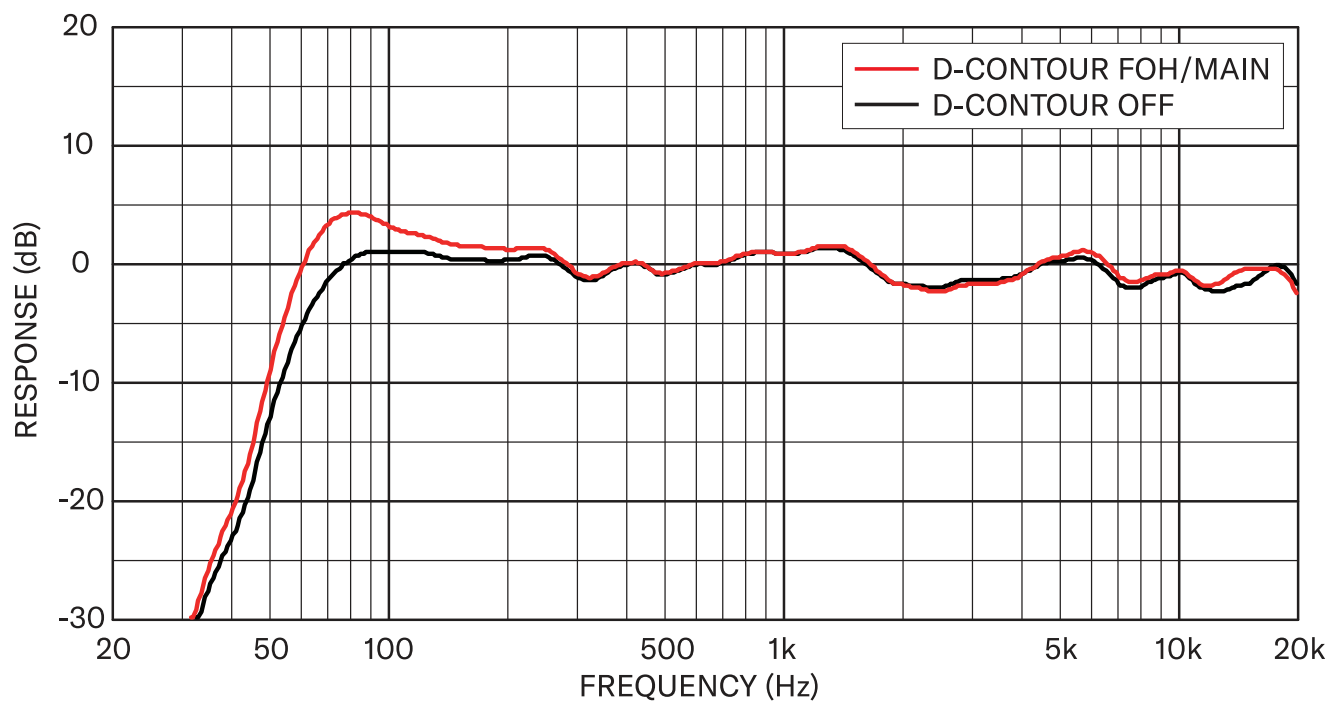
Clip limiting, integral power, and DC fault protection shall be provided for the speakers. Thermal and output overcurrent protection shall be provided for the amplifier. Thermal, output overvoltage, and output overcurrent protection shall be provided for the power supply. Power, protection, signal, and limit indicators shall be provided on the rear panel.

Two input channels shall be provided, each with a Combo connector that accepts balanced input via XLR or TRS phone type plugs. Channel 2 shall additionally provide two RCA pin connectors for unbalanced input. Channel 1 shall have a MIC/LINE input selector switch, and both channels shall have level controls that allow Channel 1 + Channel 2 mixing. One XLR3-32 connector that is switchable for CH1 THRU operation or CH1+CH2 Mix output shall also be provided. The cabinet shall be constructed of wood with a durable black Polyurea coating. The cabinet shall have one top handle, threaded mounting points for M10 eyebolts (top x 2, rear x 1), and M8 screw holes for installation of an optional U-bracket for direct ceiling or wall mounting. One 35 mm pole socket shall be provided for convenient pole mounting. Dimensions shall be 305 (W) x 494 (H) x 300 (D) mm. Weight shall be 15 kg.

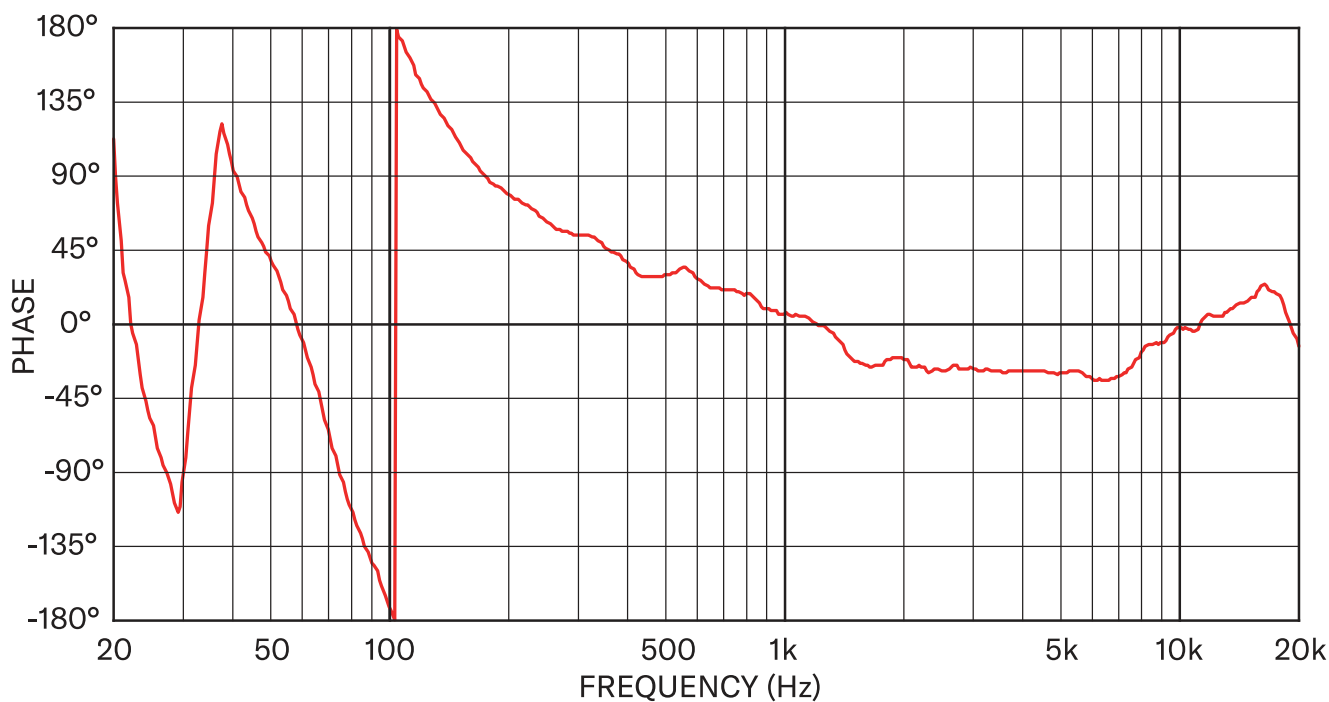
## Block Diagrams



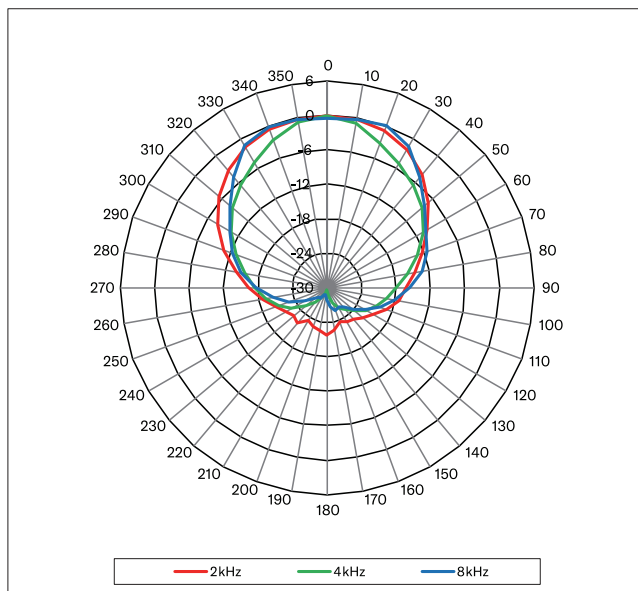
## Frequency Response



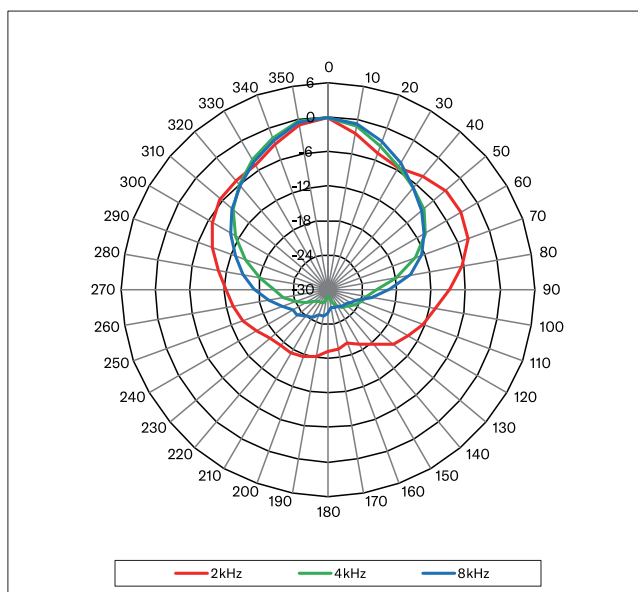
## Phase Response



## Horizontal Polar Plots



## Vertical Polar Plots



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