



# TECHNICAL SPECIFICATIONS DS223e

## DESCRIPTION

A 3-way full range system in a vented, slant-baffle enclosure. Includes 2x 12-in woofers, 2x 7-in midrange cones and a 1-in exit compression driver on a Wave Guide Plate™. Powering mode is switchable: passive (3-way crossover) or biamplified (passive MF/HF crossover). The woodframed cloth grill is attached with threaded fasteners.

## APPLICATIONS

The DS223e is engineered for exceptional high output performance in the nearfield from overhead mounting positions. True 3-way design dramatically improves the quality of vocal reproduction. A very effective tools in permanently installed distributed systems. Comprehensive 3/8"-16 mounting/suspension points. Six Year Warranty.

Applications include:

- MultiMedia
- Chapel
- Dance Club
- Live Music Club
- Restaurant

## DESCRIPTIVE DATA

Part Number	999036
Product Group	I
LF Subsystem & Loading	2x 12-in, Vented
MF Subsystem & Loading	2x 7-in Cones in Separate Sealed Subenclosures
HF Subsystem & Loading	1x 1-in Exit Compression Driver on Wave Guide Plate™
System Configuration	3-way, Full Range, Overhead Mount
Powering Configuration(s)	Switchable: Full Range (passive LF/MF/HF crossover) or Biamplified (passive MF/HF crossover)
Controls (switches, knobs)	Powering Mode Switch
Recommended High-Pass Frequency (24 dB/Octave)	35Hz
Cabinet Type (shape)	Rectangular w/ 20° down slanted baffle
Enclosure Materials	3/4" medium density fiberboard (MDF) and Baltic Birch Plywood
Finish	Black catalyzed polyurethane
Connectors	4-Terminal Barrier Strip plus 1x Neutrik NL4 Speakon
Suspension Hardware	(12) 3/8-16 threaded mounting/suspension points (4 on top, 3 per side, w on back)
Grill	Black Cloth on MDF frame



## NOMINAL DATA

<b>Frequency Response (Hz)</b>		
±3 dB	45Hz to 19kHz	
-10 dB	32Hz	
<b>Axial Sensitivity (dB SPL/1 Watt/1m)</b>		
Full Range	99	
Biamped MF/HF	99	
Biamped LF	100.5	
<b>Impedance (Ohms)</b>		
Full Range	4	
Biamped MF/HF	4	
Biamped LF	4	
<b>Power Handling, AES Standard (Watts)</b>		
Full Range Passive	600	
Biamped MF/HF	600	
Biamped LF	700	
<b>Calculated Maximum Output (dB SPL, @ 1m)</b>		
Full Range Peak	132.8	
Biamped MF/HF Peak	132.8	
Biamped LF Peak	135.0	
Full Range Long Term	126.8	
Biamped MF/HF Long Term	126.8	
Biamped LF Long Term	129.0	
<b>Nominal Coverage Angle / -6 dB points (degrees)</b>		
Horizontal	70	
Vertical	100	
<b>Dimensions</b>		
	<b>inches</b>	<b>millimeters</b>
Height	22	559
Width	31.88	810
Depth (Top)	15.34	390
Depth (Bottom)	7.81	198
Baffle Angle	20 degrees	
<b>Weights</b>		
	<b>pounds</b>	<b>kilograms</b>
Net Weight	137	61.7
Shipping Weight	143	64.4

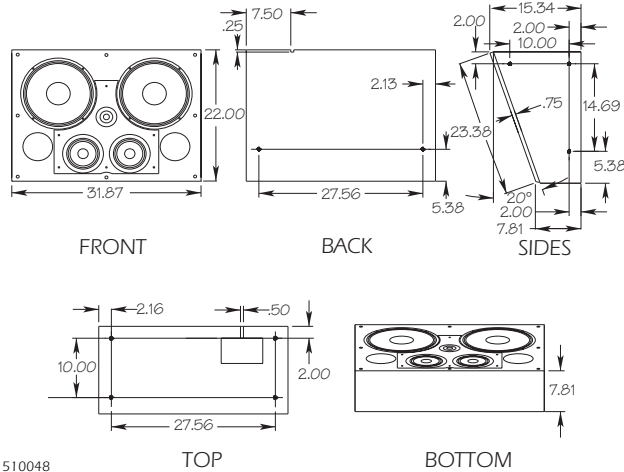




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## DIMENSIONAL DRAWING

**DS223Hi** • MOUNTING POINTS 3/8"-16 NUTS WELDED TO A 2" x 2" STEEL L-PLATE  
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.



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EXP 4/23/96 SHB

## SERVICE ITEMS

### LF: Complete Cone Driver

EAW Part No. (2) 804024

### MF: Complete Cone Driver

EAW Part No. (2) 804004

### HF: Complete Compression Driver/Tweeter

EAW Part No. 803014

### Filter/Crossover Network: Complete Assembly

EAW Part No. 225061

## ARCHITECTURAL SPECIFICATIONS

The three-way full range loudspeaker systems shall incorporate 2x 12-in LF transducers, 2x 7-in cone MF transducers and a 1-in exit compression driver HF transducer.

The LF driver shall be mounted in a vented enclosure tuned for optimum low frequency response. The MF drivers shall be mounted in separate sealed subenclosures. The HF drivers shall be loaded on axis-symmetrical wave guide plates with a combined nominal coverage pattern of 70° (h) x 100° (v). An internal passive filter network shall provide fourth order acoustical crossover and system equalization.

System frequency response shall vary no more than  $\pm 3$  dB from 45 Hz to 19 kHz measured on axis. In passive mode, the loudspeaker shall produce a Sound Pressure Level (SPL) of 99 dB SPL on axis at 1 meter with a power input of 1 Watt, and shall be capable of producing a peak output of 132.8 SPL on axis at 1 meter. It shall handle 600 Watts of amplifier power (AES Standard) and shall have a nominal impedance of 4 Ohms.

In biamped mode, the passive mid/high frequency section shall meet all passive mode performance criteria. In addition, the low frequency section in biamped mode shall produce a Sound Pressure Level (SPL) of 100.5 dB SPL on axis at 1 meter with a power input of 1 Watt, and shall be capable of producing a peak output of 135 SPL on axis at 1 meter. The low frequency section in biamped mode shall handle 700 Watts of amplifier power (AES Standard) and shall have a nominal impedance of 4 Ohms.

The loudspeaker enclosure shall be rectangular in shape. The loudspeaker enclosure's front baffle shall be slanted 20° to facilitate overhead mounting. It shall be constructed of 3/4-in medium density fiberboard (MDF) with the exception of the baffle which shall be of 15mm thickness void-free cross-grain-laminated Baltic birch plywood. The enclosure shall employ extensive internal bracing. It shall be finished in black catalyzed polyurethane. Input connectors shall be a 2-terminal barrier strip and one Neutrik NL4 Speakon. The system shall include a switch allowing it to be operated in biamp or passive powering mode. A total of twelve 3/8"-16 threaded mounting/suspension points (4 on top, 3 per side and 2 on back) shall be provided. The front of the loudspeaker shall be covered with wood-framed cloth grill.

The three-way full range loudspeaker shall be the EAW model DS223e.