Sub115

15 inch Direct-Radiating Subwoofer



Overview

The Sub115 is a 15 inch, vented subwoofer that is designed to provide low frequency support in installations requiring high SPLs from a compact enclosure. Its high power transducer provides a physically engaging musicality like that produced by larger systems.

The Sub115 requires digital signal processing, and many platforms are supported. The Sub115 is an excellent option any time a low profile subwoofer with robust SPL capability is needed. This makes it the perfect choice for distributed low frequency reinforcement in nightclubs, restaurants, and theme parks. It is also well suited for use in a compact DJ booth and as a VLF channel in A/V screening rooms or for multi-media playback.

Technologies

The 15 inch woofer in the Sub115 has a high power, 4 inch voice coil, and is capable of impressively large excursion. The enclosure is optimally tuned to provide maximum low frequency output in an extremely compact package.

Performance Specifications[1]

Operating Mode
Single-amplified w/ DSP

Operating Range [2]
30 Hz to 135 Hz

Nominal Beamwidth
Spherical within operating range

Transducers
LF: 15.0" woofer, 4.0" voice coil; ceramic magnet

Power Handling @ Nominal Impedance [3]
75 V / 700 W @ 8 Ω

Nominal Sensitivity @ Input Voltage [4] (half / whole space)
101 dB / 95 dB @ 2.83 V

Nominal Maximum Continuous SPL (half / whole space)
136 dB / 130 dB peak
130 dB / 124 dB continuous

Equalized Sensitivity @ Input Voltage [5] (half / whole space)
98 dB / 92 dB @ 2.83 V

Equalized Maximum SPL [6] (half / whole space)
132 dB / 126 dB peak
126 dB / 120 dB continuous

Recommended Power Amplifier
700 W to 1050 W @ 8 Ω

Physical Specifications

Connections
(2) Neutrik NL4 Speakon
Pin 1+/-: LF
Pin 2+/-: No Connection

Mounting / Suspension Points
(16) M10 eye bolt angle points

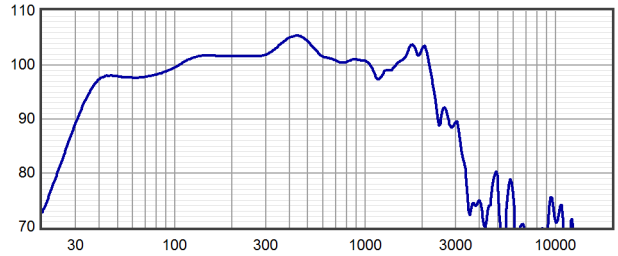
Dimensions / Weight
See pages 4 & 5

Finish
Black painted enclosure w/ matte black grille, or
White painted enclosure w/ matte white grille

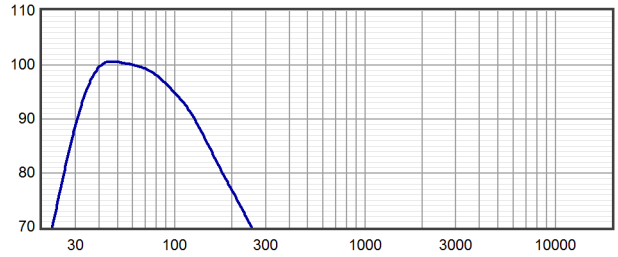
Options

Terminal strip input, Custom color finish,
Weather-resistant (WR) enclosure & hardware

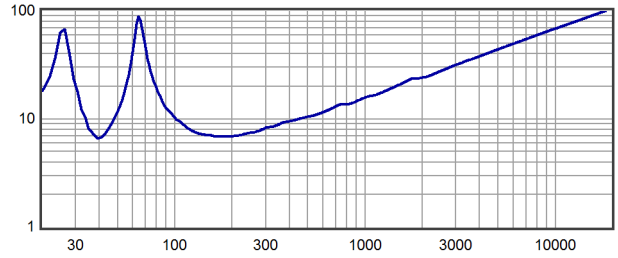
Axial Sensitivity (dB SPL, 2.83 V @ 1 m, half space)[7, 8]



Axial Processed Response (dB, half space)[7, 9]

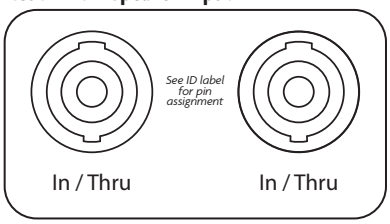


Impedance (ohms)



Connections

Neutrik NL4 Speakon Input



Mechanical Specification Drawings

2D and 3D DWG dimensional drawings are available for download at www.fulcrum-acoustic.com/resources

Notes

[1] **Performance Specifications** *All acoustic specifications rounded to nearest whole number. External DSP with Fulcrum Acoustic-provided settings is required to achieve the specified performance.*

[2] **Operating Range** *The frequency range within which the processed response is within 10 dB of the average.*

[3] **Power Handling** *Based on the AES power handling of the transducers.*

[4] **Nominal Sensitivity** *The 1-meter-referenced SPL produced by a 1 watt band limited pink noise signal, with no processing applied.*

[5] **Equalized Sensitivity** *The 1-meter-referenced SPL produced when an EIA-426-B signal is applied to an equalized loudspeaker system, at a level which produces a total power of 1 watt, in sum, to the loudspeaker subsections.*

[6] **Equalized Maximum SPL** *The 1-meter-referenced SPL produced when an EIA-426-B signal is applied to an equalized loudspeaker system, at a level which drives at least one subsection to its rated power.*

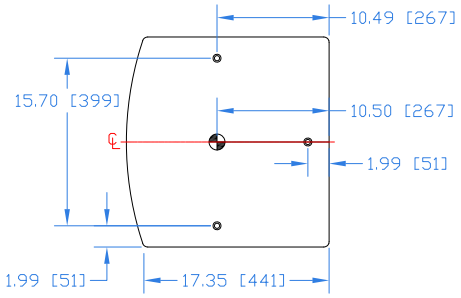
[7] **Resolution** *All response graphs are subjected to 1/6 octave cepstral smoothing with a gaussian weighting function.*

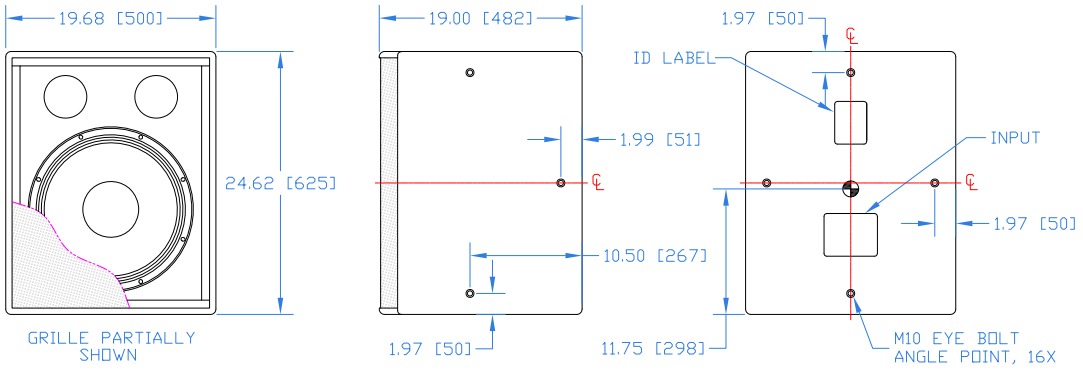
[8] **Axial Sensitivity** *The SPL plotted against frequency for a 1 watt swept sine wave, referenced to 1 m with no signal processing.*

[9] **Axial Processed Response** *The axial magnitude response with recommended signal processing applied.*

Notes:
1. Net Weight = Approx. 68.0 lb / 30.8 kg
2. Symbol ⊙ = M10 x 1.5 eye bolt angle point
3. Symbol ⊕ = CoG

REVISIONS		
REV	DESCRIPTION	APPR / DATE
1	RELEASED TO PRODUCTION	DWG 7/30/08
2	ROTATED INPUT 90°, ADDED NAME PLATE	RAS 5/4/09
3	ADDED COG, UPDATED WEIGHT	RAF 6/11/09
4	MOVE EB ANGLE POINTS	RAF 8/5/09
5	ADDED SHIPPING WEIGHT	RAF 12/9/11
6	UPDATE NOTES, ADJUST SIDE POINTS	RAF 2/9/26



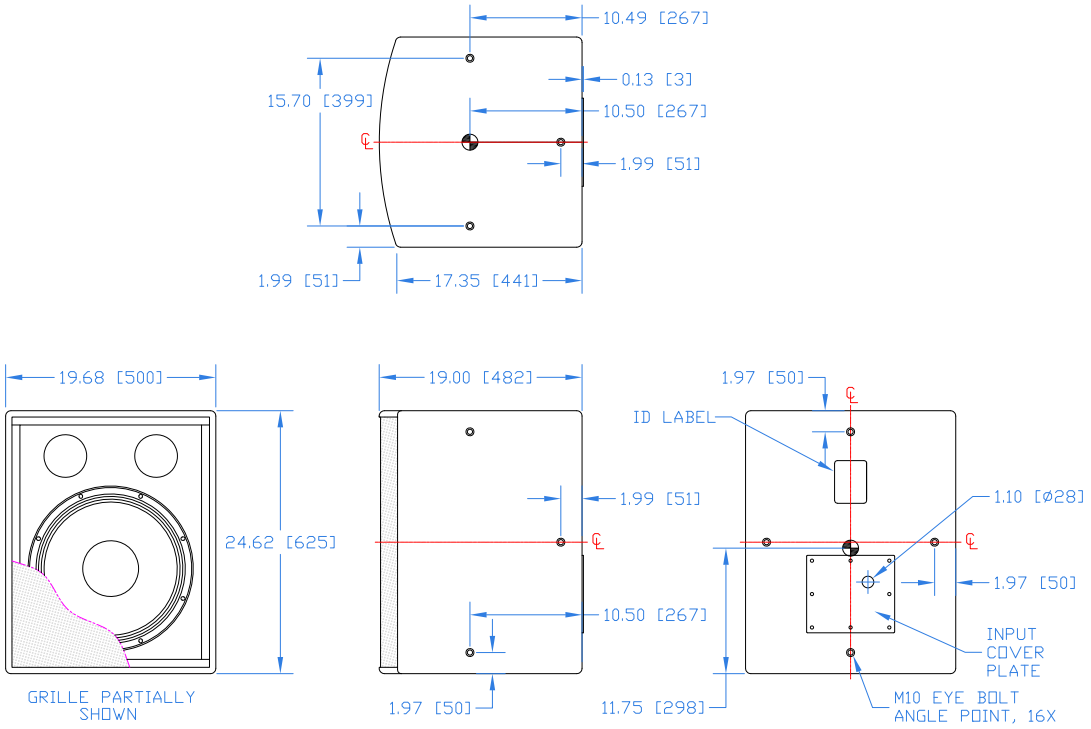


THIRD ANGLE PROJECTION	UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES TOLERANCE IN INCHES .X±.1 .XX±.015 .XXX±.005 FRACTIONS ±1/32 ANGLES ±1/2° (X.XX) = REF DIMS NO TOLERANCE IMPLIED TSC = THEORETICAL SHARP CORNER DIMENSIONS ACROSS CENTERLINES TO BE SYMETRICAL	STATUS RELEASED	FULCRUM ACOUSTIC, LLC 1 MAIN STREET, WHITINSVILLE, MA 01588 USA
		APPROVALS / DATE	TITLE: Mechanical Spec. Sub115
		DRAWN: DWG 7/30/08	
		CHECKED: RAF 6/12/09	
		DES ENG:	B SHEET 1 OF 1 SCALE: 1:16
THIS DRAWING IS THE PROPERTY OF FULCRUM ACOUSTIC, AND SHALL NOT BE COPIED, REPRODUCED, OR USED AS THE BASIS FOR MANUFACTURE OR SALE OF APPARATUS WITHOU WRITTEN AUTHORIZATION. DO NOT SCALE DRAWING.		MFG ENG:	DWG. NO. 820-100-006 REV 6

Drawing is reduced. Do not scale.

Notes:
1. Net Weight <= Approx. 68.0 lb / 30.8 kg
2. Symbol ⌾ = M10 x 1.5 eye bolt angle point
3. Symbol ⌖ = CoG
4. Enclosure construction:
   Fiberglass Reinforced Polyurethane

REVISIONS		
REV	DESCRIPTION	APPR / DATE
1	NEW ISSUE	DWG 3/2/10
2	UPDATE DIMENSIONS	RAF 2/9/16
3	UPDATE NOTES, ENCLOSURE, AND INPUT COVER PLATE	RAF 2/9/26



THIRD ANGLE PROJECTION	UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES TOLERANCE IN INCHES .X±.1 .XX±.015 .XXX±.005 FRACTIONS ±1/32 ANGLES ±1/2° (X.XX) = REF DIMS NO TOLERANCE IMPLIED TSC = THEORETICAL SHARP CORNER DIMENSIONS ACROSS CENTERLINES TO BE SYMETRICAL	STATUS RELEASED	FULCRUM ACOUSTIC, LLC 1 MAIN STREET, WHITINSVILLE, MA 01588 USA
		APPROVALS / DATE	TITLE: Mechanical Spec. Sub115-WR
		DRAWN: DWG 3/2/10	
		CHECKED: RAF 3/2/10	
		DES ENG:	B SHEET 1 OF 1 SCALE: 1:16
THIS DRAWING IS THE PROPERTY OF FULCRUM ACOUSTIC, AND SHALL NOT BE COPIED, REPRODUCED, OR USED AS THE BASIS FOR MANUFACTURE OR SALE OF APPARATUS WITHOU WRITTEN AUTHORIZATION. DO NOT SCALE DRAWING.		MFG ENG:	DWG. NO. 820-100-032 REV 3

Drawing is reduced. Do not scale.