Sub112

12 inch Direct-Radiating Subwoofer

VLF Install

Overview

The Sub112 is a 12 inch, vented subwoofer that is designed to provide low frequency support in installations requiring high SPLs from an extremely compact enclosure. Its high power transducer provides a physically engaging musicality like that produced by larger systems.

The Sub112 requires digital signal processing, and many platforms are supported. The Sub112 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 as a VLF channel in A/V screening rooms or for multi-media playback.

Technologies

The 12 inch woofer in the Sub112 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]
32 Hz to 135 Hz

Nominal Beamwidth
Spherical within operating range

Transducers
LF: 12.0" 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)
97 dB / 91 dB @ 2.83 V

Nominal Maximum Continuous SPL (half / whole space)
131 dB / 125 dB peak
125 dB / 119 dB continuous

Equalized Sensitivity @ Input Voltage [5] (half / whole space)
93 dB / 87 dB @ 2.83 V

Equalized Maximum SPL [6] (half / whole space)
128 dB / 122 dB peak
122 dB / 116 dB continuous

Recommended Power Amplifier
700 W to 1050 W @ 8 Ω

Physical Specifications

Connections
(2) Neutrik NL4 Speakon
Pin 1+/-: LF
Pin 2+/-: NC

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

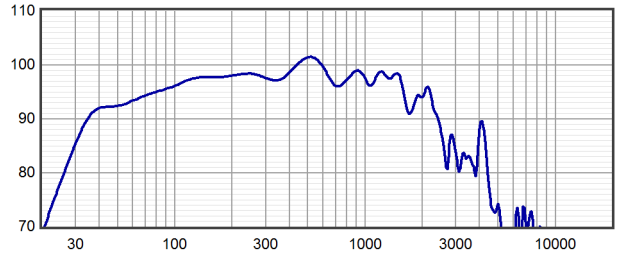
Dimensions / Weight
See page 4

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

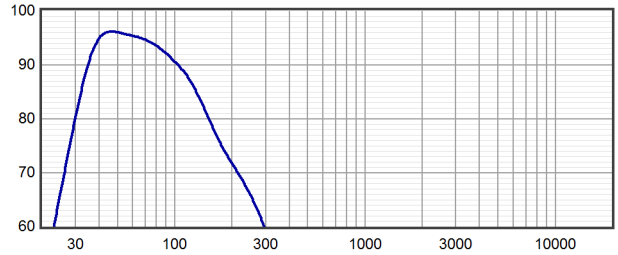
Options

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

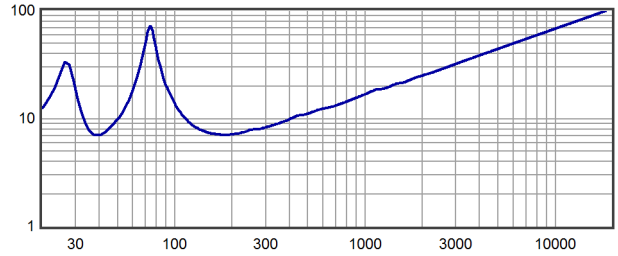
Axial Sensitivity (dB SPL, 2.83 V @ 1 m, half space)[7, 8]



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

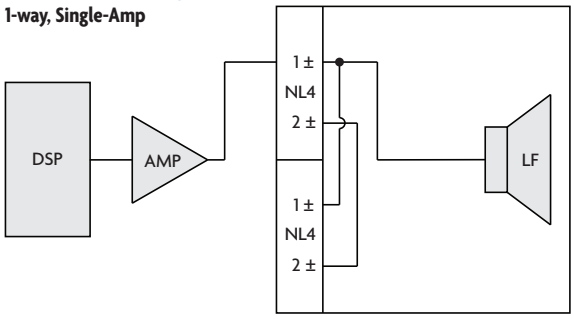


Impedance (ohms)



Connection Diagram

1-way, Single-Amp



Mechanical Specification Drawings

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

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.*

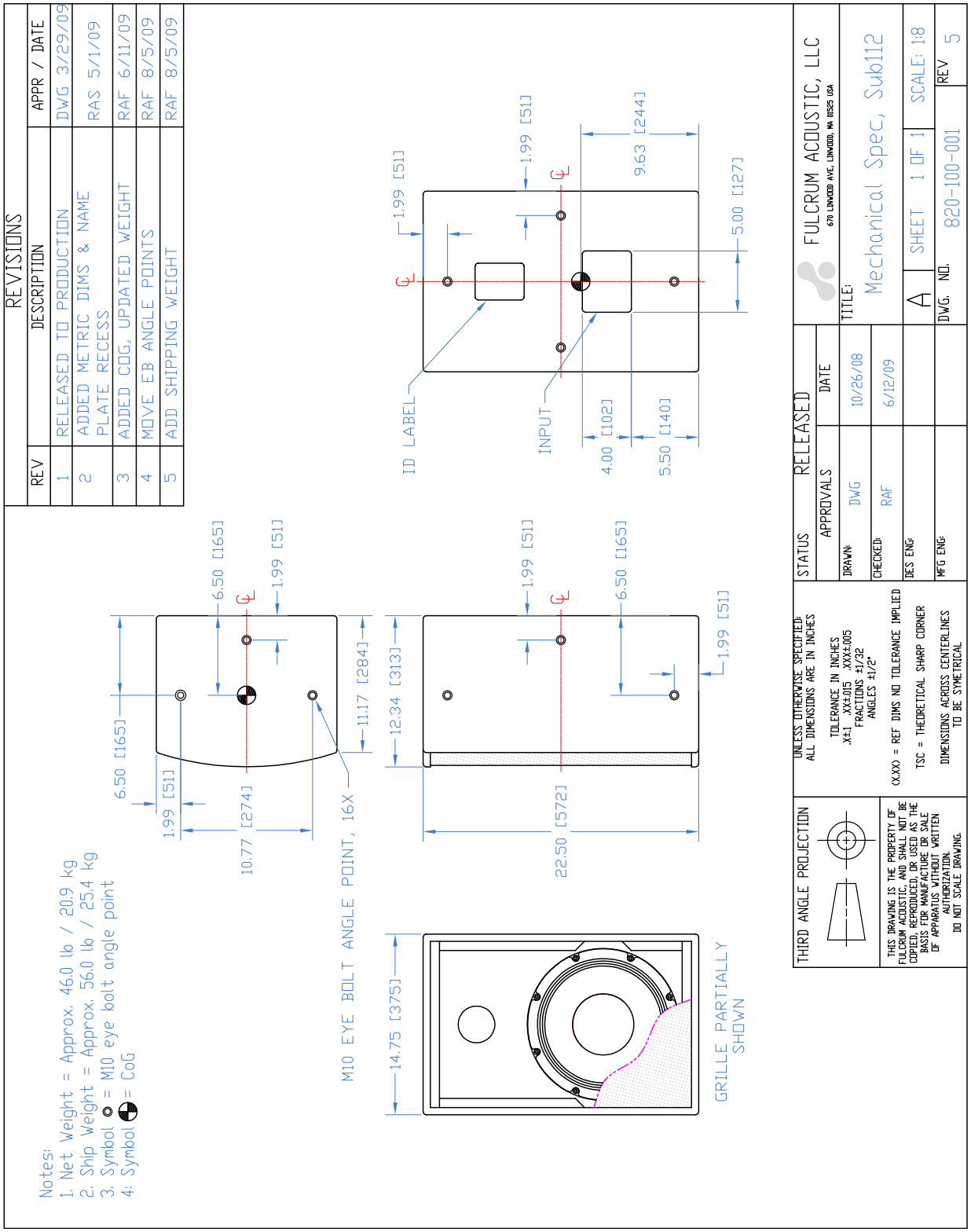
[5] **Equalized Sensitivity** *The 1-meter-referenced SPL produced when an EIA-426-B signal is applied to an equalized loudspeaker system, at a level which produces a total power of 1 watt, in sum, to the loudspeaker subsections.*

[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.*



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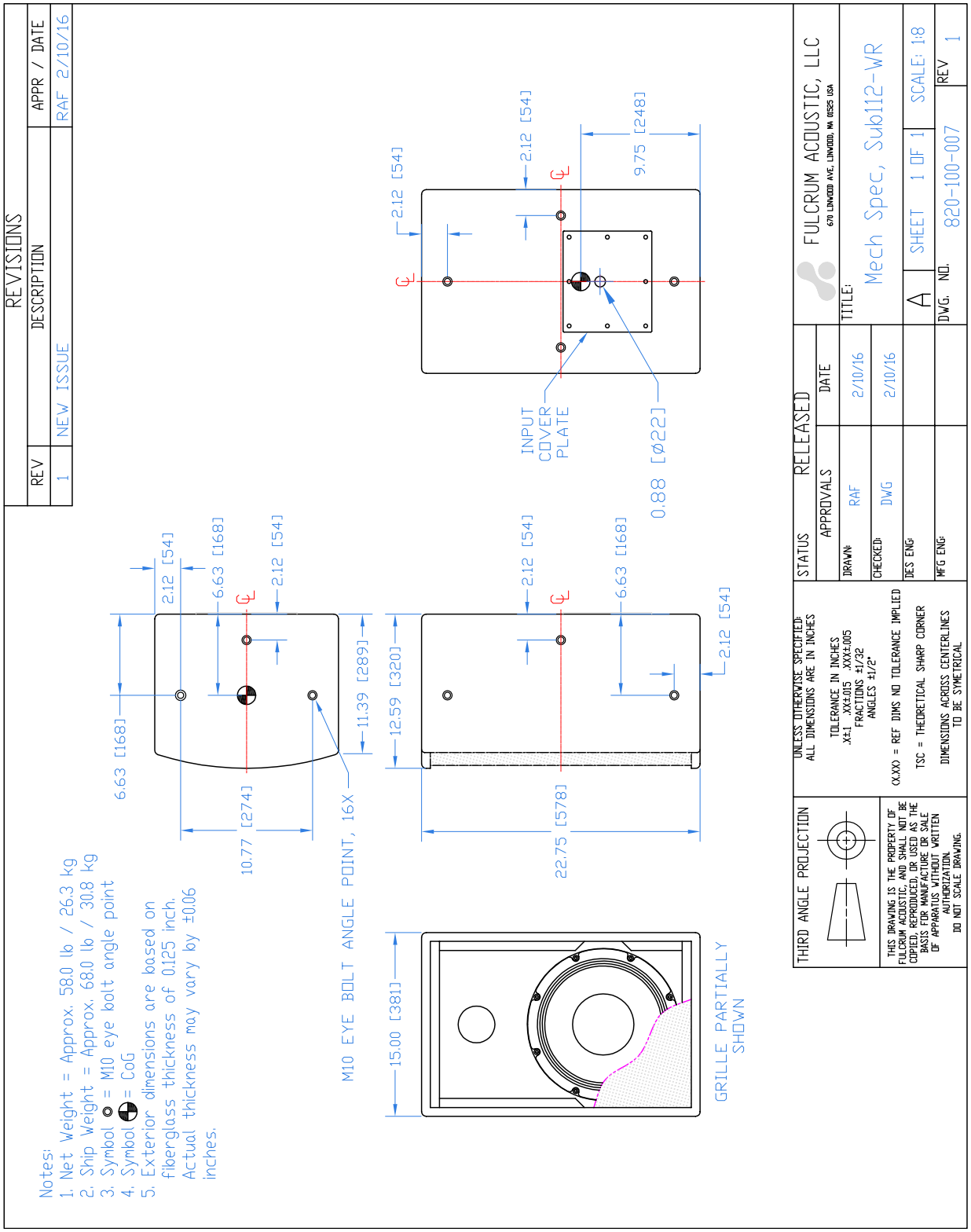

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