

SM12

2-Way 12" Stage Monitor

- ▶ High output, coaxial stage monitor.
- ▶ Patented CSA coaxial horn provides superior control, fidelity and output.
- ▶ Integrated kickstand supports alternative deployment angle.
- ▶ Multiple input options improves cable management utilizing fewer cable runs.
- ▶ Companion UXA4403 & UXA4416 amplifiers.
- ▶ Passive operation for maximum amplifier utilization.



OVERVIEW

Inspired by the Microwedge acoustic design, SM12 is the latest addition to EAW's robust catalog of stage monitors. The monitor can either be deployed on a flat surface using two cabinet orientations, or utilizing a third party pole mount with the available mounting pattern. An integrated kickstand allows for additional positioning when used as a stage or floor monitor.

Multiple input options allows for easy concealment of cables while utilizing fewer cable runs. SM12 integrates seamlessly with the UXA4403 & UXA4416 amplifiers, ensuring a consistent tuning each time the system is in use.

TECHNOLOGIES



Beamwidth Matched Crossovers Introduced over a decade ago for our MK series loudspeakers, EAW Engineers use carefully-designed HF horns and crossovers to eliminate polar irregularities through the crossover point.



Focusing™ Use of advanced digital signal processing to perfect the impulse response of a loudspeaker in the time domain. Eliminating horn "honk" and splashiness, this makes the loudspeaker sound like a studio monitor instead of a "PA" speaker.



DynO™ Dynamic Optimization actively tracks input spectrum and power delivery, continually wicking maximizing output and fidelity at any drive level.



Symmetry of Sources™ Symmetrical arrangement of acoustic sources along a common axis for utmost consistency throughout the coverage pattern.



Concentric Summation Array (CSA)™ A method of seamlessly integrating MF and HF components within a single horn. With CSA, multiple subsystems sum coherently, without interruption to either HF or MF wavefronts.

TECHNICAL SPECIFICATIONS

2-WAY 12" STAGE MONITOR

PERFORMANCE	
Max SPL¹ (12 dB Crest Factor)	135dB
Max SPL¹ (6 dB Crest Factor)	129dB
Operating Range²	60Hz-20kHz
Nominal Beamwidth³	90 x 60 degrees, rotatable
Axial Sensativity	95dB
Calculated Axial Output	123dB average
Nominal Phase	±15° from ideal high-pass filter
Input Impedance	8 ohms nominal, 6.5 ohms @ 200Hz minimum
Recommended HPF	50Hz, 12dB/oct
ACCELERATED LIFE TEST ⁴	
LF/HF	600W @ 8ohms
CONFIGURATION	
LF Transducer, Loading	1x12" cone, 2.5" VC, Vented
HF Transducer, Loading	1x1-in exit, 44mm voice coil compression driver, Concentric Summation Array (CSA) loaded
Operating Modes	Single-Amp (LF/HF, DSP w/ EAW Focusing & DynO)
PHYSICAL	
Physical Rigging	2x M6 Theaded Points for Pole Cup Mount 4 x M6 Mounting pattern for wall mount bracket
Dimensions (HxWxD)	12.8 x 14.1 x 21.5in (326 x 357 x 546mm)
Net Weight	35 lbs (15.9kg)
Shipping Weight	40 lbs (18.1kg)
Mounting Accessories	Metal Wall Mount Pan/Tilt Bracket
Input Connector	4x Nuetrik NL4 (2x on bottom, 2x inside port)

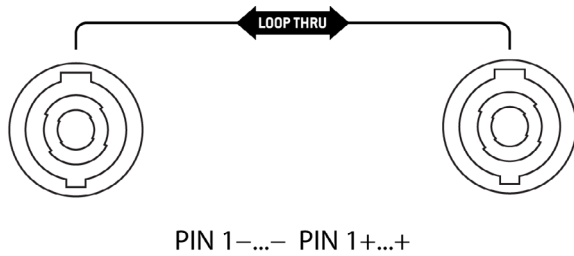
1 Calculated peak SPL at 1m with stated crest factor pink noise. Specified as whole space (free field) for full range loudspeakers, half space for subwoofers.

2 Operating Range: Range where the processed Frequency Response stays within -10 dB SPL of the power averaged SPL within this range; measured on the geometric axis. Narrow band dips are excepted.

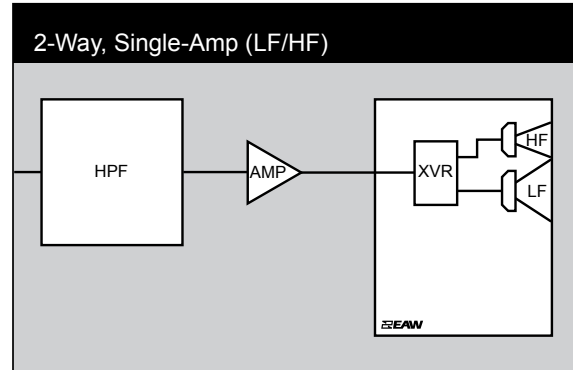
3 Nominal Beamwidth: Design angle for the -6 dB SPL points, referenced to 0 dB SPL as the highest level.

4 Accelerated Life Test: Maximum test input voltage applied with an EIA-426B defined spectrum; measured with recommended signal processing and Recommended Protection Filter.

BOTTOM INPUT



SIGNAL



LEGEND

- LF/MF/HF:** Low Frequency / Mid Frequency / High Frequency.
- AMP:** User Supplied Power Amplifier
- XVR:** Passive LPFs, HPFs, and EQ integral to the loudspeaker.
- EAW Focusing:** Digital Signal Processor capable of implementing EAW Focusing.

RECOMMENDED AMPLIFIER CONFIGURATION

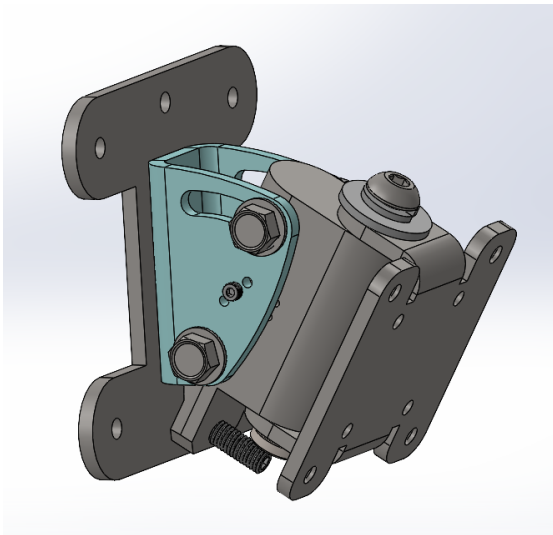
SINGLE-AMP



MODEL	PER CHANNEL	PER AMPLIFIER
UXA4403	1	4
UXA4416	4	16

EAW strongly recommends utilizing the processing setting to take full advantage of your speakers. Pair with EAW UXA Amps for the best performance of EAW Core Technologies

RIGGING CONFIGURATION

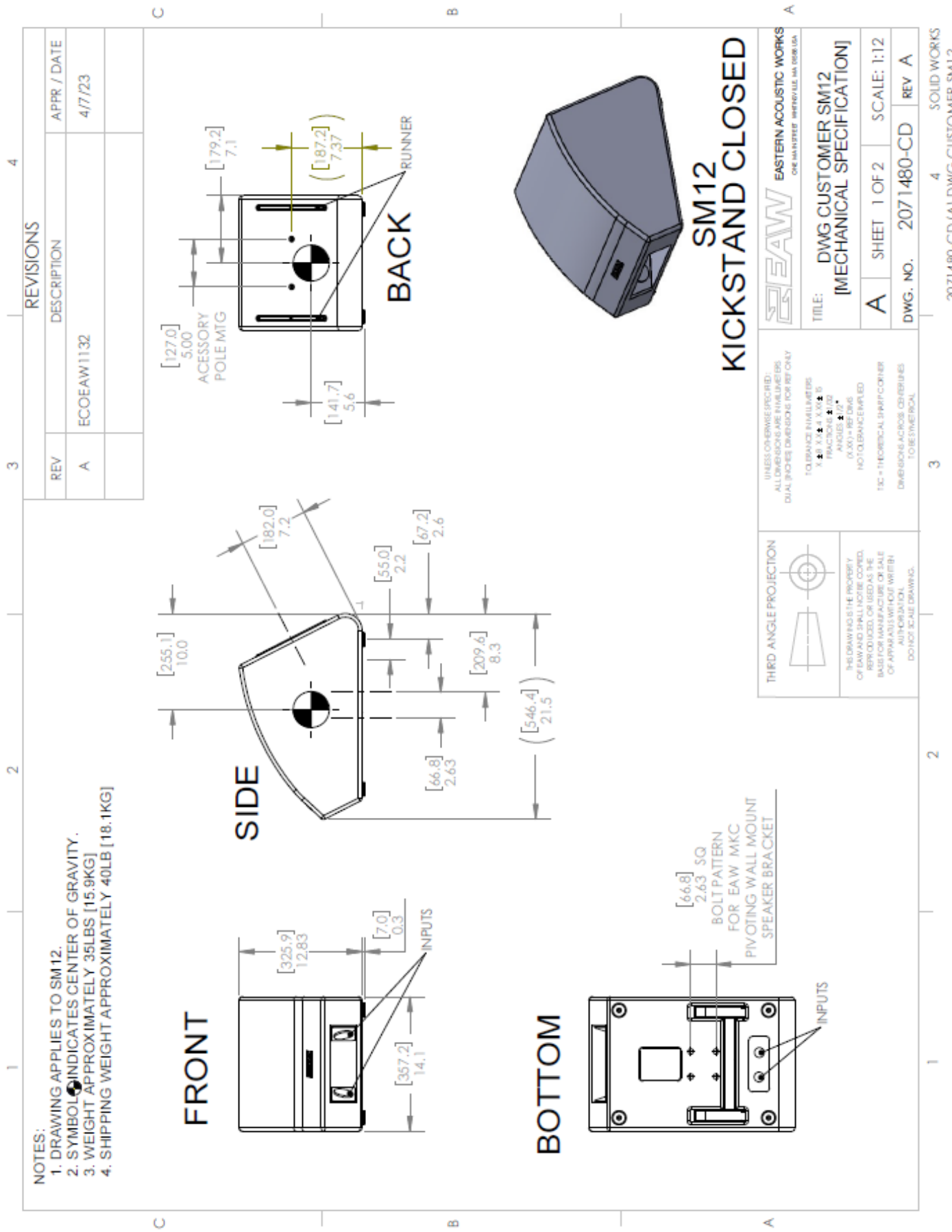


MOUNTING HARDWARE

DESCRIPTION	PART NUMBER
Metal Wall Mount Pan & Tilt Bracket	2071833

INTEGRATED KICKSTAND





NOTES:

1. DRAWING APPLIES TO SM12.
2. SYMBOL INDICATES CENTER OF GRAVITY.
3. WEIGHT APPROXIMATELY 35LBS [15.9KG]
4. SHIPPING WEIGHT APPROXIMATELY 40LB [18.1KG]

REVISIONS		
REV	DESCRIPTION	APPR / DATE
A	EEOEAW1132	4/7/23

<p>EASTERN ACOUSTIC WORKS ONE HANDEE STREET HERRYVILLE, MA 01038 USA</p>	<p>TITLE: DWG CUSTOMER SM12 [MECHANICAL SPECIFICATION]</p>	
	<p>A SHEET 1 OF 2</p>	<p>SCALE: 1:12</p>
<p>DWG. NO. 2071480-CD</p>		<p>REV A</p>

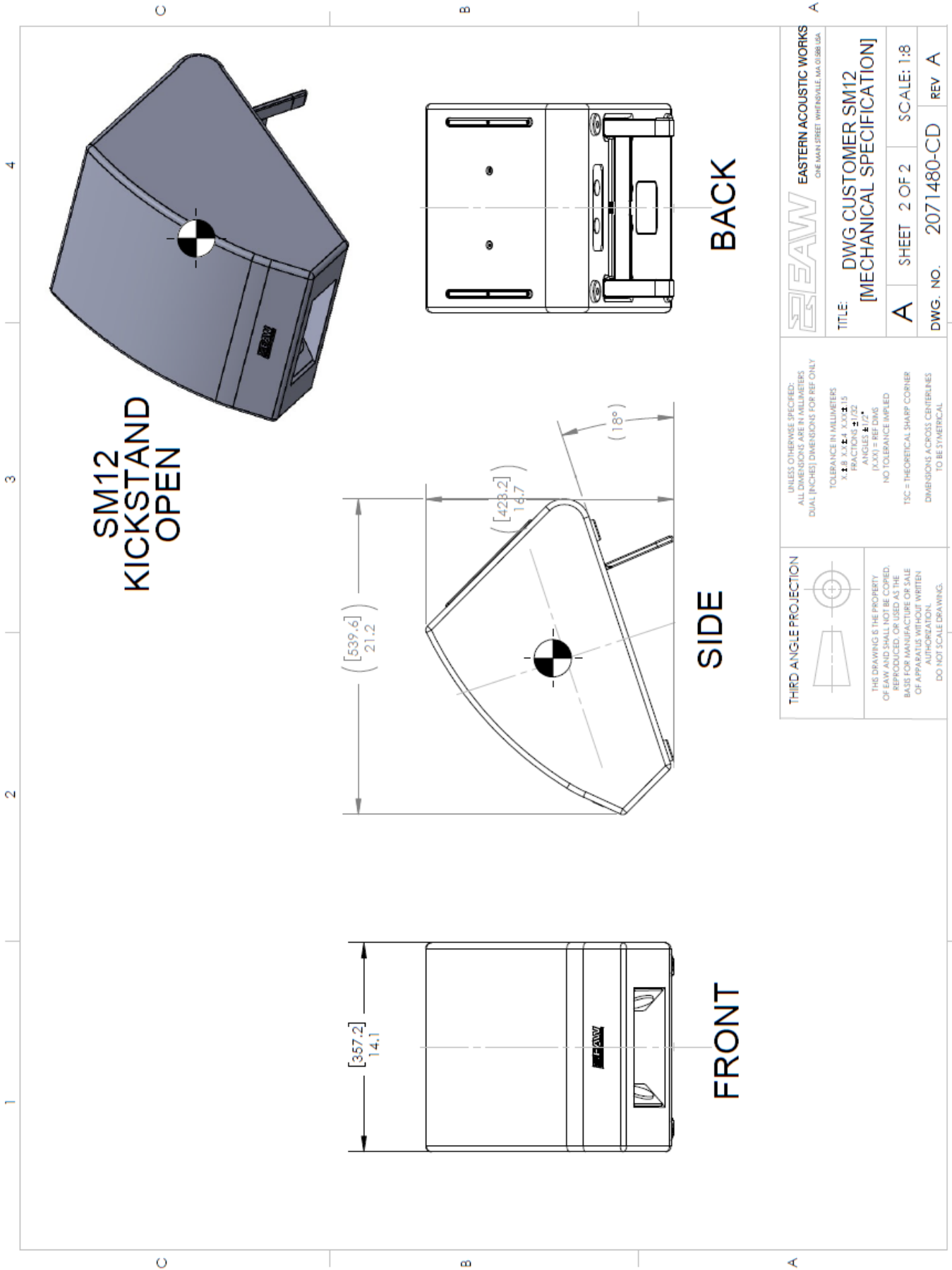
UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN MILLIMETERS
DUAL (INCH) DIMENSIONS FOR REF ONLY

TOLERANCE IN MILLIMETERS
X .3 X .5 X .5 X .5
FRACTIONS .010
ANGLES .2°
HOLE-REF DRG
NOT TO BE ENGRAINED

TSC = THEORETICAL SHARP CORNER
DIMENSIONS ACROSS CORNERS
TO BE DIMENSIONAL

THIRD ANGLE PROJECTION

THIS DRAWING IS THE PROPERTY
OF EAW AND SHALL NOT BE REPRODUCED,
REPRODUCED, OR USED AS THE
BASE FOR MANUFACTURE OR SALE
OF APPARATUS WITHOUT WRITTEN
AUTHORIZATION.
DO NOT SCALE DRAWING.

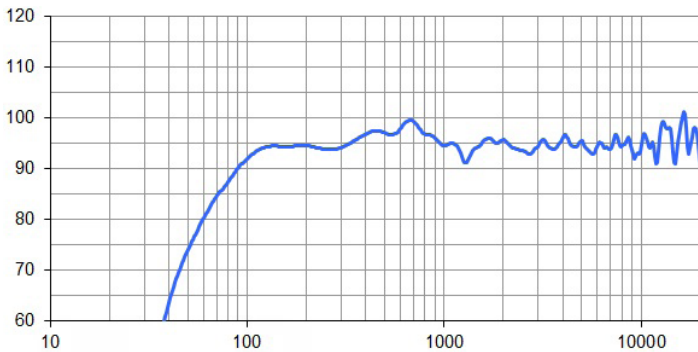


<p>THIRD ANGLE PROJECTION</p> <p>THIS DRAWING & THE PROPERTY OF EAW AND SHALL NOT BE COPIED, REPRODUCED, OR USED AS THE BASIS FOR MANUFACTURE OR SALE OF APPARATUS WITHOUT WRITTEN AUTHORIZATION. DO NOT SCALE DRAWING.</p>	<p>UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN MILLIMETERS DUAL [INCHES] DIMENSIONS FOR REF ONLY</p> <p>TOLEANCE IN MILLIMETERS X.25 FOR DIMENSIONS ANGLES 4.0° (X.00) = REF DIMS NO TOLERANCE IMPLIED TSC = THEORETICAL SHARP CORNER DIMENSIONS ACROSS CENTERLINES TO BE SYMETRICAL</p>		<p>EASTERN ACOUSTIC WORKS ONE MAIN STREET WINDSORVILLE, MA 01898 USA</p>	
	<p>TITLE: DWG CUSTOMER SM12 [MECHANICAL SPECIFICATION]</p>		<p>SCALE: 1:8</p>	
<p>SHEET: 2 OF 2</p>		<p>DWG. NO.: 2071480-CD</p>		
<p>REV. A</p>		<p>REV. A</p>		

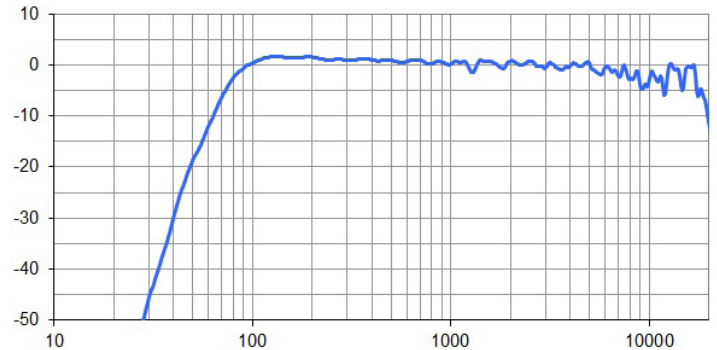
2071480-CD (A) DWG CUSTOMER SM12

PERFORMANCE GRAPHS

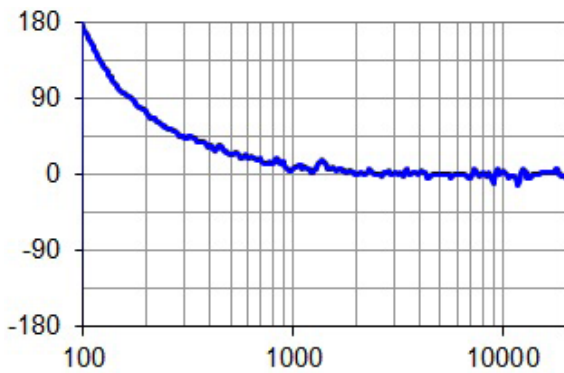
FREQUENCY¹ ■=Overall Response Unprocessed



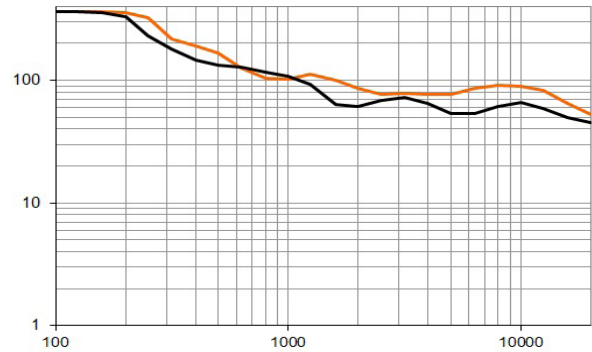
FREQUENCY¹ ■=Overall Response Processed



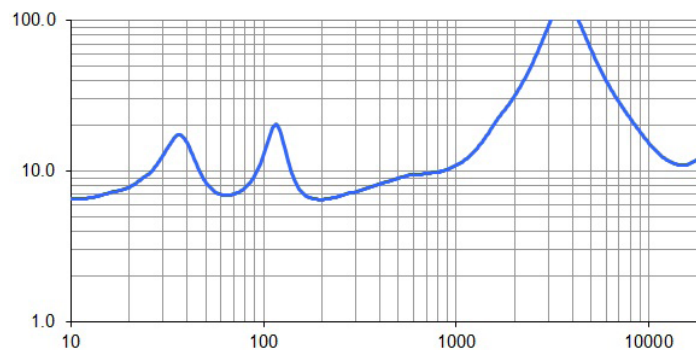
PHASE LINEARITY



BEAMWIDTH² ■=Horizontal ■=Vertical



IMPEDANCE



1 Variation in acoustic output level with frequency for a constant input signal. Processed: normalized to 0 dB SPL. Unprocessed inputs: 2 V (4 ohm nominal impedance), 2.83 V (8ohm nominal impedance), or 4 V (16 ohm nominal impedance) referenced to a distance of 1 m.

2 Average angle for each 1/3 octave frequency band where, starting from the rear of the loudspeaker, the output first reaches -6 dB SPL referenced to 0 dB SPL as the highest level. This method means the output may drop below -6 dB SPL within the beamwidth angle.