

QX500i Series

3-Way Full-Range Loudspeakers

QX544i ▶ 45° x 45° QX594i ▶ 90° x 45°

QX564i ▶ 60° x 45° QX596i ▶ 90° x 60°

QX566i ▶ 60° x 60°

- ▶ High output, bi-amplified, 3-way performance
- ▶ Broadband pattern control
- ▶ Ultra-efficient, coaxial MF/HF compression driver
- ▶ Four Phase Aligned™ 12in cone transducers (vertical & horizontal pairs)
- ▶ Installation flexibility



OVERVIEW

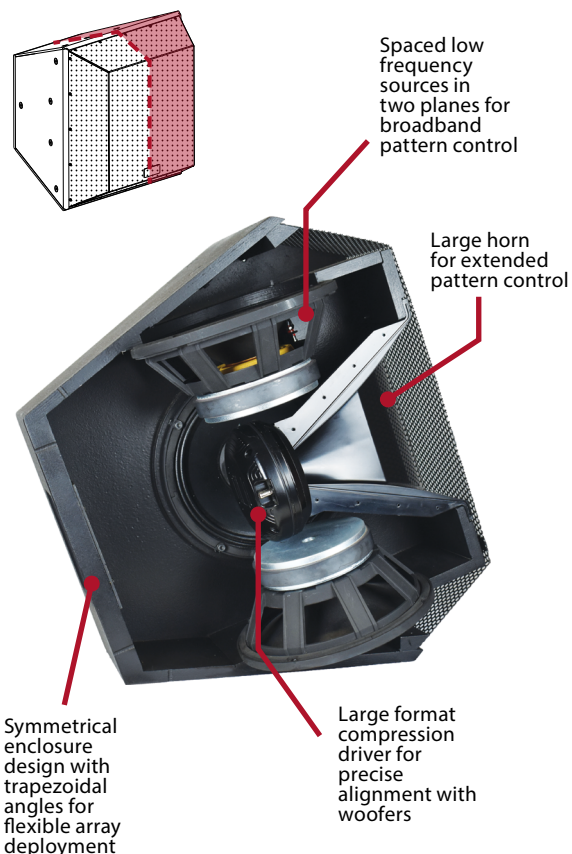
The QX500i Series delivers high output, broadband pattern control and exceptional fidelity for a wide range of permanently installed applications. Its high output level make it appropriate for long throws in arenas and stadiums or for high-energy applications like live music venues or dance clubs. The broadband pattern control of QX500i loudspeakers let them tame hostile acoustical environments like cathedrals or highly reverberant public spaces. And their exceptional fidelity pleases the most critical listeners in concert halls and performing arts centers.

The QX500i Series loads an ultra-efficient mid/high compression driver with constant directivity horn available in five horn patterns ranging from 45° x 45° to 90° x 60°. Four Phase Aligned™ 12in low frequency transducers arranged as vertical and horizontal pairs leverage beneficial interaction based on their spacing to extend pattern control well into the low frequency range.

Because the four low frequency transducers surround the coaxial mid/high compression driver symmetrically in both the horizontal and vertical planes, response across the full frequency spectrum appears to originate from a single point in space. This basic design facilitates an idealized summation of the three frequency sections, eliminating the anomalies associated with designs that physically offset the sections. This idealized coherence applies in both the horizontal and vertical planes throughout the coverage area.

INSIDE EAW TECHNOLOGIES

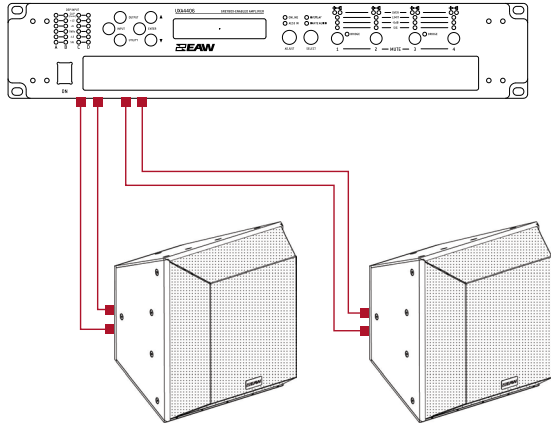
Side View Cross Section



RECOMMENDED AMPLIFIER CONFIGURATION

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

BI-AMP **UXA4410**



MODEL	PER CHANNEL	PER AMPLIFIER
UXA4410	LF1 + LF2	2

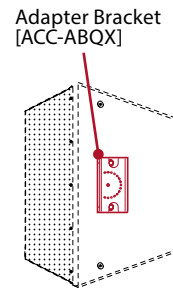
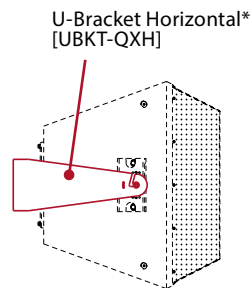
MOUNTING HARDWARE & ACCESSORIES

DESCRIPTION	PART NUMBER	
	BLACK*	WHITE*
U-Bracket Horizontal Black [UBKT-QXH]	2036568	2039349
Adapter Bracket QX Black [ACC-ABQX]	2036437	2039348
Weather Protection Shield [ACC-WPSQX]	2036515	2043648
3/8"-16 Eye-Bolt Kit [ACC-EB3825]	104001	

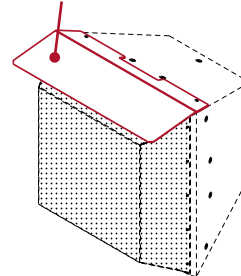
*Custom colors available upon request

Third-Party Compatible

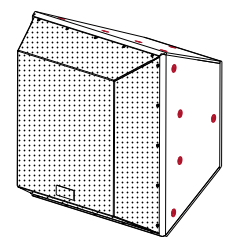
BRAND	MODEL
Polar Focus	QX Mounting System



Weather Protection Shield [ACC-WPSQX]
(included with WP speakers)



3/8"-16 Eye-Bolt Kit [ACC-EB3825]



*U-Bracket Horizontal [UBKT-QXH] requires Adapter Bracket [ACC-ABQX] for installation

TECHNICAL SPECIFICATIONS

3-WAY FULL-RANGE LOUDSPEAKERS

PERFORMANCE	QX544	QX564	QX566	QX594	QX596
Max SPL¹	147dB	147dB	146dB	145dB	145dB
Operating Range²	55 Hz to 20 kHz	55 Hz to 19 kHz	55 Hz to 20 kHz	55 Hz to 19 kHz	55 Hz to 20 kHz
Nominal Beamwidth³ Horizontal x Vertical	45° x 45°	60° x 45°	60° x 60°	90° x 45°	90° x 60°
Nominal Phase	±15° from ideal high-pass filter				
Input Impedance⁴	LF1, LF2 (each): 4Ω LF (total): 2Ω MF/HF: 8Ω				
Accelerated Life Test⁵					
LF1,LF2 (each)	63V		1000W		
LF Total	63V		2000W		
MF/HF	37V		175W		
Axial Sensitivity⁶					
LF	103dB		55hz to 530hz		
MF/HF	113dB		430hz to 20khz		
CONFIGURATION	QX544	QX564	QX566	QX594	QX596
LF Transducer, Loading	4x 12in cone, Phase-Aligned™				
MF Transducer, Loading	1x 2in exit, 3.5in compression mid, Horn-loaded				
HF Transducer, Loading	1x 2in exit, 1.75in compression driver, Horn-loaded				
Operating Modes	Amplifier Channels			External Signal Processing	
Bi-Amp (Passive MF/HF)	LF, MF/HF			DSP with EAW Focusing	
PHYSICAL	QX544	QX564	QX566	QX594	QX596
Material	Exterior grade Baltic birch plywood with wear-resistant textured paint				
Physical/Rigging	22 x 3/8"-16 Mounting Points				
Dimensions (HxWxD)	28 x 28 x 28.8in (710 x 710 x 605mm)				
Net Weight	134lb (61kg)				
Shipping Weight	149lb (68kg)				
Input Connector	6-Pin Terminal Strip In + Out				
ORDERING	QX544	QX564	QX566	QX594	QX596
Part Numbers					
Black Paint	2039613-90	2039615-90	2039612-90	2039614-90	2039611-90
White Paint	2039622-90	2039625-90	2039624-90	2039623-90	2039621-90
Weather Protected (WP) Black	2039618-90	2039620-90	2039617-90	2039619-90	2039616-90
Weather Protected (WP) White	Available upon request. Contact your EAW sales representative.				
Custom Colors					

1 Calculated max SPL at 1m with 4:1 (12dB) 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 Nominal Impedance: Selected 4, 8, or 16 ohm resistance such that the minimum impedance point is no more than 20% below this resistance over the Operating Range.

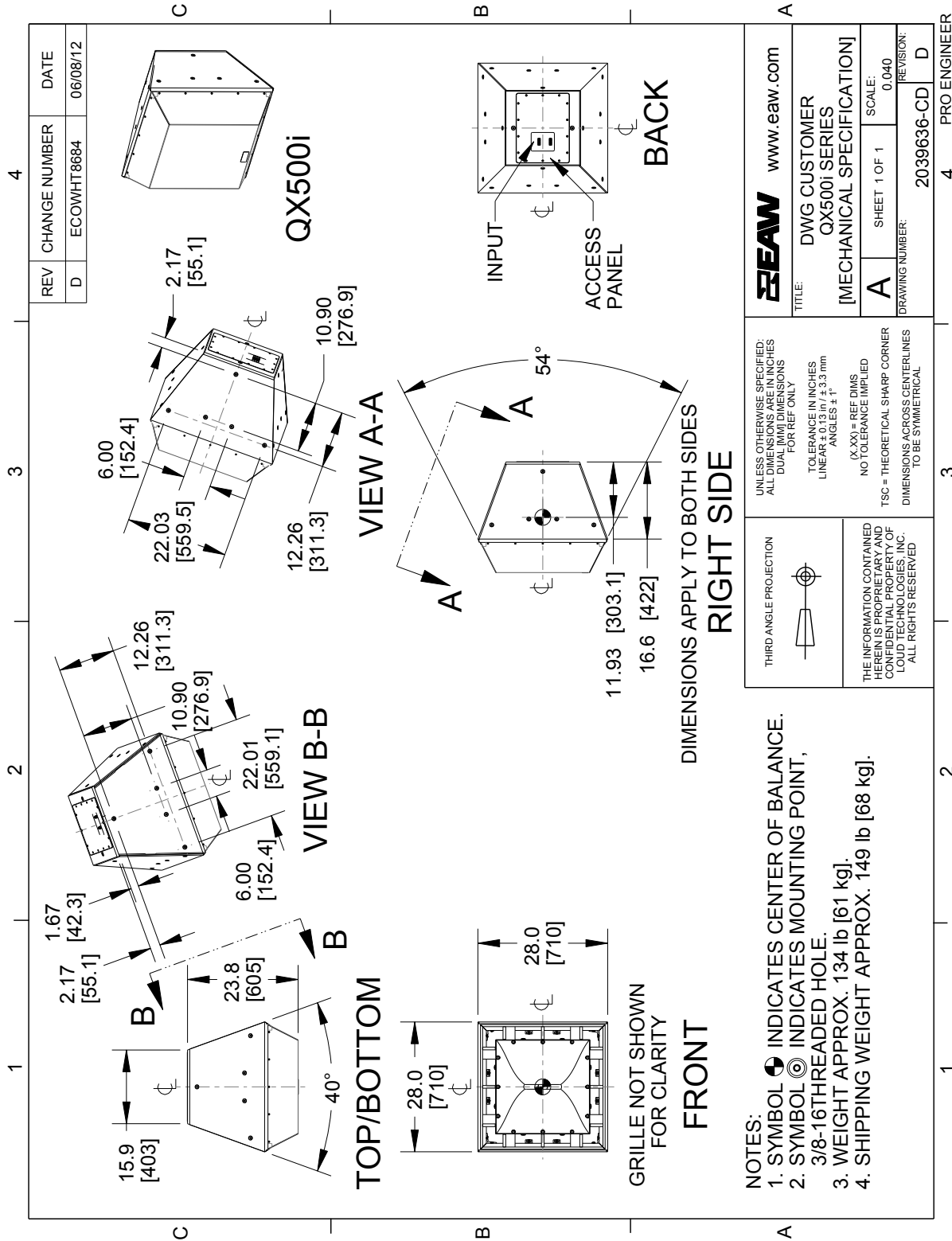
5. Accelerated Life Test: Maximum test input voltage applied with an EIA-426B defined spectrum; measured with recommended signal processing and Recommended Protection Filter.

6. Axial Sensitivity: Power averaged SPL over the Operating Range with an input voltage that would produce 1 W at the nominal impedance; measured with no external processing on the geometric axis, referenced to 1 m.

FOR PERFORMANCE GRAPHS, SEE ACOUSTICAL DATA DOCUMENT

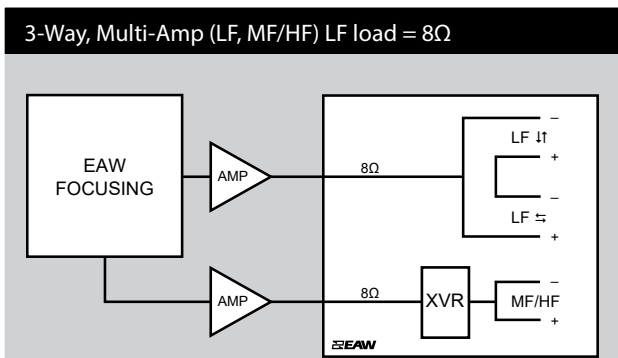
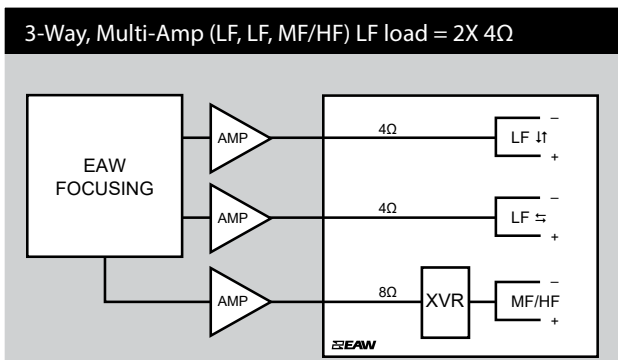
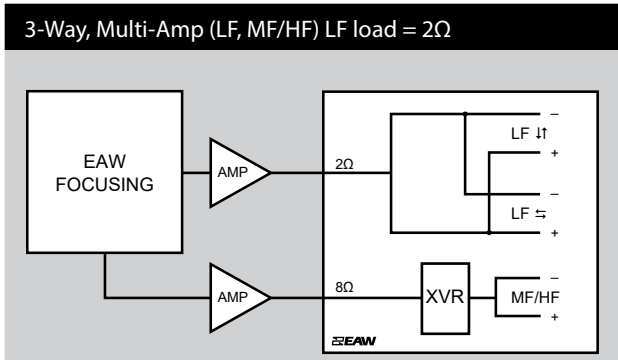
ENCLOSURE

Material Exterior-grade Baltic birch plywood
 Finish Wear resistant textured black paint
 Grille Powder-coated perforated steel



NOTE: This drawing has been reduced. Do not scale.

SIGNAL DIAGRAM



Signal Diagram Abbreviations & Definitions

Signal Diagram Abbreviations & Definitions	
LF/MF/HF	Low Frequency / Mid Frequency / High Frequency
AMP	User Supplied Power Amplifier –or– Integral Amplifier
XVR	Passive LPFs, HPFs, and EQ integral to the loudspeaker
EAW Focusing	Digital Signal Processor capable of implementing EAW Focusing

INPUT PANEL

