

# 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

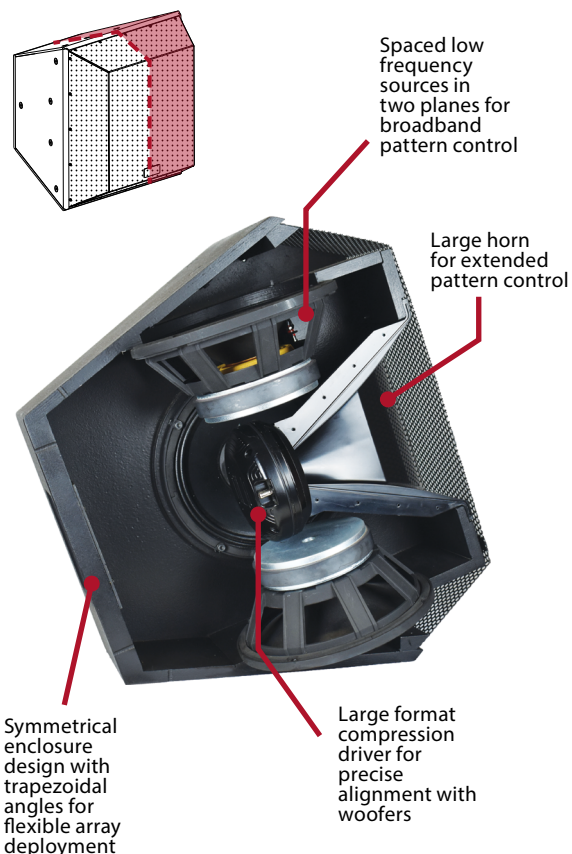
The QX500i Series delivers high output, broadband pattern control and exceptional fidelity for a wide range of permanently installed applications. Its high output level make it appropriate for long throws in arenas and stadiums or for high-energy applications like live music venues or dance clubs. The 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

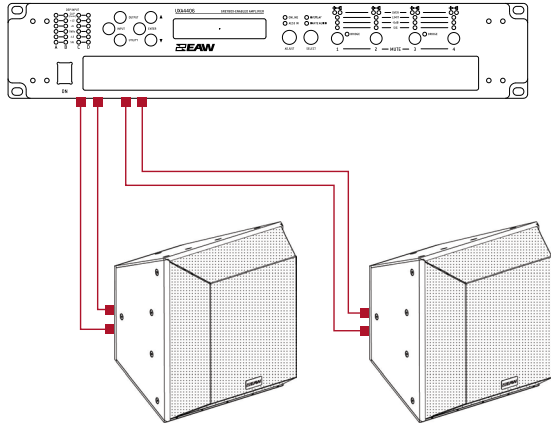
#### Side View Cross Section



## 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

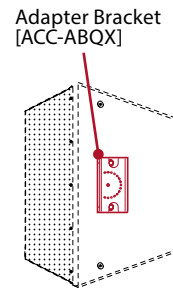
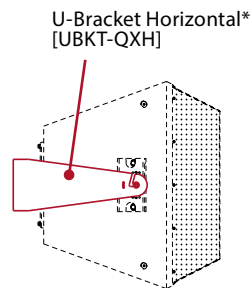
## MOUNTING HARDWARE & ACCESSORIES

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

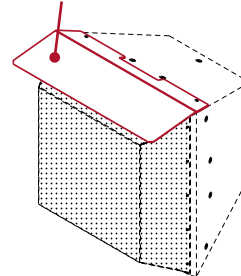
\*Custom colors available upon request

### Third-Party Compatible

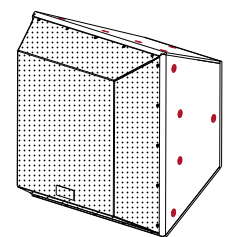
BRAND	MODEL
<b>Polar Focus</b>	QX Mounting System



**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
<b>Max SPL<sup>1</sup></b>	147dB	147dB	146dB	145dB	145dB
<b>Operating Range<sup>2</sup></b>	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
<b>Nominal Beamwidth<sup>3</sup></b> Horizontal x Vertical	45° x 45°	60° x 45°	60° x 60°	90° x 45°	90° x 60°
<b>Nominal Phase</b>	±15° from ideal high-pass filter				
<b>Input Impedance<sup>4</sup></b>	<b>LF1, LF2 (each): 4Ω LF (total): 2Ω MF/HF: 8Ω</b>				
<b>Accelerated Life Test<sup>5</sup></b>					
LF1,LF2 (each)	63V		1000W		
LF Total	63V		2000W		
MF/HF	37V		175W		
<b>Axial Sensitivity<sup>6</sup></b>					
LF	103dB		55hz to 530hz		
MF/HF	113dB		430hz to 20khz		
CONFIGURATION	QX544	QX564	QX566	QX594	QX596
<b>LF Transducer, Loading</b>	4x 12in cone, Phase-Aligned™				
<b>MF Transducer, Loading</b>	1x 2in exit, 3.5in compression mid, Horn-loaded				
<b>HF Transducer, Loading</b>	1x 2in exit, 1.75in compression driver, Horn-loaded				
<b>Operating Modes</b>	<b>Amplifier Channels</b>			<b>External Signal Processing</b>	
Bi-Amp (Passive MF/HF)	LF, MF/HF			DSP with EAW Focusing	
PHYSICAL	QX544	QX564	QX566	QX594	QX596
<b>Material</b>	Exterior grade Baltic birch plywood with wear-resistant textured paint				
<b>Physical/Rigging</b>	22 x 3/8"-16 Mounting Points				
<b>Dimensions (HxWxD)</b>	28 x 28 x 28.8in (710 x 710 x 605mm)				
<b>Net Weight</b>	134lb (61kg)				
<b>Shipping Weight</b>	149lb (68kg)				
<b>Input Connector</b>	6-Pin Terminal Strip In + Out				
ORDERING	QX544	QX564	QX566	QX594	QX596
<b>Part Numbers</b>					
<b>Black Paint</b>	2039613-90	2039615-90	2039612-90	2039614-90	2039611-90
<b>White Paint</b>	2039622-90	2039625-90	2039624-90	2039623-90	2039621-90
<b>Weather Protected (WP) Black</b>	2039618-90	2039620-90	2039617-90	2039619-90	2039616-90
<b>Weather Protected (WP) White</b>	Available upon request. Contact your EAW sales representative.				
<b>Custom Colors</b>					

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.

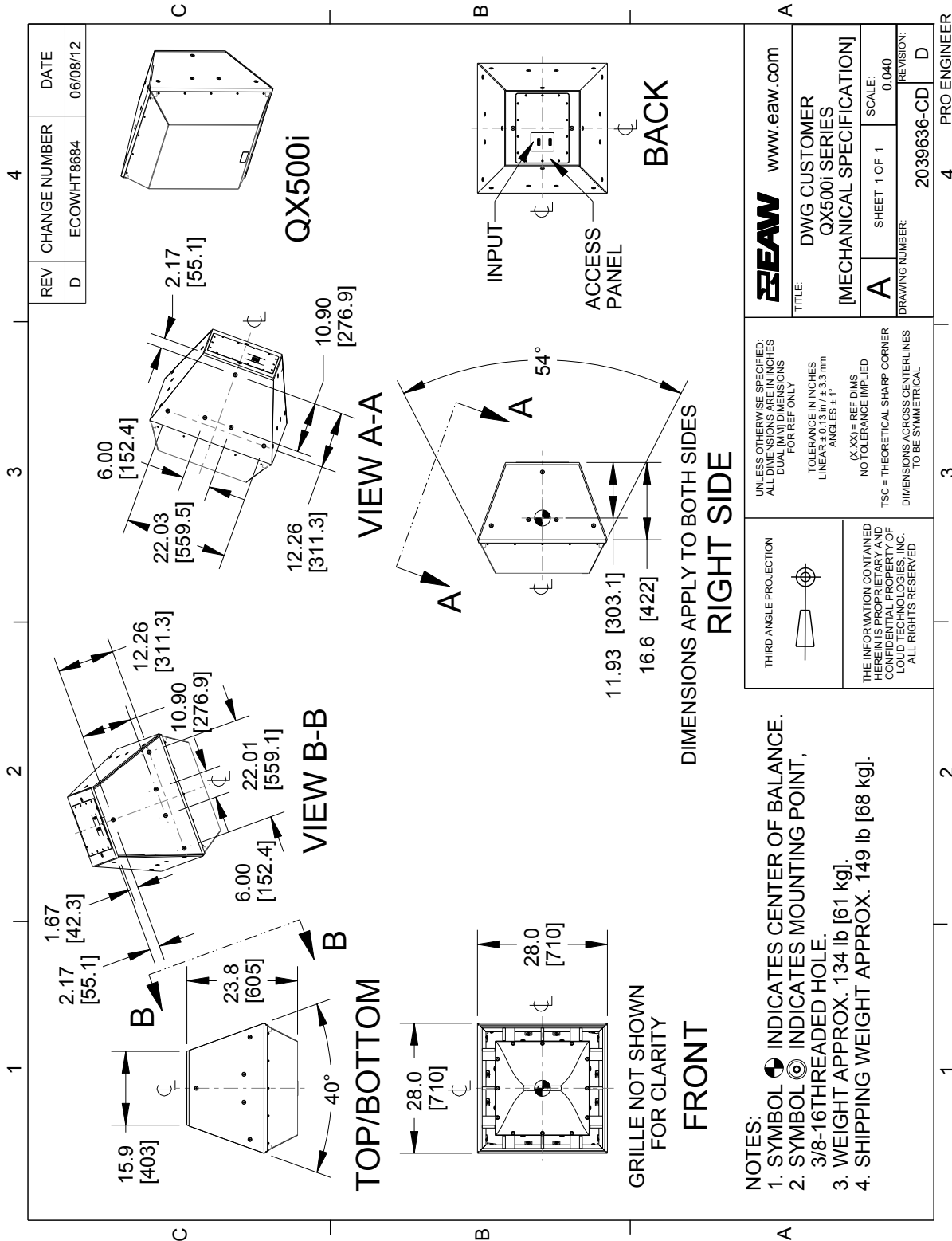
5. Accelerated Life Test: Maximum test input voltage applied with an EIA-426B defined spectrum; measured with recommended signal processing and Recommended Protection Filter.

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

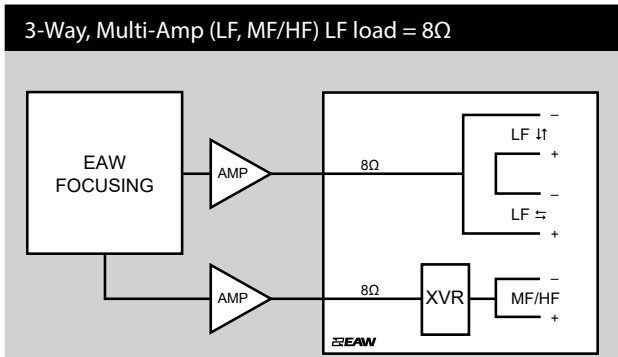
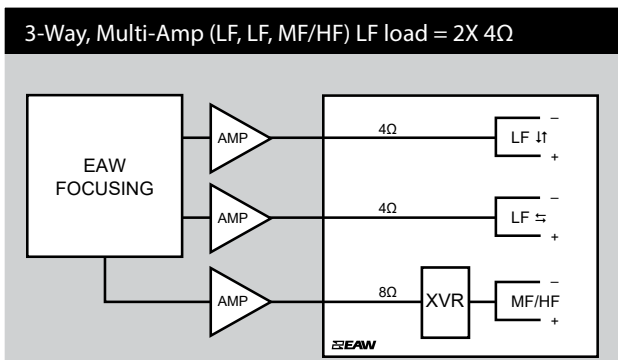
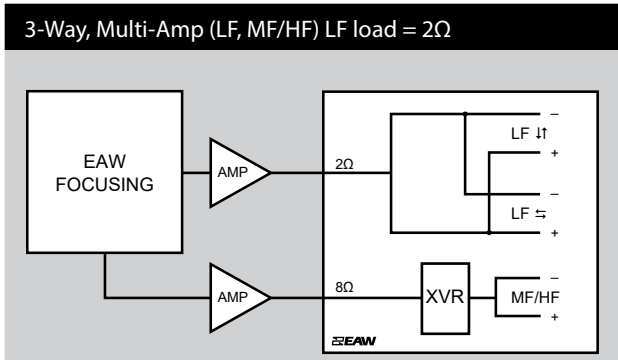
## ENCLOSURE

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

INPUT PANEL

