

# KF810P

## Installation Line Array

- ▶ Light. Small. Loud.
- ▶ Architecturally Transparent
- ▶ Concealed Wiring and Rigging
- ▶ True Narrow 80° or True Wide 110° Horizontal Dispersion Choice



### OVERVIEW

The KF810 line array system offers best-in-class output, true broadband pattern control, and integrated 3-way performance, hallmarks of the legendary KF series.

The KF810P incorporates specific design features tailored for the installation market: clean aesthetics offered in black or white, invisible wiring, and concealed 3-point rigging. A weather rated option allows for long term permanent installation in demanding environments backed by EAW's full warranty.

Engineered for a wide variety of applications, the compact KF810 module is comprised of dual 3in voice coil high frequency compression drivers, four 5in mid-frequency transducers and two 3in voice coil high power 10in LF drivers. The output of these sources unites through an integrated horn that occupies nearly the entire forward face of the speaker enclosure, delivering up to 145dB with accurate pattern control to 250Hz to master the most challenging acoustic spaces.

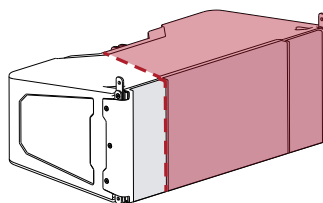
### INSTALL FEATURES

- ▶ Cover Plate
- ▶ Concealed Bolted Rigging
- ▶ Pluggable terminal block connector

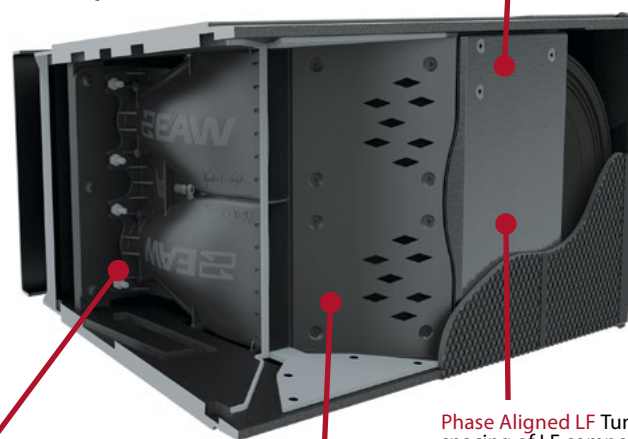


### INSIDE EAW CORE TECHNOLOGIES

Side View Cross Section



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



### NEW

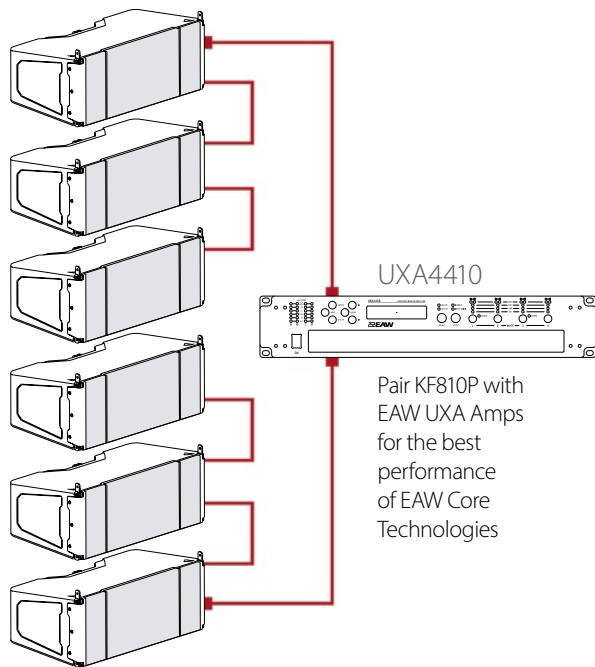
**Isophasic Waveguide**  
**\*PATENT PENDING\***  
Transforms the acoustic input source to a true isophasic output allowing multiple enclosures to combine seamlessly

**Phase Aligned LF** Tuned spacing of LF components to extend pattern control without the need for enormous horns

**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

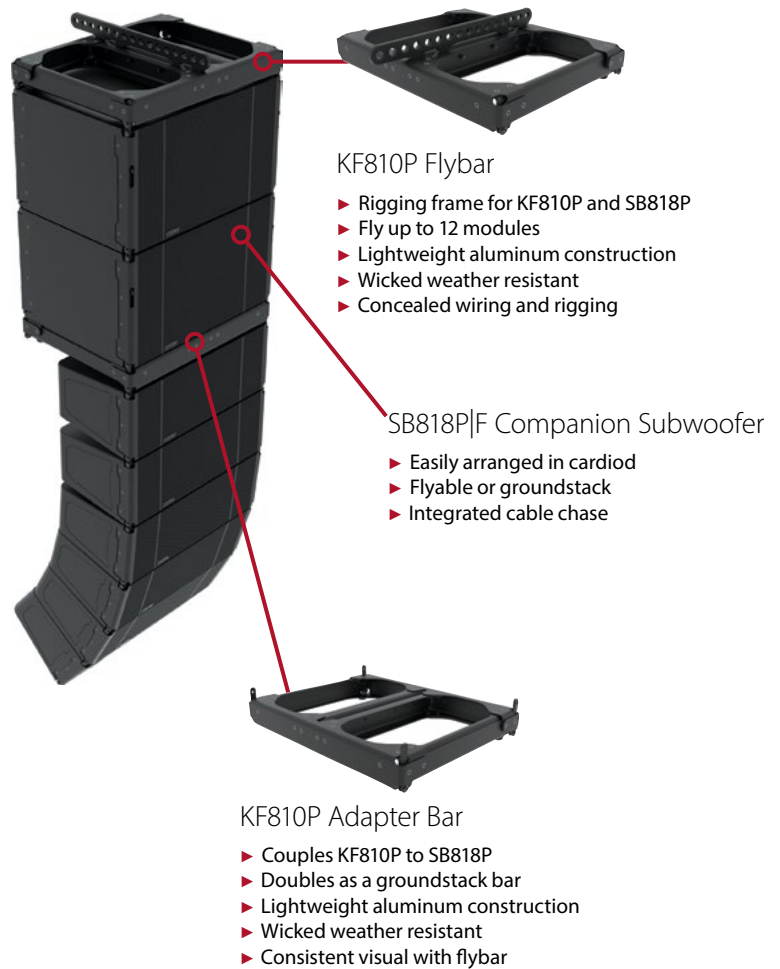
# KF810P Loudspeaker

## RECOMMENDED AMPLIFIER CONFIGURATION FOR KF810P



MODEL	PER CHANNEL	PER AMPLIFIER
UXA4810	1	4
UXA4406	2	4
UXA4410	3	6

## RIGGING CONFIGURATION



## NEW ISOPHASIC WAVEGUIDE



- ▶ Transforms the acoustic source to a true isophasic output
- ▶ No internal acoustic reflections or distortions
- ▶ Focused pattern control with maximum acoustic gain

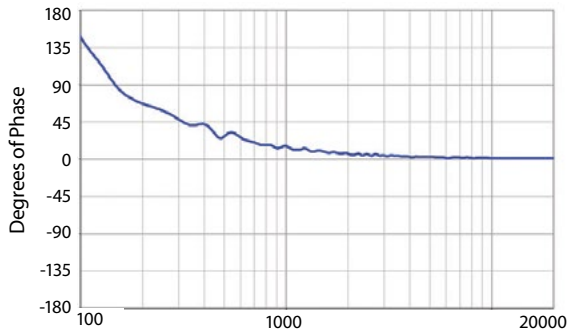
Designed in the EAW engineering laboratory in Whitinsville, Massachusetts, our USA patent pending, Isophasic Waveguide with a Triovular Bi-lens Conoid™ Phaseplug is a new development in the field of acoustic research. The innovative waveguide equalizes the path length from the transducer to the exit to achieve isophasic output that intrinsically controls the vertical and horizontal pattern. This technology allows each cabinet in the array to combine into a single phase-aligned acoustic source.



## TECHNICAL SPECIFICATIONS

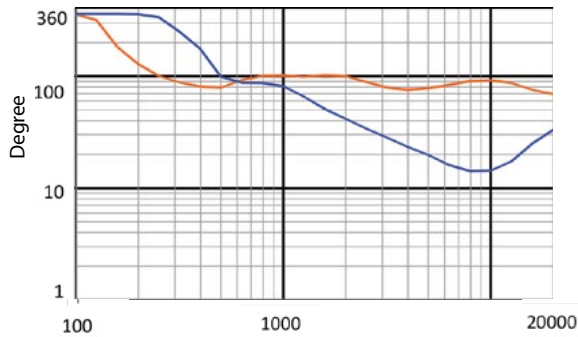
### 3-WAY BI-AMP PASSIVE INSTALLATION LINE ARRAY

Phase KF810P|80

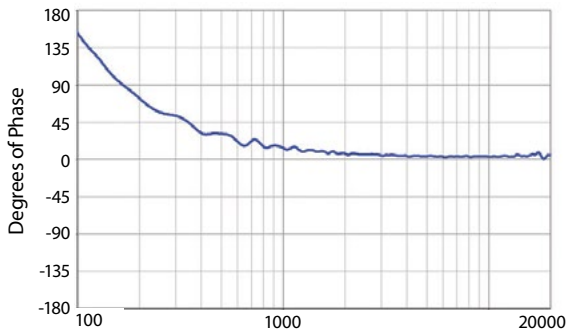


Beamwidth KF810P|80

■ = Horizontal ■ = Vertical

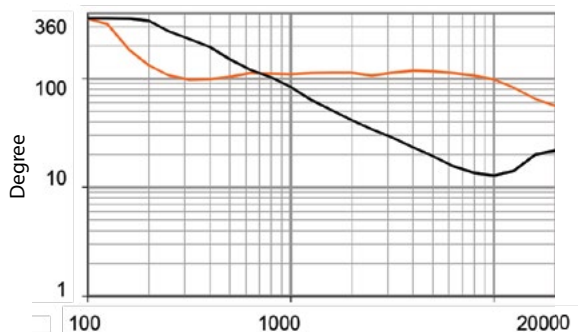


PHASE KF810P|110



Beamwidth KF810P|110

■ = Horizontal ■ = Vertical



#### PERFORMANCE

<b>Max SPL<sup>1</sup></b>	145dB	
<b>Operating Range<sup>2</sup></b>	50 Hz to 20 kHz	
<b>Nominal Beamwidth<sup>3</sup></b>	KF810 80 = 80° Horizontal x 10° Vertical KF810 110 = 110° Horizontal x 10° Vertical	
<b>RMS Power Handling<sup>4</sup></b>	LF: 1000w	HF: 500w
<b>Input Impedance<sup>5</sup></b>	LF: 8 Ω	MF/HF: 8 Ω

#### CONFIGURATION

Subsystem	Transducer	Loading
LF	2X 10in, 3.0in Voice Coil	Ported, Phase Aligned
MF	4X 5in, 1.7in Voice Coil	Horn-loaded w/CSA™ Aperture
HF	2X 1.4in exit, 3in Voice Coil	Isophasic Waveguide
Operating Mode	Amplifier Channels	External Signal Processing
Bi-amp	LF, MF/HF	DSP w/EAW Focusing

#### PHYSICAL

<b>Physical/Rigging</b>	3-Point Integrated Rigging
<b>Dimensions (H×W×D)</b>	12.6 x 32.9 x 17.4in (320 x 835 x 443mm)
<b>Net Weight</b>	88lbs (40kg)
<b>Shipping Weight</b>	98lbs (44.5kg)
<b>Flyware</b>	KF810P FLYBAR/ADAPTERBAR - See Resolution
<b>Angle Increments</b>	0.0°, 0.9°, 2.0°, 3.2°, 4.3°, 5.4°, 6.6°, 7.7°, 10.0°

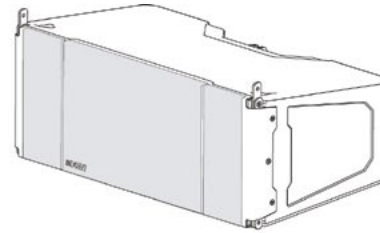
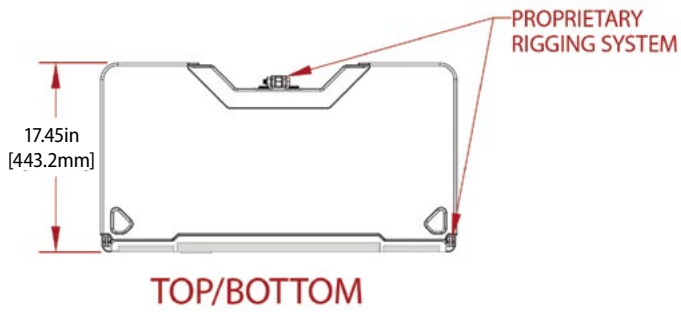
#### ORDERING DATA

<b>Description</b>	EAW KF810P 3-way Bi-Amp Passive Line Array	
<b>Part Numbers</b>	<b>Black</b>	<b>White</b>
<b>KF810P 80</b>	2070007-90	2070132-90
<b>KF810P 110</b>	2070120-90	2070131-90
<b>Subwoofer</b>		
<b>SB818P F</b>	2070134-90	2070180-90
<b>Accessories</b>		
<b>KF810P Flybar</b>	2070266-90	2070328-90
<b>KF810P Adapter</b>	2070352-90	2070360-90

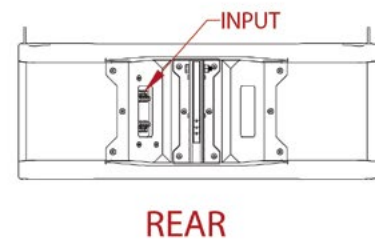
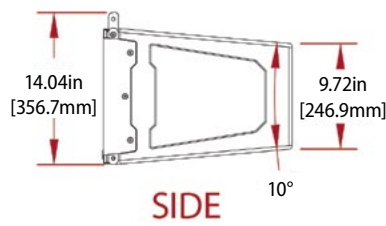
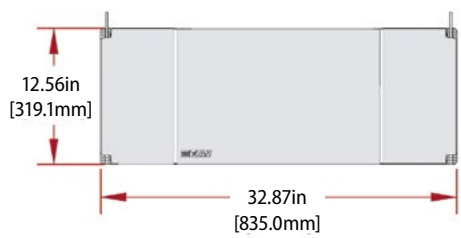
- 1 Calculated max SPL at 1m with 4:1 (12dB) crest factor pink noise. Specified as whole space (free field) for full range loudspeakers, half space for subwoofers.
- 2 Operating Range: Range where the processed Frequency Response stays within -10 dB SPL of the power averaged SPL within this range; measured 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 Accelerated Life Test: Maximum test input voltage applied with an EIA-426B defined spectrum; measured with recommended signal processing and Recommended Protection Filter.
- 5 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.

# KF810P Loudspeaker

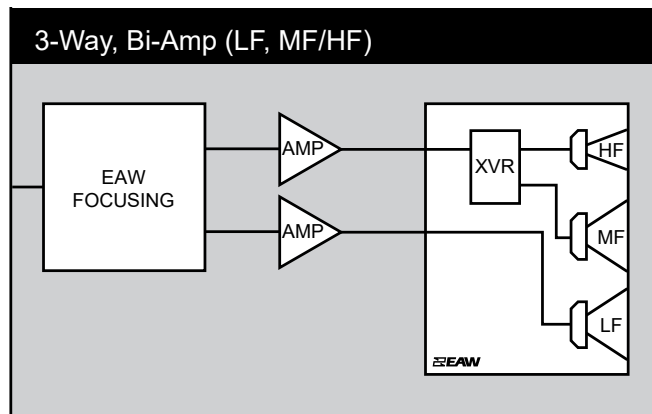
## DETAILED DIMENSIONS



KF810P|80  
KF810P|110



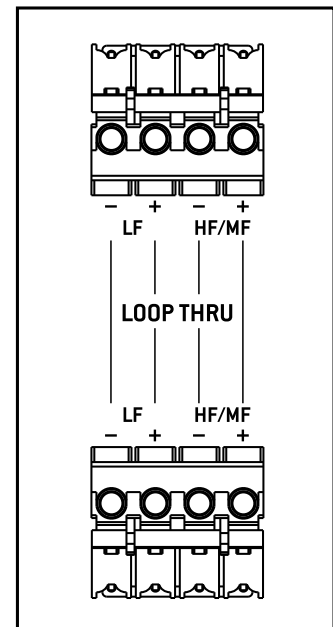
## SIGNAL DIAGRAM



### Signal Diagram Abbreviations & Definitions

<b>LF/MF/HF</b>	Low Frequency / Mid Frequency / High Frequency
<b>AMP</b>	User Supplied Power 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



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