XLD291-FG Fiberglass 3-Way, High-Output, Very Compact Line-Array Element



- Very Compact, Lightweight
- Coverage Control Technology (CCT)
- Simple, Quick Integrated Rigging
- Bi-Amp or Tri-Amp Operation only
- Neodymium Transducers

The XLD291-FG is a 3-way design using Coverage Control Technology (CCT) to control horizontal coverage to 200 Hz.

The loudspeaker uses an 8-inch neodymium LF transducer, an 8-inch neodymium LF/MB transducer, and two neodymium 2-inch voice coil compression drivers with output combined through two Hydra waveform converters into a 90° x 10° waveguide. CCT uses both 8-inch transducers to provide maximum low frequency output and operating bandwidth while controlling horizontal beam width to 200 Hz by using DSP.

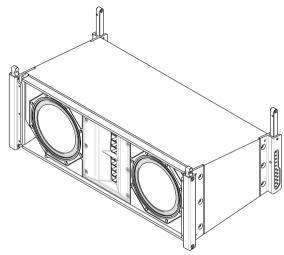
The system can also be configured so that the two woofers are driven full range.

These fiberglass models are fully weatherized. The XLD291-FG can be configured in tri-amp mode, or in biamp mode with booth woofers driven full range. Designed for use in arrays of four or more elements, the XLD291-FG delivers full bandwidth audio with precise, predictable coverage control.

The XLVC weatherized family consists of two full-range systems with dual woofers, two full-range systems with single woofers and a subwoofer system.

The dual-woofer versions include the XLD281-FG with a 120° horizontal coverage pattern and the XLD291-FG with a 90° horizontal coverage pattern. The single-woofer versions include the XLE181-FG with a 120° horizontal coverage pattern and the XLE191-FG with a 90° horizontal coverage pattern. The subwoofer module is the XCS312-FG.

Most applications using flown very compact elements require subwoofers integrated into the same array as the full-range systems. XLVC provides three methods to



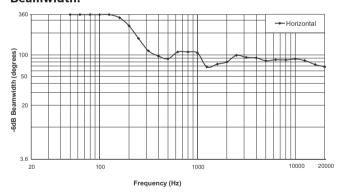
do this conveniently. The XCS312-FG subwoofer module can be directly arrayed above, or below XLD281-FG full-range systems.

PREVIEW Loudspeaker Software quickly provides array configurations and rigging information.
XLD and XLE weatherized models deliver

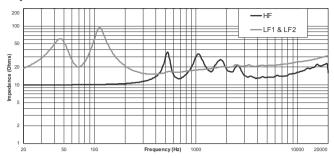
unprecedented performance in outdoor venues even when fully exposed to the elements.

System overview

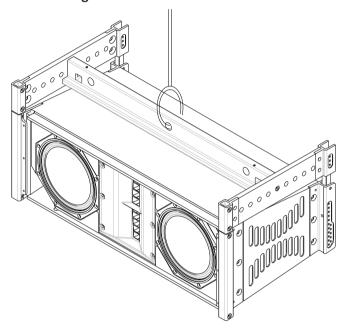
Beamwidth:



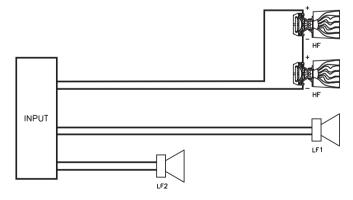
Impedance:



Grid drawing:



Block diagram:

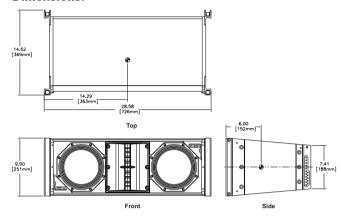


Wiring detail:

- Orange to HF+
- · Yellow to HF-
- Blue to LF1+
- Brown to LF1

- Red to LF2+
- · Black to LF2-

Dimensions:



Compatible System Solutions, Installed Versions:

XLD281-FG 90° Full-Range Line Array Element

XCS312-FG Triple 12 inch Cardioid Compact Controlled-Coverage Bass Element

Compatible System Solutions, Electronics:

CP3000S Precision Series Power Amplifier

CP4000S Precision Series Power Amplifier

TG5 Tour Grade Power Amplifier

TG7 Tour Grade Power Amplifier

Dx46 Digital Sound System Controller

N8000 NetMax 300 MIPS Digital Matrix Controller

Technical specifications

Frequency response (-3 dB):	75 Hz-18 kHz ¹
Frequency range (-10 db):	60 Hz-20 kHz ¹
Max calculated SPL:	138 dB cont., 144 dB peak ²
Horizontal coverage:	90°
Vertical coverage:	Array dependent, software definable ³
Rigging:	Fully captive aluminum, 1° increments, 16 elements with 8 to 1 safety factor
LF1 power handling:	200 W cont., 800 W peak
LF2 power handling:	200 W cont., 800 W peak
HF power handling:	80 W cont., 320 W peak
Biamp LF1/HF power handling:	200 W cont., 800 W peak LF2 - 200 W cont., 800 W peak
Bandpass frequency:	50 - 250 Hz ⁴
Recommended LF1 to HF crossover frequency:	

LF 1 passband:	1 x 8 in DVN2080, 16 ohms
LF2 passband:	1 x 8 inch DVN2080, 16 ohms
HF passband:	2 x ND2S-8, 16 ohms
Biamp LF1/HF passband:	16 ohms
Connectors:	Gland nut with 30ft cable
Enclosure:	13-ply birch plywood with fiberglass and EVCoat
Grille:	Stainless steel with powder coat paint and hydrophobic cloth
Environmental specifications:	IEC 60529, IP55
Dimensions (H x W x D):	9.90 in x 28.58 in x 14.52 in (251 mm x 726 mm x 369 mm)
Net weight:	48 lb (21.8 kg)
Shipping weight:	51 lb (23.1 kg)
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¹Full space measurement of four elements.

²Full space measurement of HF section of four elements, SPL adjusted for 1 m distance.

³Using PREVIEW Loudspeaker Software

⁴Use EV signal processing or download presets from Electro-Voice website.

Ordering information

XLD291-FGB Dual 8" 90x10 install fiberglass black

XLD full-range cabinet, fiberglass, 2 x 8", 2 x ND2, bi-amp or tri-amp mode switchable, 90° H/10° V, integrated rigging system, black

Order number XLD291-FGB | F.01U.286.124

XLD291-FGW Dual 8" 90x10 install fiberglass white

XLD full-range cabinet, fiberglass, 2 x 8", 2 x ND2, bi-amp or tri-amp mode switchable, 90° H/ 10° V, integrated rigging system, white

Order number XLD291-FGW | F.01U.286.125

Accessories

XLD-GRID-FGB Grid for XLD fiberglass systems black

XLD system fiberglass grid for up to 16 x XLD281-FG/ XLD291-FG or 8 x XCS312-FG, black

Order number XLD-GRID-FGB | F.01U.286.118

XLD-GRID-FGW Grid for XLD fiberglass systems clear

XLD system fiberglass grid for up to 16 x XLD281-FG/ XLD291-FG or 8 x XCS312-FG, white

Order number XLD-GRID-FGW | F.01U.286.119

XLCV-BGK-FGB Bottom grid hardware for XLD-FG/XLE-FG

Bottom grid kit for XLD and XLE fiberglass (-FG) systems, black

Order number XLCV-BGK-FGB | F.01U.287.221

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