X3

HORIZONTAL ARRAY ELEMENT

TECHNICAL DATA SHEET

The X3 is a powerful, three-way tri-amplified horn-loaded enclosure, designed for large-scale events. Through the use of six 1.7" (44mm), 1" (25mm) exit compression drivers and a bespoke waveguide, the acoustic centres of each drive unit are close enough to effectively create a horizontal line source. This line source not only provides seamless HF coverage right across the X3's 20-degree coverage pattern but also allows predictable integration of multiple X3 enclosures. Both mid and low frequencies are also handled by horn-loaded systems to give unrivalled output SPL and system efficiency.

FEATURES AND BENEFITS

- Unrivalled horn-loaded system for incredible efficiency and SPL output
- Predictable dispersion pattern gives seamless integration of multiple elements in an array
- Fully integral flying hardware
- Integrated drive unit test system for swift fault-finding
- Applicable for both flown and ground-stacked systems

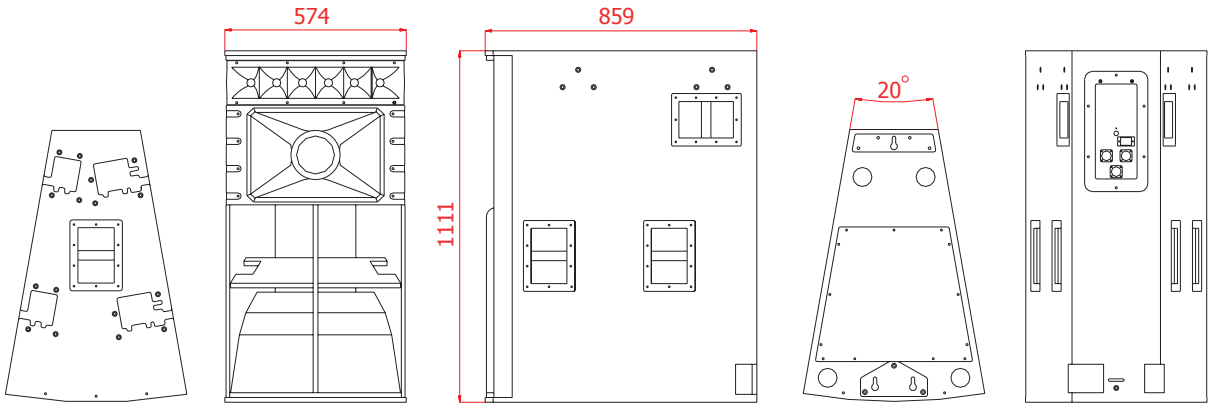
The low frequency section uses a 4" (101mm) voice coil, 15" (381mm) neodymium drive unit loaded onto a horn nearly 1.5 metres in length. The drive unit is loaded via a compression device and this horn is also unique in that there are no parallel walls anywhere in its path. Due to this unique folding technique, the low frequency horn has extends the usable frequency response further than more conventional systems. Midrange frequencies are handled by an 8" (203mm) neodymium drive unit, loaded via a cylindrical phase plug onto an exponential/ hyperbolic horn.

Due to the highly predictable horizontal dispersion pattern, X3 enclosures integrate seamlessly into arrays when required. The enclosure wall angle matches the dispersion angle which allows the X3 to be used in tightly-packed arrays - in this way, systems can be built from 20-degree "building blocks" making system design much simpler. Due to the 20-degree coverage pattern, the X3 is also ideal for use as side fills, centre fills or in/out fills for much larger arena shows. A variety of DSP presets are provided to give different voicings – allowing the use the X3 as a front of house system, side fills/infills or for shorter throw applications.

The enclosure is constructed from 15mm (5/8") multi-laminate Birch plywood - rebated, screwed and glued together for maximum strength. All fixings are stainless steel for longevity. The enclosure is finished in black textured paint as standard, however RAL colour matching and weather protection options are available. The enclosure is fitted with a complete integral flying system, which allows tightpack arrays to be assembled either flown or groundstacked. Also included are seven steel bar handles for ease of movement.

Connections are made via a pair of Neutrik® speakON™ NL8 connectors for input and enclosure link, and an NLT4 connector is provided as an additional subwoofer output when feeding the X3 using an eight core cable. Also included on the rear panel is the unique drive unit test system. This system, powered from a 9V battery, disconnects the input connectors and passes a low voltage current through all eight drive units. Visual indication of electrical continuity is given on the rear panel in a graphical layout, providing a quick and simple fault-finding solution. The X3 requires an external DSP active crossover unit, and three amplifier channels - one each for LF, MF and HF. These amplifiers should be capable of delivering a minimum of 1200W, 400W and 600W program respectively into an 8 ohm load. For optimal results, either the DQ Series Advanced System Amplifiers, or AQ-10 amplifiers combined with DSC48 processors should be used.

ENGINEERING DRAWING



EM ACOUSTICS

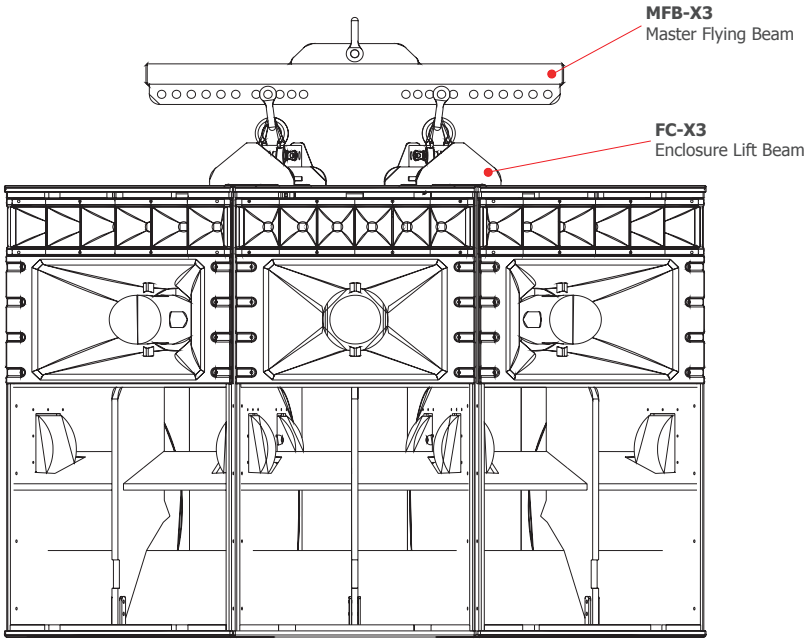
TECHNICAL SPECIFICATIONS

ENCLOSURE TYPE:	Three-way horn loaded
DIMENSIONS (HxWxD): :	1111 (43.7) x 574 (22.6) x 859 (33.8) mm/(ins)
NET/SHIPPING WEIGHT:	94/98kg (207/216lbs)
FREQUENCY RESPONSE[1]:	55Hz – 20kHz +/- 3dB
SENSITIVITY[2]:	LF: 105dB MF: 108dB
DISPERSION[3]:	20°H x 40°V
DRIVE UNITS:	15" (381mm) neodymium LF drive unit 8" (203mm) neodymium MF drive unit 6 x 1" (25mm) exit neodymium HF compression drive units
POWER HANDLING:	LF: 600W RMS, 1200W program MF: 200W RMS, 400W program HF: 300W RMS, 600W program
MAXIMUM SPL[4]:	138dB continuous, 144dB peak
CROSSOVER:	All frequency sections 8 ohms
CONNECTORS:	External active
ENCLOSURE:	2 x Neutrik® speakON™ NL8, 1 x NLT4
RIGGING & HARDWARE:	Integrated enclosure flying system 7 x steel bar handles Integrated drive unit test system
GRILLE:	Hex punched steel backed with acoustically transparent foam
OPTIONS:	Colours/Weather Protection
ACCESSORIES:	FC-X3 enclosure lift beam MFB-X3 master flying beam TC-X3 padded touring cover WB-X3 touring wheelboard
SPARE PARTS:	DU-1503 15" drive unit DU-804 8" drive unit CDU-1003 1" exit HF compression drive unit RK-1503 recone kit RK-804 recone kit RD-1003 replacement HF diaphragm RFG-X3 replacement grille/foam

NOTES ON MEASUREMENT CONDITIONS:

[1]Measured on-axis at 2m in an anechoic environment and referenced to 1m. [2] Measured in half space at 2m with 4W sine wave input and referenced to 1m. [3]Nominal dispersion, measured in an anechoic environment and averaged over stated bandwidth. [4]Calculated and verified by subjective listening test of familiar program material.

RIGGING ACCESSORIES



ENCLOSURE OPTIONS

X3 enclosures are supplied as standard in black. Any RAL colour can be supplied on request (extended lead time and setup charges apply). Weather protection options are also available to give enhanced protection to the loudspeaker when used outdoors for extended periods of time.