TORUS

THE DEFINITIVE CONSTANT CURVATURE SERIES

Unite Your Audience
The Martin Audio Experience

MARTIN AUDIO
LONDON

TORUS

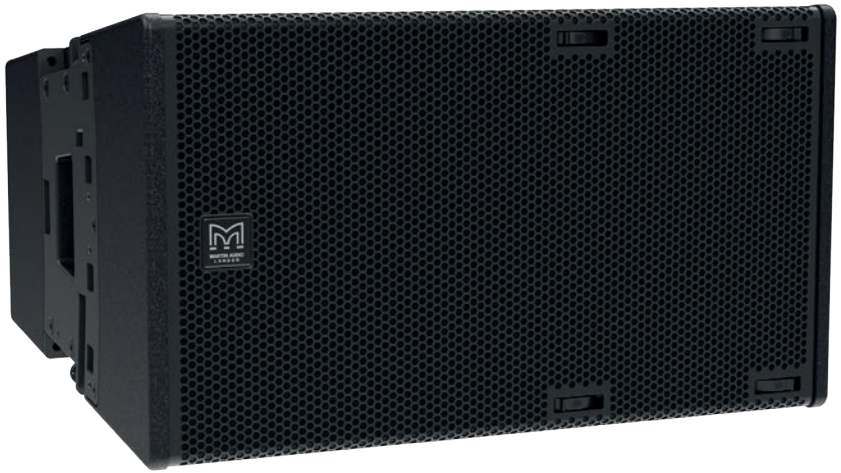
For short and medium-throw applications of typically 15-30m (50-100ft), a full-blown line array is not always practical, optimal or affordable. Conversely, a point-source solution may not be able to achieve sufficient coverage with the SPL required.

TORUS constant curvature arrays are designed to fill that gap perfectly. Adopting a hybrid approach between line array and point-source, TORUS arrays can be configured to deliver plenty of power over a specified area — combining optimised coverage and SPL profile with cost efficiency.

Designed for professional sound reinforcement and fixed installations, TORUS cabinets can be arrayed either vertically or horizontally — offering full configuration flexibility to match the coverage and SPL requirements of the venue.

Drawing on extensive research, TORUS also overcomes issues associated with typical constant curvatures — advancing the constant curvature acoustic concept to achieve new levels of performance and refinement.

T1230



T1215

TORUS 12

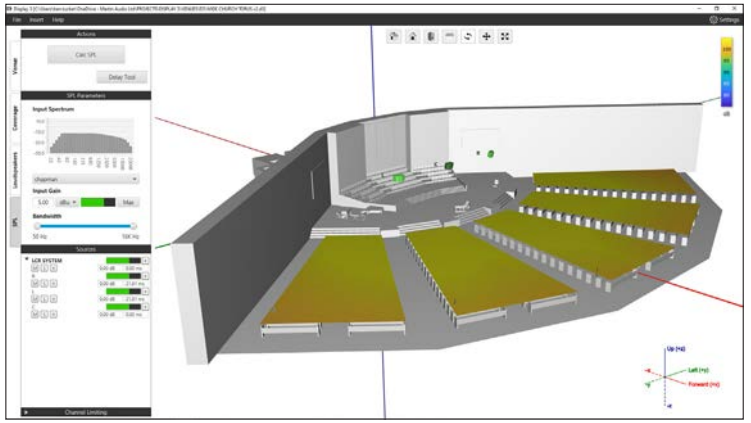
TORUS T1215 and T1230 are compact, passive, two-way 12" loudspeakers engineered for medium-scale applications. With exceptional ease-of-use, scalability and deployment flexibility, they are designed to be used as array elements in vertical and horizontal constant curvature arrays of up to six enclosures. They can also be used singularly as point-source loudspeakers.

FEATURES

- 1 x 12" (300mm) LF driver & 3 x 1.4" (35mm) HF drivers
- Two passive fixed angle array cabinets (15° or 30°) for vertical dispersion pattern flexibility
- Manually adjustable Dynamic Horn Flare™ (between 60°, 90° or 75° Asymmetrical) for flexible horizontal pattern
- Phase plug for increased mid-band sensitivity
- 3D modelling via DISPLAY 3 and powered by iKON amplifiers
- Plug-and-play system, quick set-up and easy rigging

APPLICATIONS

- Ideal for short to medium-throw live sound and installation applications
- Fills, distributed systems, and centre clusters



TORUS 12 - TWO ANGLED CABINETS FOR OPTIMAL VERTICAL COVERAGE

Vertical dispersion patterns of either 15° or 30° are achieved via two separate enclosure types — the narrow coverage T1215 and the wider coverage T1230. These can also be combined within an array to fit coverage requirements.

Combined Deployment

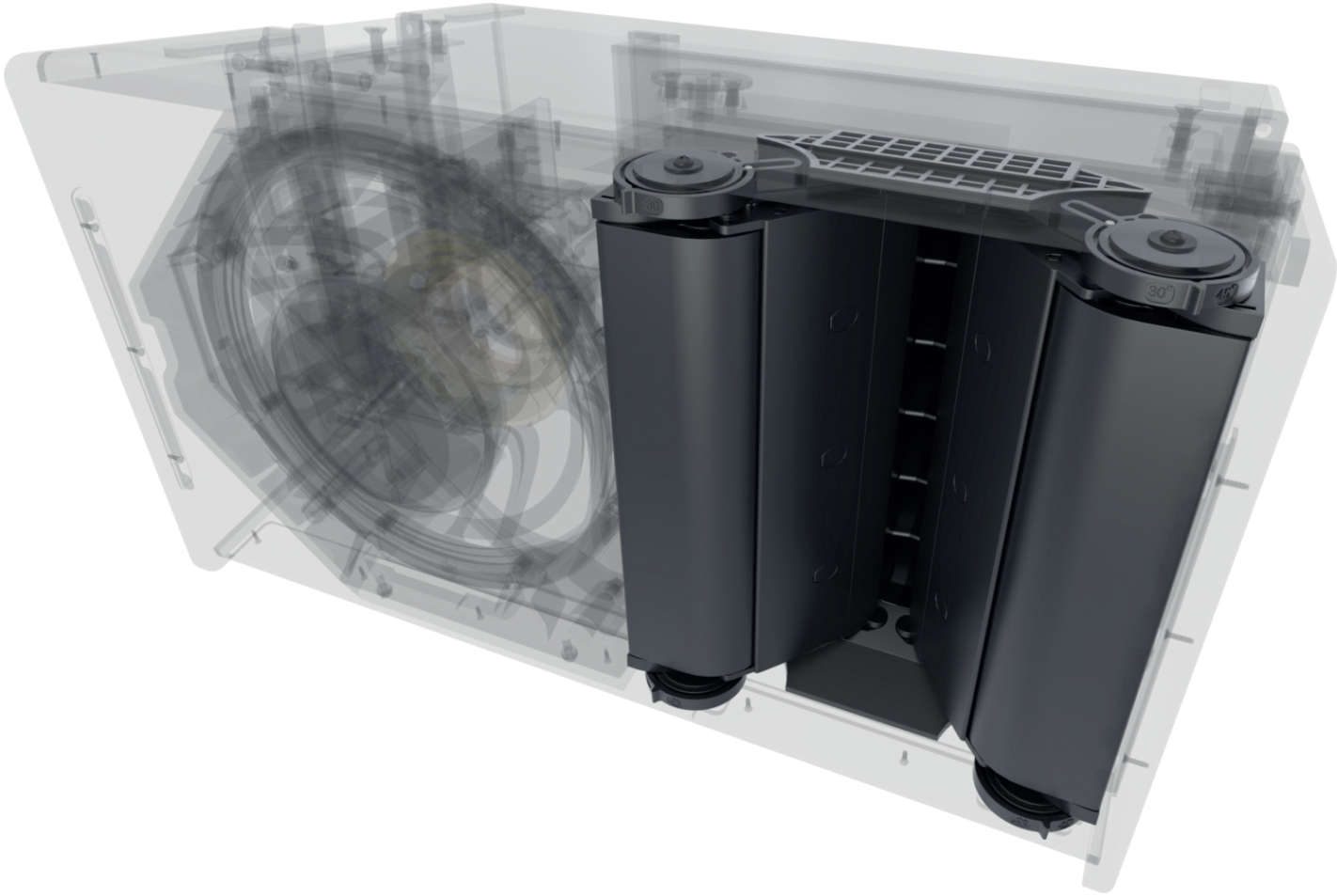
T1215

T1230

TORUS 12 DYNAMIC HORN FLARE™ - OPTIMAL HORIZONTAL PATTERN CONTROL

Each TORUS 12 enclosure has a horizontal dispersion pattern which can be manually adjusted between 90° and 60° or 75° (asymmetrical) via the unique Dynamic Horn Flare™. This moves and locks the waveguide in position and adjusts the horn mouth, including the low diffraction termination into the baffle, to ensure correct geometry and optimal performance for each dispersion setting.

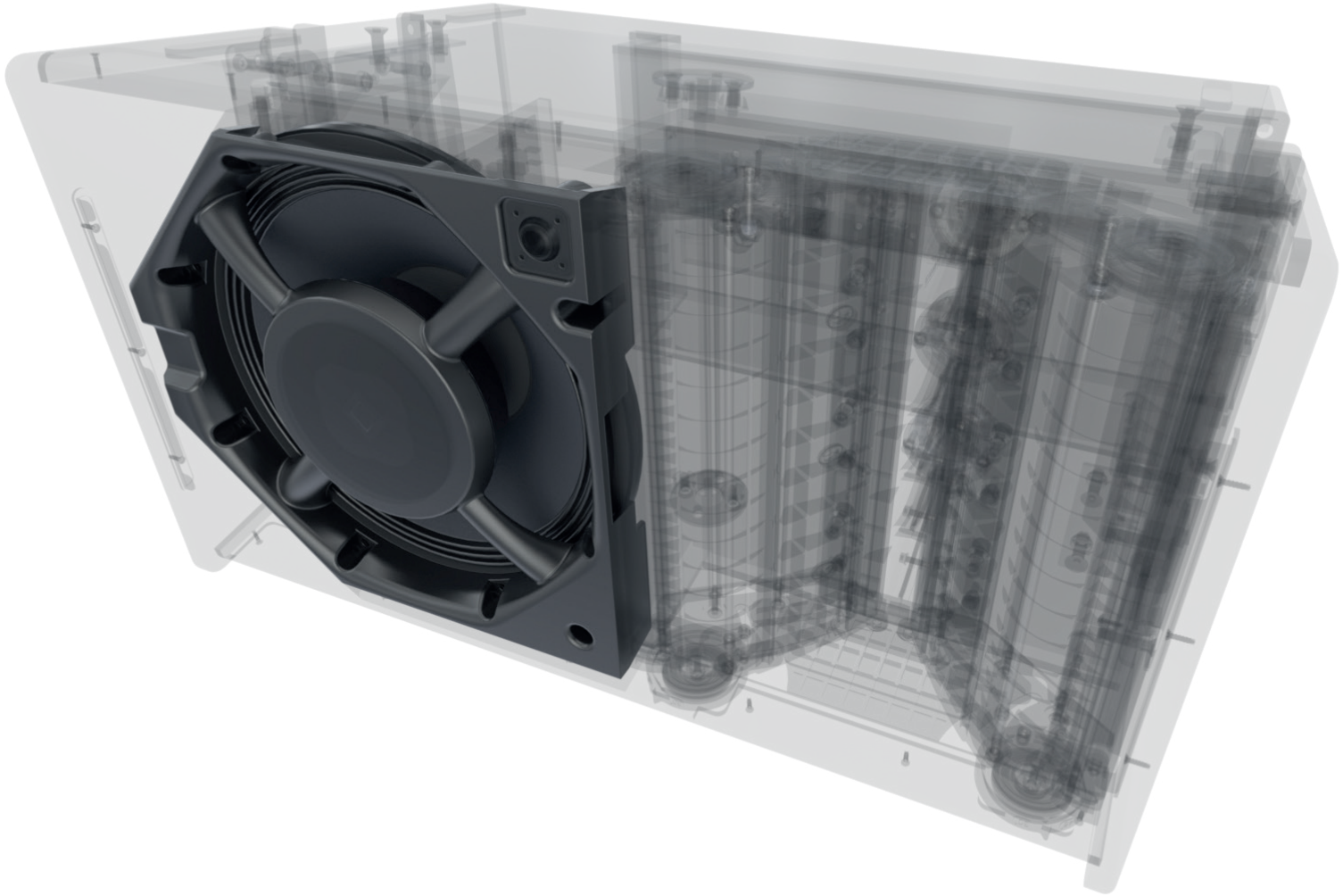
The Dynamic Horn Flare is moved by a rotating mechanism accessible from the front grille, while leaving the grille design to be both smart and fully protective of the drivers within.



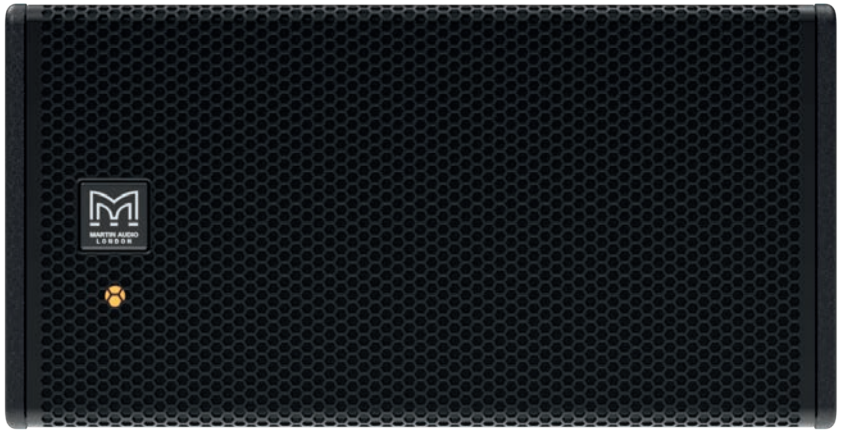
TORUS 12 - INCREASED VOCAL PROJECTION AND CLARITY

TORUS 12 systems feature a phase plug mounted in front of the 12” neodymium driver to increase mid-band sensitivity. Along with three 1.4” HF Polymer dome neodymium compression drivers, the sonic performance is not compromised even when driven at higher SPL.

Utilising multiple small HF drivers instead of one large compression driver is a hallmark of Martin Audio. They combine to provide the necessary output but as they can move air quicker, they deliver greater high frequency extension with low distortion and better transient response.



T820



TORUS 8

TORUS 8 (T820) is a passive, two-way 8” loudspeaker engineered for small to medium-scale professional applications. With exceptional ease-of-use, scalability and deployment flexibility, it is primarily used as an array element in vertical constant curvature arrays as well as being used singly as a point-source loudspeaker. In venues with short throws, yet high ceilings like some theatres, a horizontal centre cluster may also be a practical solution.

Inheriting many of the design features and learnings of TORUS 12, and addressing the ever-present need for smaller systems with greater output, TORUS 8 combines impressive output capability, superb sonic performance and defined coverage in a very compact enclosure. Its small size and portability extend its application use from live sound and permanent installations to corporate events, gigging musicians and DJ’s.

FEATURES

- 1 x 8” (200mm) LF driver plus 2 x 1.4” (35mm) HF drivers
- 100° horizontal dispersion x 20° vertical dispersion
- Phase plug for increased mid-band sensitivity
- 3D modelling via DISPLAY 3 and powered by iKON amplifiers
- Plug-and-play system, quick set-up and easy rigging

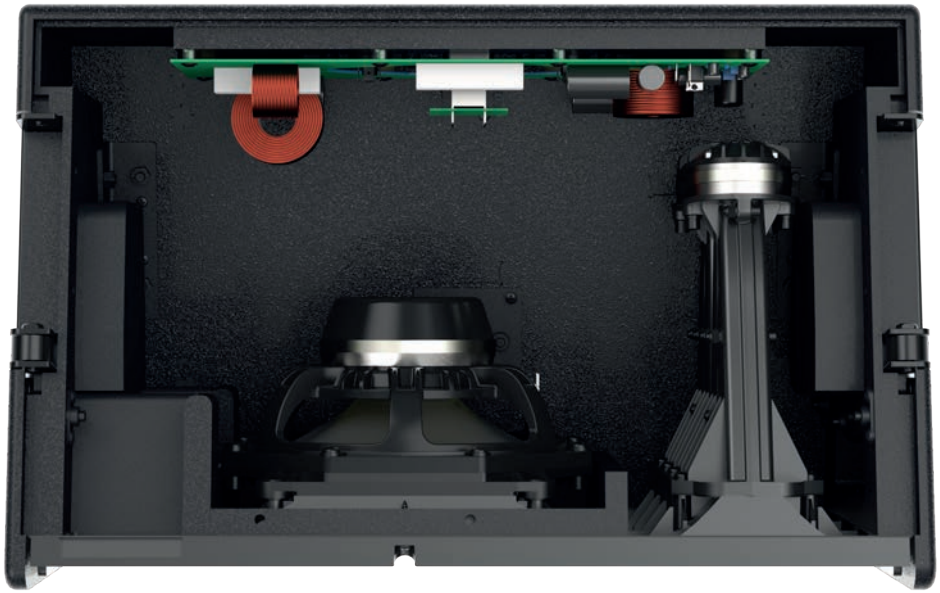
APPLICATIONS

- Ideal for short to medium-throw live and theatre sound, as well as installation applications including small auditoria
- Fills, distributed systems, and centre clusters (with high ceilings)

TORUS 8 - ENGINEERED FOR OPTIMUM OUTPUT AND CLARITY

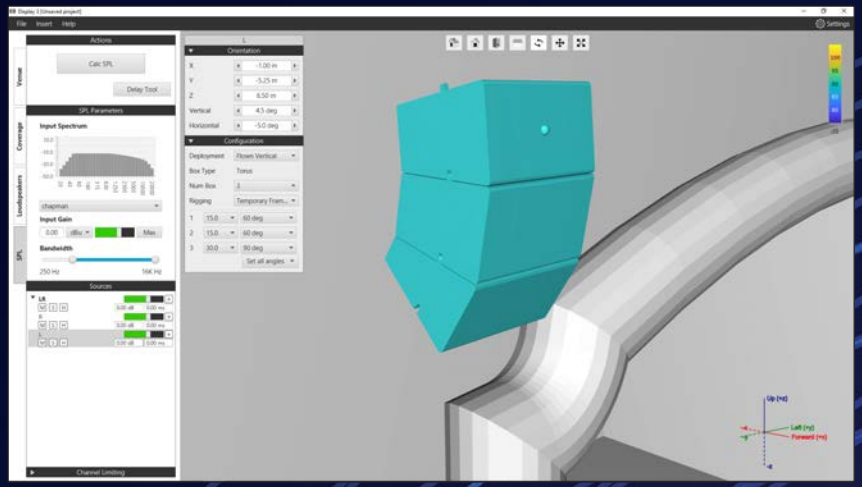
T820 combines impressive output capability, superb sonic performance and a defined 100° by 20° coverage pattern in a very compact enclosure.

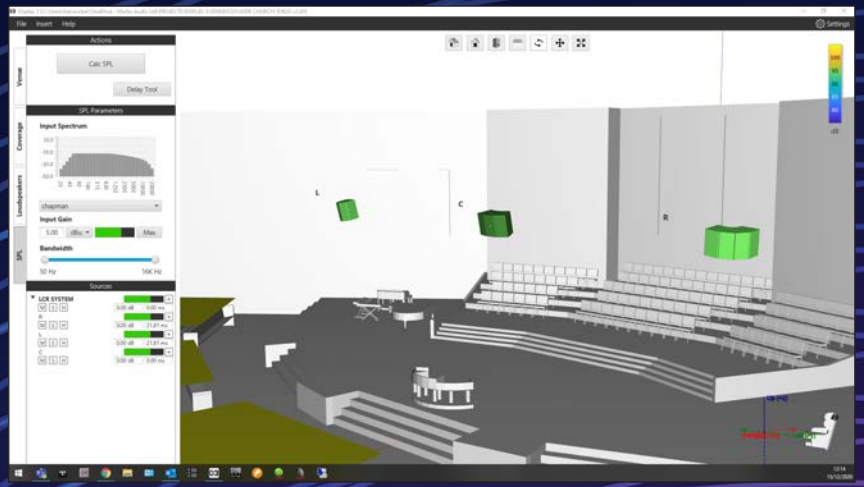
A phase plug is mounted in front of an 8" (200mm) neodymium driver to increase mid-band sensitivity while two 1" (25mm) exit, 1.4" (35mm) voice coil high temperature polymer dome neodymium compression drivers deliver greater high frequency extension with low distortion and better transient response. This combination ensures Martin Audio's signature sonic performance is not compromised even when driven at higher SPL.

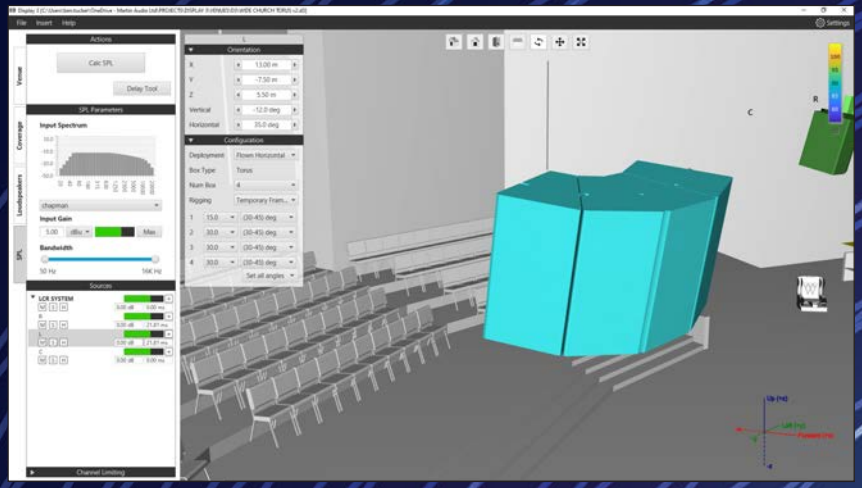


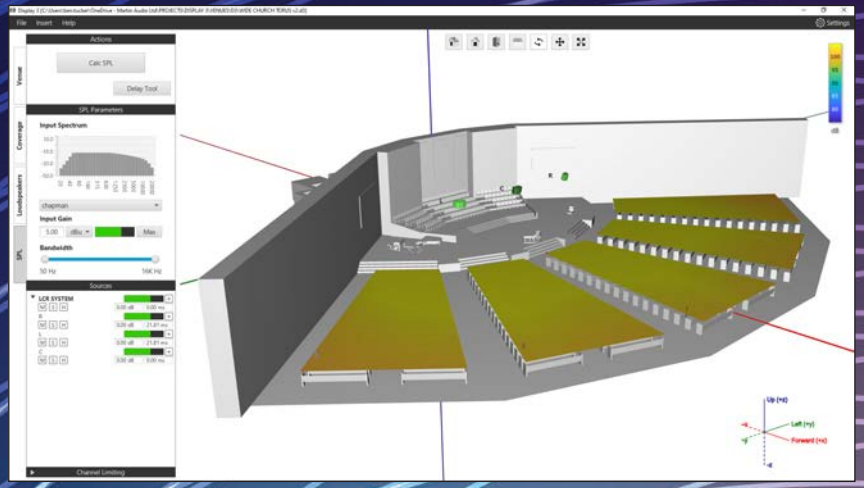
TORUS SERIES – 3D MODELLING WITH DISPLAY 3

With DISPLAY 3, TORUS systems can be modelled in 3D.









PREMIUM CABINET DESIGN WITH FLEXIBLE DEPLOYMENT

TORUS feature plywood cabinets in hardwearing PU paint and incorporate two pocket handles for easy installation and deployment, as well as fixings for pole-mounting.

Rigging hardware is suitable for install and touring applications and supports up to 6 cabinets in either horizontal array or vertical configurations.

All this and finished off with a fully fitting grille, leaving no exposed parts, enabling a premium yet discreet look.

TORUS is available as standard in black or white.

TORUS 12 ACCESSORIES

POLERIG1530

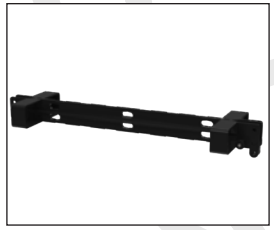
SBAR40

HRIG100

GSRIG1530

T12GRID

T12TRIG



T12PB

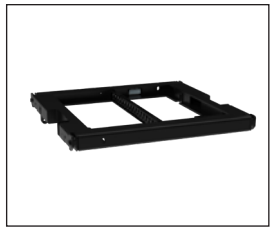
TORUS 8 ACCESSORIES

POLERIG20

SBAR40

HRIG100

GSRIG20



T8GRID

T8PB

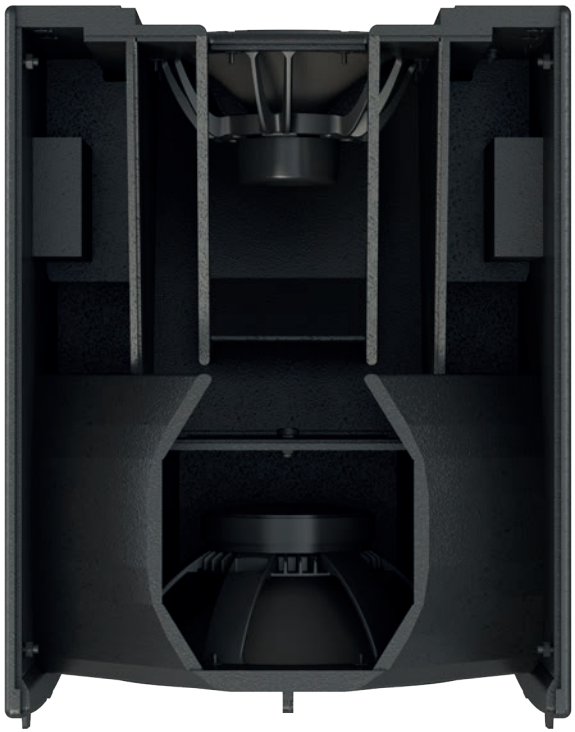
RECOMMENDED SUBWOOFERS

TORUS can be supplemented by SX subwoofers.

For flown and ground-stack configurations, TORUS 12 is specifically designed to fully integrate with the cardioid subwoofer, SXCF118, while TORUS 8 is designed to integrate with the cardioid subwoofer, SXCF115.

The SXCF118 is a compact, high performance cardioid subwoofer, combining maximum low frequency output with pattern control. It features an 18" (460mm) forward facing driver and a 14" (356mm) rear facing driver, each driven independently by separate amplifier channels and DSP.

Each driver has its own chamber with optimised bass reflex porting. This arrangement produces a cardioid dispersion pattern which maximises the front radiation and reduces unwanted radiation behind the subwoofer.



SXCF118

T12

Similarly, SXCF115 is a compact, high performance cardioid subwoofer featuring a 15” (380mm) forward facing driver and a 12” (300mm) rear facing driver, each driven independently by separate amplifier channels and DSP.

T820

SXCF115

AMPLIFICATION, NETWORKING AND CONTROL

TORUS feature two NL4 connectors with passive configuration using pins 1+ 1- or 2+ 2- selected via rear-mounted switch. Systems are powered by Martin Audio iKON amplifiers, which support VU-NET control software and Dante® integration.

TORUS also feature a LED indicator that can be illuminated via VU-NET software to identify its location on the network.

iK42

iK81

Dante SPOKEN HERE

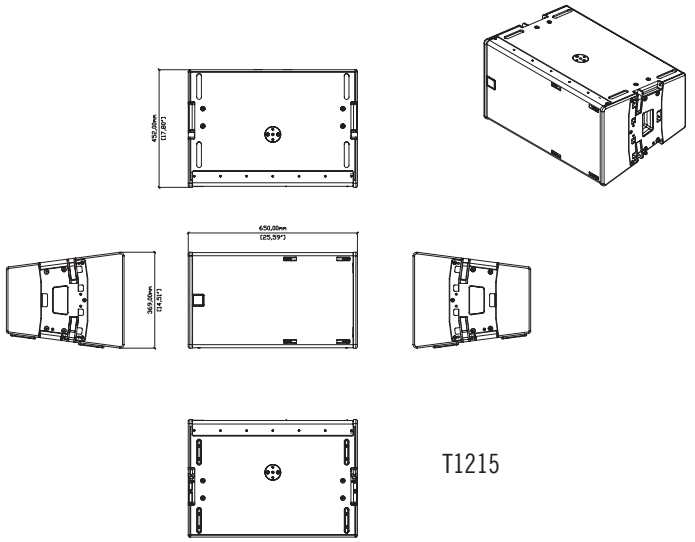
TORUS 12 with LED Indicator

VU-NET Control Software

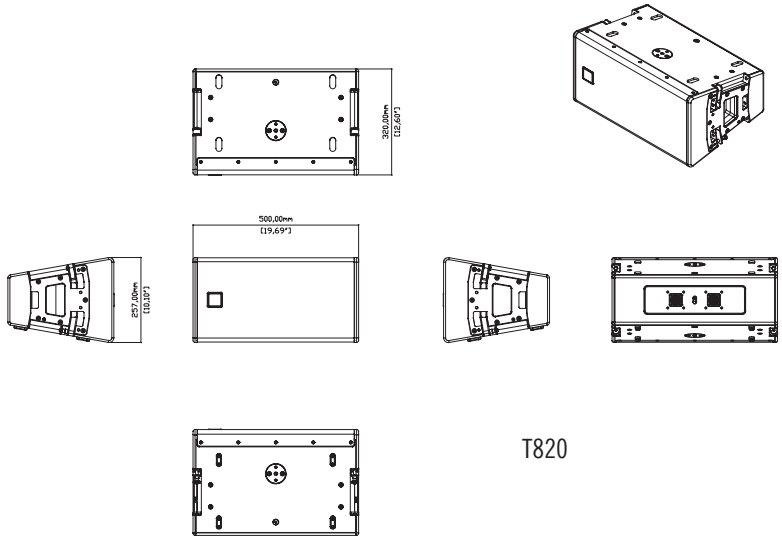
TECHNICAL SPECIFICATIONS

PRODUCT NAME	TORUS 8: T820	TORUS 12: T1215	TORUS 12: T1230
TYPE	Passive 2-way, 8" Constant Curvature 20° enclosure	Passive 2-way, 12" Constant Curvature 15° enclosure	Passive 2-way, 12" Constant Curvature 30° enclosure
FREQUENCY RESPONSE (with iKON settings)	70Hz – 18kHz ± 3dB, -10dB @ 56Hz	65Hz – 18kHz ± 3dB, -10dB @ 50Hz	65Hz – 18kHz ± 3dB, -10dB @ 50Hz
DRIVERS	LF: 8" with 2" Voice coil, Neodymium HF: 2 x 1" exit, 1.4" Voice coil, HT Polymer dome neodymium compression driver	LF: 12", 3" Voice coil, Neodymium HF: 3 x 1" exit, 1.4" Voice coil, HT Polymer dome neodymium compression driver	LF: 12", 3" Voice coil, Neodymium HF: 3 x 1" exit, 1.4" Voice coil, HT Polymer dome neodymium compression driver
SENSITIVITY	(2.83V 1m free-field) 97dB	(2.83V 1m free-field) 100dB	(2.83V 1m free-field) 99dB
NOMINAL IMPEDANCE	8 ohms	8 ohms	8 ohms
RATED POWER	AES 200W, PEAK 800W	AES 400W, PEAK 1600W	AES 400W, PEAK 1600W
MAXIMUM SPL (SYSTEM)	124dB continuous, 130dB peak*	128dB continuous, 134 dB peak*	126dB continuous, 132dB peak*
DISPERSION	100° horizontal, 20° vertical	60-75-90° horizontal, 15° vertical	60-75-90° horizontal, 30° vertical
PIN CONNECTIONS (INPUT)	1+/- or 2+/-	1+/- or 2+/-	1+/- or 2+/-
PIN CONNECTIONS (LINK)	1+/- and 2+/-	1+/- and 2+/-	1+/- and 2+/-
DIMENSIONS	(W) 500mm, (H) 257mm, (D) 320mm (W) 19.69ins, (H) 10.12ins, (D) 12.60ins	(W) 650mm, (H) 369mm, (D) 452mm (W) 25.59ins, (H) 14.51ins, (D) 17.80ins	(W) 650mm, (H) 350mm, (D) 442mm (W) 25.59ins, (H) 13.76ins, (D) 17.40ins
WEIGHT	14kg (31 lbs)	31kg (68.34 lbs)	26kg (57.32 lbs)

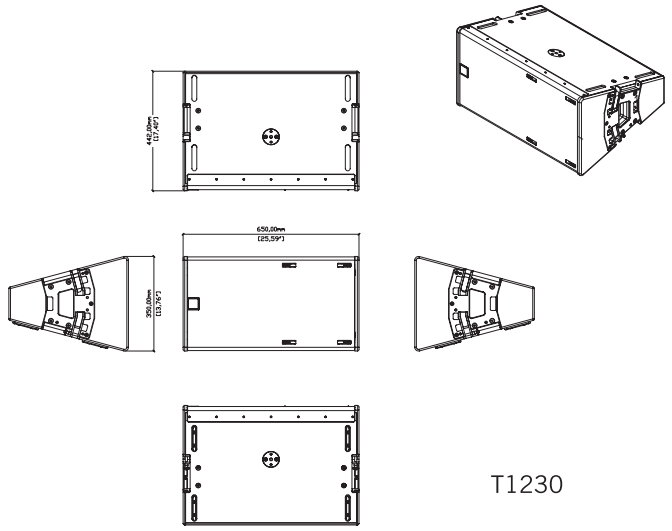
*Martin Audio continues to specify a crest factor of 2 with 6dB between peak and continuous which best mirrors real-world performance. Simply add a further 6dB for comparison with manufacturers quoting a crest factor of 4 ie. 12dB between continuous and peak.



T1215



T820



T1230

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