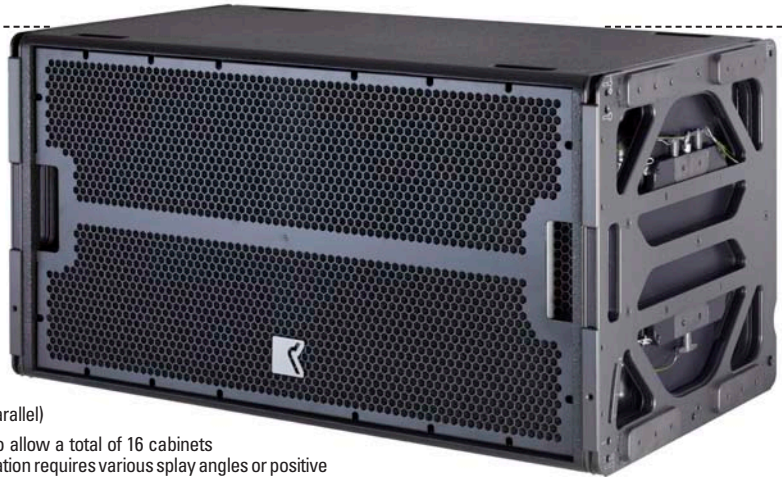


GTO-SUB

FEATURES

- Ultra Low frequency extension as part of the GTO turnkey solution
- Modular design with identical footprint to all other GTO system elements
- The Outline GTO-SUB is a high-efficiency subwoofer featuring two 18" long-excursion low frequency transducers. It utilises a number of innovative technologies to provide premium electro-acoustic performance, including ultra-low power compression and distortion figures, to reliably deliver very high SPLs over extended periods
- Very high power handling (9600 watts AES peak) and sound pressure (145 dB SPL peak at 1 metre, half-space)
- Connection through 2 x NL4 (wired in parallel) and 2 x LKI-8 (wired in parallel)
- Equipped with the high-precision, light-weight GTO rigging system to allow a total of 16 cabinets flown in standard (vertical) configuration, or up to 12 deep if the application requires various splay angles or positive / negative tilting. In either case the precise configurations may be checked and adjusted using Outline's proprietary 'OpenArray' 3D software program
- The cabinets can also be suspended or stacked either front or rear-facing in order to facilitate a cardioid array and thus provide enhanced coverage control over low frequencies
- Selectable splay angles to optimize the array shape



APPLICATIONS

- Designed as the ultra-low frequency section within the GTO range.
- No-nonsense use in "live" arena, festival, and stadium concerts. Flown, floor or stage mounted and combined with other units of the same type for sound reinforcement of low and ultra-low frequencies.

DESCRIPTION

The GTO-SUB is a dual 18" subwoofer enclosure using phase inversion type loading, which, coupled with the use of several innovative loudspeaker technologies, allows it to deliver consistent performance at the highest levels over many years.

The enclosure is tuned to a low frequency by way of a long port with a large surface area. This allows the GTO-SUB to obtain a wide passband and a considerable extension towards the bottom end of the frequency response. Analysis and careful design has completely removed the usual 'port turbulence' associated with traditional cabinets using this loading method. The GTO-SUB is primarily intended for large-scale applications, as part of the GTO-turnkey solution. It is ideally suited to projects that demand no-compromise audio quality. The GTO-SUB addresses an increasing demand for accurate, high definition bass reproduction. This product is capable of outstanding electrical to acoustic power conversion but still within a compact package. The performance is aided by the careful choice of the reflex alignment and the construction of the cabinet. The GTO-SUB has a useable frequency range at -10 dB of from 28 Hz to 160 Hz, while the response is just +/- 3 dB from 34 Hz to 107 Hz. The max sensitivity is 99 dB in free-field and 105 dB in half-space. The maximum continuous AES power of 2400 W gives 133 dB SPL in free-field and 139 dB SPL in half-space, while peak values can reach 145 dB SPL in half-space. The GTO-SUB's high quality build finish is constructed from 18 mm (phenolic-glued) baltic-birch plywood and includes bracing throughout to reduce box vibration modes and to increase the overall cabinet rigidity. The overall shape of the loudspeaker has been created to avoid internal resonances. The outer finish applied is a scratch-resistant, waterproof black paint and the front of the cabinet is protected by an anti-resonant steel grille. When used in conjunction with the GTO mainframe-bar, each element's integral rigging allows up to 16 cabinets to be flown in standard applications. If required, a splay angle of 3 degrees can be selected via the integral rigging, thus allowing the overall shape of flown clusters to be adjusted according to the coverage requirements.

GTO trolley-board designed for '3-up' aids handling and transporting on even or uneven surfaces. Recessed integrated handles in the side panels of the cabinet are used for a positive grip during handling. Weather protective shower caps also form part of the turnkey -package. Connection to the loudspeaker comes in the form of two types of connector, both in pairs and all wired in parallel. These are: two NL4s wired pins 1+/1- for the first woofer and pins 2+/2- for the second woofer, plus two LKI-8 wired pins A/B for the first woofer and pins C/D for the second woofer.

TECHNICAL SPECIFICATIONS:

FREQUENCY RESPONSE (PROCESSED)

(-10 dB)	28 Hz ÷ 160 Hz
(±3 dB)	34 Hz ÷ 107 Hz

AVERAGE DISPERSION

Horizontal	Quasi-omnidirectional
Vertical	Depending on array configuration

IMPEDANCE (Ω)

Low	2 x 8 Ω (min 6.2 Ω)
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SENSITIVITY (ref. 1W/1m* full space)

Low	99
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POWER - WATT AES

	Cont.	Peak
Low	2x1200 W	2x4800 W

MAX SPL @ 1 m* (calculated)

(Single Unit, full space)	Cont.	Peak (+ 6 dB)
Low	133 dB SPL	139 dB SPL

MAX SPL - 4 BOXES (calculated)

(Simulated at 20 m - referred at 1 m*)

	Cont.	Peak (+ 6 dB)
Low	145 dB SPL	151 dB SPL

LOUDSPEAKERS AND LOADING

Low	2 x 18" hybrid band-pass loaded woofers
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WEIGHT - Single Unit

101 kg (222.7 lb)

DIMENSION

	Net	With Pins inserted
Height	600 mm (23.62")	600 mm (23.62")
Width	1126 mm (44.3")	1181 mm (46.5")
Depth	655 mm (25.8")	655 mm (25.8")

Notes: * Referred to GTO HF throat

LINE ARRAY FAMILY