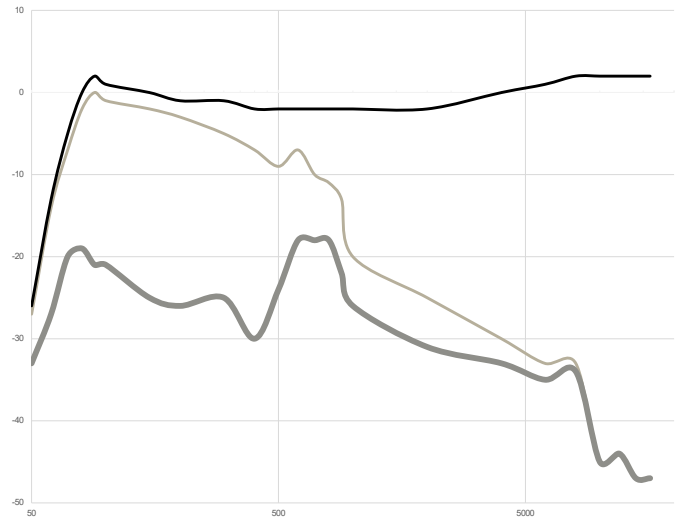




GTX 7C - GTS 16C
CARDIOID LINE ARRAY SYSTEM

PRELIMINARY



GTX 7C Frequency Response Curve

FRONT Frequency Response
 REAR - Unprocessed
 REAR - Cardioid



ACTIVE CARDIOID TECHNOLOGY

While the physical configuration of woofers in traditional cardioid designs provides basic rear sound cancellation, it is often constrained by specific frequency limitations and relies on a passive approach—using a single or pair of transducers driven from the same audio channel.

In contrast, TT+ Audio's active cardioid systems feature independently driven front and rear speakers with extensive DSP capabilities. This active configuration provides several key advantages:

Ideal Primary Cardioid Attenuation

Because front and rear transducers are driven separately, speaker placement can be optimized to achieve the best possible acoustic cardioid cancellation.

Precise Rear Wave Rejection

Speakers are digitally and dynamically aligned to perfectly cancel rear wave propagation, achieving up to 30 dB front-to-rear rejection levels.

Independent Limiters and Protections

This ensures maximum output with minimal distortion and allows each driver to operate at its optimal performance level.

Wider Frequency Range of Cardioid Radiation

By adopting FiRPHASE technology, the cardioid effect is extended across a wider frequency range while achieving 0° linear phase response.

APPLICATIONS

- **SMALL/MID-SIZED LIVE MUSIC VENUES**
Controlled dispersion and reduced feedback for clubs, bars, and listening rooms.
- **THEATERS & PERFORMING ARTS CENTERS**
Enhanced intelligibility, silent stage and reduced feedback from microphones.
- **HOUSES OF WORSHIP**
Perfect spoken-word clarity, minimized reflections in reverberant spaces.
- **PORTABLE/RENTAL SYSTEMS, FILLS & DELAY**
Powerful, lightweight, scalable and ideal on tour.
- **MULTIPURPOSE EVENT SPACES**
Consistent coverage for celebrations, banquets, and community events in non-treated spaces.
- **CORPORATE EVENTS & CONFERENCE**
Ideal for speech reinforcement in lecture halls; compact for portable setups.

FORWARD-THINKING: PUSHING SOUND WHERE IT MATTERS

- Front-to-rear rejection of 20 to 30 dB, minimizing unwanted noise on stage.
- Decreased interference with reflective surfaces like walls and buildings.
- Reduced microphone bleed for cleaner stage sound
- Wider frequency range attenuation, powered by FIRPHASE and BMC processing.
- Independent excursion limiters and protections, ensuring maximum output and system reliability.



HIGH-PERFORMANCE ACOUSTIC DESIGN

GTX 7C incorporates a Linear Resistive Waveguide to deliver efficient driver loading and precise pattern control. Its phase-coherent symmetrical arrangement of the cone transducers ensures optimal time alignment. At the same time, the onboard passive crossover network is finely tuned to maximize dynamic response across frequency bands and optimize phase. Leveraging FIRPHASE optimization via the XPS amplifier's internal DSP, the transducers' radiation combine and emerge as a single 0° linear phase wavefront. This significantly minimizes off-axis distortions, enhancing clarity and delivering outstanding performance over the entire frequency range.

GTX 7C

COMPACT CARDIOID LINE ARRAY

The GTX 7C is an advanced line array module engineered for precise, high-performance sound reinforcement in demanding applications. Featuring digitally controlled directivity, it surpasses traditional cardioid solutions by integrating advanced acoustical design with active DSP optimization. The front and rear speakers are independently powered through separate audio channels, with extensive digital processing provided by the XPS power amplification platform. Each module achieves an average rear attenuation of 22 dB up to 600 Hz and a maximum SPL of 140 dB. An onboard, passive, phase-optimized crossover at 900 Hz ensures seamless frequency distribution while FIRPHASE and BMC processing deliver precise attenuation in a broader frequency range than competing systems. Available in full black or white coating.

140 dB MAX SPL

120° X 10° LINEAR RESISTIVE WAVEGUIDE

22 dB REAR ATTENUATION (AVERAGE)

SHOCK-ABSORBING, POLYUREA-COATED PU ENCLOSURE

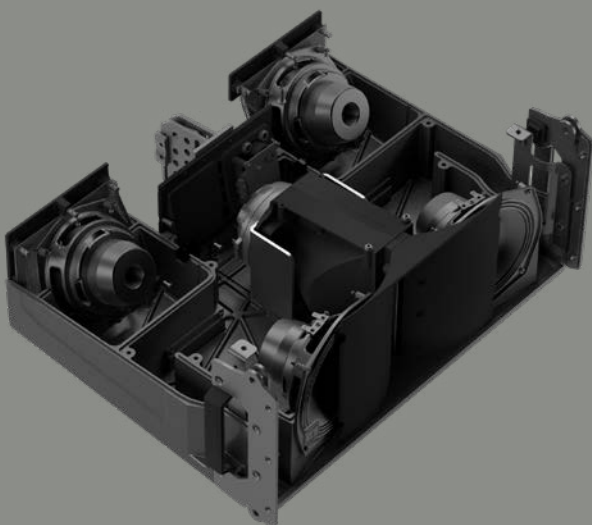
2 X 7" FRONT AND 2 X 5.5" REAR Nd WOOFERS

3.0" TITANIUM DOME, Nd COMPRESSION DRIVER

2 X SPEAKON NL4 STXX IP54 HEAVY-DUTY CONNECTORS

DESIGNED TO OPERATE WITH XPS 16K AMPLIFIER

(8 modules per amp unit)



PRECISION TRANSDUCERS

At TT+ AUDIO, we maintain full control over the design, engineering, and manufacturing of each component, subjecting them to rigorous testing—including 200 hours of continuous musical signals under extreme conditions.

We typically adopt large format compression drivers for the HF of our products, engineered to withstand lower crossover points than our competitors. This approach offers several advantages:

- The overall efficiency of the system is improved, resulting in higher maximum SPL.
- The range controlled by the horn directivity is extended.
- Clearer vocal reproduction due to the crossover point.
- Rear attenuation is improved and distortion at MF is reduced.

Our proprietary Linear Resistive Waveguide provides broadband directivity and a flat hemicylindrical wavefront. The crossover operates before rear attenuation, ensuring a smoother transition with the woofers' radiation.

ENCLOSURE AND RIGGING

Housed in a shock-absorbing, polyurea-coated PU enclosure, the GTX 7C features two SpeakON STXX Series 4-pole IP54 heavy-duty metal connectors. It supports cascading up to four modules with two XPS 16K amplifier channels. Featuring optimized hardware for suspension, two rear and two side aluminum handles with rubber handgrips ensure easy handling.

GTS 16C

FLYABLE CARDIOID SUBWOOFER

The GTS 16C is a high-performance flyable cardioid subwoofer, ideal for installations demanding impactful low-frequency performance with controlled dispersion. Built with a high-quality plywood cabinet, it features a 16" neodymium front woofer and a 14" neodymium rear woofer. With integrated suspension hardware, the GTS 16C can be quickly flown or stacked. Equipped with two SpeakON STXX Series 4-pole IP54 heavy-duty metal connectors and capable of cascading up to three modules per XPS 16K channel, it provides reliable and powerful low-frequency output for professional environments. Available in full black or white coating.

137 DB MAX SPL

16" NEODYMIUM WOOFER

14" NEODYMIUM REAR WOOFER

4 SIDE HANDLES

DURABLE PLYWOOD ENCLOSURE, POLYUREA COATING

2 X SPEAKON NL4 STXX IP54 HEAVY-DUTY CONNECTORS

GTX 7C COMPATIBLE SUSPENSION FITTINGS

DESIGNED TO OPERATE WITH XPS 16K AMPLIFIER

(6 subs per amp unit)



POLYUREA COATING ADVANTAGES

All TT+ AUDIO enclosures are finished with a highly durable polyurea coating that provides excellent waterproofing and corrosion protection and withstands abrasion, impacts, and mechanical stress. Its extreme elasticity maintains flexibility even in low temperatures - perfect for enclosures prone to vibrations such as high-power subwoofers. It also exhibits strong chemical resistance and does not emit any VOCs (volatile organic compounds), making it environmentally friendly and safe for human health.

GTX 7C

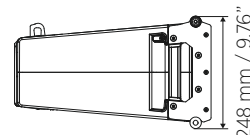
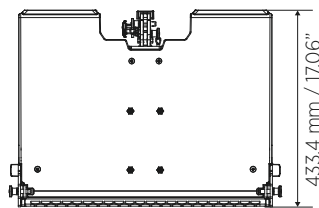
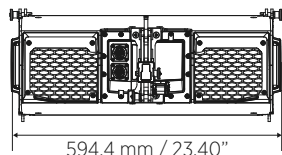
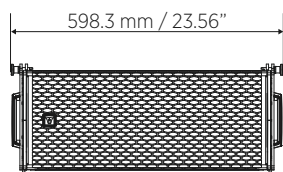
COMPACT CARDIOID LINE ARRAY

P/N 13000863

ACOUSTICAL SPECIFICATIONS	Frequency Response (-10 dB):	50 Hz - 20000 Hz
	Max SPL @ 1 m:	140 dB
	Horizontal coverage angle:	120°
	Vertical coverage angle:	10°
POWER SECTION TRANSDUCERS	Amplification:	Bi-Amplified
	Compression Driver:	1.4" neo, 3" v.c.
	Woofer:	2 x 7" neo, 2" v.c.
INPUT/OUTPUT SECTION	Rear Woofer:	2 x 5.5" neo, 2" v.c.
	Input connectors:	SpeakON STXX
	Output connectors:	SpeakON STXX
STANDARD COMPLIANCE	Safety agency:	CE compliant
	Hardware:	Suspension Fittings
PHYSICAL SPECIFICATIONS	Color:	Black
	Handles:	1 x side, 2 rear
	Weight:	24.5 kg / 54.01 lbs

ACCESSORIES

Flybar	13360721
Flybar Extension	13360723
Cover for 4 GTX 7C modules	13360730
Cart for 4 GTX 7C modules	13360731
Linkbar GTS 16C to GTX 7C	13360729



GTS 16C

FLYABLE CARDIOID SUBWOOFER

P/N 13000915

ACOUSTICAL SPECIFICATIONS	Frequency Response (-10 dB):	25 Hz - 200 Hz
	Max SPL @ 1 m:	137 dB
POWER SECTION TRANSDUCERS	Amplification:	Full Range
	Woofer:	16" neo, 4" v.c.
	Rear Woofer:	14" neo, 4" v.c.
INPUT/OUTPUT SECTION	Input connectors:	SpeakON STXX
	Output connectors:	SpeakON STXX
	Safety agency:	CE compliant
STANDARD COMPLIANCE	Hardware:	Suspension Fittings, M20 Socket
	Color:	Black
PHYSICAL SPECIFICATIONS	Handles:	2 per each side
	Weight:	63 kg / 133.69 lbs

ACCESSORIES

Flybar	13360721
Flybar Extension	13360723
Linkbar GTS 16C to GTX 7C	13360729
Cart for 3 GTS 16C modules	13360732
Detachable front wheel board	13360733
Cover for 3 GTS 16C modules	13360734
Cover for 1 GTS 16C module	13360735

