

PKSOUND™
T10ALLIANCE



T10**ALLIANCE** Systems

PK Sound's development of the T10 robotic line source system represents the most significant advancement in line array technology in decades.

The patented, robotically controlled T10 line source element offers unmatched flexibility in deployment even after systems are flown. The ability to control both vertical and horizontal dispersion on each element in real-time enables precise symmetric and asymmetric coverage patterns before the introduction of DSP. This tailors system dispersion to any venue with no compromise to headroom, dynamic range, or overall impact. While lighter and more compact than industry-leading 12" offerings, T10 outperforms all in terms of output and coverage.

T10 is paired with the T218 companion subwoofer and driven by the PK Cell, an incredibly compact modular touring rack that manages power, network, and audio distribution.

Scalability is key, because while T10 is well-suited to arena and festival settings, qualified system owners are also granted access to the PK Alliance and its exclusive inventory of TRINITY**BLACK** large-format robotic systems for coverage requirements of events with crowds exceeding 25,000 people.*

System configuration and control is managed in the **.dynamics** software platform, which allows users to: simulate and build system files; robotically control, tune, and monitor elements; and even log service notes, all on a singular platform. Intuitive and easy to use, modules are automatically identified via network-based Auto-Array.

The sum of these parts results in dramatic improvements to intelligibility, reduction in noise pollution, and pure, unparalleled power. Enjoy playing on the leading edge of performance systems.

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*TRINITY**BLACK** availability varies by region



T10

T10 is a member of the industry’s first robotically controlled line source series. Stunning SPL and clarity can be precisely controlled in both the vertical and horizontal planes, offering system operators maximum flexibility in making coverage adjustments after the array is flown. Onboard inclinometers and network-based Auto-Array within the .dynamics platform enable each module to recognize its position and angle within a system, improving accuracy, efficiency of deployment, and safety.

Dual bandpass-loaded 10” transducers manage low-frequency response. The mid-frequency band is supported by two 6.5” midrange transducers affixed to the patented Coherent Midrange Integrator (CMI). A dual-diaphragm high-frequency transducer, coupled directly to an integrated planar waveguide, significantly reduces distortion across the high-frequency band. A 3,000 W Class-D amplifier maximizes headroom while maintaining crystal clear audio and exceptional output.

The CMI Waveguide seamlessly combines mid and high frequencies, working in tandem with precisely spaced low-frequency apertures for smooth and controlled directivity. It allows for variable adjustability from 60°-120° both symmetrically and asymmetrically so that system designers and technicians can remotely shape the radial directivity of the array relative to the coverage requirements of any event or venue.

Flown straight, the array’s directivity is then configured remotely using industrial linear actuators with a duty cycle of up to 109 years. Horizontal angles can be set to one of 25 variable symmetric or asymmetric positions, allowing for mechanical optimization prior to the application of any DSP. Vertical angles are variable with 0.1° accuracy. Finally, a combination of FIR and IIR filters is applied to ensure smooth frequency response throughout the listening area.

- Output Capability**

Frequency Response.....40 Hz-20 kHz

Max. SPL.....146 dB
- Acoustic Properties**

Horizontal Directivity.....60°-120° Robotic Directivity

Vertical Adjustment..... 0°-12° Robotic Directivity
- Robotic Actuators**

Duty Cycle.....80,000 Actuations (109 years)
- Transducers**

Low-Frequency.....2 x 10” Neodymium Bandpass-Loaded

Mid-Frequency.....2 x 6.5” on Coherent Midrange Integrator

High-Frequency.....1 x 4” Dual-Diaphragm Planar Wave
- Amplification**

Amplifier.....3-Channel Class-D

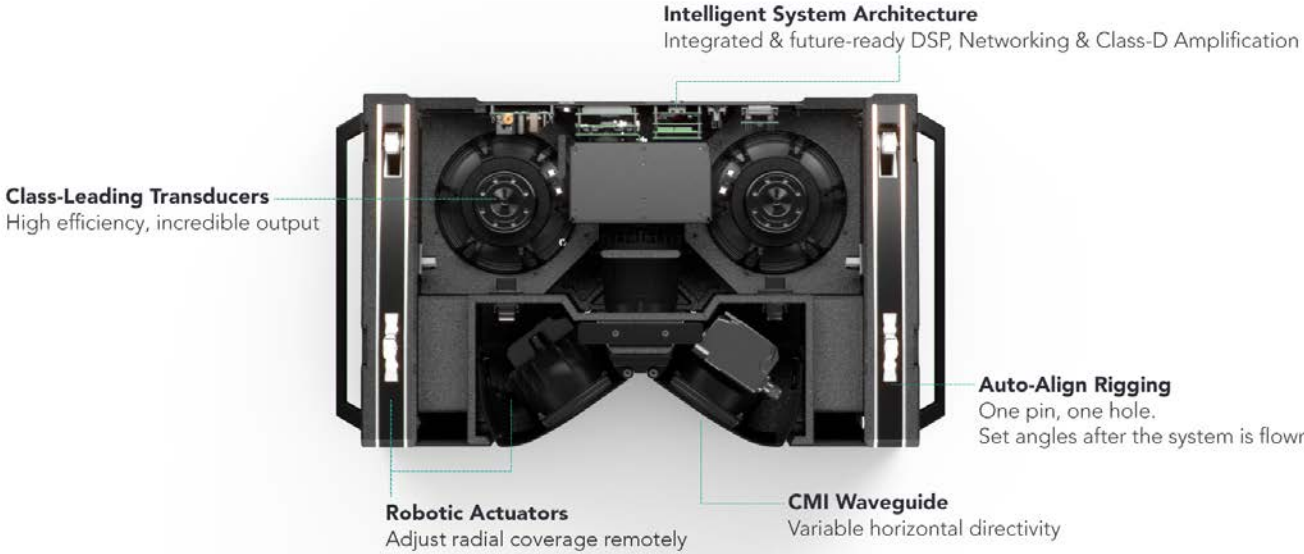
Amplifier Power.....3,000 W
- Physical Properties**

Weight.....47.6 kg/105 lb.

(W x H x D).....980 x 250 x 561 mm

38.58 x 9.84 x 22.09 in.

Max. Line Length.....24 Modules





T218

T218 is the flagship subwoofer in the Trinity series, the industry's first range of robotically controlled line array elements. This high-output, low-profile enclosure offers outstanding low-frequency performance with an operating range of 25 Hz-100 Hz.

T218 features dual front-loaded, long-excursion 18" transducers in a bass reflex design for clean and punchy output. A large, unrestricted vent produces high SPL performance with minimal port distortion. A single field-replaceable module located on the rear of the cabinet contains the 4,000 W Class D amplifier, control electronics, and power supply. Advanced onboard DSP and networking simplifies set-up and calibration and maximizes performance.

Network-based Auto-Array within the **.dynamics** platform enables each T218 to recognize its position in the system for enhanced control and efficiency of deployment. Low-frequency directivity and performance is then further optimized via a range of presets within the software.

Integrated rigging hardware allows for up to 16 T218 modules to be flown in a column or securely ground-stacked. A low-profile design allows T218 to slide under any stage and efficiently pack for global transport, ideal for both mobile and performance installation applications.

Output Capability

Frequency Response.....25-100 Hz
Max. SPL.....145.1dB

Transducers

Low-Frequency.....2 x 18" Bass Reflex

Amplification

Amplifier.....Class-D
Amplifier Power.....4,000 W
Crossover.....70 Hz & 100 Hz
Operating Voltage.....Auto-Switching 100-240 V, 50-60 Hz
Power Consumption.....1,800 W (at max. power)
Network.....Proprietary

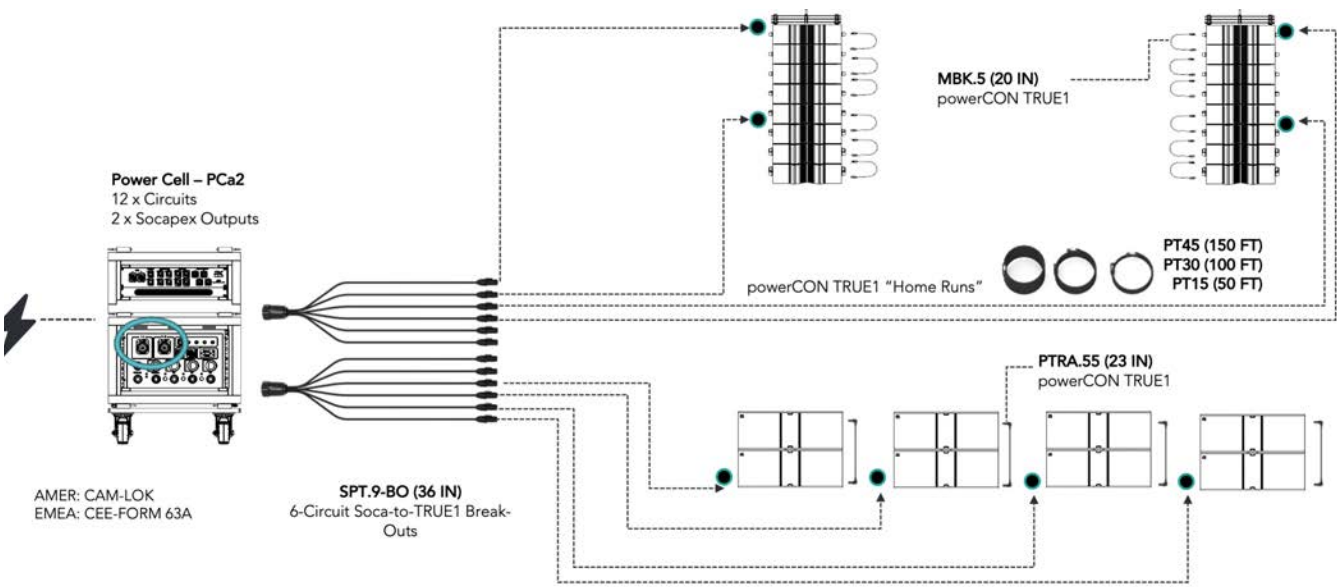
Physical Properties

Weight.....104 kg/229 lb.
W x H x D (mm).....1395 x 575 x 800
W x H x D (in).....54.88 x 22.63 x 31.49
Max Line Length.....16 Modules
Environmental.....IP43/IP42
Multipin Connector.....IP65 Connectors
Module Construction...High-Grade Baltic Birch
Rigging Construction...6061-T6 Aluminum
External Coating.....EXL Polyurea
Grill.....Powder Coated Aluminum



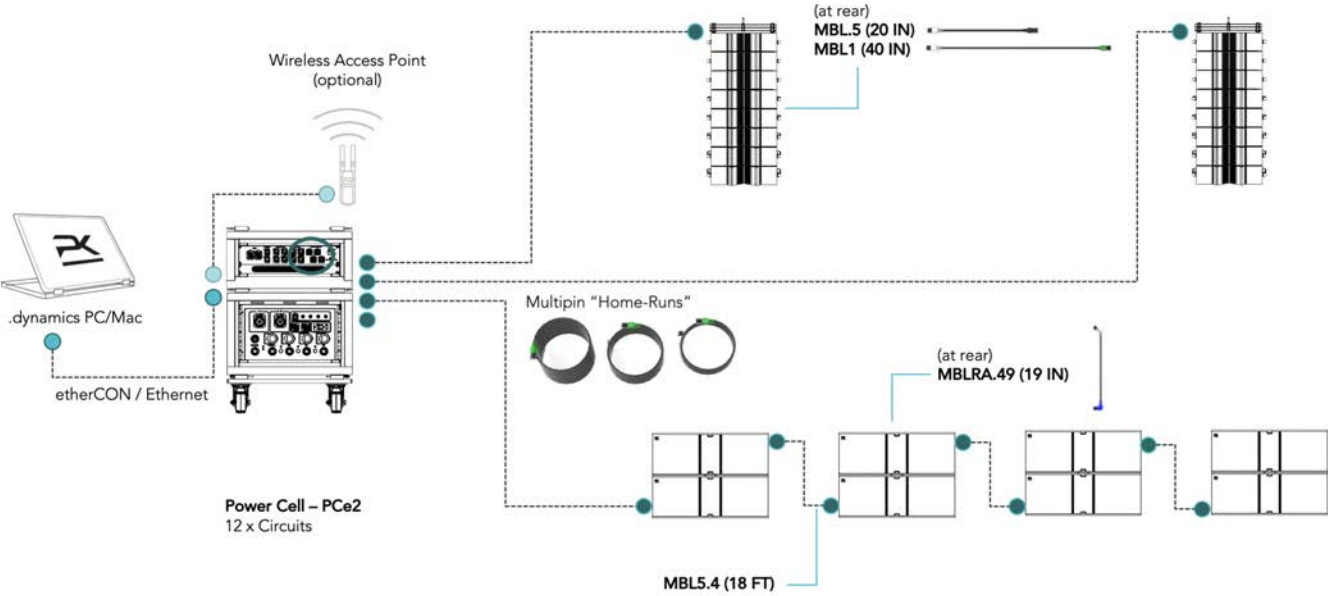
POWER DISTRIBUTION

PK loudspeaker modules employ the ubiquitous powerCON TRUE1 connectors and assemblies to power systems. TRUE1 cables boast heavy-duty, sealed construction, are IP65-rated, and their True Outdoor Protection locking connectors have breaking capacity, meaning they can be connected or disconnected under load or live. To efficiently relay power for expansive systems, PK Sound relies on 6-circuit Socapex for home runs - a widely recognized global standard in the entertainment industry.



SIGNAL & DATA DISTRIBUTION

PK's Amphenol multipin cables carry three types of signal in a single assembly: Ethernet for data, AES3 for digital audio, and XLR for analog audio. The military-grade locking bayonette connectors are injection-moulded for durability, weather-sealed for an IP65 rating, and colour-coded for simplicity in configuring systems.



.dynamics Workflow

PK **.dynamics** brings every aspect of your workflow into a single software platform – from simulation and measurement to networking, system control, and beyond.

Take your design from conception to the real world with the flexibility of real-time adjustments to conquer unexpected challenges – even after your system is flown.

Developed with input from some of the pioneers of line array theory and high-profile users at the cutting edge of where system technology is headed, **.dynamics** guides you through best practices to not only optimize system performance, but also to ensure the safety and integrity of your deployment so you can focus on your craft.



Venue

Create, simulate & prepare the space



System

Add, identify & match loudspeaker modules



Robotics

Articulate & optimize multi-axis coverage



Tune

EQ & adjust parameters with detailed DSP



Live

Monitor system performance in real-time



Status

Track system maintenance & diagnostics





The Cell is the core of your collaborative system architecture, uniting a Luminex MILAN-ready network switch, simplified patch bay, and region-specific power distribution in a sleek-but-sturdy, modular touring rack. Power up to 96 line

source elements from a single unit and scale up from there with a tour-proven, future-ready, and globally standardized solution for seamless Alliance system and cross-network rentals and collaborations.

Patch Bay – SD1
4x AES In, 4x Analog In
4x Multipin Out, 2x etherCON (rear)
-Optional fibre upgrade

Modular Rack Case System
Durable, Lightweight HDPE
Welded Aluminum Frame
Shock-Mounted Rack
AMER / EMEA / APAC
Transport-Friendly Footprint

Removable Caster Board Options
Reconfigure Cells for shows & truck packs

Signal Cell Global – SC1
Unite & scale PK Alliance inventory using your SC1

Ubiquiti EdgeRouter 4
Provides DHCP addresses to all devices on the network

Luminex GigaCore 14R – SW1
.dynamics Mode Enabled
10x etherCON (4x used for multipin)
-Optional fibre upgrade
-AVB (MILAN-ready)

Power Cell
AMER – PCa1
200A 3Ø Main Breaker
24x 20A Circuits (230-240V)
30A 3Ø Accessory Breaker
EMEA/APAC – PCe1
125A 3Ø Main Breaker
24x 16A Circuits (230-240V)
32A 3Ø Accessory Breaker



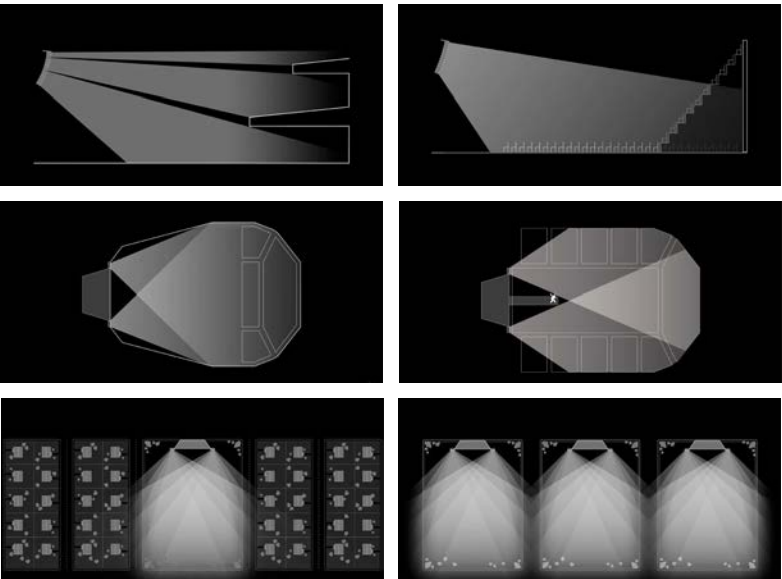


MULTI-AXIS ROBOTIC CONTROL

T10's patented variable multi-axis coverage offers precise, real-time robotic control of dispersion, even after the array is flown.

Variable robotic actuation is about more than functionality; it lets users manipulate a vertical line source to 0.1° of resolution and adjust the horizontal coverage of each individual module in 25 symmetric or asymmetric configurations.

With a precisely tapered array, users can significantly expand stereo imaging, avoid challenging obstacles, and drastically reduce noise pollution.

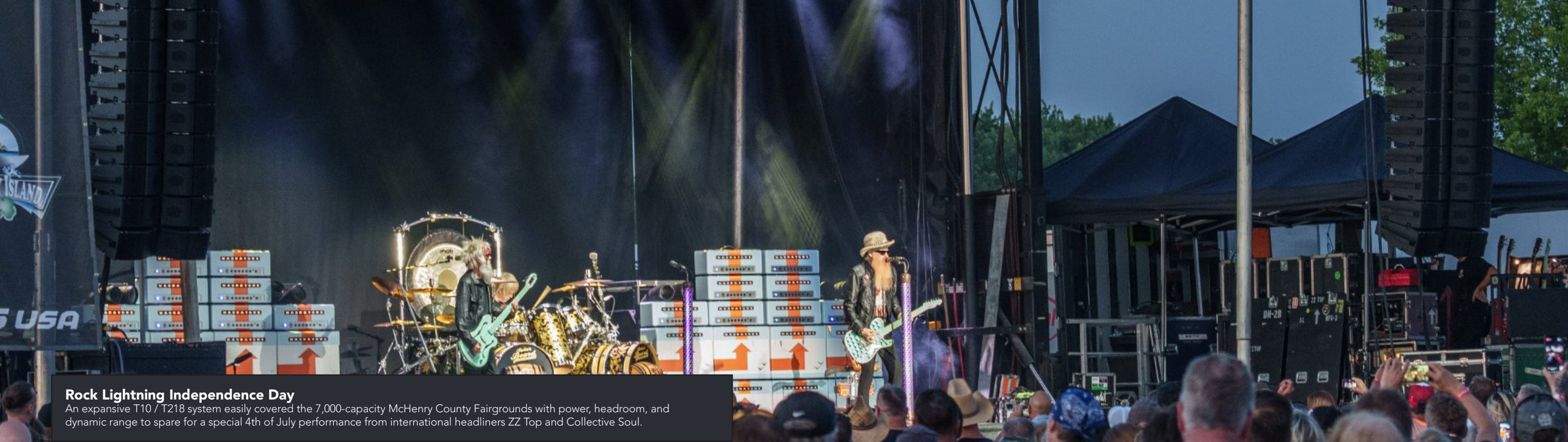


MITIGATING NOISE POLLUTION



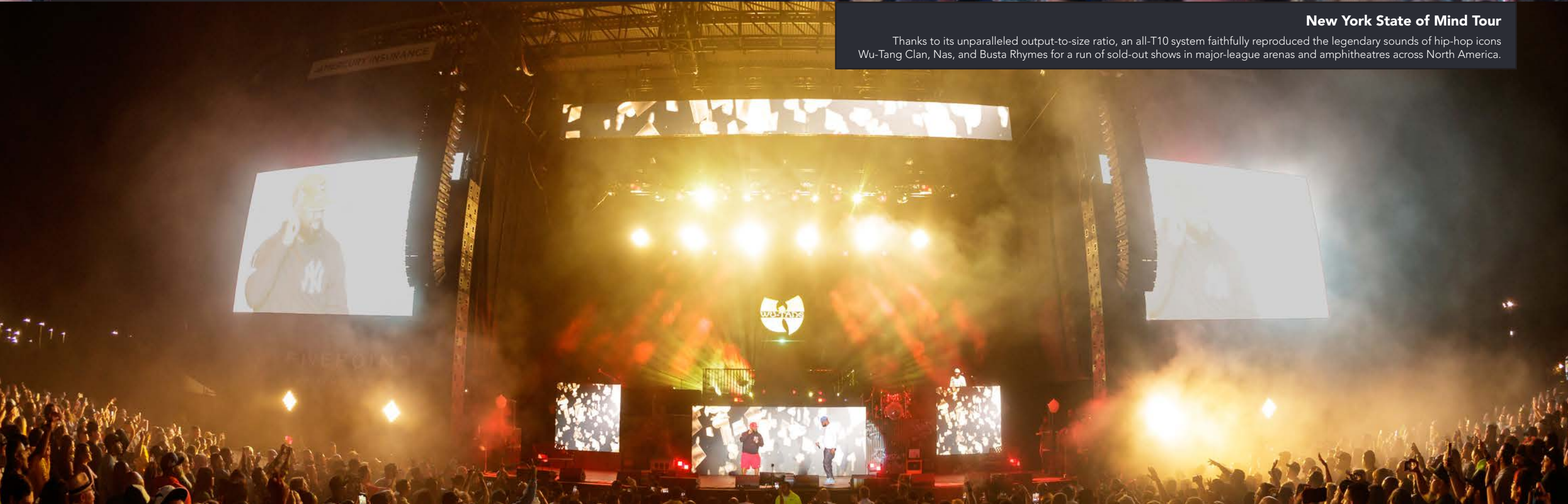
SPL maps of a conventional line array (left) & T10 system with variable multi-axis coverage deployed for an outdoor festival, with variances depicted in the table below. (dB measured from 1 to 10 kHz).

	RECEIVER 1 Audience Area	RECEIVER 2 Edge of Audience Area	RECEIVER 3 Off-Axis	RECEIVER 4 Off-Axis
Conventional Line Array	115dB	109dB	107dB	105dB
Multi-Axis Coverage Array	115dB	104dB	101dB	104dB
MEASURED DIFFERENCE	0	-5dB	-6dB	-1dB



Rock Lightning Independence Day

An expansive T10 / T218 system easily covered the 7,000-capacity McHenry County Fairgrounds with power, headroom, and dynamic range to spare for a special 4th of July performance from international headliners ZZ Top and Collective Soul.



New York State of Mind Tour

Thanks to its unparalleled output-to-size ratio, an all-T10 system faithfully reproduced the legendary sounds of hip-hop icons Wu-Tang Clan, Nas, and Busta Rhymes for a run of sold-out shows in major-league arenas and amphitheatres across North America.

PK ALLIANCE™

BUY SMALL, RENT BIG

The PK Alliance is a reimagining of the live sound industry.

The return on investment for a large-format loudspeaker system is simply no longer viable. The PK Alliance is built on a collaborative, mutually beneficial, and sustainable approach to business – no one-sided deals or rigid demands.

Alliance Members invest in a T10 robotic line source system which capably handles up to 95% of their annual work, and can then rent large-format TRINITYBLACK systems from decentralized dry-hire Hubs as needed.

Essentially, the PK Alliance puts a premium large-format system into your inventory, not on your balance sheet.

PK Alliance collaborative systems are built on premium technological building blocks and uniformly packaged for seamless transport and operation around the world.

Hub inventory is meticulously maintained, prepared for quick pick-up, and ready to augment the impact of your event.

Dry-hire Hubs are currently anchored in the United States, Canada, Belgium, and Spain to serve the widest possible radius of partners in the EU and North American markets.

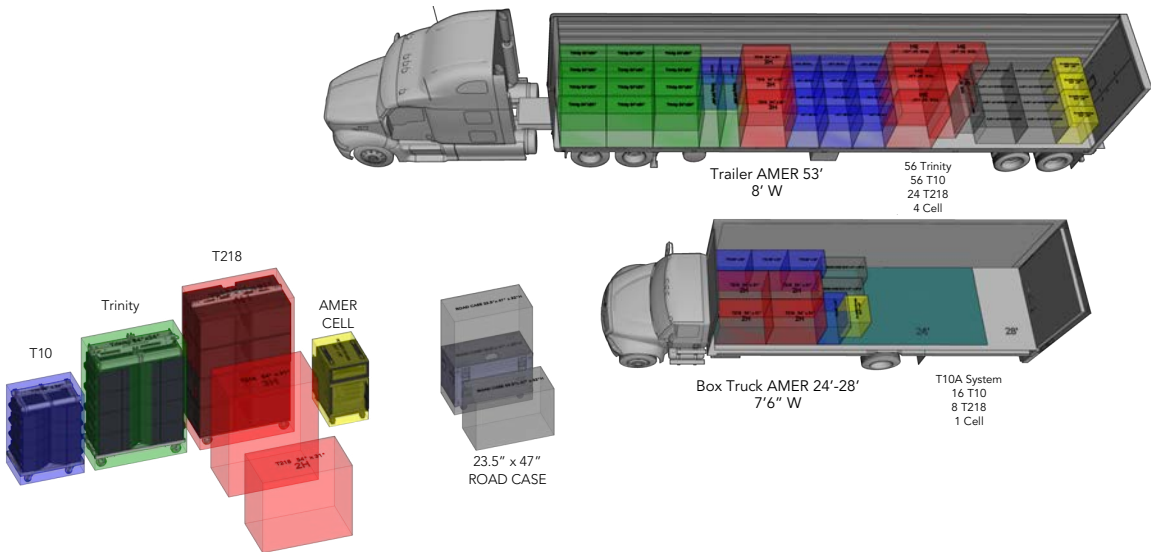
Inventory will scale consistently based on usage to maximize availability and ensure Alliance members can create, collaborate, and succeed together.



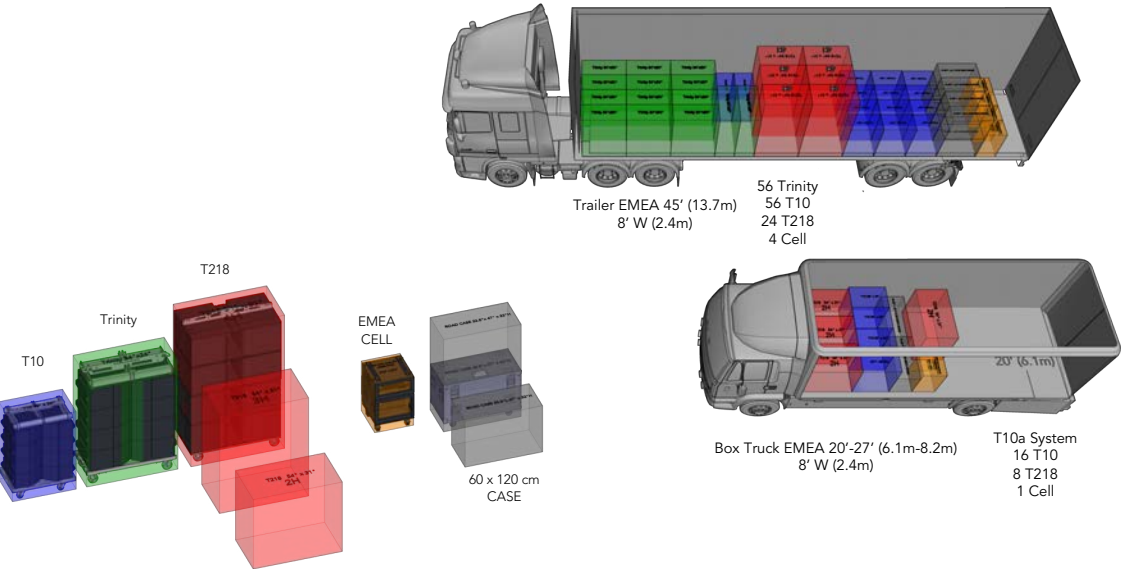
PACKAGED FOR EFFICIENCY

PK Sound’s collaborative system architecture is focused on scalable, globally standardized solutions. Both T10Alliance and TRINITYBLACK systems from global Alliance Hubs are uniformly packaged for seamless transportation and operation around the world.

North America



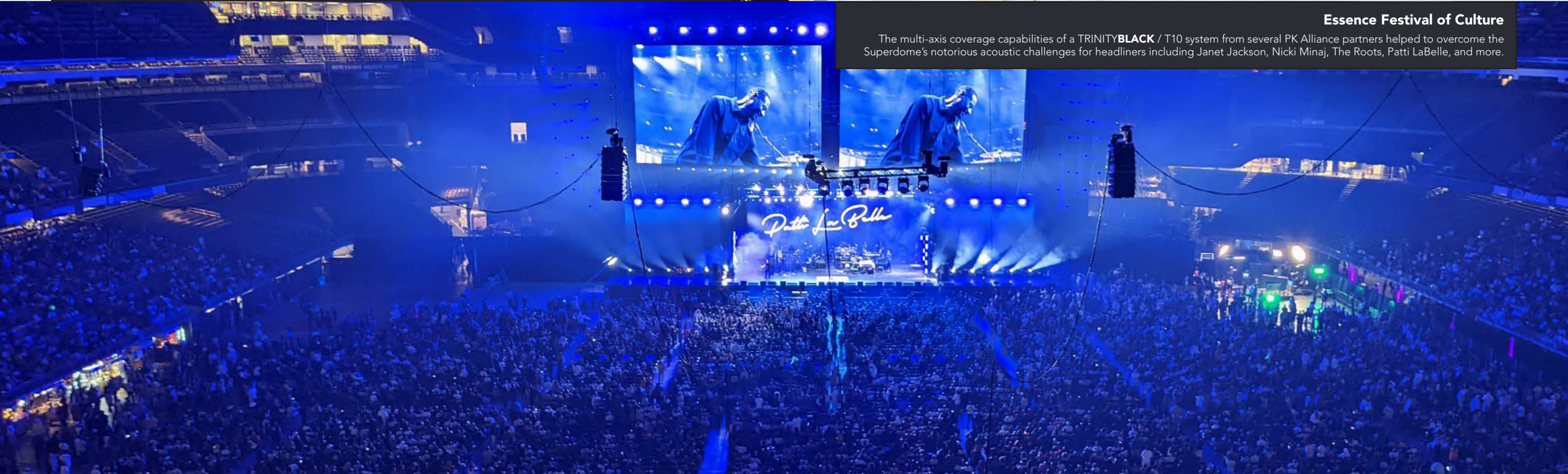
Europe & Asia





Excision Presents: The Stadium

Augmented with TRINITYBLACK from the PK Alliance, T10 systems from multiple partners - including a wall of 68 T218 subwoofers - delivered the full impact of scorching sets from Excision, Subtronics, Sullivan King, and more for a crowd of over 20,000.



Essence Festival of Culture

The multi-axis coverage capabilities of a TRINITYBLACK / T10 system from several PK Alliance partners helped to overcome the Superdome's notorious acoustic challenges for headliners including Janet Jackson, Nicki Minaj, The Roots, Patti LaBelle, and more.