

Powering worldclass sound
for stadiums and
largescale venues



Stadium Sound Solutions



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LARGE-SIZED SPORTS VENUES

Outdoor Stadium

35 m

Long throw

40,000 - 80,000

seats

Number of Capacity

Indoor Stadium

35 m

Long throw

10,000 - 20,000

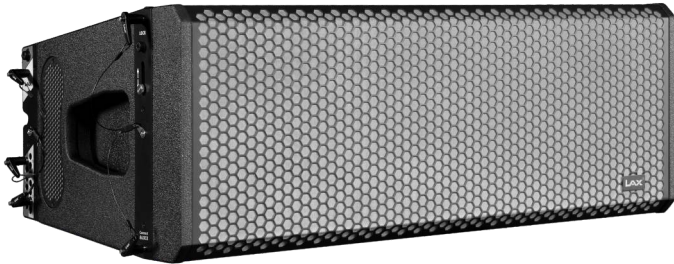
seats

Number of Capacity

NGC 12L

DOUBLE 12" 3-WAY HIGH PERFORMANCE LINE ARRAY SYSTEM

The speaker cabinet features excellent acoustic design, ensuring efficient sound coupling while effectively controlling sound energy from the rear of the speaker, delivering powerful and clean sound.

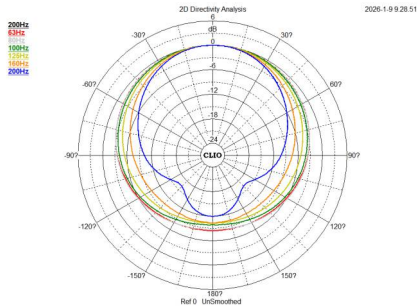


• **Integrated Diffuser Coupler**

This integrated high, mid, and low frequency diffuser coupler seamlessly connects high, mid, and low frequency energy, eliminating frequency diffraction and achieving a unified and coherent wavefront transmission in the horizontal direction, providing a constant 100° directivity and smooth frequency response.

• **Less noise at the rear**

Sound insulation technology achieve a rear attenuation of -9dB in the range of 63Hz-200H.



• **Multi-hole phase plate for midrange drivers**

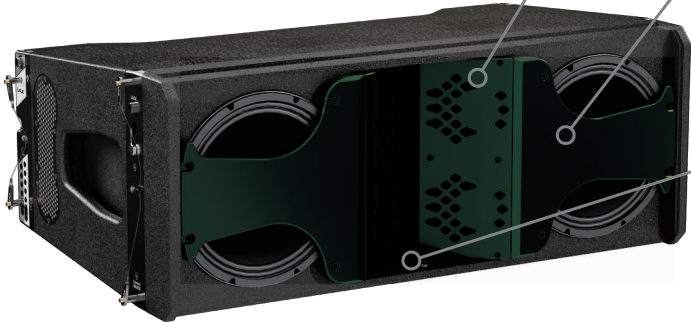
Provides a smooth amplification surface for tweeters while reducing the center distance of the midrange drivers, thus extending the lower limit of the mid-low frequency coupling frequency.

• **Low-frequency unit baffle**

Reduces the low-frequency sound emission distance by 1/2, effectively increasing the vertical coupling frequency and making the vertical energy more coherent.

• **Multi-channel waveguide**

The tweeter driver uses a multi-channel waveguide structure to evenly distribute energy within a 10° angle in the vertical direction, resulting in more precise vertical pointing.



NGC 28

DOUBLE 18" HIGH PERFORMANCE SUBWOOFER

This ultra-compact, high-power horn-type diffused low-frequency loudspeaker system provides powerful low-frequency energy to the system.



NGC 28 Overview

The NGC 28 is an ultra-compact, high-power horn-loaded low-frequency loudspeaker system. It features dual 18-inch neodymium magnet high-power drivers with four-coil, ultra-long-throw technology, mounted in an ultra-compact horn-loaded enclosure, achieving a maximum sound pressure level of 148 dB (peak). A cleverly designed central cooling structure ensures sustained high-power output over extended periods, delivering low-frequency output down to 28 Hz.

• **Exponential Vents**

Exponential vents improve system efficiency by reducing volumetric flow velocity, which significantly reduces port noise at high power levels.

• **More Power, Less Distortion**

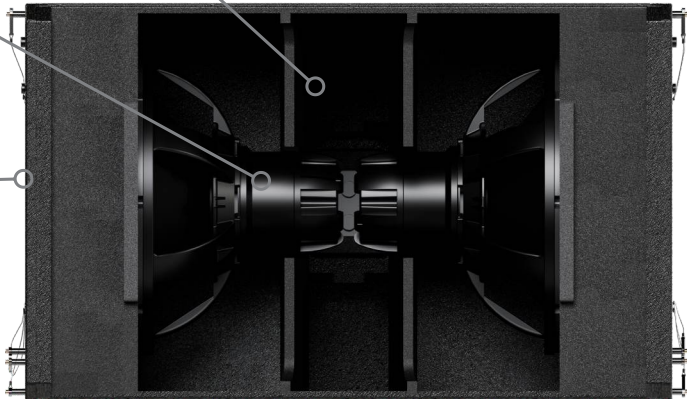
The 18-inch drive unit features a four-coil long-stroke design with a power output of up to 1800W, giving you more power and less distortion.

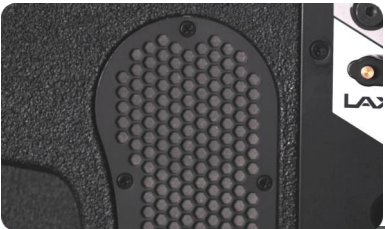
• **Horn-style enclosure**

Dual 18-inch neodymium magnet high-power units are housed in an ultra-compact horn-style enclosure with a cleverly designed central cooling structure. This allows for sustained high-power output at frequencies as low as 28 Hz.

• **Sixth-order bandpass, widening the low-frequency range**

The sixth-order bandpass load design significantly widens the effective low-frequency bandwidth without increasing system latency excessively. This allows for even lower frequency extensions while maintaining a flat frequency response.



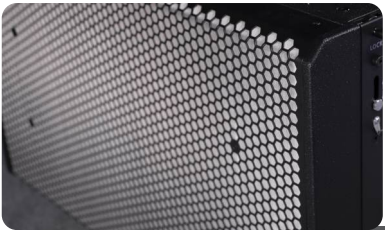


Rear-ported design

Effectively controls sound energy at the rear of the speaker through the principle of wave propagation time.

Easy Rigging

The movable hook pin can be easily secured in the free state, and then the fixing pin can be inserted, making hoisting easier and faster.

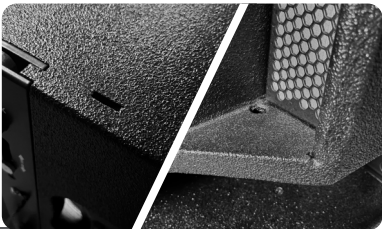


High-transparency aluminum metal mesh cover

The special aluminum metal mesh offers high sound transmission while providing excellent dust and water protection.

Rainwater drainage holes

The enclosure is equipped with multiple rainwater drainage holes to prevent rainwater accumulation during outdoor use and keep the speaker casing dry.



Waterproof design

The entire case is designed to be waterproof and dustproof, easily handling harsh weather conditions.

Wide handle

The handle features a wider and larger opening with a curved design, precisely fitting the natural grip of the hand for easier force application.

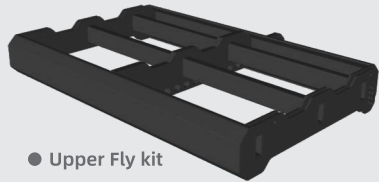


Specifications

Model	NGC 12L	NGC 28
Frequency Response (-3dB)	50 Hz - 16 kHz	34 - 200 Hz
Max SPL @ 1m(AES75)	144.4dB	148dB
Dispersion(HxV)	110°	-
Power capacity	-	2x1800W Nominal - 2x4000W Program
Hi Frequency	180W Nominal - 360W Program	-
Mid Frequency	800W Nominal - 1600W Program	-
Low Frequency	1000W Nominal - 2000W Program	-
Nominal Impedance	-	2x8 Ω
Hi Frequency	16 Ohm	-
Mid Frequency	8 Ohm	-
Low Frequency	2 x 8 Ohm	-
Crossover Frequencies	-	-
Hi Frequency Drive	2 x 3"	-
Mid Frequency Driver	4 x 6.5"	-
Low Frequency Driver	2 x 12"	2x18" neodymium LF drivers, voice coil diameter: 115mm (4.5 in)
Hanging point	4 Points - Preselection system	-
Connectors:	2x8-pin waterproof sockets	2 x 4-pin waterproof sockets
Size (W×D×H) mm	1042x580x376(mm)	1042x800x603(mm)
net weight	63kg	108kg

Flyware System

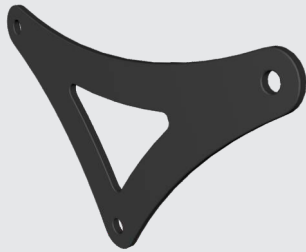
High-strength steel (S700MC)



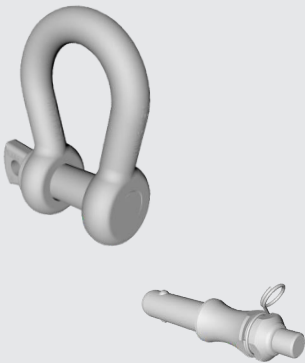
● Upper Fly kit



● Bottom Bar



● Aim Bar



● Rigging Hardware

Reinforcement

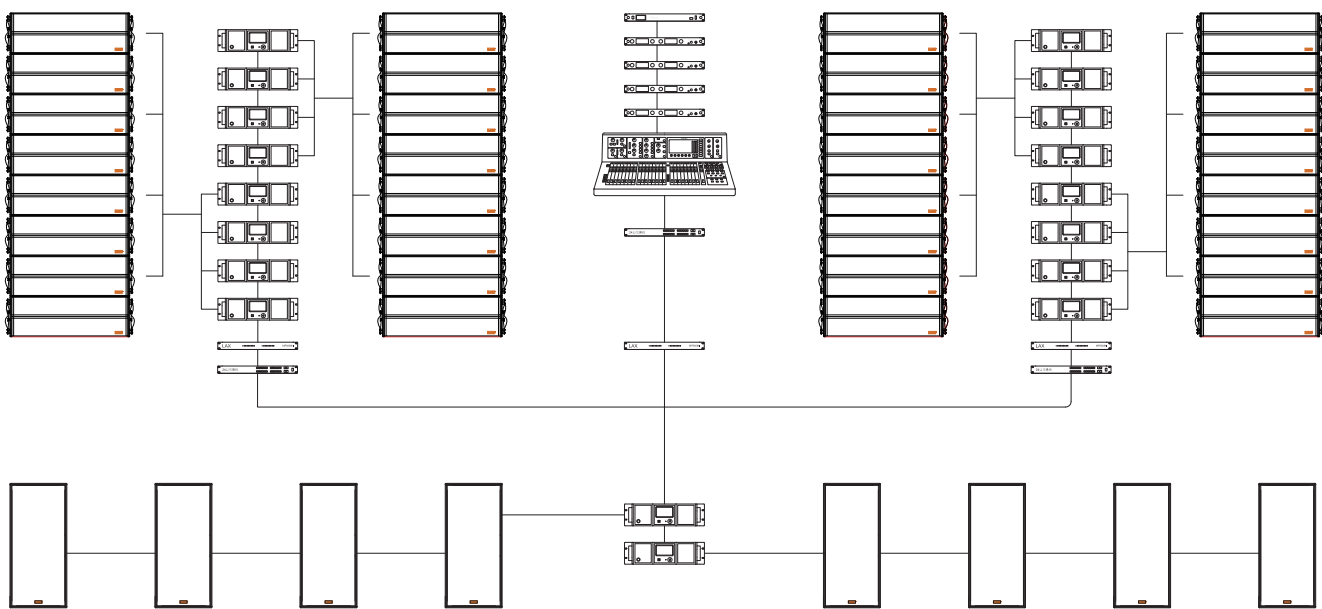
For Large-Sized Venues

The main PA employs single 10-inch line array loudspeakers in a stereo configuration to provide full coverage of the venue. Auxiliary loudspeakers are deployed for fill sound in designated zones in the mid and rear sections, set up in a mono configuration. The volume of each zone can be controlled independently. Dedicated stage monitor speakers are also configured.

The system is equipped with a 32-channel digital mixing console to accommodate bands or multi-channel input requirements. It includes a LAXDS408 digital processor for precise tuning of the venue's sound field. MPA 4-channel power amplifiers are used to ensure sound quality while saving installation space. A LAX true diversity wireless microphone system is supplied, compatible with hand-held, headset, and lapel microphones.



System Diagram



Sound Reinforcement Equipment Configuration

Type	Mixer Console	Interfac	Wireless Microphone	Media matrix
Model	Yamaha Dm7 with Dante	Rio1608-D3	UM920 Um880	DGX88N
Quantity	1set	2set	1 SET	3 units

Amplifier	Main speaker	auxiliary speakers	switch	Power Sequencer
Mx2000	NGC 12L (8 units per array)	L 410	TL-SG3218PE	PSC801N
84 units	20 set	8 units	3 units	16units

MEDIUM-SIZED SPORTS VENUES

Outdoor Stadium

25 m
Medium throw

20,000 - 40,000 seats
Number of Capacity

Indoor Stadium

25 m
Medium throw

8,000 - 10,000 seats
Number of Capacity

ST SERIES

Coaxial arrayable loudspeaker system

Full-frequency sound wave constraint allows the bass frequency to be controlled like the high frequency, providing the venue with excellent sound quality and speech intelligibility.



ST series Overview

The ST series is a directional horn-loaded loudspeaker system, including three models: dual 10-inch, dual 12-inch full-range speakers, and dual 18-inch subwoofers. The excellent acoustic structure of the horn cabinets allows for precise control of sound dispersion, delivering superior sound to every seat, even in reverberant venues, ensuring clear sound and exceptional sound quality.

• Folding Horn Cabinet

The folding horn structure of the dual low-frequency speaker drivers provides a sufficiently long and constrained path for mid-bass dispersion without significantly increasing the cabinet size, thus enabling excellent control of the dispersion angle of mid-bass sound waves.

Coaxial Mid-High Frequency Components

The mid-high frequency section utilizes an innovatively developed coaxial neodymium magnet driver, which controls high-frequency sound waves through a high-precision horn. Mounted in the center of the cabinet horn, it works in conjunction with the mid-low frequency components to achieve controlled sound wave directionality across the entire frequency range of 200Hz-18000Hz.

• Suspended subwoofer combination

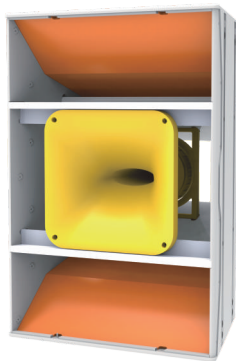
As a low-frequency supplement to the ST speaker system, the cabinet structure is designed to accommodate two full-range subwoofer combinations. The front-mounted horn-type structure enhances sensitivity, while the rear-mounted long bass reflex optimizes transient response, making it excellent for long reverberation spaces.

• Three-way dual-drive

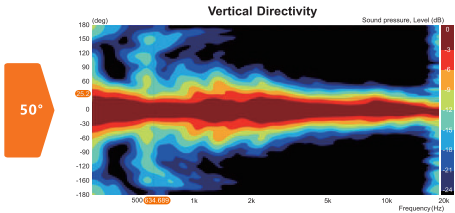
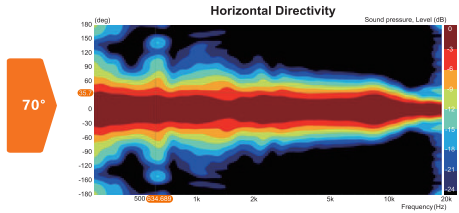
The mid-to-high frequency coaxial compression unit uses a passive crossover network, requiring only one power amplifier channel to drive it, forming a three-way dual-drive configuration with the low-frequency unit.

ST System Pointing Diagram

Full-frequency sound wave constraint allows the bass frequency to be controlled like the high frequency, providing the venue with excellent sound quality and speech intelligibility.



ST System Pointing Diagram



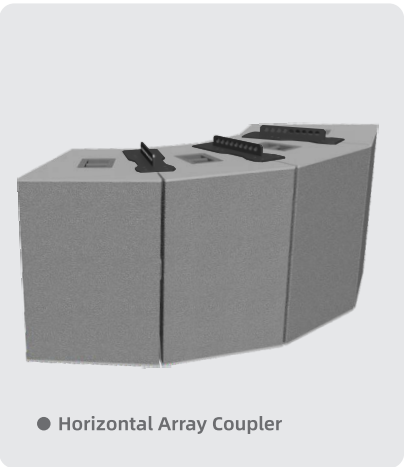
Flyware System



● Flyware



● Vertical Array Coupler



● Horizontal Array Coupler

Specifications



Model	St212	St210	St218BP
Frequency Response (-10dB)	75Hz-19kHz	80Hz - 19kHz	40Hz-200Hz
Max SPL @ 1m	-	-	140dB
Hi Frequency	140dB	140dB	-
Mid Frequency	140dB	140dB	-
Low Frequency	138dB	137dB	-
Dispersion (HxV)	70°X50°	70°X50°	-
Horn rotatable	Yes	Yes	-
Power capacity	-	-	800w(AES)/3200W(peak)
Hi Frequency	80w(AES)/320w (peak)	80w(AES)/320w (peak)	-
Mid Frequency	80w(AES)/320w (peak)	80w(AES)/320w (peak)	-
Low Frequency	600w(AES)/2400W(peak)	400w(AES)/1600W(peak)	-
Sensitivity (1m/1W)	-	-	104dB
Hi Frequency	110 dB (MHF)	110 dB (MHF)	-
Mid Frequency	110 dB (MHF)	110 dB (MHF)	-
Low Frequency	105dB (LF)	105dB (LF)	-
Nominal Impedance	-	-	4Ω
Hi Frequency	8Ω(MHF)	8Ω(MHF)	-
Mid Frequency	8Ω(MHF)	8Ω(MHF)	-
Low Frequency	8Ω(LF)	8Ω(LF)	-
Crossover Frequencies	-	-	-
Hi Frequency Driver	2 x 1.4" /44mm	1 x (4"+2.4")	-
Low Frequency Driver	2 x 12" /100mm	2 x 10" /100mm	2 x 18"
Connectors	2 x NEUTRIK NL4MP	2 x NEUTRIK NL4MP	2 x NEUTRIK NL4MP
Connect Pin	LF:1+1-,MHF:2+2-	LF:1+1-,MHF:2+2-	2+,2-
Hanging point	ST212 FK	ST210 FK	ST212 FK
size (W×D×H) mm	700x638x905(mm)	514x500x755(mm)	905x755x700(mm)
net weight	82.3kg	46.1kg	94.6kg

L 210 / L118B

Dual 10" two-way
Line array

Single 18"
subwoofer

Product Features

- Passive Crossover Array System
- 3-point rigging with 7:1 safety factor
- Trapezoidal cabinet, compact size
- 8-inch/10-inch uniform-width cabinets for combined rigging
- Subwoofer-ready rigging extends low-frequency response



Product Features



Specifications

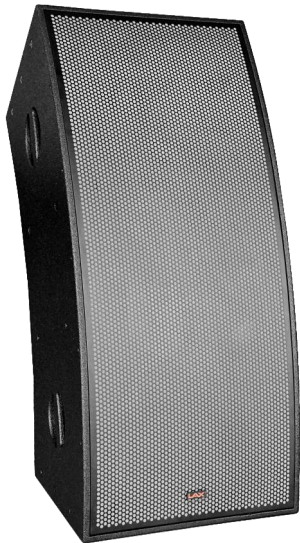
Model	L 210	L118B
Frequency Response (-3dB)	80Hz~20kHz	31.5Hz~500Hz
Max SPL @ 1m	140dB	134dB
Dispersion (HxV)	100°x20°	-
Power capacity	600w(AES)	900w(AES)
Sensitivity (1m/1W)	103dB	97dB
Nominal Impedance	8Ω	8Ω
Crossover Frequencies	-	-
Low Frequency Driver	2 x 10"	1 x 18"
Connectors	2 x NEUTRIK NL4MP	2 x NEUTRIK NL4MP
Connect Pin	1+,1-	2+,2-
Hanging point	OP3228L FK	OP3228L FK
size (W×D×H) mm	752x424x285	752x600x530
net weight	29kg	42kg

L410

4x10" Two-way Line Array Speaker

Product Features

- High Sound Pressure Level (SPL)
- Full-bandwidth beam steering
- Full-range directivity control
- Optimized wavefront
- Compact size and light weight
- Simplified installation

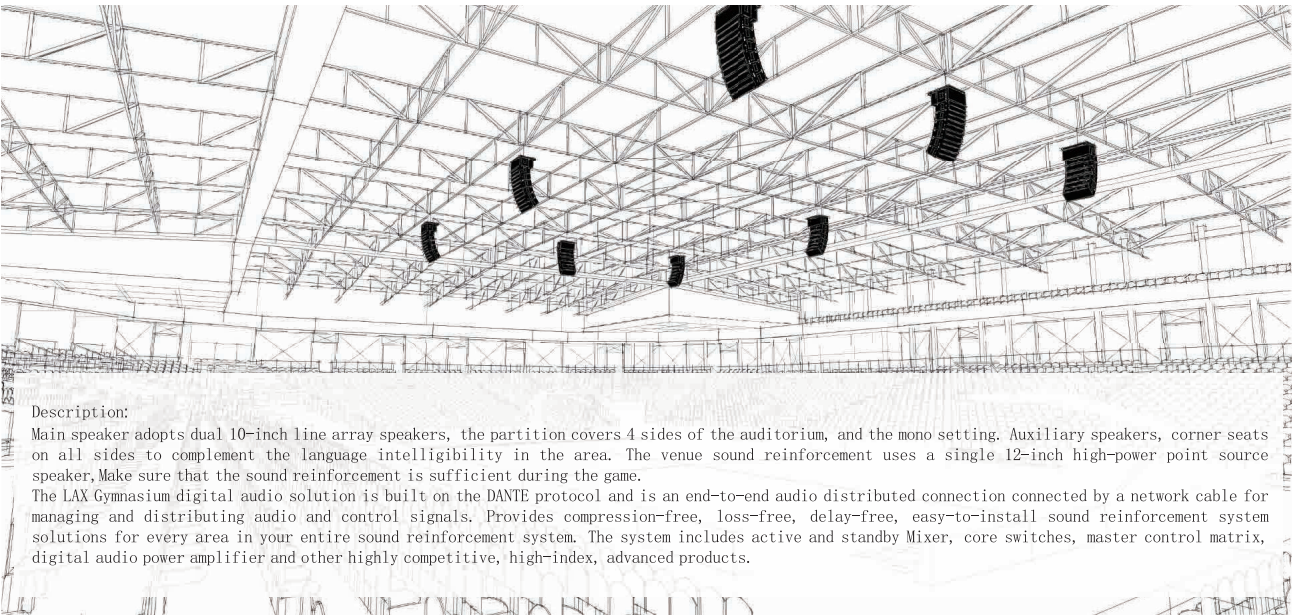


Specifications

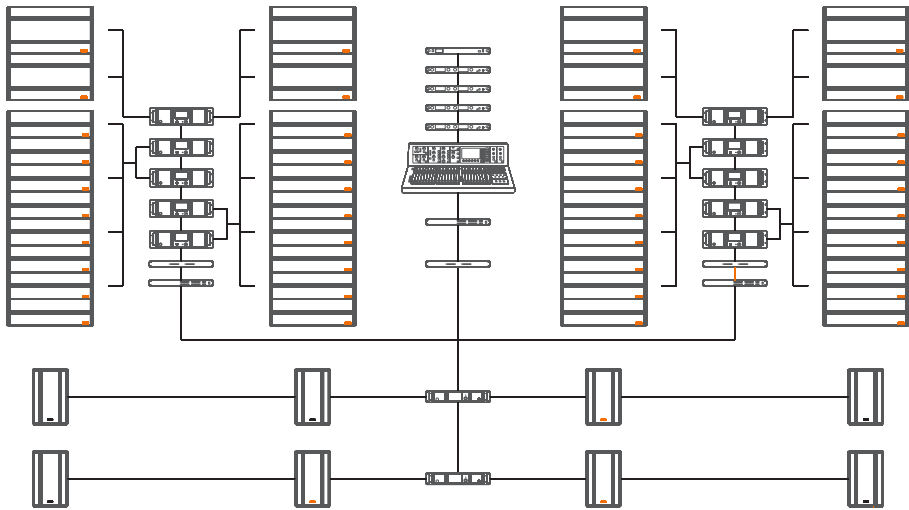
Model	L 410
Frequency Response (-3dB)	63Hz~18kHz
Max SPL @ 1m	-
Hi Frequency	142dB
Low Frequency	138dB
Dispersion (HxV)	90°x50°
Power capacity	-
Hi Frequency	400w(AES)
Low Frequency	1200w(AES)
Sensitivity (1m/1W)	-
Hi Frequency	110dB
Low Frequency	102dB
Nominal Impedance	-
Hi Frequency	4Ω
Low Frequency	4Ω
Crossover Frequencies	1.3KHz
Low Frequency Driver	4 x 10"
Connectors	2 x NEUTRIK NL4MP
Connect Pin	LF:1+1-,HF:2+2-
Hanging point	20xM10
Dimensions (W x D x H)	580 x 501 x 1215(mm)
net weight	85kg

Reinforcement

For Midium-Sized Venues



System Diagram



Large stadium sound reinforcement equipment configuration

Type	Mixer Console	Interfac	Wireless Microphone	Media matrix
Model	Midas M32 with Dante	DL16/DL32	UM920 Um880	DGX88N
Quantity	1set	2set	1 SET	3 units

Amplifier	Main speaker	auxiliary speakers	switch	Power Sequencer
ATSD SERIES	L 210 (8 units per SET) L 118B (2 units per SET)	TH 912	TL-SG3218PE	PSC801N
26 units	16 set	8 units	3 units	6units

SMALL-SIZED SPORTS VENUES

Outdoor Stadium

15 m

Short throw

4,000 - 20,000

Number of Capacity

seats

Indoor Stadium

15 m

Short throw

2,000 - 8,000

Number of Capacity

seats

TH SERIES

2-way, passive full-range loudspeaker

Product Features

- Multiple rigging points for easy rigging and flying.
- Large-format HF driver with Constant Directivity (CD) horn.
- Rotatable horn design for flexible installation alignment.
- High sensitivity and high maximum SPL output.
- Vented, ribbed grille: lighter weight, undiminished strength.
- Compact size and light weight.



Product Features



Specifications

Model	TH 912	TH 915
Frequency Response (-10dB)	40Hz-20kHz	35Hz-20kHz
Frequency Response (-3dB)	50Hz-18kHz	40Hz-18kHz
Max SPL @ 1m	132dB	134dB
Dispersion (HxV)	60°x40°	60°x40°
Horn rotatable	Yes	Yes
Power capacity	400w(AES)	450w(AES)
Sensitivity(1m/1W)	100dB	102dB
Nominal Impedance	8Ω	8Ω
Crossover Frequencies	1.3KHz	1.3KHz
Hi Frequency Driver	1 x 1.4"/75mm	1 x 1.4"/75mm
Low Frequency Driver	1 x 12"/75mm	1 x 15"/75mm
Connectors	2 x NEUTRIK NL4MP	2 x NEUTRIK NL4MP
Connect Pin	1+,1-	1+,1-
Hanging point	10xM10	10xM10
Size(W x D x H)	400 x 360 x 645(mm)	460 x 440 x 742(mm)
net weight	26 kg	30 kg

L 208

Dual 8" two-way Line array

Product Features

- Dedicated 18" sub extends low end.
- 8"/10" same-width cabinets can be combined.
- 3-point rigging with 7:1 safety factor, easy install.
- Modular line array; adjustable box count and splay angle.
- Passive 2-way line array; one amp channel drives 4 boxes.
- Ferrite HF driver + LAX Acoustic Wave Converter for linear source.



Product Features



Specifications

Model	L208
Frequency Response (-3dB)	80Hz-19KHz
Max SPL @ 1m:	138dB
Dispersion (HxV)	100°x10°
Power capacity:	400w(AES)
Sensitivity (1m/1W)	104dB
Nominal Impedance	16Ω
Crossover Frequencies	
Hi Frequency Driver	1 x (4"+2.4")
Low Frequency Driver	2 x 8"
Connectors	2 x NEUTRIK NL4MP
Connect Pin	1+,1-
Hanging point	OP3228L FK
Size(W x D x H)	752 x 424 x 238 mm
Net Weight	23.4 kg

PC 3

All-Weather Long Throw Horn Speaker

Product Features

- A horn-loaded speaker system specifically designed for sound reinforcement in sports stadiums
- Built-in precision crossover network; comprises 2 x 44mm tweeters and 1 x 12-inch midrange driver
- Wide frequency response, high sound pressure level, uniform sound pressure, and wide dispersion angle
- Compact and lightweight, easy to mount. The suspension system allows for quick and easy adjustment of both angle and position



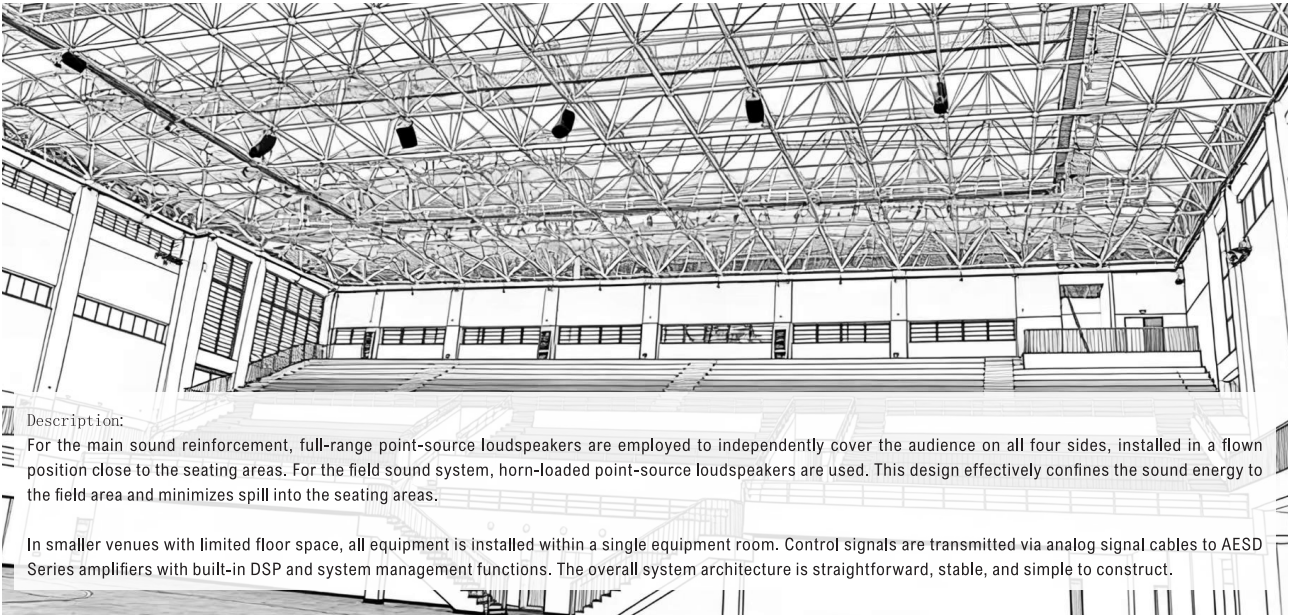
Product Description

The Pc3 is a pure horn-loaded combination system specifically engineered for stadium sound reinforcement. The shape of its high-frequency horn, finalized through computer-aided design and physical prototyping, ensures low distortion, high efficiency, and constant directivity. The mid-frequency horn inherits the successful design of the L-Series mid-horns, forming an excellent new synergy.

Specifications

Model	PC 3
Frequency Response (-3dB)	140 Hz-16 kHz
Max SPL @ 1m	135 dB
Dispersion (HxV)	45°x45°
Horn rotatable	No
Power capacity	300w (AES)
Sensitivity (1m/1W)	104dB
Nominal Impedance	8Ω
Crossover Frequencies	-
Low Frequency Driver	1 x 12"/75mm
Connectors	2 x NEUTRIK NL4MP
Connect Pin	1+,1-
Hanging point	5 x Buckle
Size(W x D x H)	615x 678 x 698(mm)
net weight	43kg

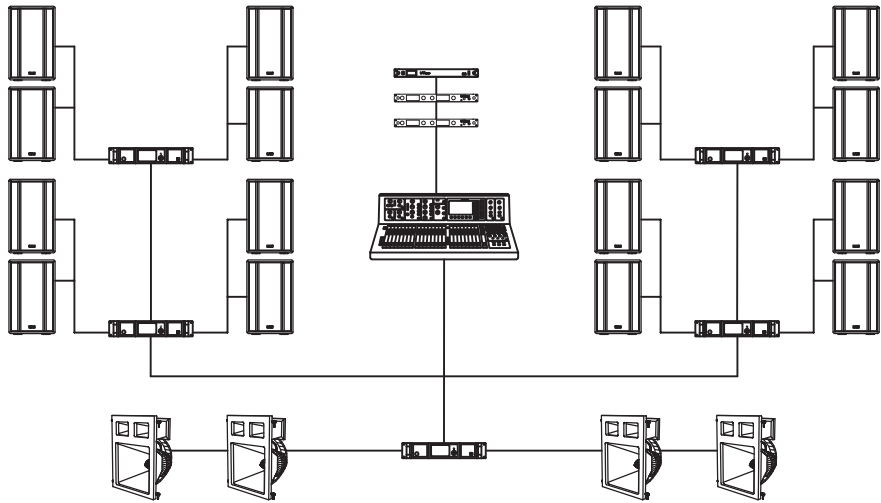
Reinforcement For Small-Sized Venues



Description:
For the main sound reinforcement, full-range point-source loudspeakers are employed to independently cover the audience on all four sides, installed in a flown position close to the seating areas. For the field sound system, horn-loaded point-source loudspeakers are used. This design effectively confines the sound energy to the field area and minimizes spill into the seating areas.

In smaller venues with limited floor space, all equipment is installed within a single equipment room. Control signals are transmitted via analog signal cables to AESD Series amplifiers with built-in DSP and system management functions. The overall system architecture is straightforward, stable, and simple to construct.

System Diagram



Sound Reinforcement Equipment Configuration

Type	Mixer Console	Interfac	Wireless Microphone	Media matrix
Model	Midas M32	-	UM920 Um880	-
Quantity	1set	-	1 SET	-

Amplifier	Main speaker	auxiliary speakers	switch	Power Sequencer
ATSD SERIES	TH912/TH915	PC 3	-	PSC801N
5 units	16 set	4 units	-	2units



The LX Series
is used for fill applications.

LX 208PT / LX 205PT

Molded Plastic Cabinet Loudspeaker

Product Features

- Utilizes a cone made from specialized paper pulp and Ciicone composite material
- Features an imported Mylar diaphragm, a 6N oxygen-free copper voice coil, and US aerospace-grade ferrofluid
- Equipped with a patented adjustable bracket that enables quick rigging and precise angle adjustment



Product Description

The LX Series loudspeakers employ specifically tailored woofers to meet the acoustic and environmental demands of different applications. For indoor use, the LX208 model utilizes a cone made from specialized paper pulp with added Ciicone composite material. This design addresses moisture resistance requirements for interior spaces while delivering a warm and rich sonic character. The high-frequency driver is meticulously engineered with a performance-stable imported Mylar diaphragm, a 6N oxygen-free copper (OFC) voice coil, and US aerospace-grade ferrofluid.

Specifications

Model	LX 205PT	LX 208PT
Frequency Response (-3dB)	95Hz-20 kHz	80 Hz - 20 kHz
Sensitivity (1W/1m)	90 dB	89 dB
Nominal Impedance	8Ω/70V/100V	6Ω/70V/100V
AES Power Handling	60 W	80 W
Transformer Input	-	-
Transformer Output	-	-
Nominal Coverage Angle (H x V)	90°x 75°	90°x 80°
Crossover Frequency	4 kHz	3.5 kHz
THD (at 1/10 Power)	≤5%	≤5%
Connector Type	Standard Junction Box	Standard Junction Box
Cabinet Construction	Bass-reflex	Bass-reflex
Color	Black / White	Black / White
Size (W x D x H)	170 x160 x 285 mm	270 x260 x 454 mm
net weight	2.2kg	5.3 kg