# A 10 MEDIUM THROW LINE SOURCE



- 2 enclosures (Wide 30° and Focus 10°)
- 2 deployments (vertical and horizontal)
- 4 directivities with Panflex (70° / 90° L-R / 110°)
- Scalable and plug-and-play

- High output (137 / 140 dB SPL max)
- Optimized bandwidth (67 Hz / 66 Hz)
- Compact and lightweight (20 / 22 kg)
- Simple, fast, integral rigging









### **ELECTRO-ACOUSTICS**



Part of the A Series, A10 is a medium throw product line designed for production applications up to 35 m. The highly multifunctional family includes A10 Focus and A10 Wide, passive 10" systems with distinct coverage patterns. A10 products can be flown or stacked in combinations to form vertical or horizontal line sources or used individually as configurable directivity point sources.

A10 can adapt to virtually any audience geometry with two enclosure coverage options (10° or 30°), Panflex for user adjustable waveguide directivity (70°, 110° or 90° asymmetrical) and a range of accessories for vertical or horizontal deployment.

A10 deployment requires a single preset that is optimized to provide amazing plug-and-play performance for both A10 models regardless of Panflex configuration. Performance can be further enhanced with L-Acoustics software optimization tools.

On its own A10 provides ideal bandwidth for vocal reinforcement or music with light LF requirements and produces an exceptional SPL-to-size ratio to complement a larger system as fills. The acoustically compatible subwoofer KS21 can be associated with A10 to extend the frequency bandwidth and reinforce the low-frequency contour.

The compact and lightweight A10 is an ideal solution as mains or fill systems for integration conscious applications where clarity and ease of use are most important.

#### **PHYSICAL**

The A10 Focus and Wide enclosures are constructed of premium grade Baltic beech and birch plywood to ensure maximum acoustical and mechanical integrity. Bent wood technology combined with a thickness optimization process greatly reduces weight and ensures a sturdy and acoustically optimized cabinetry.

The A10 products integrate a two-point captive rigging system that simplifies deployment and provides visual safety assessment. Each enclosure features ergonomic handles, bottom ground runners, matching top tracks and corner stops to protect side panels during handling.

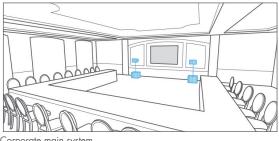
The A10 family has been weatherized to achieve an IP55 rating for outdoor operations.



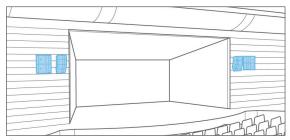
Integrated rigging with safety check; ergonomic handles; ground runners; corner stops.

#### APPLICATIONS AND BENEFITS

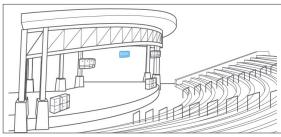
A10 is a multifunctional solution that can be deployed in a wide variety of ways to address mobile applications. A10 can stand on its own for small to medium sized events or complement a long throw system on larger applications.



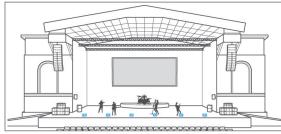
Corporate main system



Theater main system



Amphitheater vocal system



Large festival front fill system

### **RIGGING**

The A10 products can be flown or stacked on their own or in combinations with KS21. Dedicated rigging elements allow for vertical or horizontal line source deployment. The A10 products can also be flown or pole-mounted individually as a configurable directivity point source.













#### AMPLIFIED CONTROLLERS

LA4X is the recommended amplified controller with one A10 per output channel for optimal use of the Autosolver tools. LA4X supports a total of eight A10 for maximum power density.

LA12X can be used to power and control up to three A10 per output channel. This configuration simplifies deployment and cable management but reduces optimization capabilities.

#### LA4X: amplified controller with DSP

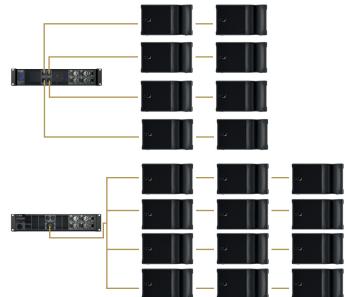


4 x 1000 W / 8 ohms or 4 ohms 4 inputs x 4 outputs architecture Max 8 enclosures per amplified controller

#### LA12X: amplified controller with DSP



4 x 3300 W / 2.7 ohms 4 inputs x 4 outputs architecture Max 12 enclosures per amplified controller



#### L-CASE: transport and operation case for electronics



Capacity: single 2U amplified controller Stacked or flown





#### **SUBWOOFERS**

#### KS21: reference 21" subwoofer (1 x 21")

A10 + KS21 bandwidth: 31 Hz - 20 kHz Ratio1 KS21 to 2 A10: reinforced contour Ratio 1KS21 to 1 A10: reinforced contour + 2dB





#### **SOFTWARE**

#### SOUNDVISION: simulation software



3D electro-acoustic & mechanical simulation software

#### LA Network Manager: control & monitoring software



Real-time control and monitoring up to 253 units Multiple network topologies

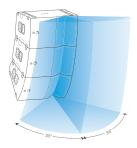
#### A Series: Flexibility and scalability for medium throw applications



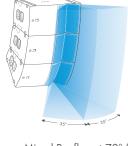
The multifunctional A series comprises four medium throw loudspeakers and a dedicated subwoofer with flexible coverage options, adaptable directivity and up to 45 meters of throw. The A series delivers the performance of a large concert system in a plug-and-play solution that is easier to design and deploy. Scaling to a variety of applications, A series enclosures can be used individually as a point source or combined to form vertical or horizontal line sources.

## **COVERAGE**

Panflex at  $110^{\circ}$ 

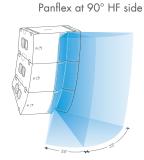


Panflex at 90° LF side

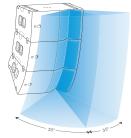


Panflex at  $70^{\circ}$ 

Mixed Panflex at  $70^{\circ}/110^{\circ}$ 



Panflex at 90° down

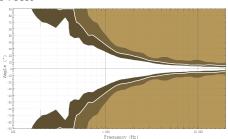


35 55 55

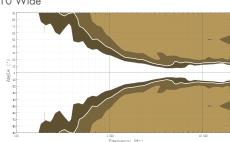
## **BEAMWIDTH**

A10 Focus





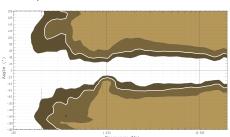
A10 Wide



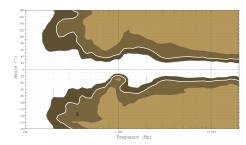
▶ Dispersion angle diagram of a single A10 Focus (left) and A10 Wide (right) in the vertical plane using lines of equal sound pressure at -3 dB, -6 dB, -12 dB.

A10 Focus/Wide with Panflex at  $110^{\circ}$ 



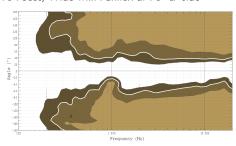


A10 Focus/Wide with Panflex at 70°

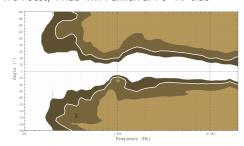


A10 Focus/Wide with Panflex at 90° LF side





A10 Focus/Wide with Panflex at 90° HF side



▶ Dispersion angle diagrams of a single A10 in the horizontal plane for all Panflex settings using lines of equal sound pressure at -3 dB, -6 dB, -12 dB.

# FOCUS MEDIUM THROW LINE SOURCE













A10 Focus is a medium throw loudspeaker designed for production applications. Part of the multifunctional A10 family, the passive 10" enclosure offers exceptional deployment flexibility and simplicity without compromising performance.

With a tightly-controlled 10° enclosure coverage, A10 Focus boasts an impressive output of 140 dB and ensures projection up to 35 m. Panflex allows users to adapt directivity to the audience geometry and ensure exceptional frequency response stability.

Combinations of A10 Focus and A10 Wide can be flown or stacked to form a vertical line source. A10 Focus can also be used individually as a configurable directivity point source for front fill or delay applications where narrow coverage is required.

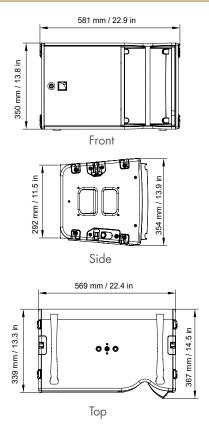
An A10 Focus line source provides exceptional performance in the vocal range. The companion subwoofer KS21 further reinforces contour and extends bandwidth to 31 Hz for demanding applications.

A10 Focus is a highly scalable solution that delivers concert-level performance for small to large events, or supplements a larger L-Acoustics solution as fills or delays.

## **SPECIFICATIONS**

Description	2-way passive constant curvature WST 10°, amplified by LA4X / LA8 / LA12X
Usable bandwidth (-10 dB)	66 Hz - 20 kHz ([A10])
Maximum SPL <sup>1</sup>	140 dB ([A10])
Nominal directivity	Enclosure: 10° Panflex: 70° / 110° symmetric or 90° asymmetric
Transducers	LF: $1 \times 10^{\prime\prime}$ neodymium cone driver HF: $1 \times 2.5^{\prime\prime}$ diaphragm neodymium compression driver
Acoustical load	LF: Bass-reflex, L-Vents HF: DOSC waveguide, Panflex
Nominal impedance	8 Ω
Connectors	IN: 1 × 4-point speakON LINK: 1 × 4-point speakON
Rigging and handling	Flush-fitting two-point rigging system 1 handle, 8 corner stops and 2 ground runners
Safety	1 DIN580-compatible M8 insert
Weight (net)	22 kg / 49 lb
Cabinet	Premium grade Baltic beech and birch plywood
Front	Coated steel grill Acoustically neutral 3D fabric
Rigging components	High grade steel with anti-corrosion coating
Finish	Dark grey brown Pantone 426 C
IP	IP55

<sup>1-</sup> Peak level at 1 m under free field conditions using pink noise with crest factor 4 (preset specified in brackets).



## A 10 WIDE

## MEDIUM THROW LINE SOURCE













A10 Wide is a medium throw loudspeaker designed for production applications. Part of the multifunctionnal A10 family, the passive 10" enclosure offers exceptional deployment flexibility and simplicity without compromising performance.

The 30° enclosure of A10 Wide enables a compact array, deployed radially, to provide expansive coverage while preserving sightlines. Panflex allows users to adapt directivity to the audience geometry and ensure exceptional frequency response stability.

Combinations of A10 Wide and A10 Focus can be flown or stacked to form a vertical line source. A10 Wide can also be used individually as a configurable directivity point source for delays and pole-mounted applications.

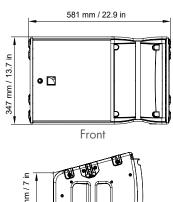
An A10 Wide line source provides exceptional performance in the vocal range. The companion subwoofer KS21 further reinforces contour and extends bandwidth to 31 Hz for demanding applications.

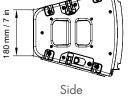
A10 Wide is a highly scalable solution that delivers concert level performance for small to large events or supplements a larger L-Acoustics solution as fills or delays.

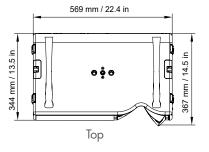
#### **SPECIFICATIONS**

Description	2-way passive constant curvature WST 30°, amplified by LA4X / LA8 / LA12X
Usable bandwidth (-10 dB)	67 Hz - 20 kHz ([A10])
Maximum SPL <sup>1</sup>	137 dB ([A10])
Nominal directivity	Enclosure: 30° Panflex: 70° / 110° symmetric or 90° asymmetric
Transducers	LF: $1 \times 10^{\prime\prime}$ neodymium cone driver HF: $1 \times 2.5^{\prime\prime}$ diaphragm neodymium compression driver
Acoustical load	LF: Bass-reflex, L-Vents HF: DOSC waveguide, Panflex
Nominal impedance	8 Ω
Connectors	IN: 1 × 4-point speakON LINK: 1 × 4-point speakON
Rigging and handling	Flush-fitting two-point rigging system 1 handle, 8 corner stops and 2 ground runners
Safety	1 DIN580-compatible M8 insert
Weight (net)	20 kg / 44 lb
Cabinet	Premium grade Baltic beech and birch plywood
Front	Coated steel grill Acoustically neutral 3D fabric
Rigging components	High grade steel with anti-corrosion coating
Finish	Dark grey brown Pantone 426 C
IP	IP55

 $<sup>^{\</sup>rm 1-}$  Peak level at 1 m under free field conditions using pink noise with crest factor 4 (preset specified in brackets).







# KS21 SUBWOOFER





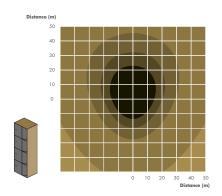
Description	High power compact subwoofer: 1 × 21'' amplified by LA4X / LA8 / LA12X
Low frequency limit (-10 dB)	29 Hz ([KS21_60])
Maximum SPL <sup>1</sup>	138 dB ([KS21_100])
Nominal directivity	Standard or cardioid configurations
Transducers	1 × 21" neodymium cone driver
Acoustical load	Bass-reflex, L-Vents
Nominal impedance	8 Ω
Connectors	IN: 1 × 4-point speakON LINK: 1 × 4-point speakON
Rigging and handling	Flush-fitting two-point rigging system 1 pole mount with M20 x 150 insert 4 handles, 8 corner stops and 2 ground runners
Weight (net)	49 kg / 108 lb
Cabinet	Premium grade Baltic beech and birch plywood
Front	Coated steel grill Acoustically neutral 3D fabric
Rigging components	High grade steel with anti-corrosion coating
Finish	Dark grey brown Pantone 426 C
IP	IP55

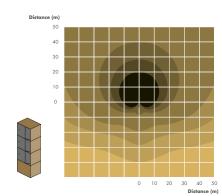




 $^{\rm l}$  Peak level at 1 m under half space conditions using pink noise with crest factor 4 (preset specified in brackets).

## **ISOCONTOUR**





► SPL mapping of a block of four KS21 in standard (left) and cardioid (right) arrangements, using surfaces of equal sound pressure with three dB step colored scale.

## **DIMENSIONS**

