



Product Technical Data Sheet
Model LS6593A/LS6593S

Description

The LS6593S and LS6593A line array modules represent a breakthrough in high performance compact line array loudspeaker technology. Utilizing patented ribbon planar drivers this unique design concept provides different options for vertical dispersion allowing versatile system configuration for a variety of applications. This modular concept allows for extremely cost effective design solutions by stacking modules as needed to increase vertical coverage, throw distance and low frequency pattern control. It is one of the most flexible and cost effective tools based on modern technology principles available for your solutions.

The LS6593S/LS6593A concept is based on a woofer line array mounted on a front panel with a coaxially positioned ribbon tweeter array. The woofer array consists of 6 x 5.25" drivers, while the tweeter array consists of 9 x 3" proprietary ribbon planar drivers. The LS6593S is a straight line array with extremely controlled vertical dispersion. The LS6593A has internally articulated driver elements that allow wider vertical dispersion at one end of the array. Both options are built within the same straight, column type enclosure.

Threaded inserts on the back allow for many mounting options. Both the S and A versions are fully environmental and are available in black and white. 70volt 60watt versions for both varieties are available as well. Each LS6593 variant has provisions for both NL4 and screw terminal inputs.

Key Features

- Proprietary planar ribbon high frequency line source module delivers unsurpassed sound quality
- True line source behavior due to precise coupling of transducers
- Cylindrical wave radiation:
 - o Produces loss of 3dB loss per doubling of distance in the critical vocal range and above as opposed to the 6dB loss of conventional loudspeakers (Application Note pending)
 - o Greatly restricts vertical spreading of sound field which significantly reduces ceiling and floor reflections – dramatically improving direct to reverberant ratios – resulting in improved speech intelligibility
- The sealed enclosure is made from extruded aluminum with poly-cone woofers and planar ribbon tweeters for use in extreme weather conditions.
- Extremely wide 120 degree horizontal coverage
- Two dispersion options for design flexibility
- Available with a 60W 70V transformer



Applications:

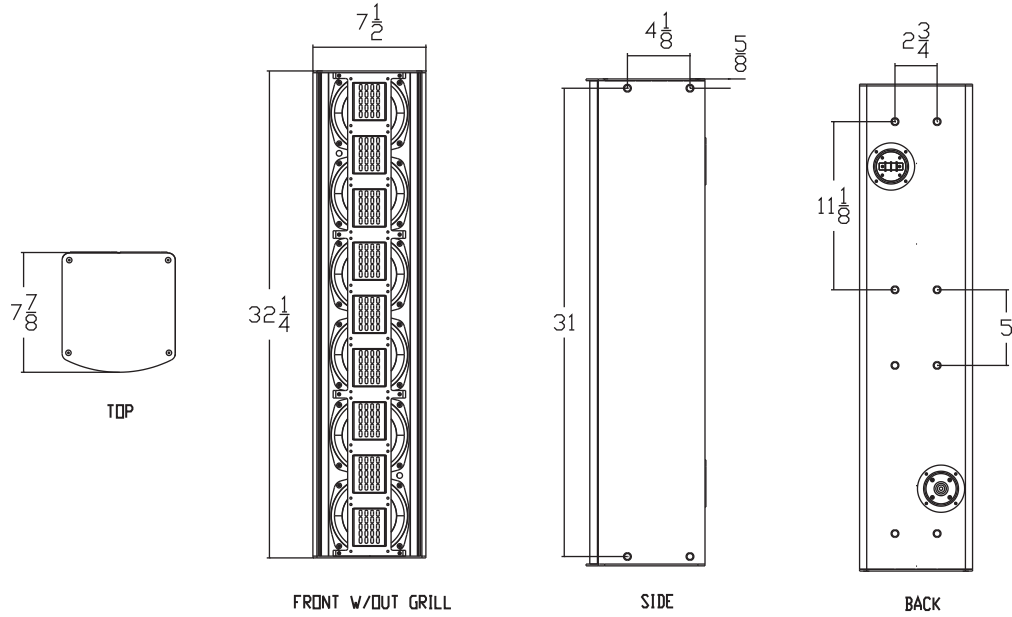
Developed for a wide range of professional applications where the highest quality and intelligibility of sound is required - especially effective in highly reverberant and/or elongated spaces

- Sound reinforcement in churches, auditoriums, ballrooms
- Paging in difficult acoustic environments such as airports and subways
- Theme Parks
- Stack columns to achieve taller vertical sound field for raked seating applications
- Stacking columns also produces line source behavior at lower frequencies, which increases throw distance

Product Specifications	
Operating Range (half space conditions)	80Hz – 20,000Hz
Sensitivity ¹ (1W/1m)	94dB
Horizontal Coverage Angle ² -6dB	120 Degrees
Vertical Coverage Angle	Defined by height of the array and element types used
Power Handling ³	300 Watts RMS
Max SPL (calculated) @ 1 Meter	118dB Cont. / 124dB peak ⁴
Recommended Amp Power for Max Output	600 Watts
Nominal Impedance	6 Ohms
Crossover Frequency	Internal passive at 2000Hz
Transducers – High Freq.	9 x 3" Planar ribbon drivers
Low Freq.	6 x 5.25 Long throw Polycomposite cone woofers with cast aluminum chassis
Input	NL4 Barrier Strip
Dimensions	32.25" (81.9cm) H 7.5" (19.1cm) W 7.875" (20cm) D
Enclosure	Extruded aluminum
Weight	30lbs (13.6kg)
Mounting	4 threaded inserts for mounting hardware 1 position using 4 treaded inserts for 3 rd party mounting bracket ⁵
Optional Accessories	CP6593 Box to Box Coupling Brackets - in black or white
Finish Options	Textured powder coating - in black or white (white paintable)

1. Full bandwidth pink noise is applied and amplified to a level and measured at the loudspeaker terminals - corresponding to 1 Watt as referenced to the loudspeakers nominal impedance. SPL is measured in an anechoic environment in the loudspeakers far field. Data is extrapolated to 1 Meters distance from the loudspeaker. Note that predicting device SPL at distance using inverse square law calculations will produce inaccurate results due to cylindrical wave radiation. Use our free LASS software to predict SPL at distance.
 2. Averaged from 500Hz to 8kHz
 3. Conforms to AES2-1984 (r1997) method
 4. SLS Ribbon technology has the ability to produce double the peak capability (12dB) above the RMS value to that of conventional transducers. 12dB peaks with durations of 200msec. are possible. This means better transient response without power compression.
 5. When two or more LS6593's are fastened together using the CP6593 the rear bottom pair of attachment points align with the rear top pair of the box below and create an additional 3rd party bracket mounting point.

Product Drawings



Front

Side

Product Horizontal Polars

