



Preliminary Specifications: LA880i

Mounting hardware not included

System Type	3-way full range line array, ported (300w transformer optional for 25/70.7/100v applications)
Impedance (Rated) ¹	4 ohm
Sensitivity dB @ 2.83V / 1 m	91.0 dB
Sensitivity dB @ 1 W/1 m ²	88.0 dB
Frequency Response (-3 dB) ³	71 Hz - 22 kHz
Frequency Response (-10 dB) ³	58 Hz - 22 kHz
Max. Program Power ⁴	500 W
Max. Continuous Power ⁵	300 W
Max. SPL dB @ 1 m ⁶	113 dB
Coverage Angle (-6 dB @ 2 kHz)	104° horizontal 30° vertical
Coverage Angle (-6 dB @ 10 kHz)	77° horizontal 51° vertical
Coverage Angle (Avg. 2 to 10 kHz)	91° horizontal 52° vertical (500-10k)
Directivity Factor (Q)	6.9
Directivity Index (DI)	9.2 dB
Tap Selector(optional)	AC-LA8-XFMR includes 5 Position rotary switch
Low-Frequency Driver	8- 102mm (4.5 in) woofers, paper with rubber surround, 8- 51mm (2.0in) midrange, paper with foam surround
High-Frequency Driver	63.5 mm (2.5 in) planar magnetic ribbon tweeter
Low-Frequency Voice Coil	25.4 mm (1.0 in)
Crossover Frequency	1.1 kHz and 2.5 kHz
Network Type: Low-Pass	12dB/oct
Network Type: High-Pass	12dB/oct
Enclosure Material	Painted mdf and plywood
Grille	Powder coated steel
Inputs	4 Pin, 5.08 mm Euroblock or SpeakOn for individual or daisy chain connection
Colors	Black or white
Height	1038.1 mm (40.87 in)
Width	200.9 mm (7.91 in)
Depth (Including Bracket)	304.5 mm (11.99 in)
Weight	18.2 kg (40 lbs)
Shipping Weight	21.8 kg (48 lbs)
Included Accessories	Bent back bracket, Safety cable, Euroblock connector
Optional Accessories	AC-LA8-BACK, AC-LA8-LINK, AC-LA8-FLY, 300w transformer (AC-LA8-XFMR), plus a variety of mounting brackets
Packaging	1 per box
Regulatory - UL	1480 (UEAY) planned
Regulatory - CE	Approved
RoHS	Approved

Key Features

- Passive, fixed length, column line array with 3-way design.
- Eight 4.5 inch (115 mm) woofers; eight 2.0 inch (55 mm) neodymium-motor midrange drivers; one 2.5 inch (66 mm) planar magnetics (ribbon) high-frequency driver.
- Line Array – Point Source (LAPS) technology provides short near-field extent and robust far-field performance
- Paintable enclosure is constructed of MDF and plywood with metal threaded mounting points.
- Powder coated, paintable steel grille.
- Available in black or white finish.
- Custom woodgrain cabinets or paint finishes available (contact us for details).
- Flexible mounting options include surface-mount, pole-mount, ceiling-mount or suspended (flown). (Allen Products mounting accessories sold separately.)
- Euroblock and SpeakOn connectors allow for fast connections and easy daisy chaining.
- Additional low frequency directivity control with LA808i LFDE.
- UL 1480 UEAY planned.
- Included accessories: safety cable mounting plate and mounting bolts, Euroblock connector, safety cable.
- NOTE: Mounting brackets not included

Description

The SoundTube LA880i is not a typical line array column loudspeaker. It is an advanced LAPS (Line Array-Point Source) 3-way design that provides a very short near-field extent and robust far-field performance. Frequency tapering of low and mid frequency pass bands allows the LA880i to maintain a more consistent ratio of array height to radiated wavelength, ensuring a stable vertical beamwidth that outperforms many other single box line arrays. Featuring eight 4.5-inch woofers, eight 2-inch midrange drivers and one 2.5-inch planar magnetics (ribbon) high frequency driver for extremely smooth high frequency response, the LA880i achieves superb coverage in an enclosure measuring only 7.91" x 40.87" x 11.99".

¹ Impedance listed per IEC 60268-5

² 1w1m sensitivity determined using nominal impedance

³ Frequency response measured in half or full space as dictated by speaker mounting configuration

⁴ Max program power is 3 dB above max continuous power

⁵ Continuous power rating, EIA-426-B test

⁶ Max output based on max continuous power

⁷ Max useable SPL based on testing by NWAALabs

Transformer Taps

70.1 V	Output	100 V	Output	25 V	Output
300 W	113.0 dB	300 W	113.0 dB	38 W	104.0 dB
150 W	110.0 dB	150 W	110.0 dB	19 W	101.0 dB
75 W	107.0 dB	75 W	107.0 dB	10 W	98.0 dB
38 W	104.0 dB	38 W	104.0 dB	5 W	95.0 dB
19 W	101.0 dB				



Applications

Designed for use in large public spaces, the LA-880i is ideal for PA and sound reinforcement applications. Its near-field to far-field transition occurs at only 3 meters (about 10') from the speaker, maintaining a constant directivity of 40 x 120 degrees throughout the coverage area. The LA-880i was designed for use in transportation platforms, airports, houses of worship, auditoriums and other public gathering spaces. For areas with a high reverberation time, addition of the LA-808i LFDE (Low Frequency Directivity Element) can increase the directivity of low frequencies by up to an octave lower than with the LA-880i alone.

The LA-880i is not weatherized and is intended only for indoor applications.

Patented SoundTube Technologies

SoundTube Entertainment and MSE Audio are constantly developing new technologies that enhance audio product performance. SoundTube Entertainment innovations are protected by multiple U.S. and international patents, which explicitly cover SoundTube dome, enclosure and directivity technologies. MSE Audio actively defends its patents in order to protect SoundTube resellers and end users.

Technical Data and Specification Tools

Technical Data

SoundTube Entertainment strives to provide complete and effective technical information and data to dealers, engineers and designers. All data are available from SoundTube Entertainment or at www.soundtube.com.

Technical data and downloads include:

EASE™ data – 3-D polar plots.

EASE™ Address – 2-D modeling for distributed systems

Autodesk® Revit® software

Tech Sheets – Technical information and architectural specs for system engineers

SoundTubeSPEC™ – Proprietary speaker placement software

Data Acquisition

All data for SoundTube speakers are independently collected from and verified by NWAAL Labs (www.nwaalabs.com) using their proprietary MACH testing system. All data are collected and analyzed according to ASTM, ISO and AES standards using EASERA, TEF and MLSSA. Full balloon data including both phase and magnitude is compiled into a variety of formats including EASE 4.x, GLL and CLF.

Architectural Specifications

The loudspeaker shall be a single-cabinet, 3-way column line array with eight 4.5 inch (115 mm) woofers; eight 2.0 inch (55 mm) neodymium-motor midrange drivers and one 2.5 inch (66 mm) planar magnetics (ribbon) high-frequency driver.

Performance specifications of a typical production unit shall be as follows: usable frequency response shall extend from 58 Hz – 22 kHz (-10 dB). Measured sensitivity (ref. 2.83 V / 1 m) shall be 91 dB. The speaker shall have a rated impedance of 4 ohms. Rated power handling shall be 500 watts and maximum continuous output at 1 meter shall be 113 dB.

The low frequency drivers shall include a treated paper cone and butyl rubber surround. They shall use a die cast aluminum basket and a ferrite motor structure. The midrange drivers shall include a treated paper dome with pressed foam surround. They shall use a die cast aluminum basket with a neodymium motor structure. The high frequency driver shall be a planar magnetics (ribbon) unit with a neodymium motor structure.

Mounting points for wall mount, pole mount, ceiling mount or suspension via cables shall be provided. Mounting hardware shall be Allen Products or equivalent. Input connectors shall include a four-position terminal block and Neutrik SpeakOn. The four-position terminal block shall accept from 10 – 22 gauge wire.

The enclosure shall be constructed of MDF and plywood with metal ¼" x 20 threaded inserts mounting points and a steel grille. The enclosure and grille shall be available in black or white textured paint, and shall also be paintable by the installer. A bent back plate with plate mounting hardware and safety cable attachment point shall be included. Speaker mounting

brackets and hardware shall be available for use with 3rd party manufacturer mounting systems.

Additional low frequency directivity shall be available via the addition of the separate LA808i unit providing eight 4.5 inch (115 mm) woofers in a single cabinet. Additional unit shall be joined to LA880i via included (with LA808i) mounting plates. Electrical connection of the additional unit shall be made via included (with LA808i) jumper cable.

The system shall be the SoundTube LA880i line array.

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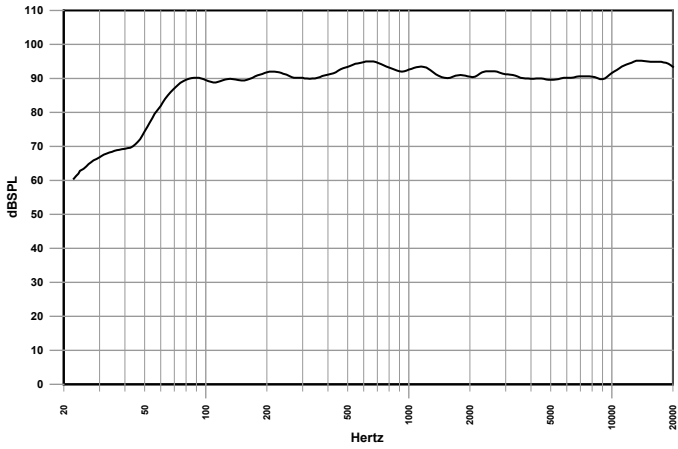
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All SoundTube products come with a 5-year limited warranty.

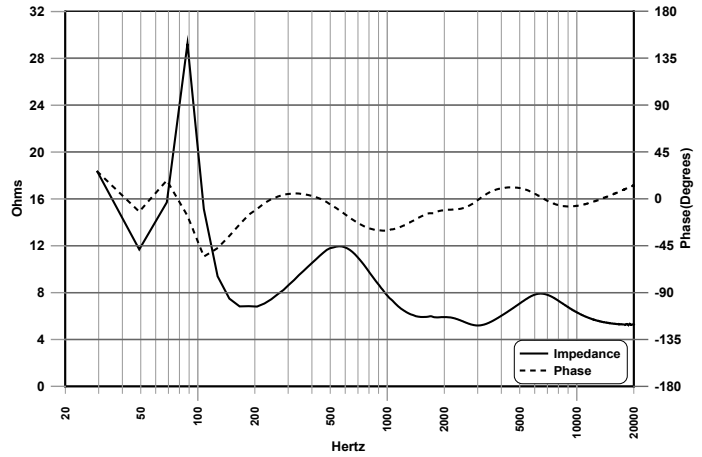


Preliminary Graphs

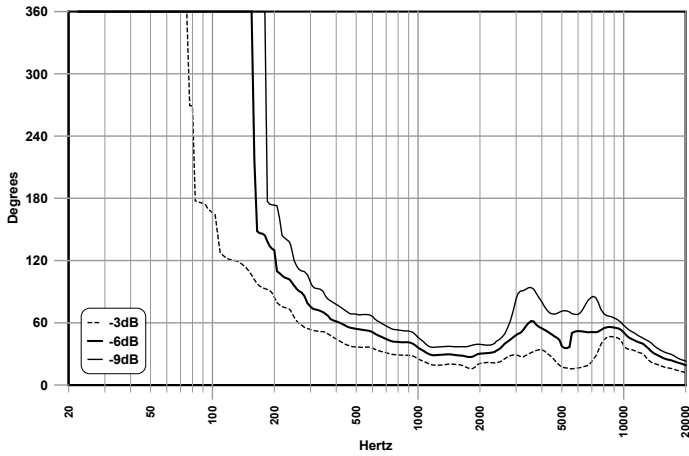
Frequency Response



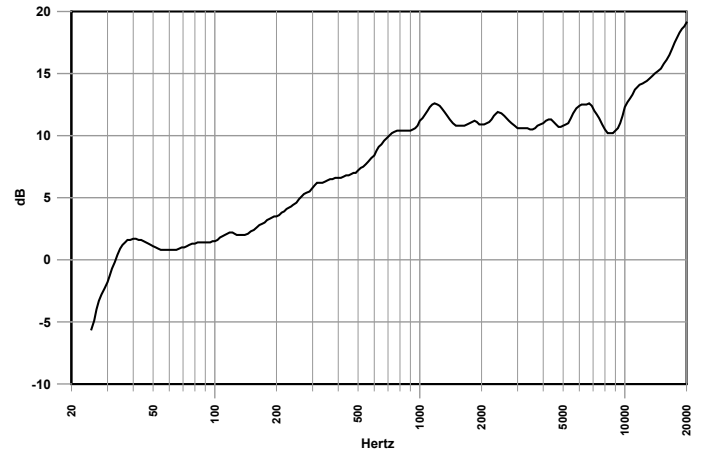
Phase/Impedance Response



Vertical Beamwidth (-6dB)

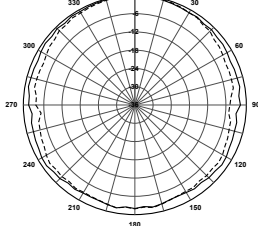


Directivity Index (DI)

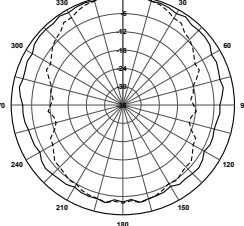


Preliminary Polar Plots

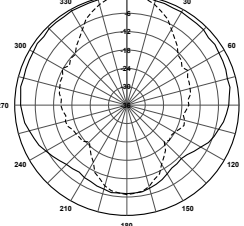
125 Hz



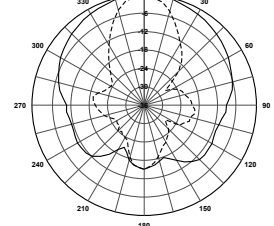
250 Hz



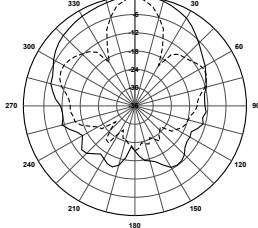
500 Hz



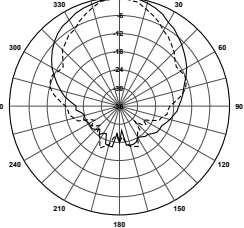
1,000 Hz



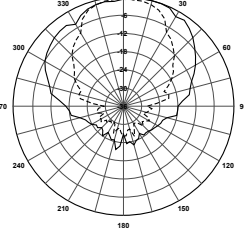
2,000 Hz



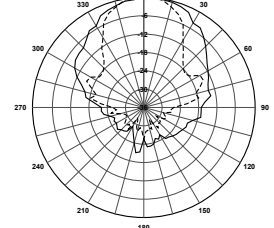
4,000 Hz



8,000 Hz



10,000 Hz



----- Horizontal
————— Vertical

LA880i

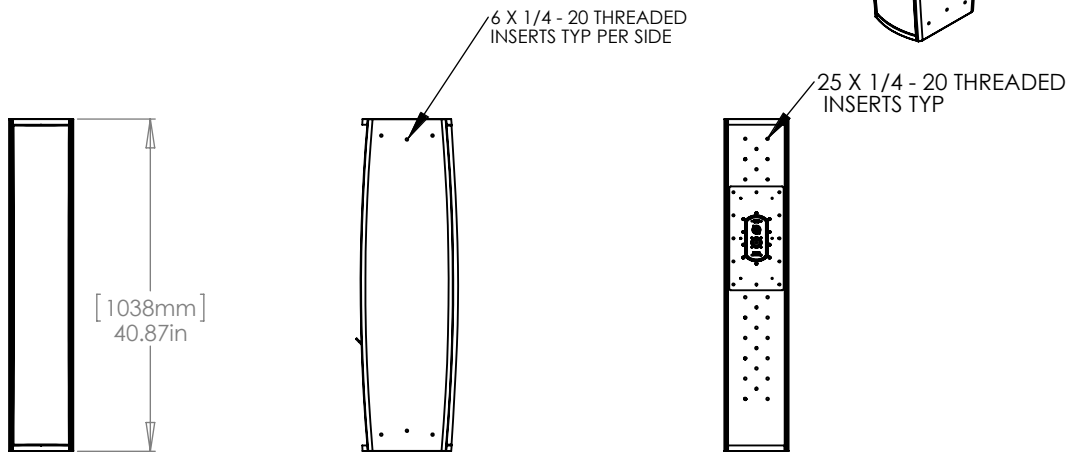
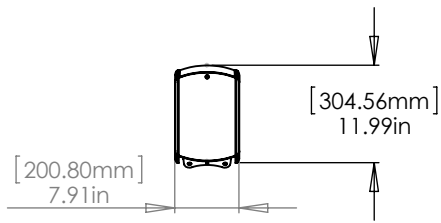
Line Array Speaker

Preliminary Technical Information for System Engineers


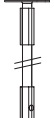
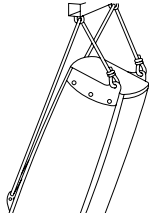
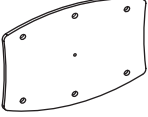
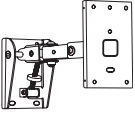
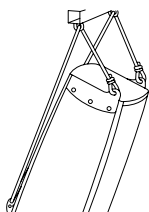
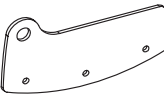
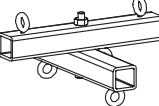
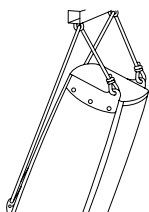
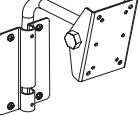

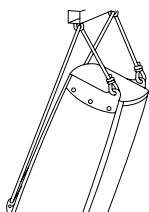



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Mechanical Drawings



Accessories

 <p>AC-LA8-BACK-BK Bent back plate for LA8 series. Use for safety tie-off, or secondary mounting. Includes 1 bracket and 3 mounting screws. Black only. Comes with LA880i and LA808i. This can also be sold separately.</p>	 <p>ST-MM-020X Allen Products ceiling mount bracket kit. Use to hang LA8 system from a secure ceiling. Black only.</p>	 <p>ST-TCK-010 Allen Products fly cable kit. Use with ST-1WA-20 and AC-LA8-FLY to suspend LA8 system from above. Only experienced rigging professionals should install the LA8 in a flown configuration. Available in black.</p>
 <p>AC-LA8-LINK-BK/WH Side connector plates for LA8 series. Use to link 2 LA8 cabinets, or other top or bottom mount accessories. Includes 2 brackets and 12 mounting screws. Available in black or white. Comes with LA808i and can also be sold separately.</p>	 <p>ST-MM-120HD Heavy duty Allen Products pan and tilt surface mount bracket kit. Weight rated up to 120lbs. Use to support up to 3 LA8 cabinets. Black only.</p>	 <p>ST-TCK-010-S Allen Products fly cable kit. Use with ST-1WA-20 and AC-LA8-FLY to suspend LA8 system from above. Only experienced rigging professionals should install the LA8 in a flown configuration. Available in silver.</p>
 <p>AC-LA8-FLY-BK/WH Top mounted fly point plates for LA8 series. Use to add 2 fly points to the LA8 cabinets. Includes 2 brackets and 6 mounting screws. Available in black or white.</p>	 <p>ST-SAS-1WA-20 Allen Products fly bracket. Use with AC-LA8-FLY and ST-TCK-101 to suspend LA8 system from above. Only experienced rigging professionals should install the LA8 in a flown configuration. Black only.</p>	 <p>ST-TCK-010-S Allen Products fly cable kit. Use with ST-1WA-20 and AC-LA8-FLY to suspend LA8 system from above. Only experienced rigging professionals should install the LA8 in a flown configuration. Available in silver.</p>
 <p>ST-MM-024 Allen Products pan and tilt surface mount bracket kit. Weight rated for up to 60lbs. Only use with single LA8 cabinet. For multiple cabinets, use ST-MM-120HD. Black only.</p>	 <p>AC-RS-HH-10 LA series safety cable kit - 10' safety cable, 2 SpeedClamps & fasteners. Comes with LA880i and LA808i. This can also be sold separately.</p>	 <p>ST-TCK-010-S Allen Products fly cable kit. Use with ST-1WA-20 and AC-LA8-FLY to suspend LA8 system from above. Only experienced rigging professionals should install the LA8 in a flown configuration. Available in silver.</p>
 <p>ST-PA-010 Pole mount adapter for Allen Products brackets. Use to adapt ST-MM-024, or ST-MM-120HD for use on a pole. Black only.</p>		

SoundTube Entertainment manufactures a complete line of speakers for:

Open-Ceiling • In-Ceiling • Surface-Mount • Outdoor • Sound-Focusing

All SoundTube products are designed and engineered in the USA.