STXLA/9

### Power
- **Power:**
  - **STXLA/9:**
    - Low: 2 x 1000 Watts Pgm at 8 Ohms
    - Mids: 800 Watts Pgm at 16 Ohms
    - Lows: 2 x 2000 Watts Pgm at 8 Ohms
  - **STXLA/9R:**
    - Low: 2 x 1000 Watts Pgm at 8 Ohms
    - Mids: 800 Watts Pgm at 16 Ohms
    - Lows: 2 x 2000 Watts Pgm at 8 Ohms

### Frequency Response
- **STXLA/9:**
  - Dimensions: 15.12” H x 38.12” W x 23’ D
  - FR: 380 kHz and 50 kHz
  - Weight: 157 Lbs (71.8 Kg)

### PM-3R Amplifier
- **Analogs:**
  - **Inputs:**
    - Dual inputs: loop XLR (female in & Male out)
    - Loops & Phoenix connectors
  - **CobraNet:**
    - Dual RJ-45 connectors (for redundancy)
    - AES/EBU input
    - Dual RJ 45 connectors (for redundancy)
    - Looping Phoenix connectors

### TECHNICAL INFORMATION
- **Sensitivity:**
  - **STXLA/9:**
    - High: 132 dB continuous, 136 dB peak
    - Mid: 130 dB continuous, 134 dB peak
    - Low: 132 dB continuous, 136 dB peak
  - **STXLA/9R:**
    - High: 133 dB continuous, 139 dB peak
    - Mid: 130 dB continuous, 136 dB peak
    - Low: 132 dB continuous, 136 dB peak

### Design without Boundaries, Performance Without Limits
- ST Series line arrays use advanced technology and application-driven engineering to bring vertical arrays closer to the ultimate reference point (reality) in demanding environments. Fully integrated electro-acoustic systems with all elements optimized deliver superior fidelity and coverage. Wherever the venue is appropriate for a high-powered vertical array, a RHAON-powered STLA/9R or externally powered STLA/9 line array is the logical choice for demanding designers, operators, and audiences.

RHAON, the Renkus-Heinz Audio Operations Network, is the first technology to extend the power, adaptability and pristine audio performance of digital networks to all the way to the loudspeaker – and to the listener in front of that loudspeaker. RHAON places total control and supervision on your computer at your fingertips, no matter how far away you are from the loudspeaker.

### Applications
- Virtually any application where outstanding sonic performance is required and sound level and coverage cannot be satisfied with a conventional horizontal loudspeaker array.
- Portable “touring” sound systems for both small and large concert venues, corporate AV events, etc.
- Sound reinforcement systems in large houses of worship, performing arts centers, sports arenas, theaters and other similar venues.

### STXLA/9R Line Array Modules
- The self-powered STXLA/9R with RHAON and the non-powered STXLA/9 are the basic building blocks in the Renkus-Heinz STLA Series of high power line arrays. Their unique design allows arrays of all sizes to be quickly and easily assembled and installed safely.

### STLA Line Array Systems
- **Passive:**
  - **Power:**
    - **Passive:**
      - Non-Powered
      - Powered
    - **Networked:**
      - Non-Powered
      - Powered

### RHAON
- **Exclusive Isophasic Plane Wave Generator**
- **RHAON Renkus-Heinz Audio Operations Network**
- **Flexible Input Configurations**
- **Heavy Duty Flying Hardware**
- **Easy Rigging - Designed to Travel**
- **Flexible Input Configurations**
- **Heavy Duty Flying Hardware**

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Effective sound system design with line arrays is not a simple point-and-shoot process and many of the design tactics learned over the years with horizontal arrays do not work. You can’t just aim a straight line array at the center of the audience and expect it to work. The typical result would be a few very loud rows in the center of the audience area with insufficient level at the front and rear. The height, tilt angle and curvature of the array all interact to produce the desired result: (consistent sound levels from the front to the rear).

The possibilities are almost endless. How many cabinets will be needed to obtain the desired coverage and SPL levels? Which array configuration will provide the best coverage and performance, a straight line array, a curved array or a “J” array? What suspension (aiming) angle will work best?

Renkus-Heinz AimWare answers these questions and takes all the guesswork out of Line Array design and installation. With AimWare, you can quickly and easily decide how many Line Array modules will be needed to achieve the desired coverage and SPL levels, and whether they should be configured as a straight line array, a curved array or a “J” array. AimWare also enables you to determine the ideal mounting height and the correct hanging points for the array.

**AIMWARE - Array Aiming Software**

- **Real time digital audio distribution over standard Ethernet networks using proven Cobranet technology to deliver multiple channels of high quality digital audio over a CAT 5 cable.**
- **A powerful DSP inside each loudspeaker on the Ethernet network that includes eight bands of parametric EQ, high and low frequency shelving filters, input level control, muting and up to 18 ms of delay.**
- **Monitoring of each loudspeaker critical operating parameters such as signal clipping, amplifier output voltage and current and temperature with automatic alert functions.**

**Hardware Options**

STSTX/LA9 Series Line Arrays were designed to be easy to use; they install quickly in fixed installations and are easy to set up and tear down in portable applications.

- **Straight, curved and “J”** arrays of up to 12 cabinets are easy to assemble and fly. Four-cabinet ground stacks are a snap; just roll them off the truck on their dollies, position them and turn them on.
- **Rigging parameters (pick-up point locations and coverage angle settings are provided in advance by Renkus-Heinz AIMWARE software program, taking the guesswork out of setup.**
- **5/8 inch thick metal tie-bars and quick disconnect pins are supplied with each module. They provide easy assembly along with metal-to-metal reliability and a choice of spay angles.**

**Finish Options**

The standard finish for STSTX/LA9 Series Line Array modules is Black. Optional finishes include white and scuff resistant black TuffTex. Custom colors are also available.

**Weather Resistant Options**

STSTX/LA9 Series Line Array modules are also available with weatherized wicker cones and connectors, in weather resistant fiberglass or TuffTex Elastomer finishes that are practically impervious to the elements.
Advanced Audio Technology

"Line Arrays" (more properly called vertical arrays) have become popular because they can provide consistent SPL from the front to the rear of a deep rectangular area with a flat or gently sloping floor.

Arraying multiple loudspeakers vertically creates a line source with narrow vertical dispersion: The wavefront radiated by a properly designed line array behaves more like a plane wave (whose output diminishes 3 dB every time the distance doubles) than a spherical wave (which loses 6 dB each time the distance doubles).

The lower frequency limit of this line source behavior (the flattened vertical beam and slimmer level decay) depends on the length of the array (the height of the array). The taller the array, the lower in frequency the array is effective.

RENKUS-HEINZ AUDIO OPERATIONS NETWORK

RHAON is the first practical system to combine digital audio distribution with individual loudspeaker control and supervision of self-powered loudspeaker systems. RHAON uses standard Ethernet hardware, advanced Co-brietl technology and onboard DSP (Digital Signal Processing) to turn self-powered Renkus-Heinz loudspeakers from "black boxes" into "smart boxes" that can easily be controlled from a remotely located laptop or desk-top PC.

RHAON integrates loudspeakers, amplifiers, signal-processors, audio distribution and control networks into a single easy-to-manage network that sets new performance standards in every area of audio operations. Signal connections are faster, with fewer errors. Signal processing is specific to every loudspeaker. System setup is flexible yet powerful with user-configurable GUI software.

RHAON puts you in total control of:

- Real time digital audio distribution over standard Ethernet networks using proven Cobrietl technology to deliver multiple channels of high quality digital audio over a CAT 5 cable.

- A powerful DSP inside each loudspeaker on the Ethernet network that includes eight bands of parametric EQ, high and low frequency shelving filters, input-level control, muting and up to 18 ms of delay.

- Monitoring of each loudspeaker’s critical operating parameters such as signal clipping, amplifier output voltage and current and temperature with automatic alert functions.

- A user friendly Windows GUI that simplifies loudspeaker management and control.

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Sensitivity - STLA/9R:
Freq. Response:
MID/HF Drivers:
Requirements:
Hum & Noise:
Idle Current:
Dispersion:
Crossover:
LF Drivers:
Connector
Max  SPL:

DIMENSIONAL INFORMATION
STLA/9R:
STXLA/9:

TECHNICAL INFORMATION
PM-3R AMPLIFIER

Inputs
Analog: Dual inputs, loop ing XLR (female in & Male out) & Looping Phoenix connectors
CobraNet: Dual RJ-45 connectors (for redundancy)
AES/EBU Format: AES/EBU Serial Audio (AES/EBU Input); Phoenix connector

Controls:
LF, MF, HF Mute buttons
Up & Down Output Level push buttons
10 dB Input pad (on Analog 1 input)
Power On/Off, Push-To-Rest circuit breaker

Computer Controls:
Gain, Mute, On/Standby, Input Selection, Compression, 9-Band Parametric EQ, Shelving & RollOff Filters, Delay

Status Indicators: Power, Signal, Overdrive, Thermal, Mute, Input Pad

Protection: Soft & Peak Limiting, Excursion Control & Thermal Regulation

Digital Format: 16, 20 or 24 bit PCM, 48 or 96 kHz sample rate; selectable Network Latency

Power: STXLA/9:

STLA/9R:

- Low: 2 x 1000 Watts Pgm at 8 Ohms
- Mid: 600 Watts Pgm @ 16 Ohms

- Enclosure: Multi-ply hardwood, perforated metal grille
- Connectors: STXLA/9: Neutrik 8-pin, screw terminals
- Finish: Black, white or custom paint
- Natural (unprinted)
- Weather resistant (STXLA/9 only)

- Highs: 133 dB continuous, 139 dB peak
- Lows: 129 dB continuous, 132 dB peak
- Mids: 130 dB continuous, 136 dB peak

- Dispersion: 95° Horiz.; Vertical dispersion
determined by array design
- Frequency: 45 Hz to 18 kHz
- MidHF Drivers: Two CDT-1.5 CoEntrant drivers with 6.5” mics.
- LF Drivers: Two 12” model SSL12-13 woofers; 500 W RMS @ 8 Ohms, 1000 W Pgm each
- Crossover: 500 Hz & 2500 Hz

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Applications:
- Virtually any application where outstanding sonic performance is required and sound level and coverage cannot be satisfied with a conventional horizontal loudspeaker array.
- Portable “touring” sound systems for both small and large concert venues, corporate AV events, etc.
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- Heavy Duty Flying Hardware
- Easy Rigging - Designed to Travel
- Flexible Input Configurations
- RHAON Renkus-Heinz Audio Engineering Network

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The Renkus-Heinz Audio Engineering Network

RHAON is the Renkus-Heinz Audio Engineering Network. It combines Class D digital tri-amplification with RHAON, the Renkus-Heinz Audio Engineering Network for comprehensive DSP controlled signal processing and control.

The RHAON Empowered PM-3R adds on-board DSP and CobraNet capabilities. It has dual analog inputs, dual CobraNet inputs and an AES3id serial input. The onboard DSP is easily configured using RHAON software; it includes eight bands of parametric equalization (31 bands AES3id), high and low shelving filters, input level control and up to 100 dB of delay. Critical operating parameters such as signal clipping, amplifier output voltage and current, and temperature are continually monitored with automatic alert functions.

PM-3R Series PowerNet Amplifiers

The PM-3R, the heart of the STLA/9R and the muscle behind it, is a new kind of intelligent electronics system. It combines Class D digital tri-amplification with RHAON, the Renkus-Heinz Audio Engineering Network for comprehensive DSP controlled signal processing and control.

The STLA/9R with RHAON and the non-powered STXLA/9 are the basic building blocks in the Renkus-Heinz STLA Series of high-power line arrays. Their unique design allows arrays of all sizes to be quickly and easily assembled and installed safely and securely.

For a complete list of features and specifications, please visit our website at www.renkus-heinz.com.