

### Uncompromised Performance - Unequaled Versatility

The self-powered PowerNet ST5M2R and non-powered STX5M2 Series loudspeakers unite advanced technology and application-driven engineering to bring live sound closer to the ultimate reference point: reality. Patented CoEntrant M/H transducers, Class D Digital Bi-Amplification and unique innovations such as our Complex Conic horns combine to deliver natural sounding music and intelligible speech. Wherever audiences and operators demand superior performance and ease of use, ST/STX loudspeakers are the choice for transparent, reference quality performance.

All ST5M2R PowerNet loudspeakers are RHAON empowered for flexible analog and digital signal distribution and loudspeaker management and control over a standard Ethernet network.

### Applications

- Virtually any application where high output levels, tight directional control and arrayability are critical issues and outstanding sonic performance is required.
- Distributed systems in sports arenas and stadiums.
- As a companion to the ST5LR and STX5L low frequency enclosures in high-power 2-box systems.
- Side fill in all types of large sound reinforcement systems.
- Array modules for theatrical and concert sound systems, sound reinforcement systems in houses of worship.



### PM-2R PowerNet Bi-Amplifier

Passive or self-powered and networked, you can choose the system configuration that meets your needs. Select the STX5M2 when the project dictates the use of external amplifiers and the self-powered PowerNet ST5M2R for convenience and control in other applications.

The PM-2R, the heart of the PowerNet ST5M2R is a new kind of intelligent electronic system. It combines Class D digital bi-amplification with RHAON, the Renkus-Heinz Audio Operations Network for comprehensive DSP controlled signal processing and control.

**RHAON** EMPOWERED RHAON empowers you with CobraNet digital audio distribution, user configurable DSP for maximum control, remote systems management from any Windows computer, life safety functions and more – all using standard Ethernet hardware and cable.

The PM-2R has dual analog inputs, dual CobraNet inputs and an AES3 serial input. The onboard DSP is easily configured using RHAON software; it includes eight bands of parametric EQ, high and low shelving filters, delay and input level control. Critical operating parameters such as signal clipping, amplifier output voltage and current, and temperature are continually monitored with automatic alert functions.

## ST/STX Series

### STX5M2

Non-Powered

### ST5M2R

Powered

### 2-Way High Power Mid/High Complex Conic Loudspeakers

### CoEntrant CDT-2 M/H Driver with 3" Throat

### PASSIVE : POWERED : NETWORKED



#### • Compact 2-Way Design, Outstanding Performance

Accurate 350 Hz to 18 kHz high-level long-throw performance; 138 dB Peak SPL.

#### • Flexible Input Configurations

Choose the STX5M2 or go self-powered with the ST5M2R with RHAON for flexible analog and multi-channel digital signal distribution, computer control and supervision.

#### • High Output CDT-2A CoEntrant Driver

CDT-2A CoEntrant driver with a 3-inch throat plus a 10-inch mid-range transducer with a 3-inch throat and dual Complex Conic Array guides provide 350 Hz to 18 kHz response, 138 dB peak SPL.

#### • Exclusive Complex Conic Design

Provides constant beamwidth/directivity without the problems of conventional rectangular horns.

#### • Patented CoEntrant Topology

Integrates the acoustic output of an 10" cone and a 2" HF driver into a wideband, high power true point source.

#### • TRAP (True Array Principle) Design

ST5M2/42R and STX5M2/42 Models are true 40° TRAP modules that combine seamlessly to produce a phase aligned wave front virtually free of lobing.

#### • Choice of Coverage Patterns

Choose between tightly controlled 40° by 20° & 90° by 20° coverage.

## TECHNICAL INFORMATION

### Sensitivity

**ST5M2R:** 1.4 V for rated power output

**STX5M2 (1W/1m):** MF: 104 dB, HF: 109 dB

**Max SPL (Pgm/Peak):**  
 MF: 136 dB      ST      STX  
 HF: 134 dB      138 dB  
    134 dB

### Dispersion:

**ST5M2/42R & STX5M2/42:** 40° H by 20° V  
**ST5M2/92R & STX5M2/92:** 90° H by 20° V

**Freq. Response:** 350 Hz to 18 kHz

**Mid/High Drivers:** CDT-2A; SSD3202-8A 2" HF (75 W RMS)  
 & SSL10-5 10" MF (300 W RMS);  
 plus SSL10-5 10" MF, 300 W RMS

**Crossover Points:** 350 Hz & 1500 Hz

**Power:** **STX5M2:** 600 Watts RMS at 2 Ohms

**Enclosure:** Multi-ply hardwood, perforated metal grille

**Connectors:** **STX5M2:** Neutrik 4-pin connectors or screw terminals

**Finish:** Black, white or custom paint , TuffTex,  
 Natural (unfinished), Weather resistant

**Hardware Options:** 12-point universal mtg hardware , Handles,  
 AeroQuip fly-track, R-Hang hardware

**Dimensions:** 32" H x 24" W x 32 1/4" D  
 (81.3 cm x 61 cm x 81.9 cm)

### Weight

**ST5M2R:** 180 Lbs. (81.6 Kg) net

**STX5M2:** 150 Lbs (68 Kg) net

## PM-2R AMPLIFIER

### PWR Rating (Watts):

**Mids:** 425 RMS

**Highs:** 175 RMS

**Freq. Response:** +0.0, -5 dB, 20 Hz to 20 kHz

**THD Distortion:** < 0.01 % typical

**CMR:** > 90 dB, 30 Hz to 2 kHz

**Hum & Noise:** <100 dB, 20 Hz to 20 kHz)

**Input Sensitivity:** 1.4 V for RPO

**Damping Factor:** 135 (100 Hz to 400 Hz)

100 (400 Hz and above)

### Power:

**Connector** PowerCon locking connector

**Requirements:** 90/136 V AC or 180/260 VAC, 50/60 Hz  
 3.2 Amps @ 120 V, 1.6 Amps @ 240 V

**Idle Current:** 130 mA @ 120 V, 65 mA @ 240 V

### Max Inrush

**Current (Soft Start):** 4.9 Amps @ 120 V, 2.5 A @ 240 V

### Inputs

**Analog:** Dual inputs; looping XLR (female in & Male out)  
 & Looping Phoenix connectors

**CobraNet:** Dual RJ 45 connectors (for redundancy)

**AES3 Format:** AES3 Format Serial Audio (AES/EBU input);  
 Phoenix connector

**Controls:** MF, HF Mute buttons

Up & Down Output Level push buttons

10 dB Input pad (on Analog 1 input)

Power On/Off, Push-To-Reset circuit breaker

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

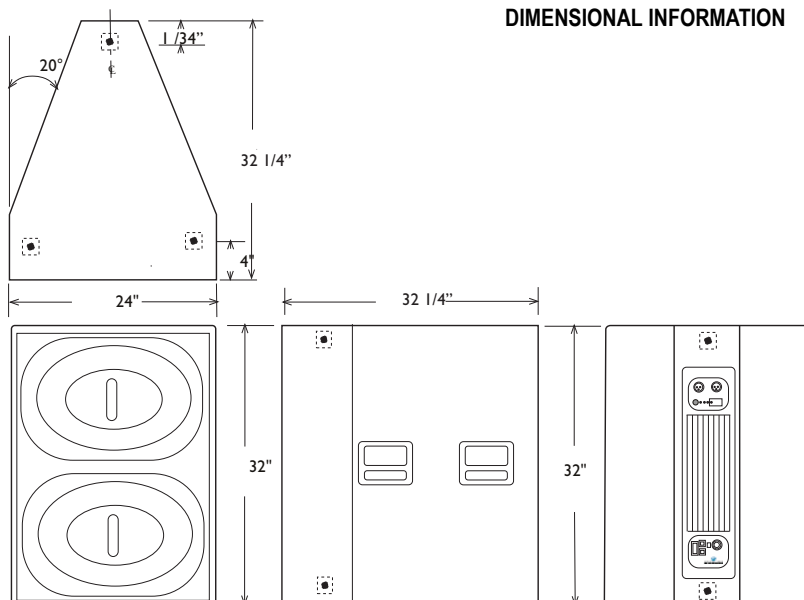
**Status Indicators:** Power, Signal, Overdrive, Thermal, Mute,  
 Input Pad

**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

Note: All analog inputs and outputs comply with AES Standard 48-2005 on interconnecting, grounding and shielding.

## DIMENSIONAL INFORMATION



### Note:

The UMH (Universal Mounting Hardware) attachment points have Metric M10 threads and are positioned 1 3/4" from the edges unless otherwise indicated.

Portable models are normally supplied with handles and no attachment points.

The rear view of a ST5M2R is shown. The enclosure is shown without its metal grille.

For more detailed dimensional information, please refer to the 2D and 3D drawing files on our website, [www.renkus-heinz.com](http://www.renkus-heinz.com).



**RENKUS-HEINZ**

Renkus-Heinz, Inc., 19201 Cook Street, Foothill Ranch, CA 92610-3501, USA  
 Tel: +1 949-588-9997 • Fax: +1 949-588-9514 • Sales@renkus-heinz.com • www.renkus-heinz.com

RH501 Rev C February 2011