

# RENKUS-HEINZ

## Design Without Boundries Performance Without Limits

Loudspeakers; amplifiers; signal processors; audio and control networks. SYGMA brings them all together to create a new kind of sound system, a new level of performance. World-class European transducers are paired with our advanced Complex Conic horns for audiophile reproduction that makes performances and audiences truly come alive. PF-1 Series Intelligent Digital Amplifiers can connect to RHAON, the Renkus-Heinz Audio Operations Network. RHAON gives you complete control of digital audio distribution, loudspeaker processing and system management.

The global SYGMA development and manufacturing process delivers unsurpassed quality and innovation, for performance and style that will make you proud and durability that will keep you sounding great. Before we'll ship them, your loudspeakers have to meet our exacting requirements,

## Applications

Virtually any installation where size is a critical issue and outstanding sonic performance is required.

- Ideal for fills, delays and effects in both distributed and playback systems in;

Churches	Board rooms
Theaters	Malls
Performing Arts Centers	Transportation Venues
Schools	Retail Environments
Sports venues	



### PF Series Intelligent Amplifiers

Passive, powered or networked: you can choose the SG/SGX system that suits your needs at any time. At the factory or in the field, the SGX passive connector plate can be easily replaced by a PF1-200 series Class D digital amplifier with speaker specific processing. The PF1-200's lightweight switching power supply delivers 70% efficiency at full output, reducing AC requirements and eliminating the need for a cooling fan.



Whenever you are ready for Ethernet audio networking, your Sygma loudspeakers are, too; just replace the connector plate or the

PF1-200 with a RHYON empowered amplifier equipped for connection to the Renkus-Heinz Audio Operations Network. RHAON empowers you with full control over digital audio distribution, speaker-specific DSP and control/monitoring – all using standard Ethernet hardware and cable.

Ready now for a self-powered Sygma System? order the SG61-2. If you need full audio operations networking, order the RHAON empowered SG61-2R.

## SG61 Series Self-Powered SGX61 Non-Powered

### COMPACT 6 1/2" + 1" HF 2-WAY LOUDSPEAKER SYSTEMS

### PASSIVE : POWERED : NETWORKED YOUR CHOICE



- **High Volume Output, Small Enclosures**  
80 Hz to 20 kHz  $\pm 3$  dB: Outstanding, full-range performance in an extremely compact, space-saving design.
- **Flexible Input Configurations**  
Choose passive inputs, or go self-powered with the PF1-200 series intelligent amplifier, either with or without RHAON networking.
- **RHAON Audio Operations Network**  
Self-Powered SG61 cabinets are easily connected to RHAON for flexible digital signal distribution, loudspeaker management and control using standard Ethernet hardware and cabling.
- **Exclusive 150° by 60° Complex Conic Design**  
Provides constant beamwidth/directivity without the problems of conventional rectangular horns; can be rotated 90° within the cabinet for wide or deep listening spaces.
- **1" Extended Range Titanium HF Driver**  
Provides smooth, low distortion high frequency performance to 20 kHz and beyond.
- **Heavy-Duty 6.5" Woofer**  
Easily handles 120 Watts of program power.

### Technical Information

**SENSITIVITY:** SG61-2: 1.0 V for rated power output  
SGX61: 90 dB (1W/1m)

**POWER :** SG61-2 & SG61-2R: 115 V AC or 230 V AC  
SGX61: 120 Watts program at 16 Ohms

**MAXIMUM SPL:** 111 dB program, 114 dB peak

**CONNECTORS:** SG61-2 & SG61-2R: See PF1-200 Amplifier  
SGX61: Screw terminals & looping 4-pin Neutrik SpeakOn style connectors

**DISPERSION:** 150° H by 60° V

**FINISH:** Black or white paint

**FREQ. RESP:** ± 3 dB, 80 Hz to 20 kHz

**HF DRIVER:** 1" Titanium driver, model SSD103-8;  
15 W RMS, 30 W program

**HARDWARE:** 12-point univ. mtg. hdw.  
U-bracket attachment points

**LF DRIVER:** 6.5" woofer, model SSL6.5-12; 1" VC;  
60 W RMS, 120 Watts program.

**DIMENSIONS:** 16" H x 9 1/2" W x 11 1/4" D  
(40.6 cm x 24.1 cm x 28.6 cm)

**ENCLOSURE:** 13-ply hardwood, perforated metal grille

**NET WEIGHT:** SG61-2 & SG61-2R: 21 Lbs (9.53 Kg) net  
SGX61: 19 Lbs (8.62 Kg) net

### PF1-200 Amplifier

**POWER:** 200 W RMS @ 4 Ohms, 300 W Burst

**CONTROLS:** Gain (screwdriver adjustable)

**FREQ. RESP:** +0.0, -5 dB, 20 Hz to 20 kHz

**CONNECTORS:** Input: Looping XLR; female in, male out  
(pin 1 chassis, pin 2 +, pin 3 -)  
Power: IEC Power connector

**THD DISTORTION:** < 0.02% typical

**HUM & NOISE:** < 100 dB (A weighted)

**POWER:** Universal 90–260 VAC, 50/60Hz.  
2.4 A @ 120 V, 1.2 A @ 240 V  
Idle current: 200 mA @ 120 V;  
100 mA @ 240 V  
Max inrush current: 1 A

**DAMPING:** > 100

**INPUT:** 10K Ohm balanced differential

**SENSITIVITY:** 1.0 V for RP

**CMR:** 74 dB

### PF1-200R RHAON Empowered Amplifier

The PF1-200R is identical to the PF1-200 except for the addition of the RHAON Network Interface; additional capabilities include:

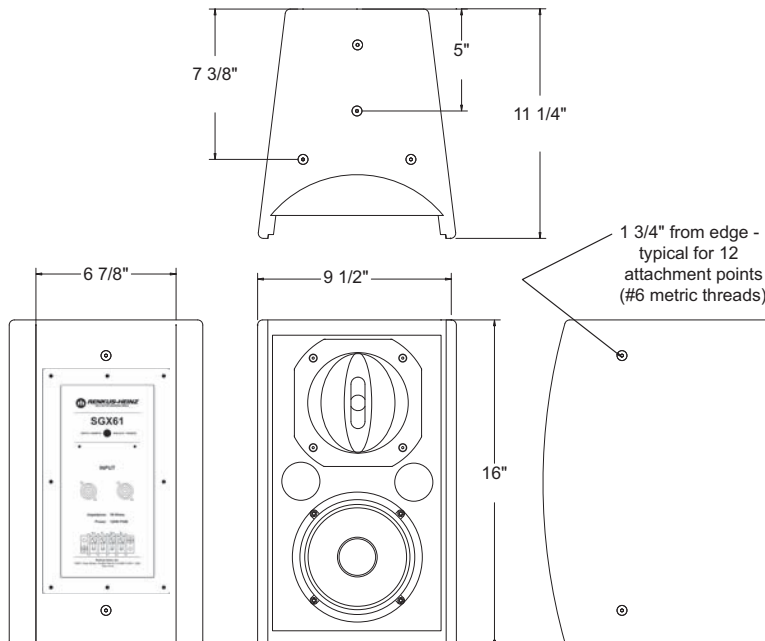
**INPUTS:** Cobranet; dual RJ45 connectors; accept Cat e5 copper cable.  
AES/EBU; Phoenix connectors  
Analog; Phoenix connectors

**DIGITAL FORMAT:** 16 or 24 bit PCM; 48 or 96 kHz sample rate; selectable Network Latency.

**PROTECTION:** Soft & Peak Limiting, Excursion Control & Thermal Regulation

For additional details on the RHAON Audio Operations Network, refer to Renkus-Heinz brochure # RH 606

Note: All analog inputs and outputs comply with AES Standard 45-2005 on interconnecting, grounding and shielding.



# SYGMA

Note:

The UMH (Universal Mounting Hardware) attachment points have #6 metric threads and are positioned 1 3/4" from the edges unless otherwise indicated.

The rear view of a SGX61 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

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