



**Description**

The SSE is a new enclosure series featuring high power ratings with custom components, a sleek look and a unique, snap-in metal grille. The SSE 12 is a two-way system featuring the highly acclaimed Peavey 14XT titanium compression driver with the diverse Sound Guard IV tweeter protection network and Peavey Scorpion Pro 1200+ 12" woofer with 2.5" (64 mm) voice coil for smooth response. The SSE 12 is rated at 500 Watts program and 1,000 Watts peak. This lightweight speaker system is ideal for smaller venues where space is at a premium. Connections are made using a four-pin Neutrik® Speakon® or a paralleled two-position terminal block for additional cabinets. The SSE 12 incorporates flying points on the top of the unit and mounting points on the bottom for utilizing the Peavey VersaMount 70 mounting bracket. The SSE Series is available in black, white and natural finishes.

**Features:**

- Two-way sound reinforcement enclosure
- Designed for permanent install
- Available in three finishes: black, white or natural
- Peavey Scorpion® Pro 1200+ 12" woofer with 2.5" (64 mm) voice coil
- Peavey 14XT™ titanium diaphragm compression driver
- Sound Guard™ IV tweeter protection network
- Seven flying points (six 3/8" for suspension and one 1/4" for angle adjustment)
- Mounting point for VersaMount™ 70 bracket
- 13 mm birch plywood construction
- 500 Watts program/1000 Watts peak power handling
- 79 Hz to 17 kHz
- 98 dB at 1W/1m
- 8 Ohms

**Frequency response, 1 meter on-axis, swept-sine in anechoic environment:**

79 Hz to 17 kHz (±3 dB)

**Usable low frequency limit (-10 dB point):**

60 Hz

**Power handling:**

Full range:  
500 W program  
1,000 W peak

**Sound pressure level, 1 Watt, 1 meter in anechoic environment:**

Full range:  
98 dB SPL (2.83 V input)

**Maximum sound pressure level (1 meter):**

Full range:  
122 dB SPL continuous  
128 dB SPL peak





## SANCTUARY SERIES™

### Radiation angle measured at -6 dB point of polar response:

500 Hz to 1.6 kHz:

Horiz.  $110^{\circ} \pm 15^{\circ}$

Vert.  $120^{\circ} \pm 30^{\circ}$

1.6 kHz to 5 kHz:

Horiz.  $75^{\circ} \pm 15^{\circ}$

Vert.  $70^{\circ} \pm 25^{\circ}$

5 kHz to 16 kHz:

Horiz.  $85^{\circ} \pm 15^{\circ}$

Vert.  $40^{\circ} \pm 10^{\circ}$

### Directivity factor, Q (Mean):

$10.27 \pm 6.07$

### Directivity index, Di (Mean):

$9.38 \text{ dB} \pm 2.57 \text{ dB}$

### Transducer complement:

Low Frequency Section:

Peavey Scorpion® Pro 1200+ 12" woofer with 2.5" (64 mm) voice coil

High Frequency Section:

Peavey 14XT™ titanium diaphragm compression driver on a  $90^{\circ} \times 40^{\circ}$  constant directivity horn

### Box tuning frequency:

Low frequency section:

74 Hz

### Harmonic distortion:

#### 1% rated power

Second harmonic:

100 Hz: 0.32%

1 kHz: 0.10%

Third harmonic:

100 Hz: 0.40%

1 kHz: 0.22%

#### 10% rated power

Second harmonic:

100 Hz: 0.56%

1 kHz: 0.79%

Third harmonic:

100 Hz: 0.79%

1 kHz: 0.25%

### Electro-acoustic crossover frequency (internal passive):

2.8 kHz

### Impedance (Z):

Full range:

Nominal: 8  $\Omega$

Minimum: 5.1  $\Omega$

### Input Connection:

1 four-Pin Neutrik® Speakon® in parallel with one 1-position terminal strip

### Enclosure materials and finish

Trapezoidal, dado-joined 13 mm birch enclosure finished with a textured acrylic

polyurethane with a full length metal grille covered and acoustical-grade grille cloth. Available in black, white or natural finishes.

### Mounting provisions:

(6)  $3/8"$ -16 threaded mounting suspension points (three each top and one each side and back). Use only forged shoulder machinery eye bolt, Mil Spec MIL51937-3. (1)  $1/4"$ -20 threaded mounting point on back bottom for angle adjustments.

(4)  $1/4"$ -20 threaded mounting points on bottom to accommodate use of VersaMount™ 70 adjustable mounting bracket.

**DO NOT suspend this unit upside down using VersaMount system.**

### Dimensions (H x W x D):

Front:

$24.5" \times 17.43" \times 13.20"$

622 mm x 443 mm x 335 mm

Rear:

$24.5" \times 13.14" \times 13.20"$

622 mm x 334 mm x 335 mm

### Net Weight:

40 lbs. (18.1 kg)

### Frequency response

This measurement is useful in determining how accurately a given unit reproduces an input signal. The frequency response of the SSE 12 is measured at a distance of 1 meter using a 1 Watt (into the nominal impedance) swept-sine input signal. As shown in figure 1, the selected drivers in the SSE 12 combine to give a smooth frequency response from 79 Hz to 17 kHz.

### Directivity

Beamwidth is derived from the -6 dB points from the polar plots (see figure 3) which are measured in a whole space anechoic environment. Q and Directivity Index are plotted for the on-axis measurement position. These specifications provide a reference to the coverage characteristics of the unit and provide insight into proper placement and installation in the chosen environment. The blending of the components of the SSE 12 exhibit a desirable beamwidth and directivity (figures 3 & 4) suitable for sound reinforcement applications.

### Power handling

There are many different approaches to power handling ratings. Peavey rates this loudspeaker system's power handling using a full-range form of the AES Standard 2-1984. Using audio band 20 Hz

to 20 kHz pink noise with peaks of four times the RMS level, this strenuous test signal assures the user that every portion of this system can withstand today's high technology music. This rating is contingent upon having a minimum of 3 dB of amplifier headroom available.

### Harmonic distortion

Second and third harmonic distortions vs. frequency are plotted in figures 5 & 6 for two power levels. Ten percent (10%) of rated input power and either one percent (1%) of rated input power or 1 Watt, whichever is greater. Distortion is read from the graph as the difference between the fundamental signal (frequency response) and the desired harmonic. As an example, a distortion curve that is down 40 dB from the fundamental is equivalent to 1% distortion.

### Mounting

**Caution:** Before attempting to suspend or mount this speaker, consult a certified structural engineer. The speaker may fall due to improper installation, resulting in serious injury and property damage. DO NOT suspend or mount any other product or device from this enclosure. The maximum enclosure angle is  $45^{\circ}$ . Use only Grade 5 hardware or better. All associated rigging is the responsibility of others.

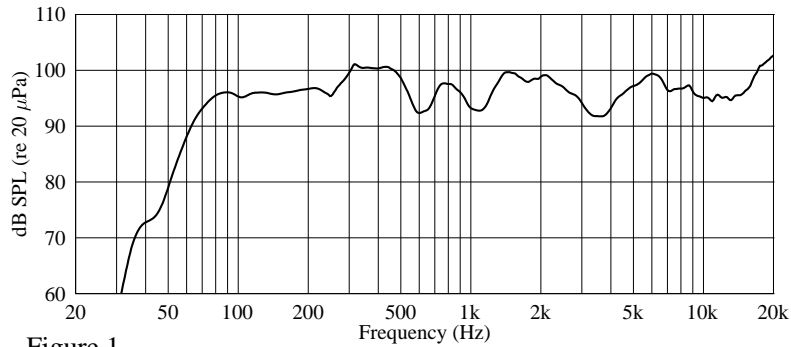
### Architectural and Engineering Specifications

The loudspeaker system shall have an operating bandwidth of 79 Hz to 17 kHz. The nominal output level shall be 98 dB when measured at a distance of 1 meter with an input of 1 Watt. The nominal impedance shall be 8 Ohms. The maximum program power handling shall be 500 Watts with a peak power input of at least 1000 Watts and a minimum amplifier headroom of 3 dB. The nominal radiation geometry shall be  $90^{\circ}$  in the horizontal plane and  $40^{\circ}$  in the vertical plane. The outside dimensions shall be 24.5" high by 17.43" wide by 13.20" deep. The weight shall be 40 lbs. The loudspeaker system shall be a model SSE 12.

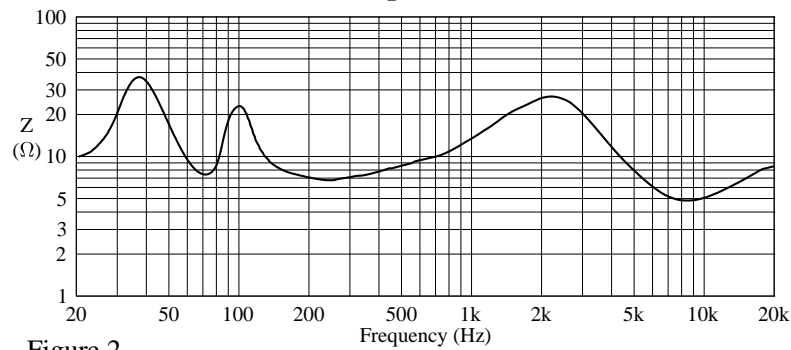
### 3 + 2 YEAR LIMITED WARRANTY

**NOTE:** For details, refer to the warranty statement. Copies of this statement may be obtained by contacting Peavey Electronics Corporation, P.O. Box 2898, Meridian, Mississippi 39301-2898.

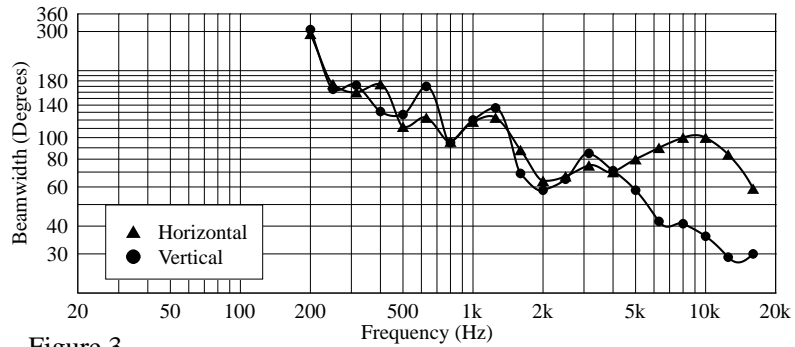
Amplitude Response (1W 1m On-Axis)



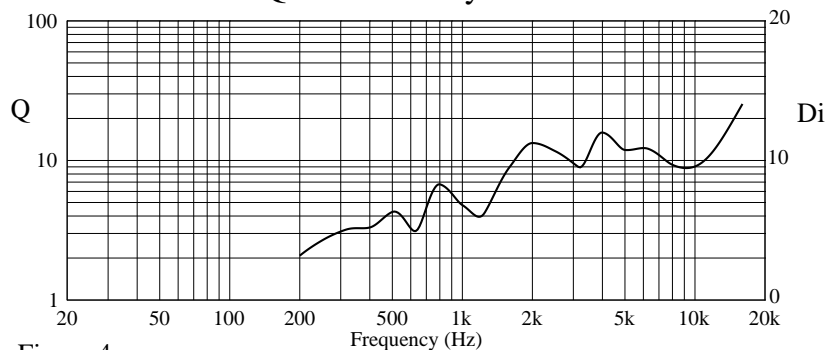
Impedance



Beamwidth



Q & Directivity Index



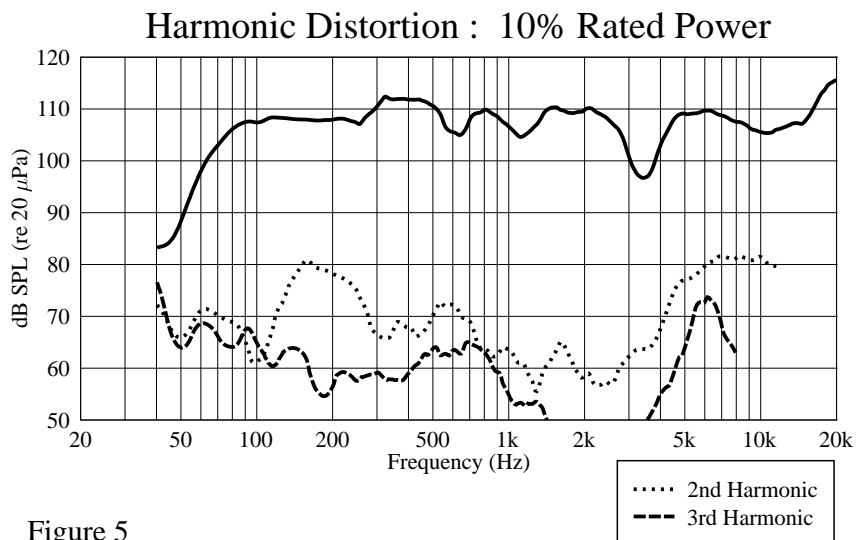


Figure 5

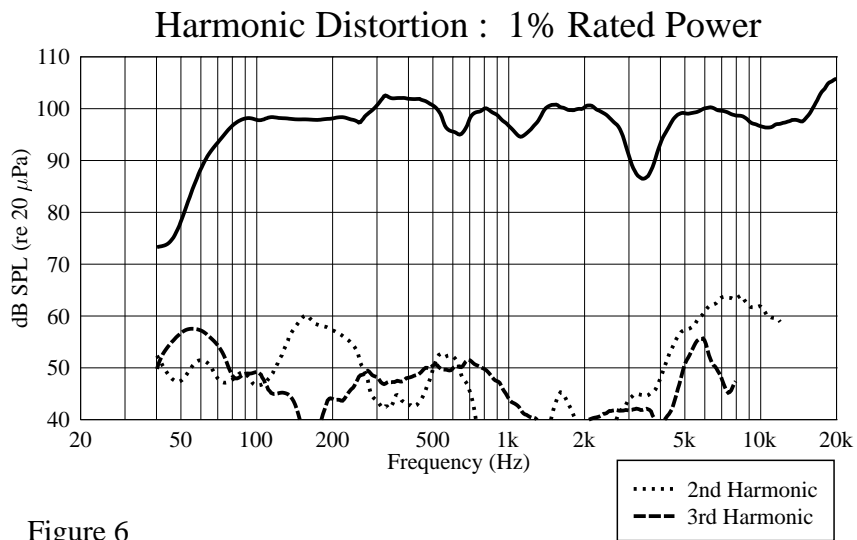
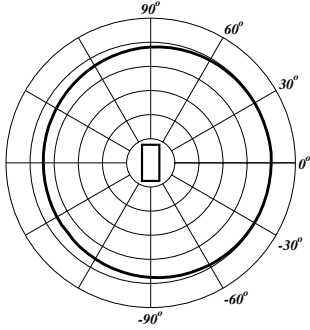
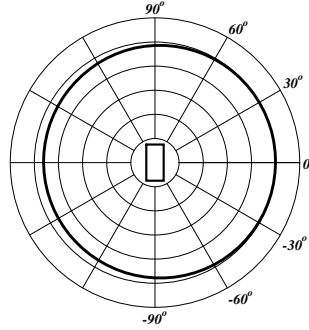


Figure 6

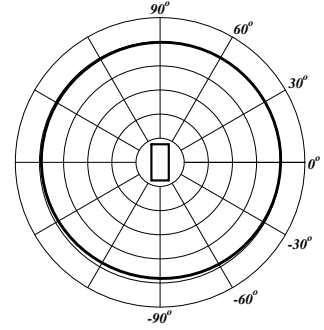
**Vertical Polar Patterns 6 dB per Division**



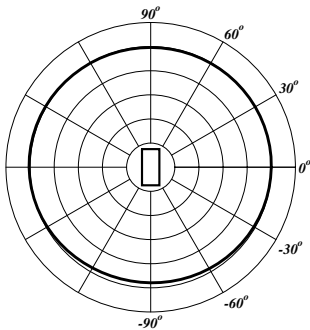
50 Hz



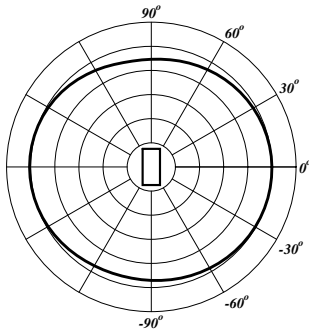
63 Hz



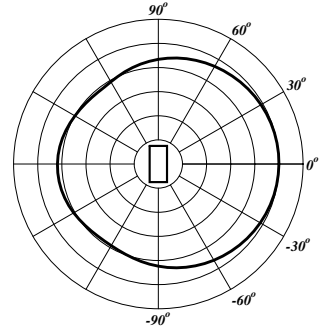
80 Hz



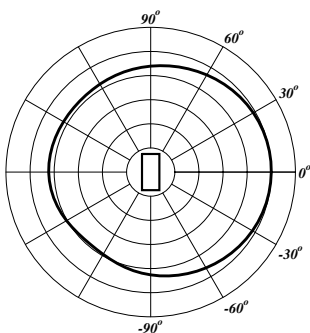
100 Hz



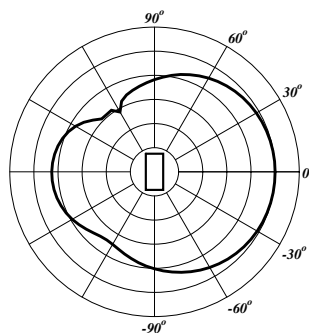
125 Hz



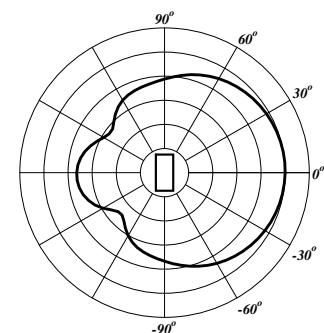
160 Hz



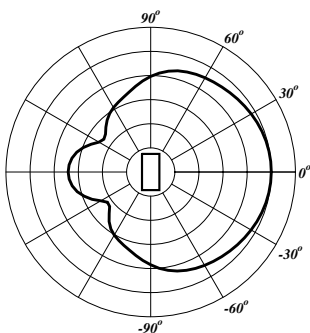
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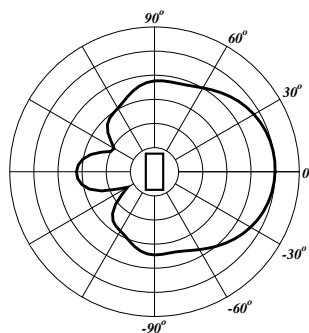
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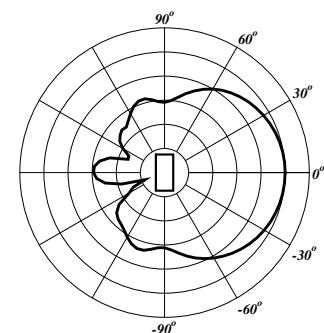
315 Hz



400 Hz



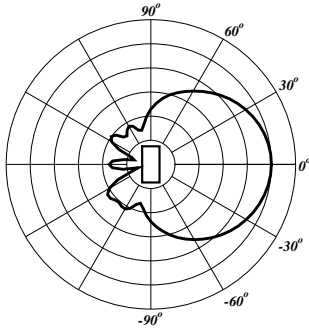
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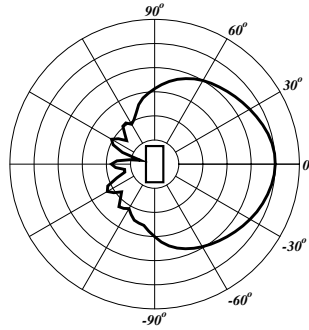
630 Hz



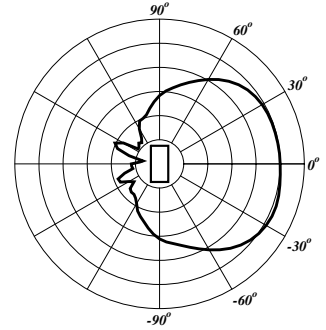
**Vertical Polar Patterns 6 dB per Division**



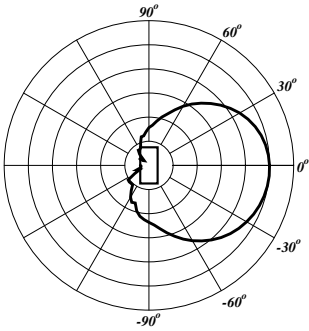
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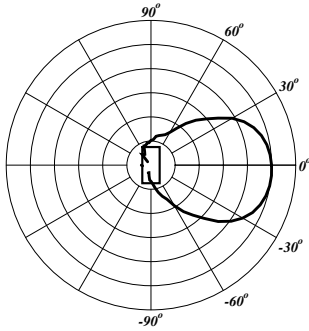
1 kHz



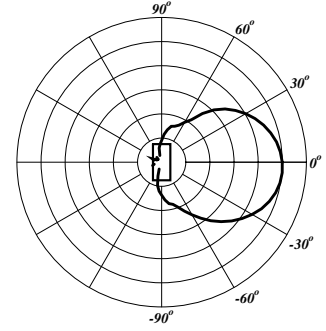
1.25 kHz



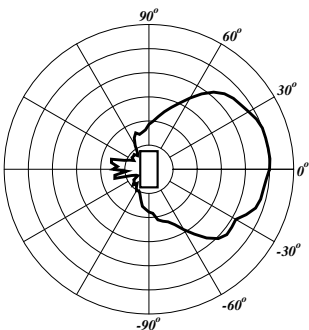
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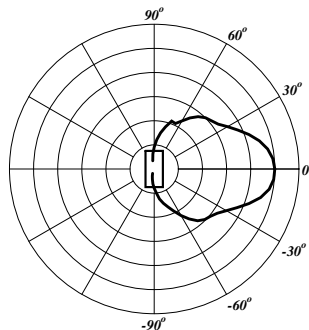
2 kHz



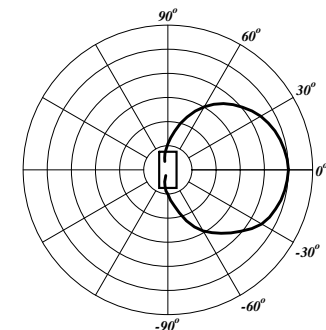
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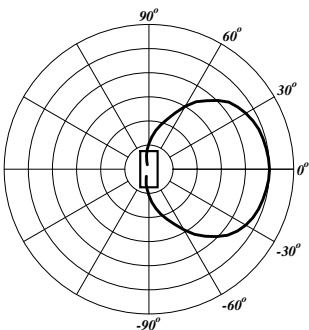
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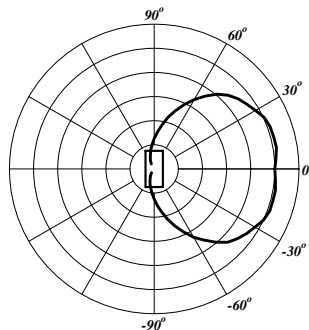
4 kHz



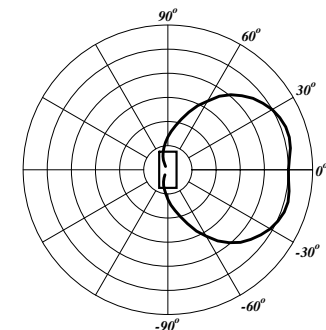
5 kHz



6.3 kHz



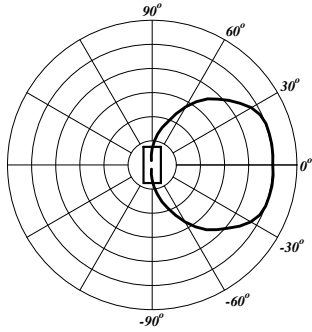
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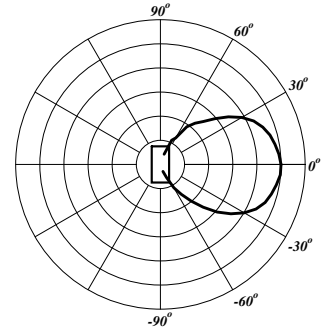
10 kHz

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**Vertical Polar Patterns 6 dB per Division**



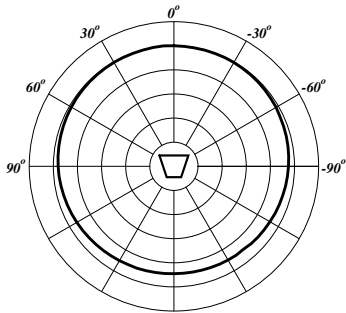
12.5 kHz



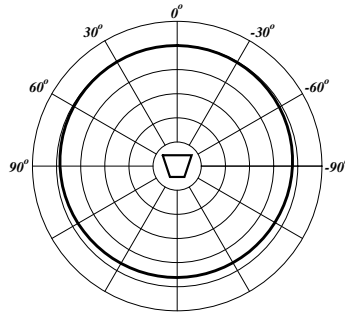
16 kHz



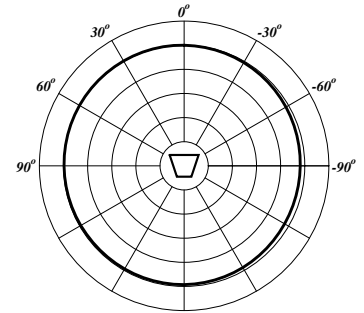
**Horizontal Polar Patterns 6 dB per Division**



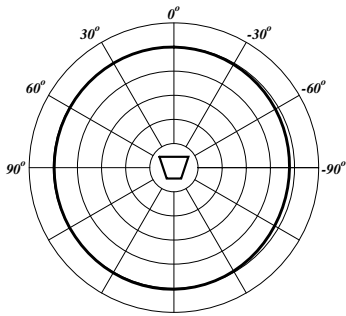
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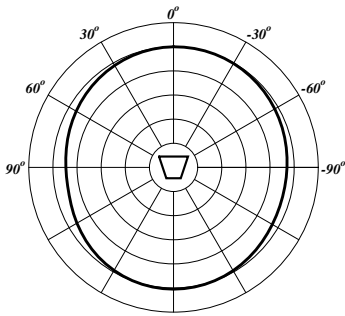
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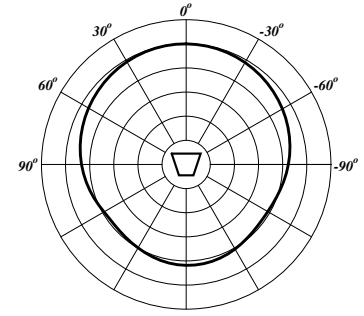
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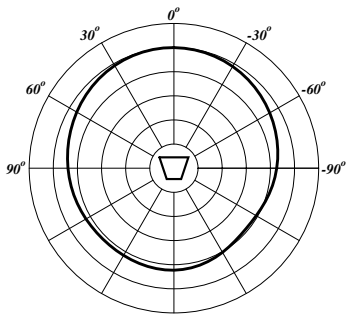
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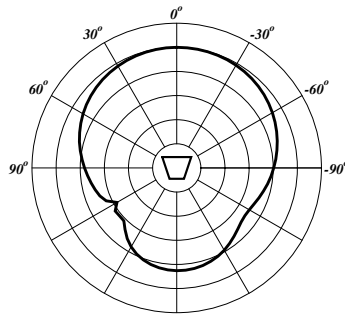
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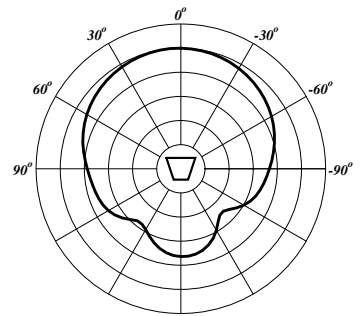
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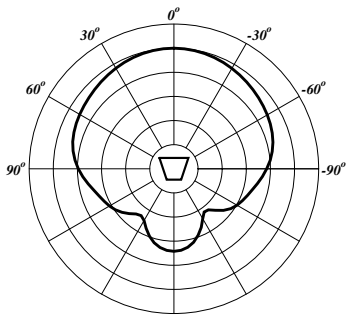
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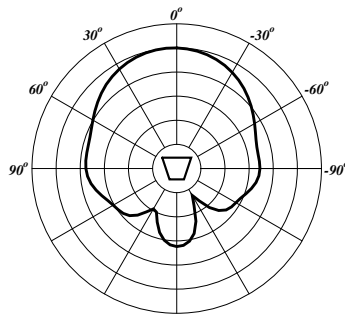
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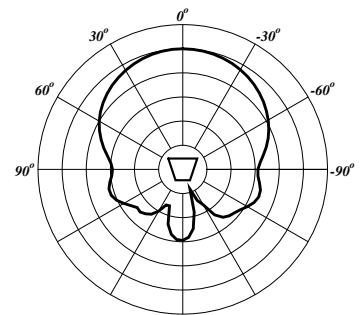
315 Hz



400 Hz

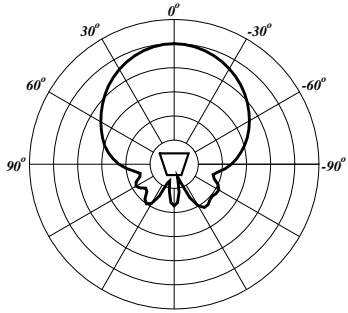


500 Hz

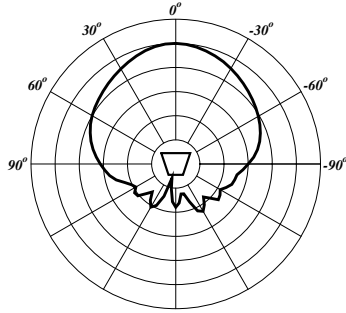


630 Hz

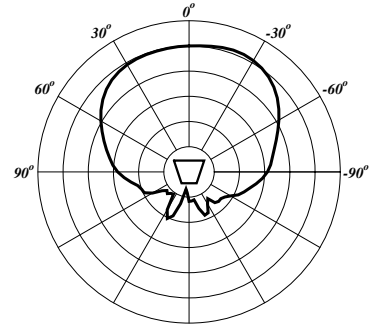
**Horizontal Polar Patterns 6 dB per Division**



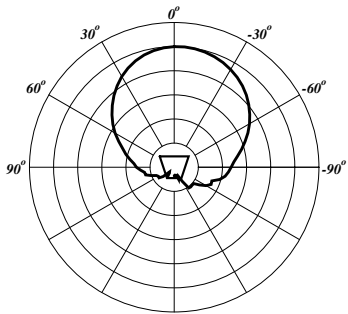
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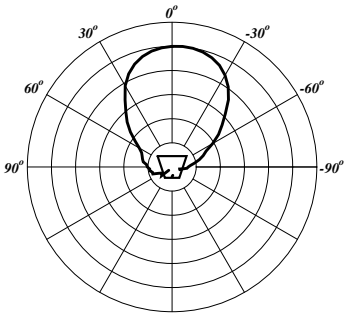
1 kHz



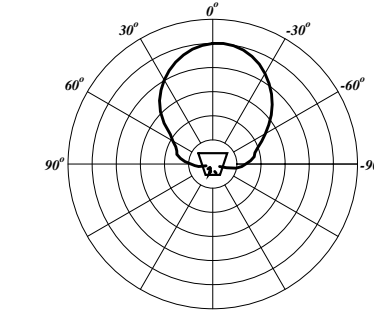
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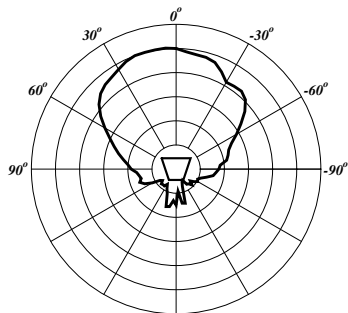
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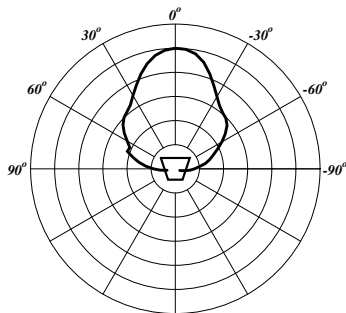
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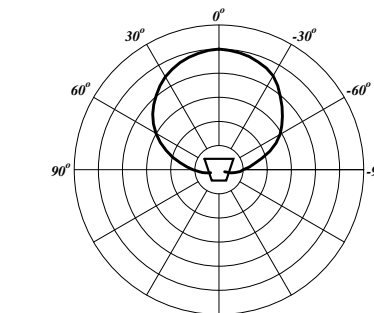
2.5 kHz



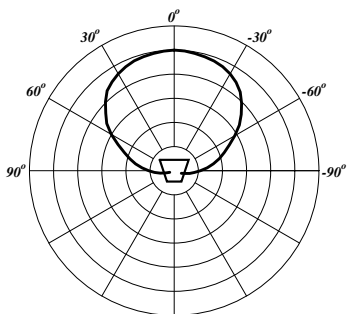
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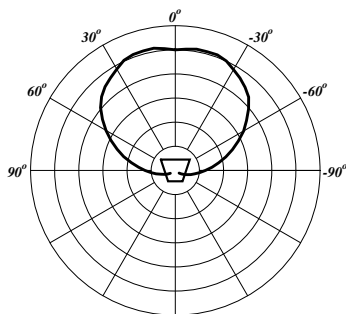
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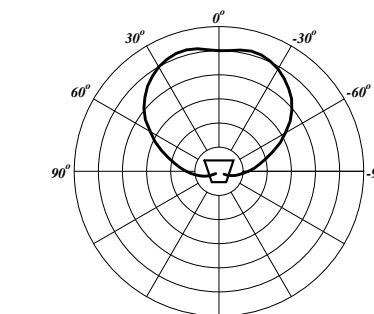
5 kHz



6.3 kHz



8 kHz

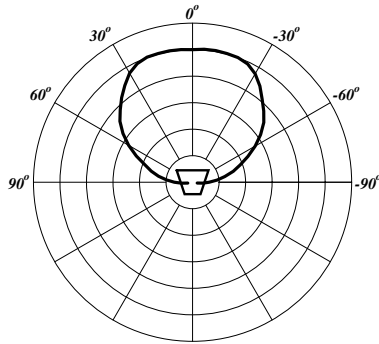


10 kHz

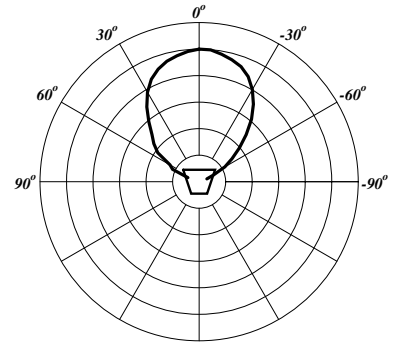


# SANCTUARY SERIES™

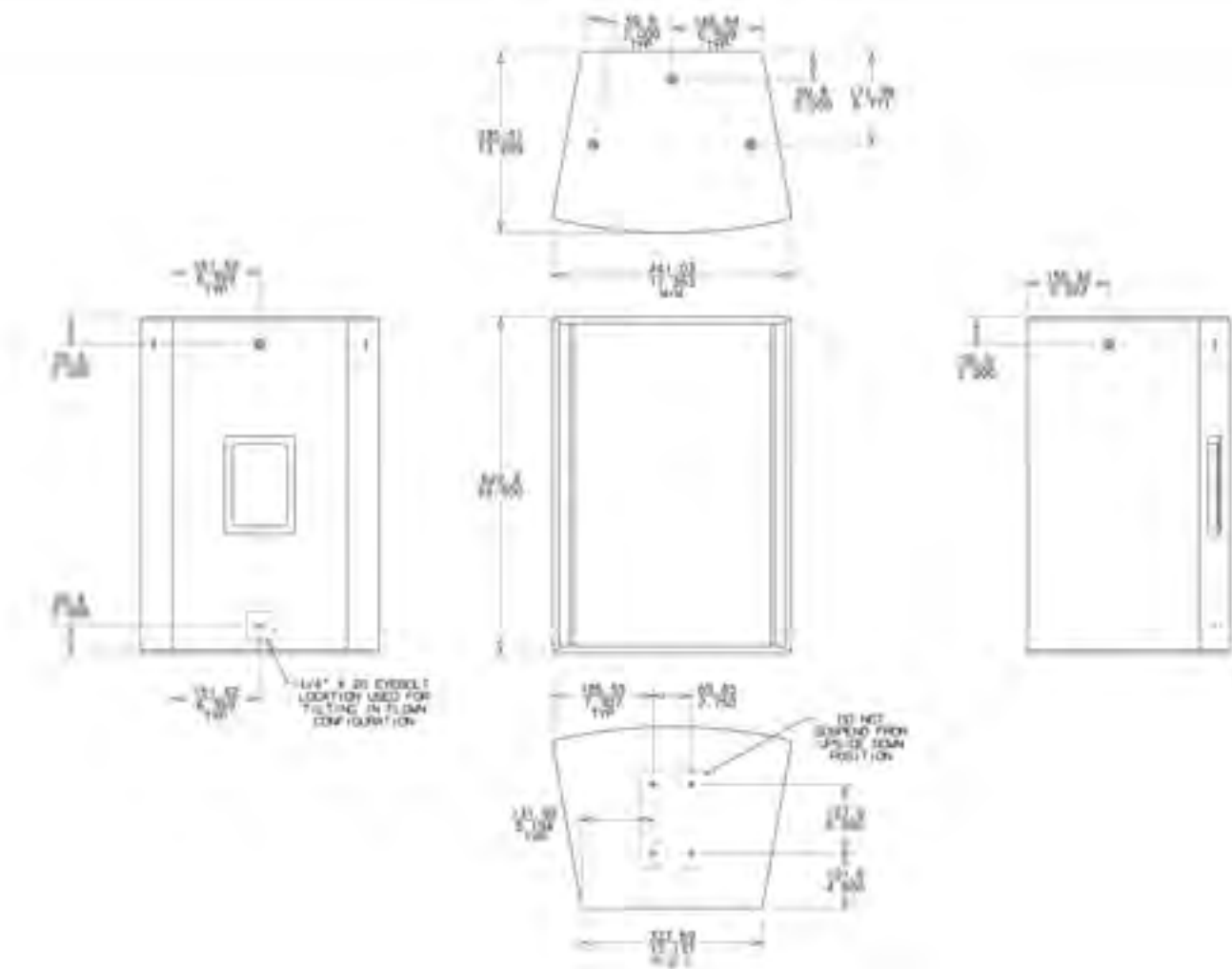
## Horizontal Polar Patterns 6 dB per Division





12.5 kHz



16 kHz




Input Plate


**SANCTUARY SERIES™**  
sanctuary-series.com

**SSE 12**  
DESIGNED AND  
MADE IN USA

IMPEDANCE:  
**8 OHMS**  
WEIGHT:  
**40 lbs./18 kg**  
MAX POWER:  
**500W PROGRAM**

 **PIN 1 + (+) POS.**  
**PIN 1 - (-) NEG.**

**HF DRIVER PROTECTED BY SOUNDGUARD™ IV**  
A PRODUCT OF PEAVEY ELECTRONICS

**8Ω**  **CE**

**+** **-**  
**FULL RANGE INPUTS**

**DANGER:** BEFORE ATTEMPTING TO SUSPEND THIS SPEAKER CONSULT A CERTIFIED STRUCTURAL ENGINEER. SPEAKER CAN FALL FROM IMPROPER SUSPENSION, RESULTING IN SERIOUS INJURY AND PROPERTY DAMAGE. DO NOT SUSPEND OR MOUNT ANY OTHER PRODUCT OR DEVICE FROM THIS ENCLOSURE! USE ONLY GRADE 5 HARDWARE OR BETTER.

**WARNING:** THIS SPEAKER SYSTEM CAN PERMANENTLY DAMAGE HEARING! USE EXTREME CARE SETTING MAXIMUM LOUDNESS.



[www.sanctuary-series.com](http://www.sanctuary-series.com)

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Features and specifications subject to change without notice.