

SPECS

PEAVEY ELECTRONICS

SP™ 6G

Sound Reinforcement
Enclosure with
Sound Guard™ HF
Protection
System

SPECIFICATIONS

Frequency Response, 1 meter on-axis,
swept-sine in anechoic environment:
70 Hz - 15.0 kHz

Low-Frequency cutoff (-3 dB point):
70 Hz

Usable Low-Frequency limit (-10 dB
point):
55 Hz

Power Handling:

Full-Range:

200W continuous (40.0V RMS)
400W program
800W peak

Bi-amp Low:

200W continuous (40.0V RMS)
400W program
800W peak

Bi-amp High:

40W continuous (17.9V RMS)
80W program
160W peak

Sound Pressure Level, 1 watt, 1 meter
in anechoic environment:

Full-Range:

97 dB (2.8V)

Bi-amp Low:

96 dB (2.8V)

Bi-amp High:

104 dB (2.8V)

Maximum Sound Pressure Level (1
meter):

Full-Range:

117 dB continuous
122 dB peak



Bi-amp Low:

116 dB continuous 124 dB peak

Bi-amp High:

120 dB continuous 126 dB peak

Radiation Angle measured at -6 dB
point of polar response:

500 - 1,600 Hz:

Horizontal: 105° ±20°

Vertical: 100° ±25°

1.6 - 5 kHz:

Horizontal: 75° ±5°

Vertical: 80° ±30°

5 - 16 kHz:

Horizontal: 90° ±10°

Vertical: 45° ±5°

Directivity Factor, Q (Mean):

5.6 dB + 6.7 dB, -0.1 dB

Directivity Index, Di (Mean):

7.5 dB + 3.4 dB, -0.6 dB

Transducer Complement:

One heavy-duty, 12-inch
Sheffield® woofer and one 22XT™
compression driver on a CH®-3
constant directivity horn.

Box Tuning Frequency:

58 Hz

Crossover Frequency (Internal
Passive):

1,640 Hz

Minimum Recommended Active
Crossover Frequency and Slope for
Bi-amping:

1,200 Hz at 18 dB/octave

Time Offset:

0.17 ms (delay Lows)

Impedance (Z):

Full-range nominal: 8Ω
Full-range minimum: 6.6Ω
Lows nominal: 8Ω
Highs nominal: 8Ω



Input Connections:

- 2 x 1/4" phone jack (full range)
- 1 x 1/4" phone jack (bi-amp low)
- 1 x 1/4" phone jack (bi-amp high)

Enclosure Materials & Finish:

- 3/4" high-density particle board enclosure covered with black carpet and protective polymer corners
- Expanded metal grille to protect low-frequency driver

Mounting Provision:

One SA-1 stand mount on bottom of enclosure.

Dimensions (H x W x D):

24.625" x 18.75" x 16.5"
(62.55 cm x 47.63 cm x 41.91 cm)

Net Weight:

62.1 lbs. (28.1 kg)

Shipping Weight:

71.8 lbs. (32.57 kg)

Features:

- SH 12862 12" Sheffield® woofer
- 22XT™ compression driver
- CH®-3 constant directivity horn
- Sound Guard™ high-frequency protection circuit
- SA-1™ stand adaptor

Description:

The SP 6G is the result of re-designing the 112SE. They share the same speaker complement, the 22XT compression driver/CH-3 constant directivity horn and the popular 12" Sheffield woofer. However, changes have been made to add to the performance and appearance of this unit.

Due to many requests, the SP 6G features a new trapezoidal cabinet in a very tight package. This shape greatly reduces standing waves within the cabinet and offers the ability to place several SP 6G's in an array. Each cabinet is protected by polymer corners and Peavey's durable black carpet as well as a powder-coated, expanded metal grille.

This full-range enclosure provides two parallel 1/4" inputs and both Hi and Lo inputs for bi-amp use. The SP 6G crossover utilizes Peavey's proprietary high-frequency driver protection circuitry, Sound Guard. The input signal is routed through the Sound Guard circuit in both full-range and bi-amp modes of operation. When the high-frequency drive level exceeds a predetermined threshold, the Sound Guard circuit is engaged

Amplitude Response (1W 1m On-Axis)

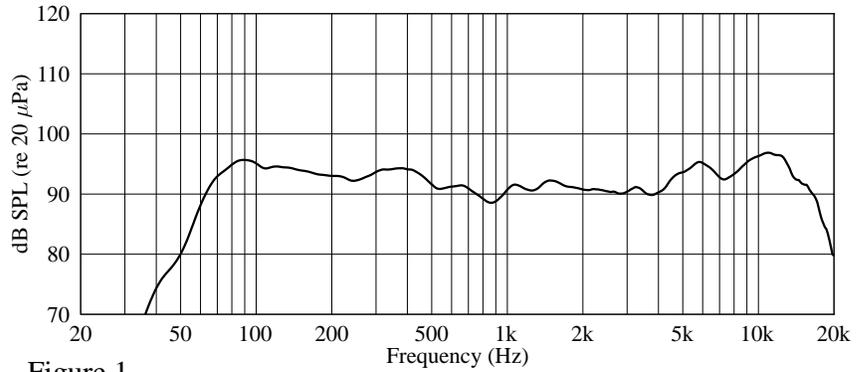


Figure 1

Impedance

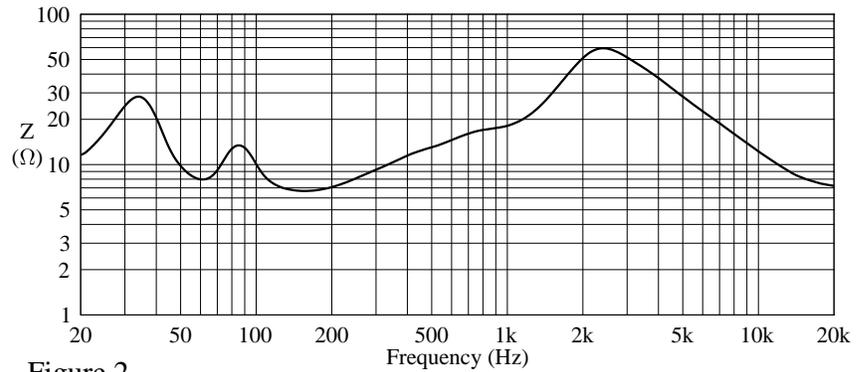


Figure 2

Beamwidth

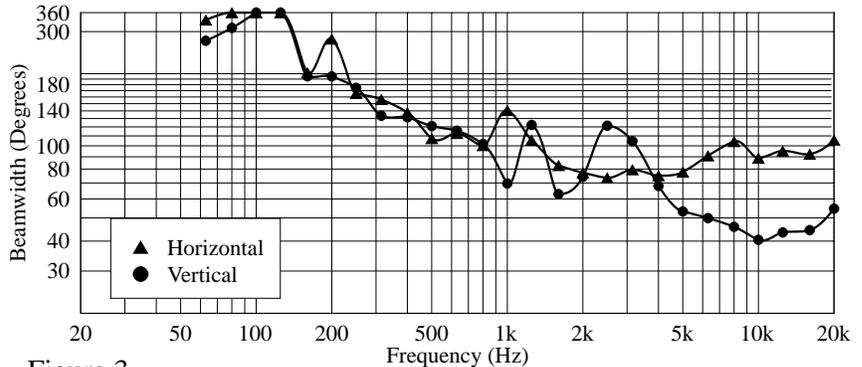


Figure 3

Q & Directivity Index

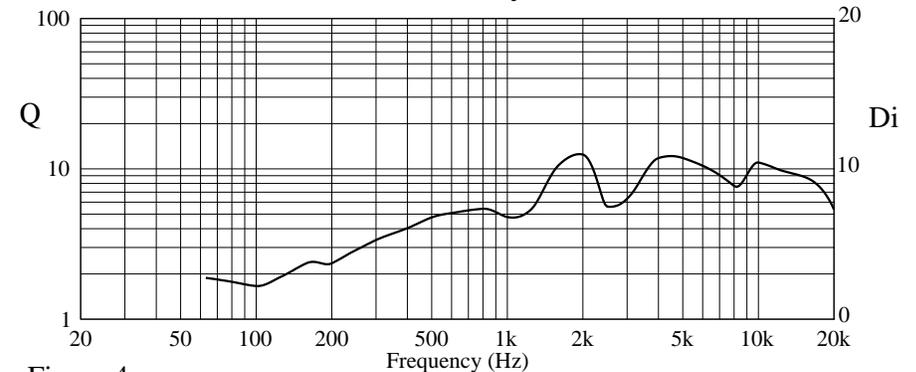
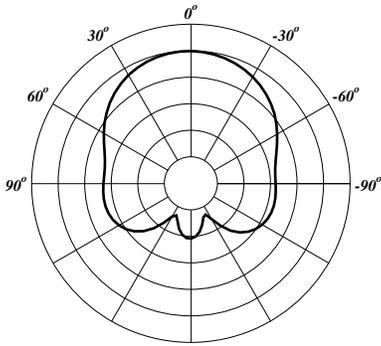
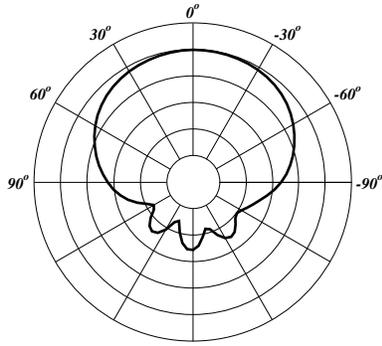


Figure 4

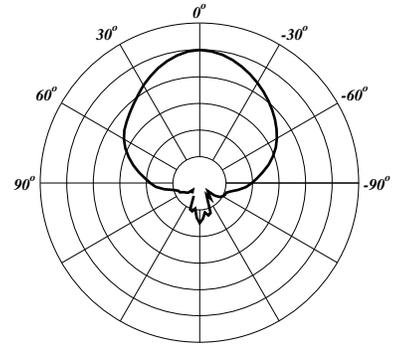
Horizontal Polar Patterns 6 dB per Division



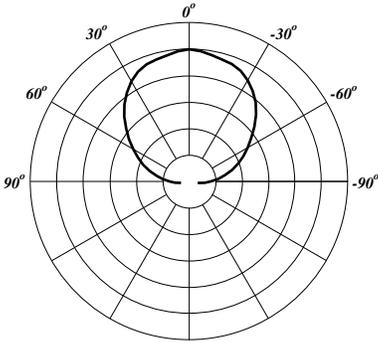
500 Hz



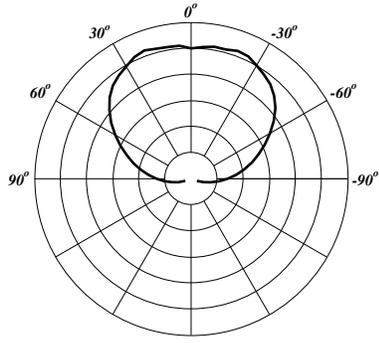
1 kHz



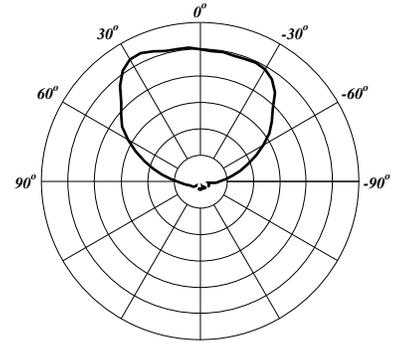
2 kHz



4 kHz

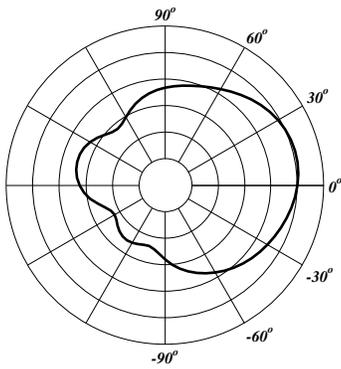


8 kHz

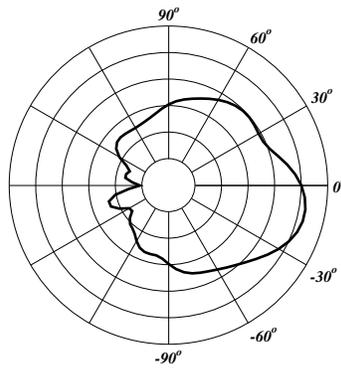


16 kHz

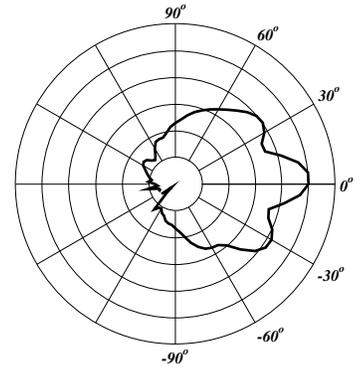
Vertical Polar Patterns 6 dB per Division



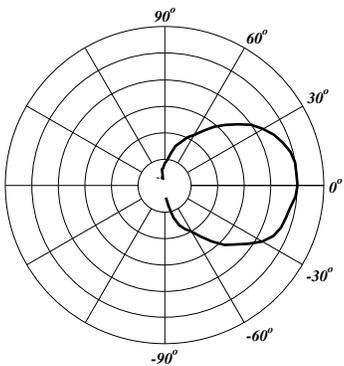
500 Hz



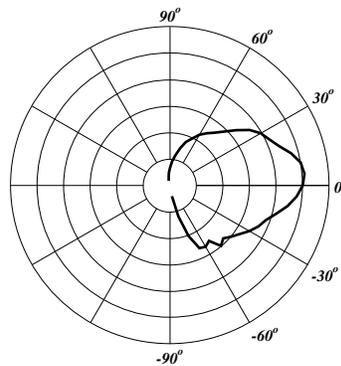
1 kHz



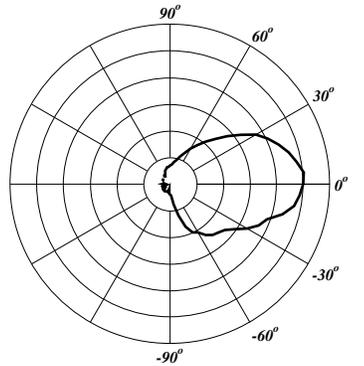
2 kHz



4 kHz



8 kHz



16 kHz

automatically. This subtly decreases the signal level going to the 22XT so that it will not be damaged due to long-term overpowering. Short duration transients will not be attenuated by Sound Guard and have the possibility to damage the 22XT. The Sound Guard circuit is a dynamic circuit that increases attenuation of the signal as it increases in amplitude. This is accomplished through the use of a specially selected, dynamically resistive light bulb. If the bulb in your Sound Guard should ever burn out, a replacement may be obtained from an Authorized Peavey Service Center. However, if a Peavey replacement bulb is not readily available, an automotive type 1156 bulb may be substituted for temporary use until a Peavey bulb can be obtained.

Frequency Response:

This measurement is useful in determining how accurately a given unit reproduces an input signal. The frequency response of the SP 6G is measured at a distance of 1 meter using a 2.8 volt swept-sine input signal. As shown in Figure 1, the selected drivers in the SP 6G combine to give a smooth frequency response from 70 Hz to 15.0 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. These are specifications which provide a reference to the coverage characteristics of the unit. These parameters provide insight for proper placement and beamwidth and directivity (Figure 3 and 4) suitable for sound reinforcement applications.

Power Handling:

There are many different approaches to power handling ratings. Peavey Electronics rates this unit's system power handling using a modified form of the AES Standard 2-1984, utilizing audio band limited (20 Hz - 20 kHz) pink noise with peaks over 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. The test signal contains large amounts of very low-frequency energy, effectively simulating the frequency content of live music situations. The full measure of high frequencies in the test signal allow for exposure of the speaker system to synthesized tones that may extend beyond audibility. This rating is contingent on having a minimum of

3 dB of amplifier headroom available so as to ensure that clipping does not occur.

Architectural and Engineering Specifications:

The loudspeaker system shall have an operating bandwidth of 70 Hz to 15 kHz. The nominal output level shall be 97 dB when measured at a distance of one meter with an input of one watt. The nominal impedance shall be 8 ohms. The maximum continuous power handling shall be 200 watts, maximum program power of 400 watts and a peak power input of at least 800 watts, with minimum amplifier headroom of 3 dB. The nominal radiation geometry shall be 90 degrees in the horizontal plane and 45 degrees in the vertical plane. The outside dimensions shall be 24.625 inches high by 18.75 inches wide by 16.5 inches deep. The weight shall be 62.1 pounds. The loudspeaker system shall be a Peavey model SP 6G.

ONE 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, MS 39302-2898.



Features and specifications subject to change without notice.

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