

S P E C I F I C A T I O N S

Quadra™ 10

Available in
Black and White



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

74 Hz — 18 kHz (± 3 dB)

Usable low frequency limit (-10 dB point):

57 Hz

Power handling:

Full Range:

250 W continuous
500 W program
1,000 W peak

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

Full Range:

96.0 dB SPL, (2.83 V input)

Maximum sound pressure level (1 meter):

Full Range:

120.0 dB SPL continuous
126.0 dB SPL peak

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

500 Hz — 1.6 kHz:
Horiz. $120^\circ \pm 25^\circ$
Vert. $115^\circ \pm 20^\circ$

1.6 kHz — 5 kHz:

Horiz. $90^\circ \pm 5^\circ$

Vert. $70^\circ \pm 10^\circ$

5 kHz — 16 kHz:

Horiz. $80^\circ \pm 10^\circ$

Vert. $45^\circ \pm 10^\circ$

Directivity factor, Q (Mean):

8.88 ± 4.65

Directivity index, Di (Mean):

8.89 dB ± 2.04 dB

Transducer complement:

Low frequency section:

1x 10" woofer, vented
10" long throw heavy-duty woofer

High frequency section:

1x 1" exit/34 mm voice coil
compression driver 14XT™ on a
CD horn

Box tuning frequency:

Low frequency section:

75 Hz

Harmonic distortion:

1% rated power

2nd Harmonic:

100 Hz: 0.94%

1 kHz: 0.23%

3rd Harmonic:

100 Hz: 2.50%

1 kHz: 0.95%

10% rated power

2nd Harmonic:

100 Hz: 2.36%

1 kHz: 1.36%

3rd Harmonic:

100 Hz: 1.06%

1 kHz: 2.18%

Crossover frequency (internal passive):

Low Frequency — Mid Frequency:
2.2 kHz

Time offset:

Low Frequency: 0.00 ms

High Frequency: Horn spatially
aligned ms

Impedance (Z):

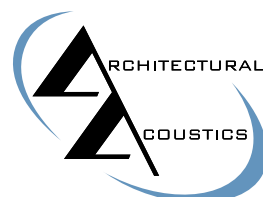
Full Range:

Nominal: 8.0 Ω

Minimum: 6.7 Ω

Input connections:

Screw terminal strip (one pair) for full-
range inputs



™ By Peavey

Listen to This.

Enclosure materials and finish:

1/4" high impact polypropylene finished in black textured molded surface

Mounting provisions:

(12) 1/4"-20 threaded mounting points, four each top, rear and bottom.
Stand mounting via molded-in mount of the standard 1-3/8" diameter and four rubber feet for floor use.

Dimensions (H x W x D):

Front:

18.75 in. x 14.00 in. x 13.19 in.
486 mm x 356 mm x 335 mm

Rear:

16.69 in. x 8.00 in. x 13.9 in.
424 mm x 203 mm x 335 mm

Net weight:

31 lbs. (14.1 kg)

Features:

- Quadratic Throat Geometry horn
- 500 W program, 1000 W peak
- Sound Guard™ II tweeter protection
- 10" long throw heavy-duty woofer
- 14XT™ 1.4" titanium compression driver
- Top handle and bottom stand mount
- Top, rear and bottom flying point inserts

Description

The Quadra™ 10 is an injection-molded, two-way speaker system, engineered in the AA tradition to provide superior performance from a compact and durable package. The enclosure is made from very high impact, injection-molded polypropylene in a trapezoidal shape, with extensive ribbing and bracing, and the grills utilize perforated metal protected by a high quality vinyl coating process, and has an integral foam inner layer for environmental protection.

The two-way system is comprised of a 10" long throw heavy-duty woofer, and a water-resistant treated cone and dust cap for superior environmental stability. The high frequencies are handled by a 14XT™ 1.4" titanium diaphragm compression driver, coupled to a 1" Quadratic Throat Geometry horn, molded integral to the cabinet. This horn provides outstanding dispersion coupled with a well-controlled pattern, and a smooth, even response.

Utilizing Quadratic Throat Horn™ technology, under US patent 6,059,069, the horn has lower distortion than many popular CD horn geometries.

Amplitude Response (1W 1m On-Axis)

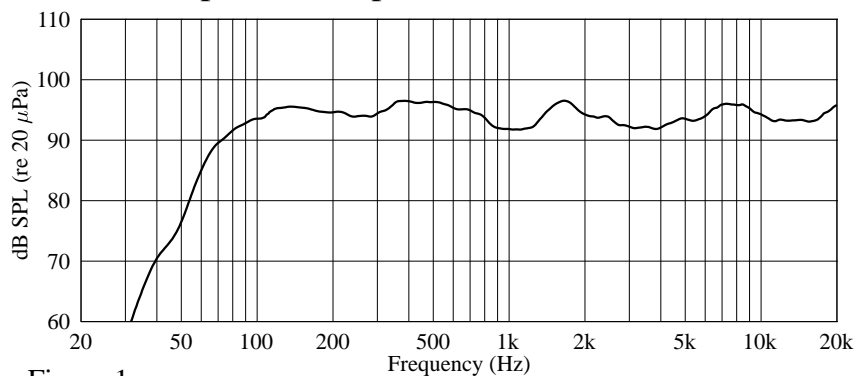


Figure 1

Impedance

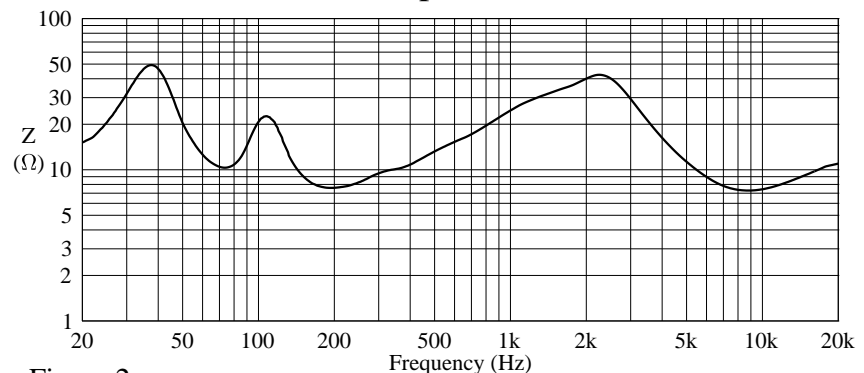


Figure 2

Beamwidth

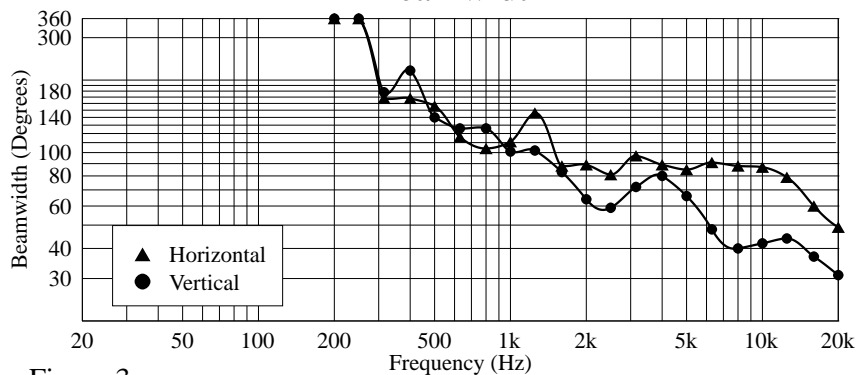


Figure 3

Q & Directivity Index

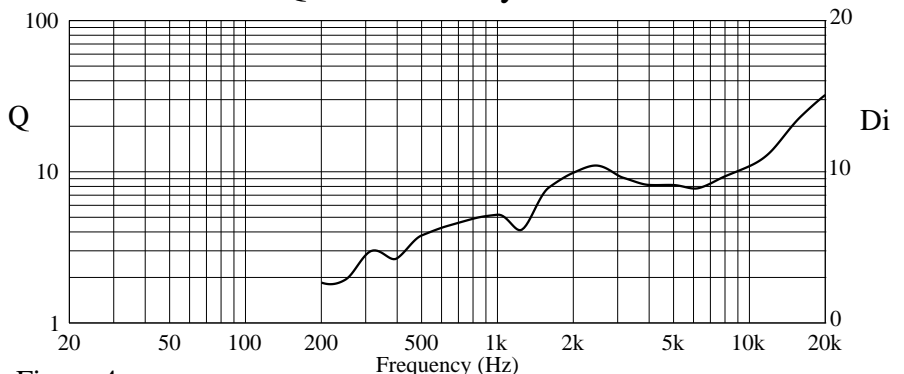


Figure 4

Input connection to the system is made via screw terminal strip (one pair) for full-range inputs.

The internal passive crossover features Sound Guard™ II tweeter protection circuit, an advanced topology crossover with high performance components, to provide high power handling and reliability. Peavey's proprietary high-frequency driver protection circuitry, Sound Guard, provides long and medium-term driver overload protection without impairing musical transients or dynamics. The crossover provides driver roll-off and protection, as well as driver EQ for the woofer and horn; the sum total is a crystal clear and very smooth response. High-quality, reliable crossover components include polypropylene capacitors, and high current inductors and input connectors. The optimal integration of the crossover with the selected drivers results in a smooth frequency response from 74 Hz to 18 kHz.

Despite its compact dimensions, this enclosure can put out some very serious sound levels, and take 500 Watts program of clean amplifier power, resulting in an outstanding amount of clean coverage with amazing clarity.

Frequency response

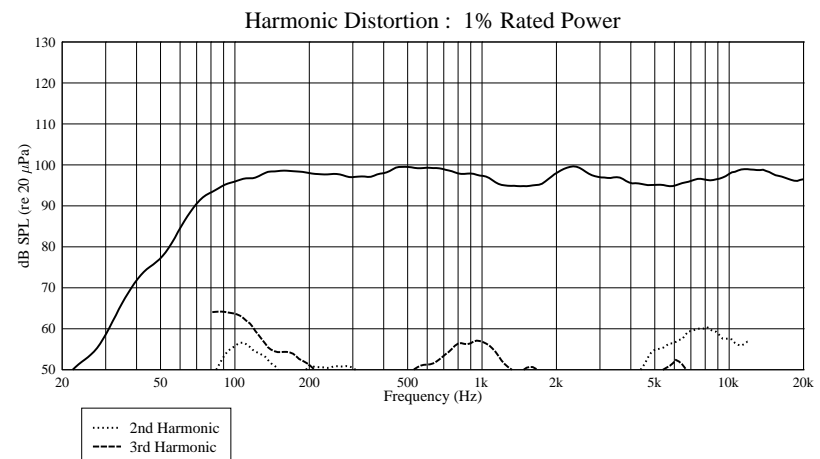
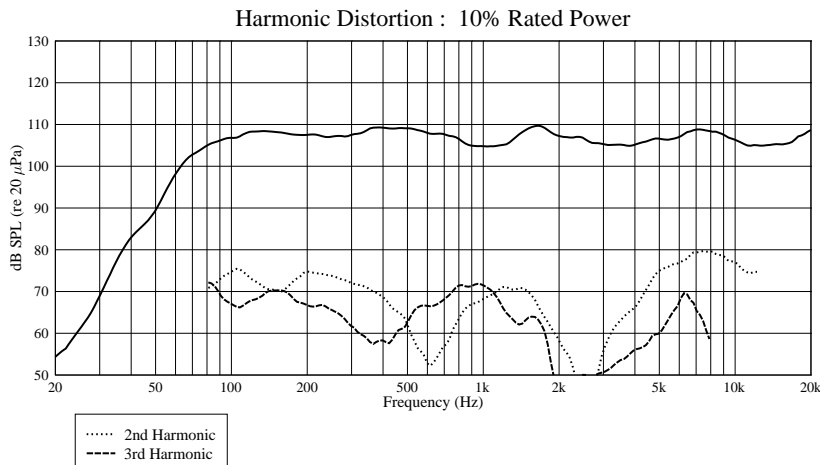
This measurement is useful in determining how accurately a given unit reproduces an input signal. The frequency response of the Quadra 10 is measured at a distance of 1-meter using a 1 Watt (into the nominal impedance) swept-sine input signal. As shown in figure 1, the selected drivers in the Quadra 10 combine to give a smooth frequency response from 74 Hz to 18 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 is plotted for the on-axis measurement position. These are specifications that provide a reference to the coverage characteristics of the unit. These parameters provide insight for proper placement and installation in the chosen environment. The blending of the components of the Quadra 10 exhibit a desirable beamwidth and directivity (figure 3 and 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 and 6 for two power levels, ten percent (10%) of rated input power and either one percent (1%) of rated input power or one 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.

Architectural and Engineering Specifications

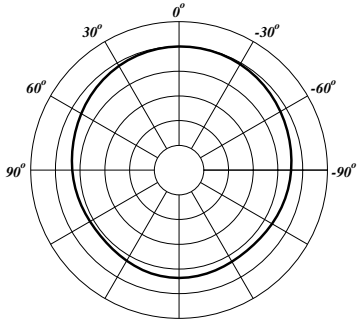
The loudspeaker system shall have an operating bandwidth of 74 Hz to 18 kHz. The nominal output level shall be 96.0 dB when measured at a distance of one meter with an input of one Watt. The nominal impedance shall be 8.0 Ohms. The maximum continuous power handling shall be 250 Watts, maximum program power of 500 Watts and a peak power input of at least 1,000 Watts, with a minimum amplifier headroom of 3 dB. The nominal radiation geometry shall be 90 degrees in the horizontal plane and 40 degrees in the vertical plane. The outside dimensions shall be 18.75 inches

high by 14.00 inches wide by 13.19 inches deep. The weight shall be 31 pounds. The loudspeaker system shall be an Architectural Acoustics model Quadra 10.

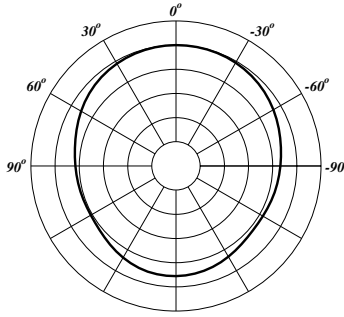
3 + 2 YEAR LIMITED WARRANTY

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.

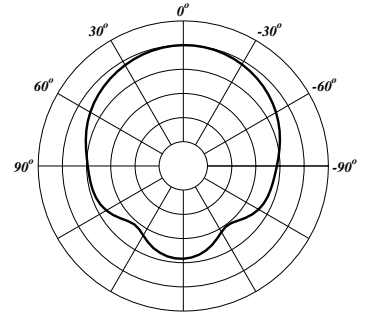
Quadra™ 10
Horizontal Polar Patterns 6 dB per Division



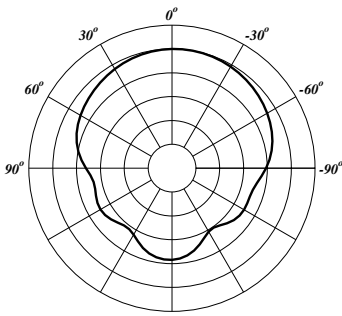
200 Hz



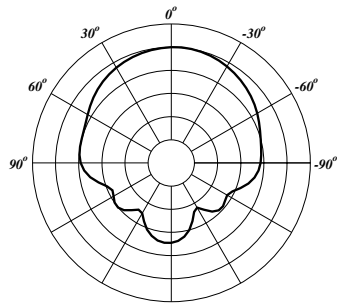
250 Hz



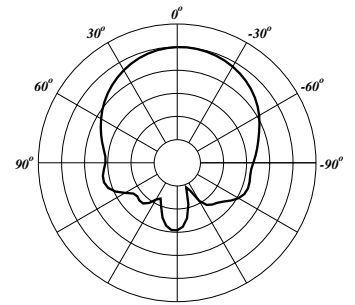
315 Hz



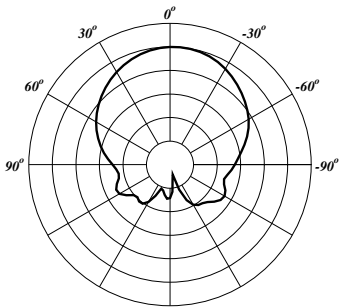
400 Hz



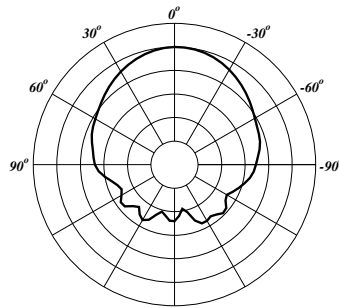
500 Hz



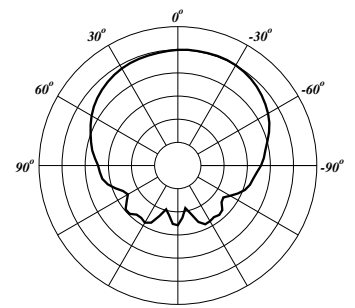
630 Hz



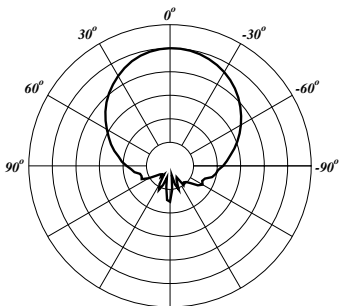
800 Hz



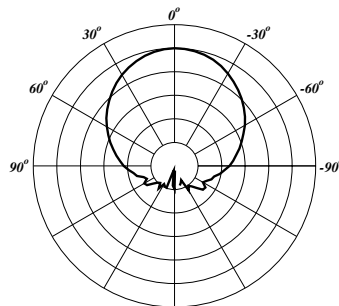
1 kHz



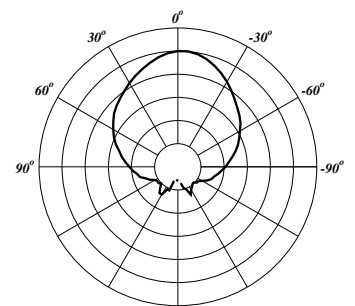
1.25 kHz



1.6 kHz

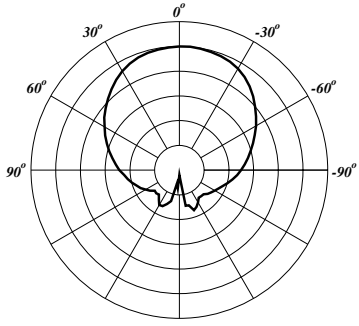


2 kHz

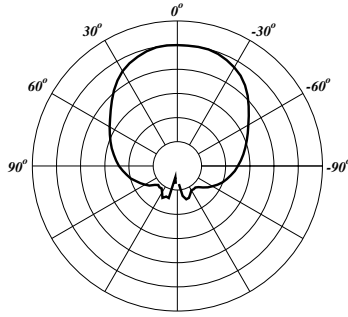


2.5 kHz

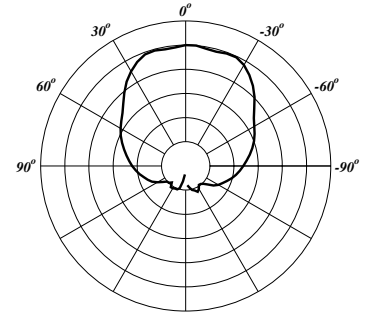
Quadra™ 10
Horizontal Polar Patterns 6 dB per Division



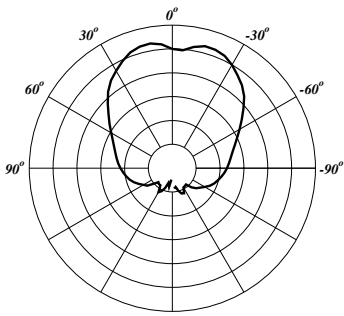
3.15 kHz



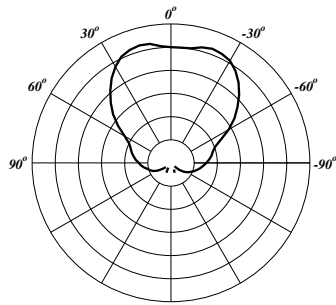
4 kHz



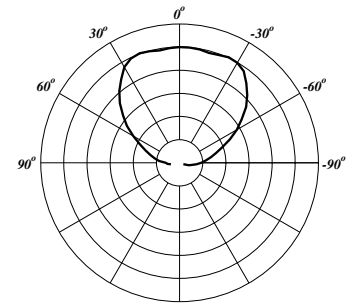
5 kHz



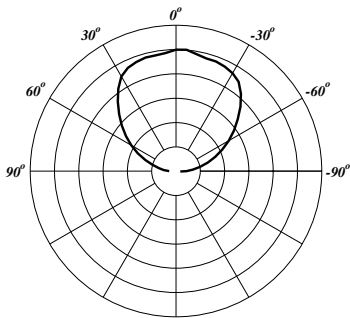
6.3 kHz



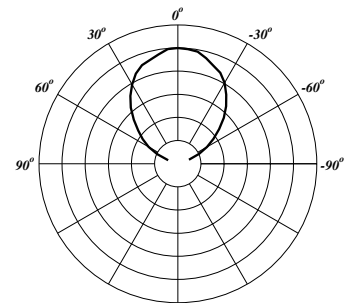
8 kHz



10 kHz

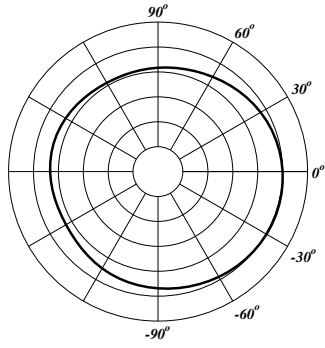


12.5 kHz

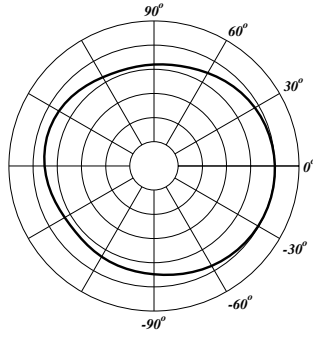


16 kHz

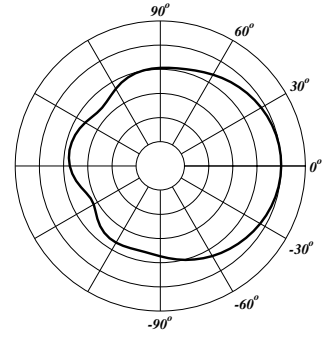
Quadra™ 10
Vertical Polar Patterns 6 dB per Division



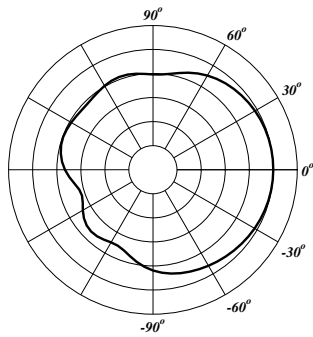
200 Hz



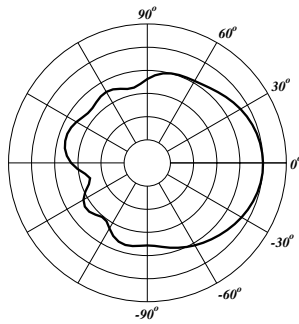
250 Hz



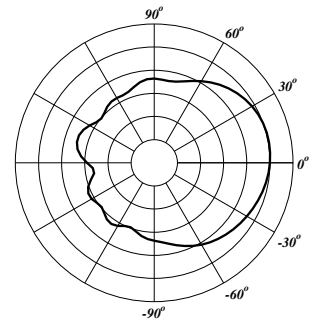
315 Hz



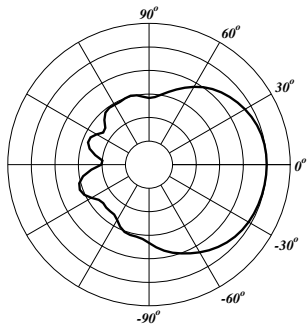
400 Hz



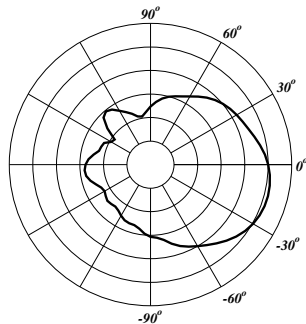
500 Hz



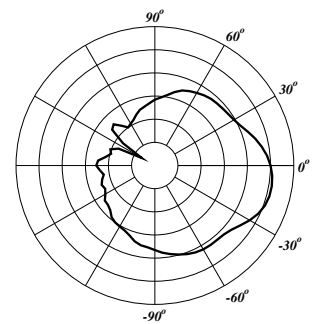
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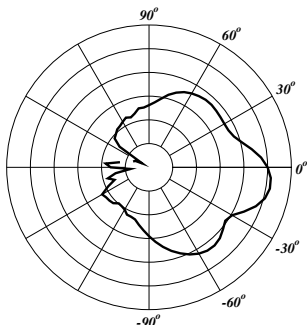
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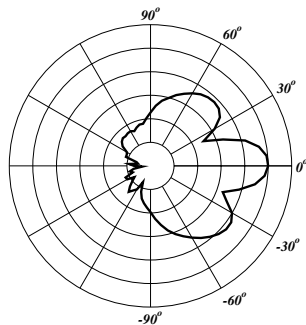
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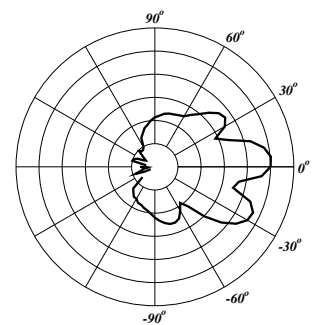
1.25 kHz



1.6 kHz

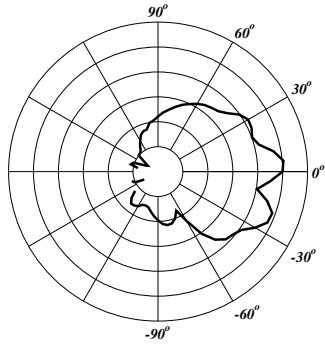


2 kHz

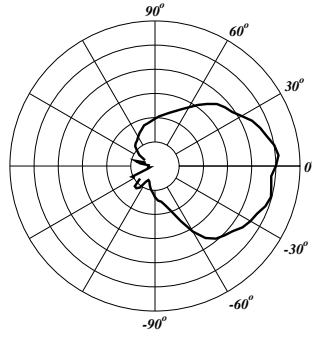


2.5 kHz

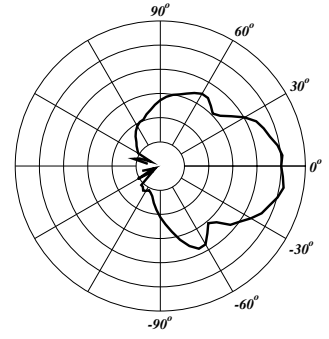
Quadra™ 10
Vertical Polar Patterns 6 dB per Division



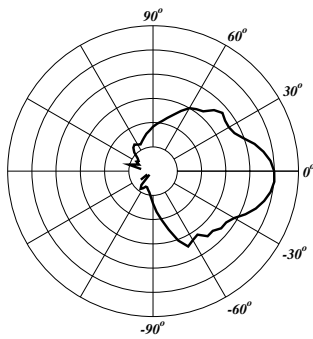
3.15 kHz



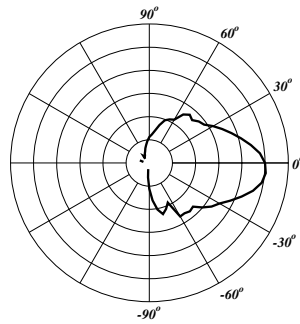
4 kHz



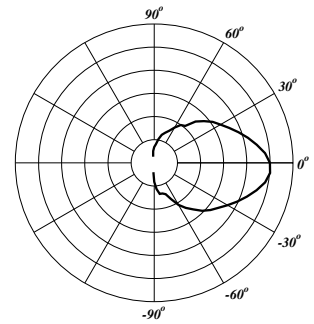
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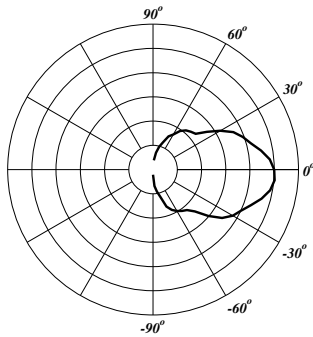
6.3 kHz



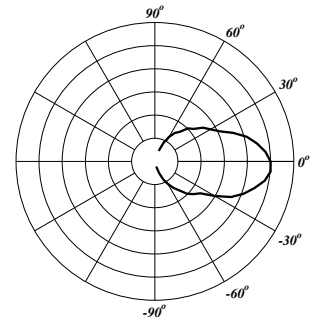
8 kHz



10 kHz



12.5 kHz



16 kHz

Quadra™ 10 INPUT

QUADRA™ 10

MAX POWER: 1000W PEAK
500W PROGRAM

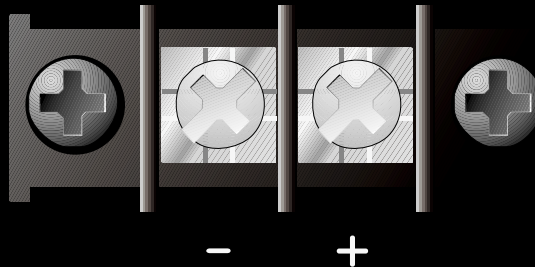
IMPEDANCE: 8 OHMS
CROSSOVER: 2.2 kHz

WEIGHT: 31 LBS.
14.1 kg.



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.



FULL RANGE INPUTS

HF DRIVER PROTECTED BY SOUNDGUARD II™
A PRODUCT OF PEAVEY ELECTRONICS CORP.
MERIDIAN, MS MADE IN USA

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



Features and specifications subject to change without notice.

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