PEAVEY®
ARCHITECTURAL ACOUSTICS®

VTS™ 1000
Wireless Transmitter/Receiver High-band System
SPECIFICATIONS

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HANDHELD TRANSMITTER:

Frequency Range:
High band (150 to 216 MHz)

Frequency 1:
171.825 MHz

Frequency 2:
167.875 MHz

Frequency Stability:
+/- 0.005%, crystal controlled

RF Power Out:
50 mW

Modulation:
15 kHz deviation FM

FCC Compliance:
FCC approved under Part 90

Audio Frequency Response:
80 Hz to 15 kHz +0.5dB, -3 dB

Rumble Filter:
3-Pole (18 dB/octave) below 80 Hz

Audio Compression
2:1 (separate attack & decay optimized for voice)

Distortion:
.5% THD maximum below 10 kHz deviation

Battery (Alkaline):
9V alkaline or equivalent recommended

Battery Life:
6 to 10 hour operation

Operating Temperature:
-18 C to +54 C (0° F to +130° F)

Controls:
Power on/off switch, Audio Mute switch

Indicators:
Transmitter On (LED), Low battery indicator (flashing LED)

Size:
9¾" (24.8 cm.) x 1½" (3.49 cm.)

Weight:
9.0 oz. (255 g) without battery

RACK-MOUNT RECEIVER:

Frequency Range:
High band (150 to 216 MHz)

Frequency Stability:
+/- 0.005%, crystal controlled

FCC Compliance:
FCC approved under Part 15

Antenna Input:
50 ohms, nominal, type UHF receptacle

Image Rejection:
85 dB min.

Sensitivity:
14.8 dBf (1.5 uV/50 ohm) for 50 dB quieting (20-20 kHz)
11.3 dBf (1.0 uV/50 ohm) for 50 dB quieting (A-Weighted)

Ultimate Quieting:
43.3 dBf (40 uV/50 ohm) for 90 dB quieting (20-20kHz)
43.3 dBf (40 uV/50 ohm) for 100 dB quieting (A-Weighted)

Mute Quieting:
Greater than 90 dB (referenced to 40kHz deviation)

Audio Frequency Response:
40 Hz to 15 kHz +0.5dB, -3 dB

Distortion:
0.3% THD max. (below 15 kHz deviation)

Audio Expansion:
1:2 (separate attack & decay)

Mute Sensitivity:
Adjustable - front panel, 1.5 uV to 50 uV

Controls:
Power on/off, Line Output Level, Mute

Indicators:
RF Signal present (LED), Power On (LED)

Audio Output (Balanced):
600 ohm balanced line (transformer), 3-pin female XLR connector, front panel adjustable: (-90 dBm to +5 dBm/600 ohm/15 kHz deviation)

Audio Output (Unbalanced):
600 ohm unbalanced line, ¼" mono phone jack connector
(-80 dBm to +5 dBm/1K ohm)

Diversity Expansion Option:
7-Pin female DIN connector (Peavey cable #0007299)

Size:
19" W x 1¾" H x 8½" D Rack-Mount

Weight:
7 lbs. 2 oz. (3.23 Kg)

Operating Temperature:
-18 C to +54 C (0° F to +130° F)

Power Requirements:
110-120 VAC, or 210-240 VAC, 50/60 Hz, 15 Watts

OVERALL SYSTEM PERFORMANCE:

RF Frequency:
High band (150 to 216 MHz)

Frequency Stability:
+/- 0.005%, crystal controlled

Modulation:
15 kHz deviation FM Compander System

Overall Dynamic Range:
Up to 100 dB (compander)

Operating Range:
Up to 1000 feet under ideal conditions (200-300 ft. nominal)

Frequency Response:
80 Hz to 15 kHz +.5 dB, -3 dB

System Distortion:
0.5% THD max below 10 kHz modulation

System Ultimate SNR:
100 dB (A-weighted), 90 dB (20-20 kHz)

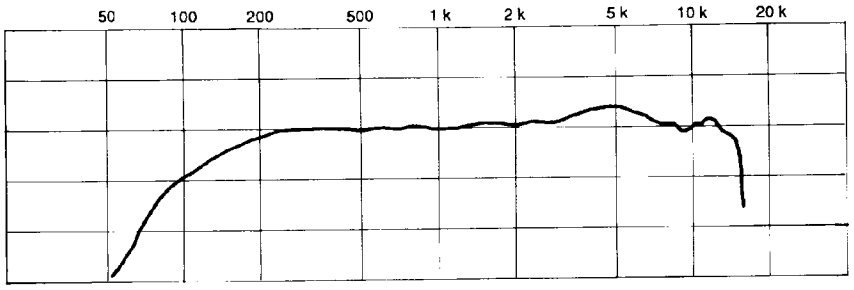
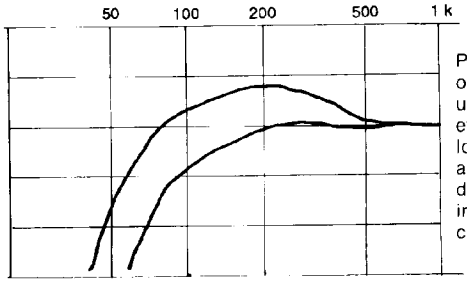


Figure 1. FREQUENCY RESPONSE

DESCRIPTION

The VTS™ 1000 is a high-band wireless transmitter and receiver system designed for high-fidelity transmission of audio signals. The basic receiver configuration is a high-efficiency single antenna system that is easily expandable to true diversity operation. The receiver/transmitter pair is fully companded to ensure maximum signal-to-noise ratio. The single-rack-space receiver features a user-settable mute control, ultra-low noise front end and multi-pole helical resonator filters. The true diversity option is accessible on the rear panel via a multi-pin DIN connector. Diversity expansion is achieved by adding another receiver of the same frequency; the connection is made with an optional diversity cable. The handheld tarnsmitter is a high-efficiency design; it features RF power on/off and audio on/off to allow RF power to be maintained. The transmitter features an 80 Hz, 3-pole high-pass filter design to minimize low frequency handling noise and maximize radiated power. The hand-held transmitter also features an RF power on LED that flashes when battery level is low. The Peavey Architectural Acoustics Division VTS™ 1000 is available in two VHF high-band frequencies - 167.875 MHz and 171.825 MHz - and all available frequencies are compatible.



Proximity effect is a naturally occurring phenomenon in unidirectional microphones. The effect is to accentuate or boost the low frequency response. This effect is a function of distance from the diaphragm to the source and increases as the diaphragm is moved closer to the source.

Figure 2. IMPEDANCE

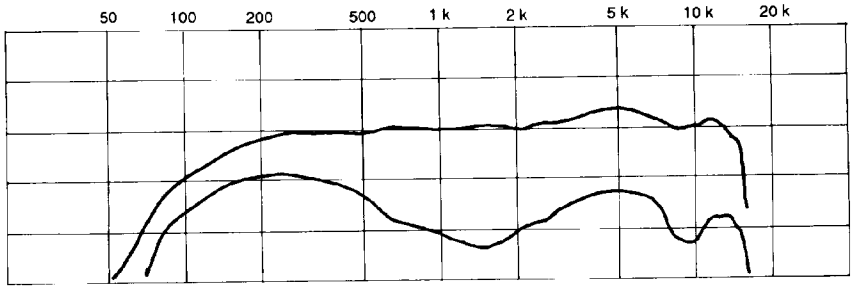
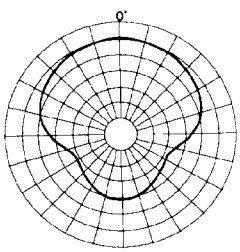


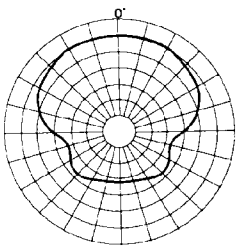
Figure 3. BEAMWIDTH VS. FREQUENCY

Note: Curves are measured using the VTS 1000 Receiver for the output device.

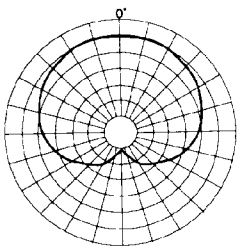
Figure 4. Polar Patterns



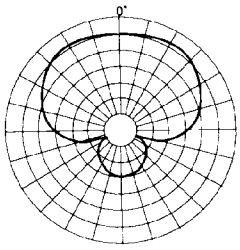
200 Hz



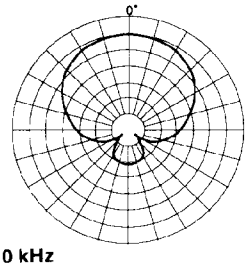
500 Hz



1 kHz



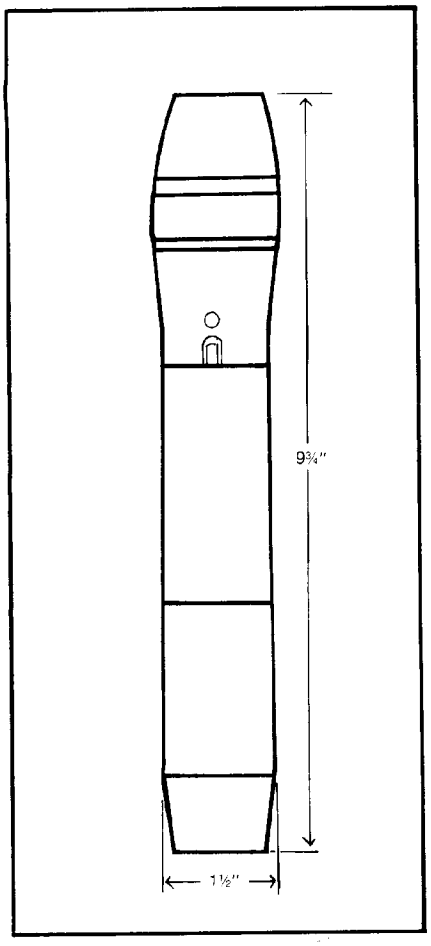
5 kHz

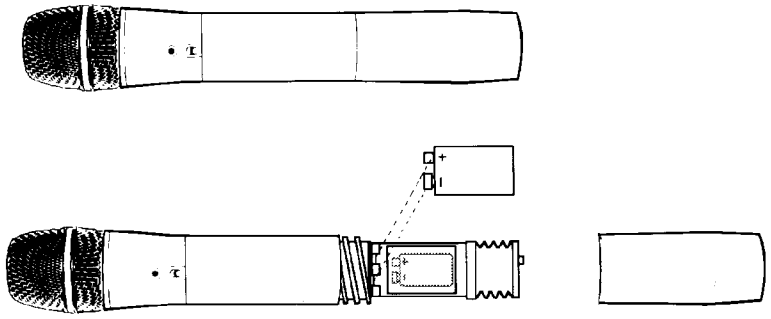


10 kHz

ARCHITECTURAL SPECIFICATIONS

The radio frequency transmitter/receiver system shall be a high-band system designed to provide operation over a range of 1000 feet unobstructed line of sight and 200-300 feet typical operation. The system shall be a single antenna receiver capable of expansion to true diversity operation. The receiver shall be a single space, 19" standard rack mount chassis. The receiver shall have a transformer balanced output, detachable antenna and user settable mute and level. The radio frequency transmitter/receiver system shall be a Peavey Architectural Acoustics Division VTS™ 1000 or functional equivalent.





WARRANTY

Peavey Electronics Corporation warrants to the original purchaser of this new Architectural Acoustics product that it is free from defects in material and workmanship. If within one (1) year from date of purchase a properly installed product proves to be defective and Peavey is notified, Peavey will repair or replace it at no charge. (Note: Batteries and patch cords not covered.) "Original purchaser" means the customer for whom the product is originally installed.

Damage resulting from improper installation, interconnection of a unit or system of another manufacturer, accident or unreasonable use, neglect or any other cause not arising from defects in material and workmanship is not covered by this warranty. The warranty is valid only as to products purchased and installed in the United States.

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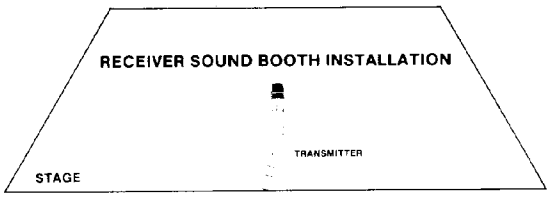
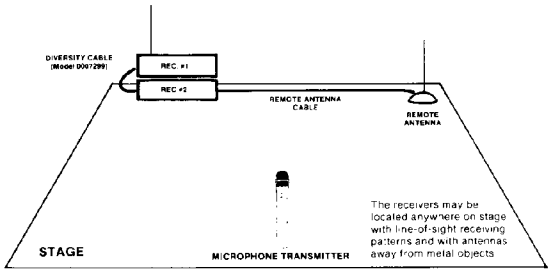
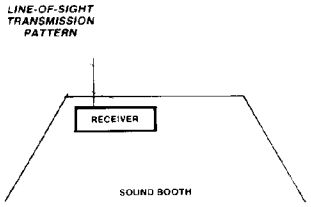




DIVERSITY ONSTAGE INSTALLATION



Peavey Architectural Acoustics Products Are Engineered and Manufactured in Our Facilities in the U.S.A.

PEAVEY® ARCHITECTURAL ACOUSTICS®

Due to our efforts for constant improvement, features and specifications are subject to change without notice.

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