# XD-V70 Digital Wireless Microphone Systems

**XD-V70**
**HANDHELD SYSTEM**



THH12 RX212

**XD-V70L**
**LAVALIER SYSTEM**



TBP12 RX212 LM4-T

**XD-V70HS**
**HEADSET SYSTEM**



TBP12 RX212 HS70

## FEATURES:

- 24-bit digital converters
- Up to 120 dBA dynamic range compander free
- DCL™ (Digital Channel Lock) and PDP™ (Proprietary Data Placements) technologies eliminate audio interference and minimize dropouts
- Full bandwidth 10 Hz – 20 kHz frequency response
- 12 user-selectable channels (for simultaneous use) always available, no intermodulation issues. No scanning for channels is required
- Quick setup, no gain, pads, squelch or level adjustments necessary
- "Future proof" 2.4 GHz ISM band operation prevents concerns from DTV/DSO/700 MHz channel assignments and whitespace devices, and avoids competition from high-power transmitters such as commercial TV, mobile phone and public safety
- Real-time LCD indicators display critical performance data including operating channel, RF status, link status, battery life and diversity mode
- 2 x AA alkaline batteries provide 8-hour operation on "high" power (10 hours on low power)

**XD-V70 Handheld System**

- Handheld transmitter (THH12)
- Mic clip
- Rugged zipper carry case
- Half-rack 12 channel receiver (RX212)
- Power supply (DC-1g); 9V DC/500 mA, input – 90 – 240 Vac
- Half-wave Rubber Duckie antennas (RDrac), pair
- Rackmount kit (includes short and long rack ear, mounting screws and dovetail key)
- Front-mount antenna kit (including BNC connectors and antenna cables)

**XD-V70L Lavalier System**

- Beltpack transmitter (TBP12)
- Cardioid lavalier microphone (LM4-T) with clip and windscreen
- Rugged zipper carry case
- Half-rack 12 channel receiver (RX212)
- Power supply (DC-1g); 9V DC/500 mA, input – 90 – 240 Vac
- Half-wave Rubber Duckie antennas (RDrac), pair
- Rackmount kit (includes short and long rack ear, mounting screws and dovetail key)
- Front-mount antenna kit (including BNC connectors and antenna cables)

**XD-V70HS Headset System**

- Beltpack transmitter (TBP12)
- Omni headset microphone (HS70) with dual ear clips and replaceable cable
- Rugged zipper carry case
- Half-rack 12 channel receiver (RX212)
- Power supply (DC-1g); 9V DC/500 mA, input – 90 – 240 Vac
- Half-wave Rubber Duckie antennas (RDrac), pair
- Rackmount kit (includes short and long rack ear, mounting screws and dovetail key)
- Front-mount antenna kit (including BNC connectors and antenna cables

# XD-V70 Digital Wireless Microphone System Specifications

| | | | Notes: |
|---|---|---|---|
| System Specs | **Working Range** | 100 meters / 300 feet | Line of sight, actual range depends on interference, reflection and RF signal absorption |
| | **Audio Freq. Response** | 10 Hz (-0.5 dB) to 20 kHz (-2.5 dB) | |
| | **THD%** | 0.03% typical | |
| | **Dynamic Range** | >118 dBa (XD-V70)<br>>120 dBa (XD-V70L/HS) | System total, audio in to audio out, no compander |
| | **Operating Temperature Range** | 0-60° C | Battery characteristics may limit this range |
| | **Transmitter Audio Polarity** | Positive pressure on mic diaphragm produces positive voltage on pin 2 of XLR output and on Tip of 1/4 output | |
| | **RF Channel** | 2.4 GHz ISM band | |
| | **System Latency Total** | <4ms | Audio in to audio out |

| | | | Notes: |
|---|---|---|---|
| Receiver Specs | **Audio Output Level** | Unity | Referenced to mic selected |
| | **Output Z** | XLR: 150 ohms (balanced)<br>¼ inch: 1k ohms (unbalanced) | |
| | **Sensitivity** | 95 dBm | |
| | **Image Rejection** | 56 dB | |
| | **Power Requirements** | 9V DC, 350 mA | DC-1G supplied |
| | **Antenna** | BNC 50 ohm | |
| | **Dimensions (Overall)** | 220 mm x 216 mm x 45 mm (half-rack) | |
| | **Weight** | 42 oz. | |
| | **Housing** | Extruded aluminum | |

| | | **V70 Handheld Tx** | **V70 Beltpack Tx** |
|---|---|---|---|
| Transmitter Specs | **Audio Input Level (Max.)** | 3.6 Vpp; ~3% THD (clipping) | 6.5 Vpp; ~3% THD (clipping) |
| | **Input Z** | N/A | 1.3M ohms |
| | **Gain Range** | N/A (Patent pending circuitry insures full use of A/D converter at all times) | N/A (Patent pending circuitry insures full use of A/D converter at all times) |
| | **RF Output** | 10 mW (high) 3.3 mW (low) | 10 mW (high) 3.3 mW (low) |
| | **Dimensions (overall)** | 240 mm x 44 mm DIA | 108 mm tall x 30mm x 71 mm (H x W x D) |
| | **Weight** | 11 oz. (without batteries) | 6.5 oz. (without batteries) |
| | **Housing** | Metal body, PC battery cover | Metal body |
| | **Battery Life** | alkaline<br>8 hours (High power)<br>9.5 hours (Low power) | alkaline<br>8 hours (High power)<br>10 hours (Low power) |
| | **Power** | 2 x AA alkaline | 2 x AA alkaline |

## Architect and Engineer's Specifications

The wireless microphone system shall utilize digital conversion and operate in the 2.4 GHz ISM band. The system shall transmit a digital representation of the audio signal distributed over four separate RF frequencies that include a unique digital code sequence that identifies the transmission to the receiver thus locking out all other sources of interference without the need of squelch circuitry. The system shall include the option of changing the compatible preset operating channels enabling up to 12 systems to operate simultaneously in the same location without interfering with one another. Effective range of the system shall be 100 meters/300 feet under optimal conditions. Each transmitter shall be powered by two AA alkaline batteries. System shall use both spatial and channel diversity to minimize dropouts and improve reception.

Handheld transmitter shall have a power on-off/mute switch and a select switch, as well as a timed backlit LCD screen showing transmit channel or user-selectable six-character name, remaining battery life and mute status. The LCD shall be capable of displaying six-character user selectable "name." Seven user selectable "microphone models" shall be selectable using the interface buttons. A "hidden" switch shall provide lockout of the user control buttons. Mic capsule shall be field replaceable.

Beltpack transmitter shall have a slide on-off switch and mute button. Additional "select" and "value" buttons shall be available for selecting operating channel or user-selectable six-character name, transmit "high/low" power and "name" function. Beltpack shall have TA4m-style input jack and be capable of input signal up to 6.5 Vpp peak-to-peak signal.

The receiver LED display shall indicate the current operating channel or user-selectable six-character name, RF present, diversity status, audio level, remaining battery level in the transmitter with a resolution to within 20-minute increments being preferred. In addition, five-bar LEDs shall show audio level, RF performance and remaining battery life.

The system shall be Line 6 XD-V70 system.