

VX-7100/7200 Series

P25 VHF/UHF Mobile Radios

SPECIFICATION SHEET

Durable P25 Interoperability

The conventional VX-7100/7200 Series meets the APCO P25 standards for interoperability and is built with enhanced performance capabilities for dependable public safety and government communications.

P25 Digital Mode Capabilities

Expanded Signaling: Supports selective calling, Talk Group IDs (TGID), Network Access Codes, Individual ID lists and Paging Group lists for the flexible communication you need.

Secure Communication (optional): Options available to support both Advanced Encryption Standard (AES) and Data Encryption Standard (DES) as required by APCO Project 25. Multiple encryption keys can also be stored in the radio.

Mixed Mode: Seamlessly switch between analog to P25 digital mode on each channel based on call type received and on programming for transmit.

Enhanced Voice Quality: Featuring the AMBE+2™ Vocoder, get superior voice quality in both digital P25 and narrow-band modes of operation.

Connectivity Assurance: The RSSI warning emits an audible alert when the receive signal strength drops to a level not suitable for reliable communications.

When Safety Counts

In P25 digital mode, the VX-7100/7200 LED will flash a bright white alert when an emergency signal is received. As with all Vertex Standard mobile radios, the VX-7100/7200 includes built-in Emergency alert in any mode for enhanced safety. A panic button can be triggered from the front panel to alert the dispatcher when problems arise. The VX-7100/7200 also has an internal emergency microphone that can transmit should the regular microphone become damaged or unusable.

Dual-Band Receive for Enhanced Communications

With the Sub-Receiver option, get dual-band receive for greater flexibility and multi-agency interoperability when full situational awareness is a must.

Convenient Calling Options

In analog mode, the VX-7100/7200 provides 2-tone encode and multiple 2-tone decode to alert callers within a group, along with DTMF ANI and DTMF paging for additional calling options.



VX-7100 / VX-7200



Additional Features

- Five programmable front panel keys (VX-7200)
- Three programmable front panel keys (VX-7100)
- 12-Character alphanumeric display (VX-7200)
- Minimum volume
- User set mode
- Public address / horn alert
- D-sub 15 pin accessory connector
- Radio-to-radio cloning

P25 Digital Mode Only

- Caller ID display (VX-7200)
- BCLO and TOT Functions

Analog Mode Only

- CTCSS / DCS Encode and Decode
- MDC1200® Encode
- BCLO / BTLO and TOT Functions
- Dual Watch scan
- Follow-Me scan
- Follow-Me Dual Watch scan
- Compander
- User selectable tone (VX-7200)
- Auto-Range Transpond System (ARTS™)

Accessories

- MH-67A8J: Standard microphone
- MH-53A8J: Noise cancelling microphone
- MH-75A8J: Keypad microphone. (16 keys)
- MD-12A8J: Desktop microphone
- MLS-100: External speaker, 12W
- MLS-200: External speaker, 12W (indoor/outdoor use)
- FP-1030A: External power supply (25 A)
- FP-1023A: External power supply (23 A)
- LF-1: DC Line filter

Option Boards

- SRX-1: Dual-band RX UHF unit (450-512 MHz only)
- SRX-2: Dual-band RX VHF unit

VX-7100/7200 Series Specifications

	VHF	UHF
General Specification		
Frequency Range	134 – 174 MHz	380 – 450 MHz 400 – 470 MHz 450 – 512 MHz
Number of Channels and Groups	501 and 32 Groups (VX-7200) 8 and 1 Group (VX-7100)	
Power Supply Voltage	13.6V DC ± 15%	
Channel Spacing	12.5 / 20 / 25 kHz	
PLL Steps	2.5 / 5 / 6.25 kHz	5 / 6.25 kHz
Current Consumption	TX: 11 A, RX: 2.5 A, Standby: 0.4 A	
Operating Temperature Range	-22° F to +140° F (-30° C to +60° C)	
Frequency Stability	±2.5 ppm	
Dimension (W x H x D)	6.5 x 1.7 x 6.1 inches (165 x 43 x 155 mm)	
Weight (Approx.)	3.1 lbs (1.4 kg)	
Receiver Specification: measured by TIA/EIA-603, TIA-102 CAAA (Digital)		
Sensitivity 12dB SINAD	0.25 µV	0.30 µV
Digital 5% BER	0.25 µV	0.30 µV
Digital 1% BER	0.35 µV	0.40 µV
Adjacent Channel Selectivity (W/N)	85 / 75 dB	80 / 72 dB
Intermodulation	80 dB	
Spurious and Image Rejection	90 dB	85 dB
Audio Output	Internal: 2 W @ 32 Ohms, 5% THD External: 12 W @ 4 Ohms, 5% THD	
Transmitter Specification: measured by TIA/EIA-603, TIA-102 CAAA (Digital)		
Output Power	50 / 25 / 10 W	45 / 25 / 10 W
Modulation	16KDF3E, 11KDF3E	
Analog	8K10F1D / 8K10F1E	
Digital	8K10F1D / 8K10F1E	
FM Hum and Noise (W/N)	46 / 40 dB	
Spurious Emissions	70 dB	
Audio Distortion	< 3% @ 1 kHz	

Applicable MIL-STD

Standard	MIL 810C Methods/ Procedures	MIL 810D Methods/ Procedures	MIL 810E Methods/ Procedures	MIL 810F Methods/ Procedures
Low Pressure	500.1/Procedure II	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II
High Temperature	501.1/Procedure I, II	-	-	-
Low Temperature	502.1/Procedure I	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II
Temperature Shock	503.1/Procedure I	503.2	503.3	503.4/Procedure I, II
Solar Radiation	505.1/Procedure I	-	-	505.4/Procedure I Cat. A
Rain	506.1/Procedure I, II	506.2/Procedure I, II	506.3/Procedure I, II	506.4/Procedure I, II
Humidity	507.1/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	507.4/Procedure I
Salt Fog	509.1	509.2	509.3	509.4
Sand and Dust	510.1	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, II
Vibration	514.2/Procedure VIII, X	514.3 Cat. B	514.4 Cat. B	514.5 Cat. 24
Shock	516.2/Procedure I, II, V	516.3/Procedure I, II, VI	516.4/Procedure I, II, VI	516.5/Procedure I, II, VI

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