

# VX-7200 Series

## P25 VHF/UHF Mobile Radios

### SPECIFICATION SHEET – NORTH AMERICA

### Durable P25 Interoperability

The conventional VX-7200 Series meets 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, Network Access Codes, Individual ID lists and Paging Group lists for flexible communications.

**Secure Communication:** 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, for exceptional voice quality. Suppresses background noise and improves clarity of radio transmission.

**Connectivity Assurance:** The RSSI indicator 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-7200 LED will flash a white alert when an emergency signal is received. As with all Vertex Standard mobile radios, the VX-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-7200 also has an internal emergency microphone that can transmit should the regular microphone become damaged or unusable.

### Convenient Calling Options

In analog mode, the VX-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.

### Exclusive Auto-Range Transpond System – ARTS™

Always know your connection status. Only Vertex Standard radios are designed to inform you when you and another ARTS™-equipped radio are within communication range. If out of range, your radio senses no signal has been received and beeps to alert you. A great solution to keep workers coordinated in analog mode.



VX-7200



### The Vertex Standard Difference

Our number one goal is achieving superior customer satisfaction by delivering products and services that exceed your expectations. Vertex Standard radios are built to last and are backed by an industry-leading 3 year warranty.

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www.vertexstandard.com/lmr

## Additional Features

- ✦ 5 programmable front panel keys
- ✦ 12-Character alphanumeric display
- ✦ Minimum volume
- ✦ User set mode
- ✦ Public address / horn alert
- ✦ Busy Channel Lock Out (BCLO)
- ✦ Time Out Timer (TOT)
- ✦ D-sub 15 pin accessory connector
- ✦ Radio-to-radio cloning

## P25 Digital Mode Only

- ✦ Caller ID display
- ✦ Network Access Code (NAC)

## Analog Mode Only

- ✦ CTCSS / DCS Encode and Decode
- ✦ MDC-1200® Encode
- ✦ DTMF Paging
- ✦ 2-Tone Encode and Multi 2-Tone Decoding
- ✦ Busy Tone Lock Out (BTLO)
- ✦ Dual Watch scan
- ✦ Follow-Me scan
- ✦ Follow-Me Dual Watch scan
- ✦ Componder
- ✦ User selectable tone
- ✦ Auto-Range Transpond System (ARTS™)

## Accessories

- ✦ MH-67A8]: Standard microphone
- ✦ MH-53A8]: Noise cancelling microphone
- ✦ MH-75A8]: DTMF Keypad microphone (16 keys)
- ✦ MD-12A8]: Desktop microphone
- ✦ MLS-100: External speaker, 12 W
- ✦ MLS-200: Waterproof external speaker, 12 W
- ✦ FP-1030A: External power supply (25 A)
- ✦ SEC-1223: External power supply (23 A)
- ✦ LF-1: DC Line filter

## VX-7200 Series Specifications

|   | VHF  | UHF                            |
|---|--|--------------------------------|
| <b>General Specification</b>  |  |                                |
| Frequency Range   | 134 – 174 MHz  | 380 – 450 MHz<br>450 – 512 MHz |
| Number of Channels and Groups   | 501 and 32 Groups (VX-7200)  |                                |
| Power Supply Voltage  | 13.6 V DC ± 15%  |                                |
| Channel Spacing   | 12.5 / 20* / 25* kHz   |                                |
| PLL Steps   | 2.5 / 5 / 6.25 kHz   | 5 / 6.25 kHz                   |
| Current Consumption   | TX: 1.1 A, RX: 1.6 A, Standby: 0.4 A                               |                                |
| Operating Temperature Range   | -22°F to +140°F (-30°C to +60°C)                                   |                                |
| Frequency Stability   | ±2.5 ppm   |                                |
| Dimension (H x W x D)   | 1.7 x 6.5 x 6.1 inches (43 x 165 x 155 mm)                         |                                |
| Weight (Approx.)  | 3.1 lbs (1.4 kg)   |                                |
| <b>Receiver Specification: measured by TIA/EIA-603, TIA-102 CAAA (Digital)</b>    |  |                                |
| 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   | 85 / 72 dB                     |
| Intermodulation   | 80 / 75 dB   |                                |
| Spurious and Image Rejection  | 90 dB  | 85 dB                          |
| Audio Output  | Internal: 2 W @ 32 Ohms, 5% THD<br>External: 12 W @ 4 Ohms, 5% THD |                                |
| <b>Transmitter Specification: measured by TIA/EIA-603, TIA-102 CAAA (Digital)</b> |  |                                |
| Output Power  | 50 / 25 / 10 W   | 45 / 25 / 10 W                 |
| Modulation  | 16K0F3E, 11K0F3E<br>8K10F1D / 8K10F1E                              |                                |
| FM Hum and Noise (W/N)  | 46 / 40 dB   |                                |
| Spurious Emissions  | 70 dB  |                                |
| Audio Distortion  | < 3% @ 1 kHz   |                                |

## Applicable MIL-STD

| Standard          | Methods/Procedures |                      |                      |                      |
|-------------------|--------------------|----------------------|----------------------|----------------------|
|                   | MIL 810C           | MIL 810D             | MIL 810E             | MIL 810F             |
| Low Pressure      | 500.1 / II         | 500.2 / I, II        | 500.3 / I, II        | 500.4 / I, II        |
| High Temperature  | 501.1 / I, II      | –                    | –                    | –                    |
| Low Temperature   | 502.1 / I          | 502.2 / I, II        | 502.3 / I, II        | 502.4 / I, II        |
| Temperature Shock | 503.1 / I          | 503.2                | 503.3                | 503.4 / I, II        |
| Solar Radiation   | 505.1 / I          | –                    | –                    | 505.4 / I Cat. AI    |
| Rain              | 506.1 / I, II      | 506.2 / I, II        | 506.3 / I, II        | 506.4 / I, II        |
| Humidity          | 507.1 / I, II      | 507.2 / II, III      | 507.3 / II, III      | 507.4 / I            |
| Salt Fog          | 509.1              | 509.2                | 509.3                | 509.4                |
| Sand and Dust     | 510.1              | 510.2 / I            | 510.3 / I            | 510.4 / I, III       |
| Vibration         | 514.2 / VIII, X    | 514.3 / Cat. 8       | 514.4 / Cat. 8       | 514.5 / Cat. 24      |
| Shock             | 516.2 / I, III, V  | 516.3 / I, IV, V, VI | 516.4 / I, IV, V, VI | 516.5 / I, IV, V, VI |

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\*25 kHz will not be available on new equipment in the U.S.A. after 1/1/2013. © 2014 Vertex Standard LMR, Inc. All rights reserved. NSS\_7200\_05/2014