

# VX-6000 Series

## Low Band VHF/UHF Mobile Radios

### SPECIFICATION SHEET

#### High Output Power For Greater Coverage

Ready to get your message across, the VX-6000 delivers high performance with 120W Low Band, 110W VHF and 100W UHF adjustable power output.

#### Large Channel Capacity For Greater Reach

The VX-6000 provides convenient communications planning with its 250 channel capacity and the ability to program up to 250 memory groups with no limit on the number of channels in each group.

#### Built For Durability

The one-piece die-cast enclosure for the VX-6000 doubles as its chassis, yielding extreme strength for resistance against shock and vibration and avoids over-heating.

#### Multi-Configuration For Dual-Band Capability

One VX-6000 Control Head and two RF Decks on different bands may be networked for dual-band operation. Low Band, VHF or UHF radios may be combined to meet complex communications requirements involving federal, state and local government operations.

#### When Safety Counts

As with all Vertex Standard mobile radios, the VX-6000 Series comes standard with built-in Emergency alert for enhanced driver safety. A panic button can be triggered by the front panel button to alert the dispatcher when problems arise. The VX-6000 also has an internal emergency microphone that can transmit should the regular microphone become damaged or unusable.

#### Loud, Full-Sounding Audio

Audio companding ensures full-sounding audio for narrow band channel applications. The VX-5500 also has 5W high-powered audio output for crisp audio that helps you hear in noisy environments. Plus use the optional 10W rear external speaker for enhanced clarity.

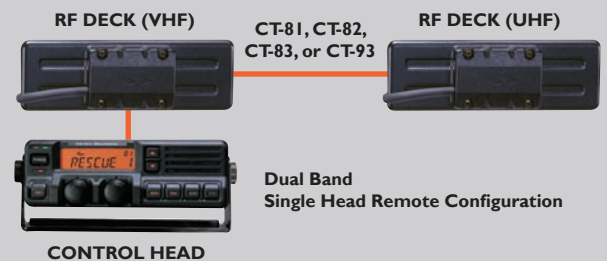
#### Exclusive Auto-Range Transpond System – ARTS™

Only Vertex Standard radios are designed to inform you when you and another ARTS™-equipped station are within communication range. If out of range for more than 2 minutes, your radio senses no signal has been received and beeps to alert you. The base station can then alert the field unit to move back in range. A great solution to keep your workers coordinated.



#### 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 – another great reason to choose Vertex Standard. Ask your Dealer for more details.



## Additional Features

- Seven programmable backlit keys
- 8-Character alphanumeric display
- DTMF ANI
- CTCSS / DCS Encode and Decode
- BCLO / BTLO and TOT Functions
- Status quick check
- Compander
- Internal emergency microphone (front panel)
- Priority scan
- Dual Watch scan
- Group scan
- D-sub 25 pin accessory connector
- Water shield microphone connector
- Public address / horn alert
- User-selectable tones
- Radio-to-radio cloning

## Accessories

- MH-53C7A: Standard microphone
- MH-53A7A: Noise cancelling microphone
- MH-53B7A: Noise cancelling keypad mic. (12 keys)
- MLS-100: External speaker, 12W
- MLS-200: External speaker, 12W (indoor/outdoor use)
- FP-1023A: External Power Supply
- MMB-77: Mobile mounting bracket
- MMB-79: Locking mobile mounting bracket
- LF-1: DC Line filter
- CNT-6000: Control head
- RFDECK: RF Deck for dual-band configuration
- RMK-4000H: Cover for CNT-6000
- RMK-4000B: Cover for RF deck
- CNT-5000: Motorcycle control head
- VCS-5000: Channel selector
- BSC-5000: Base station console

## Option Boards

- FVP-25: Voice inversion encryption & DTMF paging
- FVP-35: Rolling code encryption
- FVP-36: Voice inversion encryption only
- FIF-7A: Interface for optional boards
- F2D-8: 2-Tone decode (requires FIF-7A)
- F5D-14: 5-Tone encode/decode (requires FIF-7A)
- VME-100: MDC1200® / GE Star® ANI Encode
- CN-6: Interface for accessories

## VX-6000 Series Specifications

|   | Low Band  | VHF                   | UHF                                  |
|---|---|-----------------------|--------------------------------------|
| <b>General Specification</b>                              |   |                       |                                      |
| Frequency Range   | 37 – 50 (B)   | 148 – 174 MHz (C)     | 450-480 MHz (D)<br>450-490 MHz (DS1) |
| Number of Channels and Groups                             | 250 and 250 Groups  |                       |                                      |
| Power Supply Voltage                                      | 13.4V DC ± 15%  |                       |                                      |
| Channel Spacing   | 20 kHz  | 12.5 / 25 kHz         |                                      |
| PLL Steps   | 5 / 6.25 kHz  | 2.5 / 5 / 6.25 kHz    |                                      |
| Current Consumption: TX                                   | 22A   | 25A                   | 28A                                  |
| Current Consumption:                                      | 2.2A  |                       |                                      |
| RX  | 600 mA  |                       |                                      |
| STBY  |   |                       |                                      |
| Operating Temperature Range                               | -22° F to +140° F (-30° C to +60° C)                            |                       |                                      |
| Frequency Stability                                       | Better than ±5 ppm  | Better than ± 2 ppm   |                                      |
| RF Input-Output Impedance                                 | 50 Ohms   |                       |                                      |
| Dimension (W x H x D)                                     | 7 x 2.4 x 11.9 inches (178 x 60 x 301 mm)                       |                       |                                      |
| Weight (Approx.)  | 15.4 lbs (6.9 kg)   |                       |                                      |
| <b>Receiver Specification: measured by TIA/EIA-603</b>    |   |                       |                                      |
| Sensitivity 12dB SINAD                                    | 0.25 µV   |                       |                                      |
| Adjacent Channel Selectivity                              | 85 dB   | 85 / 80 dB            | 85 / 77 dB                           |
| Intermodulation   | 85 dB   | 80 / 75 dB            | 80 / 75 dB                           |
| Spurious and Image Rejection                              | 90 dB   |                       |                                      |
| Audio Output  | Internal: 5 W @ 4 Ohms, 3% THD; External: 10 W @ 4 Ohms, 3% THD |                       |                                      |
| <b>Transmitter Specification: measured by TIA/EIA-603</b> |   |                       |                                      |
| Output Power  | 120W adjustable to 50W  | 110W adjustable to 5W | 100W adjustable to 5W                |
| Modulation  | 16K0F3E, 11K0F3E  |                       |                                      |
| Maximum Deviation   | 5 kHz   | 5.0 / 2.5 kHz         |                                      |
| Conducted Spurious Emissions                              | 80 dB below carrier   |                       |                                      |
| Audio Distortion  | < 2% @ 1 kHz  |                       |                                      |

## Applicable MIL-STD

| Standard                 | MIL 810C<br>Methods/<br>Procedures | MIL 810D<br>Methods/<br>Procedures | MIL 810E<br>Methods/<br>Procedures |
|--------------------------|------------------------------------|------------------------------------|------------------------------------|
| Low Pressure             | -                                  | 500.2/Procedure II                 | 500.3/Procedure II                 |
| High Temperature         | 501.1/Procedure II                 | 501.2/Procedure I, II              | 501.3/Procedure I, II              |
| Low Temperature          | 502.1/Procedure I                  | 502.2/Procedure I, II              | 502.3/Procedure I, II              |
| Temperature Shock        | 503.1/Procedure I                  | 503.2/Procedure I                  | 503.3/Procedure I                  |
| Solar Radiation          | 505.1/Procedure I                  | 505.2/Procedure I                  | 503.3/Procedure I                  |
| Rain (control head only) | -                                  | 506.2/Procedure I, II              | 506.3/Procedure I, II              |
| Humidity                 | 507.1/Procedure II                 | 507.2/Procedure II                 | 507.3/Procedure II                 |
| Salt Fog                 | -                                  | 509.2/Procedure I                  | 509.3/Procedure I                  |
| Dust                     | -                                  | 510.2/Procedure I                  | 510.3/Procedure I                  |
| Vibration                | 514.2/Procedure VIII, X            | 514.3/Procedure I Cat 10           | 514.4/Procedure I Cat. 10          |
| Shock                    | 516.2/Procedure I, V               | 516.3/Procedure I, IV              | 516.4/Procedure I, IV              |

Specifications are subject to change without notice or obligation.

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