

# VX-231

## VHF/UHF Portable Radios

### SPECIFICATION SHEET – NORTH AMERICA

### The Essential Radio for General Communications

Get cost-effective communications with the VX-231 radio that delivers more features and performance in its class for maximum return on investment.

#### Easy to Carry

A radio that won't get in the way, the VX-231 is compact and lightweight without sacrificing the performance and reach needed on the job.

#### Battery Power Options For Every Budget

Designed to use powerful Li-Ion battery technology providing up to 19 hours of operation. Activate/deactivate the battery saver function for additional battery life management.

#### Safety Features Not Sacrificed

As with all Vertex Standard portable radios, the VX-231 includes both Emergency and Lone Worker alert functions to help monitor user safety. The Emergency alert can be programmed to instantly notify help with a press of a button.

The Lone Worker function is a built-in timer that requires the user to reset at a predetermined interval. If not reset, the radio automatically switches to Emergency mode to alert help. An ideal solution for supervisors to monitor the safety status of radio users working alone in isolated areas.

#### More Scanning Options

While many radios provide one or two scanning options, the VX-231 radio has four scanning options for greater convenience and flexibility in the way you need your radios to perform. Options include: Priority, Dual Watch, Follow Me and Talk Around scan.

#### 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 your workers coordinated.



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#### 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

- ▶ 16 channel capacity
- ▶ Two programmable keys
- ▶ Battery power save
- ▶ Emergency
- ▶ Lone Worker
- ▶ DTMF ANI
- ▶ DTMF Speed Dial
- ▶ 2-Tone Encode and Decode
- ▶ CTCSS / DCS Encode and Decode
- ▶ Manual squelch adjustment
- ▶ Radio-to-radio cloning

#### Accessories

- ▶ MH-450S: Speaker microphone
- ▶ MH-360S: Compact speaker microphone
- ▶ MH-45B4B: Noise canceling speaker microphone
- ▶ MH-37A4B: Earpiece microphone
- ▶ VH-115S: Behind-the-head headset with boom mic
- ▶ VH-215S: Over-the-head single-muff headset
- ▶ FNB-VI32LI-UNI: 2300 mAh Li-Ion Battery
- ▶ FNB-VI04LIA: 2300 mAh Li-Ion battery
- ▶ FNB-VI31LI-UNI: 1380 mAh Li-Ion battery
- ▶ FNB-VI03LIA: 1380 mAh Li-Ion battery
- ▶ VAC-UNI: Single unit charger for UNI batteries
- ▶ VAC-6058: Multi unit charger for UNI batteries
- ▶ VAC-300: Desktop rapid charger (non-UNI)
- ▶ VAC-6300: 6-Unit multi-rapid charger (non-UNI)
- ▶ DCM-1: Desktop charger mounting adapter (VAC-300)
- ▶ VCM-2: Vehicle charger mounting adapter (VAC-300)
- ▶ LCC-351: Leather case
- ▶ LCC-351S: Leather case with swivel belt clip
- ▶ CLIP-18: Belt clip
- ▶ CLIP-17E: Swivel belt clip

#### VX-231 Specifications

	VHF	UHF
<b>General Specification</b>		
Frequency Range	134 - 174 MHz	400 - 470 MHz, 450 - 512 MHz
Number of Channels	16	
Power Supply Voltage	7.4V DC ± 20%	
Channel Spacing	12.5 / 20* / 25* kHz	
PLL Steps	2.5 / 5 / 6.25 kHz	5 / 6.25 kHz
Battery Life (5-5-90 duty)	19 hours (w/saver) / 15.5 hours	
2300 mAh FNB-VI32LI-UNI 2300 mAh FNB-VI04LIA		
1380 mAh FNB-VI31LI-UNI 1380 mAh FNB-VI03LIA	10.8 hours (w/saver) / 8.8 hours	
IP Rating	IP 54	
Operating Temperature Range	-22°F to +140°F (-30°C to +60°C)	
Frequency Stability	±2.5 ppm	
RF Input-Output Impedance	50 Ohms	
Dimension (H x W x D)	4.3 x 2.2 x 1.4 inches (110 x 58 x 36 mm) 2300 mAh battery options 4.3 x 2.2 x 1.2 inches (110 x 58 x 30 mm) 1380 mAh battery options	
Weight (Approx.) with Antenna, Belt Clip	11.6 oz (329 g) FNB-VI32LI-UNI 11.5 oz (326 g) FNB-VI04LIA 10.2 oz (288 g) FNB-VI31LI-UNI 10.1 oz (287 g) FNB-VI03LIA	

#### Receiver Specification: measured by TIA/EIA-603

Sensitivity 12dB SINAD	0.25 µV typical
Adjacent Channel Selectivity	65 / 60 dB 25 kHz / 12.5 kHz
Intermodulation	65 / 60 dB 25 kHz / 12.5 kHz
Spurious and Image Rejection	65 dB
Audio Output	500 mW @ 4 Ohms, 5% THD

#### Transmitter Specification: measured by TIA/EIA-603

Output Power	5 / 1 Watt
Modulation	16K0F3E, 11K0F3E
Conducted Spurious Emissions	65 dB below carrier
FM Hum and Noise	45 / 40 dB 25 kHz / 12.5 kHz
Audio Distortion	< 3 % @1 kHz

#### Applicable MIL-STD

Standard	Methods/Procedures			
	MIL 810C	MIL 810D	MIL 810E	MIL 810F
Low Pressure	500.1 / I	500.2 / I, II	500.3 / I, II	500.4 / I, II
High Temperature	501.1 / I	501.2 / I, II	501.3 / I, II	501.4 / I, II
Low Temperature	502.1 / I	502.2 / I	502.3 / I, II	502.4 / I, II
Temperature Shock	503.1 / I	503.2 / I	503.3 / I	503.4 / I, II
Solar Radiation	505.1 / I	505.2 / I Cat. A-I	505.2 / I Cat. A-I	505.4 / I Cat. A-I
Rain	506.1 / I, II	506.2 / I, II	506.3 / I, II	506.4 / I, III
Humidity	507.1 / I, II	507.2 / II, III	507.3 / II, III	507.4 / I
Salt Fog	509.1 / I	509.2 / I	509.3 / I	509.4 / I
Dust	510.1 / I	510.2 / I	510.3 / I	510.4 / I, III
Vibration	514.2 / X	514.3 / I Cat. 10	514.4 / I Cat. 10	514.4 / I Cat. 24
Shock	516.2 / I, II, V	516.3 / I, IV	516.4 / I, IV	516.5 / I, IV

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