

# VX-230 Series

### VHF/UHF Portable Radios

**SPECIFICATION SHEET** 

# Compact Radio with Long-Lasting Li-Ion Battery

The Vertex Standard VX-231 provides wider band coverage, more signaling features and improved ergonomics\* that adds up to a better return on your investment.

#### **Improved Portability**

A radio that won't get in the way, the VX-231 is more compact and lightweight than the VX-160E series. A radio that is easier to carry with you on the job.

#### **More Battery Power**

Designed to use powerful Li-lon battery technology for longer battery life. Includes a 1150 mAh battery providing 9 hours of operation with the battery saver enabled.

#### Wide Band Coverage for Added Value

One radio designed to cover VHF and UHF bands, which provides expanded options in frequencies to use.

#### **More Scanning Options**

While many radios provide I or 2 scanning options, the VX-23 I radio gives you 4 additional scanning options for greater convenience and flexibility for the way you need your radios to perform. Options include: Priority, Dual Watch, Follow Me and Talk Around scan.

#### **Exclusive Auto-Range Transponding System – ARTS™**

Only Vertex Standard radios are designed to inform you when you and another ARTS  $^{\text{TM}}$ -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.

 $^*$ Compared to VX-160E series.





#### **The Vertex Standard Difference**

Our number one goal is achieving superior customer satisfaction by delivering products and services that exceed your expectations. Count on Vertex Standard for radios that are built to last and designed to provide more features for a better return on your investment. Ask your Dealer for more details.

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#### **Additional Features**

- · 16 channel capacity
- Two programmable keys
- Flexible channel spacing: 12.5 kHz to 25 kHz
- Battery power save option
- Emergency
- · Lone Worker
- DTMFANI
- · DTMF Speed Dial
- 5-Tone / 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 cancelling speaker microphone
- MH-37A4B: Earpiece microphone
- VH-115S: Behind-the-head headset w/boom mic
- VH-215S: Over-the-head single-muff headset
- VC-25: Over-the-head VOX headset
- FNB-V104LI: 2000 mAh Li-lon battery
- FNB-V103LI: 1150 mAh Li-lon battery
- FNB-V106: I200 mAh Ni-MH battery
- VAC-300: Desktop rapid charger (Li-lon only)
- VAC-20: Desktop charger (FNB-V106)
- DCM-I: Desktop charger mounting adapter
- VCM-2: Vehicle charger mounting adapter (VAC-300)
- VCM-3: Vehicle charger mounting adapter (for VAC-20)
- VAC-6300: 6-Unit multi rapid charger (Li-Ion only)
- VAC-6020 : 6-Unit charger (FNB-V106)
- LCC-350: Leather case
- LCC-350S: Leather case w/swivel belt clip
- CLIP-18: Belt clip
- CLIP-17E: Swivel belt clip

## **VX-230 Series Specifications**



	VHF	UHF			
General Specification					
Frequency Range	134 MHz - 174 MHz	400 - 470 MHz			
Number of Channels	16				
Power Supply Voltage	7.4 V DC±20%				
Channel Spacing	12.5/20/25 kHz				
PLL Steps	5 / 6.25 KHz				
Battery Life (5-5-90 duty) 1150 mAh FNB-V103LI 1200 mAh FNB-V106 With 2000 mAh FNB-V104LI	9.0 hours (7.3 hours w/o saver) 9.0 hours (7.3 hours w/o saver) 16.5 hours (13.5 hrs w/o saver)				
P Rating Townsomt up Bonso		IP54 -25° C to +60° C			
Operating Temperature Range Frequency Stability					
RF Input-Output Impedance		±2.5 ppm  50 Ohms			
Dimension (H x W x D)		110 x 58 x 30 mm (w/ FNB-V103LI)			
Weight (Approx.)	285 g (w/FNB-V103LI,Antenna, Belt Clip)				
Receiver Specification mea	sured by EN 300 086				
Sensitivity 20 dB SINAD	- 3 dBµ	- 3 dBµV emf			
Adjacent Channel Selectivity	70 dB				
Intermodulation	65 dB				
Spurious and Image Rejection	65 dB				
Audio Output	500mW @ 4 Ohms 5%THD				
Transmitter Specification measured by EN 300 086					
Output Power	5 / 1	5 / I W			
Modulation Limiting	±5.0 kHz @ 25 kHz ±4.0 kHz @ 20 kHz ±2.5 kHz @ 12.5 kHz				
Modulation	16K0F3E, 11K0F3E				
Spurious Emissions	-36 dBm ≤ 1 GHz,	-36 dBm ≤   GHz, -30 dBm >   GHz			
FM Hum & Noise	45 / 40 dB 25 kHz / 12.5 kHz				
Audio Distortion	< 3 % @	< 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 1	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II
High Temperature	501.1/Procedure I	501.2/Procedure I, II	501.3/Procedure 1,11	501.4/Procedure 1, II
Low Temperature	502.1/Procedure I	502.2/Procedure I	502.3/Procedure I, II	502.4/Procedure I, II
Temperature Shock	503.1/Procedure I	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II
Solar Radiation	505.1/Procedure I	505.2/Procedure   Cat.A1	505.2/Procedure I Cat. AI	505.4/Procedure I Cat.AI
Rain	506.1/Procedure 1,11	506.2/Procedure I, II	506.3/Procedure I, II	506.4/Procedure I, III
Humidity	507.1/Procedure 1,11	507.2/Procedure II, III	507.3/Procedure II, III	507.4/Procedure I
Salt Fog	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4/Procedure I
Dust	510.1/Procedure 1	510.2/Procedure I	510.3/Procedure I	510.4/Procedure 1, III
Vibration	514.2/Procedure X	514.3/Procedure 1 Cat. 10	514.4/Procedure I Cat. 10	514.4/Procedure 1 Cat. 24
Shock	516.2/Procedure I, II,V	516.3/Procedure 1, IV	516.4/Procedure 1, IV	516.5/Procedure 1,V