

# EVX-530 SERIES

## DIGITAL PORTABLE RADIOS

DMR Tier 2 Standard

SPECIFICATION SHEET

**Vertex Standard**

eVerge™

## Evolve to Better Communication and Value

You can afford to enhance your communications with the digital performance of eVerge™ two-way radios. eVerge™ radios are compact and precision-engineered to deliver value without sacrificing quality — giving you more capabilities and the flexibility you need to communicate at your best.

### Conversion Made Easy with Analog Integration

eVerge™ radios operate in both analog and digital modes and can be used with any existing analog two-way radios.

### Do Digital Right: Stay Compatible and Maximize Efficiency

eVerge™ digital radios operate using the TDMA protocol for spectrum and power efficiency and lower total equipment cost compared to FDMA.

### Better Radio Call Quality

Digital eliminates noise and static from voice transmit to only deliver the intended voice message crisply and clearly. eVerge™ digital radios feature the AMBE+2™ vocoder for enhanced voice quality.

### Better Battery Life

Using eVerge™ radios in digital mode can operate up to 40% longer than typical analog mode as a result of the TDMA protocol and reduces overall battery consumption per call.

### Better Message Control and Privacy

Control who you call and who gets your message in digital mode. Digital radios each have a unique ID enabling users to select who they need to call or send a text message without including others.

### Better Coverage and Connection Monitoring with ARTS II™

Get ultra-clear audio right up to the edge of the transmit range. And, with Vertex Standard's exclusive Auto-Range Transpond System [ARTS II], you will always know when you are in or out of range with another ARTS II-equipped radio.

### Submersible and Weatherproof

Meets international standard IP 57 for dust and water protection where fresh water does not harm the radio when submersed to 3 feet for up to 30 minutes.

### Intrinsically Safe Option

Available as a future release: will meet SGS intrinsically safe requirements for use in hazardous situations.

### Option Board Expandable for Additional Applications

The EVX-530 series is designed for future feature expansion and supporting third-party application development such as location tracking with GPS, rolling code encryption, etc.



EVX-531

EVX-534

EVX-539

4.1" H x 2.3" W x 1.34" D



Option Board  
Expandability



IP 57



## SPECIFICATION SHEET

### Additional Features

- ▶ 9 Programmable keys [EVX-539]
- ▶ 7 Programmable keys [EVX-534]
- ▶ 3 programmable keys [EVX-531]
- ▶ 8-Character alpha numeric display [EVX-534/539]
- ▶ Programmable tri-color LED custom call alert
- ▶ Voice compander
- ▶ Internal VOX
- ▶ Whisper mode
- ▶ RSSI Indicator [EVX-534/539]
- ▶ Voice inversion encryption [EVX-534/539]
- ▶ CTCSS/DCS encode/decode
- ▶ MDC-1200® encode/decode
- ▶ 2-Tone encode/decode
- ▶ 5-Tone encode/decode [EVX-534/539]
- ▶ Lone worker alert
- ▶ Emergency alert
- ▶ DTMF Telephone Interconnect/ANI
- ▶ DTMF Paging [EVX-534/539]
- ▶ Remote stun/kill/revive [EVX-534/539]
- ▶ Key lock
- ▶ Voice channel announce
- ▶ Priority scan
- ▶ Dual Watch scan
- ▶ Follow-me scan
- ▶ Nuisance channel delete
- ▶ Radio-to-radio cloning [EVX-534/539]

### Digital Mode Features

- ▶ Enhanced privacy [EVX-534/539]
- ▶ Text messaging [EVX-534/539]
- ▶ All call, Group call, Individual call
- ▶ Escalart
- ▶ Remote monitor
- ▶ PTT ID encode [EVX-531]
- ▶ PTT ID encode/decode [EVX-534/539]
- ▶ Mixed mode scan
- ▶ One touch access [EVX-534/539]
- ▶ 128 Record contact list [EVX-534/539]

### Accessories

- ▶ MH-37A4B: Earpiece microphone (RX/TX)
- ▶ MH-81A4B: Over-the-head light duty VOX headset
- ▶ MH-360S: Compact speaker microphone
- ▶ MH-450S: Speaker microphone
- ▶ MH-66A4B: IP 57 Submersible microphone
- ▶ FNB-V133LI-UNI: 1380 mAh Li-Ion battery
- ▶ FNB-V134LI-UNI: 2300 mAh Li-Ion battery
- ▶ VAC-UNI: Single-unit charger
- ▶ CLIP-20: Belt clip
- ▶ Leather cases available

### EVX-530 Series Specifications

General Specifications		
Frequency Range	VHF: 136 – 174 MHz	UHF: 403 – 470 MHz 450 – 512 MHz
Number of Channels and Groups	32 / 2 [EVX-531]; 512 / 32 [EVX-534/539]	
Power Supply Voltage	7.5 V nominal	
Channel Spacing	25*/20*/12.5 kHz	
Battery Life (5-5-90 duty w/battery saver) FNB-V134LI-UNI: 2300 mAh Li-Ion FNB-V133LI-UNI: 1380 mAh Li-Ion	VHF: 15.8 hrs [digital] / 12.0 hrs [analog] 9.7 hrs [digital] / 7.4 hrs. [analog]	UHF: 15.2 hrs [digital] / 11.5 hrs. [analog] 9.1 hrs [digital] / 7.0 hrs. [analog]
IP Rating	IP 57	
Operating Temperature Range	-22° F to +140° F [-30° C to +60° C]	
Dimension [H x W x D]	4.1 x 2.3 x 1.34 inches [106.7 x 58.5 x 34 mm] [w/FNB-V133LI-UNI]	
Weight [Approx.]	9.9 oz [280 g] w/FNB-V133LI-UNI, 11.5 oz [325 g] w/FNB-V134LI-UNI	
Receiver Specifications		
Sensitivity:	Analog 12 db SINAD: 0.25 uV	
	Digital 1% BER: 0.28 uV	
Adjacent Channel Selectivity	TIA603: 70/60 dB	
	TIA603C: 70/45 dB	
Intermodulation	65 dB	
Spurious Rejection	70 dB	
Audio Output	500 mW @ 4 Ohms [INT] 350 mW @ 4 Ohms [EXT]	
Hum and Noise	40 dB	
Conducted Spurious Emission	-57 dBm	
Transmitter Specifications		
Output Power	5.0/2.5/1.0/0.25W	
Modulation Limiting	16K0F3E / 11K0F3E	
Conducted Spurious Emission	70 dB below carrier	
Hum and Noise	40 dB	
Audio Distortion	<5% [3% typical]	
Frequency Stability	±1.5 ppm	
4FSK Digital Modulation	7K60F1D / 7K60F1E	
Digital Protocol	ETSI TS 102 361-1, -2, -3	

### Applicable MIL-STD

Standard	Methods/Procedures				
	MIL 810C	MIL 810D	MIL 810E	MIL 810F	MIL 810G
Low Pressure	500.1/I	500.2/I,II	500.3/I,II	500.4/I, II	500.5/I, II
High Temperature	501.1/I,II	501.2/I, II	501.3/I, II	501.4/I, II	501.5/I, II
Low Temperature	502.1/I	502.2/I, II	502.3/I, II	502.4/I, II	502.5/I, II
Temperature Shock	503.1/I	503.2/I	503.3/I	503.4/I	-
Solar Radiation	505.1/I,II	505.2/II Cat. AI	505.3/II Cat. AI	505.4/I, II Cat. AI	-
Rain	506.1/I, II	506.2/I, II	506.3/I, II	506.4/I, III	506.5/I, II
Humidity	507.1/I,II	507.2/II, III	507.3/II, III	507.4/III	507.5/I, III
Salt Fog	509.1/I	509.2/I	509.3/I	509.4 / I	509.5/I
Dust	510.1/I	510.2/I	510.3/I	510.4/I, III	510.5/I
Vibration	514.2/VIII, X	514.3/Cat. 10	514.4/Cat. 10	514.5/ Cat. 20, 24	514.6/ Cat. 20, 24
Shock	516.2/I, III, V	516.3/I, IV	516.4/I, IV	516.5/I, IV	516.6/I, IV