

# EVX-530 SERIES

## DIGITAL PORTABLE RADIOS

DMR Tier 2 Standard

**Vertex Standard**

eVerge™

SPECIFICATION SHEET - NORTH AMERICA

## 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 in transmit mode.

### 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 for Hazardous Locations

Intrinsically safe models are SGS certified to the requirements of ANSI/UL913 5th Edition for use in Class I, II, III, Division 1; Groups C,D,E,F,G; Temp T3C hazardous locations.

### 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, telemetry, etc.



EVX-531

EVX-534

EVX-539



Option Board  
Expandability



IP 57



## 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
- ▶ Internal VOX
- ▶ RSSI Indicator [EVX-534/539]
- ▶ Voice inversion encryption [EVX-534/539]
- ▶ Lone worker alert
- ▶ Emergency alert
- ▶ Key lock
- ▶ Voice channel announce
- ▶ Priority scan
- ▶ Dual Watch scan
- ▶ Follow-me scan
- ▶ Nuisance channel delete
- ▶ Radio-to-radio cloning
- ▶ Option board expandable [EVX-534/539]

## Analog Mode Features

- ▶ Voice compander
- ▶ Whisper mode
- ▶ CTCSS/DCS encode/decode
- ▶ MDC-1200® encode/decode
- ▶ 2-Tone encode/decode
- ▶ 5-Tone encode/decode
- ▶ DTMF Telephone Interconnect/ANI
- ▶ DTMF Paging [EVX-539]
- ▶ Remote stun/kill/revive [5-tone]

## Digital Mode Features

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

## Accessories

- ▶ 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
- ▶ FNB-V134LIIS-UNI: 2300 mAh Li-Ion Battery [IS]
- ▶ VAC-UNI: Single-unit charger
- ▶ VAC-6058: Multi-unit charger
- ▶ FBA-41: Alkaline battery case [AA]
- ▶ CLIP-20: Belt clip
- ▶ Leather cases

## EVX-530 Series Specifications

General Specifications		
<b>Frequency Range</b>	VHF: 136 – 174 MHz	UHF: 403 – 470 MHz / 450 – 512 MHz
<b>Number of Channels and Groups</b>	32 / 2 [EVX-531]; 512 / 32 [EVX-534/539]	
<b>Power Supply Voltage</b>	7.5 V nominal	
<b>Channel Spacing</b>	25*/20*/12.5 kHz	
<b>Battery Life</b> (5-5-90 duty w/battery saver)	VHF: FNB-V134LI-UNI: 2300 mAh Li-Ion 17.0 hrs [digital] / 14.0 hrs [analog]	UHF: 16.1 hrs [digital] / 13.6 hrs [analog]
	FNB-V134LIIS-UNI: 2300 mAh Li-Ion 17.0 hrs [digital] / 14.0 hrs [analog]	16.1 hrs [digital] / 13.6 hrs [analog]
	FNB-V133LI-UNI: 1380 mAh Li-Ion 9.8 hrs [digital] / 8.1 hrs [analog]	9.3 hrs [digital] / 8.0 hrs [analog]
<b>IP Rating</b>	IP 57	
<b>Operating Temperature Range</b>	-22° F to +140° F [-30° C to +60° C]	
<b>Storage Temperature Range</b>	-40° F to +185° F [-40° C to +85° C]	
<b>Dimension [H x W x D]</b>	4.4 x 2.3 x 1.5 inches [112.5 x 57.5 x 38 mm] w/FNB-V134LI-UNI [and IS] 4.4 x 2.3 x 1.2 inches [112.5 x 57.5 x 30.5 mm] [w/FNB-V133LI-UNI]	
<b>Weight Approx. w/Antenna, Belt Clip</b> EVX-531; EVX-534/539	9.4 oz [276 g]; 10.9 oz [310 g] w/FNB-V133LI-UNI 11.1 oz [315 g]; 12.7 oz [360 g] w/FNB-V134LI-UNI 11.3 oz [320 g]; 12.9 oz [365 g] w/FNB-V134LIIS-UNI	
Receiver Specifications <small>measured by TIA/EIA 603C</small>		
<b>Sensitivity</b>	Analog 12 dB SINAD: 0.25 uV Digital 1% BER: 0.28 uV	
<b>Adjacent Channel Selectivity</b>	TIA603: 70/60 dB TIA603B: 70/45 dB	
<b>Intermodulation</b>	65/60 dB	
<b>Spurious Rejection</b>	70 dB	
<b>Audio Output</b>	EVX-531: 500 mW @ 4 Ohms [INT] / 350 mW @ 4 Ohms [EXT] EVX-534/539: 700 mW @ 16 Ohms [INT] / 350 mW @ 4 Ohms [EXT]	
<b>Hum and Noise</b>	40 dB	
<b>Conducted Spurious Emission</b>	-57 dBm	
Transmitter Specifications <small>measured by TIA/EIA 603C</small>		
<b>Output Power</b>	5.0/2.5/1.0/0.25W	
<b>Emission Designator [Analog]</b>	16K0F3E/14K0F3E/11K0F3E	
<b>Modulation Limiting</b>	Analog: +/- 5 kHz [25 kHz]; +/- 2.5 kHz [12.5 kHz] Digital [FID]: 5% Symbol Deviation: 1745 Hz - 2138 Hz	
<b>Conducted Spurious Emission</b>	70 dB below carrier	
<b>Hum and Noise</b>	45/40 dB	
<b>Audio Distortion</b>	3%	
<b>Frequency Stability</b>	±1.5 ppm	
<b>4FSK Digital Modulation</b>	Data: 7K60F1D / 7K60FXD Voice: 7K60F1E / 7K60FXE	
<b>Digital Protocol</b>	ETSITS 102 361-1, -2, -3	

## Applicable MIL-STD

Standard	Methods/Procedures				
	MIL 810C	MIL 810D	MIL 810E	MIL 810F	MIL 810G
<b>Low Pressure</b>	500.1/I	500.2/I,II	500.3/I,II	500.4/I, II	500.5/I, II
<b>High Temperature</b>	501.1/I,II	501.2/I, II	501.3/I, II	501.4/I, II	501.5/I, II
<b>Low Temperature</b>	502.1/I	502.2/I, II	502.3/I, II	502.4/I, II	502.5/I, II
<b>Temperature Shock</b>	503.1/I	503.2/I	503.3/I	503.4/I	-
<b>Solar Radiation</b>	505.1/I,II	505.2/II Cat. A1	505.3/II Cat. A1	505.4/I, II Cat. A1	-
<b>Rain</b>	506.1/I, II	506.2/I, II	506.3/I, II	506.4/I, III	506.5/I, II
<b>Humidity</b>	507.1/I,II	507.2/II, III	507.3/II, III	507.4/III	507.5/I, III
<b>Salt Fog</b>	509.1/I	509.2/I	509.3/I	509.4 / I	509.5/I
<b>Dust</b>	510.1/I	510.2/I	510.3/I	510.4/I, III	510.5/I
<b>Vibration</b>	514.2/VIII, X	514.3/Cat. 10	514.4/Cat. 10	514.5/ Cat. 20, 24	514.6/ Cat. 20, 24
<b>Shock</b>	516.2/I, III, V	516.3/I, IV	516.4/I, IV	516.5/I, IV	516.6/I, IV

Specifications are subject to change without notice or obligation. †Intrinsically Safe system approved. Complete list of IS accessories in Owners Manual. \*25 kHz will not be available on new equipment in the U.S.A. after 1/1/2013. VERTEX STANDARD is a trademark of Vertex Standard LMR, Inc. All other trademarks are the property of their respective owners. © Vertex Standard LMR, Inc. 2014