

# EVX-530 SERIES

## DIGITAL PORTABLE RADIOS

DMR Tier 2 Standard

  
Vertex Standard

eVerge™

SPECIFICATION SHEET

## 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 Analogue Integration

eVerge™ radios operate in both analogue and digital modes and can be used with any existing analogue 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 analogue 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 1 meter 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-533

106.7 x 58.5 x 34 mm



Option Board  
Expandability



IP 57

**DMR**  
DIGITAL MOBILE RADIO ASSOCIATION



## 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]
- ▶ Option board expandable [EVX-534/539]

## Digital Mode Features

- ▶ Basic privacy
- ▶ 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-531 will support voice inversion encryption via future firmware upgrade  
 \*\*EVX-531 will support 5-tone encode/decode via future firmware upgrade

## 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) FNB-V134LI-UNI: 2300 mAh Li-Ion FNB-V133LI-UNI: 1380 mAh Li-Ion	VHF: 15.8 hrs [digital] / 12.0 hrs [analogue] 9.7 hrs [digital] / 7.4 hrs. [analogue]	UHF: 15.2 hrs [digital] / 11.5 hrs. [analogue] 9.1 hrs [digital] / 7.0 hrs. [analogue]
<b>IP Rating</b>	IP 57	
<b>Operating Temperature Range</b>	-30° C to +60° C	
<b>Storage Temperature Range</b>	-40° C to + 85° C	
<b>Dimension [H x W x D]</b>	106.7 x 58.5 x 34 mm (w/FNB-V133LI-UNI)	
<b>Weight [Approx.]</b>	280 g w/FNB-V133LI-UNI, 325 g w/FNB-V134LI-UNI	
Receiver Specifications		
measured with ETSI EN 300		
<b>Sensitivity:</b>	Analogue 12 db SINAD: 0.25 uV Digital 1% BER: 0.28 uV	
<b>Adjacent Channel Selectivity</b>	ETSI EN 300: 70/60 dB ETSI EN 300: 70/45 dB	
<b>Intermodulation</b>	65 dB	
<b>Spurious Rejection</b>	70 dB	
<b>Audio Output</b>	500 mW @ 4 Ohms [INT] 350 mW @ 4 Ohms [EXT]	
<b>Hum and Noise</b>	40 dB	
<b>Conducted Spurious Emission</b>	-57 dBm	
Transmitter Specifications		
measured with ETSI EN 300		
<b>Output Power</b>	5.0/2.5/1.0/0.25W	
<b>Emission Designator [Analogue]</b>	16K0F3E / 11K0F3E	
<b>Modulation Limiting [Analogue]:</b>	+/- 2.5 kHz @ 12.5 kHz +/- 4 kHz @ 20 kHz +/- 5.0 kHz @ 25 kHz	
<b>Conducted Spurious Emission</b>	70 dB below carrier	
<b>Hum and Noise</b>	40 dB	
<b>Audio Distortion</b>	<5% [3% typical]	
<b>Frequency Stability</b>	±1.5 ppm	
<b>4FSK Digital Modulation</b>	7K60F1D / 7K60F1E	
<b>Digital Protocol</b>	ETSI TS 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

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