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-539

106.7 x 58.5 x 34 mm

Option Board Expandability

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DIGITAL MOBILE RADIO ASSOCIATION

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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
- Escalert
- 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		
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 (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)
IP Rating	IP 57	
Operating Temperature Range	-30° C to +60° C	
Storage Temperature Range	-40° C to + 85° C	
Dimension (H x W x D)	106.7 x 58.5 x 34 mm (w/FNB-V133LI-UNI	
Weight (Approx.)	280 g w/FNB-V133LI-UNI, 325 g w/FNB-V134LI-UNI	
Receiver Specifications	measured with ETSI EN 300	
Sensitivity:	Analogue 12 db SINAD: 0.25 uV Digital 1% BER: 0.28 uV	
Adjacent Channel Selectivity	ETSI EN 300: 70/60 dB ETSI EN 300: 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	measured with ETSI EN 300	
Output Power	5.0/2.5/1.0/0.25W	
Emission Designator (Analogue)	16K0F3E / 11K0F3E	
Modulation Limiting (Analogue):	+/- 2.5 kHz @ 12.5 kHz +/- 4 kHz @ 20 kHz +/- 5.0 kHz @ 25 kHz	
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

	Methods/Procedures				
Standard	**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