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.

Dual Capacity Direct Mode

Dual Capacity Direct Mode enables you to have two communication paths on a single frequency effectively doubling your call capacity without the need of a repeater.

Transmit Interrupt

When seconds matter, transmit interrupt allows an operator to halt or "interrupt" any current transmission, in favour of a priority message. Transmit Interrupt functionality ensures your critical messages will connect.

Enhanced Display

The EVX series boasts a robust dot matrix display, allowing up to sixteen characters per screen and as many as forty overall. In addition, the display is functional for use in different languages, including English, Spanish, Russian, Portuguese and Turkish.

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 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 IP57 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

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

Site Search

Move between multiple sites seamlessly by using the Site Search functionality of your EVX-530 series radio. Manually or automatically initiate Site Search to identify and select the site with the strongest signal strength. Great for operations with multiple locations or multiple floor buildings.

EVX-531 **EVX-534**

EVX-539

106.7 x 58.5 x 34 mm

Option Board Expandability

FACTORY WARRANTY 2 YEAR

DMR DIGITAL MOBILE RADIO ASSOCIATION

EVX-530 SERIES

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Additional Features

- 9 Programmable keys (EVX-539)
- 7 Programmable keys (EVX-534)
- 3 programmable keys (EVX-531)
- ARTS™ & ARTS II™
- Full Dot Matrix multi-lingual display (EVX-534/539)
- Programmable tri-colour 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
- DTMF Telephone Interconnect/ANI
- Multiple scan options (Priority, Dual Watch, Follow-me)
- Nuisance channel delete
- Radio-to-radio cloning
- Option board expandable (EVX-534/539)

Analogue 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-534/539)
- Remote stun/kill/revive (EVX-534/539)

Digital Mode Features

- Basic privacy
- Enhanced privacy (EVX-534/539)
- 256 encryption
- Text messaging
- Dual Capacity Direct Mode
- Transmit Interrupt
- All call, Group call, Individual call
- Escalert
- Remote monitor
- PTT ID encode (EVX-531)
- PTT ID encode/decode (EVX-534/539)
- DTMF encode
- Site Search
- Mixed mode scan
- One touch access (EVX-534/539)
- 128 Record contact list (EVX-534/539)

Accessories

- MH-37A4B-1 Ear piece Microphone
- MH-81A4B: Over-the-head light duty VOX headset
- MH-360S: Compact speaker microphone
- MH-450S: Speaker microphone
- MH-66A4B: IP57 Submersible microphone
- FNB-V133LI-UNI: 1380 mAh Li-Ion battery
- FNB-V134LI-UNI: 2300 mAh Li-Ion battery
- VAC-UNI: Single-unit charger
- VAC-6058: Multi-unit charger
- CLIP-20: Belt clip
- Leather cases

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: 17 hrs (digital) / 14 hrs (analogue) 9.8 hrs (digital) / 8.1hrs (analogue)	UHF: 16.1 hrs (digital) / 13.6 hrs (analogue) 9.3 hrs (digital) / 8.0 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		
Sensitivity:	Analogue 12 dB SINAD: 0.25 uV; 20dB SINAD:0.4uV Digital 1% BER: 0.28 uV	
Adjacent Channel Selectivity	ETSI EN 300: 60dB @ 12.5KHz ETSI EN 300: 70dB @ 20/25KHz	
Intermodulation	65 dB	
Spurious Rejection	70 dB	
Audio Output	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)	
Hum and Noise	40 dB	
Conducted Spurious Emission	-57 dBm < 1GHz	
Transmitter Specifications		
Output Power	5.0/2.5/1.0/0.25W	
Emission Designator (Analogue)	16K0F3E/14K0F3E/11K0F3E	
Modulation Limiting (Analogue)	+/- 2.5 kHz @ 12.5 kHz +/- 4 kHz @ 20 kHz +/- 5.0 kHz @ 25 kHz	
Conducted Spurious Emission	-36 dBm <1 GHz, -30 dBm >1 GHz	
Hum and Noise	-40dB @ 12.5KHz, -45dB @25KHz	
Audio Distortion	3% typical	
Frequency Stability	±1.5 ppm	
4FSK Digital Modulation	Data: 7K60F1D/7K60FXD Voice: 7K60F1E/7K60FXE	
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