EVX-530 SERIES

DIGITAL PORTABLE RADIOS
DMR Tier 2 Standard

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 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 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 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
The EVX-530 series is designed for future feature expansion and supporting third-party option board development, therefore enabling additional features as location tracking with GPS, telemetry, etc.

EVX-531   **EVX-534**

EVX-539

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
- RSSI Indicator
- Voice inversion encryption
- 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)

Analogue Mode Features

- 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)
- Text messaging
- 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-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
- VAC-6085: 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
	Digital 1% BER: 0.28 uV; 20dB SINAD: 0.4 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

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