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

FACTORY WARRANTY 3 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)
- 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
- Escalert
- 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		
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-V134LIIS-UNI: 2300 mAh Li-Ion FNB-V133LI-UNI: 1380 mAh Li-Ion	VHF: 17.0 hrs (digital) / 14.0 hrs (analog) 17.0 hrs (digital) / 14.0 hrs (analog) 9.8 hrs (digital) / 8.1 hrs (analog)	UHF: 16.1 hrs (digital) / 13.6 hrs (analog) 16.1 hrs (digital) / 13.6 hrs (analog) 9.3 hrs (digital) / 8.0 hrs (analog)
IP Rating	IP 57	
Operating Temperature Range	-22° F to +140° F (-30° C to +60° C)	
Storage Temperature Range	-40° F to +185° F (-40° C to +85° C)	
Dimension (H x W x D)	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)	
Weight Approx. w/Antenna, Belt Clip 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		measured by TIA/EIA 603C
Sensitivity	Analog 12 dB SINAD: 0.25 uV Digital 1% BER: 0.28 uV	
Adjacent Channel Selectivity	TIA603: 70/60 dB TIA603B: 70/45 dB	
Intermodulation	65/60 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	
Transmitter Specifications		measured by TIA/EIA 603C
Output Power	5.0/2.5/1.0/0.25W	
Emission Designator (Analog)	16K0F3E/14K0F3E/11K0F3E	
Modulation Limiting	Analog: +/- 5 kHz (25 kHz); +/- 2.5 kHz (12.5 kHz) Digital (FID): 5% Symbol Deviation: 1745 Hz - 2138 Hz	
Conducted Spurious Emission	70 dB below carrier	
Hum and Noise	45/40 dB	
Audio Distortion	3%	
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

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.

NSS_530_05/2014

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