

EVX-530 SERIES

DIGITAL PORTABLE RADIOS

DMR Tier 2 Standard /TDMA Protocol

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.

Direct Mode

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 favor 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 six different languages, including English, Spanish, Chinese, 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 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.

Site Search

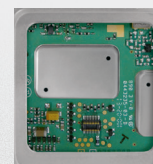
Move between multiple sites seamlessly by using the Site Search functionality your EVX-530 series radio. Manually or automatically initiate Site Search to identify the signal of the closest site with the strongest signal strength. The EVX-530 portable will dynamically change its pre-programmed home site to the site with the strongest signal in range. Great for operations with multiple locations or multiple floor buildings.



EVX-531

EVX-534

EVX-533



Option Board
Expandability



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Additional Features

- ▶ 9 Programmable keys [EVX-539]
- ▶ 7 Programmable keys [EVX-534]
- ▶ 3 programmable keys [EVX-531]
- ▶ Full Dot Matrix Multi-lingual display [EVX-534/539]
- ▶ ARTS™ & ARTS II™
- ▶ 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
- ▶ 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]

Analog Mode Features

- ▶ Voice compander
- ▶ Whisper mode
- ▶ CTCSS/DCS encode/decode
- ▶ MDC-1200® encode/decode
- ▶ 2-Tone encode/decode
- ▶ 5-Tone encode/decode
- ▶ DTMF Paging [EVX-539]
- ▶ Remote stun/kill/revive [5-tone]

Digital Mode Features

- ▶ All Call/Group Call/Individual Call
- ▶ Text Messaging
- ▶ Direct/Dual Capacity Mode
- ▶ Transmit Interrupt
- ▶ PTT ID encode [EVX-531] encode/decode [EVX-534/539]
- ▶ Basic/Enhanced Privacy
- ▶ 256b AES encryption [EVX-534/539]
- ▶ Mixed Mode Scan
- ▶ Site Search
- ▶ DTMF encode
- ▶ Escalart
- ▶ Remote Monitor
- ▶ 128 Record Contact List

Accessories

Batteries

- ▶ FNB-V133LI-UNI: 1380MAH Li-Ion
- ▶ FNB-V134LI-UNI: 2300MAH Li-Ion
- ▶ FNB-V134LIIS-UNI: 2300 mAh Li-Ion Battery [IS]†
- ▶ FBA-41: Alkaline Battery case

Chargers

- ▶ VAC-UNI: Single Unit Charger (multiple plugs for both regions)
 - CD-58 Charger Base, PA-55 AC Adaptor
- ▶ VAC-6058: MUC Charger (multiple plugs for both regions)
- ▶ VCM-5: Vehicular Charger Mounting Adaptor (UNI Charger/Batteries)

Speaker Microphones

- ▶ MH-360S: Compact Speaker Microphone
- ▶ MH-450S: Speaker Microphone with 3.5mm Audio Jack
- ▶ MH-66A4B: IP57 Submersible Speaker Microphone

Headsets/Earpieces

- ▶ MH-37A4B-1: Earpiece Microphone
- ▶ VH-150A: VOX capable lightweight headset, Behind-the-Head
- ▶ VH-150B: VOX capable lightweight headset, Over-the-Head
- ▶ MH-100: Rx only Earpiece, 3.5mm for use with MH-450S
- ▶ MH-101A4B: Single Wire Surveillance Kit
- ▶ MH-102A4B: Two-Wire Surveillance Kit
- ▶ MH-103A4B: Three-Wire Surveillance Kit
- ▶ MH-201A4B: Heavy Duty Headset, OTH, IS

Programming Equipment

- ▶ FIF-12: USB interface for PC programming
- ▶ CT-106: FIF-12 to Radio Cable
- ▶ CT-153: Clone Cable
- ▶ CT-27A: Radio to Radio Cloning Cable

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) | VHF: FNB-V134LI-UNI: 2300 mAh Li-Ion FNB-V134LIIS-UNI: 2300 mAh Li-Ion FNB-V133LI-UNI: 1380 mAh Li-Ion | 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 | ETSITS 102 361-1, -2, -3 | |

Applicable MIL-STD

| Standard | Methods/Procedures | | | | |
|--------------------------|--------------------|------------------|------------------|---------------------|--------------------|
| | 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. A1 | 505.3/II Cat. A1 | 505.4/I, II Cat. A1 | - |
| 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 is not available on new equipment in the U.S.A. effective 1/1/2013. VERTEX STANDARD is a trademark of Vertex Standard LMR, Inc. All other trademarks are the property of their respective owners. © Vertex Standard LMR, Inc. 2016