

# EVX-261

## DIGITAL PORTABLE RADIO

DMR Tier 2 Standard / TDMA Protocol

**Vertex Standard**

eVerge™

SPECIFICATION SHEET - NORTH AMERICA

### Evolve to Better Communication and Value

The Migration to Digital just got easier and more affordable. The EVX-261 is the perfect entry radio to enable you 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.

### Superior Audio Output

Excellent Audio performance allows for better message clarity so you can be heard loud and clear in all situations.

### Expanded Interoperability

The EVX-261 boasts abundant signaling options such as MDC1200®, DTMF, 2-tone and 5-tone capabilities, as well as voice inversion encryption, providing seamless integration into a mixed fleet.

### 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.

### Safety Not Sacrificed

Emergency alert can be programmed to instantly notify help with a press of a button. Lone Worker is a built-in timer that requires the user to reset at a predetermined interval. If not reset, the radio automatically switches to Emergency mode to alert help. An ideal solution for supervisors to monitor the safety status of radio users working alone. VOX capable with accessory.

### Universal Battery System – One Size Fits All

The Universal Battery System for Vertex Standard portable radios takes energy interoperability to a new level by utilizing a single charger base to support multiple radio series when used with designated UNI batteries. Eliminate equipment clutter and confusion by consolidating down to one battery and charging platform and increase your productivity.

### EVX-261 Key Features

- ▶ Non-display radio
- ▶ 16 channels
- ▶ 2 custom-programmable keys
- ▶ Superior audio quality



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## Additional Features

- 700 mW Internal Speaker
- Emergency Alert
- Lone Worker Alert
- Multiple Scan Options
- ARTS™
- Internal VOX (when used with VOX accessory)

## Analog Features

- MDC1200™ANI Encode
- 2-Tone Encode/Decode
- 5-Tone Encode/Decode
- CTCSS/DCS Encode and Decode
- Remote Stun/Kill/Revive (5-Tone)

## Digital Features

- All Call/Group Call/Individual Call
- Transmit Interrupt (decode only)
- Dual Capacity Direct Mode
- Basic Privacy

## Accessories

## Batteries

- FNB-V133LI-UNI: 1380 mAh Li-Ion
- FNB-V134LI-UNI: 2300 mAh Li-Ion

## 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)

## Antennas

- ATU-6A 400-430 MHz UHF Antenna 6.5"
- ATU-6B 420-450 MHz UHF Antenna 6.1"
- ATU-6C 440-470 MHz UHF Antenna 6.1"
- ATU-6D 450-485 MHz UHF Antenna 6"
- ATU-6DS 450-485 MHz UHF Antenna 3.5"
- ATU-6F 485-520 MHz UHF Antenna 5.35"
- ATV-8A 134-151 MHz VHF Antenna 6"
- ATV-8B 150-163 MHz VHF Antenna 6"
- ATV-8C 161-174 MHz VHF Antenna 6"
- ATV-8XL Untuned VHF Antenna 7"

## Cases

- LCC-261 Leather Case, Belt Loop (FNB-V133LI)
- LCC-261H Leather Case, Belt Loop (FNB-V134LI)
- LCC-261S Leather Case, Swivel Belt Loop (FNB-V133LI)
- LCC-261SH Leather Case, Swivel Belt Loop (FNB-V134LI)

## Clip

- CLIP-20 Belt Clip

## Audio Accessories

## Speaker Microphones

- MH-360S Compact Speaker Microphone with 3.5mm Audio Jack
- MH-450S Speaker Microphone with 3.5mm Audio Jack
- MH-66A4B Noise Cancelling Speaker Microphone with 3.5mm Audio Jack

## 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
- MH-101A4B Single Wire Surveillance Kit
- MH-102A4B 2-Wire Surveillance Kit
- MH-103A4B 3-Wire Surveillance kit
- MH-201A4B Heavy Duty Headset

## Programming Equipment

- FIF-12 USB interface for PC programming
- CT-106 FIF-12 to Radio Cable
- CT-27A Radio to Radio Cloning Cable
- CN-3 SMA to BNC Adaptor
- CE156 Clone Editor Software

**Specifications are preliminary and subject to change without notice or obligation.**

†66: FCC and IC approved, G7, D0: FCC and IC approval pending.

\*25 kHz not available for U.S.A. Customers.

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## EVX-261 Specifications

| General Specifications                                            |                                                                                                                 |                                                                                  |
|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
|                                                                   | VHF                                                                                                             | UHF                                                                              |
| Frequency Range                                                   | D0: 136-174 MHz                                                                                                 | 66: 403-470 MHz* 67: 450-512 MHz                                                 |
| Dimensions (H x W x D)                                            | 4.3 x 2.3 x 1.3 in (109.2 x 58.4 x 32.3 mm) with FNB-V133LI-UNI                                                 |                                                                                  |
| Weight Approx.                                                    | 9.9 oz (281 g) (w/FNB-V133LI-UNI, Antenna, Belt Clip)<br>11.6 oz (330 g) (w/FNB-V134LI-UNI, Antenna, Belt Clip) |                                                                                  |
| Display                                                           | No                                                                                                              |                                                                                  |
| Power Output                                                      | 5 / 1 W                                                                                                         |                                                                                  |
| Channel Spacing                                                   | 25* / 12.5* kHz                                                                                                 |                                                                                  |
| Audio Output                                                      | 700 mW @ 16 Ohms (Internal) / 500 mW @ 4 Ohms (External)                                                        |                                                                                  |
| SP Size (D)                                                       | 36                                                                                                              |                                                                                  |
| Number of Channels                                                | 16                                                                                                              |                                                                                  |
| Programmable Buttons                                              | 2                                                                                                               |                                                                                  |
| PC Programming                                                    | CE156                                                                                                           |                                                                                  |
| Radio to Radio Cloning                                            | Yes                                                                                                             |                                                                                  |
| Battery Life (5-5-90 duty with battery saver)                     | FNB-V133LI-UNI: 9.7 h (D) / 7.4 h (A)<br>FNB-V134LI-UNI: 15.8 h (D) / 12.0 h (A)                                | FNB-V133LI-UNI: 9.1 h (D) / 7.0 h (A)<br>FNB-V134LI-UNI: 15.2 h (D) / 11.5 h (A) |
| IP Rating                                                         | 55                                                                                                              |                                                                                  |
| Power Supply Voltage                                              | 7.4 V DC ± 10 %                                                                                                 |                                                                                  |
| Operating Temperature Range                                       | -22° F to +140° F (-30° C to +60° C)                                                                            |                                                                                  |
| Frequency Stability                                               | ±1.5 ppm                                                                                                        |                                                                                  |
| RF Input-Output Impedance                                         | 50 Ohms                                                                                                         |                                                                                  |
| Receiver Specifications <small>measured by TIA/EIA 603</small>    |                                                                                                                 |                                                                                  |
| Circuit Type                                                      | Direct Conversion                                                                                               |                                                                                  |
| Sensitivity                                                       | Analog 12 dB SINAD: 0.25 uV / Digital 1% BER: 0.28 uV                                                           |                                                                                  |
| Adjacent Channel Selectivity                                      | TIA603: 70 / 60 dB (25 kHz / 12.5 kHz), TIA603D: 70 / 45 dB (25 kHz / 12.5 kHz)                                 |                                                                                  |
| Channel Spacing                                                   | 25 / 12.5 kHz                                                                                                   |                                                                                  |
| Intermodulation                                                   | 70 dB                                                                                                           |                                                                                  |
| Spurious Image Rejection                                          | 70 dB                                                                                                           |                                                                                  |
| Hum and Noise                                                     | 45 / 40 dB (25 kHz / 12.5 kHz)                                                                                  |                                                                                  |
| Audio Output (5% THD)                                             | 700 mW @ 16 Ohms (Internal) / 500 mW @ 4 Ohms (External)                                                        |                                                                                  |
| Audio Distortion                                                  | < 5%                                                                                                            |                                                                                  |
| Conducted Spurious Emission                                       | -57 dBm                                                                                                         |                                                                                  |
| Transmitter Specifications <small>measured by TIA/EIA 603</small> |                                                                                                                 |                                                                                  |
| Output Power                                                      | 5 / 1 W                                                                                                         |                                                                                  |
| Modulation Limiting                                               | ±5.0 kHz (25 kHz) / ±2.5 kHz (12.5 kHz)                                                                         |                                                                                  |
| Conducted Spurious Emission                                       | -36 dB (±1 GHz), -30 dB (> 1 GHz)                                                                               |                                                                                  |
| FM Hum and Noise                                                  | 45 / 40 dB (25 kHz / 12.5 kHz)                                                                                  |                                                                                  |
| Audio Distortion (@1 kHz)                                         | < 5%                                                                                                            |                                                                                  |
| Analog FM Modulation                                              | 16K0F3E (25 kHz) / 11K0F3E (12.5 kHz)                                                                           |                                                                                  |
| 4FSK Digital Modulation                                           | 12.5 kHz Data: 7K60F1D and 7K60FXD / 12.5 kHz Voice: 7K60F1E and 7K60FXE<br>12.5 kHz Data and Voice: 7K60F1W    |                                                                                  |
| Digital Vocoder Type                                              | AMBE +2™                                                                                                        |                                                                                  |
| Digital Protocol                                                  | ETSI TS102 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              | 500.2/2                  | 500.3/2                 | 500.4/I,2                | 500.5/I,2                       |
| High Temperature  | 501.1/I,2            | 501.2/IA, 2/A1           | 501.3/IA1, 2/A1         | 501.4/IIH0T, 2/H0T       | 501.5/IA1, 2/A2                 |
| Low Temperature   | 502.1/I              | 502.2/I/Cat 3, 2/Cat 1   | 502.3/I/Cat 3, 2/Cat 1  | 502.4 - I/Cat 3, 2/Cat 1 | 502.5/I/Cat 3, 2/Cat 1, 3/Cat 1 |
| Temperature Shock | 503.1/I              | 503.2/IA1 Cat            | 503.3/IA1 Cat 3         | 503.4/I                  | 503.5/I/C                       |
| Solar Radiation   | 505.1/2              | 505.2/I                  | 505.3/I                 | 505.4/I                  | 505.5/I, A1                     |
| Rain              | 506.1/I, 2           | 506.2/I, 2               | 506.3/I, 2              | 506.4/I, 3               | 506.5 - 1/3                     |
| Humidity          | 507.1/2              | 507.2/2                  | 507.3/2                 | 507.4                    | 507.5 - 2/Agg                   |
| Salt Spray/Fog    | 509.1/I              | 509.2/I                  | 509.3/I                 | 509.4                    | 509.5                           |
| Blowing Dust      | 510.1/I              | 510.2/I                  | 510.3/I                 | 510.4/I                  | 510.5/I                         |
| Blowing Sand      | -                    | 510.2/II                 | 510.3/2                 | 510.4/2                  | 510.5/2                         |
| Vibration         | 514.2/8/F, W         | 514.3/1/Cat. 10, 2/Cat 3 | 514.4/1/Cat 10, 2/Cat 3 | 514.5/1/Cat. 24          | 514.6/1/Cat. 24                 |
| Shock             | 516.2/I, 2, 3, 5     | 516.3/I, 4, 6            | 516.4/I, 4, 6           | 516.5/I, 4, 6            | 516.6/I, 4, 6                   |