

# EVX-5300/5400 SERIES

## DIGITAL MOBILE 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.

### 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.

### 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.

### Worker Safety Features

As with all Vertex Standard mobile radios, eVerge™ mobile radios include Emergency alert for enhanced driver safety.

Operators can activate the Lone Worker function when leaving equipment or a vehicle temporarily. If a problem arises while away, the radio switches to Emergency mode to alert help.

### Site Search

Move between multiple sites seamlessly by using the Site Search functionality your EVX-5300/5400 series provide. Manually or automatically initiate Site Search to identify the signal of the closest site with the strongest signal strength. The EVX-5300/5400 mobiles will dynamically change its pre-programmed home site to the site with the strongest signal in range.

### Evolve to Connect

A better way to extend your reach — EVX-Link and EVX-5300/EVX-5400

Expanding your reach has never been easier than now with EVX-Link. Up to 30 coverage areas can be networked by adding an EVX-Link system (link and a mobile either EVX-5300 or EVX-5400) to each location. EVX-Link offers the ability to have users site search between coverage areas while radios automatically change to the new EVX-Link location. All EVX Subscriber products can be used with EVX-Link just by reprogramming the radios, which is another reason why EVX-Link and an EVX mobile is a better way to connect.



EVX-5300



EVX-5400

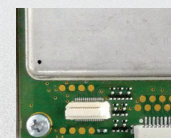


Back

6.5" H x 1.8" W x 6.1" D



EVX-Link and EVX-5300



Option Board Expandability



## Additional Features

- ▶ 6 Programmable keys
- ▶ 8-Character alpha numeric display [EVX-5400]
- ▶ Programmable tri-color LED
- ▶ Minimum volume control
- ▶ RSSI Indicator [EVX-5400]
- ▶ Direct channel entry [EVX-5400]
- ▶ Lone worker alert
- ▶ ARTS™ & ARTS II™
- ▶ Emergency alert
- ▶ DTMF Speed dial
- ▶ Priority scan
- ▶ Follow-me scan
- ▶ Dual watch
- ▶ Public address / horn alert
- ▶ D-Sub 15-pin accessory connector
- ▶ Radio-to-radio cloning

## 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
- ▶ Remote stun/kill/revive [5-tone]

## Digital Mode Features

- ▶ Basic privacy
- ▶ Enhanced privacy
- ▶ Text messaging [EVX-5400]
- ▶ All call, Group call, Individual call
- ▶ Direct/Dual Capacity Mode
- ▶ Transmit Interrupt
- ▶ Site Search
- ▶ Escalart
- ▶ Remote monitor
- ▶ PTT ID encode
- ▶ Mixed mode scan
- ▶ One touch access [EVX-5400]
- ▶ 128 Record contact list [EVX-5400]

## Accessories

- ▶ MH-67A8J: Standard microphone
- ▶ MH-75A8J: Keypad microphone [16 keys]
- ▶ MD-12A8J: Desktop microphone
- ▶ MLS-100: External speaker, 12W
- ▶ LF-6: DC Line filter
- ▶ RMK-5400: Remote Mount Kit

## EVX-5300/5400 Series Specifications

General Specifications		
Frequency Range	VHF: 136 – 174 MHz	UHF: 403 – 470 MHz / 450 – 512 MHz
Number of Channels and Groups	8/1 [EVX-5300]; 512/32 [EVX-5400]	
Power Supply Voltage	DC 13.6V +/- 20%	
Channel Spacing	25* / 12.5 kHz	
Current Consumption	TX: 11A, RX: 2.5A, Standby: 0.4A	
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]	6.5 x 1.8 x 6.1 inches [165 x 45 x 155 mm]	
Weight [Approx.]	2.8 lbs [1.25 kg]	
Receiver Specifications		
Measured by TIA/EIA 603C		
Sensitivity	Analog 12 db SINAD: 0.25 uV	
	Digital 1% BER: 0.28 uV, Digital 5% BER: 0.24uV	
Adjacent Channel Selectivity	60 dB @ 12.5 kHz, 70 dB @ 25 kHz	
Intermodulation	70 dB	
Spurious Rejection	65 dB	
Audio Output	Internal: 4 W @ 20 Ohms, 5% THD External: 12 W @ 4 Ohms, 5% THD	
Hum and Noise	40 dB @ 12.5 kHz, 45 dB @ 25 kHz	
Transmitter Specifications		
Measured by TIA/EIA 603C		
Output Power	50 W type: 50/25/10 W	50 W type: 45/25/10 W
	25 W type: 25/10/5 W	25 W type: 25/10/5 W
Conducted Spurious Emission	70 dB below carrier	
Hum and Noise	-40 dB @ 12.5 kHz, -45 dB @ 25 kHz	
Audio Distortion	<3% @1kHz	
Modulation	Analog: 16K0F3E, 11K0F3E	
	Digital [12.5 kHz Voice]: 7K60F1E/7K60FXE	
	Digital [12.5 kHz Data]: 7K60F1D/7K60FXD	
Max Deviation	Digital [Combination of 12.5 kHz Voice and Data]: 7K60F1W	
	±5.0 kHz / ±2.5 kHz	
Audio Response	1745 Hz – 2138 Hz [12.5 kHz Step, Symbol Deviation]	
Audio Response	TIA-603D	
Adjacent Channel Power	77 dB [EVX-5300]; 73 dB [EVX-5400]	

## MIL STD for EVX-5300 and 5400 Series

	810C	810D	810E	810F	810G
Low pressure	500.1 proc 1	500.2 proc 2	500.3 proc 2	500.4 proc 1/2	500.5 proc 1/2
High temp	501.1 proc 1/2	501.2 proc 1/A1 proc 2/A1	501.3 proc 1/A1 proc 2/A1	501.4 proc 1/ HOT proc 2/HOT	501.5 proc 1/A1 proc 2/A1
Low temp	502.1 proc 1	502.2 proc 1/Cat 3 proc 2/Cat 1	502.3 proc 1/Cat 3 proc 2/Cat 1	502.4 proc 1/Cat 3 proc 2/Cat 1	502.5 proc 1/Cat 3 proc 2/Cat 1
Temp shock	503.1 proc 1	503.2 proc 1/A1 Cat 3	503.3 proc 1/A1 Cat 3	503.4 proc 1	503.5 proc 1/C
Solar radiation	505.1 proc 2	505.2 proc 1	505.3 proc 1	505.4 proc 1	505.5 proc 1/A1
Rain	506.1 proc 1/2	506.2 proc 1/2	506.3 proc 1/2	506.4 proc 1/3	506.5 proc 1/3
Humidity	507.1 proc 2	507.2 proc 2	507.3 proc 2	507.4	507.5 proc 2/Agg
Salt spray/Fog	509.1 proc 1	509.2 proc 1	509.3 proc 1	509.4	509.5
Blowing Dust	510.1 proc 1	510.2 proc 1	510.3 proc 1	510.4 proc 1	510.5 proc 1
Blowing Sand	-	510.2 proc 2	510.3 proc 2	510.4 proc 2	510.5 proc 2
Vibration	514.2 proc 8/F, W	514.3 proc 1/Cat 10 proc 2/Cat 3	514.4 proc 1/Cat 10 proc 2/Cat 3	514.5 proc 1/ Cat 24	514.6 proc 1/ Cat 24
Shock	516.2 proc 1/3/5	516.3 proc 1/4/6	516.4 proc 1/4/6	516.5 proc 1/4/6	516.6 proc 1/4/6

\*25 kHz will not be available on new equipment in the U.S.A. after 1/1/2013. Specifications are subject to change without notice or obligation. 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.