

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

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 25 W type: 25/10/5 W	50 W type: 45/25/10 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 Digital [Combination of 12.5 kHz Voice and Data]: 7K60F1W	
Max Deviation	±5.0 kHz / ±2.5 kHz 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. 2015.