EVX-5300/5400 SERIES

DIGITAL MOBILE RADIOS

DMR Tier 2 Standard

Vertex Standard

eVerge™

SPECIFICATION SHEET - APAC

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 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.

Option Board Expandable for Additional Applications

The EVX-5400 mobiles are designed for future feature expansion and supporting third-party application development such as location tracking with GPS, rolling code encryption, etc.

EVX-5300

EVX-5400

Back

165 x 45 x 155 mm

DMR
DIGITAL MOBILE RADIO ASSOCIATION

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Additional Features

- 6 Programmable keys
- 8-Character alpha numeric display (EVX-5400)
- Programmable tri-color LED
- Voice compander
- Minimum volume control
- RSSI Indicator (EVX-5400)
- Direct channel entry (EVX-5400)
- CTCSS/DCS encode/decode
- MDC-1200® encode/decode
- 2-Tone encode/decode
- 5-Tone encode/decode
- Lone worker alert
- Emergency alert
- DTMF Speed dial
- DTMF Paging
- Remote stun/kill/revive
- Priority scan
- Follow-me scan
- Dual watch
- Public address / horn alert
- D-Sub 15-pin accessory connector
- Radio-to-radio cloning

Digital Mode Features

- Enhanced privacy (EVX-5400)
- Text messaging (EVX-5400)
- All call, Group call, Individual call
- Escalert
- 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 – 520 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: 10A, RX: 2.5A, Standby: 0.4A	
Operating Temperature Range	-22° F to +140° F (-30° C to +60° C)	
Dimension (H x W x D)	165 x 45 x 155 mm	
Weight (Approx.)	1.25 kg	
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: 60 dB @ 12.5 kHz, 70 dB @ 25 kHz TIA603C: 45 dB @ 12.5 kHz, 70 dB @ 25 kHz	
Intermodulation	70 dB	
Spurious Rejection	65 dB	
Audio Output	Internal: 4 W @ 20 Ohms External: 12 W @ 4 Ohms < 5% THD	
Hum and Noise	-40 dB @ 12.5 kHz, -45 dB @ 25 kHz	
Conducted Spurious Emission	-57 dBm	
Transmitter Specifications		Measured by TIA/EIA 603C
Output Power	VHF: 50 / 25 / 12.5 / 5 W	UHF: 45 / 25 / 12.5 / 5 W
Modulation (Analog)	16K0F3E/11K0F3E	
Modulation Limiting	Analog +/- 5.0 kHz @ 25* kHz, +/- 2.5 kHz @ 12.5 kHz Digital: +/- 2.5 kHz	
Conducted Spurious Emission	70 dB below carrier	
Hum and Noise	-40 dB @ 12.5 kHz, -45 dB @ 25 kHz	
Audio Distortion	< 5% (3% typical)	
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	-	500.2/I	500.3/I	500.4/I	500.5/I
High Temperature	501.1/I,II	501.2/I	501.3/I	501.4/I	501.5/I
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/II	503.3/I	-	-
Solar Radiation	-	-	505.3/II	505.4/I	-
Rain	506.1/II	506.2/II	506.3/II	506.4/III	506.5/I, III
Humidity	507.1/II	507.2/II	507.3/II	-	-
Salt Fog	-	509.2/I	509.3/I	509.4 / I	509.5/I
Dust	-	-	510.3/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