EVX-5300/5400 SERIES

DIGITAL MOBILE RADIOS

DMR Tier 2 Standard

Vertex Standard

eVerge™

SPECIFICATION SHEET

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 Analogue Integration

eVerge™ radios operate in both analogue and digital modes and can be used with any existing analogue two-way radios.

Do Digital Right: Stay Compatible and Maximize E ciency

eVerge™ digital radios operate using the TDMA protocol for spectrum and power e ciency 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

The EVX-5400 mobiles are designed for future feature expansion and supporting third-party option board development, therefore enabling additional features as location tracking with GPS, telemetry, etc.

EVX-5300

EVX-5400

Back

165 x 45 x 155 mm (W x H x D)

Option Board Expandability

DMR
DIGITAL MOBILE RADIO ASSOCIATION

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http://www.everge.vertexstandard.com/emea-en/

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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

- Basic privacy
- Enhanced privacy (EVX-5400)
- Text messaging
- 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

CE

EVX-5300/5400 Series Specifications

General Specifications		
Frequency Range	VHF: 136 – 174 MHz	UHF: 403 – 470 MHz 450 – 520 MHz (Non-CE)
Number of Channels and Groups	8/1 (EVX-5300); 512/32 (EVX-5400)	
Power Supply Voltage	DC 13.6V +/- 20%	
Channel Spacing	25/20/12.5 kHz	
Current Consumption	TX: 10 A, RX: 2.5A, Standby: 0.4 A (50 W/45 W models) TX: 7 A, RX: 2.5A, Standby: 0.4 A (25 W CE models)	
Operating Temperature Range	-30° C to +60° C	
Storage Temperature Range	-40° C to + 85° C	
Dimension (H x W x D)	165 x 45 x 155 mm	
Weight (Approx.)	2.2 kg	
Receiver Specifications		
Sensitivity:	Analogue 12 dB SINAD: 0.25 uV; 20dB SINAD: 0.4 uV Digital 1% BER: 0.28 uV	
Adjacent Channel Selectivity	ETSI EN 300: 60dB @ 12.5KHz ETSI EN 300: 70dB @ 20/25KHz	
Intermodulation	65 dB	
Spurious Rejection	70 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 < 1GHz	
Transmitter Specifications		
Output Power	VHF: 25/10/5 W (CE) 50/25/10 W (non-CE)	UHF: 25/10/5 W (CE) 45/25/10 W (non-CE)
Emission Designator (Analogue)	16K0F3E/14K0F3E/11K0F3E	
Modulation limiting (Analogue)	+/- 5.0 kHz @ 25 kHz, +/- 4 kHz @ 20 kHz, +/- 2.5 kHz @ 12.5 kHz	
Conducted Spurious Emission	-36 dBm <1 GHz, -30 dBm >1 GHz	
Hum and Noise	-40 dB @ 12.5 kHz, -45 dB @ 25 kHz	
Audio Distortion	3%	
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

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