

# VX-4500/4600 Series

## VHF/UHF Mobile Radios

### SPECIFICATION SHEET

### Optimised Mobile Communications

The **VX-4500/4600** mobile radios are packed with enhanced features and signaling performance for increased communications flexibility and worker safety.

### Expanded Signaling and Security

Both radios provide a full range of signaling capabilities including DTMF, 2-tone, 5-tone and MDC 1200® encode/decode for selective calling.

Private communication is supported by built-in voice inversion encryption. And, if a radio is ever lost or stolen, 5-tone remote stun/kill/revive can be activated to ensure messages are only heard by those intended.

### Enhanced Audio Performance

These radios feature **Multi-lingual Channel Announcement**, which loudly speaks the current channel description to simplify changing channels. Alternatively record your own announcements to allow easier navigation.

Also included is **Voice Activation (VOX)** that enables users to transmit voice without pressing the Push to Talk button on the microphone. Enables hands-free operation for convenience.

In noisy environments, activate the **Clear Voice function** to enhance audio transmit to ensure your message is heard. And, to ensure a radio is not accidentally turned down too low, a minimum volume limit can be programmed by your Dealer.

**Whisper capability** is also included to augment audio transmit when talking quietly is necessary for discreet communications.

Record and store up to 120 seconds of voice messages for keeping an audible record of important communications using the optional **DVS-8 Voice Storage** unit.

### When Safety Counts

As with all Vertex Standard mobile radios, the VX-4500/4600 Series includes **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.

When constant contact is required at all times, always know your connection status with **Auto-Range Transpond System (ARTS™)**. Only Vertex Standard radios are designed to inform you when you and another ARTS™-equipped radio are within communication range. If out of range, your radio senses no signal has been received and beeps to alert you.

### Large Group Communications Made Easy to Manage

The **VX-4600** has **512-channel capacity** and 32 groups to easily manage a variety of calls at the most complex job site. For smaller operations, the **VX-4500** features 8 channels.



VX-4600



VX-4500

### The Vertex Standard Difference

Our number one goal is achieving superior customer satisfaction by delivering products and services that exceed your expectations. Vertex Standard radios are built to last and are backed by a comprehensive warranty. Ask your Dealer for more details.

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www.vertex-standard-emea.com



## Additional Features

- ▶ Six programmable keys
- ▶ 8-Character alphanumeric display (VX-4600)
- ▶ RSSI signal strength indicator (VX-4600)
- ▶ DTMF Paging
- ▶ DTMF ANI
- ▶ Speed dial (VX-4600)
- ▶ CTCSS / DCS Encode and Decode
- ▶ Busy Channel Lockout (BCLO)
- ▶ Busy Tone Lockout (BTLO)
- ▶ Time Out Timer (TOT)
- ▶ 2 Tone encode/decode
- ▶ 5 Tone encode/decode
- ▶ MDC-1200® encode/decode
- ▶ Compaander
- ▶ Direct channel entry (VX-4600)
- ▶ Channel announcement (customisable)
- ▶ Minimum volume control
- ▶ Talk around
- ▶ Priority scan
- ▶ Dual priority scan
- ▶ Dual watch scan
- ▶ Follow-me scan
- ▶ Talk around scan
- ▶ Talk back scan
- ▶ Operator selectable scan
- ▶ Group scan
- ▶ Manual squelch control
- ▶ D-sub 15 pin accessory connector
- ▶ Public address / horn alert
- ▶ Radio-to-radio cloning

## Accessories

- ▶ MH-67A8J: Standard microphone
- ▶ MH-75A8J: Keypad microphone (16 keys)
- ▶ MD-12A8J: Desktop microphone
- ▶ MLS-100: External speaker, square, 12 W
- ▶ MLS-200: Waterproof external speaker, 12 W
- ▶ FP-1023A: External power supply
- ▶ LF-6: DC Line filter
- ▶ RMK-4600: Remote mount kit

## Option Boards

- ▶ DVS-8: Digital voice storage
- ▶ FVP-44: Rolling code encryption

## VX-4500/4600 Series Specifications

	VHF	UHF
<b>General Specification</b>		
Frequency Range	136 - 174 MHz	403 - 470 MHz; 450 - 520 MHz*
Number of Channels and Groups	512 with 32 Groups (VX-4600) 8 (VX-4500)	
Power Supply Voltage	13.6 V DC ± 20%	
Channel Spacing	12.5 / 20 / 25 kHz	
PLL Steps	1.25 / 2.5 / 5 / 6.25 kHz	5 / 6.25 kHz
Current Consumption	TX: 11 A (VHF 50 W, UHF 45 W)*, 6 A (25 W) RX: 2.5 A, Standby: 200 mA	
Operating Temperature Range	-30° C to +60° C (-22° F to +140° F)	
Frequency Stability	Better than ±2.5 ppm	
RF Input-Output Impedance	50 Ohms	
Dimension (H x W x D)	165 x 45 x 155mm (6.5 x 1.8 x 6.1 inches)	
Weight (Approx.)	1.25 kg (2.8 lbs)	
<b>Receiver Specification:</b>		
Sensitivity 20dB SINAD	-6/-2 dBuV (25 kHz / 12.5 kHz)	
Adjacent Channel Selectivity	75 / 70 dB (25 kHz / 12.5 kHz)	80 / 70 dB (25 kHz / 12.5 kHz)
Hum and Noise	45 dB / 40 dB	
Intermodulation	70 dB	
Spurious and Image Rejection	85 dB / 80 dB	
Audio Output	4W (internal @ 20 Ohms, 5 % THD) 12W (external @ 4 Ohms, 5 % THD)	
<b>Transmitter Specification:</b>		
Output Power (Selectable)	50/25/12.5/5 W* 25/12.5/5/1 W	45/25/12.5/5 W* 25/12.5/5/1 W
Modulation	16K0F3E, 11K0F3E Variable Reactance Modulation	
Maximum Deviation	EU: ±5.0 kHz / ±4.0 kHz / ±2.5 kHz	
Conducted Spurious Emissions	70 dB below carrier	
FM Hum and Noise	45 / 40 dB (25 kHz / 12.5 kHz)	
Audio Distortion	< 3 % @ 1 kHz	

## Applicable MIL-STD

Standard	Methods/Procedures				
	MIL 810C	MIL 810D	MIL 810E	MIL 810F	MIL 810G
Low Pressure	-	500.2 / Procedure I	500.3 / Procedure I	500.4 / Procedure I	500.5 Procedure I/A1 Procedure II/A2
High Temperature	501.1 / Procedure I, II	501.2 / Procedure I	501.3 / Procedure I	501.4 / Procedure I	501.5 / Procedure I
Low Temperature	-	502.3 Procedure II 500.3 Procedure I	502.3 Procedure II 500.3 Procedure I	502.4 Procedure II 500.4 Procedure I	502.4 Procedure II 500.5 Procedure I
Temperature Shock	503.1 / Procedure I	-	-	-	503.5 / Procedure I/C
Solar Radiation	-	-	505.3 / Procedure I	505.4 / Procedure I	-
Rain	506.1 / Procedure II	506.2 / Procedure II	506.3 / Procedure II	506.4 / Procedure III	506.5 / Procedure III
Humidity	507.1 / Procedure II	-	-	-	-
Salt spray/Fog	509.1 / Procedure I	509.2 / Procedure I	509.3 / Procedure I	509.4 / Procedure I	509.5 / Procedure I
Dust	-	-	510.3 / Procedure I	-	510.5 / Procedure I
Vibration	514.2 / Procedure VIII, X	514.3 / Cat. 10	514.4 / Cat. 10	514.5 / Cat. 24	514.6 / Cat. 24
Shock	516.2 / Procedure I	516.3 / Procedure I	516.4 / Procedure I	516.5 / Procedure I	516.6 / Procedure I
Transit Drop	-	-	-	-	516.5 / Procedure IV

Designed and engineered in Japan.

\* Non-CE models only.

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