

# VX-420A SERIES

VHF/UHF LTR® Portable Radios



- LTR® OPERATION 32 SYSTEM / 250 GROUPS
- 5 WATTS POWER OUTPUT (SELECTABLE TO 1 WATT)
- ALPHANUMERIC DISPLAY
- RUGGED CONSTRUCTION
- CTCSS / DCS ENCODE AND DECODE
- DTMF ANI
- VERSATILE SCANNING (DUAL WATCH, PRIORITY, FOLLOW-ME)
- PROGRAMMABLE KEYS
- FRONT KEYPAD ILLUMINATION
- 12.5/20/25 kHz BANDWIDTH
- COMPANDER INCLUDED
- RX POWER SAVE
- RADIO-TO-RADIO CLONING
- EMERGENCY FUNCTION
- ENCRYPTION INCLUDED
- DTMF PAGING (OPTIONAL FVP-25)
- ARTS™ ON CONVENTIONAL MODE
- TOT, BCLO, BTLO
- MIL-STD 810 D/E/F
- COMPACT SIZE, LIGHT WEIGHT
- PC PROGRAMMABLE
- RSSI, BATTERY INDICATOR
- PassPort® (FUTURE UPGRADE OPTION)

LTR® is a registered trademark of E.F. Johnson Company  
PassPort® is a registered trademark of Trident Micro Systems



Actual Size



 **Vertex Standard**  
We make a difference

# VX-420A Series VHF/UHF LTR® Portable Radios

Vertex Standard's VX-420A Series are the reliable, durable choice for LTR® or Conventional-mode communications in a wide variety of applications. The VX-420A Series radios are the performance and durability standard in the Land Mobile industry. The VX-420A features an eight-character alphanumeric display, Battery and Signal Strength Indicator, 7 programmable keys and illuminated keypad.

Specifications		
	VX-424A VHF	VX-427A UHF
<b>General</b>		
Frequency Range	146-174 MHz	450-490 MHz
Number of Systems	32	
Number of Groups	250	
Number of Channels	Conventional: 250 channels Trunking: 640 channels	
Channel Spacing	25/20/12.5 kHz	
PLL Stepping	2.5/5.0/6.25 kHz	5.0/6.25 kHz
Battery Life	W/FNB-V67LI(1600mAh):10hrs. (13hrs. w/saver) W/FNB-V57(1100mAh): 7hrs. (8.8hrs. w/saver)	W/FNB-V67LI(1600mAh): 9.5hrs. (12hrs. w/saver) W/FNB-V57(1100mAh): 6.5hrs. (8hrs. w/saver)
Battery voltage	7.5 VDC ±20 %	
Temperature Range	-22° F to +140° F (-30° C to +60° C)	
Case size (W x H x D)	2.3" x 4.3" x 1.2" (58 x 108.5 x 30 mm) w/ FNB-V57	
Weight (Approx.)	10.6 oz (300 g) with FNB-V67LI, Antenna and Belt clip	
<b>Receiver Measured by TIA/EIA-603</b>		
Circuit Type	Double-conversion Super-heterodyne	
Sensitivity (12-dB SINAD)	< 0.25 µV	
Adjacent Selectivity	> 70 dB (25/20 kHz) / > 65 dB (12.5 kHz)	
Intermodulation	> 70 dB	
Spurious Rejection	> 70 dB	
Image Rejection	> 70 dB	
FM Hum and Noise	> 45 dB	
AF Output	0.5 W @ 4 Ohms, 5 % THD	
<b>Transmitter Measured by TIA/EIA-603</b>		
Power Output	5.0/1.0 W (Selectable)	
Frequency Stability	Better than ±2.5 ppm	
Modulation	16K0F3E, 11K0F3E	
Maximum Deviation	±5.0 kHz (25 kHz) / ±2.5 kHz (12.5 kHz)	
FM Noise	> 45 dB	
Spurious Emission	70 dB below carrier	
AF Distortion (@ 1 kHz)	< 3 %	
Microphone Type	2-k Ohms condenser	

Measurements per EIA standards unless noted above. Specifications are subject to change without notice or obligation.

## Applicable MIL-STD

Standard	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures	MIL 810F Methods/Procedures
Low Pressure	500.2/Procedure I, II	500.2/Procedure I, II	500.3/Procedure I, II
High Temperature	501.2/Procedure I, II	501.3/Procedure I, II	501.4/Procedure I, II
Low Temperature	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II
Temperature Shock	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II
Rain	506.2/Procedure II	506.3/Procedure II	506.4/Procedure I, III
Humidity	507.2/Procedure II, III	507.3/Procedure II, III	507.4
Salt Fog	509.2	509.3	509.4
Dust	510.2/Procedure I	510.3/Procedure I	510.4/Procedure III
Vibration	514.3/Procedure Cat. 10	514.4/Procedure Cat. 10	514.5/Procedure Cat. 24
Shock	516.3/Procedure I	516.4/Procedure I	516.5/Procedure I

## Accessories & Options

 <b>MH-45B4B</b> Speaker/Microphone	 <b>MH-37A4B</b> Earpiece / Microphone	 <b>VC-25</b> VOX Headset
 <b>FVP-25</b> DTMF Pager Unit	 <b>FNB-V57</b> 7.2V 1100 mAh Ni-Cd Battery Pack	 <b>FNB-V88</b> 7.2V 1000 mAh Ni-Cd Battery Pack
 <b>FNB-83</b> 7.2V 1400 mAh Ni-MH Battery Pack	 <b>FNB-V67LI</b> 7.4V 1600 mAh Lithium-Ion Battery	 <b>FBA-25A</b> Alkaline Battery Case (6 x AA size)
 <b>VAC-10B/C*</b> Desktop Rapid Charger (for FNB-V57/83/V88)	 <b>VAC-800B/C*</b> Desktop Rapid Charger (for FNB-V57/V88)	 <b>VAC-6800</b> 6-Unit Multi Charger (for FNB-V57/V88)
 <b>VAC-810B/C*</b> Desktop Rapid Charger (for FNB-V67LI)	 <b>VAC-6810</b> 6-Unit Multi Charger (for FNB-V67LI)	
 <b>FIF-10/A</b> USB Programming Interface	 <b>CT-106</b> Radio Programming Cable (for FIF-10/A)	 <b>VCM-1</b> Mobile Mounting Bracket (for VAC-800/810)
	 <b>CT-42</b> PC Programming Cable (CT-28 + CT-29)	 <b>CT-27</b> Cloning Cable (Set-to-Set Cloning)
	 <b>CE47</b> Programming Software	*B for 120 VAC / C for 220-240 VAC



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