

# VX-920E Series

## VHF/UHF Portable Radios

### SPECIFICATION SHEET

### Dependable Communications For Long-Term Reliability

The VX-920E Series is ready to respond when you are with state-of-the-art engineering and a wide array of features, providing great value in its class.

#### Withstands Harsh Environments

Rain, snow, fire suppression spray and dust are no problem for these radios manufactured to strict IP ratings. The VX-920E series meets international waterproofing standard IP57 where water does not harm the radio when submersed to a depth of 1 metre for up to 30 minutes.

#### Never Miss An Important Call

Includes DTMF paging and unmatched flexibility in scanning features that are designed to optimise operation in a wide variety of environments. In addition to basic scan, you also get Priority, Dual Watch, Follow-me, Follow-me Dual Watch and Talk Around scanning with a programmable home channel function built-in.

#### When Safety Counts – Never Be Alone

When help is needed, the VX-920E Series has Emergency notification that will switch to a designated channel and send an emergency alert. The radios also include Remote Listen which turns the radio on remotely if needed to check out what is happening near the radio.

#### Loud Audio For Noisy Environments

With 700 mW audio output, be assured of hearing critical information you need.

#### Dual-Band Receive For Enhanced Communications

With the Sub-Receiver option, get dual-band receive for greater flexibility and multi-agency interoperability when full situational awareness at all times is a must. Single VHF or UHF transmit with dual-band receive makes Public Safety operations less stressful and more productive.

#### Exclusive Auto-Range Transpond System – ARTS™

Only Vertex Standard radios are designed to inform you when you and another ARTS™-equipped station are within communication range. If out of range for more than 2 minutes, your radio senses no signal has been received and beeps to alert you. The base station can then alert the field unit to move back in range. A great solution to keep your workers co-ordinated.



Top



VX-929E

VX-924E

VX-921E

133 (H) X 57.5 (W) X 37.5 (D) mm



### The Vertex Standard Difference

Our number one goal is achieving superior customer satisfaction by delivering products and services that exceed your expectations. Count on Vertex Standard for radios that are built to last and designed to provide more features for a better return on your investment. Ask your Dealer for more details.

## Additional Features

- 512 Channel capacity (VX-929E/924E)
- 48 Channel capacity (VX-921E)
- Wide band coverage
- Seven programmable keys (VX-929E/924E)
- Three programmable keys (VX-921E)
- Programmable 3-position toggle key
- Direct channel recall
- 12-Character LCD (VX-929E/924E)
- RX/TX Battery power save
- DTMF ANI
- Stun / kill / revive (5-tone)
- Lone Worker
- 2-Tone encode and multiple 2-tone decode
- 5-Tone signaling
- MDC-1200<sup>®</sup> ANI encode
- Compander
- Whisper
- Minimum volume control
- Clear voice and audio pitch control
- 7-Colour LED call alert indicator
- User selectable tone (VX-929E/924E)
- Radio-to-radio cloning

## Accessories

- MH-50D7A: Public Safety speaker mic w/toggle
- MH-66A7A: Submersible noise cancelling speaker mic
- MH-66B7A: Submersible speaker mic w/PF key & toggle
- VH-121: 3-Wire mini lapel microphone surveillance kit
- VH-131: 2-Wire earpiece, palm mic. with PTT
- VH-111: Over-the-head dual-muff headset
- FNB-V92LI: 3000 mAh Li-Ion battery
- FNB-V87LI: 2000 mAh Li-Ion battery
- FNB-V86LI: 1150 mAh Li-Ion battery
- FBA-34: Alkaline battery case (holds 6 AA batteries)
- VAC-920: Desktop rapid charger
- VAC-6920: 6-Unit rapid charger
- VCM-2: Vehicular charger kit
- LCC-920S: Leather case w/swivel belt clip

## Option Boards

- FVP-25: Voice Inversion Encryption & DTMF Paging
- FVP-35: Rolling Code Encryption
- FVP-36: Voice Inversion Encryption
- DVS-5: Digital voice storage
- VME-100: MDC-1200<sup>®</sup> / GE-STAR<sup>®</sup> ANI Encode
- VMDE-200: MDC-1200<sup>®</sup> / GE-STAR<sup>®</sup> ANI Enc./Dec.
- SRX-3D/H: Dual-band Rx module (adds UHF Rx)
- SRX-4: Dual-band Rx module (adds VHF Rx)

## VX-920E Series Specifications



	MB (VX-924)	VHF	UHF
<b>General Specification</b>			
Frequency Range	66 - 88 MHz	134 - 174 MHz	400 - 470 MHz; 450 - 520 MHz
Number of Channels and Groups	512 and 32 Groups (VX-929E/924E) 48 and 3 Groups (VX-921E)		
Power Supply Voltage	7.4V DC ± 20%		
Channel Spacing	12.5 / 20 / 25 kHz		
PLL Steps	5 / 6.25 kHz		
Battery Life (5-5-90 duty)	23 hrs (18 hrs w/o saver)   21.5 hours (16.5 hrs w/o saver)		
3000 mAh FNB-92LI	16 hrs (12.5 hrs w/o saver)   15 hrs (11.5 hrs w/o saver)		
2000 mAh FNB-V87LI			
IP Rating	IP 57		
Operating Temperature Range	-30° C to +60° C		
Frequency Stability	±2.5 ppm		
RF Input-Output Impedance	50 Ohms		
Dimension (H x W x D)	133 x 57.5 x 37.5 mm (w/FNB-V86LI)		
Weight (Approx.)	370 g (w/FNB-V86LI, ANT and Belt Clip)		
<b>Receiver Specification: measured by EN 300 086</b>			
Sensitivity 20 dB SINAD	- 4 / -2 dB µV emf		
Adjacent Channel Selectivity	75 / 65 dB		
Intermodulation	65 dB		
Spurious and Image Rejection	80 dB	75 dB	
Audio Output	700 mW @ 16 Ohms 5% THD		
<b>Transmitter Specification: measured by EN 300 086</b>			
Output Power	5 / 2.5 / 1 / 0.25 W		
Modulation Limiting	± 5 kHz @ 25 kHz ± 4 kHz @ 20 kHz ± 2.5 kHz @ 12.5 kHz		
Modulation	16K0F3E, 11K0F3E		
Spurious Emissions	70 dB -36 dBm @ ≤ 1 GHz, -30 dBm @ > 1 GHz (EN)		
FM Hum & Noise	45 / 40 dB		
Audio Distortion	< 3 % @ 1kHz		

## Applicable MIL-STD

Standard	MIL 810C Methods/ Procedures	MIL 810D Methods/ Procedures	MIL 810E Methods/ Procedures	MIL 810F Methods/ Procedures
Low Pressure	500.1	500.2	500.3	500.4
High Temperature	501.1/Procedure I, II	501.2/Procedure I, II	501.3/Procedure I, II	501.4/Procedure I, II
Low Temperature	502.1/Procedure I, II	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
Solar Radiation	505.1/Procedure I	505.2/Procedure II Cat. A1	505.3/Procedure II Cat. A1	505.4/Procedure I, II Cat. A1
Rain	506.1/Procedure I	506.2/Procedure I	506.3/Procedure I, II	506.4/Procedure I
Humidity	507.1/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	-
Salt Fog	509.1	509.2	509.3	509.4
Dust	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, III
Vibration	514.2/ Procedure VIII, X	514.3/Procedure I Cat. 10	514.4/Procedure I Cat. 10	514.5/Procedure I Cat. 20, 24
Shock	516.2/Procedure I	516.3/Procedure I	516.4/Procedure I	516.5/Procedure I

Specifications are subject to change without notice or obligation.

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