VX-210A SERIES

VHF/UHF Portable Radios

RUGGED, LIGHTWEIGHT, AND AFFORDABLE PORTABLE RADIOS WITH UNMATCHED COST-PERFORMANCE AND VERSATILITY

- LIGHT WEIGHT AND COMPACT SIZE
- 16 CHANNEL CAPACITY
- 5 WATTS POWER OUTPUT (Selectable to 1 Watt)
- MIL-STD 810 C/D/E
- SUPER RUGGED CONSTRUCTION
- LOUD, CLEAR AUDIO OUTPUT
- 12.5/25 kHz BANDWIDTH PROGRAMMABLE BY CHANNEL
- CTCSS/DCS ENCODE + DECODE
- DTMF ANI
- DUAL 2-TONE DECODE
- MULTI-MODE SCAN (incl. Dual Watch, Priority, Follow-Me)
- VOICE INVERSION ENCRYPTION AVAILABLE
- ARTS™ (Auto-Range Transponder System)
- POSITIVE LOCK CHANNEL SELECTOR
- DTMF 16 KEYPAD (for VX-Trunk Operation)
- BCLO, BTLO, AND TOT FUNCTIONS
- TX/RX BATTERY SAVER CIRCUIT
- PC PROGRAMMING
- RADIO-TO-RADIO CLONING
- INTRINSICALLY SAFE VERSION AVAILABLE

Actual Size

Vertex Standard

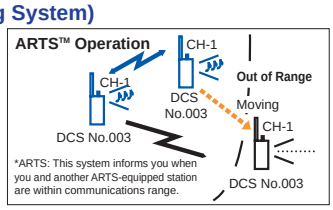
LIGHT WEIGHT AND COMPACT SIZE
Weighing just 3/4 of a pound and measuring just 4.21" x 2.28" x 1.0" (WHD) the VX-210A is ideal for business, industry, and public safety applications where light weight and compact size are important.

CTCSS / DCS ENCODE + DECODE
High-performance Encoder/Decoder circuits for both CTCSS and Digital Code Squelch are provided, for access to tone/code controlled systems. DCS is ideal for crowded RF environments, providing superior immunity from false opening of squelch.

DTMF ANI
A DTMF Automatic Number Identification string may be programmed into the VX-210A, providing the dispatcher with a multiple-digit confirmation of the transmitting portable's identity.

DUAL 2-TONE DECODE
For applications where a portable may be receiving calls from more than one dispatcher on a particular channel, the VX-210A includes a built-in Dual Two-Tone Decoder circuit.

ARTS™ (Auto Range Transponding System)
Included in the VX-210A is Vertex Standard's exclusive ARTS™ feature, which provides a "hand-shake" with other ARTS™-equipped radios. An audible "Beep" advises if an "Out of Range" condition exists, so the dispatcher can instruct the portable user to move to a better location.



POSITIVE LOCK CHANNEL SELECTOR
The channel selector of the VX-210A is a "Lift and Turn" knob, which virtually eliminates the possibility of accidental channel change.

BCLO, BTLO, AND TOT FUNCTIONS
To facilitate efficient channel management, the VX-210A provides Busy Channel Lock-Out (BCLO) and Busy Tone Lock-Out (BTLO) features. What's more, the transmitter's Time-Out Timer (TOT) function prevents a "stuck microphone" condition from jamming a channel for an extended period of time.

TX/RX BATTERY SAVER CIRCUIT
To conserve battery capacity, both Transmit and Receive Battery Saver functions may be engaged on the VX-210A. On Receive, the radio is set to a "sleep" mode, in which it periodically checks for channel activity. On Transmit, the power level is reduced if the incoming (received) signal strength is very high, indicating that only short-distance communication is required.

VOICE INVERSION ENCRYPTION AVAILABLE
The FVP-25 Encryption Unit provides security for your important public safety and private security communications, and it also includes a DTMF Paging function for selective calling.

SUPER RUGGED CONSTRUCTION
The VX-210A utilizes a high-impact plastic case, designed for years of use under difficult conditions. Its controls, switches, and antenna are all ruggedized to stand up to real-world operating environments.

MULTI-MODE SCAN
Maximum channel coverage and operating flexibility are provided by the multiple Scanning modes. These include two-channel Dual Watch, Priority Channel Scanning, and "Follow-Me" Scanning.

PC PROGRAMMING
The channel and feature configurations are easily programmed in minutes by the dealer, using the optional CT-42A Programming Cable and CE45 Programming Software.

Applicable MIL-STD

MIL-STD 810 C/D/E
Built to meet or exceed the requirements of the U.S. MIL-STD 810 C/D/E standard, the VX-210A is designed to survive under difficult operating conditions of shock and vibration. Cost-performance begins with durability, and the Mil-Spec toughness of the VX-210A is your guarantee of its design quality.

Standard	MIL 810C Methods/Procedures	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures
Low Pressure		500.2/Procedure 1	500.3/Procedure 1
High Temperature		501.2/Procedure 1, 2	501.3/Procedure 1, 2
Low Temperature		502.2/Procedure 1, 2	502.3/Procedure 1, 2
Temperature Shock		503.2/Procedure 1	503.3/Procedure 1
Solar Radiation		505.2/Procedure 1	505.3/Procedure 1
Rain		506.2/Procedure 2	506.3/Procedure 2
Humidity		507.2/Procedure 2	507.3/Procedure 2
Salt Fog		509.2/Procedure 1	509.3/Procedure 1
Dust		510.2/Procedure 1	510.3/Procedure 1
Vibration	514.2/Procedure 8	514.3/Procedure 1 Cat. 10	514.4/Procedure 1 Cat. 10
Shock	516.2/Procedure 1	516.3/Procedure 1, 4	516.4/Procedure 1, 4

Specifications

	VX-210Av	VX-210Au
General Specifications		
Frequency Range	134-160 MHz (A) 148-174 MHz (C)	400-430 MHz (AS1) 450-490 MHz (D) 485-512 MHz (F)
Number of Channels	16 Channels	
Channel Spacing	12.5/15/25/30 kHz	12.5/25 kHz
PLL Steps	2.5/6.25 kHz	5/6.25 kHz
Power Supply Voltage	7.5 V DC ± 20 %	
Battery Life (5-5-90 duty)		
w/FNB-V57(1100 mAh)	8.2 hrs. (9.9 hrs. w/saver) @5 W	7.1 hrs. (8.5 hrs. w/saver) @5 W
w/FNB-57IS(1100 mAh)	5.2 hrs. (6.3 hrs. w/saver) @5 W	4.5 hrs. (5.4 hrs. w/saver) @5 W
Operating Temperature Range	−22° F to +140° F (−30° C to +60° C)	
Frequency Stability	±2.5 ppm	
Dimensions	4.21"(W) X2.28"(H) X1.0"(D) (108X58X26 mm)	
Weight (Approx)	0.75 lb. (340 g) w/FNB-V57	

	VX-210Av	VX-210Au
Receiver Specifications	Measurements made per EIA standard TIA/EIA-603	
Sensitivity		
EIA 12 dB SINAD	0.20 µV	0.25 µV
20 dB Quieting	0.30 µV	0.35 µV
Adjacent Channel Selectivity	65 dB (25 kHz) / 60 dB (12.5 kHz)	
Intermodulation	65 dB	
Spurious and Image Rejection	65 dB	
Hum & Noise	45 dB	
Audio Output	500 mW @4 Ohms, 5 % THD	
Transmitter Specifications	Measurements made per EIA standard TIA/EIA-603	
Power Output	5/1 W (Selectable) or 3.5/1W (Selectable) w/FBA-25	
Modulation	16K0F3E / 11K0F3E (Direct FM)	
Conducted Spurious Emissions	60 dB Below Carrier	
FM Hum & Noise	40 dB (25 kHz) / 35 dB (12.5 kHz)	
Audio Distortion (@1 kHz)	<5 %	

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

Accessories & Options


MH-45B4B
Speaker/Microphone (Noise Cancelling)


MH-37A4B
Earpiece/Microphone


VTP-50
VX-Trunk Unit


FNB-V57
7.2 V 1100 mAh Ni-Cd Intrinsically Safe Battery


FBA-25
Alkaline Battery Case (6 x AA)


NC-76B/C
Wall Charger
(B for 120 VAC/ C for 230 ~ 240 VAC)


CT-42A
PC-Programming Cable
(CT-28 + CT-29)


LCC-210
Leather Case


VC-25
VOX Headset


FVP-25
Encryption/DTMF Page Unit


FTT-17
16 key pad for VX-Trunk
(VTP-50 required)


FNB-V57IS
7.2 V 1100 mAh Ni-Cd Intrinsically Safe Battery


VAC-6400
6-Unit Multi charger


VAC-400B/C
Desktop Rapid Charger
(B for 120 VAC/ C for 230 ~ 240 VAC)


VCM-1
Mobile Mounting Bracket for VAC-400


CT-27
Cloning Cable
(Set-to-Set Cloning)

Various accessories listed may not be available in some countries.

Intrinsically Safe Approvals

The VX-210A VHF and UHF models have been given an intrinsically safe rating for use in ANSI/UL-913-88 Class I, II, and III, Division 1, Groups A, B, C, D, E, F, and G hazardous environments, on VHF and UHF models ordered with the Intrinsically Safe option.

Vertex Standard
We make a difference

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