

2007 LMR/PMR Products



 **Vertex Standard**
We make a difference

P25 Transceiver

IP54 Splash Proof **IP55** Water Jets **IP57** Submersible 1 m for 30 min
IS Intrinsically Safe Version Available (For Export Version) **MIL** MIL-STD 810 Rating ★E for CE Version



VX-P829

VX-P824

VX-P821

VX-P920 Series

P25 VHF/UHF Portable Radios

- VX-P929/P924 Series:
 - 512 channels / 32 Groups (w/LCD)
- VX-P921 Series:
 - 48 channels / 3 Groups (w/o LCD)
 - Output Power 5 W
 - Wide Band Coverage
 - Large LCD*
 - Loud 700 mW Audio Output
 - MIL-STD 810 C/D/E & F
 - PC programmable
- Analog (FM) Mode / P25 Digital Mode**
 - AF Minimum Volume
 - Programmable Function Keys
 - Versatile Scanning
 - User Set Mode*
 - Direct Channel Recall*
 - Emergency Feature

IP54 **IP55** **IP57** **MIL** **IS**

Analog (FM) Mode

- Wide / Narrow (12.5 / 20 / 25 kHz per channel)
- DTMF ANI / DTMF Paging
- 2-Tone Encode and Multi-2-Tone Decoding
- 7-color LED (2 Tone mode)
- CTCSS/DCS Encode and Decode
- Lone Worker
- BCLO/BTLO and TOT
- User Selectable Tone*
- TX/RX Battery Save
- Compander (Wide and Narrow Band)
- Clear Voice
- Audio Pitch Control
- ARTS™ (Auto-Range Transpond System)
- MDC-1200® ENC/DEC Options

P25 Digital Mode

- P25 Digital Conventional
- AMBE+2™ Vocoder
- NAC (Network Access Code)
- Talk Group ID
- Individual ID Lists*
- Caller ID Display*
- RSSI Indicator* and Audible Alert
- Mixed Mode
- BCLO and TOT
- AES / DES Encryption Options

*VX-P929 / P924 Series



VX-P829

VX-P824

VX-P821

VX-P820 Series

P25 VHF/UHF Portable Radios

- VX-P829/P824 Series:
 - 512 channels / 32 Groups (w/LCD)
- VX-P821 Series:
 - 16 channels / 1 Group (w/o LCD)
 - Output Power 5 W
 - Wide Band Coverage
 - Large LCD*
 - Loud 700 mW Audio Output
 - MIL-STD 810 C/D/E & F
 - PC programmable
- Analog (FM) Mode / P25 Digital Mode**
 - AF Minimum Volume
 - Programmable Function Keys
 - Versatile Scanning
 - User Set Mode*
 - Direct Channel Recall*
 - Emergency Feature

IP54 **IP55** **IP57** **MIL** **IS**

Analog (FM) Mode

- Wide / Narrow (12.5 / 20 / 25 kHz per channel)
- DTMF ANI
- 2-Tone Encode and Multi-2-Tone Decoding
- 7-color LED (2 Tone mode)
- CTCSS/DCS Encode and Decode
- Lone Worker
- BCLO/BTLO and TOT
- User Selectable Tone*
- TX/RX Battery Save
- Compander (Wide and Narrow Band)
- Audio Pitch Control
- ARTS™ (Auto-Range Transpond System)
- MDC-1200® ENC/DEC Options

P25 Digital Mode

- P25 Digital Conventional
- AMBE+2™ Vocoder
- NAC (Network Access Code)
- Talk Group ID
- Individual ID Lists*
- Caller ID Display*
- RSSI Indicator* and Audible Alert
- Mixed Mode
- BCLO and TOT
- AES / DES Encryption Options

*VX-P829 / P824 Series



VX-7100

VX-7200

VX-7100/7200 Series

P25 VHF/UHF Mobile Radios

- VX-7200 series:
 - 501 channels / 32 Groups
- VX-7100 series:
 - 8 channels / 1 Group
 - High Power 50/25/10W (VHF), 45/25/10W (UHF)
 - Wide Band Coverage
 - Large LCD*
 - D-Sub 15 pin Accessory Connector
 - MIL-STD 810 C/D/E & F
 - PC programmable
- Analog (FM) Mode / P25 Digital Mode**
 - Minimum Volume
 - Programmable Function Keys
 - Versatile Scanning

MIL

- Built-in Emergency Microphone
- User Set Mode*
- Public Address / Horn Alert
- Emergency Feature

Analog (FM) Mode

- Wide / Narrow (12.5 / 20 / 25 kHz per channel)
- DTMF ANI / DTMF Paging
- 2-Tone Encode and Multi-2-Tone Decoding
- CTCSS/DCS Encode and Decode
- BCLO/BTLO and TOT
- User Selectable Tone*
- ARTS™ (Auto-Range Transpond System)
- Compander (Wide and Narrow Band)
- MDC-1200® ENC/DEC Options

P25 Digital Mode

- P25 Digital Conventional
- AMBE+2™ Vocoder
- NAC (Network Access Code)
- Status Symbol
- Talk Group ID
- Individual ID Lists*
- Caller ID Display*
- RSSI Audible Alert
- Mixed Mode
- BCLO and TOT
- AES/DES Encryption Options

*: VX-7200 only

	VX-P920 Series		VX-P820 Series	
	VHF	UHF	VHF	UHF
General Specifications				
Frequency range	134 - 174 MHz	380 - 450 MHz 400 - 470 MHz 450 - 512 MHz	134 - 174 MHz	380 - 450 MHz 400 - 470 MHz 450 - 512 MHz
Number of Channels	512 (VX-P929/P924) / 48 (VX-P921)		512 (VX-P829/P824) / 16 (P821)	
Number of Groups	32 (VX-P929/P924) / 3 (VX-P921)		32 (VX-P829/P824) / 1 (P821)	
Channel spacing	12.5 / 20 / 25 kHz		12.5 / 20 / 25 kHz	
PLL Steps	5 / 6.25 kHz	5 / 6.25 kHz	5 / 6.25 kHz	5 / 6.25 kHz
Operating voltage	7.4 VDC		7.4 VDC	
Battery Life (RX 5 : TX 5 : STBY 90 Duty)	10.4 h w/ FNB-V87LI	10.0 h w/ FNB-V87LI	10.6 h w/ FNB-V87LI	11.0 h w/ FNB-V87LI
Temperature Range	-30° C to + 60° C		-30° C to + 60° C	
Frequency Stability	±2.5 ppm		±2.5 ppm	
Dimensions (W x H x D)	57.5 x 133 x 37.5 mm		57.5 x 96.5 x 37.5 mm	
Weight (approx.)	380 g w/Ant, Battery (FNB-V86LI) and Belt Clip		310 g w/Ant, Battery (FNB-V86LI) and Belt Clip	
Receiver Specifications	Measurements made per TIA/EIA-603 (Analog), TIA-102 CAAA (Digital)			
Sensitivity (12 dB SINAD) EIA	0.25 µV	0.32 µV	0.25 µV	0.32 µV
Digital 5% BER	0.25 µV	0.32 µV	0.25 µV	0.32 µV
Digital 1% BER	0.35 µV	0.40 µV	0.35 µV	0.40 µV
Adjacent Channel Selectivity Analog (W/N)	75 / 70 dB	75 / 70 dB	75 / 70 dB	75 / 70 dB
Intermodulation Analog (W/N)	75 / 70 dB	75 / 70 dB	75 / 70 dB	75 / 70 dB
Spurious and Image Rejection Analog	80 dB	75 dB	80 dB	75 dB
Hum and Noise Analog (W/N)	48 / 42 dB		48 / 42 dB	
Audio Output	700 mW @ 16 Ohms, 5% THD		700 mW @ 16 Ohms, 5% THD	
Transmitter Specifications	Measurements made per TIA/EIA-603 (Analog), TIA-102 CAAA (Digital)			
Power Output	5 / 2.5 / 1 / 0.25 W		5 / 2.5 / 1 / 0.25 W	
Modulation Analog (W/N)	16K0F3E / 11K0F3E		16K0F3E / 11K0F3E	
Digital	8K10F1D / 8K10F1E		8K10F1D / 8K10F1E	
Spurious Emissions	70 dB		70 dB	
FM Hum and Noise Analog (W/N)	46 / 40 dB		46 / 40 dB	
Audio Distortion	Less than 3 % @ 1kHz		Less than 3 % @ 1kHz	

	VX-7100	VX-7200	VX-7100	VX-7200
	VHF		UHF	
General Specifications				
Frequency range	134 - 174 MHz		380 - 450 MHz 400 - 470 MHz 450 - 512 MHz	
Number of Channels	8	501	8	501
Number of Groups	1	32	1	32
Channel spacing	12.5 / 20 / 25 kHz			
Operating voltage	13.6 VDC ±15%			
Current drain				
Standby	0.4 A			
Receive	2.5 A			
Transmit	11.0 A			
Operating Temperature	-30° C to +60° C			
Frequency Stability	±2.5 ppm			
Dimensions (W x H x D)	165 x 43 x 155 mm			
Weight	1.4 kg			
Receiver Specifications				
Measurements made per TIA/EIA-603 (Analog), TIA-102 CAAA (Digital)				
Sensitivity				
Analog 12dB SINAD	0.25 µV		0.30 µV	
Digital 5% BER	0.25 µV		0.30 µV	
Digital 1% BER	0.35 µV		0.40 µV	
Adjacent Channel Selectivity				
Analog (W/N)	85 / 75 dB		80 / 72 dB	
Intermodulation				
Analog (W/N)	80 / 75 dB		80 / 75 dB	
Spurious and Image Rejection				
Analog	90 dB		85 dB	
Hum and Noise				
Analog (W/N)	50 / 44 dB		46 / 40 dB	
Audio Output				
Internal: 2 W @ 32 Ohms 5 % THD				
External: 12 W @ 4 Ohms 5 % THD				
Transmitter Specifications				
Measurements made per TIA/EIA-603 (Analog), TIA-102 CAAA (Digital)				
RF power output	50 / 25 / 10 W		45 / 25 / 10 W	
Modulation				
Analog (W/N)	16K0F3E / 11K0F3E			
Digital	8K10F1D / 8K10F1E			
FM Hum and Noise				
Analog (W/N)	46 / 40 dB			
Spurious Emissions				
	70 dB			
Audio Distortion				
	Less than 3 % @ 1kHz			

VHF/UHF Portables

IP54 Splash Proof **IP55** Water Jets **IP57** Submersible 1 m for 30 min
IS Intrinsically Safe Version Available (For Export Version) **MIL** MIL-STD 810 Rating ★E for CE Version

VX-920/E Series

High Spec Public Safety Portable

- 512 channels / 32 Groups (w/LCD)
- 48 channels / 3 Groups (w/o LCD)
- Power Output: 5 W(Selectable To 2.5, 1.0, 0.25 W)
- Wide Band Coverage
- Large LCD*
- Loud 700 mW Audio Output
- 7-Color LED
- CTCSS/DCS Encode and Decode
- DTMF ANI / Paging
- Built-in 5-Tone signaling
- Remote Radio Stun / Kill / Revive (5-Tone)
- 2-Tone Encode and Multiple-2 Tone Decode
- User Selectable Tone*
- Scan, Priority, Dual Watch, Follow-me, Follow-me / DW and TA Scan
- Compander (Wide and Narrow Band)
- AF Minimum Volume
- Lone Worker
- RX / TX Battery Save
- User Set Mode*
- Clear Voice
- Audio Pitch Control
- ARTS™ (Auto-Range Transpond System)
- Encryption (Option)
- Voice Inversion / Rolling Code
- Voice Storage (Option)
- MDC-1200® / GE-Star® ANI (Option)
- PC Programmable

*w/LCD Models



VX-929

VX-924

VX-921

CE

IP54 **IP55** **IP57** **MIL** **IS**

VX-820/E Series

High Spec and Compact Public Safety / Bus Portable

- 512 channels / 32 Groups (w/LCD)
- 16 channels / 1 Group (w/o LCD)
- Power Output: 5 W(Selectable to 2.5, 1.0, 0.25 W)
- Wide Band Coverage
- Large LCD*
- Loud 700 mW Audio Output
- 7-Color LED
- Wide / Narrow (12.5 / 20 / 25 kHz programmable)
- CTCSS / DCS Encode and Decode
- DTMF ANI
- DTMF Paging (Option)
- Built-in 5-Tone Signaling
- 2-Tone Encode and Multiple-2 Tone Decode
- User Selectable Tone*
- Scan, Priority, Dual Watch, Follow-me, Follow-me/DW and TA Scan
- AF Minimum Volume
- Lone Worker
- Compander (Wide and Narrow Band)
- RX / TX Battery Save
- User Set Mode*
- ARTS™ (Auto-Range Transpond System)
- Encryption (Option)
- Voice Inversion / Rolling Code
- Voice Storage (Option)
- MDC-1200® / GE-Star® ANI (Option)

*w/LCD Models



VX-829

VX-824

VX-821

CE

IP54 **IP55** **IP57** **MIL** **IS**

VX-900 Series

High Spec Public Safety Portable

- 512 Channel Capacity 20 Groups
- Power Output: 5 W(Selectable To 2.5, 1.0, 0.25 W)
- Long Battery Life: 13 (w/FNB-V68LI) or 16 (w/FNB-V69LI) Hours
- Sixteen Position Rotary Channel Selector
- Single / Dual Priority Scan Modes
- Active Noise Canceling Microphone
- Water Shield Microphone Connection
- MIL-Spec Speaker MIC Available
- Loud 700 mW Audio Output
- 8 or 4 Programmable Keys and 3-Position Toggle Switch
- DTMF Signaling & Dialing Features
- CTCSS/DCS Encode and Decode
- Emergency Functions
- Encryption (Option)
- Voice Inversion / Rolling Code
- Optional Alkaline Battery Case
- Radio To Radio Clone Feature
- Talk Around
- BCLQ, BTLO and TOT Functions
- Programmable Minimum Volume
- Die-Cast Chassis
- Non-Wire Main Board Construction
- 8 Character Alphanumeric LCD
- MDC-1200® / GE-Star® ANI (Option)
- SmartTrunk II™ operation available



CE

IP54 **MIL** **IS**



CE

VX-600 Series

High Spec Public Safety Portable

- 48 Channel Capacity (Managed in up to 3 Memory Groups)
- Power Output: 5 W(Selectable To 2.5, 1.0, 0.25 W)
- Long Battery Life: 13(w/FNB-V68LI) or 16 (w/FNB-V69LI) Hours
- Sixteen Position Rotary Channel Selector
- Single / Dual Priority Scan Modes
- Active Noise Canceling Microphone
- Water Shield Microphone Connection
- MIL-Spec Speaker MIC Available
- Loud 700 mW Audio Output
- 8 or 4 Programmable Keys and 3-Position Toggle Switch
- DTMF Signaling & Dialing Features
- CTCSS/DCS Encode and Decode
- Emergency Functions
- Encryption (Option)
- Voice Inversion / Rolling Code
- Optional Alkaline Battery Case
- Radio To Radio Clone Feature
- Talk Around
- BCLQ, BTLO and TOT Functions
- Programmable Minimum Volume
- Die-Cast Chassis
- Non-Wire Main Board Construction
- MDC-1200® / GE-Star® ANI (Option)
- SmartTrunk II™ operation available

IP54 **MIL** **IS**



CE

VX-800 Series

High Spec and Compact Public Safety / Bus Portable

- 200 Channel Capacity
- Power Output: 5 W(Selectable To 2.5, 1.0, 0.25 W)
- CTCSS/DCS Encode and Decode
- Advanced 8 Character Invertible Alphanumeric Display
- Long Battery Life: 16 Hours (W/FNB-62LI, VX-800V W/Saver)
- Active Noise Canceling Microphone
- Programmable/User Definable Scan Modes
- BCLQ, BTLO And TOT Functions
- Programmable Keys + 1 Multi-Position Programmable Toggle Switch
- PC Programmable
- Radio-To-Radio Cloning
- Water Shield Microphone Connection
- MIL-Spec Speaker MIC Available
- Loud 500 mW Audio Output
- Emergency Functions
- Encryption (Option)
- Voice Inversion / Rolling Code
- Embedded Message
- Optional Alkaline Battery Case
- MDC-1200® / GE-Star® ANI (Option)
- SmartTrunk II™ operation available

IP54 **MIL** **IS**

VX-420/E Series

Business Industry Portable

- 32 Channel Capacity (VX-420/E Series)
- 256 Channel Capacity (VX-420A/E Series)
- Power Output: 5 W(Selectable to 1 W)
- 5 Tone Encode / Decode
- 2 Tone Encode + Dual 2 Tone Decode
- CTCSS/DCS Encode and Decode
- DTMF ANI
- Multi-Mode Scan (Incl. Dual Watch, Priority, Follow-me)
- Audio Compander included
- 8 Character Alphanumeric Display
- Loud 500 mW Audio Output
- 2000 mAh Long Life battery (FNB-V67LI)
- 6 program function buttons
- Voice Inversion Encryption included
- Rolling Code Encryption (Option)
- Voice Storage (Option)
- ARTS™ (Auto-Range Transpond System)
- BCLQ, BTLO and TOT functions
- PC Programming
- Radio to Radio Cloning
- Compact and Light weight
- Rugged Construction
- MDC-1200® / GE-Star® ANI (Option)
- SmartTrunk II™ operation available



CE

IP54 **MIL** **IS**

VX-410/E Series

Business Industry Portable

- 32 Channel Capacity
- Power Output: 5 W(Selectable to 1 W)
- 5 Tone Encode / Decode
- 2 Tone Encode + Dual 2 Tone Decode
- CTCSS/DCS Encode and Decode
- DTMF ANI
- Multi-Mode Scan (Incl. Dual Watch, Priority, Follow-me)
- Audio Compander included
- Loud 500 mW Audio Output
- 2000 mAh Long Life battery (FNB-V67LI)
- 2 program function buttons
- Voice Inversion Encryption included
- Rolling Code Encryption (Option)
- Voice Storage (Option)
- ARTS™ (Auto-Range Transpond System)
- BCLQ, BTLO and TOT functions
- PC Programming
- Radio to Radio Cloning
- Compact and Light weight
- Rugged Construction
- MDC-1200® / GE-Star® ANI (Option)
- SmartTrunk II™ operation available



CE

IP54 **MIL** **IS**

VX-350 Series

Business Industry Portable

- 16 Channel Capacity
- Power Output: 5 W (Selectable To 1 W)
- 8 Character Alphanumeric Display (VX-354)
- 36mm Speaker 500 mW Loud Audio
- Compact and Rugged Construction
- Wide/Narrow Bandwidth Per Channel
- CTCSS / DCS Encode and Decode
- 5-Tone Signaling Built-in
- DTMF ANI
- DTMF Paging (Option)
- 2-Tone Encode and Decode
- Emergency Feature
- TX/RX Battery Saver Circuit
- 2000 mAh Long Life Battery (FNB-V96LI)
- Versatile Scan (Priority, Dual Watch, Follow-Me and TA Scan)
- ARTS™ (Auto-Range Transpond System)
- Encryption (Option)
- Voice Inversion, Rolling Code
- MDC 1200® / GE-Star® ANI (Option)
- PC Programming
- Radio-to-Radio Cloning
- MIL-STD 810 D/E/F



IP54 **MIL** **IS**

VHF/UHF Portables

IP54 Splash Proof MIL MIL-STD 810 Rating ★E for CE Version

PMR446

IP54 Splash Proof

VX-180/E Series

Business Industry Portable

- 16 Channel Capacity
- Power Output: 5 W (Selectable to 1 W)
- Light Weight And Compact Size
- 8-Character Alphanumeric Display
- Loud, Clear Audio Output
- 3 Programmable Front-Panel Function Keys
- CTCSS/DCS Encode and Decode
- DTMF ANI
- Dual 2-Tone Decode
- Built-in 5-Tone (VX-180E)
- Multi-Mode Scan (Incl. Dual Watch, Priority, Follow-Me)
- ARTS™ (Auto-Range Transpond System)
- BCLO, BTLO and TOT Functions
- TX/RX Battery Saver Circuit
- PC Programming
- Radio to Radio Cloning
- Rugged Construction



CE IP54 MIL

VX-160/E Series

Business Industry Portable

- 16 Channel Capacity
- Power Output: 5 W (Selectable To 1 W)
- Light Weight And Compact Size
- Loud, Clear Audio Output
- CTCSS/DCS Encode and Decode
- DTMF ANI
- Dual 2-Tone Decode
- Built-in 5-Tone (VX-160E)
- Multi-Mode Scan (Incl. Dual Watch, Priority, Follow-Me)
- ARTS™ (Auto-Range Transpond System)
- BCLO, BTLO and TOT Functions
- TX/RX Battery Saver Circuit
- PC Programming
- Radio to Radio Cloning
- Rugged Construction



CE IP54 MIL

VX-246

Licence Free PMR 446 Radio

- 8 Channel/ 500 mW Output Power (PMR446)
- Full 16 key DTMF Keypad
- CTCSS/DCS Encode and Decode
- Paging Facility (Optional FVP-25 requires)
- Voice Encryption (Optional FVP-25 requires)
- ARTS™ (Auto-Range Transpond System)
- PC Programming
- Radio to Radio Cloning
- Super Rugged Construction



CE IP54

VX-146

Licence Free PMR 446 Radio

- 8 Channel/ 500 mW Output Power (PMR446)
- 8 Character Alphanumeric LCD
- CTCSS/DCS Encode and Decode
- ARTS™ (Auto-Range Transpond System)
- PC Programming
- Radio to Radio Cloning
- Super Rugged Construction



CE IP54

Accessories & Options

VX-P920 / VX-P820 Series

Programming Cable USB FIF-10/A + CT-108 RS-232C CT-29 + CT-115 Programming Software CE76

MH-50D7A Speaker/Microphone (Noise Canceling)	MH-66A7A Submersible External Speaker Microphone	MH-66B7A w/PF key, Toggle	VAC-6920B/C/U* 6-unit Multi Charger for FNB-V86LI, V87LI, V92LI/IS	VAC-920B/C/U* Desktop Rapid Charger for FNB-V86LI, V87LI, V92LI/IS	FBA-34 Alkaline Battery Case (6XAA)	VCM-2 Vehicular Charger Mounting Adapter for VAC-920
VH-111 Over the Head, Heavy Duty Headset	VH-121 3-Wire Earpiece, Mic, Palm PTT Switch	VH-131 2-Wire Earpiece, Palm Mic / PTT Combo	FNB-V92LI/IS* 7.4 V 3000 mAh Li-Ion Battery *IS : IS Version	FNB-V86LI 7.4 V 1150 mAh Li-Ion Battery	FNB-V87LI 7.4 V 2000 mAh Li-Ion Battery	CT-116 LCC-920 LCC-820 CLIP-17A CLIP-17B Radio to Radio Cloning Cable Leather Case (VX-P920 Series) Swivel Belt Clip for VX-P920 Swivel Belt Clip for VX-P820

VX-920 / VX-820 Series

Programming Cable USB FIF-10/A + CT-108 RS-232C CT-29 + CT-115 Programming Software CE59

MH-50D7A Speaker/Microphone (Noise Canceling)	MH-66A7A Submersible External Speaker Microphone	MH-66B7A w/PF key, Toggle	FVP-36 Inversion Encryption Unit	FVP-35 Rolling Code Encryption Unit	DVS-5 Voice Storage Unit	VAC-920B/C/U* Desktop Rapid Charger for FNB-V86LI, V87LI, V92LI/IS	VAC-6920B/C/U* 6-unit Multi Charger for FNB-V86LI, V87LI, V92LI/IS	VCM-2 Vehicular Charger Mounting Adapter for VAC-920
VH-111 Over the Head, Heavy Duty Headset	VH-121 3-Wire Earpiece, Mic, Palm PTT Switch	VH-131 2-Wire Earpiece, Palm Mic / PTT Combo	VME-100 MDC1200a/GE-STARa ANI Encoder Unit	VMDE-200 MDC1200a/GE-STARa ANI Enc/Dec Unit	FVP-25 Encryption/DTMF Pager Unit	FNB-V92LI/IS* 7.4 V 3000 mAh Li-Ion Battery *IS : IS Version	FNB-V86LI 7.4 V 1150 mAh Li-Ion Battery	FNB-V87LI 7.4 V 2000 mAh Li-Ion Battery
			CT-116 LCC-920 Radio to Radio Cloning Cable Leather Case (VX-920 Series)			LCC-820 CLIP-17A CLIP-17B Swivel Belt Clip for VX-920 Swivel Belt Clip for VX-820	FBA-34 Alkaline Battery Case (6XAA)	

VX-900 / VX-600 Series

Programming Cable USB FIF-10/A + CT-105 RS-232C CT-29 + CT-70 Programming Software CE39

MH-50A7A Speaker/Microphone (Noise Canceling)	VH-120 3-Wire Earpiece, Mic, Palm PTT Switch	F2D-8 2-Tone Decode Unit	F5D-14 5-Tone ENC/DEC Unit	FVP-35 Rolling Code Encryption Unit	VAC-6900B/C/U* 6-unit Multi Charger for FNB-V68LI/IS, V69LI/IS	VAC-900B/C/U* Desktop Rapid Charger for FNB-V68LI/IS, V69LI/IS	CT-72 Radio to Radio Cloning Cable
VH-110 Over the Head, Heavy Duty Headset	VH-130 2-Wire Earpiece, Palm Mic / PTT Combo	VME-100 MDC1200a/GE-STARa ANI Encoder Unit	VMDE-200 MDC1200a/GE-STARa ANI Enc/Dec Unit	FVP-25 Encryption/DTMF Pager Unit	FBA-27 Alkaline Battery Case (6 X AA)	FNB-V68LI 7.2 V 1800 mAh Ni-MH Battery	FNB-V69LI 7.2 V 1400 mAh Ni-MH Battery
		VH-115M VH-215M VH-225M Lightweight Headset w/ Boom Lightweight Padded Headset, Single Speaker Lightweight Padded Headset, Dual Speaker			CLIP-17C Swivel Belt Clip	FNB-V68LI IS (IS Version) 7.4 V 1800 mAh Li-Ion Battery	FNB-V69LI IS (IS Version) 7.4 V 2400 mAh Li-Ion Battery
						VCM-1 Vehicular Charger Mounting Adapter for VAC-900	LCC-900/S Leather Case (S for swivel belt clip)

VX-800 Series

Programming Cable USB FIF-10/A + CT-105 RS-232C CT-29 + CT-70 Programming Software CE31

MH-50A7A Speaker/Microphone (Noise Canceling)	VH-120 3-Wire Earpiece, Mic, Palm PTT Switch	F2D-8 2-Tone Decode Unit	F5D-14 5-Tone ENC/DEC Unit	FVP-35 Rolling Code Encryption Unit	FNB-V94 7.2 V 1800 mAh Ni-MH Battery	FNB-V62LI 7.2 V 1100 mAh Li-Ion Battery	FNB-V57 7.2 V 1100 mAh Ni-Cd Battery	FNB-V57IS 7.2 V 1100 mAh Ni-Cd Intrinsically Safe Battery	FNB-83 7.2 V 1400 mAh Ni-MH Battery	VAC-800B/C/U* Desktop Rapid Charger for FNB-V57/IS, FNB-V62LI	VCM-1 Vehicular Charger Mounting Adapter for VAC-800
VH-110 Over the Head, Heavy Duty Headset	VH-130 2-Wire Earpiece, Palm Mic / PTT Combo	VME-100 MDC1200a/GE-STARa ANI Encoder Unit	VMDE-200 MDC1200a/GE-STARa ANI Enc/Dec Unit	FVP-25 Encryption/DTMF Pager Unit	FBA-25A Alkaline Battery Case (6 X AA)	VAC-6800B/C/U* 6-unit Multi Charger for FNB-V57/IS, FNB-V62LI	VAC-10B/C/U* Desktop Charger for FNB-V57/IS, FNB-83/V94	VAC-6010B/C/U* 6-unit Multi Charger for FNB-V57/IS, FNB-83, FNB-V94	VCM-3 Vehicular Charger Mounting Adapter for VAC-10	LCC-800/S Leather Case (S for swivel belt clip)	
		VH-115M VH-215M VH-225M Lightweight Headset w/ Boom Lightweight Padded Headset, Single Speaker Lightweight Padded Headset, Dual Speaker			CT-72 CLIP-17C Radio to Radio Cloning Cable Swivel Belt Clip						

*B for 120 VAC / C for 230 VAC / U for 230 VAC

Accessories & Options

VX-410/E / VX-420/E / VX-420A/E Series			Programming Cable	USB	FIF-10/A + CT-106	RS-232C	CT-29 + CT-28	Programming Software	CE64	CE78 (VX-420A/E)

VX-350 Series			Programming Cable	USB	FIF-10/A + CT-106	RS-232C	CT-29 + CT-28	Programming Software	CE86	

VX-180/E / VX-160/E Series			Programming Cable	USB	FIF-10/A + CT-106	RS-232C	CT-29 + CT-28	Programming Software	CE44	

* B for 120 VAC / C for 230-240 VAC / F for 220-240 VAC / H for 240 VAC / U for 230 VAC w/UK plug

Battery and Charger Map

Model	Battery	VAC -920	VAC -6920	Model	Battery	VAC -10	VAC -800	VAC -810	VAC -6010	VAC -6800	VAC -6810	Model	Battery	VAC -10	VAC -800	VAC -6010	VAC -6800	Model	Battery	VAC -300	VAC -6300
VX-920 Series	FNB-V92LI/IS	○	○	VX-160 Series	FNB-V57	○	○	—	○	—	—	VX-800 Series	FNB-V57	○	○	○	○	VX-350 Series	FNB-V95LI	○	○
VX-820 Series	FNB-V86LI	○	○	VX-180 Series	FNB-V57IS	○	○	—	○	○	—		FNB-V57IS	○	○	○	○		FNB-V96LI	○	○
VX-410 Series	FNB-V87LI	○	○	VX-420 Series	FNB-83	○	—	—	○	—	—		FNB-83	○	—	○	—				
VX-900 Series	FNB-V68LI	○	○		FNB-V94	○	—	—	○	—	—		FNB-V94	○	—	○	—				
VX-600 Series	FNB-V69LI	○	○		FNB-V67LI	—	—	—	○	—	○		FNB-V67LI	—	○	—	○				
	FNB-V69LI/IS	○	○																		
	FNB-V68LI/IS	○	○																		

FNB-V92LI/IS	7.4V 3000 mAh Li-Ion	FNB-V69LI/IS	7.4V 2400 mAh Li-Ion	FNB-V62LI	7.4V 2000 mAh Li-Ion
FNB-V86LI	7.4V 1150 mAh Li-Ion	FNB-V57IS	7.2V 1100 mAh Ni-Cd	FNB-V67LI	7.4V 2000 mAh Li-Ion
FNB-V87LI	7.4V 2000 mAh Li-Ion	FNB-83	7.2V 1400 mAh Ni-MH	FNB-V95LI	7.4V 1800 mAh Li-Ion
FNB-V68LI/IS	7.4V 1800 mAh Li-Ion	FNB-V94	7.2V 1800 mAh Ni-MH	FNB-V96LI	7.4V 2000 mAh Li-Ion

ANTENNA LIST

VHF LOW BAND ANTENNA				UHF	ATU-6A	400-430 MHz
ATL-2A	66-71 MHz	ATU-6D	450-490 MHz			
ATL-2B	70-76 MHz	ATU-6DS	450-485 MHz/3.5"	ATU-6F	490-512 MHz	
ATL-2C	75-81 MHz					
ATL-2D	81-88 MHz					

VHF	ATV-6A	134-151 MHz/3.5"
	ATV-6B	150-163 MHz/3.5"
	ATV-6C	161-174 MHz/3.5"
	ATV-6XL	VHF UNTUNED
	ATV-8A	134-151 MHz
	ATV-8B	150-163 MHz
	ATV-8C	161-174 MHz

	Chager	Sleeve	AC Adapter
VAC-800	CD-16	CA-26	PA-23
VAC-810	CD-16	CA-37	PA-23
VAC-900	CD-16	CA-29	PA-23
VAC-920	CD-31	—	PA-42
VAC-10	CD-30	—	PA-38
VAC-300	CD-34	—	PA-42

VX-146 / VX-246			Programming Cable	USB	FIF-10/A + CT-104/A	RS-232C	CT-29 + CT-126	Programming Software	CE53 (VX-146)	CE40 (VX-246)

* B for 120 VAC / C for 230-240 VAC / U for 230 VAC w/UK plug



MIL

VX-6000 Series

High Power High Spec Public Safety Mobile

- 250 Channel Capacity
- Power Output: Low Band 120W, VHF 110 W, UHF 100 W
- 12.5 / 25 kHz Bandwidth Programmable Per Channel
- 2.5 kHz Step Size
- Large 8-Digit Alphanumeric Display
- 7 Programmable Backlit Keys
- Priority Scan/Group Scan
- Dual Band Capability
- One RF Deck to Multi Head Capabilities
- DTMF Signaling & Dialing Features
- User Selectable Tones / Codes
- CTCSS / DCS Encode and Decode
- Audio Compander
- Emergency Functions
- Encryption (option)
- MDC-1200® / GE-Star® ANI (option)
- Radio to Radio Clone Feature
- Talk Around
- BCLO, BTLO and TOT Functions
- Built In 25 Pin (DB-25) Accessory Connector
- Heavy-Duty Public Safety Microphone Available
- MIL-STD 810 C/D/E



MIL

VX-5500 Series

High Spec Public Safety Mobile

- 250 Channel Capacity
- Power Output: Low Band 70W, VHF 50 W, UHF 45 W
- 12.5 / 25 kHz Bandwidth Programmable Per Channel
- 2.5 kHz Step
- Large 8-Digit Alphanumeric Display
- 7 Programmable Backlit Keys
- Priority Scan/ Group Scan
- Dual Band Capability
- One RF Deck To Multi Head Capabilities
- DTMF Signaling & Dialing Features
- User Selectable Tones / Codes
- CTCSS / DCS Encode and Decode
- Audio Compander
- Emergency Functions
- Encryption (option)
- MDC-1200® / GE-Star® ANI (option)
- Rolling Code Encryption
- Talk Around
- BCLO, BTLO and TOT Functions
- Built In 25 Pin (DB-25) Accessory Connector
- Heavy-Duty Public Safety Microphone Available
- MIL-STD 810 C/D/E



MIL

CNT-5000 w/RMK-5000B

Motorcycle Mobile Control Head

- Remote kit for Motorcycle with VX-5500 or VX-6000's RF deck
- Programmable User Function backlit Keys
- Oversized knobs for Volume control and Channel selection
- Built in Emergency Microphone
- Emergency Key
- Connector for External PTT and Headset
- Size (WxHxD): 120 x 65 x 71 mm
- Super Rugged and Water Proof construction
- MIL-STD 810 C/D/E
- Options • MH-53A8A
- MLS-200



CE MIL

VX-4200/E Series

Public Safety/Business/Industry Mobile

- 501 Channel Capacity(32 Groups)
- Power Output : 50 W(VHF)/45 W (UHF)
- Power Output 25 W CE Version
- Large 12 Alphanumeric and Icon Display
- Programmable Function Keys
- 2-Tone Encode and Multiple 2 Tone Decode
- 5-Tone Signaling Built in
- User Selectable Tones
- CTCSS/DCS Encode and Decode
- DTMF ANI / Paging
- Versatile Scanning
- Encryption (Option)
- Voice Inversion / Rolling Code
- SmartTrunk II™ operation available
- MDC-1200® / GE-Star® ANI (option)
- Voice Storage Function (Option)
- Audio Compander
- Emergency Function
- Loud Speaker Output
- Public Address/Horn Alert
- BCLO, BTLO and TOT Functions
- Remote Radio Stun/Kill/Revive
- ARTS™(Auto-Range Transpond System)
- Built in D-Sub 15 Pin Accessory Connector
- MIL-STD 810 C/D/E



CE MIL

VX-4100/E Series

Public Safety/Business/Industry Mobile

- 8 Channel Capacity
- Power Output : 50 W(VHF)/45 W (UHF)
- Power Output 25 W CE Version
- Programmable Function Keys
- 2-Tone Encode and Multiple 2 Tone Decode
- 5-Tone Signaling Built in
- CTCSS/DCS Encode and Decode
- DTMF ANI / Paging
- Versatile Scanning
- Encryption (Option)
- Voice Inversion / Rolling Code
- Voice Storage Function (Option)
- SmartTrunk II™ operation available
- MDC-1200® / GE-Star® ANI (option)
- Audio Compander
- Emergency Function
- Loud Speaker Output
- Public Address/Horn Alert
- BCLO, BTLO and TOT Functions
- Remote Radio Stun/Kill/Revive
- ARTS™(Auto-Range Transpond System)
- Built in D-Sub 15 Pin Accessory Connector
- MIL-STD 810 C/D/E



MIL

VX-2100/2200 Series

Public Safety/Business/Industry Mobile

- 128 Channel Capacity (VX-2200)
- 8 Channel Capacity (VX-2100)
- Power Output : 50 W (VHF) / 45 W (UHF)
- Wide Band Coverage
- Loud Front Speaker Audio
- CTCSS / DCS Encode and Decode
- DTMF ANI
- 2-Tone Encoder/Decode
- 5-Tone Signaling Built-in
- Emergency Feature
- D-Sub-15 Pin Accessory Connector
- ARTS™(Auto-Range Transpond System)
- DTMF Paging (Option)
- Encryption (Option)
- Voice Inversion / Rolling Code
- MDC-1200® / GE-STAR® ANI (Option)
- MIL-STD 810 C/D/E/F



CE MIL

VX-2100E/2200E Series

Public Safety/Business/Industry Mobile

- 128 Channel Capacity (VX-2200E)
- 8 Channel Capacity (VX-2100E)
- Power Output : 25 W
- Wide Band Coverage
- Loud Front Speaker Audio
- CTCSS / DCS Encode and Decode
- DTMF ANI
- 2-Tone Encoder/Decode
- 5-Tone Signaling Built-in
- Emergency Feature
- D-Sub-15 Pin Accessory Connector
- ARTS™(Auto-Range Transpond System)
- DTMF Paging (Option)
- Encryption (Option)
- Voice Inversion / Rolling Code
- MDC-1200® / GE-STAR® ANI (Option)
- MIL-STD 810 C/D/E/F



MIL

VX-3200/2500 Series

Public Safety/Business/Industry Mobile

- 128 Channel Capacity
- Power Output: V 50 W/U 45 W (VX-3200)
- Power Output: 25 W (VX-2500)
- Alpha-numeric Display
- Dual 2-Tone Decoding
- CTCSS Encode and Decode
- DCS Encoder/ Decoder
- DTMF ANI / Paging
- Versatile Scanning
- Audio Compander Included
- Emergency Function
- Encryption (Option)
- Voice Inversion
- DTMF Paging
- Built-In 9 pin (DB-9) Accessory Connector
- Front Mounted Speaker
- ARTS™ Functions
- TOT, BCLO, BTLO Functions
- Key Assignment Available
- Programmable Alert Tones
- PC Programmable
- Rugged Die-Cast Construction



CE MIL

VX-2500E Series

Public Safety/Business/Industry Mobile

- 32 (16+16) Channel Capacity
- Power Output: 25 W
- Alpha-numeric Display
- 5-Tone Encode and Decode
- Dual 2-Tone Decoding
- CTCSS Encoder/ Decoder
- DCS Encoder/ Decoder
- DTMF ANI Encoder
- Priority Scanning
- Audio Compander Included
- Emergency Function
- Encryption (Option)
- Voice Inversion
- Built-In 9 pin (DB-9) Accessory Connector
- Front Mounted Speaker
- ARTS™ Functions
- TOT, BCLO, BTLO Functions
- Key Assignment Available
- Programmable Alert Tones
- PC Programmable
- Rugged Die-Cast Construction

VHF/UHF Repeater / Base Station

CE



VXR-9000/E Series

VHF/UHF Repeater / Base Station

- 32 Channel Capacity
- Power Output 50 W / 100 W (optional)
- Power Output 25 W CE Version Available
- EIA Rack Mount Size
- Huge Cooling Fan with "Malfunction" Sensor Output
- Automatic DC Backup Switching with Alert
- 6 Dual Function programmable Keys
- CTCSS/DCS
- Multi Tone Decode
- Encryption (optional)
- CW ID and CW Message
- Audio Compander Built in
- 5 Step Automatic Command Sequence
- Coaxial Relay Drivers for Single Antenna Operation; Also TX Attenuator

- Programmed Message Banks for Maintenance Logs or Any other Free Text
- Repeater Occupation Settings to Hold the Last Tone Code (Preset Timer)
- 100 W PA Unit (Optional)

CE



VXR-7000 Series

VHF/UHF Repeater / Base Station

- 16 Channel synthesized
- 10 W to 50 W continuous Duty cycle
- Power Output 25 W CE Version Available
- 12.5 / 25 kHz Bandwidth Programmable by Channel
- 47 CTCSS Tones / 104 DCS Codes Encode and Decode
- 5-Tone / DTMF Encode and Decode
- Community Repeater Operation (Up to 16 Tones / Codes)
- ANI / ENI ID Display (Dealer programmed)
- CW Transmitter ID (Dealer programmed)
- Time-Out Timer, Hang Timer, Guard Timer (Dealer programmed)
- BCLO / BTLO
- Selectable REPEATER mode or BASE transceiver mode
- Selectable LOCAL mode or REMOTE mode
- Optional Internal Duplexer
- PC Programming
- ACC Connector Port & LINE Interface Port
- SmartTrunk II™ operation available



BSC-5000

Base Station Console

- Create Base Station by Installing VX-5500, or VX-6000 Series Mobile
- Internal AC Switching Power Supply or External DC Supply
- Automatic Switch-over to Backup Battery
- Digital Clock (12 H or 24 H)
- Loud Speaker (12 W) and Clear Sound
- Size (WxHxD): 400 x 120 x 352 mm
- Weight: 8 kg (w/o radio)

Options

- MD-12A8J Desktop Microphone
- FAN-1 Cooling Fan
- CT-103 VEGA Tone-Remote Interface Cable SET



MIL



MIL

VX-1210

20 W HF Compact Portable

- SSB, CW, AM And DATA Operating Modes
- 500 Channels
- Power Output: 20 W/5 W (J3E/A1A/F1B), 10 W/2.5 W (H3E)
- Three Custom-programmable Panel Keys
- Battery Charger Supplied (charge Time: 5 Hours Typ.)
- Whip Antenna (YHA-61) Supplied
- Battery Status Monitor
- Transmitter Time-out Timer
- Noise Blanking
- CW Semi-break-in
- Compact Size: 193 (W) X 74 (H) X 274 (D) mm
- Light Weight: Approx. 3.2 kg w/FNB-66LI Lithium-ion Battery
- Alphanumeric Labeling of Memories
- Selcall/Telcall Built in
- "Kill" System To Disable Unauthorized Use (via Selcall)
- Call Alert/Hailer via Handset
- Transcript® SSB Encryption Unit Available
- Field Programming of Frequencies
- Internal Antenna Tuner (Optional)
- Optional Goose-neck Flexible Whip Antenna
- Optional Folding Whip Antenna
- MIL-STD 810 C/D/E

VX-1700

125 W HF Multi Mode Mobile

- A1A (CW), J3E (LSB/USB), A3E (AM), J2B (USB/LSB), 200 Memory Channels (arranged in five banks)
- Alpha-Numeric labeling of Memory channels
- Power Output: 125 W (A1A, J2B, J3E @1.6000 ~ 3.9999 MHz), 100 W (A1A, J2B, J3E @4.0000 ~ 30.0 MHz), 31 W AM Carrier (A3E @1.6000 ~ 3.9999 MHz), 25 W AM Carrier (A3E @4.0000 ~ 30.0 MHz), 31 W AM Carrier (H3E @2.182 MHz)
- Mobile Antenna (Optional)
- Selcall / Telcall built in: Selcall, Telcall, Message Call, Position Request call, Position Send Call, Beacon Request Call
- ALE Operation (requires optional ALE-1 unit)
- Dual Watch Operation
- External Automatic Antenna Tuner, FC-30 and FC-40 available
- VOX
- Noise Blanking
- Dimmer Function
- CW Side Tone Function
- CW Semi-break-in
- Transcript® SSB Encryption Unit Available
- PC Programmable

Accessories & Options

VX-7100/7200 Series

Programming Cable USB FIF-10/A + CT-104/A RS-232C CT-29 + CT-126 Programming Software CE76



MH-25A8J
Standard Microphone



MH-53A8J
Heavy Duty Noise Canceling Microphone



MH-64A8J
Keypad Microphone



MD-12A8J
Desktop Microphone



MLS-200
External Speaker (12 W Peak Power)



FP-1030A
External Power Supply
(13.8 VDC 25 A)



MLS-100
External Speaker (12 W Peak Power)



LF-1
Line Filter

VX-6000 / VX-5500 Series

Programming Cable USB FIF-10/A + CT-105 RS-232C CT-29 + CT-70 Programming Software CE49



MH-25B7A
Standard Microphone



F2D-8
2-Tone Decode Unit
(Requires FIF-7A)



FVP-35
Rolling Code Encryption Unit
(Requires FIF-7A)



FIF-7A
Interface Board for
Optional Boards



MLS-200
External Speaker
(12 W Peak Power)



MLS-100
External Speaker
(12 W Peak Power)



For VX-6000

CNT-6000
Control Head



CNT-6000
Control Head



RF DECK w/ MMB-77
RF Deck for Multi Band Operation

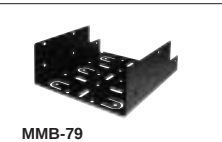


RF DECK w/ MMB-75
RF Deck for Multi Band Operation

For VX-6000



MMB-77
Mobile Mounting Bracket



MMB-79
Locking Mobile Mounting Bracket

For VX-5500



MMB-75
Mobile Mounting Bracket



MMB-76
Locking Mobile Mounting Bracket



MH-53A7A
Heavy Duty Noise Canceling Microphone



F5D-14
5-Tone ENC/DEC Unit
(Requires FIF-7A)



FVP-25
Encryption/DTMF Pager Unit
(Requires FIF-7A)



CN-6
Interface Board for
Accessories



CT-93
Cable for RMK-4000
33 ft (10 m)



CNT-5000
Motorcycle Control Head
RMK-5000B required



CT-81
Cable for RMK-4000
20 ft (6 m)



CT-72
Radio to Radio
Cloning Cable



MH-53C7A
Heavy Duty Microphone



VME-100
MDC1200/GE-STAR[®]
ANI Encoder Unit
(Requires FIF-7A)



FVP-36
Inversion
Encryption Unit
(Requires FIF-7A)



CT-82
Cable for RMK-4000
8 ft (2.5 m)



CT-83
Cable for RMK-4000
2 ft (0.6 m)



LF-1
Line Filter



MH-53B7A
Heavy Duty Noise Canceling
DTMF Microphone

FP-1030A
External Power Supply (13.8 VDC 25 A)



BSC-5000
Base Station Console (w/o VX-6000/5500 and Microphone)



VCS-5000
Channel Selector

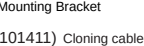


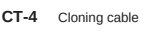
RMK-4000H
Remote Kit for Head

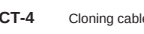


RMK-4000B/RMK-5000B
Remote Kit for RF Deck

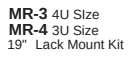
Accessories & Options

VX-4100/E, VX-4200/E Series			Programming Cable	USB	FIF-10/A + CT-104/A	RS-232C	CT-29 + CT-126	Programming Software	CE59
									
									

VX-2100 / 2200/E Series			Programming Cable	USB	FIF-10/A + CT-104/A	RS-232C	CT-29 + CT-126	Programming Software	CE82
									
									

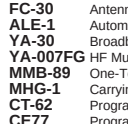
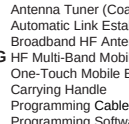
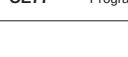
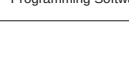
VX-3200 / VX-2500/E Series			Programming Cable	USB	FIF-10/A + CT-104/A	RS-232C	CT-29 + CT-126	Programming Software	CE52 (vx-3200/2500)	CE63 (VX-2500E)
										
										

VXR-9000 Series			Programming Cable	USB	FIF-10/A + CT-104/A	RS-232C	CT-29 + CT-126	Programming Software	CE60
									

VXR-7000 Series			Programming Cable	USB	FIF-10/A + CT-104/A	RS-232C	CT-29 + CT-126	Programming Software	CE27
									

BSC-5000		
		

VX-1210		
		
		
		
		
		

VX-1700		
		
		
		
		

*B for 120 VAC / C for 230 VAC / U for 230 VAC

Specifications Mobiles / Portables

Measurements made per TIA / EIA-603 or EN 300 086 (EN)

LOW BAND				VHF				
General Specifications		VX-6000L	VX-5500L	General Specifications		VX-920/E	VX-820/E	VX-900V
Frequency Range	29.7 ~ 37 MHz (A) 37 ~ 50 MHz (B)	29.7 ~ 37 MHz (A) 37 ~ 50 MHz (B)	250 Channels	Frequency Range	66 ~ 88 MHz 134 ~ 174 MHz	134 ~ 174 MHz	134 ~ 160 MHz (A) 146 ~ 174 MHz (C)	512 Channels
Number of Channels	250 Channels	250 Channels	20 kHz	Number of Channels	512 Channels (48 ch : VX-921/E)	512 Channels (16 ch : VX-821/E)	512 Channels	20
Channel Spacing	20 kHz	20 kHz	5 / 6.25 kHz	Number of Groups	32 (3 : VX-921/E)	32 (1 : VX-821/E)	12.5 / 25 / 30 kHz	5 / 6.25 kHz
PLL Steps	5 / 6.25 kHz	5 / 6.25 kHz	13.4 VDC ±15 %	Channel Spacing	12.5 / 20 / 25 kHz	12.5 / 20 / 25 kHz	7.4 VDC ±20 %	7.4 VDC ±20 %
Power Supply Voltage	13.4 VDC ±15 %	13.6 VDC ±15 %	STBY: 600 mA RX: 2.2 A TX: 22 A	PLL Steps	5 / 6.25 kHz	5 / 6.25 kHz	W/FNB-V86LI: 7 hrs. (9.5 hrs.)	W/FNB-V68LI: 13 hrs. (17 hrs.)
Current Consumption	STBY: 600 mA RX: 2.2 A TX: 22 A	STBY: 600 mA RX: 2.1 A TX: 15 A	STBY: 600 mA RX: 2.1 A TX: 15 A	Power Supply Voltage	7.4 VDC ±20 %	7.4 VDC ±20 %	W/FNB-V87LI: 12.5 hrs. (16 hrs.)	W/FNB-V69LI: 16 hrs. (21 hrs.)
Operating Temperature Range	-30° C to +60° C	-30° C to +60° C	±5 ppm	Battery Life (w/saver)@ 5 W (5 : 5 : 90) Duty	W/FNB-V86LI: 7 hrs. (9.5 hrs.) W/FNB-V87LI: 12.5 hrs. (16 hrs.)	W/FNB-V86LI: 7 hrs. (9.5 hrs.) W/FNB-V87LI: 12.5 hrs. (16 hrs.)	-30° C to +60° C	-30° C to +60° C
Frequency Stability	±5 ppm	±5 ppm	4 Ohms	Operating Temperature Range	-30° C to +60° C	-30° C to +60° C	±2.5 ppm, ±1.5 kHz (EN)	±2.5 ppm, ±1.5 kHz (EN)
RF Input-Output Impedance	50 Ohms	50 Ohms	178 x 60 x 301 mm	Frequency Stability	±2.5 ppm	±2.5 ppm	59x155x34 mm w/FNB-V68LI	420 g w/FNB-V68LI
Audio Output Impedance	4 Ohms	4 Ohms	2.2 kg	Dimensions (WxHxD)	57.5x133x37.5 mm w/FNB-V86LI	57.5x96.5x37.5 mm w/FNB-V86LI		
Dimensions(WxHxD)	178 x 60 x 301 mm	178 x 60 x 301 mm		Weight (w/Ant. Belt clip)	370 g w/FNB-V86LI	310 g w/FNB-V86LI		
Weight	6.9 kg	2.2 kg						
Receiver Specifications				Receiver Specifications				
Sensitivity @EIA 12 dB SINAD	0.25 µV	0.25 µV	0.25 µV	Sensitivity EIA 12 dB SINAD	0.25 µV / 0.32 µV	0.25 µV / 0.32 µV	0.25 µV	0.25 µV
Adjacent Channel Selectivity	85 dB	85 dB	85 dB	EN 20 dB SINAD	-4 / -2 dB µV emf	-4 / -2 dB µV emf	-4 dB µV emf	-4 dB µV emf
Intermodulation	80 dB	80 dB	80 dB	Adjacent Channel Selectivity	75 dB / 70 dB	75 dB / 70 dB	75 dB / 70 dB	75 dB / 70 dB
Spurious and Image Rejection	90 dB	90 dB	90 dB	75 dB / 65 dB (EN)	75 dB / 65 dB (EN)	75 dB / 65 dB (EN)	70 dB / 60 dB (EN)	70 dB / 60 dB (EN)
Audio Output (Internal)	5 W @ 4 Ohms w/ 3 % THD	5 W @ 4 Ohms w/ 3 % THD	5 W @ 4 Ohms w/ 3 % THD	Intermodulation	75 dB / 70 dB	75 dB / 70 dB	75 dB / 68 dB	75 dB / 68 dB
Audio Output (External)	10 W @ 4 Ohms w/ 3 % THD	10 W @ 4 Ohms w/ 3 % THD	10 W @ 4 Ohms w/ 3 % THD	65 dB (EN)	65 dB (EN)	65 dB (EN)	65 dB (EN)	65 dB (EN)
Transmitter Specifications				Transmitter Specifications				
Power Output	120 W Adjustable to 50 W	70 W Adjustable to 30 W	120 W Adjustable to 50 W	Spurious and Image Rejection	80 dB	75 dB	75 dB, 70 dB(EN)	75 dB, 70 dB(EN)
Modulation	16K0F3E	16K0F3E	16K0F3E	Audio Output	700 mW @ 16 Ohms, 5 % THD	700 mW @ 16 Ohms, 5 % THD	700 mW @ 16 Ohms, 5 % THD	700 mW @ 16 Ohms, 5 % THD
Maximum Deviation	5 kHz	5 kHz	5 kHz	Transmitter Specifications				
Conducted Spurious Emissions	80 dB Below Carrier	80 dB Below Carrier	80 dB Below Carrier	Power Output	5 / 2.5 / 1 / 0.25 W	5 / 2.5 / 1 / 0.25 W	5 / 2.5 / 1 / 0.25 W	5 / 2.5 / 1 / 0.25 W
Microphone impedance	600 Ohms	600 Ohms	600 Ohms	Modulation	16K0F3E / 11K0F3E	16K0F3E / 11K0F3E	16K0F3E / 11K0F3E	16K0F3E / 11K0F3E
				Conducted Spurious Emissions	70 dB Below Carrier -36 dBm @≤1 GHz, -30 dBm @>1 GHz (EN)	70 dB Below Carrier -36 dBm @≤1 GHz, -30 dBm @>1 GHz (EN)	70 dB Below Carrier -36 dBm @≤1 GHz, -30 dBm @>1 GHz (EN)	70 dB Below Carrier -36 dBm @≤1 GHz, -30 dBm @>1 GHz (EN)

VHF							
General Specifications	VX-600V CE	VX-800V CE	VX-424/E/VX-414/E CE	VX-424A/E CE	VX-350	VX-180V/E CE	VX-160V/E CE
Frequency Range	134 ~ 160 MHz (A) 146 ~ 174 MHz (C)	134 ~ 160 MHz (A) 146 ~ 174 MHz (C)	134-160 MHz(A) 146-174 MHz(C)	146-174 MHz(C)	134 ~ 174 MHz	134 ~ 160 MHz (A) 146 ~ 174 MHz (C)	134 ~ 160 MHz (A) 146 ~ 174 MHz (C)
Number of Channels	48 Channels	200 Channels	32 Channel (16 +16)	256 Channel	16 Channels	16 Channels	16 Channels
Number of Groups	3	10	2	16	–	–	–
Channel Spacing	12.5 / 25 / 30 kHz	12.5 / 15 / 25 / 30 kHz	12.5 / 20 / 25 kHz	12.5 / 20 / 25 kHz	12.5 / 20 / 25 kHz	12.5 / 20 / 25 kHz	12.5 / 20 / 25 kHz
PLL Steps	5 / 6.25 kHz	5 / 6.25 kHz	2.5 / 6.25 kHz	2.5 / 6.25 kHz	2.5 / 6.25 kHz	2.5 / 6.25 kHz	2.5 / 6.25 kHz
Power Supply Voltage	7.4 VDC ±20 %	7.4 VDC ±20 %	7.5 VDC ±20 %	7.5 VDC ±20 %	7.4 VDC ±20 %	7.5 VDC ±20 %	7.5 VDC ±20 %
Battery Life (w/saver) @ 5 W (5 : 5 : 90) Duty	W/FNB-V68LI: 13 hrs. (17 hrs.) W/FNB-V69LI: 16 hrs. (21 hrs.)	W/FNB-V62LI: 13.5 hrs. (17.5 hrs.)	W/FNB-V67LI:12.5 hrs. (16 hrs.) W/FNB-V57: 7hrs. (8.8hrs.)	W/FNB-V67LI:12.5 hrs. (16 hrs.) W/FNB-V57: 7hrs. (8.8hrs.)	W/FNB-V96LI: 13 hrs. (15.5 hrs.)	w/FNB-V67LI: 14.8 hrs. (18 hrs.) w/FNB-V57: 8.2 hrs. (9.9 hrs.)	w/FNB-V67LI: 14.8 hrs. (18 hrs.) w/FNB-V57: 8.2 hrs. (9.9 hrs.)
Operating Temperature Range	~30° C to +60° C	~30° C to +60° C	~30° C to +60° C	~30° C to +60° C	~30° C to +60° C	~30° C to +60° C / ~20° C to +55° C(EN)	~30° C to +60° C / ~20° C to +55° C(EN)
Frequency Stability	±2.5 ppm, ±1.5 kHz (EN)	±2.5 ppm, ±1.5 kHz (EN)	±2.5 ppm, ±1.5 kHz (EN)	±2.5 ppm, ±1.5 kHz (EN)	±2.5 ppm	±2.5 ppm	±2.5 ppm
Dimensions(WxHxD)	59x155x34 mm w/FNB-V68LI	58x110x28.9 mm w/FNB-V57	58 x 108.5 x 30 mm w/FNB-V57	58 x 108.5 x 30 mm w/FNB-V57	58x105x33 mm w/FNB-V96LI	58x120x31 mm w/FNB-V57	58x120x31 mm w/FNB-V57
Weight (w/Ant. Belt clip)	420 g w/FNB-V68LI	300 g w/FNB-V62LI	300 g w/FNB-V67LI	300 g w/FNB-V67LI	310 g w/FNB-V96LI	365 g w/FNB-V57	365 g w/FNB-V57
Receiver Specifications							
Sensitivity EIA 12 dB SINAD	0.25 µV	0.25 µV	0.25 µV	0.25 µV	0.25 µV	0.20 µV	0.20 µV
EN 20 dB SINAD	-4 dB µV emf	-4 dB µV emf	-4 dB µV emf	-4 dB µV emf	–	-4 dB µV emf	-4 dB µV emf
Adjacent Channel Selectivity	75 dB / 70 dB	75 dB / 70 dB	70 dB / 65 dB	70 dB / 65 dB	65 dB / 60 dB	65 dB / 60 dB	65 dB / 60 dB
Intermodulation	75 dB / 60 dB (EN)	70 dB / 60 dB (EN)	70 dB / 60 dB (EN)	70 dB / 60 dB (EN)	65 dB (EN)	65 dB (EN)	65 dB (EN)
75 dB / 68 dB	65 dB (EN)	65 dB (EN)	70 dB	70 dB	65 dB	65 dB	65 dB
65 dB (EN)	65 dB (EN)	65 dB (EN)	65 dB (EN)	65 dB (EN)	65 dB (EN)	65 dB (EN)	65 dB (EN)
Spurious and Image Rejection	75 dB, 70 dB(EN)	75 dB, 70 dB(EN)	70 dB	70 dB	65 dB	65 dB, 70 dB (EN)	65 dB, 70 dB (EN)
Audio Output	700 mW @ 16 Ohms, 5 % THD	500 mW @ 16 Ohms, 5 % THD	500 mW @ 4 Ohms, 5 % THD	500 mW @ 4 Ohms, 5 % THD	500 mW @ 4 Ohms, 10 % THD	500 mW @ 4 Ohms, 10 % THD	500 mW @ 4 Ohms, 10 % THD
Transmitter Specifications							
Power Output	5 / 2.5 / 1 / 0.25 W	5 / 2.5 / 1 / 0.25 W	5 / 1 W	5 / 1 W	5/1 W	5 / 1 W	5 / 1 W
Modulation	16K0F3E / 11K0F3E	16K0F3E / 11K0F3E	16K0F3E / 11K0F3E	16K0F3E / 11K0F3E	16K0F3E / 11K0F3E	16K0F3E / 14K0F3E / 11K0F3E	16K0F3E / 14K0F3E / 11K0F3E
Conducted Spurious Emissions	70 dB Below Carrier -36 dBm @≤1 GHz, -30 dBm @>1 GHz (EN)	70 dB Below Carrier -36 dBm @≤1 GHz, -30 dBm @>1 GHz (EN)	70 dB Below Carrier -36 dBm @≤1 GHz, -30 dBm @>1 GHz (EN)	70 dB Below Carrier -36 dBm @≤1 GHz, -30 dBm @>1 GHz (EN)	65 dB Below Carrier	70 dB Below Carrier -36 dBm @≤1 GHz, -30 dBm @>1 GHz (EN)	70 dB Below Carrier -36 dBm @≤1 GHz, -30 dBm @>1 GHz (EN)

VHF							
General Specifications	VX-6000V	VX-5500V	VX-4204/E CE	VX-4104/E CE	VX-2100/2200/E CE	VX-3200V	VX-2500V/E CE
Frequency Range	148 ~ 174 MHz (C)	134 ~ 160 MHz (A) 148 ~ 174 MHz (C)	134-174 MHz	134-174 MHz	134 ~ 174 MHz	134 ~ 160 MHz (A) 148 ~ 174 MHz (C)	134 ~ 174 MHz (CS1)
Number of Channels	250 Channels	250 Channels	501 Channels	8 Channels	8/128 Channels	128 Channels	128 / 32 (VX-2500E)
Number of Groups	–	–	32	1	1/8	10	10 / 2 (VX-2500E)
Channel Spacing	12.5 / 25 kHz	12.5 / 25 kHz	12.5 / 20 / 25.0 kHz	12.5 / 20 / 25.0 kHz	12.5 / 20 / 25.0 kHz	12.5 / 15 / 25 / 30 kHz	12.5 / 20 / 25.0 kHz
PLL Steps	2.5 / 5 / 6.25 kHz	2.5 / 5 / 6.25 kHz	2.5 / 5 / 6.25 kHz	2.5 / 5 / 6.25 kHz	2.5 / 5 / 6.25 kHz	2.5 / 5 / 6.25 kHz	5 / 6.25 kHz
Power Supply Voltage	13.4 VDC ±15 %	13.6 VDC ±15 %	13.6 VDC, 13.2 VDC (EN)	13.6 VDC, 13.2 VDC (EN)	13.6 VDC ±15 %	13.6 VDC ±15 %	13.8 VDC, 13.2 VDC (EN)
Current Consumption	STBY: 600 mA RX: 2.2 A TX: 25 A	STBY: 600 mA RX: 2.1 A TX: 12 A	STBY : 0.3 A RX: 2.5 A TX: 6.0 A(25 W), 11.0 A(50 W)	STBY : 0.3 A RX: 2.5 A TX: 6.0 A(25 W), 11.0 A(50 W)	STBY: 200 mA RX: 2.5 A TX: 11.0 A(50 W), TX: 6A (25 W)	STBY: 250 mA RX: 700 mA TX: 10 A	STBY: 250 mA RX: 700 mA TX: 6 A
Operating Temperature Range	~30° C to +60° C	~30° C to +60° C	~30° C to +60° C	~30° C to +60° C	~30° C to +60° C	~30° C to +60° C	~20° C to +55° C(EN)-30° C to +60° C
Frequency Stability	±2 ppm	±2 ppm	±2.5 ppm	±2.5 ppm	± 2.5 ppm	± 2.5 ppm	±5 kHz / ±4 kHz / ±2.5 kHz
RF Input-Output Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms
Audio Output Impedance	4 Ohms	4 Ohms	4 Ohms	4 Ohms	4 Ohms	4 Ohms	4 Ohms
Dimensions(WxHxD)	178 x 60 x 301 mm	178 x 60 x 195 mm	165 x 43 x 155 mm	165 x 43 x 155 mm	165 x 45 x 155 mm	160 x 40 x 170 mm	160 x 40 x 110 mm
Weight	6.9 kg	2.2 kg	1.4 kg	1.4 kg	1.3 kg	1.4 kg	0.85 kg
Receiver Specifications							
Sensitivity @EIA 12 dB SINAD	0.25 µV	0.25 µV	0.25 µV	0.25 µV	0.25 µV	0.25 µV	0.22 µV
EN 20 dB SINAD:	–	–	-4 dB µV emf / -2 dB µV emf	-4 dB µV emf / -2 dB µV emf	-4 dB µV emf / -2 dB µV emf	–	-5 dB µV emf
Adjacent Channel Selectivity	85 dB / 80 dB	85 dB / 80 dB	85 dB / 75 dB	85 dB / 75 dB	75 dB / 65 dB	85 dB / 70 dB	80 dB / 67 dB
Intermodulation	80 dB / 75 dB	80 dB / 75 dB	85 dB / 70 dB(EN)	85 dB / 70 dB(EN)	75 dB / 68 dB(EN)	75 dB / 68 dB(EN)	78 dB / 78 dB, 65 dB (EN)
Spurious and Image Rejection	90 dB	90 dB	80 dB / 75 dB, 70 dB(EN)	80 dB / 75 dB, 70 dB(EN)	73 dB / 70 dB, 68 dB (EN)	80 dB	75 dB, 68 dB (EN)
Audio Output (Internal)	5 W @ 4 Ohms w/ 3 % THD	5 W @ 4 Ohms w/ 3 % THD	90 dB, 80 dB(EN)	90 dB, 80 dB(EN)	90 dB	90 dB	80 dB
Audio Output (External)	10 W @ 4 Ohms w/ 3 % THD	10 W @ 4 Ohms w/ 3 % THD	2 W @ 32 Ohms 5 % THD	2 W @ 32 Ohms 5 % THD	4 W @ 18 Ohms 5 % THD	4 W @ 4 Ohms 5 % THD	4 W @ 4 Ohms 5 % THD
10 W @ 4 Ohms w/ 3 % THD	10 W @ 4 Ohms w/ 3 % THD	10 W @ 4 Ohms w/ 3 % THD	12 W @ 4 Ohms 5 % THD	12 W @ 4 Ohms 5 % THD	12 W @ 4 Ohms 5 % THD	4 W @ 4 Ohms 5 % THD	4 W @ 4 Ohms 5 % THD
Transmitter Specifications							
Power Output	110 W Adjustable to 50 W	50 W Adjustable to 5 W	50 / 25 / 10 W	50 / 25 / 10 W	50 W /25 W / 10 W (50 W)	50 W / 10W	25 W / 5W
Modulation	16K0F3E / 11K0F3E	16K0F3E / 11K0F3E	25 / 12.5 / 5 W (EN)	25 / 12.5 / 5 W (EN)	25 / 12.5 / 5 W / 1 W (25 W)		
Maximum Deviation	5.0 kHz / 2.5 kHz	5.0 kHz / 2.5 kHz	16K0F3E / 11K0F3E	16K0F3E / 11K0F3E	16K0F3E / 11K0F3E	16K0F3E / 11K0F3E	16K0F3E / 14K0F3E / 11K0F3E
Conducted Spurious Emissions	80 dB Below Carrier	80 dB Below Carrier	±2.5 / ±4.0 / ±5.0 kHz	±2.5 / ±4.0 / ±5.0 kHz	±2.5 / ±4.0 / ±5.0 kHz	70 dB Below Carrier	±5 kHz / ±4 kHz / ±2.5 kHz
			75 dB Below Carrier	75 dB Below Carrier	70 dB Below Carrier		80 dB Below Carrier
			-36 dBm @≤1 GHz, -30 dBm @>1 GHz (EN)	-36 dBm @≤1 GHz, -30 dBm @>1 GHz (EN)	-36 dBm @≤1 GHz, -30 dBm @>1 GHz (EN)		-36 dBm @≤1 GHz, -30 dBm @>1 GHz (EN)

•Specifications are subject to change without notice or obligation.

Specifications Mobiles / Portables Measurements made per TIA / EIA-603 or EN 300 086 (EN)

UHF											
General Specifications		VX-920/E	CE	VX-820/E	CE	VX-900U	CE	VX-600U	CE	VX-800U	CE
Frequency Range	400 ~ 470 MHz 450 ~ 520 MHz			400 ~ 470 MHz 450 ~ 520 MHz		400 ~ 430 MHz (AS1) 440 ~ 470 MHz (CS) 450 ~ 490 MHz (D), 485 ~ 512 MHz (F)		400 ~ 430 MHz (AS1) 440 ~ 470 MHz (CS) 450 ~ 490 MHz (D), 485 ~ 512 MHz (F)		400 ~ 430 MHz (AS1) 440 ~ 470 MHz (CS) 450 ~ 490 MHz (D)	
Number of Channels	512 Channels (48 ch : VX-921/E)			512 Channels (16 ch : VX-821/E)		512 Channels		48 Channels		200 Channels	
Number of Groups	32 (3 : VX-921/E)			32 (1 : VX-821/E)		20		3		10	
Channel Spacing	12.5 / 20 / 25 kHz			12.5 / 20 / 25 kHz		12.5 / 25 kHz		12.5 / 25 kHz		12.5 / 25 kHz	
PLL Steps	5 / 6.25 kHz			5 / 6.25 kHz		5 / 6.25 kHz		5 / 6.25 kHz		5 / 6.25 kHz	
Power Supply Voltage	7.4 VDC ±20 %			7.4 VDC ±20 %		7.4 VDC ±20 %		7.4 VDC ±20 %		7.4 VDC ±20 %	
Battery Life (w/saver)@ 5 W (5 : 5 : 90) Duty	W/FNB-V86LI: 7 hrs. (9 hrs.) W/FNB-V87LI: 12.5 hrs. (15 hrs.)			W/FNB-V86LI: 7 hrs. (9 hrs.) W/FNB-V87LI: 12.5 hrs. (15 hrs.)		W/FNB-V68LI: 11 hrs. (14 hrs.) W/FNB-V69LI: 14 hrs. (18 hrs.)		W/FNB-V68LI: 11 hrs. (14 hrs.) W/FNB-V69LI: 14 hrs. (18 hrs.)		W/FNB-V62LI: 12.3 hrs. (15.5 hrs.)	
Operating Temperature Range	-30° C to +60° C			-30° C to +60° C		-30° C to +60° C		-30° C to +60° C		-30° C to +60° C	
Frequency Stability	±2.5 ppm			±2.5 ppm		±2.5 ppm, ±1.5 kHz (EN)		±2.5 ppm, ±1.5 kHz (EN)		±2.5 ppm, ±1.5 kHz (EN)	
Dimensions(WxHxD)	57.5x133x37.5 mm w/FNB-V86LI			57.5x96.5x37.5 mm w/FNB-V86LI		59x155x34 mm w/FNB-V68LI		59x155x34 mm w/FNB-V68LI		58x110x28.9 mm w/FNB-V57	
Weight (w/Ant. Belt clip)	370 g w/FNB-V86LI			310 g w/FNB-V86LI		420 g w/FNB-V68LI		420 g w/FNB-V68LI		300 g w/FNB-V62LI	
Receiver Specifications											
Sensitivity EIA 12 dB SINAD EN 20 dB SINAD	0.25 µV / 0.32 µV -4 / -2 dB µV emf			0.25 µV / 0.32 µV -4 / -2 dB µV emf		0.25 µV -4 dB µV emf		0.25 µV -4 dB µV emf		0.25 µV -4 dB µV emf	
Adjacent Channel Selectivity	75 dB / 70 dB 75 dB / 65 dB (EN)			75 dB / 70 dB 75 dB / 65 dB (EN)		75 dB / 68 dB 70 dB / 60 dB (EN)		75 dB / 68 dB 70 dB / 60 dB (EN)		75 dB / 68 dB 70 dB / 60 dB (EN)	
Intermodulation	75 dB / 70 dB 65 dB (EN)			75 dB / 70 dB 65 dB (EN)		75 dB / 65 dB 65 dB (EN)		75 dB / 65 dB 65 dB (EN)		75 dB / 65 dB 65 dB (EN)	
Spurious and Image Rejection	75 dB			75 dB, 70 dB (EN)		75 dB, 70 dB (EN)		75 dB, 70 dB (EN)		75 dB, 70 dB (EN)	
Audio Output	700 mW @ 16 Ohms, 5 % THD			700 mW @ 16 Ohms, 5 % THD		700 mW @ 16 Ohms, 5 % THD		700 mW @ 16 Ohms, 5 % THD		500 mW @ 16 Ohms, 5 % THD	
Transmitter Specifications											
Power Output	5 / 2.5 / 1 / 0.25 W			5 / 2.5 / 1 / 0.25 W		5 / 2.5 / 1 / 0.25 W		5 / 2.5 / 1 / 0.25 W		5 / 2.5 / 1 / 0.25 W	
Modulation	16K0F3E / 11K0F3E			16K0F3E / 11K0F3E		16K0F3E / 11K0F3E		16K0F3E / 11K0F3E		16K0F3E / 11K0F3E	
Conducted Spurious Emissions	70 dB Below Carrier -36 dBm @±1 GHz, -30 dBm @>1 GHz (EN)			70 dB Below Carrier -36 dBm @±1 GHz, -30 dBm @>1 GHz (EN)		70 dB Below Carrier -36 dBm @±1 GHz, -30 dBm @>1 GHz (EN)		70 dB Below Carrier -36 dBm @±1 GHz, -30 dBm @>1 GHz (EN)		70 dB Below Carrier -36 dBm @±1 GHz, -30 dBm @>1 GHz (EN)	

UHF											
General Specifications		VX-427/E	VX-417/E	CE	VX-427A/E	CE	VX-350	VX-180U/E	CE	VX-160U/E	CE
Frequency Range	300 ~ 340 MHz (K) (VX-417) 350 ~ 380 MHz (I) 400 ~ 440 MHz (AS2) 420 ~ 450 MHz (B) 440 ~ 470 MHz (CS) 450 ~ 490 MHz (D) 490 ~ 520 MHz (F)				440 ~ 470 MHz (CS)		400 ~ 470 MHz 450 ~ 520 MHz	400 ~ 430 MHz (AS1) 440 ~ 470 MHz (CS)		400 ~ 430 MHz (AS1) 440 ~ 470 MHz (CS)	
Number of Channels	32 Channel (16 +16)				256 Channel		16 Channels	16 Channels		16 Channels	
Number of Groups	2				16		-	-		-	
Channel Spacing	12.5 / 20 / 25 kHz				12.5 / 20 / 25 kHz		12.5 / 20 / 25 kHz	12.5 / 20 / 25 kHz		12.5 / 20 / 25 kHz	
PLL Steps	5 / 6.25 kHz				5 / 6.25 kHz		5 / 6.25 kHz	5 / 6.25 kHz		5 / 6.25 kHz	
Power Supply Voltage	7.5 VDC				7.5 VDC		7.5 VDC ±20 %	7.5 VDC ±20 %		7.5 VDC ±20 %	
Battery Life (w/saver)@ 5 W (5 : 5 : 90) Duty	W/FNB-V67LI: 11.5hrs. (15hrs.) W/FNB-V57: 6.5hrs. (8hrs.) -30° C to +60° C				W/FNB-V67LI: 11.5hrs. (15hrs.) W/FNB-V57: 6.5hrs. (8hrs.) -30° C to +60° C		w/FNB-V96LI: 12.5 hrs. (15 hrs.) -30° C to +60° C	w/FNB-V67LI: 12.8 hrs. (15.3 hrs.) w/FNB-V57: 7.1 hrs. (8.5 hrs.) -30° C to +60° C / -20° C to +55° C(EN)		w/FNB-V67LI: 12.8 hrs. (15.3 hrs.) w/FNB-V57: 7.1 hrs. (8.5 hrs.) -30° C to +60° C / -20° C to +55° C(EN)	
Operating Temperature Range	-30° C to +60° C				-30° C to +60° C		-30° C to +60° C	-30° C to +60° C		-30° C to +60° C	
Frequency Stability	±2.5 ppm, ±1.5 kHz (EN)				±2.5 ppm, ±1.5 kHz (EN)		±2.5 ppm	±2.5 ppm, ±1.5 kHz (EN)		±2.5 ppm, ±1.5 kHz (EN)	
Dimensions(WxHxD)	58 x 108.5 x 30 mm w/FNB-V57				58 x 108.5 x 30 mm w/FNB-V57		58x105x33 mm w/FNB-V96LI	58x120x31 mm w/FNB-V57		58x120x31 mm w/FNB-V57	
Weight (w/Ant. Belt clip)	300 g w/FNB-V67LI				300 g w/FNB-V67LI		310 g w/FNB-V96LI	365 g w/FNB-V57		365 g w/FNB-V57	
Receiver Specifications											
Sensitivity EIA 12 dB SINAD EN 20 dB SINAD	0.25 V -3 dB V emf				0.25 V -3 dB V emf		0.25 µV -	0.25 µV -3 dB µV emf		0.25 µV -3 dB µV emf	
Adjacent Channel Selectivity	70 dB / 65 dB 70 dB / 60 dB (EN)				70 dB / 65 dB 70 dB / 60 dB (EN)		65 dB / 60 dB	65 dB / 60 dB 65 dB (EN)		65 dB / 60 dB 65 dB (EN)	
Intermodulation	70 dB 65 dB (EN)				70 dB 65 dB (EN)		65 dB	65 dB (EN)		65 dB (EN)	
Spurious and Image Rejection	70 dB				70 dB		65 dB	65 dB, 70 dB (EN)		65 dB, 70 dB (EN)	
Audio Output	500 mW @ 4 Ohms, 5 % THD				500 mW @ 4 Ohms, 5 % THD		500 mW @ 4 Ohms, 10 % THD	500 mW @ 4 Ohms, 10 % THD		500 mW @ 4 Ohms, 10 % THD	
Transmitter Specifications											
Power Output	5 / 1 W				5 / 1 W		5 / 1 W	5 / 1 W		5 / 1 W	
Modulation	16K0F3E / 11K0F3E				16K0F3E / 11K0F3E		16K0F3E / 11K0F3E	16K0F3E / 14K0F3E / 11K0F3E		16K0F3E / 14K0F3E / 11K0F3E	
Conducted Spurious Emissions	70 dB Below Carrier -36 dBm @±1 GHz, -30 dBm @>1 GHz (EN)				70 dB Below Carrier -36 dBm @±1 GHz, -30 dBm @>1 GHz (EN)		65 dB Below Carrier	70 dB Below Carrier -36 dBm @±1 GHz, -30 dBm @>1 GHz (EN)		70 dB Below Carrier -36 dBm @±1 GHz, -30 dBm @>1 GHz (EN)	

UHF	
General Specifications	VX-6000U
Frequency Range	450 ~ 480 MHz (D)
Number of Channels	250 Channels
Channel Spacing	12.5 / 25 kHz
PLL Steps	2.5 / 5 / 6.25 kHz
Power Supply Voltage	13.4 VDC ±15 %
Current Consumption	STBY: 600 mA RX: 2.2 A TX: 28 A
Operating Temperature Range	-30° C to +60° C
Frequency Stability	±2 ppm
RF Input-Output Impedance	50 Ohms
Audio Output Impedance	4 Ohms
Dimensions(WxHxD)	178 x 60 x 301 mm
Weight	6.9 kg
Receiver Specifications	
Sensitivity @EIA 12 dB SINAD	0.25 µV
Adjacent Channel Selectivity	85 dB / 77 dB
Intermodulation	80 dB / 75 dB
Spurious and Image Rejection	90 dB
Audio Output (Internal)	5 W @ 4 Ohms w/ 3 % THD
(External)	10 W @ 4 Ohms w/ 3 % THD
Transmitter Specifications	
Power Output	100 W Adjustable to 50 W
Modulation	16K0F3E / 11K0F3E
Maximum Deviation	5.0 kHz / 2.5 kHz
Conducted Spurious Emissions	80 dB Below Carrier

UHF										
General Specifications		VX-5500U	VX-4207/E	CE	VX-4107/E	VX-2100/2200/E	CE	VX-3200U	VX-2500U/E	CE
Frequency Range	400 ~ 430 MHz (A) 450 ~ 490 MHz (D) 480 ~ 512 MHz (F)	400-470 MHz 450-520 MHz			400-470 MHz 450-520 MHz	400 ~ 470 MHz 450 ~ 520 MHz		400 ~ 430 MHz (A) 450 ~ 490 MHz (D) 480 ~ 512 MHz (F)	400 ~ 470 MHz (CS1)	
Number of Channels	250 Channels	501 Channels			8 Channels	8/128 Channels		128 Channels	128 / 32 (VX-2500E)	
Number of Groups	–	32			1	1/8		10	10 / 2 (VX-2500E)	
Channel Spacing	12.5 / 25 kHz	12.5 / 20 / 25.0 kHz			12.5 / 20 / 25.0 kHz	12.5 / 20 / 25.0 kHz		25 / 12.5 kHz	25 / 20 / 12.5 kHz	
PLL Steps	2.5 / 5 / 6.25 kHz	2.5 / 5 / 6.25 kHz			2.5 / 5 / 6.25 kHz	5 / 6.25 kHz		5 / 6.25 kHz	5 / 6.25 kHz	
Power Supply Voltage	13.6 VDC ±15 %	13.6 VDC, 13.2 VDC (EN)			13.6 VDC, 13.2 VDC (EN)	13.6 VDC ±15 %		13.6 VDC ±15 %	13.8 VDC, 13.2 VDC (EN)	
Current Consumption	STBY: 600 mA RX: 2.1 A TX: 12 A	STBY : 0.3 A RX: 2.5 A TX: 6.0 A(25 W) 11.0 A(45 W)			STBY : 0.3 A RX: 2.5 A TX: 6.0 A(25 W) 11.0 A(45 W)	STBY: 200 mA RX: 2.5 A TX: 11.0 A (45 W) 6 A (25 W)		STBY: 250 mA RX: 700 mA TX: 10 A	STBY: 250 mA RX: 700 mA TX: 6 A	
Operating Temperature Range	–30°C to +60°C	–30°C to +60°C			–30°C to +60°C	–30° C to +60° C		–30° C to +60° C	–20° C to +55° C(EN)– 30° C to +60° C	
Frequency Stability	±2 ppm	±2.5 ppm			±2.5 ppm	± 2.5 ppm		± 2.5 ppm	±2.5 ppm, ±1.5 kHz (EN)	
RF Input-Output Impedance	50 Ohms	50 Ohms			50 Ohms	50 Ohms		50 Ohms	50 Ohms	
Audio Output Impedance	4 Ohms	4 Ohms			4 Ohms	4 Ohms		4 Ohms	4 Ohms	
Dimensions(WxHxD)	178 x 60 x 195 mm	165 x 43 x 155 mm			165 x 43 x 155 mm	165 x 45 x 155 mm		160 x 40 x 170 mm	160 x 40 x 110 mm	
Weight	2.2 kg	1.4 kg			1.4 kg	1.3 kg		1.4 kg	0.85 kg	
Receiver Specifications										
Sensitivity @EIA 12 dB SINAD EN 20 dB SINAD	0.25 µV –	0.35 µV -3 dB µV emf / -2 dB µV emf			0.35 µV -3 dB µV emf / -2 dB µV emf	0.25 µV -4 dB µV emf / -2 dB µV emf		0.25 µV –	0.25 µV -4 dB µV emf	
Adjacent Channel Selectivity	85 dB / 77 dB	78 / 70 dB 75 / 65 dB (EN)			78 / 70 dB 75 / 65 dB (EN)	73 dB / 65 dB 70 / 65 dB (EN)		80 dB / 67 dB	80 dB / 67 dB	
Intermodulation	80 dB / 75 dB	80 / 75 dB, 70 dB (EN)			80 / 75 dB, 70 dB(EN)	73 dB / 70 dB / 68 dB (EN)		80 dB	75 dB, 68 dB (EN)	
Spurious and Image Rejection	90 dB	80 dB			80 dB	80 dB		90 dB	80 dB	
Audio Output (Internal)	5 W @ 4 Ohms w/ 3 % THD	2 W @ 32 Ohms 5 % THD			2 W @ 32 Ohms 5 % THD	4 W @ 18 Ohms 5 % THD		4 W @ 4 Ohms 5 % THD	4 W @ 4 Ohms 5 % THD	
(External)	10 W @ 4 Ohms w/ 3 % THD	12 W @ 4 Ohms 5 % THD			12 W @ 4 Ohms 5 % THD	12 W @ 4 Ohms 5 % THD		4 W @ 4 Ohms 5 % THD	4 W @ 4 Ohms 5 % THD	
Transmitter Specifications										
Power Output	45 W Adjustable to 5 W	45 / 25 / 10 W 25 / 12.5 / 5 W (EN)			45 / 25 / 10 W 25 / 12.5 / 5 W (EN)	45 W /25 W / 10 W (45 W) 25 / 12.5 / 5 W / 1 W (25 W)		45 W / 10W	25 W / 5W	
Modulation	16K0F3E / 11K0F3E	16K0F3E / 11K0F3E			16K0F3E / 11K0F3E	16K0F3E / 11K0F3E		16K0F3E / 11K0F3E	16K0F3E / 14K0F3E / 11K0F3E	
Maximum Deviation	5.0 / 2.5 kHz	±2.5 / ±4.0 / ±5.0 kHz			±2.5 / ±4.0 / ±5.0 kHz	±2.5 / ±4.0 / ±5.0 kHz		5.0 / 2.5 kHz	±5 kHz / ±4 kHz / ±2.5 kHz	
Conducted Spurious Emissions	80 dB Below Carrier	75 dB Below Carrier -36 dBm @±1 GHz, -30 dBm @>1 GHz (EN)			75 dB Below Carrier -36 dBm @±1 GHz, -30 dBm @>1 GHz (EN)	70 dB Below Carrier -36 dBm @±1 GHz, -30 dBm @>1 GHz (EN)		70 dB Below Carrier	80 dB Below Carrier -36 dBm @±1 GHz, -30 dBm @>1 GHz (EN)	

•Specifications are subject to change without notice or obligation.

Specifications Repeaters

Measurements made per TIA / EIA-603 or EN 300 086 (EN)

	VHF	UHF	VHF	UHF
General Specifications	VXR-9000V/E	VXR-9000U/E	VXR-7000V	VXR-7000U
Frequency Range	134~160 MHz (A) 148~174 MHz (C) 146~174 MHz (EN)	400~430 MHz (A) 440~470 MHz (EN) 450~490 MHz (D) 480~512 MHz (F) 32 Channels	136~150 MHz (A) 150~174 MHz (C)	400~430 MHz (A) 450~480 MHz (D) 480~520 MHz (F) 16 Channels
Number of Channels	32 Channels	2.5 / 5 / 6.25 kHz	16 Channels	5 / 6.25 kHz
PLL Steps	2.5 / 5 / 6.25 kHz	±1.5 ppm, ±1.0 ppm (30 min after wake up)	±2.5 ppm / ±1.0 kHz(EN)	±2.5 ppm / ±1.0 kHz(EN)
Frequency Stability	±1.5 ppm, ±1.0 ppm (30 min after wake up)	±1.5 ppm, ±1.0 ppm (30 min after wake up)	±2.5 ppm / ±1.0 kHz(EN)	±2.5 ppm / ±1.0 kHz(EN)
Antenna Impedance	50 Ohms	50 ohm	50 Ohms (Unbalanced)	50 Ohms (Unbalanced)
Tx Activation System	Carrier, CTCSS tone, DCS, or remote control	Carrier, CTCSS tone, DCS, or remote control	Carrier, CTCSS tone, DCS, or remote control	Carrier, CTCSS tone, DCS, or remote control
Power Requirements	13.6 V DC ±10 %	13.6 V DC ±10 %	115 / 230 V AC ±10 % 50/60 Hz or 13.8 V DC / 200-240 V AC 50/60 Hz or 13.8 V DC(EN)	115 / 230 V AC ±10 % 50/60 Hz or 13.8 V DC / 200-240 V AC 50/60 Hz or 13.8 V DC(EN)
Ambient Temperature Range	-30° C to +60° C	-30° C to +60° C	-30° C to +60° C / -5° C to +55° C(EN)	-30° C to +60° C / -5° C to +55° C(EN)
Dimensions (w/o knobs)	483 x 88 x 343 mm	483 x 88 x 343 mm	325 x 115 x 391.5 mm	325 x 115 x 391.5 mm
Weight (approx.)	9.7 kg	9.7 kg	10 kg	10 kg
Receiver Specifications				
Sensitivity EIA 12 dB SINAD	0.25 μV	0.30 μV	0.35 μV	0.35 μV
EN 20 dB SINAD	-4 dBμ emf	-4 dBμ emf	-2 dBμ emf	-2 dBμ emf
Selectivity	84 dB / 77 dB 70 dB / 60dB (EN)	84 dB / 77 dB 70 dB / 60dB (EN)	80 dB / >70 dB @SEP 25 kHz >60 dB @SEP 12.5 kHz (EN)	80 dB / >70 dB @SEP 25 kHz >60 dB @SEP 12.5 kHz (EN)
Intermodulation	82 dB / 80 dB, 70 dB (EN)	82 dB / 80 dB, 70 dB (EN)	80 dB, >70 dB (EN)	80 dB, >70 dB (EN)
Spurious and Image Rejection	90 dB, 70 dB (EN)	90 dB, 70 dB (EN)	80 dB, >70 dB (EN)	80 dB, >70 dB (EN)
Audio Output	4 W @ 4 Ohms	4 W @ 4 Ohms	4 W @ 4 Ohms 10 % THD	4 W @ 4 Ohms 10 % THD
Transmitter Specifications				
RF Output	50/25/10 W (High / Mid / Low) 25/10/5 W (EN)	50/25/10 W (High / Mid / Low) 25/10/5 W (EN)	10 to 50 W 5 to 25 W (EN)	10 to 50 W 5 to 25 W (EN)
Duty Cycle	50 %	50 %	50 %	50 %
Maximum Deviation	±5.0 kHz / ±2.5 kHz	±5.0 kHz / ±2.5 kHz	±5 kHz / ±2.5 kHz	±5 kHz / ±2.5 kHz
Modulation Type	16K0F3E/11K0F3E	16K0F3E/11K0F3E	16K0F3E / 11K0F3E	16K0F3E / 11K0F3E
Audio Distortion	2.5% @1 kHz	2.5% @1 kHz	Less than 2.5 % @ 1 kHz	Less than 2.5 % @ 1 kHz
Spurious Emissions	80dB below carrier / -36 dBm @≤1 GHz, -30 dBm @>1 GHz (EN)	80dB below carrier / -36 dBm @≤1 GHz, -30 dBm @>1 GHz (EN)	Better than 75 dB Below carrier / -36 dBm @≤1 GHz, -30 dBm @>1 GHz (EN)	Better than 75 dB Below carrier / -36 dBm @≤1 GHz, -30 dBm @>1 GHz (EN)

Specifications HF Radio

	VX-1210	VX-1700
General Specifications		
Frequency Range	RX: 0.5 ~ 30 MHz TX: 1.6 ~ 30 MHz	RX: 30 kHz ~ 30 MHz TX: 1.6 ~ 30 MHz
Number of Channels	500 Channels	200 Channels
Frequency Synthesizer Step Resolution	10 Hz	10 Hz, 100 Hz, 1 kHz
Emission Modes	A1A(CW), J 3E(LSB/USB), H3E(AM), F1B(AFSK)	A1A(CW), J 3E(LSB/USB), A3E(AM), J 2B(USB/LSB), H3E(2.182 MHz Emergency Channel only)
Current Consumption	RX: 500 mA (Saver off), 100 mA (Saver on)TX: 5 A (20 W), 3 A (5 W)	Receive (No Signal): 1.0 A, Receive 1.5 A Transmit: 20 A
Ambient Temperature Range	-30° C to + 60° C	-10° C to + 55° C
Frequency Stability	±1 ppm	±1 ppm
RF Input-Output Impedance	50 Ohms	50 Ohms
Power Supply Voltage	DC 14.4 V Lithium-ion Battery	13.8 VDC ±15%, negative ground
Dimensions	193 x 74 x 274 mm	241 x 99 x 285 mm
Weight	3.2 kg w/FNB-66LI Lithium-ion Battery	4.3 kg
Receiver Specifications		
Sensitivity (10 dB S/N)	0.25 μV (J 3E/A1A)	0.5 ~ 1.6 MHz: J 2B / J 3E / A1A: 1.4μV 0.5 ~ 1.6 MHz: A3E / H3E: 8 μV 1.6 ~ 30 MHz: J 2B / J 3E / A1A: 0.1μV 1.6 ~ 30 MHz: A3E / H3E: 1 μV
Selectivity (-6/-60 dB)	2.4 kHz/5.0 kHz	A1A Wide / J 2B Wide / J 3E: 2.2 / 4.5 kHz A1A Narrow / J 2B Narrow: 500 Hz / 2.0 kHz A3E / H3E: 6 kHz / 20 kHz
Clarifier Range	±200 Hz (J 3E/A1A/F1B), ±400 Hz (H3E)	±1 kHz
Image Rejection (1.8-30 MHz)	80 dB	80 dB
IF Rejection (1.8-30 MHz)	80 dB	80 dB
Conducted Radiation	-55 dBm	-55 dBm
Spurious Response	At least 1.5 W into 4 Ohms @ 10% THD	2.2 W into 8 Ohms @ 10 % THD
Audio Output		
Transmitter Specifications		
Power Output	20 W/5 W (J 3E/A1A/F1B), 10 W/2.5 W (H3E)	J 2B, J 3E, A1A: 125 /100 W (FC-30/100 W) A3E:31/25 W, H3E: 31 W AM Carrier
Modulation Type	Balanced Modulator (SSB:J 3E), Early Stage/Low Level (AM:H3E)	J 3E, H3E: PSN type modulator, A3E: Low-level (early stage)
Spurious Radiation	-56 dB or better	-42 dB (Harmonics), -36 dB (Harmonics @1.6 ~ 1.8 MHz)
SSB Carrier Suppression	55 dB	Better than 60 dB below peak output
Undesired Sideband Suppression	55 dB @ 1.5 kHz tone	60 dB @ 1.5 kHz Modulation Input
SSB Audio Response	350~2650 Hz (-6 dB)	< -6 dB from 400 ~ 2500 Hz
Occupied Bandwidth		A1A: < 0.5 kHz J 3E, H3E: < 3 kHz A3E: < 6 kHz
3rd Order SSB IMD	-31 dB	-25 dB @ 100 W PEP (14 MHz)
Microphone Impedance	2 k Ohms, condenser type	200 ~ 10 k Ohms (600 Ohms Nominal)

*Specifications are subject to change without notice or obligation.



VERTEX STANDARD CO., LTD.

4-8-8 Nakameguro, Meguro-ku, Tokyo 153-8644, J apan

For our latest product news, visit us on the Internet:
http://www.vxstd.com

2007.0410NA(EXP/EU)	B9200569 Printed in J apan
---------------------	----------------------------

Specifications PMR446

	VX-146	VX-246
Frequencies	8 Channel in PMR 446 allocated channels	8 Channel in PMR 446 allocated channels
TX Output Power	446.00625 MHz~446.09375 MHz 500 mW ERP	446.00625 MHz~446.09375 MHz 500 mW ERP
Battery Life	20 Hours for FNB-83 (RX:TX:STBY 5/5/90 duty cycle)	20 Hours for FNB-83 (RX:TX:STBY 5/5/90 duty cycle)
Operating temp. range	-20° C to +55° C	-20° C to +55° C
Sensitivity	0.25 μV @ 12 dB SINAD 0.8 μV emf @ 20 dB SINAD	0.25 μV @ 12 dB SINAD 0.8 μV emf @ 20 dB SINAD
Case Size	58 x 120 x 31 mm (WxHxD)	58 x 108 x 26 mm (WxHxD)
Weight	Approx. 365 g (w/FNB-83)	Approx. 323 g (w/FNB-83)

ISO9001:2000



YAESU MUSEN CO., LTD
ISO9001:2000 certification

ISO14001:2004



YAESU MUSEN CO., LTD
ISO14001:2004 certification



VERTEX STANDARD

http://www.vertexstandard.com

US Headquarters

10900 Walker Street, Cypress, CA 90630, U.S.A.

Phone +1 714-827-7600

YAESU EUROPE B.V.

P.O. Box 75525, 1118 ZN Schiphol, The Netherlands

Phone +31 20-5005270

YAESU UK LTD.

Unit 12, Sun Valley Business Park, Winnall Close
Winchester, Hampshire, SO23 0LB, U.K.

http://www.yaesu.co.uk
Email: sales@yaesu.co.uk

VERTEX STANDARD HK LTD.

Unit 5, 20/F., Seaview Centre, 139-141 Hoi Bun Road,
Kwun Tong, Kowloon, Hong Kong

Phone +852 2732 2288

VERTEX STANDARD AUSTRALIA PTY. LTD.

Normanby Business Park, Unit 14/45 Normanby Road
Notting Hill 3168, Victoria, Australia

Phone +61 3 95182100