



XL CONNECT™ 95P

Flexible. Affordable. Unstoppable.

In today's challenging environment, customers told us they wanted high-quality L3Harris radio technology but in a more affordable configuration.

You spoke, we listened. We packed the XL Connect 95P with the right features to meet your need for unstoppable and secure critical communication connections. With Wi-Fi[®]-enabled voice and device management, you can communicate just about anywhere without ever leaving your system. The XL Connect 95P has features typically only found in higher priced radios, like GPS, Bluetooth[®] connectivity and instant recall. Just like the rest of our XL radios, the XL Connect 95P is:

RELENTLESSLY RELIABLE

XL Radios run on systems that double down on redundancy, champion open networks and connect seamlessly with all P25-compliant organizations.

POINT-TO-POINT SECURE

Our AES-256 encryption provides an end-to-end secure configuration, keeping you safe from threats.

BACKED WITH ALL-IN, 24/7 SUPPORT

Our service packages keep your radios up and running with in-field preventative maintenance and software upgrades.

Key Benefits:

- > Wi-Fi enabled voice and device management
- > Features formerly only available in higher-priced radios like GPS, Bluetooth and instant recall
- > Encrypted voice and data for secure communications
- > The right features at an affordable price
- > Multimode solution supporting P25, EDACS[®] and ProVoice[™]

SPECIFICATIONS FOR: XL CONNECT 95 PORTABLE RADIO

GENERAL	
Specifications	
Radio Model Numbers XN-PF78M XN-PFVUM	XL-95P 700/800 MHz Portable radio XL-95P VHF & UHF Dual band Portable radio
Full Keypad	Color LCD and DTMF keypad
Dimensions (H x W x D): (without antenna, battery, and knobs)	5.9 x 2.4 x 1.9 in (149.6 x 62.0 x 47.2 mm)
Weight (without antenna and battery)	10.9 oz (310g)
Housing Color	Midnight Black
Environmental Specifications	
Relative Humidity	95% @ 140°F (+60°C)
Vibration	9.2G (per U.S. Forest Service)
Drop Shock	1.5 m drop to concrete (exceeds TIA-603-C)
Immersion¹	2 m for 4 hrs in accordance with MIL-STD-810G / IP68 (per IEC60529)
Operating Temperature²	-22° to +140°F (-30° to +60°C)
Storage Temperature	-40° to +176°F (-40° to +80°C)
Store batteries at the following temperatures:	
Li-Ion	-40° to + 176°F (-40° to +80°C)
Altitude	
Operational	15,000 ft (4,572 m)
In Transit	50,000 ft (15,240 m)
Electrical	
Input Voltage	7.5 VDC (nominal)
Safety	
HAZLOC Option	700/800 MHz model: UL certified to UL 121201, CAN/CSA C22.2 No. 213 standards, Non-incendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations. VHF/UHF model: UL approval pending for use in US and Canada in Class I, Division 2, Groups A, B, C and D Hazardous Locations
RoHS compliant	

¹Optional feature

²Extremely low temperatures adversely affect battery life

TRANSMITTER			
Typical Performance Specifications	VHF	UHF	700/800
Frequency Range (MHz): (US) (International)	136-174 MHz	378-522 MHz	768-776, 798-806, 806-816, 851-861 763-776, 793-806, 806-825, 851-870
Rated RF Power (W)	6 (Trnk & Talkaround)	5 (Trnk & Talkaround)	3 (Trnk & Talkaround)
Frequency Stability (-30°C to +60°C, +25°C Ref) (ppm)	±1.0	±1.0	±0.6
Frequency Separation (MHz)	Full Bandwidth	Full Bandwidth	Full Bandwidth (within 700 or 800 MHz band)
Modulation Deviation (kHz)	5.0 (wideband*) 2.5 (narrowband)	5.0 (wideband*) 2.5 (narrowband)	5.0 (wideband*), 4.0 (NPSPAC) 2.5 (narrowband)
FM Hum and Noise Companion Receiver (dB)	45 @ 25 kHz 43 @ 12.5 kHz	45 @ 25 kHz 43 @ 12.5 kHz	44 (700 MHz) 47 (800 MHz NPSPAC) 48 (800 MHz non-NPSPAC)
Spurious and Harmonics (dBm / dBc)	-36/-75	-55 / -90	-55/90
Audio Response (dB)	+1/-3	+1/-3	+1/-3
Audio Distortion (1 kHz tone): @ 3 kHz deviation @ 2.4 kHz deviation @ 1.5 kHz deviation	2%	2%	1% (800 MHz non-NPSPAC) 1% (800 MHz NPSPAC) 1% (700 MHz)
Project 25 Modulation Fidelity (%)	3	3	1
Project 25 Adjacent Channel Power (dBc)	>67	>67	73

*VHF/UHF product is compliant with applicable FCC narrowbanding mandate below 512 MHz

SPECIFICATIONS FOR: XL CONNECT 95 PORTABLE RADIO

REGULATORY DATA						
Frequency Range (MHz)	RF Output (W)	Frequency Stability (ppm)	FCC Type Acceptance Number	Applicable FCC Rules	Industry Canada Certification Number	Applicable Industry Canada Rules
136-174; 378-522	6 (136-174 MHz) 5 (378-522 MHz)	±1.0	TBD	22, 74, 80, 90	TBD	RSS-119
763-775; 793-805; 806-825; 851-870	3	0.2	OWDTR 0162-E	15C, 15E, 90	--	--
768-776; 798-806; 806-824; 851-869	3		--	--	3636B-0162	RSS-119

RECEIVER			
Typical Performance Specifications	VHF	UHF	700/800 MHz
Frequency Range (MHz): (US) (International)	136-174 MHz	378-522 MHz	768-776, 851-861 763-776, 851-870
Frequency Separation (MHz)	Full Bandwidth	Full Bandwidth	Full Bandwidth (within 700 or 800 MHz band)
Channel Spacing (kHz)	25 (wideband*) 12.5 (narrowband)	25 (wideband*) 12.5 (narrowband)	25 (wideband*) 12.5 (narrowband)
Frequency Stability (-30 to +60°C, +25 °C Ref) (ppm)	±1.0	±1.0	±1.5
Sensitivity (12 dB SINAD) (µV / dBm)	0.25/-119.0	0.25/-119.0	0.25/-119.0
Adjacent Channel Selectivity: @ 25 kHz (dB) @ 12.5 kHz (dB)	>70 >60	>77 >69	75 (800 MHz non-NPSPAC) 67 (700 MHz)
Intermodulation (dB)	>77	>77	76
Spurious and Image Rejection (dB)	>90	>77	>74
FM Hum and Noise (dB)	> 50 @ 25 kHz > 45 @ 12.5 kHz	> 50 @ 25 kHz > 45 @ 12.5 kHz	44 (700 MHz) 53 (800 MHz NPSPAC) 54 (800 MHz wideband)
Audio Output (mW)	500 rated (3800 max)	500 rated (3800 max)	500 rated (3800 max)
Audio Distortion @ Rated Power (%)	1.5	1.5	1.5
Project 25 Reference Sensitivity @ 5% BER (µV / dBm)	0.25/-119	0.25/-119	0.25/-119
Project 25 Adjacent Channel Rejection (dB)	60	60	60

*VHF/UHF product is compliant with applicable FCC narrowbanding mandate below 512 MHz

ENVIRONMENTAL STANDARD			
Standard	Parameter	Methods	Procedure / Categories
MIL-STD-810G*	Low Pressure	500.5	1,2
	High Temperature	501.5	1,2
	Low Temperature	502.5	1,2
	Temperature Shock	503.5	1-B
	Solar Radiation	505.5	2
	Blowing Rain	506.5	1
	Humidity	507.5	2
	Salt Fog	509.5	1
	Blowing Dust	510.5	1
	Immersion**	512.5	1
	Vibration (Minimum Integrity)	514.6	1, Category 24
	Vibration (Basic Transportation)	514.6	1, Category 4
	Shock (Functional / Basic)	516.6	1
Shock (Transit Drop)	516.6	4	
IEC 60529	Dust tight, Continuous Immersion	IP68	
U.S. Forest Service	Vibration (10-60 Hz)	USDA LMR Standard Section 2.15	
TIA-603-C***	Shock (1-meter drop)	Paragraph 3.3.5.3	

*Also meets equivalent superseded MIL-STD-810D, E and F

**XL Connect 95P immersion model only. Available option that must be ordered. Additional certification for water intrusion with water depth of 2 meters for 4 hours

***Environmental test certification of 1.5-meter drop shock to concrete using parameters of TIA-603-C 1.0-meter drop shock with additional height

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DIGITAL OPERATION		
Protocol	P25	ProVoice™
Vocoding Method	AMBE+2 Enhanced Full Rate & Enhanced Half Rate	AMBE+2 ProVoice™ Enhanced Full Rate
Signaling Rate (kbps)	9.6	9.6
Modulation	Phase 1 TX: C4FM, RX: C4FM & CQPSK Phase 2 TX: HCPM, RX: HDCQPSK	GFSK
L3Harris Failsoft	Switch to site Trunking mode (for L3Harris infrastructure) or P25 Conventional Failsoft for Motorola	

ENCRYPTION	
Encryption Algorithms	Voice Encryption: Single-key AES/DES, Multiple-key AES/DES, DES-OFB, Encryption Lite (ARC4), 256-bit AES P25, 64-bit DES Control Channel Encryption: 128-bit AES (LLA)
Encryption Keys per Radio	Number of Encryption Keys per Keystore (up to 5 keystores per radio): 128 AES, 64 DES, 5 LLA, 8 Encryption Lite (ARC4), 4 AES UKEK, 4 DES UKEK
Standards	FIPS 140-2 Level 1, FIPS 197

BATTERY				
Type	Dimensions (H x W x D)	Weight	Life (@5% Tx, 5% Rx, and 90% standby)	Capacity (mAh)
Li-Ion	4.42 x 2.44 x 0.83 in	5.1 oz (145 g)	10 hrs	3100

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