



## **XL CONNECT™ 95P**

Flexible. Affordable. Unstoppable.

With 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 just 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. And you'll find features typically only 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 P25-compliant organizations.

### **POINT-TO-POINT SECURE**

Our AES secure configurations are ironclad, keeping your systems safe from threats.

### **BACKED WITH ALL-IN, 24/7 SUPPORT**

Our service packages get your radios up and running and keep them running with preventative maintenance and automatic software upgrades

### **A new way to stay connected that's fit for your budget:**

- > WiFi-enabled voice and device management
- > Always connected, anywhere communications
- > 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

## SPECIFICATIONS FOR: XL CONNECT 95 PORTABLE RADIO

GENERAL	
Radio Model: XN-PF78M	
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)
Immersion <sup>1</sup>	2 m for 4 hrs in accordance with MIL-STD-810G / IP68 (per IEC60529)
Operating Temperature <sup>2</sup>	-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 Options (Future)	UL approval pending for use in US and Canada in Class I, Division 2, Groups A, B, C and D Hazardous Locations
RoHS compliant	

<sup>1</sup>Optional feature

<sup>2</sup>Extremely low temperatures adversely affect battery life

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

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
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

## SPECIFICATIONS FOR: XL CONNECT 95 PORTABLE RADIO

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

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

DIGITAL OPERATION		
Protocol	ProVoice	P25
Vocoding Method	AMBE+2 Enhanced Full Rate	AMBE+2 Enhanced Full Rate & Enhanced Half Rate
Signaling Rate (kbps)	9.6	9.6
Modulation	GFSK	Phase1 TX: C4FM, RX: C4FM & WCQPSK Phase 2 TX: HCPM, RX: WCQPSK

## SPECIFICATIONS FOR: XL CONNECT 95 PORTABLE RADIO

ENCRYPTION	
<b>Encryption Algorithms</b>	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)
<b>Encryption Keys per Radio</b>	Capable of storing 128 keys (64 AES, 64 DES)

\*Interoperates with commonly available ARC4 encryption algorithms.

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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### XL Connect 95P

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L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.



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