

# XL-150P

## Converged Single-Band P25 Land Mobile Radio with LTE

### SPECIFICATIONS FOR: XL-150 PORTABLE RADIO

GENERAL			
Full Keypad	TFT LCD w/DTMF keypad, navigation cluster, soft keys		
Dimensions w/Battery (H x W x D)	5.8 x 2.3 x 1.4 in (148.0 x 60.0 x 36.0 mm)		
Weight	<b>w/ Battery, Antenna and LTE Modem</b> 18.2 oz (516 g)	<b>w/Battery and Antenna</b> 16.2 oz (464 g)	<b>w/o Battery and Antenna</b> 10.4 oz (296 g)
Housing Color	Midnight Black		
<b>Interfaces:</b> Front Display Top Display Keypad Buttons Tx/Rx Indicator	320 x 178 pixels, 1.8 inch transfective LCD, 16-bit color with backlight 128 x 32 pixels, OLED 1.1 inch multi-color backlight, sunlight readable Backlight, 3 soft keys, 5-way navigation key, full DTMF keypad Large PTT button, on/off knob, volume knob, red emergency button, 16-position top-mounted rotary knob, 2-position concentric switch, 4-position toggle switch, 3 programmable side buttons Multi-colored LEDs		
Channel/Talkgroup Capacity	1,250 total conventional channels and 13,824 total talkgroups		
Radio Programming	Firmware, personalities and feature set over Wi-Fi		
Transceiver	<b>Supported Bands</b> VHF, UHF or 700/800 MHz, and LTE (optional)	<b>Channel Capacity</b> 12,500 (1,250 per mission plan)	
<b>Environmental:</b> Relative Humidity Vibration Drop Shock Ingress Rating	5% @ 140°F (+60°C), 95% @ 122°F (+50°C) USDA LMR Standard, Section 2.15 and MIL-STD-810G, Test Method 514.6 1.5 meter drop to concrete (exceeds TIA-603-D) IP65		
Operating Temperature <sup>1</sup>	-22° to +140°F (-30° to +60°C)		
Storage Temperature <sup>2</sup>	-40° to +176°F (-40° to +80°C)		
Altitude	<b>Operational</b> 15,000 feet (4,572 meters)	<b>In Transit</b> 40,000 feet (12,192 meters)	
Electrical Input Voltage	7.5 VDC (nominal)		
<b>GPS/GNSS Specifications:</b> Channels Tracking Sensitivity (dBm) Acquisition Sensitivity (dBm) Cold Start w/-130 dBm input Hot Start w/-130 dBm input	P25 standard Tier 2 52 -166 (GPS), -163 (GLONASS) -146 (GPS) <35 seconds <1 second		
Safety: RoHS Compliant			

<sup>1</sup> Extreme low temperatures adversely affect battery life

<sup>2</sup> Store batteries at +25°C ± 5°C



The XL-150P is AT&T & Verizon Certified and FirstNet Ready™, and is the only Land Mobile Radio in its class with built-in LTE option, Wi-Fi®, Bluetooth® and GPS. This single-band, highly-affordable solution delivers industry-leading, loud, clear audio powered by advanced noise cancellation technologies and a 1.5 watt/4 watt max amplifier with woofer and tweeter speakers. The XL-150P features a full keypad, encrypted voice and data and includes antenna, battery, belt clip and single-bay charger.

## LMR TRANSMITTER

Frequency Bands	VHF	UHF	700/800 MHz	900 MHz
Frequency Ranges (MHz)	136- 74	378-522	768-776, 798-806, 806-816, 851-861	896-902, 935-944
Rated RF Power/Talkaround (W)	1-6	1-5	0.5-3	0.5-3.5
Frequency Stability (-30 to +60°C)	±1.0 ppm	±1.0ppm	±1.0 ppm	±1.0 ppm
Modulation Limiting (kHz)	L2.5, 4, 5 (FM)	2.5, 4, 5 (FM)	2.5, 4, 5 (FM)	2.5, 4, 5 (FM)
Audio Response (dB)	+1/-3	+1/-3	+1/-3	+1/-3
Spurious and Harmonics (dBc)	-80 (FCC Part 90)	-80 (FCC Part 90)	-80 (FCC Part 90)	-80 (FCC Part 90)
FM Hum and Noise Companion Receiver (dB): @ 25 kHz @ 12.5 kHz	70 47	60 47	55 45	55 45
Audio Distortion (%)	<1.25	<1.25	<1.25	<1.25
Project 25 Modulation Fidelity (%)	1.0	1.0	1.0	1.0
Project 25 Adjacent Channel Power (dBc)	>71	>71	>71	>70

## REGULATORY DATA

Frequency Range	RF Output	Frequency Stability	FCC Type Acceptance No.	Applicable FCC Rules	NTIA Cert. No.
136 - 174 MHz	6 W	±1.0 ppm	OWDTR-0133-E	22, 74, 80, 90	SPS-217 49/1
378 - 522 MHz	4 W	±1.0 ppm	OWDTR-0133-E	22, 74, 80, 91	SPS-217 49/1
768 - 776 MHz	3 W	±1.0 ppm	OWDTR-0133-E	90	
798 - 806 MHz	3 W	±1.0 ppm	OWDTR-0133-E	90	
806 - 816 MHz	3 W	±1.0 ppm	OWDTR-0133-E	90	
806 - 825 MHz	3 W	±1.0 ppm	OWDTR-0145-E	90	
851 - 861 MHz	3 W	±1.0 ppm	OWDTR-0133-E	90	
851 - 869 MHz	3 W	±1.0 ppm	OWDTR-0145-E	90	
896 - 901 MHz	3 W	±1.0 ppm	OWDTR-0143-E	90, 24D, 101	
901 - 902 MHz	3 W	±1.0 ppm	OWDTR-0143-E	90, 24D, 101	
940 - 941 MHz	3 W	±1.0 ppm	OWDTR-0143-E	90, 24D, 101	
935 - 940 MHz	3 W	±1.0 ppm	OWDTR-0143-E	90, 24D, 101	
941 - 944 MHz	3 W	±1.0 ppm	OWDTR-0143-E	90, 24D, 101	
2402 - 2460 MHz	VHF single band	0.2 W	N/A	OWDTR-0133-E	15
	UHF single band	0.2 W	N/A	OWDTR-0133-E	15
	RB single band	0.2 W	N/A	OWDTR-0133-E	15
	NRB single band	0.2 W	N/A	OWDTR-0145-E	15
5180 - 5825 MHz	VHF single band	.01 W	N/A	OWDTR-0133-E	15
	UHF single band	.01 W	N/A	OWDTR-0133-E	15
	RB single band	.01 W	N/A	OWDTR-0133-E	15
	NRB single band	.01 W	N/A	OWDTR-0145-E	15

LMR RECEIVER				
Frequency Bands	VHF	UHF	700/800 MHz	900 MHz
<b>Frequency Ranges (MHz):</b> Option 1 (US) Option 2 (International)	136-174 136-174	378-522 378-522	768-776, 851-861 763-776, 851-870	935-944 935-944
<b>Channel Spacing (kHz)</b>	25 (wideband), 12.5 (narrowband), 6.25 equiv (TDMA P25 Phase 2)		25 (wideband), 12.5 (narrowband), 6.25 equiv (TDMA P25 Phase 2)	
<b>Frequency Stability (-30 to +60°C)</b>	±1.0 ppm	±1.0 ppm	±1.0 ppm	±1.0 ppm
<b>Sensitivity (dBm): @ 12 dB SINAD</b>	-122	-121	-121 (700 MHz) -120 (800 MHz)	-120 (900 MHz)
<b>Project 25 Reference Sensitivity (dBm): @ 5% BER</b>	-122	-121	-120.5	-120.5
<b>Analog Selectivity (dB):</b> @ 25 kHz @ 12.5 kHz	77 71	77 70	74 64	74 64
<b>Project 25 Adjacent Channel Rejection (dB)</b>	66.2	62.2	62	62
<b>Offset Channel Selectivity (dB): @ NPSPAC</b>	NA	NA	30	30
<b>Intermodulation (dB)</b>	80	81	77	77
<b>Spurious and Image Rejection (dB)</b>	90	87	80	80
<b>FM Hum and Noise (dB):</b> @ 25 kHz @ 12.5 kHz	-60 -55	-60 -53	-55 -50	-55 -50
<b>Audio Output - Rated/Max (mW)</b>	1500/4000	1500/4000	1500/4000	1500/4000
<b>Audio Distortion @ Rated Power (%)</b>	1.1	1.1	1.1	1.1

BROADBAND	
<b>LTE Protocol</b>	3GPP Release 11, Category 12, Power Class 3 UE with support for QoS QCI (Factory-installed option only)
<b>LTE Option</b>	FCC ID: N7NEM75S 4G LTE Bands: B2, B4, B5, B12, B13, B14, B17, B29*, B30*, B66 3G Bands: B2, B5 Carrier Certification: FirstNet, AT&T, Verizon
<b>Wi-Fi</b>	802.11 b/g/n 2.4 GHz and 5 GHz; supports 24 preconfigured and 8 user configured networks
<b>Bluetooth</b>	Bluetooth 4.0 (128-bit encryption)

\*Downlink only for Carrier Aggregation

DIGITAL OPERATION		
Protocol	ProVoice™	P25
<b>Vocoding Method</b>	AMBE +2™ enhanced full rate	AMBE +2 enhanced full rate and enhanced half rate
<b>Signaling Rate (kbps)</b>	9.6	9.6
<b>Modulation</b>	GFSK	Phase 1 Tx: C4FM, Rx: C4FM and WCQPSK
<b>L3Harris Failsoft operation</b>	Switch to site trunking mode (for L3Harris infrastructure) or P25 conventional	

ENCRYPTION	
<b>Encryption Algorithms</b>	Voice Encryption: Single-key AES/DES, Encryption Lite (ARC4), 256-bit AES P25, 64-bit DES Control Channel Encryption: 128-bit AES (LLA)
<b>Standards</b>	FIPS 197

BATTERIES			
Type	Dimensions (H x W x D)	Weight	Capacity (mAh)
Li-Ion	3.0 x 2.3 x 0.9 in	4.8 oz (136 g)	3100

## ACCESSORIES

### Speaker Microphones

L3Harris offers a versatile line of speaker microphones for the XL-150P. In addition, a premium leather holster is available for attaching to a belt or wearing with the premium leather shoulder strap.



Standard Mic



Revo NC2 Speaker Mic



Advanced Bluetooth Speaker Mic



500 Fire-Rated Speaker Mic

### Chargers

The XL-150P comes bundled with a single-bay charger.



Single-Bay Charger

### Additional Accessories Available

Bluetooth speaker microphones, Bluetooth covert earpieces, standard speaker microphones, Lithium Ion battery, PC programming software and cables, other subminiature surveillance accessories, and antennas.

Technical specifications are subject to change without notice.  
Product sales are subject to applicable U.S. export control laws.

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