

## **XL-185P PORTABLE**

### **Converged LTE Land Mobile Radio**

The L3Harris XL-185P is the industry's leading converged single-band Land Mobile Radio (LMR) with LTE. Situational Awareness is front and center as you combine crystal clear audio over your P25 radio system and data sharing capabilities on nationwide broadband networks. With industry-leading technology at your fingertips, you have more ways and more places to connect.

Engineered for top performance in severe conditions, the XL-185P is an ideal, economical choice for Public Safety and Utility workers. The XL-185P delivers industry-leading, loud audio powered by a 1.5 watt/4 watt max amplifier with woofer and tweeter speakers—and advanced noise cancellation technologies suppressing audio feedback to provide clear communications through a wide range of conditions.

The portable features a ruggedized aluminum I-beam frame and meets MIL-STD-810G for durability, including Method 511.5 for explosive atmospheres and Method 504.1 for contamination by fluids, so it can be scrubbed with cleansers and biological sanitizers.

Compact and lightweight, the XL-185P fits naturally into users' hands, with controls shaped for fast, easy, gloved-hand operation. The color-coded display and easy-access A-B-C-D switching allows fast identification and selection of priority talk groups. First Responders also avoid missing critical calls through the portable's ability to instantly recall and replay received audio.

The XL-185P supports a choice of encryption methods for secure communications, including single-key AES.



### **ADVANCED CONNECTIVITY IN EXTREME ENVIRONMENTS**

#### **KEY BENEFITS**

- > AT&T & Verizon Certified and FirstNet Ready™
- > Loud and clear audio with advanced noise cancellation
- > Ruggedized to meet stringent MIL-spec standards
- > Built-in Wi-Fi®, Bluetooth® and GPS
- > Secure voice and data encryption
- > Intuitive and easy to use

## SPECIFICATIONS FOR: XL-185P PORTABLE RADIO

GENERAL			
Radio Models: Full Keypad Partial Keypad	TFT LCD w/DTMF keypad, navigation cluster, soft keys TFT LCD w/partial 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	w/ Battery, Antenna and LTE Modem 18.2 oz (516 g)	w/Battery and Antenna 16.2 oz (464 g)	w/o Battery and Antenna 10.4 oz (296 g)
Housing Colors	Midnight Black, High-Visibility Yellow and High-Visibility Green		
Interfaces: 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	Supported Bands VHF, UHF, 700/800 MHz or 900 MHz, and LTE (optional)	Channel Capacity 12,500 (1,250 per mission plan)	
Environmental: Relative Humidity Vibration Drop Shock Immersion <sup>1</sup>	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) 2 meters for 4 hours in accordance with MIL-STD-810G/IP68		
Operating Temperature <sup>2</sup>	-22° to +140°F (-30° to +60°C)		
Storage Temperature <sup>3</sup>	-40° to +176°F (-40° to +80°C)		
Altitude	Operational 15,000 feet (4,572 meters)	In Transit 40,000 feet (12,192 meters)	
Electrical Input Voltage	7.5 VDC (nominal)		
GPS/GNSS Specifications: Channels Tracking Sensitivity (dBm) Acquisition Sensitivity (dBm) Cold Start w/-130 dBm input Hot Start w/-130 dBm input	P25 standard Tier 2 and L3Harris in-band 52 -166 (GPS), -163 (GLONASS) -146 (GPS) <35 seconds <1 second		
Safety: Hazardous Location Options RoHS Compliant			

<sup>1</sup> Optional feature

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

<sup>3</sup> Store batteries at +25°C ± 5°C

LMR TRANSMITTER				
Frequency Bands	VHF	UHF	700/800 MHz	900 MHz*
<b>Frequency Ranges (MHz)</b> <b>Option 1 (US)</b>	136-174	378-522	768-776, 798-806, 806-816, 851-861	896-902, 935-944
<b>Option 2 (International)</b>	136-174	378-522	763-776, 793-806, 806-825, 851-870	896-902, 935-944
<b>Rated RF Power/Talkaround (W)</b>	1-6	1-5	0.5-3	0.5-3.5
<b>Frequency Stability (-30 to +60°C)</b>	±1.0 ppm	±1.0ppm	±1.0 ppm	±1.0 ppm
<b>Modulation Limiting (kHz)</b>	2.5, 4, 5 (FM)	2.5, 4, 5 (FM)	2.5, 4, 5 (FM)	2.5, 4, 5 (FM)
<b>Audio Response (dB)</b>	+1/-3	+1/-3	+1/-3	+1/-3
<b>Spurious and Harmonics (dBc)</b>	-80 (FCC Part 90)	-80 (FCC Part 90)	-80 (FCC Part 90)	-80 (FCC Part 90)
<b>FM Hum and Noise Companion Receiver (dB):</b> @ 25 kHz @ 12.5 kHz	70 47	60 47	55 45	55 45
<b>Audio Distortion (%)</b>	<1.25	<1.25	<1.25	<1.25
<b>Project 25 Modulation Fidelity (%)</b>	1.0	1.0	1.0	1.0
<b>Project 25 Adjacent Channel Power (dBc)</b>	>71	>71	>71	>70

\*Configurations supporting the three (3) 700, 800 and 900 MHz frequency bands do not support 768-776 MHz/763-776 MHz talkaround

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REGULATORY DATA								
Frequency Range		RF Output	Frequency Stability	FCC Type Acceptance No.	Applicable FCC Rules	Industry Canada Certification No.	Applicable Industry Canada Rules	NTIA Cert. No.
136 - 174 MHz		6 W	±1.0 ppm	OWDTR-0150-E	22, 74, 80, 90	3636B-0150	RSS-119	SPS-217 49/1
378 - 522 MHz		5 W	±1.0 ppm	OWDTR-0149-E	22, 74, 80, 91	3636B-0149	RSS-119	SPS-217 49/1
768 - 776 MHz		3 W	±1.0 ppm	OWDTR-0147-E & OWDTR-0148-E	90	3636B-0147	RSS-119	
798 - 806 MHz		3 W	±1.0 ppm	OWDTR-0147-E & OWDTR-0148-E	90	3636B-0147	RSS-119	
806 - 816 MHz		3 W	±1.0 ppm	OWDTR-0147-E	90	3636B-0147	RSS-119	
806 - 825 MHz		3 W	±1.0 ppm	OWDTR-0148-E	90	3636B-0148	RSS-119	
851 - 861 MHz		3 W	±1.0 ppm	OWDTR-0147-E	90	3636B-0147	RSS-119	
851 - 869 MHz		3 W	±1.0 ppm	OWDTR-0148-E	90	3636B-0148	RSS-119	
896 - 901 MHz		3 W	±1.0 ppm	OWDTR-0143-E	90, 24D, 101	3636B-0143	RSS-119	
901 - 902 MHz		3 W	±1.0 ppm	OWDTR-0143-E	90, 24D, 101	3636B-0143	RSS-119	
940 - 941 MHz		3 W	±1.0 ppm	OWDTR-0143-E	90, 24D, 101	3636B-0143	RSS-119	
935 - 940 MHz		3 W	±1.0 ppm	OWDTR-0143-E	90, 24D, 101	3636B-0143	RSS-119	
941 - 944 MHz		3 W	±1.0 ppm	OWDTR-0143-E	90, 24D, 101	3636B-0143	RSS-119	
2402 - 2460 MHz	VHF single band	0.2 W	N/A	OWDTR-0150-E	15	3636B-0150	RSS-119	
	UHF single band	0.2 W	N/A	OWDTR-0149-E	15	3636B-0149	RSS-119	
	RB single band	0.2 W	N/A	OWDTR-0147-E	15	3636B-0147	RSS-119	
	NRB single band	0.2 W	N/A	OWDTR-0148-E	15	3636B-0148	RSS-119	
5180 - 5825 MHz	VHF single band	.01 W	N/A	OWDTR-0150-E	15	3636B-0150	RSS-119	
	UHF single band	.01 W	N/A	OWDTR-0149-E	15	3636B-0149	RSS-119	
	RB single band	.01 W	N/A	OWDTR-0147-E	15	3636B-0147	RSS-119	
	NRB single band	.01 W	N/A	OWDTR-0148-E	15	3636B-0148	RSS-119	

\*Configurations supporting the three (3) 700, 800 and 900 MHz frequency bands do not support 768-776 MHz/763-776 MHz talkaround

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

BROADBAND	
LTE Protocol	3GPP Release 11, Category 12, Power Class 3 UE with support for QoS QCI
North America LTE Option	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
International LTE Option (In selected countries)	4G LTE Bands: B1, B3, B5, B7, B8, B28 3G Bands: B1, B5, B8
Wi-Fi	802.11 b/g/n 2.4 GHz and 5 GHz; supports 24 preconfigured and 8 user configured networks
Bluetooth	Bluetooth 4.0 (128-bit encryption)
*Downlink only for Carrier Aggregation	

## SPECIFICATIONS FOR: XL-185P PORTABLE RADIO

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

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	Capable of storing 128 keys (128 AES, 64 DES)
Keying	L3Harris Key Loader, Over-the-Air Rekeying (OTAR), Motorola KVL 3000+/4000
Standards	FIPS 140-2, 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

### Headsets

The XL-185P can be used with a wide variety of headsets and covert audio accessories to provide a complete user-gear solution for the industrial, Public Safety, Utility and Transportation markets. Heavy-duty and lightweight headsets are available with in-ear or over-the-ear hearing protection, flexible boom microphones with noise-reduction technology, and standard or remote PTTs. In addition, the XL-185P can be used with Bone Conducting Skull Headsets and Throat Microphone/Headset Kits. Covert audio kits are available in black or beige, 2-wire or 3-wire configurations with ear-piece, microphone and PTT.



3-Wire Mini-Lapel Microphone



Tactical Headset

### Speaker Microphones

L3Harris offers a versatile line of speaker microphones for the XL-185P. 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

L3Harris offers a variety of chargers for the XL-185P including Single-Bay, 2-Bay, Multi-Bay and a Vehicular Charger for in-car charging. The chargers are designed to quickly and safely charge battery packs in approximately 1 to 4 hours.



Single-Bay Charger



2-Bay Charger



Multi-Bay Charger\*



Vehicular 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.

\*Accessories unavailable in Brazil

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

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### Non-Export Controlled Information

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**L3HARRIS™**  
FAST. FORWARD.

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