

## XL-185P PORTABLE

### Converged LTE Land Mobile Radio

The L3Harris XL-185P is the industry's first and only single-band LTE LMR portable radio. Capable of operating on VHF, UHF, 700/800 or 900 MHz frequencies, this converged P25 portable merges robust LMR communications with voice and data over LTE and Wi-Fi®. The XL-185P is open standards-based and Verizon certified, giving organizations a flexible upgrade path to emerging capabilities and networks as needs change.

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.



### ADVANCED CONNECTIVITY IN EXTREME ENVIRONMENTS

#### KEY BENEFITS

- > Optional cell modem for voice and data wherever cellular/LTE is available
- > Compact and lightweight, ruggedized to withstand extreme conditions
- > Built-in GPS, Bluetooth®, Active Noise Cancellation, and 4-position A-B-C-D switching are standard

## SPECIFICATIONS FOR: XL-185P PORTABLE RADIO

GENERAL		
<b>Radio Models:</b> Full Keypad Partial Keypad	TFT LCD w/DTMF keypad, navigation cluster, soft keys TFT LCD w/partial keypad, navigation cluster, soft keys	
<b>Dimensions w/Battery (H x W x D)</b>	5.8 x 2.3 x 1.4 in (148.0 x 60.0 x 36.0 mm)	
<b>Weight</b>	<b>w/Battery and Antenna</b> 16.2 oz (464 g)	<b>w/o Battery and Antenna</b> 10.4 oz (296 g)
<b>Housing Colors</b>	Midnight Black, High-Visibility Yellow and High-Visibility Green	
<b>Interfaces:</b> <b>Front Display</b> <b>Top Display</b> <b>Keypad</b> <b>Buttons</b>	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	
<b>Tx/Rx Indicator</b>		
<b>Channel/Talkgroup Capacity</b>	1,250 total conventional channels and 13,824 total talkgroups	
<b>Radio Programming</b>	Firmware, personalities and feature set over Wi-Fi	
<b>Transceiver</b>	<b>Supported Bands</b> VHF, UHF, 700/800 MHz, 900 MHz, and LTE	<b>Channel Capacity</b> 12,500 (1,250 per mission plan)
<b>Environmental:</b> <b>Relative Humidity</b> <b>Vibration</b> <b>Drop Shock</b> <b>Immersion<sup>1</sup></b>	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	
<b>Operating Temperature<sup>2</sup></b>	-22° to +140°F (-30° to +60°C)	
<b>Storage Temperature<sup>3</sup></b>	-40° to +176°F (-40° to +80°C)	
<b>Altitude</b>	<b>Operational</b> 15,000 feet (4,572 meters)	<b>In Transit</b> 40,000 feet (12,192 meters)
<b>Electrical Input Voltage</b>	7.5 VDC (nominal)	
<b>GPS/GNSS Specifications:</b> <b>Channels</b> <b>Tracking Sensitivity (dBm)</b> <b>Acquisition Sensitivity (dBm)</b> <b>Cold Start w/-130 dBm input</b> <b>Hot Start w/-130 dBm input</b>	P25 standard Tier 2 and L3Harris in-band 52 -166 (GPS), -163 (GLONASS) -146 (GPS) <35 seconds <1 second	
<b>Safety:</b> <b>Hazardous Location Options</b> <b>RoHS Compliant</b>		

<sup>1</sup> Optional feature

<sup>2</sup> Extreme low temperatures adversely affect battery life and audio power/ distortion

<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>	136-17	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>	L2.5, 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> <b>@ 25 kHz</b> <b>@ 12.5 kHz</b>	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

SPECIFICATIONS FOR: XL-185P PORTABLE RADIO

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°C 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 10, Power Class 3 UE with Rx diversity
Commercial Broadband	Verizon Certified Band 13, 777-787 MHz Tx, 746-756 MHz Rx, 5 or 10 MHz BW Verizon Certified Band 4, 1710-1755 MHz Tx, 2110-2155 MHz Rx, 5, 10, 15, or 20 MHz BW
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)

## 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.

### XL-185P Portable Radio

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### Non-Export Controlled Information

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.



**L3HARRIS™**  
FAST. FORWARD.

1025 W. NASA Boulevard  
Melbourne, FL 32919





**L3HARRIS™**  
FAST. FORWARD.

## **THE XL FAMILY OF PORTABLE RADIOS**

Excellence Runs in the Family







## **WE HEARD YOU**

**YOU HAVE A CHOICE. TO WALK AWAY FROM TROUBLE  
OR TO RUN TOWARD IT. TO IGNORE A PROBLEM OR  
ROLL UP YOUR SLEEVES TO FIX IT.**

The XL FAMILY of portable radios was designed with you in mind—and with you as part of the process. We listened to First Responders and utilities professionals—like you—who make hard decisions and tackle the most difficult jobs every day. We designed a powerful set of tools to work in the most extreme environments and the most challenging situations.

Whether you choose the multiband XL-200P with LTE, the single-band XL-185P with LTE, XL-200Pi or XL-185Pi, you get the power to stay connected and be heard loud and clear. We understand the choices you make every day and what's most important to you.

## **AND WE RESPONDED.**

# TRUST WHEN IT MATTERS MOST

**YOU PUSH THE BUTTON ON YOUR RADIO  
AND EXPECT YOU'LL BE HEARD.**

L3Harris has more than 1 million tactical radios in service with military personnel around the world. When soldiers are in harm's way, they trust L3Harris for clear, reliable and secure mission-critical communications.

Our global innovation and expertise are built into every one of our products. Our commitment to open standards and drive for excellence has changed the way the world communicates and it continues with the development of the industry's first converged LTE Land Mobile Radios.







## CONNECTIVITY IS IN OUR DNA

The XL FAMILY merges robust LMR voice with voice and data over nationwide LTE, so you can go to the point of need and stay connected.

GPS, Bluetooth® and Wi-Fi come standard. In fact, Bluetooth can link firefighters to leading Self-Contained Breathing Apparatus (SCBA) systems, dramatically improving in-mask audio and ground communication.

Ready to roll out with broadband? Get your LTE data plan directly from L3Harris. SIM cards can be pre-installed in the XL FAMILY, which means no need for extra trips to the phone store for hardware or data contracts.







# **RUGGED AND READY** **FOR YOUR NEXT MISSION**

**THE XL FAMILY OF RADIOS BOASTS INDUSTRY-LEADING CAPABILITIES, REGARDLESS OF WHICH DEVICE YOU CHOOSE.**

## **RUGGED CONSTRUCTION**

Built to the toughest specs in the industry, the XL radios go into the toughest places.

- > MIL-SPEC standards IP68
- > MIL-STD-810G
- > MIL-STD-504.1 for contamination by fluids
- > MIL-STD-511.5 for flammability

## **SMALL, LIGHTWEIGHT, ERGONOMIC**

We designed the XL radios to stay out of the way, grab quickly and handle with one hand.

## **LOUD, CLEAR, AUDIO**

The XL radios feature a powerful 1.5-watt rated/4.0-watt max amplifier with dual speakers and advanced noise cancellation to suppress acoustic feedback and provide clear audio over a wide range of conditions.

## **SECURE DATA AND VOICE ENCRYPTION**

Multiple encryption methods, including single-key AES standard, allow you to communicate with only who you need.

## **EASY TO USE**

A simple user interface makes the XL FAMILY quick to operate. Color-coded talk groups and voice annunciation support rapid changing between talk groups.

## **EXTENDED-LIFE BATTERY**

A 10-hour, extended-life battery expands your productivity, because shifts don't always end at 8 hours.

## **INTEROPERABLE COMMUNICATION**

The XL FAMILY of radios adheres to P25 standards for interoperability, allowing users to connect and communicate with partners on other networks.

## **ENHANCED SAFETY**

Enhance user safety with Situational Awareness features, including Man Down, which alerts dispatch when the radio detects unusual tilt or inactivity, and P25 standard Tier 2 GPS location services.

## **BE LTE-READY, OUT OF THE BOX**

Get nationwide, Broadband LTE subscriptions from L3Harris with the option of having the SIM card already installed and ready for activation.

EXPANDED FAMILY  
**XL**



## MORE WAYS, MORE PLACES TO CONNECT

### **XL-200P WITH LTE**

The XL-200P is a P25 converged, multiband LTE Land Mobile Radio. Designed for anyone who needs to communicate with multiple agencies or across multiple bands, the XL-200P delivers mission-critical connectivity.

### **XL-200Pi**

The XL-200Pi is a multiband LMR certified to meet UL Class 1, Division 1 (C1D1) standards. It is ideal for fire departments, utilities, mining, hazmat teams, and oil and gas workers deployed in potentially explosive and hazardous environments.

### **XL-185P WITH LTE**

The XL-185P is a converged single-band Land Mobile Radio with LTE. This premium portable delivers a powerful set of XL capabilities—making it the best value in its class.

### **XL-185Pi**

The single-band XL-185Pi is certified to meet UL Class 1, Division 1 (C1D1) standards, giving Public Safety and utility workers an intrinsically safe communications solution for operations in hazardous conditions.

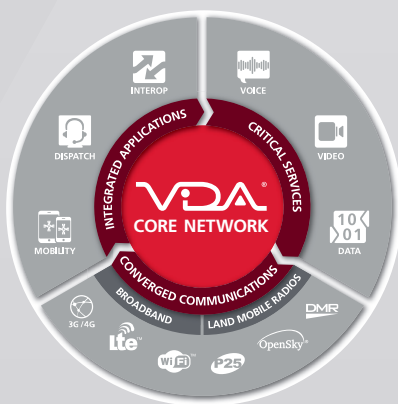




# END-TO-END INTEROPERABILITY

WITH AN EMPHASIS ON ABILITY

With options designed to extend communications across boundaries, the XL FAMILY of radios is the core system of integrated and secure solutions delivering interoperability between networks, devices and applications.



## **VIDA®—CONNECTIVITY AT THE CORE**

The L3Harris VIDA Core is an interoperable and flexible software solution designed to scale with changing mission-critical demands. VIDA supports voice, data and applications across LMR and LTE networks with the flexibility to add features and applications as needed.



## **BeOn®—THE INDUSTRY'S MOST ADVANCED P25 PUSH-TO-TALK APPLICATION**

L3Harris BeOn extends the range of your XL portable beyond regional network coverage and integrates into the VIDA Core for additional connectivity across multiple networks. BeOn provides real-time location status and mapping—all from a smartphone, tablet, PC or integrated in the XL-200P or XL-185P.



# **FAST. FORWARD.**

**The XL Family of Portable Radios**

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