



L3HARRIS®
FAST. FORWARD.

XL CONVERGE™ 185P

Converged LTE Land Mobile Radio

The XL Converge 185P radio offers audio and data capabilities on nationwide broadband networks to enhance situational awareness and keep you connected.

The XL 185P is a rugged and reliable portable designed for public safety and utility workers. It provides loud audio with advanced noise cancellation technology for clear communication in any environment. Its design exceeds MIL-SPEC durability including drop testing, resistance to explosive atmospheres and fluid contamination. It's also easy to clean, making it ideal for use in challenging environments.

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:

- > Dual SIM LTE operation over multiple commercial and private networks
- > Capable of operating on VHF, UHF, 700/800 or 900 MHz frequencies for flexibility and wide-ranging connectivity
- > Advanced noise cancellation technology
- > Ruggedized to meet stringent MIL-STD 810G standards
- > Built-in Wi-Fi®, Bluetooth® and GPS
- > Secure voice and data encryption
- > Intuitive and easy to use

SPECIFICATIONS FOR XL CONVERGE 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 or LTE		
Transceiver	Supported Bands VHF, UHF, 700/800 MHz or 900 MHz, and LTE (optional)	Channel Capacity (12,500 per mission plan)	
Environmental: Relative Humidity Vibration Drop Shock Immersion ¹	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 ²	-22° to +140°F (-30° to +60°C)		
Storage Temperature ³	-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 GPS 52 -166 (GPS), -163 (GLONASS) -146 (GPS) <35 seconds <1 second		
Safety: Hazardous Location Options RoHS Compliant			

¹ Optional feature ² Extreme low temperatures adversely affect battery life ³ Store batteries at +25°C ± 5°C

LMR TRANSMITTER				
Frequency Bands	VHF	UHF	700/800 MHz	900 MHz*
Frequency Ranges (MHz) Option 1 (US)	136-174	378-522	768-776, 798-806, 806-816, 851-861	896-902, 935-944
Option 2 (International)	136-174	378-522	763-776, 793-806, 806-825, 851-870	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)	2.5, 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

*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 CONVERGE 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 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, B7, B12, B13, B14, B17, B26, B29*, B30*, B66 3G Bands: B2, B5 Carrier Certification: FirstNet, AT&T, Verizon, Telus and Rogers
International LTE Option (In selected countries)	4G LTE Bands: B1, B3, B5, B7, B8, B28 3G Bands: B1, B5, B8 Carrier Certification: Telstra
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

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DIGITAL OPERATION		
Protocol	P25	ProVoice™
Vocoding Method	AMBE+2 enhanced full rate and enhanced half rate	AMBE+2™ enhanced full rate
Signaling Rate (kbps)	9.6	9.6
Modulation	Phase 1 Tx: C4FM; Rx: C4FM and CQPSK Phase 2 Tx: HCPM; Rx: HDCQPSK	GFSK
L3Harris Failsoft Operation	Switch to site trunking mode (for L3Harris infrastructure) or P25 conventional. 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)
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
Keying	L3Harris Key Loader, Over-the-Air Rekeying (OTAR) for respective UKEKs, Motorola KVL 3000+/4000/5000
Standards	FIPS 140-2 Level 1, 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
High Capacity Battery	3.0x2.3x1.3 in (76.2x58.4x33.0 mm)	7.2oz (204g)	4800

ACCESSORIES

Headsets

The XL 185P is compatible with various headsets and covert audio accessories for every need. Also works with Bone Conducting Skull Headsets and Throat Microphone/Headset Kits.



3-Wire Mini-Lapel Microphone



Tactical Headset

Speaker Microphones

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



XL Extreme Speaker Mic



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 radio for fast and safe charging in as little as 4 hours.



XL Single-Bay+ Charger



Multi-bay Charger*



Vehicular Charger*

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XL Converge 185P Portable

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