

XL-185M/XL-200M

Single-band and Multiband P25 Mobile Radios

GENERAL

Dimensions (H x W x D):		
Radio Only	2.0 x 6.9 x 9.7 in (49 x 174 x 230.5 mm)	
Radio and Control Unit (includes knobs)	2.4 x 6.9 x 12.8 in (60 x 175 x 320.7 mm)	
Control Unit (Remote) (includes knobs)	2.4 x 6.9 x 4.0 in (60 x 175 x 72.2 mm)	
Weight:		
Remote Mount Radio	5.0 lbs (2.3 kg)	
Control Unit (Remote Mount)	1.3 lbs (0.6 kg)	
Front Mount Radio with Control Unit	7.0 lbs (3.2 kg)	
Channel/Talkgroup Capacity	12,500 (1,250 per mission plan—up to 10 mission plans)	
Radio Programming	Firmware, personalities and feature set over Wi-Fi	
Control Unit	18-bit color LCD 480 pixels x 220 pixels 3.3-inch color LCD with up to 3 lines of text 5 programmable favorites buttons Separate volume and channel selector knobs Built-in speaker Single DIN sizing 2 USB-C ports (1 for microphone)	
Speakers:	Two channels of 15 W of audio (< 3% distortion) on both the radio body and control head Built-in Control Head Speaker	
Environmental Specifications:		
Relative Humidity	Per MIL-STD-810G	
Ambient Temperature Range¹	-22°F to +140°F (-30°C to 60°C)	
Altitude:		
Operational	15,000 ft (4,572 m)	
In-Transit	50,000 ft (15,240 m)	
Electrical:		
System Voltage	10.8 to 16.6 VDC negative ground	
Standby Current Drain	1 A	
Receive Current Drain	2 A	
Current Drain @ 35W TX	10 A	
Current Drain @ 50W TX	15 A	
GPS/GNSS:		
Channels	XL Mobile without LTE Core Connectivity Module	XL Mobile with LTE Core Connectivity Module
GNSS Constellations Supported	P25 standard tier 2 and L3Harris in-band	
Tracking Sensitivity	52 2 -165 dBm (GPS), -163 dBm (GLONASS)	72 4 -160 dBm (GPS & GLONASS)
Acquisition Sensitivity	-146 dBm (GPS)	-160 dBm (GPS & GLONASS)
Cold Start	< 35 seconds	26 seconds
Hot Start	< 1 second	1.5 seconds
Features	Accelerometer for location tracking / dead reckoning in GPS-challenged environments	



Share robust voice and data over nationwide LTE that is AT&T® and Verizon certified and FirstNet Ready™. The P25 single-band XL-185M and multiband XL-200M mobile radios deliver audio excellence through an ergonomic digital microphone and advanced noise cancellation technology ensuring you will be heard in noisy environments. Designed for the unique demands of Public Safety and Utilities, the XL FAMILY of mobile radios is LTE ready and features standard Wi-Fi®, Bluetooth® and GPS. These advanced mobile radios meet MIL-STD-810G tests to operate in extremely rugged conditions and are easy to use with a high-visibility 3.3-inch color LCD display, 8 programmable buttons and simple menu access.

¹ For CCM equipped devices in the Australian and New Zealand markets, the recommended Ambient Temperature Range specification is -30°C to +45°C per the RCM directive for internal temperature limits for telecom equipment.

LMR TRANSMITTER				
Frequency Bands (MHz)	VHF	UHF	700/800	900
Frequency Range (US)	136-174	378-522	768-776, 798-806, 806-816, 851-861	896-902, 935-944
Frequency Range (Int'l)	136-174	378-522	763-776, 793-806, 806-825, 851-870	896-902, 935-944
Modulation Limiting (kHz)	2.5, 5 (FM)			5 (FM)
Audio Response	Meets TIA-603-D Section 3.2.6			
Spurious and Harmonics (dBc)	< -75, FCC Part 90	< -70, FCC Part 90	< -75, FCC Part 90	< -75, FCC Part 90
FM Hum and Noise (dB @ 12.5 kHz)	45.0			
FM Hum and Noise (dB @ 25 kHz)	47.0			
Audio Distortion (%)	< 3.0			
P25 Modulation Fidelity (%)	< 3.00			
Frequency Stability (ppm)	±1.5			
P25 Adjacent Power (dB)	> 67	> 67 @ 50 W (378-512 MHz) > 67 @ 25 W (512-52 2MHz)	> 67	> 67
Channel Spacing (kHz)	12.5, 25			12.5
Conducted Emissions (dBc)	-75	-70	-75	-75
Radiated Emissions	Meets TIA/EIA-603-D 3.2.12			
LMR RECEIVER				
Frequency Bands	VHF	UHF	700/800	900
Frequency Range (U.S.)	136-174	378-522	768-776, 851-861	935-944
Frequency Range (Int'l)	136-174	378-522	763-776, 851-870	935-944
Channel Spacing (kHz)	12.5, 25			12.5
Sensitivity (12 dB SINAD)	-119 dBm			
P25 Sensitivity (5% BER)	-119 dBm			
Adjacent Channel Rejection @ 25 kHz (dB)	77	78	76	NA
Adjacent Channel Rejection @ 12.5 kHz (dB)	72	70	70	70
P25 Adjacent Channel Rejection @ 12.5 kHz (dB)	60	60	60	60
Intermodulation Distortion (dB)	77	78	75	75
FM Hum and Noise @ 12.5kHz (dB)	49	47	45	45
FM Hum and Noise @ 25 kHz (dB)	50	50	47	NA
Rated Audio Output	2 channels of 15 W RMS into 4 Ohm			
Audio Distortion	< 3.0% @ rated power			
Stability (ppm)	+/- 1.5			
Spurious Rejection (dB)	92	90	88 74 (771.3-772.3)	88
Selectivity (dB)	NA	NA	20 (NPSPAC Only)	NA
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			
International LTE Option (In selected countries)	4G LTE Bands: B1, B3, B5, B7, B8, B28 3G Bands: B1, B5, B8			
Wi-Fi	802.11ac 2.4 GHz and 5 GHz; supports up to 10 client devices			
Bluetooth	Bluetooth 4.0 (128-bit encryption)			

*Downlink only for Carrier Aggregation

ENVIRONMENTAL STANDARD			
Applicable 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	1/A1
	IP65 (Control Unit)	506.5	1,3
	IP54 (Radio)	506.5	3
	Humidity	507.5	2
	Salt Fog	509.5	1
	Blowing Dust	510.5	1,2
	Vibration (Basic Transportation)	514.6	1, Category 4
	Vibration (Minimum Integrity)	514.6	1, Category 24
	Shock (Crash Hazard)	516.6	5
	Shock (Bench Handling)	516.6	6
U.S. Forest Service	Vibration (10-60 Hz)	Paragraph 2.15	
IEC 60529	Dust-tight and Water Jets	IP65 (Control Unit)	Table 2, Par. 13.4 Table 3, Par. 14.2.5

*Also meets equivalent superseded MIL-STD-810D, E and F

DIGITAL OPERATION		
Protocol	P25	ProVoice™
Vocoding Method	AMBE+2™ Enhanced Full Rate & Enhanced Half Rate	AMBE+2™ Enhanced Full Rate
Signaling Rate (kbps)	9.6	9.6
Modulation	Phase 1 TX: C4FM, RX: C4FM & WCQPSK Phase 2 TX: HCPM, RX: WCQPSK	GFSK
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	128 keys (128 AES, 64 DES), store up to 5 UKEs per radio
Encryption Keying	L3Harris Key Loader, P25 Conventional and Trunked Over-the-Air-Rekeying (OTAR) for respective UKEs

Frequency Range	RF Output (W)	Frequency Stability	FCC Type Acceptance ID	Applicable FCC Rule	Industry Canada ID	Applicable Industry Canada Rule
136-174	50.0		OWDTR-0161-E	90	3636B-0161	RSS-119
378-522	50.0		OWDTR-0161-E	90	3636B-0161	RSS-119
763-776, 793-806	30.0	0.1	OWDTR-0161-E	90	3636B-0161	RSS-119
806-825, 851-870	35.0	0.1	OWDTR-0161-E	90	3636B-0161	RSS-119
896-901	35.0	0.1	OWDTR-0161-E	90	3636B-0161	RSS-119
935-944	35.0	0.1	OWDTR-0161-E	90, 101	3636B-0161	RSS-119
Emissions Designators	16K0F3E, 16K0F1D, 16K0F1E, 14K0F3E, 14K0F1D, 14K0F1E, 11K0F3E, 11K7F1D, 11K7F1E, 7K10F1D, 7K10F1E, 8K40F1D, 8K40F1E, 8K10DXW, 18K5F1W, 12K9F1W					

ACCESSORIES

Microphone: Tough, ergonomic digital microphone enabling noise cancellation

Keypad Mobile Microphone: Rugged handheld microphone with 12-button alphanumeric keypad, 5-way controller to provide the functions of the radio control head in the palm of the hand and noise cancellation

Desktop Cabinet: Supports desktop deployment of the XL Mobile Radio in front-mount, remote mount and control head only configurations

External Speaker: Light, compact and carefully tuned for the human voice, the XL-185M/XL-200M external speakers deliver loud and clear mission-critical voice in an easy-to-mount enclosure

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

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