



L3HARRIS™
FAST. FORWARD.

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 72.2mm) |
| 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) |
| 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: | |
| External, 15 W | Two channels of 15 W of audio (< 3% distortion) on both the radio body and control head |
| Internal, 3 W | Built-in Control Head Speaker |
| Environmental Specifications: | |
| Relative Humidity | Per MIL-STD-810G |
| Ambient Temperature Range | -22 to +140°F (-30 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 | P25 standard tier 2 and L3Harris in-band |
| Tracking Sensitivity (dBm) | 52 |
| Acquisition Sensitivity (dBm) | -166 (GPS), -163 (GLONASS) |
| Cold Start w/-130 dBm input | -146 (GPS) |
| Hot Start w/-130 dBm input | < 35 seconds |
| | < 1 second |



The single-band XL-185M and multiband XL-200M P25 mobile radios deliver audio excellence through an ergonomic digital microphone and advanced noise cancellation technology to enable you to be heard in noisy environments. Designed for the unique demands of Public Safety and Utilities, the XL FAMILY of mobile radios are LTE-capable* and feature standard Wi-Fi®, Bluetooth® and GPS. These advanced mobile radios meet MIL-STD-810G 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.

*Future release

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 @ 25k Hz) | 47.0 | | | |
| Audio distortion (%) | < 1.0 | | | |
| P25 Modulation Fidelity (%) | < 3.00 | | | |
| Frequency Stability (ppm) | ±1.5 | | | |
| P25 Adjacent power (dBc) | > 67 | > 67 @ 50 W (378-512 MHz) > 67 @ 25 W (512-522MHz) | > 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 (US) | 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 15W 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

| | |
|-----------|--|
| 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) |
| LTE | Future release |

ENVIRONMENTAL STANDARD

| Applicable MIL-STD | 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) |
| Encryption Keying | L3Harris Key Loader, P25 Conventional and Trunked Over-the-Air-Rekeying (OTAR) |

REGULATORY DATA

| Frequency Range | RF Output (W) | Frequency Stability | FCC Type Acceptance ID | Applicable FCC Rule | Industry Canada ID | Applicable Industry Canada Rule |
|-----------------------|--|---------------------|------------------------|---------------------|--------------------|---------------------------------|
| 136-174 | 50 | | OWDTR-0161-E | 90 | 3636B-0161 | RSS-119 |
| 378-522 | 50 | | 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 external speakers deliver clear and loud 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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