SPECIFICATIONS

HARRIS®

TECHNOLOGY TO CONNECT, INFORM AND PROTECT™

XL-185M Single-Band Mobile Radio

The XL-185M is a single-band mobile radio that delivers audio excellence through an ergonomic digital microphone and advanced noise cancellation technology to ensure that you can be heard in noisy environments. Designed for the unique demands of Utilities and Public Safety, the XL-185M is LTE-capable and features standard Wi-Fi®, Bluetooth and GPS. This advanced mobile radio meets MIL-STD-810G to survive the most rugged conditions and is easy to use with a high-visibility 3.3-inch color LCD display, 8 programmable buttons and simple menu access.

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	
Front Mount Radio with Control Unit	7.0 lbs (3.2 kg)
Control Unit (Remote Mount)	1.3 lbs (0.6 kg)
Remote Mount Radio	5.0 lbs (2.3 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, Visual Channel / 7 Zone backlit indicator colors, 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 15W of audio (< 3% distortion) on both the radio body and control head
Internal, 3W	Built-in Control Head Speaker
Environmental Specifications	
Relative Humidity	Per MIL-STD-810G
Ambient Temperature Range	-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)
System Voltage	10.8 to 16.3 VDC Negative Ground
GPS/GNSS	P25 standard tier 2 and Harris in-band
Channels	52
Tracking Sensitivity (dBm)	-166 (GPS), -163 (GLONASS)
Acquisition Sensitivity (dBm)	-146 (GPS)
Cold Start w/-130 dBm input	<35 seconds
Hot Start w/-130 dBm input	<1 second

LMR TRANSMITTER*

Frequency Bands	700/800 or 900 MHz
Frequency Ranges (MHz)	
US	769-775, 799-805, 806-816, 851-861, 896-901, 935-944
International	763-776, 793-806, 806-825, 851-870, 896-902, 935-944
Modulation Limiting (kHz)	1.5, 2.5, 4, 5 (FM)
Audio Response	Meets TIA-603-D Section 3.2.6
Spurious and Harmonics (dBc)	-75, FCC Part 90
FM Hum and Noise	
@ 25 kHz (dB)	47.0
@ 12.5 kHz (dB)	45.0
Distortion (1kHz tone) (%)	<1.0
Project 25 Modulation Fidelity (%)	<3.00
Frequency Stability (-30 to +60°C) (ppm)	±1.5
Project 25 Adjacent Channel Power (dBc)	>67

*VHF and UHF configurations available soon

LMR RECEIVER*

Frequency Bands	700/800 or 900 MHz
Frequency Ranges (MHz)	
US	768-776, 851-861, 935-944
International	763-776, 851-870, 935-944
Channel Spacing (kHz)	12.5, 20, 25
Sensitivity (12 dB SINAD)	-119 dBm (all bands)
P25 Reference Sensitivity (5% BER)	-119 dBm (all bands)
Adjacent Channel Rejection @ 25 kHz (dB)	73
P25 Adjacent Channel Rejection @ 12.5 kHz (dB)	60
Intermodulation (dB)	76
FM Hum and Noise	
@ 25 kHz (dB)	47
@ 12.5 kHz (dB)	45
Rated Speaker Audio Output Power (W)	2 channels of 15W RMS into 4 Ohm
Audio Distortion	< 3.0% @ rated power

*VHF and UHF configurations available soon

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
	IP-65 (Control Unit)	506.5	1, 3
	IP-54 (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
Harris Failsoft operation	Switch to site trunking mode (for Harris 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	Harris Key Loader, P25 Conventional and Trunked Over-the-Air Rekeying (OTAR)

REGULATORY DATA

Frequency Range (MHz)	RF Output (W)	Frequency Stability (ppm)	FCC Type Acceptance Number	Applicable FCC Rules	Industry Canada Certification Number	Applicable Industry Canada Rules
763-776, 793-806	30.0	0.1	OWDTR-0160-E	90	3636B-0160	RSS-119
806-825, 851-870	35.0	0.1	OWDTR-0160-E	90	3636B-0160	RSS-119
896-901	35.0	0.1	OWDTR-0160-E	90	3636B-0160	RSS-119
935-944	35.0	0.1	OWDTR-0160-E	90, 101	3636B-0160	RSS-119
Emission 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

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

About Harris Corporation

Harris Corporation is a leading technology innovator, solving customers' toughest mission-critical challenges by providing solutions that connect, inform and protect. Harris supports government and commercial customers around the world.

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