



## EXCEPTIONAL COMMUNICATIONS IN SEVERE CONDITIONS

### XL-200P Portable Full-Spectrum Multiband

#### FEATURES

- Instant Recall of Received Audio – replays the last transmission received to avoid repetition
- Wi-Fi® Connectivity – permits simple and easy remote radio software updates
- Active Noise Cancellation – three internal microphones transmit intelligible audio and reduce background noise
- Powerful 1.5W audio amplifier – delivers best-in-class loud and clear audio
- 4-Position A-B-C-D Switch – allows access to 64 talkgroups/channels directly from the top of the radio
- Single-key DES Encryption – provides secure communications for every digital user
- Built-in GPS – for reporting user location and coordinating rapid responses to emergencies
- Integrated Bluetooth® – wireless interface to selected accessories
- Unique User Interface – top and front displays with innovative features such as Visual Zone Identification (color coding of talkgroups) to make radio operation simple and intuitive

**HARRIS**<sup>®</sup>  
assuredcommunications<sup>®</sup>

#### FULL-SPECTRUM FREQUENCIES

The XL-200P is Harris' second generation full-spectrum radio. Every XL-200P radio is capable of operating on VHF, UHF, and 700/800 MHz frequencies, as well as LTE broadband. Users may purchase the portable in a single band, two bands, or multiple bands, and upgrade to add bands or LTE in the future.

#### DESIGNED FROM THE GROUND UP TO CONVERGE VOICE AND DATA

Designed with input from mission-critical users, the XL-200P is an entirely new radio – processor, memory, and software – that merges high speed data, LTE, and Wi-Fi with robust LMR voice to provide leading-edge connectivity.

#### AUDIO EXCELLENCE

The new design pairs a high-powered audio amplifier with woofer and tweeter speakers (with resonant cavities and tuned ports) to conquer noise and deliver industry-leading clear and intelligible audio.

#### COMPACT AND ERGONOMIC ALL-BAND + LTE RADIO

The shape of the XL-200P was based on extensive human factors research with first responders to create a radio that nestles naturally in users' hands. Controls are shaped and arranged for ease of use and optimum performance.

#### TOUGH MECHANICAL PACKAGE

With a rugged cast aluminum frame and tough seals, the XL-200P is constructed to operate in severe environments. This radio meets MIL-STD-810G for durability, including Method 511.5 for explosive atmospheres and Method 504.1 for contamination by fluids, so the radio can be scrubbed with cleansers and biological sanitizers.

#### OPTIONAL FEATURES

- IP68 certification for immersion – 2 meters for 4 hours
- LTE broadband – upgrade for faster performance and improved data reliability on the nationwide LTE network, permitting increased productivity
- FIPS certification for enhanced security of encrypted communications
- 2-year standard warranty with options to add up to an additional 3 years

## GENERAL SPECIFICATIONS

### RADIO MODELS

**Full Keypad:** TFT LCD w/DTMF keypad, Nav cluster, Soft Keys

**Partial Keypad:** TFT LCD w/partial keypad, Nav cluster, Soft Keys

### DIMENSIONS (Without Knobs and Antenna)

	Inches (w/Battery)	Millimeters (w/Battery)
<b>Height:</b>	5.8	148
<b>Width:</b>	2.3	60
<b>Depth:</b>	1.4	36

### WEIGHT

	Ounces (w/o Bat & Ant)	Ounces (w/Bat & Ant)	Grams (w/o Bat & Ant)	Grams (w/Bat & Ant)
<b>Radio:</b>	10.4	16.2	296	464

### HOUSING COLORS

Midnight Black High-Visibility Yellow

### INTERFACES

**Front Display:** 320 x 178 pixels, 1.8 in. transfective LCD, 16-bit color with backlight

**Top Display:** 128 x 32 pixels, 1.1 in. multi-color backlight, sunlight readable

**Keypad:** Backlight, 3 soft keys, 5-way navigation key, 4 x 3 keypad

**Buttons:** 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

**Tx/Rx Indicator:** Multi-colored LEDs

### TRANSCIVER

**Supported Bands:** VHF & UHF & 700/800 MHz & LTE

**Channel Capacity:** 12,500 (1,250 per mission plan)

### ENVIRONMENTAL SPECIFICATIONS

**Relative Humidity:** 5% @ 140°F (+60°C), 95% @ 122°F (+50°C)

**Vibration:** USDA LMR Standard, Section 2.15 & MIL-STD-810G, Test Method 514.6

**Drop Shock:** 1.0 meter drop to concrete (exceeds TIA-603-D)

**Immersion\*:** 2 meters for 4 hours in accordance with MIL-STD-810G/IP68  
\*Optional feature

	°F	°C
<b>Operating Temperature*:</b>	-22 to +140	-30 to +60

\*Extreme low temperatures adversely affect battery life

	°F	°C
<b>Storage Temperature*:</b>	-40 to +176	-40 to +80

\*Store batteries at +25°C ± 5°C

	Feet	Meters
<b>Altitude Operational:</b>	15,000	4,572
<b>In Transit:</b>	50,000	15,240

### ELECTRICAL

**Input Voltage:** 7.5 VDC (nominal)

### GPS/GNSS SPECIFICATIONS

<b>Channels:</b>	52
<b>Tracking Sensitivity:</b>	-166 dBm (GPS) -163 dBm (GLONASS)

**Acquisition Sensitivity:** -146 dBm (GPS)

**Cold Start w/-130 dBm input:** <35 seconds

**Hot Start w/-130 dBm input:** <1 second

### SAFETY

#### Hazardous Location Options:

Applied for certification for use in Class I, Division 2, Groups A, B, C, D ; Class II, Groups E, F, G ; and Class III designated locations

**RoHS compliant**

## LMR TRANSMITTER

### TYPICAL PERFORMANCE SPECIFICATIONS

### FULL-SPECTRUM MULTIBAND\*

Frequency Range (MHz)	Option 1 (U.S.): Option 2 (International):	136-174, 378-522, 768-776, 798-806, 806-816, 851-861 136-174, 378-522, 763-776, 793-806, 806-825, 851-870**
Rated RF Power (W):		VHF: 1-6, UHF: 1-5, 700/800: 0.5-3
Rated RF Power Talkaround (W):		VHF: 1-6, UHF: 1-5, 700/800: 0.5-3
Frequency Stability (-30 to +60°C) (ppm):		±1.0
Modulation Limiting (kHz):		2.5, 4, 5 (FM)
Audio Response (dB):		+1/-3
Spurious and Harmonics (dBc):		-80, FCC Part 90
FM Hum and Noise@25 kHz (dB):		VHF: 70, UHF: 60, 700/800: 55
@12.5 kHz (dB):		VHF: 47, UHF: 47, 700/800: 45
Audio Distortion (%):		<1.25
Project 25 Modulation Fidelity (%):		1.0
Project 25 Adjacent Channel Power (dBc):		>71

\*VHF and UHF product is compliant with applicable FCC narrowbanding mandate below 512 MHz.

\*\*Future option

## 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	NTIA CERTIFICATION NUMBER
136-174	6.0	±1.0	OWDTR-0133-E	22, 74, 80, 90	3636B-0133	RSS-119	TBD
378-522	5.0	±1.0	OWDTR-0133-E	22, 74, 80, 90	3636B-0133	RSS-119	TBD
768-776	3.0	±1.0	OWDTR-0133-E	90	3636B-0133	RSS-119	TBD
798-806	3.0	±1.0	OWDTR-0133-E	90	3636B-0133	RSS-119	TBD
806-816	3.0	±1.0	OWDTR-0133-E	90	3636B-0133	RSS-119	TBD
851-861	3.0	±1.0	OWDTR-0133-E	90	3636B-0133	RSS-119	TBD
2402-2480	0.2	TBD	OWDTR-0133-E	15	3636B-0133	RSS-119	TBD
5180-5825	0.1	TBD	OWDTR-0133-E	15	3636B-0133	RSS-119	TBD

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

## LMR RECEIVER

TYPICAL PERFORMANCE SPECIFICATIONS		FULL-SPECTRUM MULTIBAND*
Frequency Range (MHz)	Option 1 (U.S.): Option 2 (International):	136-174, 378-522, 768-776, 851-861 136-174, 378-522, 763-776, 851-870**
Channel Spacing (kHz):		25 (wideband*), 12.5 (narrowband), 6.25 equiv (TDMA P25 Phase 2)
Frequency Stability (-30 to +60°C) (ppm):		±1.0
Sensitivity (12 dB SINAD) (dBm):		VHF: -122, UHF:-121, 700: -121, 800: 120
Project 25 Reference Sensitivity @ 5% BER (dBm):		VHF: -122, UHF:-121, 700/800: -120.5
Analog Selectivity @ 25 kHz (dB):		VHF: 77, UHF: 77, 700/800: 74
@ 12.5 kHz (dB):		VHF: 71, UHF: 70, 700/800: 64
P25 Adjacent Channel Rejection @ 12.5 kHz (dB):		VHF: 66.2, UHF: 62.2, 700/800: 62.0
Intermodulation (dB):		VHF: 80, UHF: 81, 700/800: 78
Spurious and Image Rejection (dB):		VHF: 90, UHF: 87, 700: 84, 800: 80
FM Hum and Noise @ 25 kHz (dB):		VHF: -60, UHF: -60, 700/800: -55
@12.5 kHz (dB):		VHF: -55, UHF: -53, 700/800: -50
Rated/Max. Audio Output (mW):		1500/4000
Audio Distortion:		1.1% @ rated power

\*VHF and UHF product is compliant with applicable FCC narrowbanding mandate below 512 MHz.

\*\*Future option

## ENVIRONMENTAL STANDARDS

STANDARD	PARAMETER	METHODS	PROCEDURES/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
	Solar Radiation	505.5	1
	Contamination by Fluids	504.1	2
	Blowing Rain	506.5	1
	Humidity	507.5	2
	Salt Fog	509.5	1
	Blowing Dust & Sand	510.5	1,2
	Explosive Atmosphere	511.5	1
	Immersion	512.5	1
	Vibration (Minimum Integrity)	514.6	1, Category 24
	Vibration (Basic Transportation)	514.6	1, Category 4
	Shock (Functional/Basic)	516.6	1
	Shock (Transit Drop)	516.6	4
Shock (Bench Handling)	516.6	6	
IEC 60529	Dust-tight, Continuous Immersion	IP68	

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

## CELLULAR BROADBAND

LTE Protocol:	3GPP Release 9, Power Class 3 UE with RX diversity
Public Safety Broadband:	Band 14, 788-798 MHz TX, 758-768 MHz RX, 5 or 10 MHz BW*
Commercial Broadband:	Band 13, 777-787 MHz TX, 746-756 MHz RX, 5 or 10 MHz BW*
Commercial Broadband:	Band 4, 1710-1755 MHz TX, 2110-2155 MHz RX, 5, 10, 15, or 20 MHz BW*
Wi-Fi:	802.11b/g/n 2.4 GHz & 5 GHz
Bluetooth:	Bluetooth 4.0

\*Future option

## DIGITAL OPERATION

PROTOCOL	PROVOICE™**	P25
Vocoding Method:	AMBE + 2™ Enhanced Full Rate	AMBE + 2 Enhanced Full Rate & Enhanced Half Rate
Signaling Rate (kbps):	9.6	9.6
Modulation:	GFSK	Phase1 TX: C4FM, RX: C4FM & WCQPSK Phase 2 TX: HCPM, RX: WCQPSK

\*Future option

## ENCRYPTION

Encryption Algorithms:	AES, DES-OFB
Encryption Keys per Radio:	Capable of storing 128 keys (64 AES, 64 DES)
Keying:	Harris Key Loader, Over-the-Air Rekeying (OTAR), Motorola KVL 3000+/4000
Standards:	FIPS 140-2, FIPS 197

## BATTERIES

TYPE	DIMENSIONS (L x W x D)	WEIGHT	LIFE (@5% Tx, 5% Rx, and 90% standby)	CAPACITY (mAh)
Li-Ion	3.0 x 2.3 x 0.9 in. (76.7 x 57.7 x 21.9 mm)	4.8 oz (136 g)	10 hours with standard battery	3100

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## ACCESSORIES

The XL-200P is available with a selection of dependable Harris accessories that operate in a range of environments. Several are shown below.

### HEADSETS

The XL-200P 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-200P can be used with Bone Conducting Skull Headsets and Throat Microphone/Headset Kits. Covert audio kits are available in black or beige, and in 2-wire or 3-wire configurations with earpiece, microphone, and PTT.



Tactical Headset



3-Wire Mini-Lapel Microphone

### CARRYING CASES

Harris offers a versatile line of carrying cases for the XL-200P full-spectrum multiband radio. Options include a standard belt clip and premium belt loop, both of which afford the radio user a low-profile, integrated carrying option. In addition, a premium leather holster is available for attaching to a belt or wearing with the premium leather shoulder strap.



Belt Clip



Leather Carrying Case

### CHARGERS

Harris offers a variety of chargers for the XL-200P: Single-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



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.



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