L3HARRIS™
FAST. FORWARD.

SYMPHONY™

DISPATCH SOLUTION

The Symphony Dispatch Console combines the Symphony Dispatch Platform with advanced application software to support 24-hour mission-critical operations. A unique hardware design supports the reliability needed for emergency responses. Advanced digital audio technology delivers high capacity and secure end-to-end communications.

Symphony simplifies complex dispatch center operations through a logical user interface. Dispatchers arrange their most utilized functions in a customized interface to maximize productivity.

Multiple screen configurations can be created for specific scenarios ranging from crisis situations to shift changes.

Patented Baton™ technology allows agencies to integrate their CAD application to display 95% of Symphony's functionality using only 10% of their screen. An embedded web browser for VIDA® apps enables dispatchers to access servers to disable lost or stolen radios or view real-time radio traffic across the system.

Symphony's innovative hardware design allows a simple, flexible mechanical configuration for mounting in a rack, under a desk, as a desktop unit or for mobile installations.

A CLEAR VIEW OF THE FULL OPERATIONAL PICTURE

KEY BENEFITS

- **Capable of combining over 1,000 communication modules at a single dispatch solution**
- **Industry-leading capacity for active call, patch and simulselect calls and integrated telephony support**
- **Integrated Instant Recall Recorder for up to 24 hours of call history**
- **Supports trunked and conventional operations**

GENERAL SPECIFICATIONS*

Processor Type: **Intel® Dual Core™ i7 Ivy Bridge processor**
Operating System: **Microsoft® Windows® 10 Enterprise 64-bit**
Typical Dimensions (H x W x D): **Computer:** **1.75 x 16.75 x 10.5 in** **(4.5 x 42.5 x 26.6 cm)**
Display: **Touchscreen capable from 19 to 48 inches**
Input Voltage: **110-240 VAC, 50-60Hz, nominal**
Operating Temperature: **+32 to 104°F (0 to +40°C)**
Storage Temperature: **-22 to +185°F (-30 to +85°C)**
MTBF: **10 years**
RoHS Compliant
UL Certified

*Requires System Release SR10A or newer

SYMPHONY DISPATCH PLATFORM (ENCLOSURE)

19-inch rack mount compatible metal housing	
1RU (1.75 in) height	
Front panel display, access, connections and controls for:	
Power	**USB Accessories**
DisplayPort™ (Video)	**Solid-state Drive (SSD)**
Auxiliary Audio Input	**Backup Radio Switch**
Auxiliary Audio Output	

EXTERNAL INTERFACES

Two 10/100/1000-Gigabit Ethernet ports with RJ45
7 USB 2.0 ports (excluding Audio Subsystem)
7 USB 1.1 ports for audio accessories
6 local Digital Inputs
5 local Solid-state Relay Outputs

AUDIO SUBSYSTEM

One 10/100 DSP-driven Ethernet Extender Interface with RF45 connector
Operator and Supervisor Headsets interfaced via DB-9F connectors on rear panel
Desk Microphone interface via DB-9F connector on rear panel
8 Speaker interface with ¼-inch TRS jacks on rear panel for audio connections
Analog Call Director interface via RJ45 connector on rear panel
Analog Backup Radio interface via DB-9 Male connector on rear panel and mode selection switch mounted on front panel
Analog Building Intercom interface via RJ45 connector on rear panel
Two Auxiliary Audio Inputs via 3.5-mm TRS jack on rear panel
Two Auxiliary Ethernet DSP Extender ports on rear panel

VIDEO

Two DisplayPort Video Connections (can drive up to 4 monitors)

STORAGE

Externally accessible and removable solid-state drive

Product performance note: The performance of any L3Harris console (Symphony Dispatch Console) with any third-party hardware (including computers) other than L3Harris recommended or approved hardware is not guaranteed by L3Harris Technologies nor will L3Harris Technologies offer any software or other corrections to improve the performance of the L3Harris console with such third-party hardware.

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

Symphony™ Dispatch Solution

Non-Export Controlled Information

L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.

L3HARRIS™
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1025 W. NASA Boulevard
Melbourne, FL 32919

The XL Connect™ 45P is engineered for audio excellence and a simplified user experience.

We included all the essentials you need for critical connectivity and an affordable path to leading-edge communications. You can also count on this P25 portable to provide invaluable, customer-proven inter-agency interoperability.

PROVEN QUALITY FOR CRITICAL COMMUNICATIONS

Built to meet military requirements plus dual-microphone noise cancellation technology for clear communications in noisy environments.

RELENTLESSLY RELIABLE

XL radios run on systems that double-down on redundancy, champion open networks and connect seamlessly with P25-compliant organizations.

BACKED WITH ALL-IN, 24/7 SUPPORT

Our service packages get your radios up and running and keep them running with preventative maintenance and automatic software upgrades.

Reliable Performance. Audio Excellence.

A member of the XL Connect™ radio series.

- Based on proven XL quality and compatible with XG accessories
- Meets military standards for durability
- Dual-microphone noise cancellation for advanced clarity
- Sharp, bright color display for visibility
- Field-repairable, software defined for easy updates and new capabilities
- Single-key AES/DES encryption and Encryption Lite for voice and data protection
- WiFi-enabled voice and device management

SPECIFICATIONS FOR: XL CONNECT 45 PORTABLE RADIO

GENERAL

Radio Model: XK-PF78B	
Full Keypad	Color LCD and DTMF keypad
Dimensions (H x W x D): (without antenna, battery and knobs)	5.9 x 2.4 x 1.9 in (149.6 x 62.0 x 47.2 mm)
Weight (without antenna and battery)	10.9 oz (310 g)
Housing Color	Gray
Environmental Specifications	
Relative Humidity	95% @ 140°F (+60°C)
Vibration	9.2 g (per U.S. Forest Service)
Drop Shock	1.5 m drop to concrete (exceeds TIA-603-C)
Ingress Protection	IP66
Operating Temperature[1]	-22° to +140°F (-30° to +60°C)
Storage Temperature	-40° to +176°F (-40° to +80°C)
Store batteries at the following temperatures:	
Li-Ion	-40° to + 176°F (-40° to +80°C)
Altitude	
Operational	15,000 ft (4,572 m)
In Transit	50,000 ft (15,240 m)
Electrical	
Input Voltage	7.5 VDC (nominal)
RoHS compliant	

[1]Extremely low temperatures adversely affect battery life

TRANSMITTER

Typical Performance Specifications	**700/800**
Frequency Range (MHz): **(U.S.)** **(International)**	 768-776, 798-806, 806-816, 851-861 763-776, 793-806, 806-825, 851-870
Rated RF Power (W)	3 (Trnk & Talkaround)
Frequency Stability (-30°C to +60°C, +25°C Ref) (ppm)	±0.6
Frequency Separation (MHz)	Full Bandwidth (within 700 or 800 MHz band)
Modulation Deviation (kHz)	5.0 (wideband*), 4.0 (NPSPAC) 2.5 (narrowband)
FM Hum and Noise Companion Receiver (dB)	44 (700 MHz) 47 (800 MHz NPSPAC) 48 (800 MHz non-NPSPAC)
Spurious and Harmonics (dBm / dBc)	-55/90
Audio Response (dB)	+1/-3
Audio Distortion (1 kHz tone): **@ 3 kHz deviation** **@ 2.4 kHz deviation** **@ 1.5 kHz deviation**	 1% (800 MHz non-NPSPAC) 1% (800 MHz NPSPAC) 1% (700 MHz)
Project 25 Modulation Fidelity (%)	1
Project 25 Adjacent Channel Power (dBc)	73

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
763-775; 793-805; 806-825; 851-870	3	0.2	OWDTR 0162-E	15C, 15E, 90	--	--
768-776; 798-806; 806-824; 851-869	3		**--**	**--**	3636B-0162	RSS-119

SPECIFICATIONS FOR: XL CONNECT 45 PORTABLE RADIO

RECEIVER	
Typical Performance Specifications	**700/800 MHz**
Frequency Range (MHz): **(US)** **(International)**	 768-776, 851-861 **763-776, 851-870**
Frequency Separation (MHz)	Full Bandwidth (within 700 or 800 MHz band)
Channel Spacing (kHz)	25 (wideband*) 12.5 (narrowband)
Frequency Stability (-30 to +60°C, +25°C Ref) (ppm)	±1.5
Sensitivity (12 dB SINAD) (µV / dBm)	0.25/-119.0
Adjacent Channel Selectivity: **@ 25 kHz (dB)** **@ 12.5 kHz (dB)**	 75 (800 MHz non-NPSPAC) 67 (700 MHz)
Intermodulation (dB)	75
Spurious and Image Rejection (dB)	>75
FM Hum and Noise (dB)	44 (700 MHz) 53 (800 MHz NPSPAC) 54 (800 MHz wideband)
Audio Output (mW)	500 rated (3800 max)
Audio Distortion @ Rated Power (%)	1.5
Project 25 Reference Sensitivity @ 5% BER (µV / dBm)	0.25/-119
Project 25 Adjacent Channel Rejection (dB)	60

ENVIRONMENTAL STANDARD			
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	2
	Blowing Rain	506.5	1
	Humidity	507.5	2
	Salt Fog	509.5	1
	Blowing Dust	510.5	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
IEC 60529	Dust tight	IP66	
U.S. Forest Service	Vibration (10-60 Hz)	USDA LMR Standard Section 2.15	
TIA-603-C**	Shock (1-meter drop)	Paragraph 3.3.5.3	

*Also meets equivalent superseded MIL-STD-810D, E and F
**Environmental test certification of 1.5-meter drop shock to concrete using parameters of TIA-603-C 1.0-meter drop shock with additional height

DIGITAL OPERATION	
Protocol	**P25**
Vocoding Method	AMBE+2 Enhanced Full Rate & Enhanced Half Rate
Signaling Rate (kbps)	9.6
Modulation	Phase1 TX: C4FM, RX: C4FM & WCQPSK Phase 2 TX: HCPM, RX: WCQPSK

SPECIFICATIONS FOR: XL CONNECT 45 PORTABLE RADIO

ENCRYPTION	
Encryption Algorithms	Voice Encryption: Single-key AES / DES, DES-OFB, Encryption Lite (ARC4)* 256-bit AES P25, 64-bit DES Control Channel Encryption: 128-bit AES (LLA)

*Interoperates with commonly available ARC4 encryption algorithms.

BATTERY				
Type	**Dimensions (H x W x D)**	**Weight**	**Life (@5% Tx, 5% Rx, and 90% standby)**	**Capacity (mAh)**
Li-Ion	4.42 x 2.44 x 0.83 in	5.1 oz (145 g)	10 hrs	3100

XL Connect 45P

Non-Export Controlled Information

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XL CONNECT™ 95P

Flexible. Affordable. Unstoppable.

With today's challenging environment and tight budgets, customers told us they wanted high-quality L3Harris radio technology in a more affordable configuration.

You spoke, we listened.

We packed the XL Connect 95P with just the right features to meet your need for unstoppable and secure critical communications connections at a value that fits your budget. With Wi-Fi enabled voice and data management, you can communicate just about anywhere without ever leaving your system. And you'll find features typically only in higher-priced radios like GPS, instant recall and dual microphone advanced noise cancellation.

Just like the rest of our XL radios, the XL Connect 95P is:

- **RELENTLESSLY RELIABLE:** XL radios run on systems that double-down on redundancy, champion open networks, and connect seamlessly with P25-compliant organizations
- **POINT-TO-POINT SECURE:** Our AES secure configurations are ironclad keeping your systems safe from threats
- **BACKED WITH ALL IN, 24/7 SUPPORT:** Our service packages get your radios up and running and keep them running with preventative maintenance and automatic software upgrades

A NEW WAY TO STAY CONNECTED THAT'S FIT FOR YOUR BUDGET

KEY BENEFITS

- **Wi-Fi® enabled voice and data management**
- **Always connected, anywhere communications**
- **Features formerly only available in higher-priced radios—GPS®, instant recall, and dual microphone advanced noise cancellation**
- **Encrypted voice and data for secure communications**
- **The right features at an affordable price**

PRELIMINARY

L3Harris.com

PRELIMINARY

SPECIFICATIONS FOR: XL CONNECT 95 PORTABLE RADIO

GENERAL	
Radio Models	
Full Keypad	8-color LCD and DTMF keypad
Dimensions (H x W x D): (without antenna, battery, and knobs)	5.9 x 2.4 x 1.9 in (149.6 x 62.0 x 47.2 mm)
Weight (without antenna and battery)	10.9 oz (310.9 g)
Housing Color	Midnight Black
Environmental Specifications	
Relative Humidity	95% @ 140°F (+60°C)
Vibration	9.2G (per U.S. Forest Service)
Drop Shock	1.5 m drop to concrete (exceeds TIA-603-C)
Immersion[1]	2 m for 4 hrs in accordance with MIL-STD-810G / IP68 (per IEC60529)
Operating Temperature[2]	-22° to +140°F (-30° to +60°C)
Storage Temperature	-40° to +176°F (-40° to +80°C)
Store batteries at the following temperatures:	
Li-Ion	-40° to + 176°F (-40° to +80°C)
Altitude	
Operational	15,000 ft (4,572 m)
In Transit	50,000 ft (15,240 m)
Electrical	
Input Voltage	7.5 VDC (nominal)
Safety	
HAZLOC Options	Approval pending for use in the US and Canada in Class I, Division 2, Groups A, B, C and D Hazardous Locations.
RoHS compliant	

[1]Optional feature
[2]Extremely low temperatures adversely affect battery life

TRANSMITTER	
Typical Performance Specifications	**700/800**
Frequency Range (MHz):	768-776, 798-806, 806-816, 851-861 763-776, 793-806, 806-825, 851-870
Rated RF Power (W)	3 (Trnk & Talkaround)
Frequency Stability (-30°C to +60°C, +25°C Ref) (ppm)	±0.6
Frequency Separation (MHz)	Full Bandwidth (within 700 or 800 MHz band)
Modulation Deviation (kHz)	5.0 (wideband*), 4.0 (NPSPAC) 2.5 (narrowband)
FM Hum and Noise Companion Receiver (dB)	44 (700 MHz) 47 (800 MHz NPSPAC) 48 (800 MHz non-NPSPAC)
Spurious and Harmonics (dBm / dBc)	-55/90
Audio Response (dB)	+1/-3
Audio Distortion (1 kHz tone): **@ 3 kHz deviation** **@ 2.4 kHz deviation** **@ 1.5 kHz deviation**	 1% (800 MHz non-NPSPAC) 1% (800 MHz NPSPAC) 1% (700 MHz)
Project 25 Modulation Fidelity (%)	1
Project 25 Adjacent Channel Power (dBc)	73

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, 793-825	3	0.2	OWDTR-0074-E	90	3636B-0074	RSS-119

SPECIFICATIONS FOR: XL CONNECT 95 PORTABLE RADIO

RECEIVER

Typical Performance Specifications	700/800 MHz
Frequency Range (MHz): **Option 1 (US)** **Option 2 (International)**	 768-776, 851-861 **763-776, 851-870**
Frequency Separation (MHz)	Full Bandwidth (within 700 or 800 MHz band)
Channel Spacing (kHz)	25 (wideband*) 12.5 (narrowband)
Frequency Stability (-30 to +60°C, +25 °C Ref) (ppm)	±1.5
Sensitivity (12 dB SINAD) (µV / dBm)	0.25/-119.0
Adjacent Channel Selectivity: **@ 25 kHz (dB)** **@ 12.5 kHz (dB)**	 75 (800 MHz non-NPSPAC) 67 (700 MHz)
Intermodulation (dB)	75
Spurious and Image Rejection (dB)	>75
FM Hum and Noise (dB)	44 (700 MHz) 53 (800 MHz NPSPAC) 54 (800 MHz wideband)
Audio Output (mW)	500 rated (3800 max)
Audio Distortion @ Rated Power (%)	1.5
Project 25 Reference Sensitivity @ 5% BER (µV / dBm)	0.25/-119
Project 25 Adjacent Channel Rejection (dB)	60

ENVIRONMENTAL STANDARD

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	2
	Blowing Rain	506.5	1
	Humidity	507.5	2
	Salt Fog	509.5	1
	Blowing Dust	510.5	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
IEC 60529	Dust tight, Continuous Immersion	IP68	
U.S. Forest Service	Vibration (10-60 Hz)	USDA LMR Standard Section 2.15	
TIA-603-C* **	Shock (1-meter drop)	Paragraph 3.3.5.3	

*Also meets equivalent superseded MIL-STD-810D, E and F
**XL Connect 95P immersion model only. Available option that must be ordered. Additional certification for water intrusion with water depth of 2 meters for 4 hours
***Environmental test certification of 1.5-meter drop shock to concrete using parameters of TIA-603-C 1.0-meter drop shock with additional height

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

PRELIMINARY

SPECIFICATIONS FOR: XL CONNECT 95 PORTABLE RADIO

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 per Radio	Capable of storing 128 keys (64 AES, 64 DES)

*Interoperates with commonly available ARC4 encryption algorithms.

BATTERIES				
Type	**Dimensions (H x W x D)**	**Weight**	**Life (@5% Tx, 5% Rx, and 90% standby)**	**Capacity (mAh)**
Li-Ion	4.42 x 2.44 x 0.83 in	5.1 oz (145 g)	10 hrs	2400

XL Connect 95P

Non-Export Controlled Information

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XL EXTREME™ 400P

Rugged and ready for anything

You don't flinch in the face of danger. Neither should your radio. L3Harris' XL Extreme 400P is tailor-made to keep everyone connected even in the most extreme conditions.

This radio's rock-solid construction is engineered to withstand anything the environment can throw at it. With hardware designed to the new NFPA standard, the 400P features extreme thermal materials, reinforced seal design, and unique thermal-rated displays and speakers. All new heavy-duty, glove-friendly keypad, knobs, and large emergency button with L3Harris' unique visual zone indication, ambient temperature and optional in-building location capabilities keep your team in sync when the heat is on.

Just like the rest of our XL radios, the XL Extreme 400P is:

- **RELENTLESSLY RELIABLE:** XL radios run on systems that double-down on redundancy, champion open networks and connect seamlessly with P25-compliant organizations
- **POINT-TO-POINT SECURE:** Our AES secure configurations are ironclad, keeping your systems safe from threats
- **BACKED WITH ALL IN, 24/7 SUPPORT:** Our service packages get your radios up and running and keep them running with preventative maintenance and automatic software upgrades

STAY CONNECTED IN THE MOST EXTREME CONDITIONS

KEY BENEFITS

- Hardware designed to withstand extreme temperatures and environments
- Intuitive, comfortable and easy to use
- Large glove-friendly keypad, buttons and knobs
- LTE operation over AT&T® or Verizon® networks
- Ambient temperature sensor
- Loud and clear audio with industry-leading noise cancellation
- Visual zone indication provides quick visual confirmation that all users are on the same group or channel
- Advanced connectivity with secure voice and data encryption
- Includes Wi-Fi® and Bluetooth® integration

PRELIMINARY

This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained.

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SPECIFICATIONS FOR: XL EXTREME 400 PORTABLE FULL-SPECTRUM MULTIBAND RADIO

PRELIMINARY

GENERAL

Radio Models:		
Full Keypad	TFT LCD w/full heat-resistant DTMF keypad, integrated navigation cluster, and soft keys	
Dimensions w/Battery (H x W x D)	6.6 x 2.5 x 2.5 in (168.0 x 64.0 x 43.7 mm)	
Weight	14.7 oz (418 g)	
Housing Colors	Green and Black	
Interfaces:		
Front Display	320 x 178 pixels, 1.8 in transflective LCD, 16-bit color with backlight	
Top Display	128 x 32 pixels, 1.1 in multicolor backlight, sunlight readable	
Keypad	Backlight, 3 soft keys, 5-way navigation key	
Buttons	Large PTT button, on/off knob, volume knob, red emergency button, 16-position top-mounted rotary knob,	
Tx/Rx Indicator	2-position concentric switch, 4-position toggle switch, 2 programmable side buttons, programmable top button, multicolored LEDs	
Channel/Talkgroup Capacity	1,250 total conventional channels and 13,824 total talkgroups	
Radio programming	Firmware, personalities and feature set over Wi-Fi	
Transceiver	**Supported Bands** VHF, UHF and 700/800 MHz and LTE (optional)	**Channel Capacity** 12,500 (1,250 per mission plan)
Environmental:		
Relative Humidity	5% @ 140°F (+60°C), 95% @ 122°F (+50°C)	
Vibration	USDA LMR Standard, Section 2.15 and MIL-STD-810G, Test Method 514.6	
Drop Shock	1.5 m drop to concrete (exceeds TIA-603-D)	
Immersion	2 m for 4 hours in accordance with MIL-STD-810G/IP68, NFPA 1802 8.4 - Vibration, NFPA 1802 8.5 - 3m drop, NFPA 1802 8.14 - Tumble/Vibration, NFPA 1802 8.3 - Heat + Immersion	
Operating Temperature[1]	-22° to +140°F (-30° to +60°C)	
Storage Temperature[2]	-40° to +176°F (-40° to +80°C)	
Altitude	**Operational** 15,000 ft (4,572 m)	**In Transit** 40,000 ft (12,192 m)
Electrical Input Voltage	7.5 VDC (nominal)	
GPS/GNSS Specifications:		
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		
Safety:		
Hazardous Location Options	Approved for use in the U.S. and Canada in Class I, Division 2 Groups A, B, C and D hazardous locations	
RoHS Compliant		

[1] Extreme low temperatures adversely affect battery life
[2] Store batteries at +25°C ± 5°C

LMR TRANSMITTER

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

*Full-spectrum multiband VHF and UHF product is compliant with applicable FCC narrowbanding mandate below 512 MHz

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-0164-E	22, 74, 80, 90	3636B-0164	RSS-119	SPS-217 49/1
378-522 MHz	5 W	+/- 1.0 PPM	OWDTR-0164-E	22, 74, 80, 91	3636B-0165	RSS-119	SPS-217 49/1
768-776 MHz	3 W	+/- 1.0 PPM	OWDTR-0164-E	90	3636B-0166	RSS-119	NA
798-806 MHz	3 W	+/- 1.0 PPM	OWDTR-0164-E	90	3636B-0167	RSS-119	NA
806-816 MHz	3 W	+/- 1.0 PPM	OWDTR-0164-E	90	3636B-0144	RSS-119	NA
851-861 MHz	3 W	±1.0 ppm	OWDTR-0144-E	90	3636B-0144	RSS-119	NA
851-869 MHz	3 W	+/- 1.0 PPM	OWDTR-0164-E	90	3636B-0169	RSS-119	NA
2402-2480	0.2 W	NA	OWDTR-0164-E	15	3636B-0171	RSS-119	NA

SPECIFICATIONS FOR: XL EXTREME 400 PORTABLE FULL-SPECTRUM MULTIBAND RADIO

PRELIMINARY

REGULATORY DATA (Continued)							
5180-5825	0.1 W	NA	OWDTR-0164-E	15	3636B-0172	RSS-119	NA

LMR RECEIVER			
Frequency Bands	**VHF**	**UHF**	**700/800 MHz**
Frequency Ranges (MHz):	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)	±1.0 ppm	±1.0 ppm	±1.0 ppm
Sensitivity (dBm): **@ 12 dB SINAD**	-122	-121	-121 (700 MHz) -120 (800 MHz)
Project 25 Reference Sensitivity (dBm): **@ 5% BER**	-122	-121	-120.5
Analog Selectivity (dB): **@ 25 kHz** **@ 12.5 kHz**	 77 71	 77 70	 74 64
Project 25 Adjacent Channel Rejection (dB)	66.2	62.2	62
Offset Channel Selectivity (dB): **@ NPSPAC**	NA	NA	30
Intermodulation (dB)	80	81	77
Spurious and Image Rejection (dB)	90	87	80
FM Hum and Noise (dB): **@ 25 kHz** **@ 12.5 kHz**	 -60 -55	 -60 -53	 -55 -50
Audio Output - RATED (W)	1.5	1.5	1.5
Audio Distortion @ Rated Power	1.1	1.1	1.1

*Full-spectrum multiband VHF and UHF product is compliant with applicable FCC narrowbanding mandate below 512 MHz

ENVIRONMENTAL STANDARD			
Applicable MIL-STD	**Parameter**	**Methods**	**Procedure/Categories**
MIL-STD-810G	Low pressure	500.5	1, 2
	High temperature	500.5	1, 2
	Low temperature	500.5	1, 2
	Temperature shock	503.5	1
	Solar radiation	505.5	1
	Contamination by fluids	504.1	2
	Rain	506.5	1, 3
	Humidity	507.5	2
	Salt fog	509.5	1
	Blowing dust and sand	510.5	1, 2
	Explosive atmosphere	511.5	1
	Immersion in water**	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)		
IEC 60529	Dust-tight, continuous immersion in water**		IP68
	Heat and Immersion Leakage Resistance		8.3
	Vibration		8.4
	Impact Acceleration Resistance		8.5
	Corrosion		8.6
	Viewing Surface Abrasion		8.7
	High Temperature Functionality		8.8
	Heat and Flame		8.9
	Case Integrity		8.12
	Water Drainage		8.13
	Tumble/Vibration		8.14
	Electronic Temperature Stress Test		8.19
	Antenna VSWR		8.2

SPECIFICATIONS FOR: XL EXTREME 400 PORTABLE FULL-SPECTRUM MULTIBAND RADIO

BROADBAND	
LTE Protocol	3GPP Release 11, Category 12, Power Class 3 UE with support for QoS QCI
North American LTE Option	FCC ID: N7NEM75S 4G LTE Bands: B2, B4, B5, B12, B13, B14, B17, B29*, B30*, B66 3G Bands: B2, B5 Carrier Certification: AT&T, Verizon (future)
International LTE Option (In selected countries)	4G LTE Bands: B1, B3, B5, B7, B8, B28 3G Bands: B1, B5, B8
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)

DIGITAL OPERATION		
Protocol	**ProVoice™**	**P25**
Vocoding Method	AMBE+2™ enhanced full rate	AMBE+2 enhanced full rate and enhanced half rate
Signaling Rate (kbps)	9.6	9.6
Modulation	GFSK	Phase 1 Tx: C4FM, Rx: C4FM and WCQPSK

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 per Radio	Capable of storing 128 keys (128 AES, 64 DES)
Keying	L3Harris Key Loader, Over-the-Air Rekeying (OTAR), Motorola KVL 3000+/4000
Standards	FIPS 140-2, FIPS 197

BATTERIES			
Type	**Dimensions (H x W x D)**	**Weight**	**Capacity (mAh)**
Li-Ion	100 mm x 64 mm x 31 mm	215.4 g	4000

PRELIMINARY

This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained.

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

XL Extreme 400P Full-spectrum Multiband Radio

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