

XG-75P PORTABLE

VHF/UHF-L

The L3Harris XG-75P Portable delivers the high reliability and rugged performance essential for missions operating in extreme conditions. Ideal for organizations wanting just one radio to manage all their migration needs, this flexible solution supports legacy L3Harris platforms, P25 EDACS®, ProVoice™ and OpenSky®.



The XG-75P features an enlarged speaker, dual microphone, active voice cancellation and AMBE+2™ vocoder to deliver crisp, clear audio despite noisy environments.

The portable supports wideband and narrowband channels and has a software-defined architecture, allowing field upgrades to operating modes, including P25 Phase 2 trunking.

Designed for ease of use, the XG-75P features a two-position A-B switch on the top of the radio for direct access to 32 talkgroups/channels. Knobs and buttons are ruggedized to protect from impact and are shaped for error-free, gloved-hand operation.

Secure communications through a choice of encryption methods, including standard single-key AES, single-key DES and Encryption Lite.

RUGGED, FLEXIBLE P25 MIGRATION SOLUTION

KEY BENEFITS

- > Multimode solution supporting legacy L3Harris platforms, P25 EDACS, ProVoice, and OpenSky
- > Software-defined architecture for in-field updates to new capabilities
- > Clear, distortion-free audio despite loud, harsh environments
- > Optional features include IP68 immersion and UL certification for C1D1 HAZLOC use

SPECIFICATIONS FOR: XG-75P PORTABLE-VHF/UHF-L

GENERAL		
Radio Models		
Full Keypad	Dot matrix LCD and DTMF keypad	
Partial Keypad	Dot matrix LCD and limited keypad	
Dimensions (without antenna, battery and knobs)		
Height	5.89 (in)	149.6 (mm)
Width	2.44 (in)	62.0 (mm)
Depth	1.86 (in)	47.2 (mm)
Weight (without antenna and battery)		
Portable	10.4 (oz)	294.5 (g)
Housing Colors		
Midnight Black, Black-Gray, Black-Yellow, and Tactical Green		
Environmental Specifications		
Relative Humidity	95% @ 140°F (+60°C)	
Vibration	9.2G (per U.S. Forest Service)	
Drop Shock	1.5 meter drop to concrete (exceeds TIA-603-C)	
Immersion ¹	2 meters for 4 hours 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)	
Li-Polymer	-22° to +176°F (-30° to +80°C)	
NiMH	-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	UL certified to ANSI / TIA-4950, ANSI / ISA 12.12.01, CAN / CSA-C22.2 No. 157-92, CAN / CSA-C22.2 No. 213-15 standards as suitable for use in Class I, Division 1, Groups C and D; Class II, Division 1, Groups E, F, and G; Class III, Division 1 hazardous locations; Class I, Division 2, Groups A, B, C, and D or non-hazardous (unclassified) locations only	
RoHS compliant		

¹Optional feature

²Extremely low temperatures adversely affect battery life

TRANSMITTER		
Typical Performance Specifications	VHF	UHF-L
Frequency Range (MHz)	136-174	378-470
Rated RF Power (W)	6	5
Frequency Stability (-30° to +60°C, +25°C Ref) (ppm)	±1.5	±1.5
Frequency Separation (MHz)	Full Bandwidth	Full Bandwidth
Modulation Deviation (kHz)	5.0 (wideband*) 2.5 (narrowband)	5.0 (wideband*) 2.5 (narrowband)
FM Hum and Noise Companion Receiver (dB)	-52 (wideband*) -50 (wideband*)	-50 (narrowband) -45 (narrowband)
Spurious and Harmonics (dBm / dBc)	-36 / -75	-36 / -75
Audio Response (dB)	+1 / -3	+1 / -3
Audio Distortion (1 kHz tone):		
@ 3 kHz deviation	1% (wideband)	1% (wideband)
@ 2.4 kHz deviation	NA	NA
@ 1.5 kHz deviation	1% (narrowband)	1% (narrowband)
Project 25 Modulation Fidelity (%)	<5	<5
Project 25 Adjacent Channel Power (dBc)	>67	>67

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

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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	±1.5	OWDTR-0059-E	22, 80, 90	3636B-0059	RSS-119	J / F 12 / 9974
378-470	5	±1.5	OWDTR-0070-E	90	3636B-0070	RSS-119	J / F 12 / 9974

RECEIVER		
Typical Performance Specifications	VHF	UHF
Frequency Range (MHz)	136-174*	378-470
Frequency Separation (MHz)	Full Bandwidth	Full Bandwidth
Channel Spacing (kHz)	25 / 30 (wideband**) 12.5 / 15 (narrowband)	25 / 30 (wideband**) 12.5 / 15 (narrowband)
Frequency Stability (-30 to +60°C, +25°C Ref) (ppm)	±1.5	±1.5
Sensitivity (12 dB SINAD) (µV / dBm)	0.20 / -121	0.25 / -119.0
Adjacent Channel Selectivity: @ 25 kHz (dB) @ 12.5 kHz (dB)	79 (wideband**) 66 (narrowband)	>73 >60
Intermodulation (dB)	77	75
Spurious and Image Rejection (dB)	80	80
FM Hum and Noise (dB)	>50 (wideband**) >45 (narrowband)	>50 (wideband**) >45 (narrowband)
Audio Output (mW)	500 rated (3800 max)	500 rated (3800 max)
Audio Distortion @ Rated Power (%)	1.5	1.5
Project 25 Reference Sensitivity @ 5% BER (µV / dBm)	0.22 / -121	0.25 / -119
Project 25 Adjacent Channel Rejection (dB)	>60	>60

*The following self-quieting frequencies cannot be programmed as receive frequencies: 144.000, 153.600, 163.200, and 172.800 MHz

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

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

**XG-75P 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

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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 hours	2400
Li-Polymer	4.42 x 2.44 x 0.83 in	6.6 oz (187 g)	16 hours	3600
NiMH	4.42 x 2.44 x 0.83 in	9.5 oz (270 g)	10 hours	2400

ACCESSORIES

The XG-75P offers a full complement of accessories for use in the industrial, public safety, utility and transportation markets.

Audio Accessories

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. The XG-75P can also 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.



Speaker Microphone



Fire Speaker Microphone



Tactical Headset



3-Wire Mini-Lapel Microphone

Carrying Cases

Low-profile, integrated carrying options include a standard belt clip and premium belt loop. A premium leather holster can be attached to a belt or worn with the premium leather shoulder strap.



Nylon Carrying Case



Belt Clip



Leather Carrying Case

Chargers

L3Harris offers a variety of chargers for the XG-75P radio: Single-Bay, Multi-Bay and a Vehicular Charger. All 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

Antennas, Bluetooth® speaker microphones and covert earpieces, public safety speaker microphones, Lithium batteries, PC programming software and cables are available.

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

XG-75P Portable Radio

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