



RUGGED, RELIABLE PERFORMANCE IN HARSH CONDITIONS

KEY FEATURES

Multimode solution supporting legacy Harris 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

XG-75Pe PORTABLE

UHF-H, 700/800 MHz

The Harris XG-75Pe Portable delivers the high reliability and secure communications demanded by operations in extreme conditions. Ideal for organizations wanting just one radio to manage all their migration needs, this flexible solution supports legacy Harris platforms, P25 EDACS®, ProVoice™ and OpenSky®.

Equipped with an enlarged speaker, dual microphone, AMBE+2™ and active noise cancellation, the XG-75Pe delivers clear audio despite noisy, congested environments.

The portable is also future-ready with wideband and narrowband channels and a software-defined architecture allowing field upgrades to new operating modes, including P25 Phase 2 trunking.

Designed for ease of use, the XG-75Pe features a three-position A-B-C switch on the top of the radio for direct

access to 48 talkgroups and channels. Knobs and buttons are ruggedized to protect from impact and are shaped for error-free, gloved-hand operation. Instant recall feature replays last transmissions received, preventing missed communications.

Single-key AES encryption, single-key DES encryption and Encryption lite are standard. Optional features are available for IP68 immersion, Underwriters Laboratories C1D1 certification for HAZLOC use and FIPS advanced 256-bit AES encryption.

SPECIFICATIONS FOR: XG-75Pe PORTABLE-UHF-H, 700/800 MHz

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)	5.89 H x 2.44 W x 1.86 D in (149.6 H x 62.0 W x 47.2 D mm)
Weight (without antenna and battery)	10.4 oz (294.5 g)
Housing Colors	Midnight Black, Black-Gray, and Black-Yellow
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° F to +140° F (-30° C to +60° C)
Storage Temperature*	-40° F to +176° F (-40° C to +80° C)
*Store batteries at the following temperatures	
Li-Ion	-40° F to +176° F (-40° C to +80° C)
Li-Polymer	-22° F to +176° F (-30° C to +80° C)
NiMH	-40° F to +176° F (-40° C 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	UHF-H	700/800
Frequency Range (MHz)	450-522	769-775, 799-805, 806-816, 851-861
Rated RF Power (W)	5	3 (Trnk & Talkaround)
Frequency Stability (-30° C to +60° C, +25° C Ref) (ppm)	±0.3	±0.6
Frequency Separation (MHz)	Full Bandwidth	Full Bandwidth (within 700 or 800 MHz band)
Modulation Deviation (kHz)	5.0 (wideband*)	5.0 (wideband*), 4.0 (NPSPAC)
	2.5 (narrowband)	2.5 (narrowband)
		44 (700 MHz)
FM Hum and Noise Companion Receiver (dB)	51.5 (wideband*)	47 (800 MHz NPSPAC)
	47.5 (narrowband)	48 (800 MHz non-NPSPAC)
Spurious and Harmonics (dBm / dBc)	-51.5 / 88.5	-55 / 90
Audio Response (dB)	+1 / -3	+1 / -3
Audio Distortion (1 kHz tone)		
@ 3 kHz deviation	1% (wideband)	1% (800 MHz non-NPSPAC)
@ 2.4 kHz deviation	NA	1% (800 MHz NPSPAC)
@ 1.5 kHz deviation	1% (narrowband)	1% (700 MHz)
Project 25 Modulation Fidelity (%)	1.4	1
Project 25 Adjacent Channel Power (dBc)	72	73

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

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
450-522	5	0.2	OWDTR-0131-E	22, 80, 90	3636B-0131	RSS-119
769-775, 799-805, 806-816, 851-861	3	0.2	OWDTR-0074-E	90	3636B-0074	RSS-119

SPECIFICATIONS FOR: XG-75Pe PORTABLE-UHF-H, 700/800 MHz

RECEIVER

Typical Performance Specifications	UHF	700/800 MHz
Frequency Range (MHz)	450-522	769-775, 851-861
Frequency Separation (MHz)	Full Bandwidth	Full Bandwidth (within 700 or 800 MHz band)
Channel Spacing (kHz)	25 (wideband*) 12.5 (narrowband)	25 (wideband*) 12.5 (narrowband)
Frequency Stability (-30° C to +60° C, +25 °C Ref) (ppm)	±1.5	±1.5
Sensitivity (12 dB SINAD) (µV / dBm)	-121.0 (wideband*) -121.0 (narrowband)	0.25 / -119.0
Adjacent Channel Selectivity @ 25 kHz (dB)	77 (wideband*)	75 (800 MHz non-NPSPAC)
@12.5 kHz (dB)	69 (narrowband)	67 (700 MHz)
Intermodulation (dB)	78	75
Spurious and Image Rejection (dB)	80	>80
FM Hum and Noise (dB)	53.5 (wideband**) 49.5 (narrowband)	44 (700 MHz) 53 (800 MHz NPSPAC) 54 (800 MHz wideband*)
Audio Output (mW)	500 rated (3800 max)	500 rated (3800 max)
Audio Distortion @ Rated Power (%)	1.5 (wideband*) 1.5 (narrowband)	1.5
Project 25 Reference Sensitivity @ 5% BER (µV / dBm)	0.22 / -120.0	0.22 / -120
Project 25 Adjacent Channel Rejection (dB)	63.5	64

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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-75Pe 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	OpenSky® (700/800 MHz)	ProVoice™	P25
Vocoding Method	AMBE + 2™ Half Rate & Enhanced Half Rate	AMBE + 2 Enhanced Full Rate	AMBE + 2 Enhanced Full Rate & Enhanced Half Rate
Signaling Rate (kbps)	19.2 & 9.6	9.6	9.6
Modulation	4-Level GFSK & M4FM	GFSK	Phase1 TX: C4FM, RX: C4FM & WCQPSK Phase 2 TX: HCPM, RX: 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 (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

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

ACCESSORIES

The XG-75Pe offers a full complement of accessories.

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-75Pe can also be used with Bone Conducting Skull Headsets and Throat Microphone/Headset Kits. Covert audio kits are available in black and beige and in 2 or 3-wire configurations with ear piece, microphone and PTT.



Speaker Microphone



Fire Speaker Microphone



Tactical Headset



3-Wire Mini-Lapel Microphone

Carrying Cases

Low-profile, integrated options include a standard belt clip and belt loop. A premium leather holster is also available for attaching to a belt or wearing with a leather shoulder strap.



Nylon Carrying Case



Belt Clip



Leather Carrying Case

Chargers

Harris offers a variety of chargers for the XG-75Pe radio including Single-Bay, Multi-Bay and Vehicular Charger for in-car charging. All charger options 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.

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