XG-15P PORTABLE

VHF, UHF-H, 700/800 MHz

RUGGED AND DEPENDABLE FOR CRITICAL COMMUNICATIONS

The XG-15P is an affordable and durable radio engineered for rugged and dependable use. Delivering high reliability and excellent voice quality, this P25 Phase 2 capable portable radio provides the tool public service users and first responders need to communicate with each other while supporting their communities.

FEATURES

The portable is simple to operate, so users may focus on the task rather than on radio function.

Single-key DES encryption and Encryption Lite are standard. Single-key DES interoperates across the industry. Encryption Lite allows communication with commonly available encrypted radios using a 40-bit key.

Instant recall of received audio replays the last transmission received to avoid repetition.

The AMBE+2™ vocoder provides clear voice quality even in noisy environments. The vocoder also controls distortion that may occur from shouting into the microphone.

LIGHTWEIGHT AND ERGONOMIC DESIGN

With a total weight of 13.8 ounces with a Lithium Ion battery, the XG-15P is one of the lightest radios on the market. From the keypad buttons to the battery, each aspect of the radio has been developed to provide a better user experience. The knobs and buttons are designed to be strong enough to protect against impact and are shaped to avoid incidental changes while still being easily managed by users wearing gloves.

AVAILABLE RADIO PACKAGES

Every XG-15P package includes an antenna, single-bay charger, Li-Ion battery, and belt clip at no additional charge. Packages are available for P25 conventional, P25 Phase 1 trunking, and P25 Phase 2 trunking.

FUTURE READY

The XG-15P is an economical investment that agencies can rely on as transitions occur to P25 technology. The portable radio supports wideband and narrowband channels (per applicable regulatory standards), and its software-defined architecture allows field upgrading to operating modes such as P25 Phase 2 trunking. The XG-15P is designed to meet the needs of today's and tomorrow's users.

EQUIPPED FOR HARSH CONDITIONS

The XG-15P meets the same environmental specifications as some higher tier Harris radios. In addition, the portable is IP54 certified for dust protection and exposure to splashing water.

HARRIS® TECHNOLOGY TO CONNECT, INFORM AND PROTECT™

GENERAL SPECIFICATIONS

Radio Models
Full Keypad: Dot matrix LCD and DTMF keypad

Dimensions (Without Antenna, Battery, and Knobs)
	Inches	Millimeters
Height:	5.37	136.5
Width:	2.44	62.0
Depth:	1.67	42.5

Weight (Without Antenna and Battery)
	Ounces	Grams
Portable:	8.5	241.87

Housing Colors
Gray

Environmental Specifications
Relative Humidity:	90% @ 122°F (+50°C)
Vibration:	9.2G (per US Forest Service)
Drop Shock:	1.0 meter drop to concrete (per TIA-603-C)

Environmental Specifications (Cont'd)
Ingress Protection:	IP54	

	°F	°C
Operating Temperature *:	-22 to +140	-30 to +60

*Extremely low temperatures adversely affect battery life

	°F	°C
Storage Temperature*:	-40 to +176	-40 to +80

*Store batteries at the following temperatures:

	°F	°C
Li-Ion:	-40 to + 176	-40 to +80
Li-Polymer:	-22 to +176	-30 to +80

Altitude	Feet	Meters
Operational:	15,000	4,572
In Transit:	50,000	15,240

Electrical
Input Voltage: 7.5 VDC (nominal)

Safety
RoHS compliant

TRANSMITTER

Typical Performance Specifications	VHF	UHF-H	700/800
Frequency Range (MHz):	136-174	440-512	768-776, 798-806, 806-816, 851-861
Rated RF Power (W):	5	5	3 (Trnk & Talkaround)
Frequency Stability (-30 to +60°C, +25°C Ref) (ppm):	±1.5	±1.5	±1.5
Frequency Separation (MHz):	Full Bandwidth	Full Bandwidth	NA
Modulation Deviation (kHz):	5.0 (wideband*) 2.5 (narrowband)	5.0 (wideband*) 2.5 (narrowband)	2.5, 4, or 5 FM
FM Hum and Noise Companion Receiver (dB):	53 (wideband*) 51 (narrowband)	51 (wideband*) 47 (narrowband)	44 (700 MHz) 47 (800 MHz NPSPAC) 48 (800 MHz non-NPSPAC)
Spurious and Harmonics (dBm/dBc):	-38/-75	-51/-88	-36.5/71.5
Audio Response (dB):	+1/-3	+1/-3	Meets TIA-603-C Section 3.2.6
Audio Distortion (1 kHz tone):			
@ 3 kHz deviation:	0.6% (wideband)	0.5% (wideband)	1% (800 MHz non-NPSPAC)
@ 2.4 kHz deviation:	NA	NA	1% (800 MHz NPSPAC)
@ 1.5 kHz deviation:	0.7% (narrowband)	0.7% (narrowband)	1% (700 MHz)
Project 25 Modulation Fidelity (%):	0.8	1.4	1
Project 25 Adjacent Channel Power (dBc):	74	72	73

*VHF and 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
136-174	0.5-5	1.5	OWDTR-0067-E	22, 80, 90	3636B-0067	RSS-119
768-861	3.0	1.5	OWDTR-0134-E	90	3636B-0134	RSS-119

To be provided upon receipt of FCC, Industry Canada, and European type approvals for UHF. This equipment is subject to the FCC rules. The equipment will comply with the appropriate rules before delivery to the buyer.

This device is not, and may not be, offered for sale or lease, or sold or leased, until the approval of the FCC has been obtained.

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

RECEIVER

Typical Performance Specifications	VHF	UHF-H	700/800
Frequency Range (MHz):	136-174	440-512	768-776, 851-861
Frequency Separation (MHz):	Full Bandwidth	Full Bandwidth	NA
Channel Spacing (kHz):	25/30 (wideband*) 12.5/15 (narrowband)	25 (wideband*) 12.5 (narrowband)	12.5, 25, PLL Steps
Frequency Stability (-30 to +60°C, +25°C Ref) (ppm):	±1.5	±1.5	±1.5
Sensitivity (12 dB SINAD) (μV/dBm):	0.2/-121 (wideband*) 0.2/-121 (narrowband)	0.2/-121 (wideband*) 0.2/-121 (narrowband)	0.21/-121 (700 MHz) 0.22/-120 (800 MHz NPSPAC) 0.21/-121 (800 MHz non-NPSPAC)
Adjacent Channel Selectivity @ 25 kHz (dB): @12.5 kHz (dB):	82 (wideband*) 70 (narrowband)	77 (wideband*) 69 (narrowband)	75 (800 MHz non-NPSPAC) 67 (700 MHz)
Offset Channel Selectivity @ NPSPAC (dB):	NA	NA	30
Intermodulation (dB):	79	78	75
Spurious and Image Rejection (dB):	83	79	90
FM Hum and Noise (dB):	54 (wideband*) 47 (narrowband)	53 (wideband*) 49 (narrowband)	45 (700 MHz) 52 (800 MHz NPSPAC) 54 (800 MHz non-NPSPAC)
Audio Output (mW):	500 rated	500 rated	500 rated
Audio Distortion @ Rated Power (%):	1.5	1.2	1.5
Project 25 Reference Sensitivity @ 5% BER (μV/dBm):	0.22/-120	0.22/-120	0.23/-120
Project 25 Adjacent Channel Rejection (dB):	67	64	64

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

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	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-protected and splashing water	IP54	
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.

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

ENCRYPTION

Encryption Algorithms:	DES, AES 128 (for Link Layer Authentication only, no AES voice encryption), Encryption Lite (40-bit)*
Encryption Keys per Radio:	Single-key DES

*Option included as standard with the radio. Interoperates with commonly available ARC4 encryption algorithms.

BATTERIES

Type	Dimensions (L 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 (145g)	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-15P offers a full complement of accessories that operate under the extreme conditions experienced by public service users and first responders. Several accessories are shown below.

Audio Accessories

The XG-15P can be used with a wide variety of audio accessories including speaker microphones, headsets, and covert audio accessories to provide a complete user-gear solution for the public service and first responder markets. 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 | 3-Wire Mini-Lapel Microphone |

Carrying Cases

Harris offers a versatile line of carrying cases for the XG-15P radio. Every XG-15P radio package ships with a standard belt clip. Optional accessories include a premium belt loop which affords 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.

| Nylon Carrying Case | Belt Clip | Leather Carrying Case |

Adapters

The XG-15P can be used with two types of adapters: Bluetooth® Adapter and GPS Adapter. The Bluetooth Adapter allows the radio to interface with Harris Bluetooth accessories. The GPS Adapter enables the radio to transmit a user's geographic location to dispatchers to provide quick and accurate position tracking. With a GPS Adapter, there is no need for an external GPS speaker microphone.

| GPS Adapter | Bluetooth Adapter |

Additional Accessories Available

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

About Harris Corporation

Harris Corporation is a leading technology innovator that creates mission-critical solutions that connect, inform and protect the world. The company's advanced technology provides information and insight to customers operating in demanding environments from ocean to orbit and everywhere in between. Harris has approximately $8 billion in annual revenue and supports customers in 125 countries through four customer-focused business segments: Communication Systems, Space and Intelligence Systems, Electronic Systems, and Critical Networks.

FLORIDA | NEW YORK | VIRGINIA | BRAZIL | UNITED KINGDOM | UAE | SINGAPORE

HARRIS® TECHNOLOGY TO CONNECT, INFORM AND PROTECT™