



XG-15P Portable

VHF, UHF-H,
700/800 MHz

RUGGED AND DEPENDABLE FOR CRITICAL COMMUNICATIONS

The XG-15P enhances the productivity and increases the efficiency of its users



The XG-15P is an affordable and durable radio that is engineered for rugged and dependable use, ensuring that critical communications are available even in harsh environments. Delivering high reliability, excellent voice quality, secure communications, and assured interoperability, the portable supplies the tools public service and first responders need to communicate with each other while supporting their communities.

Standard features found on the XG-15P include:

- > Extremely Rugged for Field Use – meets MIL-STD-810G for durability
- > AMBE+2™ Vocoder – provides noise cancellation capability and enhances audio quality
- > Single-Key DES Encryption – affords secure communications
- > Instant Recall – allows user to replay last transmission received
- > Lightweight Design – does not weigh down a user with its total weight of 13.8 ounces (including Lithium Ion battery)

Packages available for the XG-15P are as follows:

- > P25 Conventional (all frequencies)
- > P25 Trunking
- > P25 Trunking with Phase 2 TDMA

The XG-15P offers the following optional features:

- > Link Layer Authentication (LLA)
- > Over-the-Air Programming (OTAP)

Available in a full keypad model, the XG-15P offers a full complement of accessories to meet a variety of user needs.

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FUTURE READY

The XG-15P is an investment that agencies can rely on as transitions occur to P25 technology. The portable supports wideband and narrowband channels and its software-defined architecture allows field upgrading to operating modes such as P25 Phase 2.

MAXIMUM RF PERFORMANCE

The radio operates over the VHF band from 136 to 174 MHz, UHF band from 440 to 512 MHz, and 700/800 MHz band from 768 to 861 MHz and combines digital and analog operation in one radio. Such versatility maximizes interoperability. The portable complies with TIA-603 and TIA-102 Class A to provide the highest RF performance.

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. The XG-15P meets the rigorous requirements for operation in harsh environments.

LIGHTWEIGHT AND ERGONOMIC DESIGN

The XG-15P is one of the lightest radios in the Harris portfolio, weighing 13.8 ounces with the Lithium Ion battery. 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 of the XG-15P 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 heavy gloves. The XG-15P is simple to operate so users may focus attention on the situation rather than on radio operation.

ACCESSORIES

The XG-15P Portable package includes an antenna, compact charger, Li-Ion battery, and belt clip as standard equipment with the radio. The portable is compatible with many of the accessories used with other Harris radios, including those for the XG-25P. Several accessories are shown below.



The Tri-Chemistry 6-Bay Charger may be mounted on a wall or used as a desk charger to charge NiCd, NiMH, Li-Ion, and Li-Polymer batteries in 1 to 4 hours. The unit provides microprocessor-controlled charging for long battery life and maximum battery performance. Protective circuitry prevents damage to batteries resulting from charging when outside the required temperature or voltage range. The unit can charge batteries with or without the radio attached.



The Standard Speaker Microphone includes a two-position volume control setting, emergency button, rubber PTT, and earphone jack in a compact yet highly functional design. A clothing clip that rotates a full 360 degrees provides complete accessibility. With construction that complies with MIL standard specifications, this speaker microphone meets the needs of a wide range of users.



The 2400 mAH Lithium Ion battery, which comes standard with the XG-15P, has an average 10-hour shift life with maintenance-free Lithium battery technology. The battery is ideal for public safety, public service, commercial and industrial, and utility applications.

GENERAL SPECIFICATIONS

XG-15P Portable is available in 1 model:

Full Keypad: With dot matrix LCD and DTMF keypad

Dimensions (H x W x D):
(Without Knobs and Antenna)
With battery:
5.37 x 2.44 x 1.67 in.
(136.5 x 62.0 x 42.5 mm)

Approximate Weight (with Battery):

Li-Ion: 13.8 oz (391g)

Input Voltage:

7.5 VDC (nominal)

Vibration:

9.2 G (per U.S. Forest Service)

Drop Shock:

1.0 meter drop to concrete

Battery Life (at 5% Tx, 5% Rx, and 90% standby):

Li-Ion: 10 hours (2400 mAh)

Operating Temperature Range:

Li-Ion: +14 to +140°F
(-10 to +60°C)

Relative Humidity:

90% @ 122°F (+50°C)

Altitude:

Operational: 15,000 ft
(4,572 m)
In Transit: 50,000 ft
(15,240 m)

Color (case):

Gray

Options and Accessories:

Headset, earpiece, speaker microphones, PC programming software and cables, subminiature surveillance accessories, antennas, cases, straps, belt loops and swivel mounts, desk chargers, and wall chargers

RoHS compliant

COMPACT AND DURABLE PORTABLE RADIO FOR ESSENTIAL COMMUNICATIONS

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*)	5.0 (wideband*)	2.5, 4, or 5 FM
	2.5 (narrowband)	2.5 (narrowband)	
FM Hum and Noise (Companion Receiver) (dB):	53 (wideband*)	51 (wideband*)	44 (700 MHz)
	51 (narrowband)	47 (narrowband)	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.

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*)	25 (wideband*)	12.5, 25, PLL Step
	12.5/15 (narrowband)	12.5 (narrowband)	
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 (wideband*)	0.21/-121 (700 MHz)
	0.2/-121 (narrowband)	0.2/-121 (narrowband)	0.22/-120 (800 MHz NPSPAC)
			0.21/-121 (800 MHz non-NPSPAC)
Adjacent Channel Selectivity @ 25 kHz (dB):	82 (wideband*)	77 (wideband*)	75 (800 MHz non-NPSPAC)
@ 12.5 kHz (dB):	70 (narrowband)	69 (narrowband)	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*)	53 (wideband*)	45 (700 MHz)
	47 (narrowband)	49 (narrowband)	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

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ENVIRONMENTAL SPECIFICATIONS

STANDARD	PARAMETER	METHODS & PROCEDURES
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
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:	Phase 1 TX: C4FM, RX: C4FM & WCQPSK ; Phase 2 TX: HCPM, RX: WCQPSK
Encryption Algorithms:	DES, AES 128 (for Link Layer Authentication only, no AES voice encryption)
Encryption Keys:	64-key DES

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.



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