



## XL CONNECT™ 45P

Affordable, Flexible, Unstoppable.



Engineered for tough performance in extreme conditions, the XL Connect 45P is also 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 IN DEMANDING ENVIRONMENTS

Ruggedized to meet MIL-STD 810G 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 keep your radios up and running with in-field preventative maintenance and software upgrades.

### Key Benefits

- > Based on proven XL quality and compatible with XG accessories
- > MIL-STD 810G durability
- > Wi-Fi®-enabled voice and device management
- > Dual-microphone noise cancellation for advanced clarity
- > Sharp, bright color display for visibility
- > Field-repairable and software-defined for easy updates and new capabilities
- > Single-key AES/DES encryption and Encryption Lite for voice and data protection

## SPECIFICATIONS FOR: XL CONNECT 45 PORTABLE RADIO

GENERAL	
Specifications	
Radio Model Numbers XK-PF78B XK-PF78B-C XK-PFVUB XK-PFVUB-C	XL 45P 700/800 MHz Portable radio; P25 Ph1 Trunking included XL 45P 700/800 MHz Portable radio; Conventional and PTT-over-Wi-Fi included XL 45P VHF & UHF Dual band Portable radio; P25 Ph1 Trunking included XL 45P VHF & UHF Dual band Portable radio; Conventional and PTT-over-Wi-Fi included
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 <sup>1</sup>	-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	

<sup>1</sup>Extremely low temperatures adversely affect battery life

TRANSMITTER			
Typical Performance Specifications	VHF	UHF	700/800
Frequency Range (MHz): (U.S.) (International)	136 - 174	378-522	768-776, 798-806, 806-816, 851-861 763-776, 793-806, 806-825, 851-870
Rated RF Power (W)	6 (Trnk & Talkaround)	5 (Trnk & Talkaround)	3 (Trnk & Talkaround)
Frequency Stability (-30°C to +60°C, +25°C Ref) (ppm)	±1.0	±1.0	±0.6
Frequency Separation (MHz)	Full Bandwidth	Full Bandwidth	Full Bandwidth (within 700 or 800 MHz band)
Modulation Deviation (kHz)	5.0 (wideband*) 2.5 (narrowband)	5.0 (wideband*) 2.5 (narrowband)	5.0 (wideband*), 4.0 (NPSPAC) 2.5 (narrowband)
FM Hum and Noise Companion Receiver (dB)	45 @ 25 kHz 43 @ 12.5 kHz	45 @ 25 kHz 43 @ 12.5 kHz	44 (700 MHz) 47 (800 MHz NPSPAC) 48 (800 MHz non-NPSPAC)
Spurious and Harmonics (dBm / dBc)	-36/-75	-36/-75	-55/90
Audio Response (dB)	+1/-3	+1/-3	+1/-3
Audio Distortion (1 kHz tone): @ 3 kHz deviation @ 2.4 kHz deviation @ 1.5 kHz deviation	2%	2%	1% (800 MHz non-NPSPAC) 1% (800 MHz NPSPAC) 1% (700 MHz)
Project 25 Modulation Fidelity (%)	3	3	1
Project 25 Adjacent Channel Power (dBc)	>67	>67	73

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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
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
136-174; 378-522	6 (136-174 MHz) 5 (378-522 MHz)	±1.0	TBD	22, 74, 80, 90	TBD	RSS-119

RECEIVER			
Typical Performance Specifications	VHF	UHF	700/800 MHz
Frequency Range (MHz): (US) (International)	136-174	378-522	768-776, 851-861 763-776, 851-870
Frequency Separation (MHz)	Full Bandwidth	Full Bandwidth	Full Bandwidth (within 700 or 800 MHz band)
Channel Spacing (kHz)	25 (wideband*) 12.5 (narrowband)	25 (wideband*) 12.5 (narrowband)	25 (wideband*) 12.5 (narrowband)
Frequency Stability (-30 to +60°C, +25°C Ref) (ppm)	±1.0	±1.0	±1.5
Sensitivity (12 dB SINAD) (µV / dBm)	0.25/-119.0	0.25/-119.0	0.25/-119.0
Adjacent Channel Selectivity: @ 25 kHz (dB) @ 12.5 kHz (dB)	>70 >60	>77 >69	75 (800 MHz non-NPSPAC) 67 (700 MHz)
Intermodulation (dB)	>77	>77	76
Spurious and Image Rejection (dB)	>90	>77	>74
FM Hum and Noise (dB)	> 50 @ 25 kHz > 45 @ 12.5 kHz	>50 @25 kHz >45 @12.5 kHz	44 (700 MHz) 53 (800 MHz NPSPAC) 54 (800 MHz wideband)
Audio Output (mW)	500 rated (3800 max)	500 rated (3800 max)	500 rated (3800 max)
Audio Distortion @ Rated Power (%)	1.5	1.5	1.5
Project 25 Reference Sensitivity @ 5% BER (µV / dBm)	0.25/-119	0.25/-119	0.25/-119
Project 25 Adjacent Channel Rejection (dB)	60	60	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

## SPECIFICATIONS FOR: XL CONNECT 45 PORTABLE RADIO

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 & CQPSK Phase 2 TX: HCPM, RX: HDCQPSK
Failsoft Operation	Switch to site trunking mode (for L3Harris infrastructure) or P25 Conventional Failsoft for Motorola

ENCRYPTION	
Encryption Algorithms	Voice Encryption: Single-key AES/DES, Encryption Lite (ARC4), 256-bit AES P25, 64-bit DES Control Channel Encryption: 128-bit AES (LLA)
Encryption Keys per Radio	Number of Encryption Keys per Keystore (up to 5 keystores per radio): 1 AES or 1 DES, 5 LLA, 8 Encryption Lite (ARC4)
Keying	L3Harris Key Loader, Motorola KVL 3000+/4000/5000
Standards	FIPS 197

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

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### XL Connect 45P

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