

Data Sheet



Mag One X10d

Portable Radio

Built for the fast-paced world
of business

 **MOTOROLA SOLUTIONS**

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Portable Radio

Built for the fast-paced world of business

The X10d is a versatile, high-performing companion to your businessworkforce. Whether managing a retail store, coordinating events or overseeing campus activity, the X10d connects your team with static-free, reliable communication – in a world where every second counts.

- A radio this versatile should be able to keep up. With 23 hours of talk time, your radio should last an entire shift and then some. But just in case, the USB-C port also lets you charge your radio with an ordinary USB charger.
- With its 3-watt maximum audio power output, the X10d is the loudest radio in the Mag One family. Noise cancellation means clear audio, even in a noisy environment.
- With features like a dedicated emergency button, Lone Worker and remote monitoring, the X10d helps protect you and your staff.





Ready to work

A connected workforce makes for smooth operations; with improved range performance, your team enjoys clear communication across a wide expanse. And at IP55, the X10d can handle the wear-and-tear of a high-energy workday.

Product Features

GENERAL

- Analog and digital
- DMR standards compliant¹
- 64 channels
- USB-C (charging and programming)
- 3 programmable buttons
- Voice announcements
- Custom channel announcements
- Voice recording¹ (8 hours)
- Dual priority scan
- Nuisance channel delete
- Voice operation transmission (VOX)
- IP55 dust and water ingress protection
- Rugged to MIL-STD 810

AUDIO

- Enhanced audio power
- Noise cancellation

SAFETY

- Emergency alert¹
- Lone worker¹
- Remote monitor
- Radio disable / enable

SYSTEM

- Dual-capacity direct mode¹

ANALOG FEATURES

- Analog scrambling

¹ Digital feature



Specifications

GENERAL SPECIFICATIONS			
FREQUENCY	400 - 470 MHz	450 - 527 MHz	136 - 174 MHz
Typical RF output			
High power	4 W	4 W	5 W
Medium power		2.5 W	
Low Power		1 W	
Channel capacity		64 channels	
Channel spacing		12.5 / 25.0 kHz	
Dimension ¹ (H x W x D) with battery		122 x 54 x 30 mm	
Weight with battery, antenna, belt clip		300 g	
Battery life ² (analog / digital)		16 hours / 23 hours	
Power supply (Nominal)		7.2 V	

TRANSMITTER SPECIFICATIONS	
4FSK digital modulation	12.5 kHz Data: 7K60F1D and 7K60FXD 12.5 kHz Voice: 7K60F1E and 7K60FXE Combination: 7K60F1W
Digital protocol	ETSI TS 102 361-1, -2, -3
Conducted / radiated spurious emissions (TIA603E)	< -36 dBm for < 1 GHz ; < -30 dBm for > 1 GHz
Adjacent channel power	> 60 dB @ 12.5 kHz / >70 dB @ 25 kHz
Frequency stability	± 1.5 ppm
Modulation limiting	± 2.5 kHz @ 12.5 kHz / ± 5.0 kHz @ 25 kHz

RECEIVER SPECIFICATIONS	
Analog sensitivity (12dB SINAD)	0.18 µV (typical)
Digital sensitivity (5% BER)	0.18 µV (typical)
Conducted / radiated spurious emissions (TIA603E)	< -57 dBm for < 1 GHz ; < -47 dBm for > 1 GHz
Intermodulation (TIA603E)	> 65 dB
Adjacent channel selectivity (TIA603A)-1T	> 60 dB @ 12.5 kHz / > 70 dB @ 25 kHz
Spurious Rejection (TIA603D)	> 70 dB
Frequency stability	± 1.5 ppm

AUDIO SPECIFICATIONS	
Digital vocoder type	AMBE+2
Audio output power (Rated / Max)	1 W / 3 W
Audio distortion at rated power	3% (typical)
Hum and noise	-40 dB @ 12.5 kHz / -45 dB @ 25 kHz

ENVIRONMENTAL SPECIFICATIONS	
Operating temperature ³	-30 °C to 60 °C
Storage temperature	-40 °C to 85 °C
Temperature shock	Per MIL-STD 810C, D, E, F, G, H
Humidity	Per MIL-STD 810C, D, E, F, G, H
Electrostatic discharge	IEC 61000-4-2 Level 4
Dust and water intrusion	IEC60529 IP55
Salt fog	Per MIL-STD 810C, D, E, F, G, H

¹ Dimensions at grip area.

² Typical battery life, 5/5/90 profile at maximum transmitter power. Actual observed runtimes may vary.

³ Temperature listed are for radio specification. Li-Ion battery discharge: -20°C to +60°C.



MILITARY STANDARDS (MIL-STD 810)

MIL-STD 810C		MIL-STD 810D		MIL-STD 810E		MIL-STD 810F		MIL-STD 810G		MIL-STD 810H	
METHOD	PROCEDURE	METHOD	PROCEDURE	METHOD	PROCEDURE	METHOD	PROCEDURE	METHOD	PROCEDURE	METHOD	PROCEDURE
Low pressure	500.1 I	500.2 II		500.3 II		500.4 II		500.6 II		500.6 II	
High temperature	501.1 I, II	501.2 I/A1, II/A1		501.3 I/A1, II/A1		501.4 I/HOT, II/HOT		501.5 I/A1, II/A2		501.7 I/A1, II/A1	
Low temperature	502.1 I	502.2 I, II		502.3 I, II		502.4 I, II		502.5 I, II		502.7 I, II	
Temperature shock	503.1 I	503.2 A1/C3		503.3 A1/C3		503.4 I		503.5 I/C		503.7 I/C	
Solar radiation	505.1 II	505.2 I/A1		505.3 I/A1		505.4 I/A1		505.5 I/A1		505.7 I/A1	
Rain	506.1 I, II	506.2 I, II		506.3 I, II		506.4 I, III		506.5 I, III		506.6 I, III	
Humidity	507.1 II	507.2 II		507.3 II		507.4 –		507.5 II/Aggravated		507.6 II/Aggravated	
Salt fog	509.1 I	509.2 I		509.3 I		509.4 –		509.5 –		509.7 –	
Blowing dust and sand	510.1 I/-	510.2 I, II		510.3 I, II		510.4 I, II		510.6 I, II		510.7 I, II	
Vibration	514.2 VIII/F, W	514.3 I/10, II/3		514.4 I/10, II/3		514.5 I/24, II/5		514.6 I/24, II/5		514.8 I/24, II/5	
Shock	516.2 I, II	516.3 I, IV		516.4 I, IV		516.5 I, IV		516.7 I, IV		516.8 I, IV	
Contamination by fluids								504.2 II		504.3 2.2.6 b	

To learn more, visit: motorolasolutions.com/x10d



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