

Data Sheet

Mag One BPR 45

Designed for dynamic
business operations

Connect your team with the Mag One BPR 45
to help ensure smoother operations and clear
communication across your entire site.



MOTOROLA SOLUTIONS



Built to conquer the workday

The Mag One BPR 45 serves as a robust and high-performing communication tool for your professional teams. Whether you're managing construction sites, coordinating warehouse operations, or overseeing campus activities, the BPR 45 ensures your personnel maintain clear, dependable connectivity, critical when every moment counts.

Designed for a connected workforce, the BPR 45 offers enhanced range performance for clear communication across broad areas. With an IP55 rating, it's built to withstand the demands of an active workday, and supports 64 channels for flexible communication.

GENERAL

Analog signaling
64 channels
USB-C (charging and programming)
2 programmable buttons
Voice announcements
Preset channel announcements
Priority scan
Nuisance Channel Delete
Voice Operated Transmission (VOX)
IP55 dust and water ingress protection

AUDIO

Enhanced audio power
Transmit basic noise reduction

SECURITY

Analog scrambling

→ Take control

Providing up to 16 hours of talk time, the BPR 45 is engineered to last beyond a typical work shift. Additionally, its USB-C port allows for convenient charging using a standard USB charger.

→ Listen up

With its 3 Watt maximum audio power output, the BPR 45 delivers exceptionally loud and clear audio, ensuring messages cut through noisy environments.





Specifications

GENERAL SPECIFICATIONS

Band	VHF	UHF
Frequency	136 - 174 MHz	400 - 470 MHz
Typical RF output		
High power	5 W	4 W
Low power	1 W	1 W
Channel capacity	64 channels	
Channel spacing	12.5 / 25.0 kHz ¹	
Dimensions ² (H x W x D) with battery	120 x 55 x 33.5 mm (4.7 x 2.2 x 1.3 in)	
Weight with battery, antenna, belt clip	300 g (10.6 oz)	
Power supply (nominal)	7.2 V	
Battery life ³	16 hours	

RECEIVER SPECIFICATIONS

Analog sensitivity (12dB SINAD)	0.18 μ V (typical)
Conducted / radiated spurious emissions (TIA603E/ANSI C63.4)	< -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 ¹
Spurious Rejection (TIA603E)	> 70 dB
Frequency stability	$\pm$ 1.5 ppm

TRANSMITTER SPECIFICATIONS

FM Modulation	12.5 kHz: 11K0F3E 25 kHz: 16K0F3E
Conducted / radiated spurious emissions (TIA603E/ANSI C63.26)	< -36 dBm for < 1 GHz, < -30 dBm for > 1 GHz
Adjacent channel power	> 60 dB @ 12.5 kHz, > 70 dB @ 25 kHz ¹
Frequency stability	$\pm$ 1.5 ppm
Modulation limiting (TIA603E/ANSI C63.26)	$\pm$ 2.5 kHz @ 12.5 kHz, $\pm$ 5.0 kHz @ 25 kHz ¹

ENVIRONMENTAL SPECIFICATIONS

Operating temperature ⁴	-30 °C to 60 °C (-22 °F to 140 °F)
Storage temperature	-40 °C to 85 °C (-40 °F to 185 °F)
Thermal 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

AUDIO SPECIFICATIONS

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 ¹

¹ 25 kHz channels not available in USA.

² Dimensions at grip area.

³ Typical battery life, 5/5/90 profile at maximum transmitter power. Actual observed runtimes may vary.

⁴ Temperature listed is for radio specification. Li-Ion battery discharge: -20 °C to 60 °C (-4 °F to 140 °F).



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 & 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

To learn more, visit:
motorolasolutions.com/bpr45



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