

MOTOTRBO™

R2

Portable two-way radio

An everyday workhorse, the MOTOTRBO R2 marries durability and ergonomics to ensure confident, easy handling. And with long range, configurable audio and seamless integration, the R2 is a reliable addition to an uninterrupted workday.



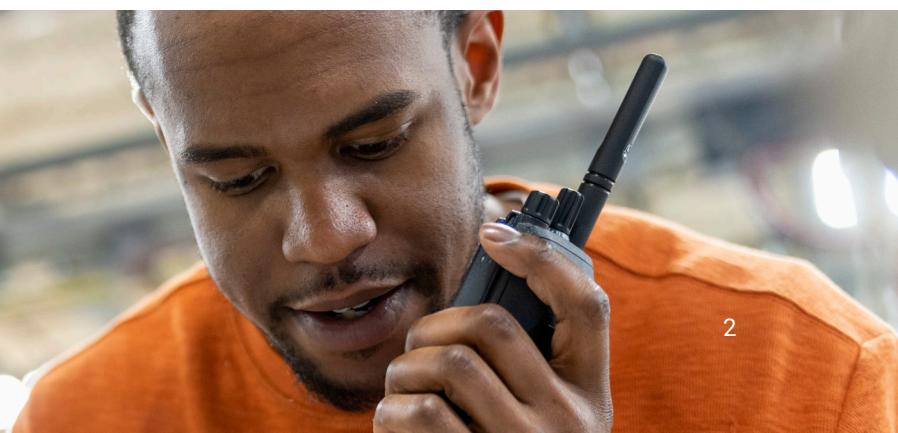
MOTOROLA SOLUTIONS

Key features

- UHF, VHF
- 64 channels
- Single-site conventional
- Extended Range Direct Mode
- Dual Capacity Direct Mode
- Transmit Interrupt
- Dual priority scan
- Quick Call II / MDC1200 capable
- Secure Enhanced Linux operating system
- Enhanced privacy
- Radio disable/enable
- Remote monitor
- Voice announcement
- Loudness up to 101 phons
- SINC+ noise suppression
- Acoustic feedback suppression
- User selectable audio profiles
- Received audio leveling
- Sleek & ergonomic form factor
- Rugged to MIL-STD 810
- IP55 (dust and water ingress protection)
- 2 programmable buttons
- Home channel reminder
- Rental timer

Specifications

GENERAL SPECIFICATIONS		
Band	VHF	UHF
Frequency	136-174 MHz	400-480 MHz
Typical RF output		
High power	5W	4W
Low power	1W	1W
Channel spacing	12.5 / 25.0 kHz ¹	
Channel capacity	64	
Power supply	7.5V (nominal)	
FCC description	AZ489FT3852	AZ489FT4971
IC description	89FT3852	109U-89FT4971
MOTOTRBO R2 WITH SLIM IP55 2100 MAH BATTERY (PMNN4600)		
Dimension ² (h x w x d)	4.9 x 2.2 x 1.3 in.	
Weight ³	9.2 oz	
Battery life ⁴ (analog / digital)	17 Hours / 22.5 Hours	
MOTOTRBO R2 WITH HIGH CAPACITY IP55 2300 MAH BATTERY (PMNN4598)		
Dimension ² (h x w x d)	4.9 x 2.2 x 1.5 in.	
Weight ³	10.1 oz.	
Battery life ⁴ (analog / digital)	19.5 Hours / 26.5 Hours	



Specifications

TRANSMITTER SPECIFICATIONS												
FM modulation											12.5 kHz: 11K0F3E 25 kHz: 16K0F3E	
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 DMR Tier II	
Conducted/radiated spurious emissions (TIA603E / ANSI C63.26, C63.4)											< -36 dBm for < 1 GHz < -30 dBm for > 1 GHz	
Adjacent channel power (TIA603E)											> 60 dB @ 12.5 kHz > 70 dB @ 25 kHz	
Frequency stability											± 0.5 ppm	
Modulation limiting (TIA603E)											± 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)											0.16 µV (typical)	
Conducted/radiated spurious emissions (TIA603E)											< -57 dBm for < 1 GHz < -47 dBm for > 1 GHz	
Intermodulation (TIA603E)											> 70 dB	
Adjacent channel selectivity (TIA603A)-1T											> 60 dB @ 12.5 kHz > 70 dB @ 25 kHz	
Adjacent channel selectivity (TIA603E)-2T											> 55 dB @ 12.5 kHz > 70 dB @ 25 kHz	
Spurious rejection (TIA603E)											> 70 dB	
Frequency stability											± 0.5 ppm	
MILITARY STANDARDS												
MIL-STD 810C			MIL-STD 810D			MIL-STD 810E			MIL-STD 810F			
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 Temp	501.1	I, II	501.2	I/A1, II/A1	501.3	I/A1, II/A1	501.4	I/Hot, II/Hot	501.6	I/A1, II/A1	501.7	I/A1, II/A1
Low Temp	502.1	I	502.2	I, II	502.3	I, II	502.4	I, II	502.6	I, II	502.7	I, II
Temp Shock	503.1	I	503.2	A1/C3	503.3	A1/C3	503.4	I	503.6	I-C	503.7	I-C
Solar Radiation	505.1	II	505.2	I/A1	505.3	I/A1	505.4	I/A1	505.6	I/A1	505.7	I/A1
Rain	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, III	506.6	I, III	506.6	I, III
Humidity	507.1	II	507.2	II	507.3	II	507.4	-	507.6	II/Aggravated	507.6	II/Aggravated
Salt Fog	509.1	I	509.2	I	509.3	I	509.4	-	509.6	-	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/CatF, XI	514.3	I/Cat10, II/Cat3	514.4	I/Cat10, III/Cat3	514.5	I/Cat24, II/Cat5	514.7	I/Cat24, II/Cat5	514.8	I/Cat24, II/Cat5
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



Features

R2	
GENERAL	
Analog and digital	●
DMR standards compliant ⁶	●
64 channels	●
2 programmable buttons	●
Pre-programmed text messaging ⁶	●
Voice announcements	●
Home channel reminder	●
Late entry ⁵	●
Dual priority scan	●
Nuisance channel delete	●
Secure Enhanced Linux operating system	●
TLS-PSK CPS/RM - Radio/repeater authentication	●
Rental timer	●
Internal Voice Operated Transmission (VOX)	●
Wide range of accessories	●
IP55 dust and water ingress protection	●
Rugged to MIL-STD 810	●
Priority scan	●
IP54	●
Rugged to MIL-STD 810	●
SYSTEMS	
Dual Capacity Direct Mode ⁶	●
Single-site conventional	●
Extended Range Direct Mode ⁶	●

R2	
SAFETY	
Basic privacy ⁶	●
Enhanced privacy ⁶	○
Transmit interrupt ⁶ (decode)	●
Remote monitor (decode)	●
Radio disable / enable (decode)	●
AUDIO	
Acoustic feedback suppressor ⁶	●
User-selectable audio profile	●
Trill enhancement for rolling "R"s	●
SINC+ noise suppression	○
Automatic gain control	●
Received audio leveling	●
ANALOG FEATURES	
Lone worker	●
Emergency alert	●
Analog scrambling	●
Quick Call II / MDC1200 capable	●

● Included ○ Optional — Not Included

¹ 25 kHz channels not available in USA.

² Dimensions at grip area.

³ Excludes antenna.

⁴ Typical battery life, 5/5/90 profile at maximum transmitter power. Actual observed runtimes may vary.

⁵ Temperatures listed are for radio only. Minimum operating temperature with battery is -20° C (-4 °F).

⁶ Digital feature.

To learn more, visit:
www.motorolasolutions.com/r2



MOTOROLA SOLUTIONS

These models are available in Motorola Solutions North America region only. Availability varies and is subject to individual country law and regulations. All specifications shown are typical unless otherwise stated and are subject to change without notice.

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