



#### MDH06RDC9WA2AN

# MOTOTRBO R7 UHF NKP

#### **UHF** Radio

- 400-527 MHz
- 64 Channels
- 4 Programmable Buttons
- 2200mAh IMPRES Slim Battery
- DINC (Dual Input Noise Cancellation)
- ✓ IP66
- IP68

Radio





IP66





HD Voice IIII Active Noise Cancelling

## Description

MOTOTRBO R7 UHF NKP is a digital portable two-way radio that offers loud, clear, and customizable audio in a rugged, dependable, and connected device. Its advanced audio processing ensures that your voice is always understood, while the rugged construction is ready for the toughest environments. Its modern, intuitive user experience and sleek ergonomic form factor make it comfortable to both use and hold during the most demanding conditions.

## MOTOTRBO R7 UHF NKP

Built rugged, developed for maximum uptime, and ready to connect your team, the MOTOTRBO R7 UHF NKP two-way radio is designed to perfectly meet the needs of the maritime industry. It is tested to stringent military standards and is rated to IP66 and IP68 for maximum robustness. The MOTOTRBO R7 UHF NKP has disinfectant and decontamination substance resistant housing and a robust, corrosion-proof side connector.

The MOTOTRBO R7 UHF NKP features up to 28 hours of battery life, IMPRES technology, and intelligent audio. Additionally, built-in security features and over-the-air programming minimize device downtime. With a programmable

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loudness up to 107 phons, adaptive dual microphone noise suppression, and automatic acoustic feedback suppression, you can be certain of clear communication in critical environments. Note: This is the no keypad option for the R7. It is Bluetooth, WiFi and GNSS capable as an additional license option. page 2/5

# **Specifications**

#### **GENERAL SPECIFICATIONS**

Dimensions	132 x 56 x 31 mm
Weight	289 g
Digital / Analogue Battery Life	19 / 14.5 hrs
Operating Temperature	-20 °C to 60 °C
Channel Spacing	12.5 kHz, 20 kHz, 25 kHz
Channel Capacity	64 Channels
FCC Description	AZ489FT7143
IC Description	109U-89FT7143

#### TRANSMITTER SPECIFICATIONS

4FSK Digital Modulation	12.5 kHz Data Only: 7K60F1D & 7K60FXD, 12.5 kHz Data & Voice: 7K60F1E & 7K60FXE, Combination of 12.5 kHz Voice and Data: 7K60F1W	
Digital Protocol	ETSI TS 102 361-1, -2, - 3, -4 • DMR Tier II, III	
Conducted/Radiated Emissions (TIA603D)	-36 dBm < 1 GHz , -30 dBm > 1 GHz	
Adjacent Channel Power	60 dB @ 12.5 kHz , 70 dB @ 20 kHz / 25 kHz	
Frequency Stability	+/-0.5 ppm	

### **RECEIVER SPECIFICATIONS**

Analogue Sensitivity (12dB SINAD)	0.16 μV (typical)
Digital Sensitivity (5% BER)	0.14 μV (typical)
Intermodulation (TIA603D)	70 dB
Adjacent Channel Selectivity, (TIA603A)-1T	60 dB @ 12.5 kHz , 70 dB @ 20 kHz / 25 kHz
Adjacent Channel Selectivity, (TIA603D)-2T	45 dB @ 12.5 kHz , 70 dB @ 20 kHz / 25 kHz
Spurious Rejection (TIA603D)	70 dB

#### **AUDIO SPECIFICATIONS**

Audio Response (TIA603D)+1, -3 dBAudio Output Power (Rated/Max)1 W / 3 WAudio Distortion at Rated Audio≤1.5%Maximum Speech Loudness by Default (ISO5326)102 phon @ 30 cmMaximum Programmable Speech Loudness (Extra Loud Mode, Level 3)107 phon @ 30cmHum and Noise-40 dB @ 12.5 kHz , -45 dB @ 20 kHz / 25 kHzConducted Spurious Emissions (TIA603D)-57 dBm	Digital Vocoder Type	AMBE+2
Audio Distortion at Rated Audio  Maximum Speech Loudness by Default (ISO5326)  Maximum Programmable Speech Loudness (Extra Loud Mode, Level 3)  Hum and Noise  1 W 7 3 W  ≤1.5%  102 phon @ 30 cm  102 phon @ 30 cm  107 phon @ 30cm  107 phon @ 30cm  -40 dB @ 12.5 kHz , -45 dB @ 20 kHz / 25 kHz	· ·	+1, -3 dB
Audio  Maximum Speech Loudness by Default (ISO5326)  Maximum Programmable Speech Loudness (Extra Loud Mode, Level 3)  Hum and Noise  -40 dB @ 12.5 kHz , -45 dB @ 20 kHz / 25 kHz  Conducted Spurious  -57 dBm	·	1 W / 3 W
Loudness by Default (ISO5326)  Maximum Programmable Speech Loudness (Extra Loud Mode, Level 3)  Hum and Noise  -40 dB @ 12.5 kHz , -45 dB @ 20 kHz / 25 kHz  Conducted Spurious  -57 dBm		≤1.5%
Speech Loudness (Extra Loud Mode, Level 3)  Hum and Noise  -40 dB @ 12.5 kHz , -45 dB @ 20 kHz / 25 kHz  Conducted Spurious  -57 dBm	Loudness by Default	102 phon @ 30 cm
Hum and Noise  dB @ 20 kHz / 25 kHz  Conducted Spurious  -57 dBm	Speech Loudness (Extra	107 phon @ 30cm
5 -5/ dBM	Hum and Noise	
	•	-57 dBm

### **ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature	-40 °C to 85 °C
Storage Temperature	-40 °C to 85 °C
Thermal Shock	Per MIL-STD
Humidity	Per MIL-STD
Electrostatic Discharge	IEC 61000-4-2 Level 4
Dust and Water Intrusion	IP68 (submersion up to 2m, 2hrs) IP66 for high pressure-water resistance per IEC 60529
Salt Fog	5% NaCl for 8 hrs at 35 °C, 16 hrs standing
Packaging Test	MIL-STD 810D and E

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