

MOTOTRBO R7 Series NKP Side 1

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  UHF/VHF  IP66  HD Voice  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 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.



# 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 $\mu$ V (typical)
Digital Sensitivity (5% BER)	0.14 $\mu$ V (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

Digital Vocoder Type	AMBE+2
Audio Response (TIA603D)	+1, -3 dB
Audio Output Power (Rated/Max)	1 W / 3 W
Audio Distortion at Rated Audio	$\leq 1.5\%$
Maximum Speech Loudness by Default (ISO5326)	102 phon @ 30 cm
Maximum Programmable Speech Loudness (Extra Loud Mode, Level 3)	107 phon @ 30cm
Hum and Noise	-40 dB @ 12.5 kHz , -45 dB @ 20 kHz / 25 kHz
Conducted Spurious Emissions (TIA603D)	-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