

MOTOTRBO™ DGP™ 8050e ELITE

YOU'RE READY FOR ANYTHING

With this dynamic evolution of MOTOTRBO digital two-way radios, you're more agile, better connected and safer. The DGP™ 8050e ELITE is designed for the mobile professional who needs effective communications. With a compact design and high performance integrated voice and data, these next-generation radios deliver comprehensive connectivity to your organization.

AGILE

The MOTOTRBO DGP™ 8050e ELITE is a tough and compact DMR standard digital radio. Its small form factor makes it conveniently portable, with an efficient short antenna that won't get in your way. It's tested to military standards for extreme ruggedness, and is rated IP68 for almost complete immunity to dust and water. It won't let you down even in harsh environments.

CONNECTED

DGP™ 8050e ELITE delivers operations-critical voice and data. Bluetooth® audio lets you talk without wires, integrated Wi-Fi enables remote management, and indoor and outdoor location-tracking capabilities give you total visibility of your resources. With support for trunking as well as legacy analog technology, you can keep your organization connected as it grows.

SAFE

Safeguard your staff with responsive push-to-talk technology. The prominent emergency button on DGP™ 8050e ELITE summons help with one touch, using Transmit Interrupt to pre-empt other workers when necessary. An integrated accelerometer senses if you've fallen, and can automatically call for assistance.



WHAT'S NEW IN THESE NEXT GENERATION RADIOS

SAFER

- Integrated accelerometer for optional Man Down feature
- Bluetooth® 4.0 with indoor location tracking capability
- Multi-constellation GPS for increased location accuracy

MORE EFFICIENT

- Integrated Wi-Fi with over-the-air firmware update capability
- Upgraded audio for greater clarity at high volume
- Improved expandability for future features

MORE EFFECTIVE

- New energy technology for up to 16 hours battery life
- Improved receiver for up to 8% greater range
- IP68 rating (2 meters, 2 hours) to shrug off dust and water

PRODUCT DATA SHEET
MOTOTRBO™ DGP™ 8050e ELITE
DIGITAL TWO-WAY RADIO



| | | | |
|--|-----------------------------------|-----------------|-------------|
| Model Number | MOTOTRBO™ DGP™ 8050e ELITE | | |
| Band | VHF | 350 | UHF |
| GENERAL SPECIFICATIONS | | | |
| Frequency | 136-174 MHz | 350-400 MHz | 403-527 MHz |
| High Power Output | 5 W | 4 W | 4 W |
| Low Power Output | 1 W | 1 W | 1 W |
| Channel Spacing | 12.5, 20, 25 kHz | | |
| Channel Capacity | 32 | | |
| Dimensions (H x W x D), Radio + Standard Battery | 96 x 55 x 15 mm | | |
| Weight, Radio + Standard Battery | 254 g | | |
| FCC Description | AZ489FT7071 | - | AZ489FT7070 |
| Digital / Analog Battery Life ¹ , Standard 1600 mAh Battery | 16.5 / 12.0 hrs | 16.0 / 12.0 hrs | |
| Power Supply (Nominal) | 7.5 V | | |
| Frequency Stability | ± 0.5 ppm | | |



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DIGITAL TWO-WAY RADIO

TRANSMITTER SPECIFICATIONS

| | |
|--|---|
| Analog parameter Modulating Limiting | ± 2.5 kHz @ 12.5 kHz / ± 5.0 kHz @ 25 kHz ³ |
| Hum and Noise | -40 dB (12.5 kHz channel), -45 dB (25 kHz channel) |
| Conducted Spurious Emissions (TIA603D) | -57 dBm |
| 4FSK Digital Modulation | 12.5 kHz Data: 7K60F1D and 7K60FXD 12.5 kHz Voice: 7K60F1E and 7K60FXE Combination of 12.5 kHz Voice and Data: 7K60F1W |
| Digital Protocol | ETSI TS 102 361-1, -2, -3 |
| Conducted/Radiated Emissions (TIA603D) | -36 dBm < 1GHz, -30 dBm > 1GHz |
| Adjacent Channel Power | 60dB (12.5 kHz channel), 70dB (25 kHz channel) |

RECEIVER SPECIFICATIONS

| | |
|---|--|
| Hum and Noise | -40 dB (12.5 kHz channel), -45 dB (25 kHz channel) |
| Conducted Spurious Emissions (TIA603D) | -57 dBm |
| Analogue Sensitivity (12dB SINAD) | 0.16 µV |
| Digital Sensitivity (5% BER) | 0.14 µV |
| Intermodulation (TIA603D) | 70 dB |
| Adjacent Channel Selectivity, (TIA603A)-1T | 60 dB (12.5 kHz channel), 70 dB (20 and 25 kHz channel) |
| Adjacent Channel Selectivity, (TIA603D)-2T & (TIA603C)-2T | 45 dB (12.5 kHz channel), 70 dB (20 and 25 kHz channel) |
| Spurious Rejection (TIA603D) | 70 dB |

AUDIO SPECIFICATIONS

| | |
|---------------------------------|---------|
| Digital Vocoder Type | AMBE+2™ |
| Audio Response | TIA603D |
| Rated Audio | 0.5 W |
| Audio Distortion at Rated Audio | 3% |

NOTES

1: Typical battery life, 5/5/90 profile at maximum transmitter power with Bluetooth, Wi-Fi, and Expansion Card based applications disabled. Actual observed runtimes may vary.
2: Radio only. Battery specifications may be different.

Specifications subject to change without notice. All specifications shown are typical values

MILITARY STANDARDS

| | MIL-STD 810C | | MIL-STD 810D | | MIL-STD 810E | | MIL-STD 810F | | MIL-STD 810G | |
|-------------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|
| | METHOD | PROCEDURE | METHOD | PROCEDURE | METHOD | PROCEDURE | METHOD | PROCEDURE | METHOD | PROCEDURE |
| Low Pressure | 500.1 | I | 500.2 | II | 500.3 | II | 500.4 | II | 500.5 | 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/A1 |
| Low Temperature | 502.1 | I | 502.2 | I/C3, II/C1 | 502.3 | I/C3, II/C1 | 502.4 | I/C3, II/C1 | 502.5 | I/C3, II/C1 |
| Temperature Shock | 503.1 | I | 503.2 | A1/C3 | 503.3 | A1/C3 | 503.4 | I | 503.5 | I-C |
| Solar Radiation | 505.1 | II | 505.2 | I/Hot-Dry | 505.3 | I/Hot-Dry | 505.4 | I/Hot-Dry | 505.5 | I/A1 |
| Rain | 506.1 | I, II | 506.2 | I, II | 506.3 | I, II | 506.4 | I, III | 506.5 | I, III |
| Humidity | 507.1 | II | 507.2 | II/Hot-Humid | 507.3 | II/Hot-Humid | 507.4 | - | 507.5 | II/Hot-Humid |
| Salt Fog | 509.1 | I | 509.2 | I | 509.3 | I | 509.4 | - | 509.5 | - |
| Dust | 510.1 | I, II | 510.2 | I, II | 510.3 | I, II | 510.4 | I, II | 510.5 | I, II |
| Vibration | 514.2 | VIII/F, W, XI | 514.3 | I/10, II/3 | 514.4 | I/10, II/3 | 514.5 | I/24, II/5 | 514.6 | I/24, II/5 |
| Shock | 516.2 | II | 516.3 | I, IV | 516.4 | I, IV | 516.5 | I, IV | 516.6 | I, IV |

BLUETOOTH SPECIFICATIONS

| | |
|-----------------------------|---|
| Version | 4.0 |
| Range | Class 2, 10 m |
| Supported Profiles | Bluetooth Headset Profile (HSP), Serial Port Profile (SPP), Motorola fast push-to-talk. |
| Simultaneous Connections | 1 x audio accessory and 1 x data device |
| Permanent Discoverable Mode | Optional |

GPS SPECIFICATIONS

| | |
|-------------------------------|--------|
| Constellation Support | GPS |
| Time To First Fix, Cold Start | < 60 s |
| Time To First Fix, Hot Start | < 10 s |
| Horizontal Accuracy | < 5 m |

Wi-Fi SPECIFICATIONS

| | |
|-----------------------------|--------------------------------|
| Standards Supported | IEEE 802.11b, 802.11g, 802.11n |
| Security Protocol Supported | WPA, WPA-2, WEP |
| Maximum Number of SSIDs | 64 |

ENVIRONMENTAL SPECIFICATIONS

| | |
|------------------------------------|---------------------------------|
| Operating Temperature ² | -30° C to +60° C |
| Storage Temperature ² | -40° C to +85° C |
| Thermal Shock | Per MIL-STD table |
| Humidity | Per MIL-STD table |
| Electrostatic Discharge | IEC 61000-4-2 Level 3 |
| Dust and Water Intrusion | IEC 60529 - IP68, 2 m for 2 hrs |
| Salt Fog | Per MIL-STD table |
| Packaging Test | MIL-STD 810D and E |

CONNECTION

- VHF Band, 5 W
- UHF Band, 4 W
- 350 Band, 4W
- No screen or keypad
- 32 Channels
- Analog and Digital
- Voice and Data
- Integrated Wi-Fi
- Canned Text Messaging
- Multi-constellation GPS
- High Efficiency GPS
- Event-Driven Location Update
- Bluetooth Audio
- Bluetooth Data
- Bluetooth Permanent Discovery Mode (optional)
- Bluetooth Indoor Location Tracking (optional)
- Voice Announcement
- Text to Speech (optional)
- Option Board
- Home Channel Reminder

AUDIO

- Intelligent Audio
- IMPRES Audio
- SINC+ Noise Cancellation (optional)
- Acoustic Feedback Suppressor
- User-Selectable Audio Profiles
- Switch Speaker
- Trill Enhancement

CUSTOMIZATION

- Customized Accessories
- Multi-Button PTT (optional)
- 2 Programmable Buttons
- Emergency Button

MANAGEMENT

- Radio Management (optional)
- OTAP (standard)

SAFETY

- Integrated Accelerometer
- Man Down (optional)
- Lone Worker
- Basic Privacy
- Enhanced Privacy
- AES Encryption (optional)
- Transmit Interrupt (optional)
- Emergency
- Emergency Search Tone
- Remote Monitor
- Radio Disable / Enable
- HazLoc certification (optional)
- Waterproof to IP68
- Rugged to MIL-STD

SYSTEMS

- Dual Capacity Direct Mode
- Conventional
- IP Site Connect
- Capacity Plus Single Site (optional)
- Capacity Plus Multi-Site (optional)

BLUETOOTH

Connect to your radio without wires, for extra comfort and safety. A full portfolio of Bluetooth headsets and earpieces is available.



REMOTE SPEAKER MICROPHONE

Improve usability with a Remote Speaker Microphone (RSM). Choose from standard, heavy duty and noise-cancelling models, with or without secondary earpiece connector.



ENERGY SOLUTIONS

Make sure your radio is powered and charged properly, with our range of energy solutions. Includes custom insert for IMPRES chargers.



EARPIECES

For all-day comfort, choose from our range of earpieces. Lightweight or heavy duty, discreet or rugged, with or without built-in hearing protection.



COVERT ACCESSORIES

When you need to stay in touch discreetly, choose from our range of covert audio accessories. From clear tube earpieces to virtually invisible wireless in-ear units.



HEADSETS

In a noisy workplace, you need to protect your workers' hearing. Whether it's heavy duty noise reduction or innovative temple transducer technology, our headsets can help.



To get connected with MOTOTRBO, please contact your local Motorola representative or visit motorolasolutions.com/MOTOTRBO

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