

# 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	<b>MOTOTRBO™ DGP™ 8050e ELITE</b>		
Band	VHF	350	UHF
<b>GENERAL SPECIFICATIONS</b>			
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 <sup>1</sup> , 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		



## PRODUCT DATA SHEET

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### TRANSMITTER SPECIFICATIONS

Analog parameter Modulating Limiting	± 2.5 kHz @ 12.5 kHz / ± 5.0 kHz @ 25 kHz <sup>3</sup>
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 <sup>2</sup>	-30° C to +60° C
Storage Temperature <sup>2</sup>	-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](http://motorolasolutions.com/MOTOTRBO)

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