

**PRODUCT SPEC SHEET**

MOTOTRBO™ DGP™8000/DGP™5000 SERIES PORTABLE RADIOS



**UNRIVALED DATA CAPABILITIES TRANSFORM TWO-WAY RADIO BEYOND VOICE**

# MOTOTRBO™ DGP™ 8000 / DGP™ 5000 SERIES DIGITAL TWO-WAY PORTABLE RADIOS



From the factory worker building components to the road crew making repairs, MOTOTRBO can transform your enterprise and make employee interactions smarter and safer. Our best-in-class audio and unrivaled data capabilities empower people like never before.

Versatile and powerful, MOTOTRBO combines the best of two-way radio functionality with the latest digital technology. DGP™ 8000 / DGP™ 5000 Series radios integrate voice and data seamlessly, offer enhanced features that are easy to use, and deliver business-critical advantages like integrated Bluetooth® and Intelligent Audio.

The DGP™ 8000 / DGP™ 5000 Series can remaster your workplace and the way people collaborate to help you achieve even greater efficiency.

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### AUDIO BEYOND EXPECTATIONS

When it comes to exceptional audio clarity, the quality of digital can't be denied. DGP™8000 / DGP™5000 Series portables give you digital audio performance throughout your coverage area plus unique features to help your employees hear and speak clearly, wherever they work.

With Intelligent Audio, the radio volume automatically adjusts to compensate for background noise so workers don't have to adjust their radio volume to avoid missing a call in loud situations or disturb others when they move into quiet areas. Increased background noise suppression helps filter out unwanted external clamor – from heavy equipment to the roar of engines.

Bluetooth® audio is embedded right in the radio, so no adapter is needed when using wireless accessories. Also, IMPRES™ audio accessories enhance noise suppression and improve voice intelligibility for smarter accessories than they've ever experienced before.

### INDUSTRY-LEADING DATA

Included in DGP™8000 and a premium feature of DGP™5000, the integrated Bluetooth data allows busy work crews to send real time information back to the office rather than wait until the end of a shift, saving valuable hours and enabling better decision making. With DGP™8000's integrated GPS, you can track the location of your mobile work teams and text message them when voice communication isn't feasible. And the large, full-color, 5-line display operates in day or night mode, for easy viewing of contact lists, text messages and work order tickets even in bright sunlight.

MOTOTRBO's Application Developer Program offers customized data applications so you can adapt your radios to your business challenges. With the largest developer program in the industry, data applications help meet your objectives – from work order ticket management to telephony integration, and more.

### HIGH-POWERED PERFORMANCE

Because MOTOTRBO uses TDMA digital technology, you get integrated voice and data, twice the calling capacity and clearer voice communications. When it comes to battery performance, MOTOTRBO radios operate up to 40 percent longer between recharges compared to analog.

### RICH FUNCTIONALITY

DGP™8000 / DGP™5000 Series radios offer plenty of features businesses seek – including enhanced call signaling, basic and enhanced privacy-scrambling, option board expandability and the transmit interrupt suite to prioritize critical communication the moment you need it. Programmable button features appear on the display for easy viewing and quick access. And when workers can't be distracted, customizable voice announcement provides audible confirmation of channel and zone changes as well as programmable button features, eliminating the need to view the display.

### EXPANDED CAPACITY AND COVERAGE

Your workforce is hard at work every day – picking up loads, making road repairs, providing security, responding to guest requests or restoring power after a storm.

As an included feature of DGP™8000 and a premium one of DGP™5000, IP Site Connect helps to dramatically improve customer service and productivity by using the Internet to extend coverage to create a wide area network, enhance single site coverage or link geographically dispersed locations. You can upgrade the DGP 8000 or DGP 5000 by adding Capacity Plus, which adds single-site trunking functionality to expand system capacity without having to add new frequencies. You can also add Linked Capacity Plus, which combines the expanded capacity of Capacity Plus with the wide area coverage of IP Site Connect, delivering a high capacity, wide-area and cost effective multi-site trunking solution. So whether you want coverage at a single site or across multiple ones, MOTOTRBO can be scaled to meet your business and budget needs.

### MIGRATE AT YOUR OWN PACE










Keeping operations running smoothly during a change in communication systems is vital to any business. It's easy to migrate to digital with DGP™8000 / DGP™5000 Series radios because they operate in analog and digital mode. To ease the transition even further, the dynamic mixed mode repeater functionality streamlines automatic switching between analog and digital calls. So you can begin using MOTOTRBO radios and repeaters on your existing analog system, and when your time and budget allow, move to digital at your own pace.

### DAY-IN, DAY-OUT DURABILITY

DGP™8000 / DGP™5000 Series radios meet the most demanding specs, including IP57 for water submersibility and U.S. Military 810 C, D, E, F, & G standards for exceptional durability. The option for the FM Radio is a certificate, must be requested to the factory, along with all the relevant accessories at time of purchase.



### KEEP YOUR BUSINESS RUNNING SMOOTHLY WITH BUSINESS APPLICATIONS:

-  **Location tracking:** Monitor the whereabouts of mobile workers so they can respond immediately; in an emergency, you can pinpoint security personnel and send the nearest to the scene
-  **Integrated Bluetooth®** for sharing data wirelessly and instantly between devices
-  **Dispatch consoles** for centralized communication
-  **Email gateways** to connect to email from your radio
-  **Network monitoring** to maximize system utilization
-  **Man-down applications** so radios call for help when workers can't
-  **Telephony** for communication between radios and landline or mobile phones
-  **Text messaging** for quick and discreet communication
-  **Work order tickets** for faster customer response

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**DGP™ 8000 / DGP™ 5000 SERIES SPECIFICATIONS**

GENERAL SPECIFICATIONS						
FULL DISPLAY AND KEYPAD - DGP 8550 & DGP 5550				NO DISPLAY OR KEYPAD - DGP 8050 & DGP 5050		
	VHF	UHF	800/900	VHF	UHF	800/900
Channel Capacity	1000			32		
Frequency	136-174 MHz	403-527 MHz	806-825 MHz 851-870 MHz 896-902 MHz 935-941 MHz	136-174 MHz	403-527 MHz	806-825 MHz 851-870 MHz 896-902 MHz 935-941 MHz
IMPRES Hi-Cap Li-ion 2150 mAh Battery (PMNN4409)	(HxWxL) Weight	5.13 inch / 2.17 inch / 1.62 inch (130.3 mm / 55.2 mm / 41.1 mm) 12.54 oz (355.5 g) / 12.35 oz (350.0 g)		5.13 inch / 2.17 inch / 1.56 inch (130.3 mm / 55.2 mm / 39.6 mm) 11.39 oz (323 g) / 11.20 oz (318 g)		
Slim IMPRES Li-ion 1500 mAh Battery (PMNN4407)	(HxWxL) Weight	5.13 inch / 2.17 inch / 1.41 inch (130.3 mm / 55.2 mm / 35.8 mm) 11.83 oz (335.5 g) / 11.64 oz (330.0 g)		5.13 inch / 2.17 inch / 1.35 inch (130.3 mm / 55.2 mm / 34.3 mm) 10.69 oz (303 g) / 10.49 oz (298 g)		
IMPRES Hi-Cap Li-ion FM 2300 mAh Battery (NNTN8129)	(HxWxL) Weight	5.13 inch / 2.17 inch / 1.62 inch (130.3 mm / 55.2 mm / 41.1 mm) 12.89 oz (365.5 g) / 12.70 oz (360.0 g)		5.13 inch / 2.17 inch / 1.56 inch (130.3 mm / 55.2 mm / 39.6 mm) 11.75 oz (333 g) / 11.55 oz (328 g)		
Power Supply	7.5 V (Nominal)					
Operating Temperature	-30 ~ +60 °C <sup>1</sup>					
FCC Description	ABZ99FT3085	ABZ99FT4086	ABZ99FT5014	ABZ99FT3085	ABZ99FT4086	ABZ99FT5014
IC Description	109AB-99FT3085	109AB-99FT4086	109AB-99FT5014	109AB-99FT3085	109AB-99FT4086	109AB-99FT5014

BATTERY					
Average Battery Life	5/5/90 duty cycle with carrier squelch and transmitter in high power <sup>2</sup>				
Core Li-ion thin battery 1500 mAh	Analog: 7.7 hs / Digital: 11.3 hs.	9.5 hrs / 12.0 hrs	Analog: 8 hrs / Digital: 11.8 hrs	9.7 hrs / 12.5 hrs	
Slim IMPRES Li-ion 1500 mAh Battery	Analog: 7.7 hrs / Digital: 11.3 hrs	9.5 hrs / 12.0 hrs	Analog: 8 hrs / Digital: 11.8 hrs	9.7 hrs / 12.5 hrs	
IMPRES Hi-Cap Li-ion 2150 mAh Battery	Analog: 11.1 hrs / Digital: 16.2 hrs	13.5 hrs / 17.0 hrs	Analog: 11.5 hrs / Digital: 17 hrs	14.0 hrs / 17.8 hrs	
IMPRES Hi-Cap Li-ion FM 2300 mAh Battery	Analog: 11.9 hrs / Digital: 17.3 hrs	14.5 hrs / 18.2 hrs	Analog: 12.3 hrs / Digital: 18.1 hrs	15.0 hrs / 19.0 hrs	

RECEIVER			
	VHF	UHF	800/900
Frequencies	136-174 MHz	403-527 MHz	806-941 MHz
Channel Spacing	12.5/25kHz		
Frequency Stability (-30°C, +60°C, +25°C Ref)	± 0.5 ppm		
Analog Sensitivity (12dB SINAD)	0.3uV (0.22uV typical)		
Digital Sensitivity	0.25 uV (0.19 uV typical)		
Intermodulation (TIA603D)	70 dB		
Adjacent Channel Selectivity (TIA603A)-1T	60dB @ 12.5 kHz / 70dB @ 25 kHz		
Adjacent Channel Selectivity (TIA603D)-2T	45dB @ 12.5 kHz / 70dB @ 25 kHz		
Spurious Rejection (TIA603D)	70 dB		
Rated Audio	0.5W		
Audio Distortion @ Rated Audio	5% (3% typical)		
Hum and Noise	-40dB @ 12.5 kHz / -45dB @ 25 kHz		
Audio Response	TIA603D		
Conducted Spurious Emission (TIA603D)	-57dBm		

TRANSMITTER			
	VHF	UHF	800/900
Frequencies	136-174 MHz	403-527 MHz	806-941 MHz
Channel Spacing	12.5/25 kHz		
Frequency Stability	± 0.5 ppm		
Low Power Output	1W	1W	1W
High Power Output	5W	4W	2.5W
Modulation Limiting	± 2.5kHz @ 12.5 kHz / ± 5.0kHz @ 25 kHz		
FM Hum and Noise	-40dB @ 12.5 kHz / -45dB @ 25 kHz		
Conducted/Radiated Emission	-36 dBm < 1GHz / -30 dBm > 1GHz		
Adjacent Channel Power	60dB @ 12.5 kHz / 70dB @ 25 kHz		
Audio Response	TIA603D		
Audio Distortion	3%		
FM Modulation	12.5 kHz: 11K0F3E 25 kHz: 16K0F3E		
4FSK Digital Modulation	12.5 kHz Data: 7K60F1D & 7K60FXD		
	12.5 kHz Voice: 7K60F1E & 7K60FXE		
	Combination of 12.5 kHz Voice & Data: 7K60F1W		
Digital Vocoder Type	AMBE+2™		
Digital Protocol	ETSI TS 102 361-1, -2, -3		

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**GPS**

Accuracy specs are for long-term tracking (95th percentile values >5 satellites visible at nominal -130 dBm signal strength)

TTFF (Time To First Fix) - Cold Start	< 60 seconds
TTFF (Time To First Fix) - Hot Start	< 10 seconds
Horizontal Accuracy	< 5 meters

**BLUETOOTH**

Version	Supports Bluetooth® 2.1 + EDR Specification
Range	Class 2, 10 meters

**FACTORY MUTUAL APPROVALS**

MOTOTRBO DGP™ 8000 / DGP™ 5000 Series portable radios can be ordered with certification by FM in accordance with U.S. Codes as intrinsically safe for use in Class I, II, III, Division 1, Groups C, D, E, F, G. In order to receive this certification, a new radio must be ordered with a Motorola FM approved battery option. They are also approved for use in Class I, Division 2, Groups A, B, C, D.

**MILITARY STANDARDS**

APPLICABLE MIL-STD	810C		810D		810E		810F		810G	
	METHOD	PROCEDURES	METHOD	PROCEDURES	METHOD	PROCEDURES	METHOD	PROCEDURES	METHOD	PROCEDURES
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
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, II
Temperature Shock	503.1	-	503.2	I/A1/C3	503.3	I/A1/C3	503.4	I	503.5	I-C
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I	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	507.3	II	507.4	-	507.5	II
Salt fog	509.1	-	509.2	-	509.3	-	509.4	-	509.5	-
Dust	510.1	I	510.2	I	510.3	I	510.4	I	510.5	I
Vibration	514.2	VIII/F, Curve-W	514.3	I/10, II/3	514.4	I/10, II/3	514.5	I/24	514.6	II/5
Shock	516.2	I, II	516.3	I, IV	516.4	I, IV	516.5	I, IV	516.6	I, IV, VI

**ENVIRONMENTAL SPECIFICATIONS:  
DISPLAY DGP™ 8550 & NON-DISPLAY DGP™ 8050**

Operating Temperature	-30° C / +60° C
Storage Temperature	-40° C / +85° C
Thermal Shock	Per MIL-STD
Humidity	Per MIL-STD
ESD	IEC 61000-4-2 Level 3
Dust and Water Intrusion	IEC 60529 - IP57
Packaging test	MIL-STD 810D and E

Testing completed using portable radio with attached battery and antenna.

<sup>1</sup> Radio only - Li-Ion battery -10C

<sup>2</sup> Actual battery runtime observed may vary based on the use of certain features such as GPS, Bluetooth, and Expansion Card based applications.

Please contact your Motorola sales representative for battery runtime expectations based on your specific radio configuration.

For more information on how to strengthen your portable voice, visit [www.motorolasolutions.com/caribbean/mototrbo](http://www.motorolasolutions.com/caribbean/mototrbo)

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

Radio meets applicable regulatory requirements.

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