DGM[™] 6100 / DGM[™] 6100+ Mobile Radios



Shift into Digital.

The next-generation professional two-way radio communications solution is here, with more performance, productivity and value—thanks to digital technology that delivers increased capacity and spectrum efficiency, integrated data communications and enhanced voice communications.

MOTOTRBO offers you a private, standards-based, cost-effective solution that can be tailored to meet your unique coverage and feature needs.

This versatile portfolio provides a complete system of portable radios, mobile radios, repeaters, accessories and data applications—a complete solution.

Key Features

Mobile radios available in Alphanumeric Display, GPS and Non-GPS models.

Uses Time-Division Multiple-Access (TDMA) digital technology which doubles the number of users you can have on a single licensed 12.5 kHz channel.

Integrates voice and data to increase operational efficiency.

Supports applications including MOTOTRBO Text Messaging Services and MOTOTRBO Location Services.

Four programmable buttons for easy access to favorite features.

Customizable button tops for easy user understanding.

Emergency button alerts supervisor or dispatcher in emergency situations.

Multi-colored LED indicators for clear, visible feedback of calling, scanning and monitoring features.

Enhanced privacy

Ability to roam in IP Site Connect System

Support for up to 1,000 channels

GPS models can transmit location using the Location Services application.

Allows an easy migration from analog to digital with the ability to operate in both modes.

Meets U.S. Military Standards 810 C, D, E, and F, and Motorola standards for durability and reliability.

Utilizes the IMPRES Audio System for enhanced audio functionality.

Compact and ergonomically friendly microphone.

Enhanced call management features include call alert, emergency, remote monitor, push-to-talk ID, radio check, private call, radio disable.

Send short free-form (requires keypad microphone) and quick text messaging via menu and programmable buttons.



MOTOTRBO DGM 6100 / DGM 6100+ MOBILE RADIO SPECIFICATIONS

GENERAL	VHF		UHF		
Channel Canacity		BAND I 1,000		BAND II	
Channel Capacity		1,000			
ypical RF Output	4.0514/	4.05144		4 40144	
Low Power	1-25 W	1-25 W		1-40 W	
High Power	25-45 W	25-40 W	(1-25 V	V above 512 MHz	
requency	136 - 174 MHz	403-470 MHz	<u>z</u> 4	50-527 MHz	
Dimensions (HxWxL)	2.01 x 6.89 x 8.1	l in (51 x 175 x 206 i	mm)		
Veight	4.0	lbs. (1.8 kg)			
Current Drain:		81 A max			
Standby		2 A max			
Rx @ Rated Audio	1-25 W: 11.0 A max				
Transmit	25-40 V	V: 14.5 A max			
CC ID	ABZ99FT3083	ABZ99FT408	1 A	BZ99FT4083	
	ABZ99FT3082	AB	Z99FT4	080	
RECEIVER	VHF		UHF		
		BAND I		BAND II	
Frequencies	136 - 174 MHz	403-470 MHz	<u>z</u> 4	50-527 MHz	
Channel Spacing	12.5	kHz / 25 kHz			
requency Stability		m (without GPS)			
-30° C, +60° C, +25° C)		pm (with GPS)			
Analog Sensitivity (12dB SINAD)		0.3 uV			
	0.22	uV (typical)			
Digital Sensitivity	5% I	3ER: 0.3 uV			
ntermodulation (TIA603C)	78 dB		75 dB		
Adjacent Channel Selectivity					
TIA603		kHz, 80 dB @ 25 kH			
TIA603C	50 dB @ 12.5	kHz, 80 dB @ 25 kH	z		
Spurious Rejection (TIA603C)		75 dB			
Rated Audio	3 W	/ (Internal)			
	7.5 W (Ex	ternal - 8 ohms)			
		ternal - 4 ohms)			
Audio Distortion @ Rated Audio					
		6 (typical)			
lum and Noise		3 @ 12.5 kHz			
	-45 d	IB @ 25 kHz			
Audio Response		TIA603C			
Conducted Spurious Emission (TIA603C)	-	57 dBm			
FRANSMITTER	VHF	BAND I	UHF	BAND II	
	136 - 174 MHz	403-470 MHz	- A	50-527 MHz	
requencies	100 17 191112			55 GE, 141112	
· · · · · · · · · · · · · · · · · · ·	12 5	KHZ / 25 KH7			
requencies Channel Spacing requency Stability		kHz / 25 kHz m (without GPS)			
Channel Spacing requency Stability	+/- 1.5 pp	m (without GPS)			
Channel Spacing requency Stability 30° C, +60° C, +25° C)	+/- 1.5 pp				
channel Spacing requency Stability 30° C, +60° C, +25° C) Yower Output	+/- 1.5 pp +/- 0.5 p	m (without GPS) ppm (with GPS)		1 40 \\\/	
hannel Spacing requency Stability 30° C, +60° C, +25° C) ower Output Low Power	+/- 1.5 pp +/- 0.5 p 1-25 W	m (without GPS) opm (with GPS) 1-25 W	(4.05)	1-40 W	
hannel Spacing requency Stability 30° C, +60° C, +25° C) ower Output Low Power High Power	+/- 1.5 pp +/- 0.5 p 1-25 W 25-45 W	m (without GPS) opm (with GPS) 1-25 W 25-40 W	(1-25 V		
channel Spacing requency Stability 30° C, +60° C, +25° C) Yower Output Low Power High Power	+/- 1.5 pp +/- 0.5 p 1-25 W 25-45 W +/- 2.5 l	m (without GPS) ppm (with GPS) 1-25 W 25-40 W <hz 12.5="" @="" khz<="" td=""><td>(1-25 V</td><td></td></hz>	(1-25 V		
channel Spacing requency Stability 30° C, +60° C, +25° C) Yower Output Low Power High Power	+/- 1.5 pp +/- 0.5 p 1-25 W 25-45 W +/- 2.5 l	m (without GPS) opm (with GPS) 1-25 W 25-40 W	(1-25 V		
channel Spacing requency Stability 30° C, +60° C, +25° C) Yower Output Low Power High Power Modulation Limiting	+/- 1.5 pp +/- 0.5 p 1-25 W 25-45 W +/- 2.5 I +/- 5.0	m (without GPS) ppm (with GPS) 1-25 W 25-40 W <hz 12.5="" @="" khz<="" td=""><td>(1-25 V</td><td></td></hz>	(1-25 V		
hannel Spacing requency Stability 30° C, +60° C, +25° C) ower Output Low Power High Power Modulation Limiting	+/- 1.5 pp +/- 0.5 p 1-25 W 25-45 W +/- 2.5 I +/- 5.0 -40 dt	m (without GPS) ppm (with GPS) 1-25 W 25-40 W <hz 12.5="" @="" khz<br="">kHz @ 25 kHz</hz>	(1-25 V		
Channel Spacing requency Stability 30° C, +60° C, +25° C) Yower Output Low Power High Power Modulation Limiting M Hum and Noise	+/- 1.5 pp +/- 0.5 p 1-25 W 25-45 W +/- 2.5 l +/- 5.0 -40 dt -45 d	m (without GPS) ppm (with GPS) 1-25 W 25-40 W (Hz @ 12.5 kHz kHz @ 25 kHz 3 @ 12.5 kHz B @ 25 kHz	(1-25 V		
Channel Spacing requency Stability 30° C, +60° C, +25° C) Yower Output Low Power High Power Modulation Limiting M Hum and Noise	+/- 1.5 pp +/- 0.5 p +/- 0.5 p 25-45 W +/- 2.5 l +/- 2.5 l +/- 5.0 -40 dt -45 d -36 d	m (without GPS) ppm (with GPS) 1-25 W 25-40 W (Hz @ 12.5 kHz kHz @ 25 kHz 3 @ 12.5 kHz B @ 25 kHz Bm < 1 GHz	(1-25 V		
Channel Spacing requency Stability 30° C, +60° C, +25° C) Yower Output Low Power High Power Modulation Limiting YM Hum and Noise Conducted / Radiated Emission	+/- 1.5 pp +/- 0.5 p +/- 0.5 p 1-25 W 25-45 W +/- 2.5 l +/- 5.0 -40 dt -45 c -36 d -30 d	m (without GPS) ppm (with GPS) 1-25 W 25-40 W (Hz @ 12.5 kHz kHz @ 25 kHz B @ 25 kHz B @ 25 kHz Bm < 1 GHz Bm > 1 GHz	(1-25 V		
channel Spacing requency Stability 30° C, +60° C, +25° C) Yower Output Low Power High Power Aodulation Limiting M Hum and Noise Conducted / Radiated Emission	+/- 1.5 pp +/- 0.5 p 1-25 W 25-45 W +/- 2.5 I +/- 5.0 -40 dt -36 d -30 d 60 dE	m (without GPS) ppm (with GPS) 1-25 W 25-40 W KHz @ 12.5 kHz KHz @ 25 kHz B @ 25 kHz B @ 25 kHz Bm < 1 GHz Bm > 1 GHz B @ 12.5 kHz	(1-25 V		
Channel Spacing requency Stability 30° C, +60° C, +25° C) Yower Output Low Power High Power Modulation Limiting YM Hum and Noise Conducted / Radiated Emission	+/- 1.5 pp +/- 0.5 p 1-25 W 25-45 W +/- 2.5 I +/- 5.0 -40 dt -36 d -30 d 60 dE	m (without GPS) ppm (with GPS) 1-25 W 25-40 W (Hz @ 12.5 kHz kHz @ 25 kHz B @ 25 kHz B @ 25 kHz Bm < 1 GHz Bm > 1 GHz	(1-25 V		
channel Spacing requency Stability 30° C, +60° C, +25° C) Yower Output Low Power High Power Addulation Limiting M Hum and Noise Conducted / Radiated Emission Adjacent Channel Power (TIA603C)	+/- 1.5 pp +/- 0.5 p 1-25 W 25-45 W +/- 2.5 l +/- 5.0 -40 dt -45 d -36 d -30 d 60 dE 70 d	m (without GPS) ppm (with GPS) 1-25 W 25-40 W KHz @ 12.5 kHz KHz @ 25 kHz B @ 25 kHz B @ 25 kHz Bm < 1 GHz Bm > 1 GHz B @ 12.5 kHz	(1-25 V		
channel Spacing requency Stability 30° C, +60° C, +25° C) Yower Output Low Power High Power Modulation Limiting M Hum and Noise Conducted / Radiated Emission Adjacent Channel Power (TIA603C) widio Response	+/- 1.5 pp +/- 0.5 p 1-25 W 25-45 W +/- 2.5 l +/- 5.0 -40 dt -45 d -36 d -30 d 60 dE 70 d	m (without GPS) ppm (with GPS) 1-25 W 25-40 W KHz @ 12.5 kHz kHz @ 25 kHz B @ 25 kHz Bm < 1 GHz Bm < 1 GHz Bm > 1 GHz B @ 25 kHz B @ 25 kHz A603C	(1-25 V		
Channel Spacing requency Stability 30° C, +60° C, +25° C) Power Output Low Power High Power Modulation Limiting M Hum and Noise Conducted / Radiated Emission Adjacent Channel Power (TIA603C) Nudio Response Sudio Distortion	+/- 1.5 pp +/- 0.5 p 1-25 W 25-45 W +/- 2.5 l +/- 5.0 -40 dl -45 d -30 d 60 dE 70 d	m (without GPS) ppm (with GPS) 1-25 W 25-40 W KHz @ 12.5 kHz kHz @ 25 kHz B @ 25 kHz B @ 25 kHz B m > 1 GHz B @ 25 kHz B @ 25 kHz A603C 3%	(1-25 V		
Channel Spacing requency Stability 30° C, +60° C, +25° C) Sower Output Low Power High Power Modulation Limiting M Hum and Noise Conducted / Radiated Emission Idjacent Channel Power (TIA603C) India Response India Distortion	+/- 1.5 pp +/- 0.5 p 1-25 W 25-45 W +/- 2.5 l +/- 5.0 -40 df -45 d -36 d -30 d 60 dE 70 d 71	m (without GPS) ppm (with GPS) 1-25 W 25-40 W KHz @ 12.5 kHz kHz @ 25 kHz B@ 25 kHz B@ 25 kHz B@ 25 kHz B @ 25 kHz B @ 25 kHz 1A603C 3% Hz: 11K0F3E	(1-25 V		
Channel Spacing requency Stability 30° C, +60° C, +25° C) Power Output Low Power High Power Modulation Limiting M Hum and Noise Conducted / Radiated Emission Adjacent Channel Power (TIA603C) Audio Response Audio Distortion M Modulation	+/- 1.5 pp +/- 0.5 p +/- 0.5 p 25-45 W +/- 2.5 l +/- 2.5 l -40 df -45 d -30 d 60 dE 70 d 1 7 1 2.5 k	m (without GPS) ppm (with GPS) 1-25 W 25-40 W cHz @ 12.5 kHz kHz @ 25 kHz B @ 25 kHz 3 @ 12.5 kHz B @ 25 kHz 1 GHz 3 % Hz: 11K0F3E Hz: 16K0FE	(1-25 V		
channel Spacing requency Stability 30° C, +60° C, +25° C) fower Output Low Power High Power Modulation Limiting M Hum and Noise Conducted / Radiated Emission Adjacent Channel Power (TIA603C) audio Response audio Distortion M Modulation	+/- 1.5 pp +/- 0.5 p +/- 0.5 p 25-45 W +/- 2.5 l +/- 2.5 l -40 df -45 d -30 d 60 dE 70 d 1 7 1 2.5 k	m (without GPS) ppm (with GPS) 1-25 W 25-40 W KHz @ 12.5 kHz kHz @ 25 kHz B@ 25 kHz B@ 25 kHz B@ 25 kHz B @ 25 kHz B @ 25 kHz 1A603C 3% Hz: 11K0F3E	(1-25 V	1-40 W V above 512 MHz	
channel Spacing requency Stability 30° C, +60° C, +25° C) fower Output Low Power High Power Modulation Limiting M Hum and Noise Conducted / Radiated Emission Adjacent Channel Power (TIA603C) audio Response audio Distortion M Modulation	+/- 1.5 pp +/- 0.5 p +/- 0.5 p 25-45 W +/- 2.5 l +/- 2.5 l -40 df -45 d -30 d -30 d 60 dE 70 d T 12.5 k 25 k	m (without GPS) ppm (with GPS) 1-25 W 25-40 W cHz @ 12.5 kHz kHz @ 25 kHz B @ 25 kHz 3 @ 12.5 kHz B @ 25 kHz 1 GHz 3 % Hz: 11K0F3E Hz: 16K0FE	(1-25 V		
Channel Spacing requency Stability -30° C, +60° C, +25° C) Power Output Low Power	+/- 1.5 pp +/- 0.5 p +/- 0.5 p 25-45 W +/- 2.5 l +/- 5.0 -40 df -30 d -30 d 60 dE 70 d 7 12.5 kHz Da 12.5 kHz Da 12.5 kHz Da	m (without GPS) ppm (with GPS) 1-25 W 25-40 W KHz @ 12.5 kHz 8 @ 12.5 kHz 18 @ 25 kHz 19 @ 25 kHz 19 @ 25 kHz 10 GHz 10 GHZ	(1-25 V		

GPS

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

TTFF (Time to First Fix) Cold Start	4
	< 10 seconds
Horizontal Accuracy	

Quality / Reliability

Motorola Accelerated Life Test

Military Standards MIL-SPECS 810 C, D, E, F

Ø Backed by a two-year Standard Warranty

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Applicable MIL-STD	810C		810D		810E		810F	
	Methods	Procedures	Methods	Procedures	Methods	Procedures	Methods	Procedures
Low Pressure	500.1		500.2		500.3	1	500.4	
High Temperature	501.1	1, 11	501.2	I/A1, II/A1	501.3	I/A, II/A1	501.4	I/Hot, II/Hot
Low Temperature	502.1		502.2	I/C3.II/C1	502.3	I/C3,II/C1	502.4	I/C3,II/C1
Temperature Shock	503.1	-	503.2	I/A1C3	503.3	I/A1C3	503.4	1
Solar Radiation	505.1	11	505.2	1	505.3	1	505.4	1
Rain	506.1	I, II	506.2	I, III	506.3	I, II	506.4	I, III
Humidity	507.1	11	507.2		507.3		507.4	-
Salt Fog	509.1	-	509.2	-	509.3	1	509.4	1
Blowing Dust	510.1		510.2	1	510.3	1	510.4	1
Blowing Sand	-	-	510.2	11	510.3		510.4	11
Immersion	512.1	l	512.2	1	512.3	1	512.4	1
Vibration	514.2	VIII/F, Curve-W	514.3	I/10, II/3	514.4	1/10, 11/3	514.5	I/24
Shock	516.2	1, 11	516.3	I, IV	516.4	L IV	516.5	1, IV



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