



**PRODUCT SPEC SHEET**  
MOTOTRBO™ DM4000 SERIES MOBILE RADIOS



**YOUR VOICE JUST GOT STRONGER**

# MOTOTRBO™ DM4000 SERIES DIGITAL TWO-WAY MOBILE RADIOS

From the delivery driver crisscrossing the city to the sanitation crew clearing streets, MOTOTRBO™ can transform your enterprise and make employee interactions smarter and safer. Our best-in-class audio and exceptional data capabilities empower people like never before.

Versatile and powerful, MOTOTRBO combines the best of two-way radio functionality with the latest digital technology. DM4000 Series radios integrate voice and data seamlessly, offer enhanced features that are easy to use, and deliver operations-critical advantages like integrated Bluetooth® and Intelligent Audio.

The DM4000 Series can remaster your workplace and the way people collaborate to help you achieve even greater efficiency.

## PRODUCT SPEC SHEET

### MOTOTRBO™ DM4000 SERIES MOBILE RADIOS

#### SUPERB AUDIO

When it comes to exceptional audio clarity, the quality of digital can't be denied. With DM4000 Series mobiles, you get all the benefits of digital plus unique features to help your employees hear and be heard clearly, wherever they work.

Intelligent Audio automatically adjusts the radio's volume in response to background noise: you can hear clearly when you're driving, and you're not deafened when the engine is switched off. IMPRES™ Audio filters out unwanted external clamor, so you can always be heard clearly at the other end. And integrated Bluetooth® Audio capability gives you the freedom to work without wires.

#### FULL DATA CAPABILITIES

DM4000 Series radios allow you to exploit the full capabilities of digital two way radio. Beyond simple voice, you can use data, text messaging, location-tracking and work order ticket management to improve your workforce's safety, efficiency and accountability.

All DM4000 Series radios have integrated GPS, enabling location tracking of your mobile work teams. And to facilitate information collection in the field, you can use the Bluetooth® data option to wirelessly interface with Bluetooth®-enabled devices such as barcode scanners.

MOTOTRBO's Application Developer Program brings you the industry's largest selection of data applications. Our partnership with industry innovators empowers you to create a system that meets your business needs.

#### COMPREHENSIVE PERSONALISATION

A broad range of complementary accessories are available for DM4000 Series radios. The Long Range Wireless Mobile Microphone allows you to stay connected even when you're up to 100m (330 ft) from your vehicle. The Handheld Control Head puts total control into your hand, allowing you to install the radio in a convenient location. There's even a telephonestyle handset for discreet communications to VIP bus and limousine drivers. However you communicate, your DM4000 Series radio can be customised to fit your style.

#### FEATURE-RICH POWERHOUSE

DM4000 Series radios are designed for the demanding user. They offer advanced features such as transmit interrupt, enhanced privacy and text-to-speech. Four programmable buttons on the front panel allow you to customise the radio for quick access to frequently-used features.

#### EXPANDED CAPACITY AND COVERAGE

Your work crews need the capacity, coverage and control of MOTOTRBO. Systems can be scaled to your needs, so as your business grows, your communications capabilities can grow with you. The DM4000 Series is compatible with all MOTOTRBO system types:

**Direct Mode** (Talkaround) allows radios to communicate directly with other radios, for instance when the network is down.

**Single Site Conventional** systems offer baseline coverage and capacity through a MOTOTRBO repeater.

**IP Site Connect** connects multiple repeaters to enhance single site coverage or link geographically dispersed locations.

**Capacity Plus** implements cost-effective dynamic trunking to expand single-site capacity.

**Linked Capacity Plus** combines the benefits of Capacity Plus and IP Site Connect to give you dynamic trunking at multiple sites.

**Connect Plus** is MOTOTRBO's full trunking solution for single or multiple sites, giving you the best coverage, capacity and control.

#### MIGRATE AT YOUR OWN PACE

Keeping operations running smoothly during a change in communication systems is vital to business. It's easy to migrate to digital with DM4000 Series radios because they can operate in analogue and digital mode concurrently. MOTOTRBO repeaters further ease the transition with their mixed mode capability so you can begin using MOTOTRBO radios and repeaters on your existing analogue system, and when your time and budget allow, move to digital at your own pace.

#### DAY-IN, DAY-OUT DURABILITY

DM4000 Series radios are made to last. They are rated IP54 (splashproof, virtually dustproof), so they can be used even in harsh environments. Moreover, they have been proven tough in Motorola's grueling Accelerated Life Test program, in which the design must survive a simulated 5 years of hard service before it is accepted.

The DM4000 Series is backed by a two-year Standard Warranty with a minimum one-year warranty on Motorola-branded accessories. Because wear and tear happens, Motorola recommends Service from the Start, which delivers accelerated turnaround on radio repairs and even covers shipping costs. By reducing your downtime, Service from the Start helps you to lower your total cost of ownership and focus on your business operations, not your technology.

#### OPTIONAL CITIZEN BAND FUNCTIONALITY

Extend the functionality of MOTOTRBO two-way radios for both private licensed band and citizen band operation. With 80 CB channels, compliant with ACMA standards, you can support communications across your workforce without the need for annual licensing fees or contracts.<sup>^^</sup>



## DM4000 SERIES SPECIFICATIONS

GENERAL SPECIFICATIONS <sup>^</sup>									
		DM4600/DM4601 <sup>^^</sup>				DM4400/DM4401			
		VHF	350*	UHF	800**	VHF	350*	UHF	800**
Channel Capacity		Up to 1,000				32			
Frequency		136-174 MHz	350-400 MHz	UHF1: 403-470 MHz UHF2: 450-527 MHz	806-870 MHz	136-174 MHz	350-400 MHz	UHF1: 403-470 MHz UHF2: 450-527 MHz	806-870 MHz
Typical RF Output		Low Power 1-25 W	1-25 W	UHF1: 1-25 W UHF2: 1-40 W	10-35 W	1-25 W	1-25 W	UHF1: 1-25 W UHF2: 1-40 W	10-35 W
Dimensions (H x W x L)		53.3 x 175.3 x 205.7 mm				53.3 x 175.3 x 205.7 mm			
Weight		1.8 kg				1.8 kg			
Current Drain		Standby				0.81 A max			
		Rx @ Rated Audio				2 A max			
		Transmit				2 A max			
FCC Description		ABZ99FT3086	N/A	UHF1: ABZ99FT4087 UHF2: ABZ99FT4085	AZ492FT5862	ABZ99FT3086	N/A	UHF1: ABZ99FT4087 UHF2: ABZ99FT4085	AZ492FT5862

RECEIVER				
	VHF	350	UHF	800
Frequencies	136-174 MHz	350-400 MHz	UHF1: 403-470 MHz UHF2: 450-527 MHz	806-870 MHz
Channel Spacing	12.5 kHz / 25 kHz			
Frequency Stability (-30°C, +60°C, +25°C Ref)	± 0.5 ppm			
Analog Sensitivity (12dB SINAD)	0.3 uV 0.22 uV (typical)			
Digital Sensitivity	5% BER @ 0.25 uV (0.19 uV typical)			5% BER @ 0.3 uV
Intermodulation (TIA603D)	78 dB	75 dB	75 dB	75 dB
Adjacent Channel Selectivity (TIA603D)	58 dB @ 12.5 kHz 80 dB @ 25 kHz	55 dB @ 12.5 kHz 75 dB @ 25 kHz	55 dB @ 12.5 kHz 75 dB @ 25 kHz	55 dB @ 12.5 kHz 75 dB @ 25 kHz
Spurious Rejection (TIA603D)	80 dB	75 dB	75 dB	75 dB
Rated Audio	3 W (Internal) 7.5 W (External - 8 ohms) 13 W (External - 4 ohms)			
Audio Distortion @ Rated Audio	3% (typical)			
Hum and Noise	-40 dB @ 12.5 kHz / -45 dB @ 25 kHz			
Audio Response	TIA603D			
Conducted Spurious Emission (TIA603D)	-57 dBm			

TRANSMITTER				
	VHF	350	UHF	800
Frequencies	136-174 MHz	350-400 MHz	UHF1: 403-470 MHz UHF2: 450-527 MHz	806-870 MHz
Channel Spacing	12.5 kHz / 25 kHz			
Frequency Stability (-30°C, +60°C, +25°C Ref)	± 0.5 ppm			
Modulation Limiting	± 2.5 kHz @ 12.5 kHz / ± 5.0 kHz @ 25 kHz			
FM Hum and Noise	-40 dB @ 12.5 kHz / -45 dB @ 25 kHz			
Conducted/Radiated Emission	-36 dBm < 1 GHz / -30dBm > 1GHz			
Adjacent Channel Power	60 dB @ 12.5 kHz / 70 dB @ 25 kHz			50 dB @ 12.5 kHz / 60 dB @ 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			

<sup>^</sup>Availability subject to country law and regulations. Specifications subject to change without notice. All specifications shown are typical. Radio meets applicable regulatory requirements.

<sup>^^</sup>Citizen Band available in DM4600 and DM4601 (UHF2)

\*350-400MHz DM4401 and DM4601

\*\*806-870MHz DM4401 and DM4601

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**MILITARY STANDARDS: DM4000**

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/C3, 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 - Aggravated
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	I/24
Shock	516.2	I, II	516.3	I, IV	516.4	I, IV	516.5	I, IV	516.6	I, IV, V, VI

**GPS: DM4601 & DM4401**

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	< 1 minute
TTFF (Time To First Fix) Hot Start	< 10 seconds
Horizontal Accuracy	< 5 meters

**ENVIRONMENTAL SPECIFICATIONS:  
DM4000 SERIES**

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	IP54, MIL-STD
Packaging test	MIL-STD 810C, D, E, F, and G

**BLUETOOTH: DM4601 & DM4401**

Version	Supports Bluetooth® 2.1 + EDR Specification
Profiles Supported	Bluetooth Headset Profile (HSP), Serial Port Profile (SPP), Motorola fast push-to-talk.
Devices Supported	Radio supports 1 Bluetooth audio accessory and 1 Bluetooth data device simultaneously
Range	Class 2, 10 meters

Availability subject to country law and regulations. Specifications subject to change without notice. All specifications shown are typical. Radio meets applicable regulatory requirements.

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

**Motorola Solutions Australia Pty Limited**

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DIGITAL  
REMASTERED.

