



# MOTOTRBO™ DM4000e SERIES

**YOU'RE COMPLETELY CONNECTED**



With this dynamic evolution of MOTOTRBO digital two-way radios, you're better connected, safer and more productive. The DM4000e Series is designed for the skilled professional who refuses to compromise. With high performance integrated voice and data, and advanced features for efficient operation, these next-generation radios deliver complete connectivity to your organisation.

## **CONNECTED**

The MOTOTRBO DM4000e Series is a family of DMR-standard digital radios that delivers operations-critical voice and data communications. Bluetooth® audio lets you talk without wires, integrated Wi-Fi enables remote software updates, and indoor and outdoor location-tracking capabilities give you total visibility of your resources. With support for trunking as well as legacy analogue technology, you can keep your organisation connected as it grows.

## **SAFE**

Safeguard your staff with responsive push-to-talk technology. The quick access buttons on DM4000e Series radios can summon help with one touch, using

Transmit Interrupt to clear a channel when necessary. A range of safe driving accessories allow your workers to communicate hands-free, and Text-to-Speech technology helps your drivers keep their eyes on the road.

## **PRODUCTIVE**

Text messaging and Work Order Ticketing simplify complex communications, and data capabilities support advanced applications. Featuring a high power audio amplifier, these radios deliver loud, clear speech, with background noise cancellation for better intelligibility. DM4000e Series radios are also ideal as a dispatch solution, with desktop microphones and a rugged, durable design for everyday use.

## **WHAT'S NEW IN THESE NEXT GENERATION RADIOS**

- Integrated Wi-Fi
- Over-the-air software updates
- Bluetooth 4.0
- Indoor location tracking
- Multi-constellation Global Navigation Satellite System (GNSS) for increased location accuracy

**PRODUCT DATA SHEET**  
**MOTOTRBO™ DM4000e SERIES**  
**DIGITAL TWO-WAY RADIOS**



	<b>Alphanumeric Model</b>				<b>Numeric Model</b>			
Model Number	DM4600e* / DM4601e*				DM4400e / DM4401e*			
Band	VHF	UHF Band 1	UHF Band 2	800*	VHF	UHF Band 1	UHF Band 2	800*
<b>GENERAL SPECIFICATIONS</b>								
Frequency	136-174 MHz	403-470 MHz	450-527 MHz	806-825 MHz, 851-870 MHz	136-174 MHz	403-470 MHz	450-527 MHz	806-825 MHz, 851-870 MHz
Low Power Output	1-25 W	1-25 W	-	-	1-25 W	1-25 W	-	-
High Power Output	25-45 W	25-40 W	1-40W	10-35W	25-45 W	25-40 W	1-40W	10-35W
Channel Spacing	12.5, 20, 25 kHz							
Channel Capacity	1000				99			
Dimensions (H x W x D)	53 x 175 x 206 mm							
Weight	1.8 kg							
Power Supply (Nominal)	12 V							
Max Current Drain, Standby	0.8 A							
Max Current Drain, Receive	2 A							
Max Current Drain, Transmit (Low Power)	11 A	11 A	-	-	11 A	-	-	-
Max Current Drain, Transmit (High Power)	14.5 A	14.5 A	14.5 A	12 A	14.5 A	14.5 A	12 A	12 A



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**ALL MODELS**

**TRANSMITTER SPECIFICATIONS**

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 (20 and 25 kHz channel)
Frequency Stability	± 0.5 ppm

**RECEIVER SPECIFICATIONS**

Analogue Sensitivity (12dB SINAD)	0.18 uV
Digital Sensitivity (5% BER)	0.16 uV
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	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	3 W (internal speaker) 7.5 W (external 8 ohm speaker) 13 W (external 4 ohm speaker)
Audio Distortion at Rated Audio	3%
Hum and Noise	-40 dB (12.5 kHz channel), -45 dB (20 and 25 kHz channel)
Conducted Spurious Emissions (TIA603D)	-57 dBm

**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

**GNSS SPECIFICATIONS**

Constellation Support	GPS, GLONASS
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	128 (64 for Numeric Models)

**ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature	-30 °C to +60 °C
Storage Temperature	-40 °C to +85 °C
Electrostatic Discharge	IEC 61000-4-2 Level 4
Dust and Water Intrusion	IEC 60529 - IP54
Packaging Test	MIL-STD 810C, D, E, F and G

**CONNECTION**

- VHF Band, 25 W
- UHF Band, 40 W
- Alphanumeric Model: Colour Screen, 1000 Channels
- Numeric Model: Numeric Display, 32 Channels
- Analogue and Digital
- Voice and Data
  - Integrated Wi-Fi\*
  - Canned Text Messaging
  - Freeform Text Messaging (Requires Keypad Mic)
  - Work Order Ticketing
  - Multi-Constellation GNSS\*
  - High Efficiency GNSS\*
  - Event-Driven Location Update\*
  - Bluetooth Audio\*
  - Bluetooth Data\*
  - Voice Announcement
  - Bluetooth Permanent Discoverable Mode\*
  - Bluetooth Indoor Location Tracking\*
  - Text to Speech
  - Option Board
  - Home Channel Reminder

**AUDIO**

- Intelligent Audio
- IMPRES Audio
- Acoustic Feedback Suppressor
- Microphone Distortion Control
- User-Selectable Audio Profiles
- Trill Enhancement
- SINC+ Noise Cancellation

**PERSONALISATION**

- Wide Range of Accessories
- Multi-Button PTT
- 4 Programmable Buttons

**MANAGEMENT**

- Radio Management
- Over-the-Air Programming
- Over-the-Air Software Update\*

**SAFETY**

- Lone Worker
- Basic Privacy
- Enhanced Privacy
- AES 256 Encryption
- Transmit Interrupt
- Digital Emergency
- Emergency Search Tone
- Remote Monitor
- Radio Disable / Enable
- IP54 Rated
- Rugged to MIL-STD 810

**SYSTEMS**

- Dual Capacity Direct Mode
- Conventional
- IP Site Connect
- Capacity Plus
  - Capacity Max
  - Connect Plus

- Optional

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

\* DM4401e and DM4601e models include GNSS, Bluetooth and Wi-Fi as standard.

# Only available in New Zealand.

^ DM4600e model not available in 800 MHz band.

**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 Temp	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 Temp	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
Temp 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	I/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/CatF/ CurveW, XI	514.3	I/Cat10, II/ Cat3	514.4	I/Cat10, III/ Cat3	514.5	I/Cat24, II/ Cat5	514.6	I/Cat24, II/ Cat5
Shock	516.2	I, II	516.3	I, IV	516.4	I, IV	516.5	I, IV	516.6	I, V, VI

### LONG RANGE WIRELESS MOBILE MICROPHONE

Designed for customers who depend on their high power mobile radio but must work outside of their vehicle, the Long Range Wireless Mobile Microphone keeps you connected and communicating up to 100m (330 ft) from your vehicle. With instant touch pairing and in-vehicle charging cradles, you can maintain critical communications even on remote job sites.



### HANDHELD CONTROL HEAD

When space is tight, and you need the flexibility to operate your radio from anywhere in the vehicle, opt for the Handheld Control Head. Its colour screen, full keypad and extendable cord gives you complete control within 8 m (26 ft) of the radio.



### BLUETOOTH AUDIO

Improve the mobility of your work teams without wires getting tangled. Your delivery driver can sort through packages on the back of the delivery truck, your bus driver can check students in the back of the bus, and your limousine driver can open the door for their passengers and stay connected.



### CONNECT AND COORDINATE EFFORTLESSLY

IMPRES™ Smart Audio accessories communicate with the radio to suppress ambient noise, improve voice intelligibility and amplify loudness. Choose from a range of standard and heavy duty microphones, with or without keypads and navigation buttons.



### INTERACT SAFELY WITHOUT DISTRACTIONS

To help your drivers keep their eyes on the road, you can customise your installation with the IMPRES Visor Microphone and Remote Push-to-Talk.



For more details on DM4000e accessories, please download the MOTOTRBO Professional Accessories Catalogue.

To get connected with MOTOTRBO, please contact your local Motorola representative or visit [motorolasolutions.com.au](http://motorolasolutions.com.au)

#### Motorola Solutions Australia Pty Limited

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**MOTOTRBO™**  
DIGITAL REMASTERED.