



YOUR VOICE JUST GOT STRONGER

MOTOROLA DP4000 SERIES DIGITAL TWO WAY RADIOS

From the factory worker building components to the road crew making repairs, Motorola 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 from Motorola combines the best of two way radio functionality with the latest digital technology. DP4000 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 Motorola DP4000 Series can remaster your workplace and the way people collaborate to help you achieve even greater efficiency.



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RICH FUNCTIONALITY

DP4000 Series radios offer plenty of features businesses seek – including enhanced call signalling, 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 access¹. 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.

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. Capacity Plus single-site trunking expands capacity to over 1,000 users without having to add new frequencies. Linked Capacity Plus 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 your business and budget.

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 DP4000 Series radios because they operate in both analogue and digital mode. To ease the transition even further, the dynamic mixed mode repeater functionality streamlines automatic switching between analogue and digital calls. 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

DP4000 Series radios meet the most demanding specs, including IP57 for water submersibility and U.S. Military Standard 810 C, D, E, F, & G for exceptional durability. DP4000 radios have a two-year Standard Warranty with 1-year warranty for batteries and accessories. In addition, Service from the Start provides multi-year peace of mind with fast repair turnaround times, expert telephone technical support and access to the latest software releases; all backed by Motorola's globally integrated services infrastructure, highly qualified support technicians and certified repair facilities.

AUDIO BEYOND EXPECTATIONS

When it comes to exceptional audio clarity, the quality of digital can't be denied. DP4000 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 clamour – from heavy equipment to the roar of engines.

Bluetooth audio is embedded in the radio, so no adaptor is needed when using wireless accessories. Also, IMPRES™ audio accessories enhance noise suppression and improve voice intelligibility for smarter accessories than ever before.

INDUSTRY-LEADING DATA

DP4000 Series radios feature integrated Bluetooth data, so rather than waiting until the end of a shift, busy work crews can send real time information back to the office, saving valuable hours and enabling better decision making. Integrated GPS enables location tracking of mobile work teams and text messaging enables communication when voice isn't feasible. And the large, full-colour, 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 Motorola 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 analogue.



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
 Radios can 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

GENERAL SPECIFICATIONS

	DP800/DP4801		DP4600/DP4601		DP4400/DP4401	
	VHF	UHF	VHF	UHF	VHF	UHF
Channel Capacity	1000		1000		32	
Frequency (MHz)	136 - 174	403 - 527	136 - 174	403 - 527	136 - 174	403 - 527
NiMH 1400mAh Battery	HxWxL	130.3 x 55.2 x 38.7 mm	130.3 x 55.2 x 38.7 mm		130.3 x 55.2 x 37.2 mm	
	Weight	425.5 g	426.5 g		393 g	
Li-ion 1600mAh Battery	HxWxL	130.3 x 55.2 x 35.8 mm	130.3 x 55.2 x 35.8 mm		130.3 x 55.2 x 34.3 mm	
	Weight	335.5 g	336.5 g		303 g	
Li-ion 2250mAh Battery	HxWxL	130.3 x 55.2 x 41.1 mm	130.3 x 55.2 x 41.1 mm		130.3 x 55.2 x 39.6 mm	
	Weight	355.5 g	356.5 g		323 g	
Li-ion 2350mAh Battery	HxWxL	130.3 x 55.2 x 41.1 mm	130.3 x 55.2 x 41.1 mm		130.3 x 55.2 x 39.6 mm	
	Weight	365.5 g	366.5 g		333 g	
Power Supply	7.5 V (Nominal)					
Operating Temperature	-30 ~+60°C					

BATTERY

	DP800/DP4801	DP4600/DP4601	DP4400/DP4401
Average Battery Life	5/5/90 duty cycle with carrier squelch and transmitter in high power		
NiMH 1400mAh Battery	Analogue: 6.7 hrs/Digital: 9.8 hrs	Analogue: 7 hrs/Digital: 10.2 hrs	Analogue: 7 hrs/Digital: 10.2 hrs
Li-ion 1600mAh Battery	Analogue: 7.7 hrs/Digital: 11.3 hrs	Analogue: 8 hrs/Digital: 11.8 hrs	Analogue: 8 hrs/Digital: 11.8 hrs
Li-ion 2250mAh Battery	Analogue: 11.1 hrs/Digital: 16.2 hrs	Analogue: 11.5 hrs/Digital: 17 hrs	Analogue: 11.5 hrs/Digital: 17 hrs
Li-ion 2350mAh Battery	Analogue: 11.9 hrs/Digital: 17.3 hrs	Analogue: 12.3 hrs/Digital: 18.1 hrs	Analogue: 12.3 hrs/Digital: 18.1 hrs

RECEIVER

	VHF	UHF
Frequency (MHz)	136-174	403-527
Channel Spacing	12.5/20/25kHz	
Frequency Stability (-30°C, +60°C, +25°C Ref)	± 0.5 ppm	
Analogue 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 @ 20/25kHz	
Adjacent Channel Selectivity (TIA603D)-2T	45dB @ 12.5 kHz / 70dB @ 20/25kHz	
Spurious Rejection (TIA603D)	70 dB	
Rated Audio	0.5W	
Audio Distortion @ Rated Audio	5% (3% typical)	
Hum and Noise	-40dB @ 12.5 kHz / -45dB @ 20/25kHz	
Audio Response	TIA603D	
Conducted Spurious Emission (TIA603D)	-57dBm	

TRANSMITTER

	VHF	UHF
Frequency (MHz)	136-174	403-527
Channel Spacing	12.5/20/25kHz	
Frequency Stability	± 0.5 ppm	
Low Power Output	1W	1W
High Power Output	5W	4W
Modulation Limiting	± 2.5kHz @ 12.5 kHz / ±4.0kHz @ 20kHz / ± 5.0kHz @ 25 kHz	
FM Hum and Noise	-40dB@ 12.5 kHz / -45dB@ 20/25kHz	
Conducted/Radiated Emission	-36 dBm < 1GHz / -30 dBm > 1GHz	
Adjacent Channel Power	60dB @ 12.5 kHz / 70dB @ 20/25kHz	
Audio Response	TIA603D	
Audio Distortion	3%	
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	

RECEIVER

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

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

BLUETOOTH

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 metres

RECEIVER

MOTOTRBO DP4000 Series portable radios have been certified 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, when properly equipped with a Motorola FM approved battery option. They are also approved for use in Class I, Division 2, Groups A, B, C, D.

BLUETOOTH

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

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

For more information on Digital Two Way Radios please call us on **0800 0747 312** or visit our website at www.brentwoodradios.co.uk.

