MOTOTRBO™ DP1400 PORTABLE RADIO

YOU'RE SIMPLY MORE EFFICIENT.

Simple voice communications for the everyday user who wants to stay connected.

You want to connect your workforce as efficiently as possible. You expect your radios to be affordable but flexible, so they can evolve with you. Now there's a portable that gives you great voice communications today, and a path to crisp and clear digital voice communications when you're ready.

Versatile and powerful, MOTOTRBO combines the best of two-way radio functionality with the latest analogue and digital technology. The MOTOTRBO portfolio offers the right device for the right user, from voice-only portables to feature-rich voice and data radios.

The rugged MOTOTRBO DP1400 is available as an analogue/digital radio that offers all the benefits of the latest technology – from superior audio to greater coverage to longer battery life. This affordable portable is compatible with advanced MOTOTRBO features you'll find are business-essential, for example a transmission can be interrupted to prioritise critical communications.

You can also choose the analogue-only DP1400 radio and unlock the capabilities of digital when the time is right: all you will need is a simple software upgrade. And whichever model you choose, the DP1400 will work seamlessly with the radios you have today.

Now you can improve the efficiency of your operation with easy-to-use voice communication that's right for you.

FEATURES

- Analogue and Digital Communications
- Digital Mobile Radio (DMR) Standards Compliant[1]
- Lone Worker
- Emergency Alert
- Transmit Interrupt[2]
- Remote Monitoring[2]
- Radio Inhibit
- Basic Privacy (16-bit key encryption)
- Radio Registration
- Pre-programmed Quick Text Messages
- Customisable Voice Announcements
- Automatic Gain Control
- Received Audio Levelling
- Multi-Language Audio Profiles
- Trill Enhancement for Rolling Rs
- Radio Management Suite Compatible
- Rental Timer
- RFID Knob (optional accessory)
- Dual Capacity Direct Mode[1]
- Extended Range Direct Mode[1]
- IP Site Connect support
- Rated IP54: protected against dust and water spray
- Ruggedised and tested to MIL-STD-810 (11 tests)

MOTOROLA SOLUTIONS

CONNECT AND COORDINATE TEAMS

When you need a simple, reliable, cost-effective communication solution to help multiple work teams connect, coordinate and collaborate, DP1400 two-way portable radios are made to get the job done right. Thanks to their easy-to-use ergonomics and crisp, clear audio, your teams can work more efficiently.

IMPROVE THE WAY THEY WORK

A construction worker carries his DP1400 as an essential part of his toolkit. The digital technology gives him excellent coverage across the entire site. And it has significantly better battery life too, so he knows he'll have reliable voice communications all day long.

The manufacturing team in a parts factory relies on DP1400 portables to coordinate operations. The radio's digital noise cancelling software filters out the worst of background noise, allowing them to be heard clearly over loud machinery. Levelling ensures that supervisors to hear clear and consistent audio, despite the mix of environments, radios and accessories throughout the factory, while Acoustic Feedback Suppression prevents howling caused by feedback from any nearby radios.

A security guard uses his DP1400 to alert the controlroom to some suspicious activity. The radio's intuitive design is easy to use in the dark, and even when he speaks softly, he knows that the digital AGC (Automatic Gain Control) will automatically boost the volume so he's heard clearly back in the office. And if it comes to the worst, he can use one of the programmable side buttons to call for help – with one touch.

Factory capacity is expanding, so they are running MOTOTRBO Dual Capacity Direct Mode, which supports twice as many calls without the need for additional infrastructure. And as the company grows and adds manufacturing facilities in other countries, radios in each location can be configured with the audio profile best suited for the local language.

MANAGE YOUR FLEET MORE EFFICIENTLY

We've designed the DP1400 to be as efficient to operate as it is cost-effective to buy. That's why we've integrated the powerful fleet management capabilities of our Radio Management solution into every radio.

Gain even greater efficiency when you migrate to digital. Your radio will operate for up to 28% longer than in analogue mode on the same battery and you get twice the call capacity from the same 12.5 kHz channel, using our Dual Capacity Direct Mode feature.

INTEGRATE YOUR DEVICES SEAMLESSLY

Make sure your new DP1400 radios are ready when you are. We can bring together the right experts and processes to help you integrate DP1400 radios into your business, quickly and cost-effectively. This includes Coverage Mapping, Site Integration and Device Programming.

GET DURABILITY THAT ENDURES

The DP1400 is made to last. It is backed by a two-year standard warranty and a one-year warranty for Motorola-branded accessories. Moreover, the design has been proven tough in our unique and gruelling Accelerated Life Test programme, in which the radio must survive a simulated 5 years of hard service before it is accepted. In addition, optional service packages provide multi-year peace of mind with fast repair turnaround times, expert telephone technical support and access to the latest software releases; all backed by our globally integrated services infrastructure, highly qualified support technicians and certified repair facilities.

GENERAL SPECIFICATIONS

	DP1400	
	VHF	UHF BAND 1
Channel Capacity	32	
RF Output Low Power High Power	 1W 5W	 1W 4W
Frequency	136-174 MHz	403-470 MHz
Radio Dimensions (H x W x D) with battery: NiMH 1400 mAh Slim Li-Ion 1600 mAh High Cap Li-Ion 2250 mAh Ultra-High Cap Li-Ion 2900 mAh	 128 x 62 x 42 mm 128 x 62 x 39 mm 128 x 62 x 44 mm 128 x 62 x 44 mm	
Weight with battery: NiMH 1400 mAh Slim Li-Ion 1600 mAh High Cap Li-Ion 2250 mAh Ultra-High Cap Li-Ion 2900 mAh	 406 g 341 g 346 g 348 g	
Power Supply	7.5V (Nominal)	

BATTERY

Average battery life at 5/5/90 duty cycle with carrier squelch and transmitter in high power[3]	
NiMH (1400 mAh) Battery	Analogue: 9.5 hrs / Digital: 12 hrs
Slim Li-Ion (1600 mAh) Battery	Analogue: 11.5 hrs / Digital: 14.5 hrs
High Cap Li-ion (2250 mAh) Battery	Analogue: 15.5 hrs / Digital: 19.5 hrs
Ultra-High Cap Li-ion (2900 mAh) Battery	Analogue: 19.5 hrs / Digital: 25 hrs

RECEIVER

Frequency	136-174 MHz	403-470 MHz
Channel Spacing	12.5 kHz / 20 kHz / 25 kHz	
Frequency Stability (-30°C, +60°C, +25°C Ref)	± 0.5 ppm	
Analogue Sensitivity (12 dB SINAD)	0.3 uV / 0.22 uV (typical)	
Digital Sensitivity (5% BER)	0.25 uV / 0.19 uV (typical)	
Intermodulation (TIA603D)	70 dB	
Adjacent Channel Selectivity (TIA603D)	45 dB @ 12.5 kHz / 70 dB @ 20/25 kHz	
Spurious Rejection (TIA603D)	70 dB	
Audio Output Power	Rated: 0.5 W (at 1% distortion) Maximum: 2.1 W	
Maximum Speech Loudness (ISO532b)	98 phon @ 30 cm	
Hum and Noise	-40 dB @ 12.5 kHz / -45 dB @ 20/25 kHz	
Audio Response (TIA603D)	+1, -3 dB	
Conducted Spurious Emissions (TIA603D)	-57 dBm	

TRANSMITTER

Frequency	136-174 MHz	403-470 MHz
Channel Spacing	12.5 kHz / 20 kHz / 25 kHz	
Frequency Stability (-30°C, +60°C, +25°C Ref)	± 0.5 ppm	
Low Power Output	1 W	1 W
High Power Output	5 W	4 W
Modulation Limiting	± 2.5 kHz @ 12.5 kHz / ± 4.0 kHz @ 20 kHz / ± 5.0 kHz @ 25 kHz	
FM Hum and Noise	-40 dB @ 12.5 kHz / -45 dB @ 20/25 kHz	
Conducted / Radiated Emission	-36 dBm < 1 GHz / -30 dBm > 1 GHz	
Adjacent Channel Power	60 dB @ 12.5 kHz / 70 dB @ 20/25 kHz	
Audio Response (TIA603D)	+1, -3 dB	
Audio Distortion	3% (typical)	
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 Vocoder Type	AMBE +2™	
Digital Protocol	ETSI TS 102 361-1, -2, -3	

MILITARY STANDARDS

	810C		810D		810E		810F		810G		810H	
Applicable MIL-STD	Method	Procedures	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	500.6	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	501.7	I/A1, II/A1
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	502.7	I/C3, II/C1
Temperature Shock	503.1	–	503.2	I/A1/C3	503.3	I/A1/C3	503.4	I	503.5	I-C	503.7	I-C
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I	505.5	I-A1	505.7	I/A1
Rain	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, III	506.5	I, III	506.6	I,II
Humidity	507.1	II	507.2	II	507.3	II	507.4	–	507.5	II - Aggravated	507.6	II/Agg
Salt fog	509.1	–	509.2	–	509.3	–	509.4	–	509.5	–	509.7	-
Dust	510.1	I	510.2	I	510.3	I	510.4	I	510.5	I	510.7	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-cat.24	514.8	I/24, II/5
Shock	516.2	I, II	516.3	I, IV	516.4	I, IV	516.5	I, IV	516.6	I, IV, V, VI	516.8	I, IV, VI

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-30°C[4] / +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	IEC60529 - IP54
Packaging Test	Per MIL-STD

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

[1] Features only available in Digital mode
[2] Decode only
[3] Actual battery runtime observed may vary
[4] Radio only. Li-Ion battery min operating temp is -10°C.

For more information on the MOTOTRBO DP1400, visit: motorolasolutions.com/mototrbo or find your closest Motorola Solutions representative or authorised Partner at: motorolasolutions.com/contactus

MOTOROLA SOLUTIONS

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