**DIGITAL, NOW WITHIN REACH**

# MOTOTRBO™ DP2000 SERIES DIGITAL TWO-WAY PORTABLE RADIOS

Monitoring supply needs on a manufacturing line or reporting an incident on a construction site, how do you keep employees connected and safe? MOTOTRBO digital radio solutions can help by putting the power of digital communications within reach.

Versatile and powerful, MOTOTRBO combines the best of two-way radio functionality with the latest digital technology. DP2000 Series radios offer best-in-class audio in a scalable solution to meet your communication needs. Because they are also analogue interoperable, you can make the transition to digital at your own pace and budget.

The DP2000 Series radios can remaster your workplace and the way people collaborate to help you achieve even greater productivity, safety and cost-effectiveness.

## INDUSTRY-LEADING AUDIO

When it comes to exceptional audio clarity, the quality of digital can't be denied. With the DP2000 Series portables, you get digital quality 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. Now, workers don't have to adjust their radio volume to avoid missing a call in loud situations or disturbing others when they move into quiet places. Increased background noise suppression filters out unwanted external clamour – from the rumble of forklifts to the buzz of traffic noise. And IMPRES™ audio accessories enhance noise suppression and improve voice intelligibility for smarter audio than they've ever experienced before.

## HIGH-POWERED PERFORMANCE

Because the DP2000 Series uses TDMA digital technology, it delivers twice the calling capacity plus clearer voice communications. When it comes to battery performance, these radios operate up to 40 percent longer between recharges compared to analogue. In fact, the leading-edge IMPRES™ technology in our batteries, chargers and audio accessories also ensures longer talk time and clearer audio.

The DP2000 Series offers plenty of features to make workers more efficient. Voice announcement provides audible confirmation so they can be notified of channel and zone changes as well as programmable button features without having to view the radio display. The display and easy to use navigation menu makes the radio intuitive to use so they can stay focused on the job at hand - from the hotel receptionist confirming rooms to security covering a sporting event.

## MIGRATE AT YOUR OWN PACE

Keeping operations running smoothly during a change in communication systems is vital to your operation. It's easy to migrate to digital because the DP2000 Series radios operate in analogue and digital mode while 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.

## SCALABLE TO MEET YOUR NEEDS

Your workforce is hard at work every day – getting drivers home safely, unloading cargo, checking inventory and checking on guests. That's why you'll appreciate the easy flexibility and scalability of the DP2000 Series to fit your changing needs and coverage area. All it takes is a simple software upgrade to add key features like enhanced privacy scrambling or the transmit interrupt suite to prioritize critical communication exactly when it's needed.

And when you want expanded coverage or capacity, an upgrade to the DP2000 Series can enable IP Site Connect which dramatically improves 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. Or upgrade to Capacity Plus single-site trunking in order to expand capacity to over 1,000 users. 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 expanded coverage at a single site or across multiple ones, the DP2000 Series can be scaled to your business and budget.

## DAY-IN, DAY-OUT DURABILITY

The DP2000 Series meets demanding specs, including IP55 for water protection and U.S. Military Standard 810 C, D, E, F and G. DP2000 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[1]; all backed by Motorola's globally integrated services infrastructure, highly qualified support technicians and certified repair facilities.

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# DP2000 SERIES SPECIFICATIONS

## GENERAL SPECIFICATIONS

| | | DISPLAY DP2600 | | NON DISPLAY DP2400 | |
|---|---|---|---|---|---|
| | | VHF | UHF | VHF | UHF |
| Channel Capacity | | 128 | 128 | 16 | 16 |
| Frequency | | 136-174MHz | 403-527 MHz | 136-174 MHz | 403-527 MHz |
| IMPRES Hi-Cap Li-ion (2250 mAH) Battery | Height (H) | 122 mm (4.80 inch) | | 122 mm (4.80 inch) | |
| | Width (W) | 56 mm (2.20 inch) | | 56 mm (2.20 inch) | |
| | Thickness (T) | 41.7 mm (1.64 inch) | | 41.7 mm (1.64 inch) | |
| | Weight | 305 g (10.8 oz) | | 285 g (10.0 oz) | |
| IMPRES Li-ion Slim (1600mAH) Battery | Height (H) | 122 mm (4.80 inch) | | 122 mm (4.80 inch) | |
| | Width (W) | 56 mm (2.20 inch) | | 56 mm (2.20 inch) | |
| | Thickness (T) | 36.4 mm (1.43 inch) | | 36.4 mm (1.43 inch) | |
| | Weight | 285 g (10.0 oz) | | 265 g (9.3 oz) | |
| Slim Li-Ion (1600 mAH) Battery | Height (H) | 122 mm (4.80 inch) | | 122 mm (4.80 inch) | |
| | Width (W) | 56 mm (2.20 inch) | | 56 mm (2.20 inch) | |
| | Thickness (T) | 36.4 mm (1.43 inch) | | 36.4 mm (1.43 inch) | |
| | Weight | 285 g (10.0 oz) | | 265 g (9.3 oz) | |
| NiMH (1400mAh) Battery | Height (H) | 122 mm (4.80 inch) | | 122 mm (4.80 inch) | |
| | Width (W) | 56 mm (2.20 inch) | | 56 mm (2.20 inch) | |
| | Thickness (T) | 39.4 mm (1.55 inch) | | 39.4 mm (1.55 inch) | |
| | Weight | 375 g (13.2 oz) | | 355 g (12.5 oz) | |
| Power Supply | | 7.5 V (Nominal) | | | |
| Operating Temperature | | -30°~ +60 °C[2] | | | |
| Average battery life | | 5/5/90 duty cycle with carrier squelch and transmitter in high power[3] | | | |
| IMPRES Hi-Cap Li-ion (2250 mAH) Battery | | Analogue: 11.5 hrs / Digital: 16.5 hrs | | Analogue: 11.5 hrs / Digital: 16.5 hrs | |
| IMPRES Li-ion Slim (1600 mAH) Battery | | Analogue: 8 hrs / Digital: 11.5 hrs | | Analogue: 8 hrs / Digital: 11.5 hrs | |
| Slim Li-Ion (1600 mAH) Battery | | Analogue: 8 hrs / Digital: 11.5 hrs | | Analogue: 8 hrs / Digital: 11.5 hrs | |
| NiMH (1400 mAh) Battery | | Analogue: 7 hrs / Digital: 10 hrs | | Analogue: 7 hrs / Digital: 10 hrs | |

## MILITARY STANDARDS

| | 810C | | 810D | | 810E | | 810F | | 810G | |
|---|---|---|---|---|---|---|---|---|---|---|
| APPLICABLE MIL-STD | 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 | I-cat 24, II/5 |
| Shock | 516.2 | I, II | 516.3 | I, IV | 516.4 | I, IV | 516.5 | I, IV | 516.6 | I, IV, VI |

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## RECEIVER

| | VHF | UHF |
|---|---|---|
| Frequencies | 136-174 MHz | 403-527 MHz |
| Channel Spacing | 12.5/20/25kHz | |
| Frequency Stability | ± 0.5 ppm | |
| Analogue Sensitivity (12dB SINAD) Typical | 0.3uV 0.22uV (typical) | |
| Digital Sensitivity | 0.25 uV (0.19 uV typical) | |
| Intermodulation (TIA603D) | 70 dB | |
| Adjacent Channel Selectivity (TIA603A)-1T | 60dB @ 12.5kHz / 70dB @ 20/25kHz | |
| Adjacent Channel Selectivity (TIA603D)-2T | 45dB @ 12.5kHz / 70dB @ 20/25kHz | |
| Spurious Rejection (TIA603D) | 70 dB | |
| Rated Audio | 0.5W | |
| Audio Distortion @ Rated Audio | 5% 3% (typical) | |
| Hum and Noise | -40dB @ 12.5kHz / -45dB @ 20/25kHz | |
| Audio Response | TIA603D | |
| Conducted Spurious Emission (TIA603D) | -57 dBm | |

## ENVIRONMENTAL SPECIFICATIONS

| | |
|---|---|
| Operating Temperature | -30° C / +60 °C[2] |
| 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 - IP55 |

Testing completed using portable radio with attached battery and antenna.

## TRANSMITTER

| | VHF | UHF |
|---|---|---|
| Frequencies | 136-174 MHz | 403-527 MHz |
| Channel Spacing | 12.5/20/25kHz | |
| Frequency Stability | ± 0.5 ppm | |
| Low Power Output | 1W | 1W |
| High Power Output | 5W | 4W |
| Modulation Limiting | ± 2.5 kHz @ 12.5 kHz | |
| | ±4.0kHz @ 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 | |
| Audio Distortion | 3% | |
| 4FSK Digital Modulation | 12.5kHz Data: 7K60F1D & 7K60FXD | |
| | 12.5kHz Voice: 7K60F1E & 7K60FXE | |
| | Combination of 12.5 kHz Voice and Data: 7K60F1W | |
| Digital Vocoder Type | AMBE+2™ | |
| Digital Protocol | ETSI TS 102 361 -1,-2,-3 | |

[1] Software release covers patches and maintenance releases of the current version to the operating system i.e. that shipped with the terminal.

[2] Radio only - Li-Ion battery -10C

[3] Actual battery runtime observed may vary based on the specific radio configuration.

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

Radio meets applicable regulatory requirementes.

For more information on how to reach it all with digital, visit motorolasolutions.com/mototrbo or find your closest Motorola representative or authorised Partner at
motorola.com/Business/XU-EN/Contact_Us

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