

MOTOTRBO™

Professional Digital Two-Way Radio System



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www.motorola.com/mototrbo

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Accelerate performance.

Introducing MOTOTRBO™ Professional Digital Two-Way Radio System. The future of two-way radio.

The next-generation professional two-way radio communications solution is here, with enhanced performance, productivity and value—and more opportunity for you. With better basics and enhanced features, MOTOTRBO is Motorola's first digital two-way radio system specifically designed to meet the requirements of professional organisations that need a customisable, business-critical communication solution using licensed spectrum.

MOTOTRBO combines the best in two-way radio functionality with digital technology to deliver increased capacity and spectrum efficiency, integrated data communications and enhanced voice communications.



The Motorola MOTOTRBO Professional Digital Two-Way Radio System:

- Includes everything it takes to meet the business-critical needs of a wide range of users—portable radios, mobile radios, repeaters, accessories, applications and services.
- Uses Time-Division Multiple-Access (TDMA) technology to provide twice the calling capacity for the price of one license. A second call doesn't require a second repeater, so your customers save on equipment.
- Doubles the number of users who can be supported on a single licensed 12.5 kHz channel.
- Integrates voice and data to increase operational efficiency and support a wide range of applications. MOTOTRBO Text Messaging and MOTOTRBO Location Services (GPS location tracking) integrated applications are available now, with more to come through Motorola's Application Developer Programme.
- Provides clearer voice communications over a greater range than comparable analog radios, rejecting static and noise.
- Offers enhanced battery life. Digital TDMA two-way radios can operate up to 40 percent longer between recharges as compared to typical analog radios.
- Enables additional functionality including dispatch data and enhanced call signaling.
- Provides easy migration from analog to digital, with MOTOTRBO's ability to operate in both analog and digital modes.
- Meets U.S. Military 810 C, D, E and F specifications, IP57 for submersibility (portable models), and Motorola standards for durability and reliability.
- Utilises the IMPRES™ Smart Energy System to automate battery maintenance, optimise life cycle and maximise talk time.
- MOTOTRBO is changing the way businesses communicate. With the applications available through Motorola, Motorola's Application Developer Programme, and MOTOTRBO's well-documented and published interfaces, customers can build on their investment and add new high-value capabilities.

MOTOTRBO Application Developer Programme

Third-party developers play an important role in supporting the market growth of the MOTOTRBO platform and in creating customised applications that will add value to customers in different vertical markets.

Developers will extend the capabilities of MOTOTRBO and provide niche solutions that will satisfy a broad range of customer needs. To encourage the development of a broad portfolio of customer-focused solutions and continuing innovation,

Motorola will provide support to its Application Developer Programme, giving accredited developers access to the protocol and Application Programming Interface (API) documentation as well as online support. So when you recognise an opportunity to customise an end user solution through the use of an application, contact the Motorola Application Developer Programme manager for support.



DM 3400/3401

Numeric Display Mobile Radios



- 1 Accessory connector supports USB and enhanced audio capability.
- 2 Multi-colored LED indicators for clear, visible feedback of calling, scanning and monitoring.
- 3 Large, easy-to-use volume knob.
- 4 DM 3401 includes integrated GPS module.
- 5 Large, easy-to-use channel navigation buttons.
- 6 Powerful, front-projecting speaker.
- 7 32 channels; channel number is easy to read on large, clear numeric two-digit display.
- 8 Two programmable buttons for easy access to favourite features. New features such as one-touch calling are made even easier through programmable button access.
- 9 Compact and ergonomically friendly microphone.

Numeric Display Mobile Radio Standard Package

- Radio with Numeric Display Control Head
- Trunnion
- Cabling (power cord)
- Compact Microphone
- Quick Reference Guide

Additional Features

- Enhanced call management
 - Encode: emergency, push-to-talk ID
 - Decode: radio check, remote monitor, radio disable, all call
- DM 3401 can transmit GPS coordinates
- Dual-mode analogue/digital scan - facilitates a smooth migration from analogue to digital
- Send quick text messaging via programmable buttons

MOTOTRBO™ System Components and Benefits

DM 3400/3401 Numeric Display Mobile Radios

Specifications

GENERAL SPECIFICATIONS

Channel Capacity	32
Typical RF Output	
Low Power	1-25 W
High Power	25-40 W
Frequency	403-470 MHz
Dimensions (HxWxL)	51 x 175 x 206 mm
Weight	1.8 kg
Current Drain:	
Standby	0.81 A max
Rx @ Rated Audio	2 A max
Transmit	1-25W: 11.0A max 25-40W: 14.5A max

RECEIVER

Frequency	403-470 MHz
Channel Spacing	12.5 kHz/ 25 kHz
Frequency Stability	+/- 1.5 ppm (DM 3400) (-30° C, +60° C, +25° C)
Analogue Sensitivity	0.30 uV (12 dB SINAD) 0.22 uV (typical) (12 dB SINAD) 0.4 uV (20 dB SINAD)
Digital Sensitivity	5% BER: 0.3 uV
Intermodulation	70 dB
Adjacent Channel Selectivity	60 dB @ 12.5 kHz, 70 dB @ 25 kHz
Spurious Rejection	70 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	+1, -3 dB
Conducted Spurious Emission	-57 dBm

TRANSMITTER

Frequency	403-470 MHz
Channel Spacing	12.5 kHz / 25 kHz
Frequency Stability	+/- 1.5 ppm (DM 3400) (-30° C, +60° C, +25° C)
Power Output	
Low Power	1-25 W
High Power	25-40 W
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 -30 dBm > 1 GHz
Adjacent Channel Power	-60 dB @ 12.5 kHz -70 dB @ 25 kHz
Audio Response	+1, -3 dB
Audio Distortion	3%
Digital Vocoder Type	AMBE++
Digital Protocol	ETSI-TS102 361-1

GPS

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	< 10 meters

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-30° C / +60° C
Storage Temperature	-40° C / +85° C
Temperature Shock	Per MIL-STD
Humidity	Per MIL-STD
Water and Dust Intrusion	IP54, MIL-STD

MILITARY STANDARDS

Applicable MIL-STD	810E		810F	
	Methods	Procedures	Methods	Procedures
Low Pressure	500.3	II	500.4	II
High Temperature	501.3	I/A, II/A1	501.4	I/Hot, II/Hot
Low Temperature	502.3	I/C3, II/C1	502.4	I/C3, II/C1
Temperature Shock	503.3	I/A, 1C3	503.4	I
Solar Radiation	505.3	I	505.4	I
Rain	506.3	I,II	506.4	I, III
Humidity	507.3	II	507.4	-
Salt Fog	509.3	I	509.4	I
Dust	510.3	I	510.4	I
Vibration	514.4	I/10, II/3	514.5	I/24
Shock	516.4	I, IV	516.5	I, IV



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DM3400/3401/SPEC-ENG(01/07)

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DM 3600/3601

Enhanced Display Mobile Radios



- 1 Accessory connector supports USB and enhanced audio capability.
- 2 Multi-colored LED indicators for clear, visible feedback of calling, scanning and monitoring.
- 3 Large, easy-to-use volume knob.
- 4 DM 3601 includes integrated GPS module.
- 5 160 channels.
- 6 Powerful, front-projecting speaker.
- 7 Large, easy-to-use navigation buttons allow easy access to intuitive, menu-driven interfaces.
- 8 Flexible, menu-driven interface with user-friendly icons or two lines of text for ease of reading text messages.
- 9 Four programmable buttons for easy access to favourite features. New features such as one-touch calling and text messaging are made even easier through programmable button access.
- 10 Compact and ergonomically friendly microphone.

Display Mobile Radio Standard Package

- Radio with Display Control Head
- Trunnion
- Cabling (power cord)
- Compact Microphone
- Quick Reference Guide

Additional Features

- Enhanced call management
 - Encode/decode: emergency, remote monitor, push-to-talk ID, radio check, all call, radio disable
- DM 3601 can transmit GPS coordinates
- Dual-mode analogue/digital scan - facilitates a smooth migration from analogue to digital
- Short free-form and quick text messaging

MOTOTRBO™ System Components and Benefits

DM 3600/3601 Enhanced Display Mobile Radios

Specifications

GENERAL SPECIFICATIONS

Channel Capacity	160
Typical RF Output	
Low Power	1-25 W
High Power	25-40 W
Frequency	403-470 MHz
Dimensions (HxWxL)	51 x 175 x 206 mm
Weight	1.8 kg
Current Drain:	
Standby	0.81 A max
Rx @ Rated Audio	2 A max
Transmit	1-25W: 11.0A max 25-40W: 14.5A max

RECEIVER

Frequency	403-470 MHz
Channel Spacing	12.5 kHz/ 25 kHz
Frequency Stability	+/- 1.5 ppm (DM 3600)
(-30° C, +60° C, +25° C)	+/- 0.5 ppm (DM 3601)
Analogue Sensitivity	0.30 uV (12 dB SINAD)
	0.22 uV (typical) (12 dB SINAD)
	0.4 uV (20 dB SINAD)
Digital Sensitivity	5% BER: 0.3 uV
Intermodulation	70 dB
Adjacent Channel Selectivity	60 dB @ 12.5 kHz, 70 dB @ 25 kHz
Spurious Rejection	70 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	+1, -3 dB
Conducted Spurious Emission	-57 dBm

TRANSMITTER

Frequency	403-470 MHz
Channel Spacing	12.5 kHz / 25 kHz
Frequency Stability	+/- 1.5 ppm (DM 3600)
(-30° C, +60° C, +25° C)	+/- 0.5 ppm (DM 3601)
Power Output	
Low Power	1-25 W
High Power	25-40 W
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 -30 dBm > 1 GHz
Adjacent Channel Power	-60 dB @ 12.5 kHz -70 dB @ 25 kHz
Audio Response	+1, -3 dB
Audio Distortion	3%
Digital Vocoder Type	AMBE++
Digital Protocol	ETSI-TS102 361-1

GPS

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	< 10 meters

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-30° C / +60° C
Storage Temperature	-40° C / +85° C
Temperature Shock	Per MIL-STD
Humidity	Per MIL-STD
Water and Dust Intrusion	IP54, MIL-STD

MILITARY STANDARDS

Applicable MIL-STD	810E		810F	
	Methods	Procedures	Methods	Procedures
Low Pressure	500.3	II	500.4	II
High Temperature	501.3	I/A, II/A1	501.4	I/Hot, II/Hot
Low Temperature	502.3	I/C3, II/C1	502.4	I/C3, II/C1
Temperature Shock	503.3	I/A, 1C3	503.4	I
Solar Radiation	505.3	I	505.4	I
Rain	506.3	I,II	506.4	I, III
Humidity	507.3	II	507.4	-
Salt Fog	509.3	I	509.4	I
Dust	510.3	I	510.4	I
Vibration	514.4	I/10, II/3	514.5	I/24
Shock	516.4	I, IV	516.5	I, IV



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DM3600/3601/SPEC-ENG(01/07)

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DP 3400/3401

Non-display Portable Radios



- 1 Tri-color LED indicator for clear, visible feedback of calling, scanning and monitoring.
- 2 Emergency button to alert supervisor or dispatcher in an emergency situation. With DP 3401, location coordinates can be sent to dispatcher using GPS.
- 3 New accessory connector meets IP57 submersibility specifications and incorporates RF, USB and enhanced audio capability.
- 4 DP 3401 includes integrated GPS module.
- 5 Radio housing meets IP57 specifications; submersible in 1 metre of water up to 30 minutes.
- 6 Powerful, front projecting speaker.
- 7 Three side programmable buttons for easy access to favourite features. New features such as one-touch calling and quick text messaging are made even easier through programmable button access.
- 8 Large, textured push-to-talk button. Provides good tactile response and easy access, even when wearing gloves.
- 9 32 channels.

Non-display Portable Radio Standard Package

- Non-display Portable Radio
- Antenna - Standard whip included with DP 3400; GPS Monopole included with DP 3401
- NiMH 1300 mAh Battery
- IMPRES™ Single Unit Charger
- 2.5" Belt Clip
- Quick Reference Guide

Additional Features

- Enhanced call management
 - Encode: emergency, push-to-talk ID
 - Decode: radio check, remote monitor, radio disable, all call
- Dual-mode analogue/digital scan - facilitates a smooth migration from analogue to digital
- Send quick text messaging via programmable buttons

MOTOTRBO™ System Components and Benefits

DP 3400/3401 Non-display Portable Radios

Specifications

GENERAL SPECIFICATIONS

Channel Capacity	32
Frequency	403-470 MHz
Dimensions (HxWxL)	
with NiMH Battery 1300mAH	131.5 x 63.5 x 37.2 mm
with Lilon Std Battery 1500mAH	131.5 x 63.5 x 35.2 mm
with Lilon FM Battery 1400mAH	131.5 x 63.5 x 37.2 mm
Weight	
with NiMH Battery	400 g
with Lilon FM Battery	340 g
with Lilon Std Battery	330 g
Power Supply	7.2V nominal
Average battery life at 5/5/90 duty cycle with battery saver enabled in carrier squelch and transmitter in high power.	
IMPRES Lilon Std Battery	Analogue: 9 hrs / Digital: 13 hrs
IMPRES FM Lilon Battery	Analogue: 8.5 hrs / Digital: 12 hrs
NiMH Battery	Analogue: 8 hrs / Digital: 11 hrs

RECEIVER

Frequency	403-470 MHz
Channel Spacing	12.5 kHz/ 25 kHz
Frequency Stability	+/- 1.5 ppm (DP 3400)
(-30° C, +60° C, +25° C)	+/- 0.5 ppm (DP 3401)
Analogue Sensitivity	0.35 uV (12 dB SINAD)
	0.22 uV (typical) (12 dB SINAD)
	0.4 uV (20 dB SINAD)
Digital Sensitivity	5% BER: 0.3 uV
Intermodulation	65 dB
Adjacent Channel Selectivity	60 dB @ 12.5 kHz, 70 dB @ 25 kHz
Spurious Rejection	70 dB
Rated Audio	500 mW
Audio Distortion @ Rated Audio	3% (typical)
Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 25 kHz
Audio Response	+1, -3 dB
Conducted Spurious Emission	-57 dBm

TRANSMITTER

Frequency	403-470 MHz
Channel Spacing	12.5 kHz/ 25 kHz
Frequency Stability	+/- 1.5 ppm (DP 3400)
(-30° C, +60° C, +25° C)	+/- 0.5 ppm (DP 3401)
Power Output	
Low Power	1 W
High Power	4 W
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
Audio Response	+1, -3 dB
Audio Distortion	3%
Digital Vocoder Type	AMBE++
Digital Protocol	ETSI-TS102 361-1

GPS

Accuracy specs are for long-term tracking (95th percentile values > 5 satellites visible at a nominal -130 dBm signal strength)	
TTF (Time To First Fix) Cold Start	< 1 minute
TTF (Time To First Fix) Hot Start	< 10 seconds
Horizontal Accuracy	< 10 meters

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature*	-30° C / +60° C
Storage Temperature	-40° C / +85° C
Temperature Shock	Per MIL-STD
Humidity	Per MIL-STD
Water Intrusion	EN60529 - IP57
Packaging Test	MIL-STD 810D and E
* With Lilon battery, operating temperature specification is -10° C / +60° C.	
With NiMH battery, operating temperature specification is -20° C / +60° C	

MILITARY STANDARDS

Applicable MIL-STD	810E		810F	
	Methods	Procedures	Methods	Procedures
Low Pressure	500.3	II	500.4	II
High Temperature	501.3	I/A, II/A1	501.4	I/Hot, II/Hot
Low Temperature	502.3	I/C3, II/C1	502.4	I/C3, II/C1
Temperature Shock	503.3	I/A, 1C3	503.4	I
Solar Radiation	505.3	I	505.4	I
Rain	506.3	I,II	506.4	I, III
Humidity	507.3	II	507.4	-
Salt Fog	509.3	I	509.4	I
Dust	510.3	I	510.4	I
Vibration	514.4	I/10, II/3	514.5	I/24
Shock	516.4	I, IV	516.5	I, IV

FACTORY MUTUAL APPROVALS - DP family of radios are certified by Factory Mutual Approvals as intrinsically safe for use in Division 1, Class I,II,III, Groups C,D,E,F,G, when ordered with the Factory Mutual approved battery option.



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DP3400/3401/SPEC-ENG(01/07)

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DP 3600/3601

Display Portable Radios



Display Portable Radio Standard Package

- Display Portable Radio
- Antenna - Standard whip included with DP 3600; GPS Monopole included with DP 3601
- NiMH 1300 mAh Battery
- IMPRES™ Single Unit Charger
- 2.5" Belt Clip
- Quick Reference Guide

- 1 Flexible, menu-driven interface with user-friendly icons or two lines of text for ease of reading text messages.
- 2 Tri-color LED indicator for clear, visible feedback of calling, scanning and monitoring.
- 3 Emergency button to alert supervisor or dispatcher in an emergency situation. With DP 3601, location coordinates can be sent to dispatcher using GPS.
- 4 New accessory connector meets IP57 submersibility specifications and incorporates RF, USB and enhanced audio capability.
- 5 DP 3601 includes integrated GPS module.
- 6 Large, easy-to-use navigation buttons allow easy access to intuitive menu-driven interfaces.
- 7 Radio housing meets IP57 specifications; submersible in 1 metre of water up to 30 minutes
- 8 Powerful, front projecting speaker.
- 9 Three side and two front programmable buttons for easy access to favourite features. New features such as one-touch calling and quick text messaging are made even easier through programmable button access.
- 10 Large, textured push-to-talk button. Provides good tactile response and easy access, even when wearing gloves.
- 11 160 channels.

Additional Features

- Enhanced call management
Encode/decode: emergency, remote monitor, push-to-talk ID, radio check, all call, radio disable
- Dual-mode analogue/digital scan - facilitates a smooth migration from analogue to digital
- Free-form and quick text messaging

MOTOTRBO™ System Components and Benefits

DP 3600/3601 Display Portable Radios

Specifications

GENERAL SPECIFICATIONS

Channel Capacity	160
Frequency	403-470 MHz
Dimensions (HxWxL)	
with NiMH Battery 1300mAH	131.5 x 63.5 x 37.2 mm
with Lilon Std Battery 1500mAH	131.5 x 63.5 x 35.2 mm
with Lilon FM Battery 1400mAH	131.5 x 63.5 x 37.2 mm
Weight	
with NiMH Battery	430 g
with Lilon FM Battery	370 g
with Lilon Std Battery	360 g
Power Supply	7.2V nominal
Average battery life at 5/5/90 duty cycle with battery saver enabled in carrier squelch and transmitter in high power.	
IMPRES Lilon Std Battery	Analogue: 9 hrs / Digital: 13 hrs
IMPRES FM Lilon Battery	Analogue: 8.5 hrs / Digital: 12 hrs
NiMH Battery	Analogue: 8 hrs / Digital: 11 hrs

RECEIVER

Frequency	403-470 MHz
Channel Spacing	12.5 kHz/ 25 kHz
Frequency Stability	+/- 1.5 ppm (DP 3600)
(-30° C, +60° C, +25° C)	+/- 0.5 ppm (DP 3601)
Analogue Sensitivity	0.35 uV (12 dB SINAD)
	0.22 uV (typical) (12 dB SINAD)
	0.4 uV (20 dB SINAD)
Digital Sensitivity	5% BER: 0.3 uV
Intermodulation	65 dB
Adjacent Channel Selectivity	60 dB @ 12.5 kHz,
	70 dB @ 25 kHz
Spurious Rejection	70 dB
Rated Audio	500 mW
Audio Distortion @ Rated Audio	3% (typical)
Hum and Noise	-40 dB @ 12.5 kHz
	-45 dB @ 25 kHz
Audio Response	+1, -3 dB
Conducted Spurious Emission	-57 dBm

TRANSMITTER

Frequency	403-470 MHz
Channel Spacing	12.5 kHz/ 25 kHz
Frequency Stability	+/- 1.5 ppm (DP 3600)
(-30° C, +60° C, +25° C)	+/- 0.5 ppm (DP 3601)
Power Output	
Low Power	1 W
High Power	4 W
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
Audio Response	+1, -3 dB
Audio Distortion	3%
Digital Vocoder Type	AMBE++
Digital Protocol	ETSI-TS102 361-1

GPS

Accuracy specs are for long-term tracking (95th percentile values > 5 satellites visible at a nominal -130 dBm signal strength)	
TTF (Time To First Fix) Cold Start	< 1 minute
TTF (Time To First Fix) Hot Start	< 10 seconds
Horizontal Accuracy	< 10 meters

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature*	-30° C / +60° C
Storage Temperature	-40° C / +85° C
Temperature Shock	Per MIL-STD
Humidity	Per MIL-STD
Water Intrusion	EN60529 - IP57
Packaging Test	MIL-STD 810D and E
* With Lilon battery, operating temperature specification is -10° C / +60° C.	
With NiMH battery, operating temperature specification is -20° C / +60° C	

MILITARY STANDARDS

Applicable MIL-STD	810E		810F	
	Methods	Procedures	Methods	Procedures
Low Pressure	500.3	II	500.4	II
High Temperature	501.3	I/A, II/A1	501.4	I/Hot, II/Hot
Low Temperature	502.3	I/C3, II/C1	502.4	I/C3, II/C1
Temperature Shock	503.3	I/A, 1C3	503.4	I
Solar Radiation	505.3	I	505.4	I
Rain	506.3	I,II	506.4	I, III
Humidity	507.3	II	507.4	-
Salt Fog	509.3	I	509.4	I
Dust	510.3	I	510.4	I
Vibration	514.4	I/10, II/3	514.5	I/24
Shock	516.4	I, IV	516.5	I, IV

FACTORY MUTUAL APPROVALS - DP family of radios are certified by Factory Mutual Approvals as intrinsically safe for use in Division 1, Class I,II,III, Groups C,D,E,F,G, when ordered with the Factory Mutual approved battery option.



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DP3600/3601/SPEC-ENG(01/07)

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DR 3000

Repeater



- 1 100% continuous full duty cycle at 25-40W
- 2 Supports two simultaneous voice or data paths in digital TDMA mode.
- 3 Integrated power supply.
- 4 Operates in analogue or digital mode, bright, clear, colored LEDs indicate mode.
- 5 LEDs clearly indicate transmit and receive modes in both channel slots.
- 6 Sturdy handles make installation and handling easier.

Repeater Standard Package

- Repeater
- Power Cord

MOTOTRBO™ System Components and Benefits
DR 3000 - REPEATER

Specifications

GENERAL SPECIFICATIONS

Channel Capacity	1
Typical RF Output	
Low Power	1-25 W
High Power	25-40 W
Frequency	403-470 MHz
Dimensions (HxWxL)	132.6 x 482.6 x 296.5 mm
Weight	14 kg
Voltage Requirements	100-240 V AC (13.6 V DC)
Current Drain: Standby	0.5A (1A DC typical)
Transmit	1.5A (11A DC typical)
Operating Temperature Range	-30°C to +60°C
Max Duty Cycle	100%

RECEIVER

Frequencies	403-470 MHz
Channel Spacing	12.5 kHz / 25 kHz
Frequency Stability	+/- 0.5 ppm
(-30° C, +60° C, +25° C)	
Analogue Sensitivity	0.30 uV (12 dB SINAD)
	0.22 uV (typical) (12 dB SINAD)
	0.4uV (20 dB SINAD)
Digital Sensitivity	5% BER: 0.3 uV
Intermodulation	70 dB
Adjacent Channel Selectivity	60 dB @ 12.5 kHz,
	70 dB @ 25 kHz
Spurious Rejection	70 dB
Audio Distortion @ Rated Audio	3% (typical)
Hum and Noise	-40 dB @ 12.5 kHz
	-45 dB @ 25 kHz
Audio Response	+1, -3 dB
Conducted Spurious Emission	-57 dBm < 1GHz

TRANSMITTER

Frequencies	403-470 MHz
Channel Spacing	12.5 kHz / 25 kHz
Frequency Stability	+/- 0.5 ppm
(-30° C, +60° C, +25° C)	
Power Output	
Low Power	1-25 W
High Power	25-40 W
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
	-30 dBm > 1 GHz
Adjacent Channel Power	-60 dB @ 12.5 kHz
	-70 dB @ 25 kHz
Audio Response	+1, -3 dB
Audio Distortion	3%
Digital Vocoder Type	AMBE++
Digital Protocol	ETSI-TS102 361-1



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DR3000/SPEC-ENG(01/07)

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