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.

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
- DP 3401 can transmit GPS coordinates
- Privacy Options
- VOX Capability
- Multiple Site Support (IP Site Connect)

MOTOTRBO™ System Components and Benefits

DP 3400/3401 Non-display Portable Radios

Specifications

GENERAL SPECIFICATIONS

Channel Capacity	32
Frequency	136-174 MHz (VHF) 403-470 MHz (UHF1) 450-512 MHz (UHF2)
Dimensions (HxWxL)	
with NiMH Battery 1300mAH	131.5 x 63.5 x 37.2 mm
with LiIon Std Battery 1500mAH	131.5 x 63.5 x 35.2 mm
with LiIon HiCap Battery 2200mAH	131.5 x 63.5 x 39.2 mm
with LiIon FM Battery 1400mAH	131.5 x 63.5 x 37.2 mm
Weight	
with NiMH Battery	400 g
with LiIon FM Battery	340 g
with LiIon HiCap Battery	345 g
with LiIon 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 LiIon Std Battery	Analogue: 9 hrs / Digital: 13 hrs
IMPRES LiIon HiCap Battery	Analogue: 13.5hrs / Digital: 19 hrs
IMPRES FM LiIon Battery	Analogue: 8.5 hrs / Digital: 12 hrs
NiMH Battery	Analogue: 8 hrs / Digital: 11 hrs

RECEIVER

Frequency	136-174 MHz (VHF) 403-470 MHz (UHF1) 450-512 MHz (UHF2)
Channel Spacing	12.5 kHz/ 20 kHz[1]/ 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 @ 20/25 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 @ 20/25 kHz
Audio Response	+1, -3 dB
Conducted Spurious Emission	-57 dBm

TRANSMITTER

Frequency	136-174 MHz (VHF) 403-470 MHz (UHF1) 450-512 MHz (UHF2)
Channel Spacing	12.5 kHz/ 20 kHz[1]/ 25 kHz
Frequency Stability	+/- 1.5 ppm (DP 3400)
(-30° C, +60° C, +25° C)	+/- 0.5 ppm (DP 3401)
Power Output	
UHF1 and UHF2	1W and 4 W
VHF	1W and 5 W
Modulation Limiting	+/- 2.5 kHz @ 12.5 kHz +/- 4 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 -30dBm > 1GHz
Adjacent Channel Power	-60 dB @ 12.5 kHz -70 dB @ 20/25 kHz
Audio Response	+1, -3 dB
Audio Distortion	3%
Digital Vocoder Type	AMBE+2
Digital Protocol	ETSI-TS 102 361-1, 2 & 3

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	< 2 minutes
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 Intrusion	EN60529 - IP57
Packaging Test	MIL-STD 810D and E

* With LiIon battery, operating temperature specification is -10° C / +60° C. With NiMH battery, operating temperature specification is -20° C / +60° C

MILITARY STANDARDS

	810E		810F	
Applicable MIL–STD	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

[1] 20 kHz is not supported in 450 - 512 MHz (UHF2)

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. Two versions of the VHF (136-174 MHz) portable are available; one which does not support 20 kHz, but can be ordered with the Factory Mutual approved battery option and one which supports 20 kHz but can not be ordered with the FM approved battery option.

For more information please contact your local Motorola Authorised Dealer or Distributor

MOTOROLA

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All specifications shown are typical. Radio meets applicable regulatory requirements.

DP3400/3401/SPEC-ENG(02/09)

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