



# MOTOTRBO™

## DP3600/DP3601/DP3400/DP3401 Portable Radios



Portable radios available in Display and Non-Display, **GPS and Non-GPS models**.

Uses Time-Division Multiple-Access (TDMA) digital technology which **doubles the number of users** on a single licensed 12.5 kHz channel.

**Integrates voice and data** to increase operational efficiency.

Provides **clearer voice communications** throughout the coverage area.

Up to **40 percent longer** battery life between recharges.

**Enhanced call management** features include call alert, emergency, remote monitor, push-to-talk ID, radio check, private call, all call, radio disable.

Features the **transmit interrupt** suite—voice interrupt, remote voice dekey, emergency voice interrupt or data over voice interrupt—to help prioritise critical communication exactly when needed.

**IP Site Connect** provides automatic roaming from one coverage area to another with no manual intervention or interruption.

The **enhanced privacy** mode further protects the voice and data communications.

**Emergency button** alerts supervisor or dispatcher in an emergency situation.

Optional **Capacity Plus** trunking enables repeaters to manage the availability of active channels. Users are automatically connected to co-workers without switching channels.

**Lone Worker feature** alerts supervisor or dispatch by sending out an alarm when there is no radio activity over a specified duration of time.

Allows an **easy migration** from analogue to digital with the ability to operate in both modes.

DP3601 can **transmit location coordinates** with an emergency call.

Send short free-form and quick **text messaging** via programmable buttons.

DP3600/DP3601 contacts list allows up to **500/1000 contacts** (analogue/digital).

Meets **IP57 submersibility** standard along with U.S. Military Standards 810 C, D, E, and F and Motorola standards for durability and reliability.

Offered with an **intrinsically safe** option certified by Factory Mutual Approvals (FM) for use in hazardous classified areas. Can be used in locations where flammable gas, vapors or combustible dust may be present.

Accessory connector meets IP57 submersibility specifications, incorporates RF, and USB and utilises the IMPRES™ Audio System for **enhanced audio functionality**.

Utilises Motorola's state-of-the art **IMPRES** technology—providing **longer talk times and clearer audio delivery**.

### Accelerate performance.

The next-generation professional two-way radio communications solution is here, with more performance, productivity and value – thanks to digital technology that delivers increased capacity and spectrum efficiency, integrated data communications and enhanced voice communications.

MOTOTRBO complies with the European Telecommunications Standards Institute (ETSI) Digital Mobile Radio (DMR) tier two standard, a globally recognised and approved standard for the professional two-way radio market.

MOTOTRBO offers you a private, standards-based, cost-effective solution that can be tailored to meet your unique coverage and feature needs. This versatile portfolio provides a complete system of portable radios, mobile radios, repeaters, accessories and data applications.

## General Specifications\*

|  | DP3600 Display Non-GPS Model<br>DP3601 Display GPS Model |               |               | DP3400 Non-Display Non-GPS Model<br>DP3401 Non-Display GPS Model |               |             |
|--|--|---------------|---------------|--|---------------|-------------|
|  | UHF  | VHF           |               | UHF  | VHF           |             |
| Channel Capacity   | 1000   |               |               | 32   |               |             |
| Frequency  | 403 - 470 MHz  | 450 - 527 MHz | 136 - 174 MHz | 403 - 470 MHz  | 450 - 527 MHz | 136-174 MHz |
| Dimension (HxWxT) w/ 1500 mAh Lilon Battery  | 131.5 x 63.5 x 35.2 mm                                   |               |               | 131.5 x 63.5 x 35.2 mm   |               |             |
| Weight (with 1500 mAh Lilon Battery)   | 360g (12.7 oz)   |               |               | 360g (12.7 oz)   |               |             |
| (with 2200 mAh Lilon Battery)  | 361g (12.8 oz)   |               |               | 361g (12.8 oz)   |               |             |
| (with 1400 mAh Lilon FM Battery)   | 370g (13 oz)   |               |               | 370g (13 oz)   |               |             |
| Power Supply   | 7.5 VDC (nominal)  |               |               | 7.5 VDC (nominal)  |               |             |
| FCC Description  | AZ489FT4876  | AZ489FT4884   | AZ489FT3815   | AZ489FT4876  | AZ489FT4884   | AZ489FT3815 |
| Average battery life at 5/5/90 duty cycle with battery saver enabled in carrier squelch and transmitter in high power. |  |               |               |  |               |             |
| IMPRES 1500 mAh Lilon Battery  | Analog: 9 hrs<br>Digital: 13 hrs                         |               |               | Analog: 9 hrs<br>Digital: 13 hrs                                 |               |             |
| IMPRES 2200 mAh Lilon Battery  | Analog: 13.5 hrs<br>Digital: 19 hrs                      |               |               | Analog: 13.5 hrs<br>Digital: 19 hrs                              |               |             |
| IMPRES FM 1400 mAh Battery   | Analog: 8.5 hrs<br>Digital: 12 hrs                       |               |               | Analog: 8.5 hrs<br>Digital: 12 hrs                               |               |             |

### Receiver

|   | 403 - 470 MHz  | 450 - 527 MHz | 136 - 174 MHz | 403 - 470 MHz  | 450 - 527 MHz | 136-174 MHz |
|---|--|---------------|---------------|--|---------------|-------------|
| Frequencies                               |  |               |               |  |               |             |
| Channel Spacing                           | 12.5 kHz/ 25 kHz   |               |               | 12.5 kHz/ 25 kHz   |               |             |
| Frequency Stability (-30°C, +60°C, +25°C) | ±1.5 ppm (DP3600)<br>±0.5 ppm (DP3601)                             |               |               | ±1.5 ppm (DP3400)<br>±0.5 ppm (DP3401)                             |               |             |
| Analog Sensitivity                        | 0.35 uV (12 dB SINAD)<br>0.4 uV (20 dB SINAD)<br>0.22 uV (typical) |               |               | 0.35 uV (12 dB SINAD)<br>0.4 uV (20 dB SINAD)<br>0.22 uV (typical) |               |             |
| Digital Sensitivity                       | 5% BER: 0.3 uV   |               |               | 5% BER: 0.3 uV   |               |             |
| Intermodulation TIA603C                   | 70 dB  |               |               | 70 dB  |               |             |
| ETSI                                      | 65 dB  |               |               | 65 dB  |               |             |
| Adjacent Channel Selectivity              | 60 dB @ 12.5 kHz<br>70 dB @ 25 kHz                                 |               |               | 60 dB @ 12.5 kHz<br>70 dB @ 25 kHz                                 |               |             |
| Spurious Rejection                        | 70 dB  |               |               | 70 dB  |               |             |
| Rated Audio                               | 500 mW   |               |               | 500 mW   |               |             |
| Audio Distortion @ Rated Audio            | 3% (typical)   |               |               | 3% (typical)   |               |             |
| Hum and Noise                             | -40 dB @ 12.5 kHz<br>-45 dB @ 25 kHz                               |               |               | -40 dB @ 12.5 kHz<br>-45 dB @ 25 kHz                               |               |             |
| Audio Response                            | +1, -3 dB  |               |               | +1, -3 dB  |               |             |
| Conducted Spurious Emission               | -57 dBm  |               |               | -57 dBm  |               |             |

### Transmitter

|   | 403 - 470 MHz   | 450 - 527 MHz | 136 - 174 MHz | 403 - 470 MHz   | 450 - 527 MHz | 136-174 MHz |
|---|---|---------------|---------------|---|---------------|-------------|
| Frequencies                               |   |               |               |   |               |             |
| Channel Spacing                           | 12.5 kHz/ 25 kHz  |               |               | 12.5 kHz/ 25 kHz  |               |             |
| Frequency Stability (-30°C, +60°C, +25°C) | ±1.5 ppm (DP3600)<br>±0.5 ppm (DP3601)                        |               |               | ±1.5 ppm (DP3400)<br>±0.5 ppm (DP3401)                        |               |             |
| Power Output                              |   |               |               |   |               |             |
| Low Power                                 | 1W  |               | 1W            | 1W  |               | 1W          |
| High Power                                | 4W  |               | 5W            | 4W  |               | 5W          |
| Modulation Limiting                       | ±2.5 kHz @ 12.5 kHz<br>±5.0 kHz @ 25 kHz                      |               |               | ±2.5 kHz @ 12.5 kHz<br>±5.0 kHz @ 25 kHz                      |               |             |
| FM Hum and Noise                          | -40 dB @ 12.5 kHz<br>-45 dB @ 25 kHz                          |               |               | -40 dB @ 12.5 kHz<br>-45 dB @ 25 kHz                          |               |             |
| Conducted / Radiated Emission             | -36 dBm < 1 GHz<br>-30 dBm > 1 GHz and < 4GHz                 |               |               | -36 dBm < 1 GHz<br>-30 dBm > 1 GHz and < 4GHz                 |               |             |
| Adjacent Channel Power                    | -60 dB @ 12.5 kHz<br>-70 dB @ 25 kHz                          |               |               | -60 dB @ 12.5 kHz<br>-70 dB @ 25 kHz                          |               |             |
| Audio Response                            | +1, -3 dB   |               |               | +1, -3 dB   |               |             |
| Audio Distortion                          | 3%  |               |               | 3%  |               |             |
| FM Modulation                             | 12.5 kHz : 11K0F3E<br>25 kHz: 16K0F3E                         |               |               | 12.5 kHz : 11K0F3E<br>25 kHz: 16K0F3E                         |               |             |
| 4FSK Digital Modulation                   | 12.5 kHz Data Only: 7K60FXD<br>12.5 kHz Data & Voice: 7K60FXE |               |               | 12.5 kHz Data Only: 7K60FXD<br>12.5 kHz Data & Voice: 7K60FXE |               |             |
| Digital Vocoder Type                      | AMBE+2™   |               |               | AMBE+2™   |               |             |
| Digital Protocol                          | ETSI-TS102 361-1  |               |               | 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  |

### Factory Mutual Approvals

MOTOTRBO DP Portable series radios have been certified by FM Approvals in accordance with Canada and 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.

### Environmental Specifications

|                       |                    |
|-----------------------|--------------------|
| Operating Temperature | -30°C / +60°C      |
| Storage Temperature   | -40°C / +85°C      |
| Thermal Shock         | Per MIL-STD        |
| Humidity              | Per MIL-STD        |
| ESD                   | IEC-801-2KV        |
| Water Intrusion       | IEC 60529 - IP57   |
| Packaging Test        | MIL-STD 810D and E |

\*Availability subject to country law and regulations. Specifications subject to change without notice. All specifications shown are typical. Radio meets applicable regulatory requirements.

Conforms to  
EC 1999/5/EC (R&TTE - Radio and Telecommunications Terminal Equipment)  
EN 300 086  
EN 300 113



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BTB/MA521 MotoTRBO Portable

Recommended Dealer: **HKRSolutions**  
www.hkrsolutions.com Two-way Radio & Accessories Specialist