MOTOROLA

TWO-WAY RADIOS

# GP680: The Versatile Radio

The GP680 is essential for growing organisations because of its unique versatility. When necessary, the radio can easily be programmed in the field to add or delete features. So, whether it's the harsh environment of a construction site or the elegance of an exclusive hotel, the radio of choice is the Versatile. It's the radio that grows with you.






As Dedicated As You Are

Professional Radio

## A wide array of features include:

- Signalling
  *The fully compliant MPT signalling package includes MPT1343, Regionet 43 and ANN modes of operation. Radios are configurable for up to 4 personalities including Talkgroup Select and Conventional signalling.*
- X-Pand™ Voice Compression and Low Level Expansion
  *Crisp, clear and strong audio quality in virtually any noisy environment. Low level expansion allows further improvements in audio quality by reducing noise usually heard during pauses in conversation.*
- User Information
  *A 14-character alpha-numeric display contains a battery gauge and signal quality indicator and provides separate distinctive tones plus name decode for many incoming calls.*
- Ease of Use
  *One touch dialling, simple menus and an alpha-numericphonebook/contact list make the full power of GP680 simple and intuitive to use.*
- Dynamic Regrouping
  *Provides over-the-air reconfiguration of the radio plus download of group identity in a meaningful alpha-numeric form.*
- Option Board Expandability
  *You can expand the capabilities of GP680 by adding option boards such as Voice Storage.*
- Wideband and Programmable Channel Spacing
  *Provides flexibility in deployment and stocking*

**Please check with your dealer for availability on specific option boards.**

# GP680 Portable Two-Way Radio Specifications

| General Specifications | | |
|---|---|---|
| Channel Capacity | 16 (Conventional Mode) | |
| Power Supply | Rechargeable battery 7.5v | |
| Dimensions: H x W x D (mm)<br>With standard high capacity NiMH battery<br>With ultra high capacity NiMH battery<br>With NiCD battery<br>With Lilon battery | Height excluding knobs<br>137 x 57.5 x 37.5<br>137 x 57.5 x 40.0<br>137 x 57.5 x 40.0<br>137 x 57.5 x 33.0 | |
| Weight: (gm)<br>With Standard high capacity NiMH battery<br>With Ultra high capacity NiMH battery<br>With NiCD battery<br>With Lilon battery | <br>428<br>508<br>458<br>358 | |
| Average Battery Life @5/5/90 Cycle:<br>With Standard high capacity NiMH battery<br>With Ultra high capacity NiMH battery<br>With NiCD battery<br>With Lilon battery | Low Power<br>11 hours<br>14 hours<br>12 hours<br>11 hours | High Power<br>8 hours<br>11 hours<br>9 hours<br>8 hours |
| Sealing: | Withstands rain testing per MIL STD 810 C/D/E and IP54 | |
| Shock and Vibration: | Protection provided via impact resistant housing exceeding MIL STD 810-C/D/E and TIA/EIA 603 | |
| Dust and Humidity: | Protection provided via environment resistant housing exceeding MIL STD 810 C/D/E and TIA/EIA 603 | |

| Portable Military Standards 810 C, D, & E | | | | | | |
|---|---|---|---|---|---|---|
| | 810C | | 810D | | 810E | |
| Applicable MIL-STD | Methods | Procedures | Methods | Procedures | Methods | Procedures |
| Low Pressure | 500.1 | 1 | 500.2 | 2 | 500.3 | 2 |
| High Temperature | 501.1 | 1,2 | 501.2 | 1,2 | 501.3 | 1,2 |
| Low Temperature | 502.1 | 1 | 502.2 | 1,2 | 502.3 | 1,2 |
| Temp. Shock | 503.1 | 1 | 503.2 | 1 | 503.3 | 1 |
| Solar Radiation | 505.1 | 1 | 505.2 | 1 | 505.3 | 1 |
| Rain | 506.1 | 1,2 | 506.2 | 1,2 | 506.3 | 1,2 |
| Humidity | 507.1 | 2 | 507.2 | 2,3 | 507.3 | 2,3 |
| Salt Fog | 509.1 | 1 | 509.2 | 1 | 509.3 | 1 |
| Dust | 510.1 | 1 | 510.2 | 1 | 510.3 | 1 |
| Vibration | 514.2 | 8,10 | 514.3 | 1 | 514.4 | 1 |
| Shock | 516.2 | 1,2,5 | 516.3 | 1,4 | 516.4 | 1,4 |

Data for +25°C unless otherwise specified

| Transmitter | |
|---|---|
| *Frequencies - Full Bandsplit | VHF: 136-174 MHz<br>UHF: 300-350 MHz<br>UHF 1: 403-470 MHz<br>UHF 2: 450-527 MHz |
| Channel Spacing | 12.5/20/25 kHz |
| Frequency Stability<br>(-25°C to +55°C, +25° Ref.) | ±2.5 ppm |
| Power | 136-174: 1-5W<br>300-350: 1-4W<br>403-470: 1-4W<br>450-527: 1-4W |
| Modulation Limiting | ±2.5 @ 12.5 kHz<br>±4.0 @ 20 kHz<br>±5.0 @ 25 kHz |
| FM Hum & Noise | -40 dB typical |
| Conducted/Radiated Emission | -36 dBm <1 GHz<br>-30 dBm >1 GHz |
| Adjacent Channel Power | -60 dB @ 12.5 kHz<br>-70 dB @ 20/25 kHz |
| Audio Response (300-3000Hz) | +1 to -3 dB |
| Audio Distortion | 3% |

| Receiver | |
|---|---|
| *Frequencies - Full Bandsplit | VHF: 136-174 MHz<br>UHF: 300-350 MHz<br>UHF 1: 403-470 MHz<br>UHF 2: 450-527 MHz |
| Channel Spacing | 12.5/20/25 kHz |
| Frequency Stability<br>(-25°C to +55°C, +25° Ref.) | ±2.5 ppm |
| Sensitivity (12 dB SINAD) EIA<br>Sensitivity (20 dB SINAD) ETS | .25 µV typical<br>.50 µV typical |
| Intermodulation EIA | 70 dB |
| Adjacent Channel Selectivity | 60 dB @ 12.5 kHz<br>70 dB @ 20/25 kHz |
| Spurious Rejection | 70 dB |
| Rated Audio | 0.5W |
| Audio Distortion<br>@ Rated Audio | 3% typical |
| Hum & Noise | -40 dB @ 12.5 kHz<br>-50 dB @ 20/25 kHz |
| Audio Response (300-3000 Hz) | +1 to -3 dB |
| Conducted Spurious Emission | -57 dBm <1 GHz<br>-47 dBm >1 GHz<br>ETS 300 086 |

*Availability subject to individual country's law and regulations.

Specifications are subject to change without notice and are issued for guidance purposes only.

All specifications listed are typical. Radios meet applicable regulatory requirements.

Conforms to EC directive 89/336/EEC

Complies with ETS 300 113

Contact your local Authorised Motorola Dealer to find out more about how communicating with the Professional Radio series will benefit your organisation.


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For exceptional performance, reliability and quality, Motorola Original accessories and batteries are the only options. For full details, please refer to the Professional Radio Series Accessories brochure.







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