

MOTO**TRBO**™

PROFESSIONAL DIGITAL TWO-WAY RADIO SYSTEM

|                                                                                  |                                                                                                                                           | DP1000 SERIES                                                                     | R2                                                                                | DP2000e SERIES                                                                    |                                                                                    | DP3000e SERIES                                                                      |                                                                                     | DP4000e SERIES                                                                      |                                                                                     |                                                                                     | R7 SERIES                                                                           |                                                                                     |                                                                                     | DP4000 Ex SERIES                                                                    |                                                                                                  | ION SMART RADIO                                                                     | SL SERIES                                                                           |                                                                                     | DM1000 SERIES                                                                       | DM2000 SERIES                                                                       | DM4000e SERIES                                                                      |                                                                                      |                                                                                     |        |  |
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| GENERAL SPECIFICATIONS                                                           |                                                                                                                                           |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                                  |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                     |        |  |
| Protocol                                                                         | DMR or analogue communications                                                                                                            |                                                                                   | Analogue / Digital or Analogue Only                                               | Analogue / Digital or Analogue Only                                               | Analogue / Digital                                                                 |                                                                                     | Analogue / Digital                                                                  |                                                                                     | Analogue / Digital                                                                  |                                                                                     |                                                                                     | Analogue / Digital                                                                  |                                                                                     |                                                                                     | Analogue / Digital                                                                               |                                                                                     | Analogue / Digital                                                                  | Analogue / Digital                                                                  |                                                                                     | Analogue / Digital                                                                  | Analogue / Digital                                                                  | Analogue / Digital                                                                   |                                                                                     |        |  |
| Frequency                                                                        | Capable of operating in the following frequency ranges                                                                                    |                                                                                   | VHF: 136-174MHz UHF: 403-470MHz                                                   | VHF: 136-174MHz UHF: 400-480MHz                                                   | VHF: 136-174MHz / UHF: 403-527MHz 300 <sup>1</sup> : 300-360, 350-400MHz           |                                                                                     | VHF: 136-174MHz UHF: 403-527MHz                                                     |                                                                                     | VHF: 136-174MHz / UHF: 403-527MHz 300 <sup>1</sup> : 300-360, 350-400MHz            |                                                                                     |                                                                                     | VHF: 136-174MHz UHF: 400-527MHz                                                     |                                                                                     |                                                                                     | VHF: 136-174MHz UHF: 403-470MHz                                                                  |                                                                                     | UHF: 400-527MHz                                                                     | VHF: 136-174MHz UHF: 403-470MHz                                                     |                                                                                     | VHF: 136-174MHz UHF: 403-470MHz                                                     | VHF: 136-174MHz UHF: 403-470MHz                                                     | VHF: 136-174MHz / UHF: 403-470MHz, 450-527MHz 300 <sup>1</sup> : 300-360, 350-400MHz |                                                                                     |        |  |
| Max. Power Output                                                                | Radio's full power rating                                                                                                                 |                                                                                   | 4W UHF / 5W VHF                                                                   | 4W UHF / 5W VHF                                                                   | 4W 300MHz/UHF / 5W VHF                                                             |                                                                                     | 4W UHF / 5W VHF                                                                     |                                                                                     | 4W 300MHz/UHF / 5W VHF                                                              |                                                                                     |                                                                                     | 4W UHF / 5W VHF                                                                     |                                                                                     |                                                                                     | 1W UHF / VHF                                                                                     |                                                                                     | 4 W                                                                                 | 2W(an) / 3W(dig)                                                                    |                                                                                     | 25W or 40 / 45W <sup>14</sup>                                                       | 25W or 40 / 45W <sup>14</sup>                                                       | 25W or 40 / 45W <sup>14</sup>                                                        |                                                                                     |        |  |
| Max. Channel Capacity                                                            | Programmable channel capacity                                                                                                             |                                                                                   | 32                                                                                | 64                                                                                | 32                                                                                 |                                                                                     | 32                                                                                  |                                                                                     | 32                                                                                  |                                                                                     |                                                                                     | 64                                                                                  |                                                                                     |                                                                                     | 32                                                                                               |                                                                                     | 1000                                                                                | 99                                                                                  |                                                                                     | 160                                                                                 | 160                                                                                 | 99                                                                                   |                                                                                     |        |  |
| Channel Spacing                                                                  | Programmable channel spacing                                                                                                              |                                                                                   | 12.5 / 20 / 25 kHz                                                                | 12.5 / 20 / 25 kHz                                                                | 12.5 / 20 <sup>1</sup> / 25 kHz                                                    |                                                                                     | 12.5 / 20 / 25 kHz                                                                  |                                                                                     | 12.5 / 20 <sup>1</sup> / 25 kHz                                                     |                                                                                     |                                                                                     | 12.5 / 20 / 25 kHz                                                                  |                                                                                     |                                                                                     | 12.5 / 20 / 25 kHz                                                                               |                                                                                     | 102 mm colour display, 480 x 800 px                                                 | 12.5 / 20 / 25 kHz                                                                  |                                                                                     | 12.5 / 20 / 25 kHz                                                                  | 12.5 / 20 / 25 kHz                                                                  | 12.5 / 20 <sup>1</sup> / 25 kHz                                                      |                                                                                     |        |  |
| Display                                                                          | Displays provide easy access to advanced features                                                                                         |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | No                                                                                  |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | 2-digit numeric                                                                     | 2 line monochrome                                                                   | 2 line monochrome                                                                    | 2-digit numeric                                                                     |        |  |
| Keypad                                                                           | Keypads provide access to radio controls, texting and telephony                                                                           |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | No                                                                                  |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | No                                                                                  |        |  |
| Audio Recording                                                                  | Enables the radio to record received voice calls                                                                                          |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | No                                                                                  |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | No                                                                                  |        |  |
| Integrated GPS                                                                   | Embedded GPS receiver for location monitoring                                                                                             |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     | Yes <sup>1</sup>                                                                    |                                                                                     |                                                                                     | Yes <sup>17</sup>                                                                   |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | Yes <sup>1</sup>                                                                    |        |  |
| Integrated GLONASS                                                               | Embedded GLONASS receiver for location monitoring                                                                                         |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     | Yes <sup>1</sup>                                                                    |                                                                                     |                                                                                     | Yes <sup>17</sup>                                                                   |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | Yes <sup>1</sup>                                                                    |        |  |
| Event Driven Location Updates                                                    | Location update based on input from external device (eg door sensor)                                                                      |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | No                                                                                  |                                                                                     | Yes <sup>11</sup>                                                                   |                                                                                     |                                                                                     | Yes <sup>17</sup>                                                                   |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | Yes <sup>11</sup>                                                                   |        |  |
| Distance Driven Location Updates                                                 | Location update transmission based on distance travelled                                                                                  |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     | Yes <sup>11</sup>                                                                   |                                                                                     |                                                                                     | Yes <sup>17</sup>                                                                   |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | Yes <sup>11</sup>                                                                   |        |  |
| Integrated Bluetooth 2.1                                                         | Wireless connection for audio accessories or data comms                                                                                   |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | n/a                                                                                 |                                                                                     | n/a                                                                                 |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | n/a                                                                                 |        |  |
| Integrated Bluetooth 4.0                                                         | Energy efficient Bluetooth for greater battery life                                                                                       |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | Audio and Data                                                                      |                                                                                     | Audio and Data <sup>1</sup>                                                         |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | Audio and Data <sup>1</sup>                                                         |        |  |
| Integrated Bluetooth 5.0                                                         | Draws less power than Bluetooth 4.2, which helps accessories with small batteries, such as earpieces, to last longer                      |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | No                                                                                  |                                                                                     | Audio and Data <sup>19</sup>                                                        |                                                                                     |                                                                                     | Yes <sup>17</sup>                                                                   |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | No                                                                                  |        |  |
| Permanent Bluetooth Discovery                                                    | Bluetooth "always on" mode used by some applications                                                                                      |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     | No <sup>18</sup>                                                                    |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | No                                                                                  |        |  |
| Smartphone Collaboration                                                         | M-Radio Control App allows user to view radio status and control selected features                                                        |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | No                                                                                  |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | No                                                                                  |        |  |
| Dedicated Emergency Button                                                       | Orange programmable button for one-touch emergency calling                                                                                |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | No                                                                                  |        |  |
| Programmable Buttons                                                             | Allow access to most often used features with one press                                                                                   |                                                                                   | 2                                                                                 | 2                                                                                 | 2                                                                                  |                                                                                     | 4                                                                                   |                                                                                     | 2                                                                                   |                                                                                     |                                                                                     | 5                                                                                   |                                                                                     |                                                                                     | 3                                                                                                |                                                                                     |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | 3                                                                                   |                                                                                     | 4                                                                                   | 4                                                                                    | 4                                                                                   | 4      |  |
| Digital DMR Signalling                                                           | DMR standard digital voice communications                                                                                                 |                                                                                   | Yes <sup>8</sup>                                                                  | Yes <sup>8</sup>                                                                  | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | Yes                                                                                 |        |  |
| PL / DPL Signalling                                                              | Analogue Private Line / Digital Private Line compatible                                                                                   |                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | Yes                                                                                 |        |  |
| Quick Call II Signalling                                                         | Analogue Quick Call II compatible                                                                                                         |                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | Yes                                                                                 |        |  |
| MDC Signalling                                                                   | Analogue MDC compatible                                                                                                                   |                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | Yes                                                                                 |        |  |
| 5 Tone Signalling                                                                | Analogue 5 tone compatible                                                                                                                |                                                                                   | No                                                                                | No                                                                                | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | No                                                                                  |        |  |
| DTMF Hot Keypad                                                                  | DTMF tone compatible                                                                                                                      |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | No                                                                                  |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Option                                                                              |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | Yes <sup>5</sup>                                                                    |        |  |
| MPT1327 Signalling                                                               | Analogue MPT1327 compatible (requires option board)                                                                                       |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | No                                                                                  |                                                                                     | Option <sup>7</sup>                                                                 |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | Option                                                                              |        |  |
| Option Board Capability                                                          | Supports option boards for third party applications                                                                                       |                                                                                   | No                                                                                | No                                                                                | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | Yes                                                                                 |        |  |
| IMPRES™ Audio Compatible                                                         | IMPRES™ audio ensures your voice is heard clearer and louder                                                                              |                                                                                   | No                                                                                | No                                                                                | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | Yes                                                                                 |        |  |
| SINCR+ Noise Cancellation                                                        | Integrated, advanced noise cancellation for noisy environments                                                                            |                                                                                   | No                                                                                | Option                                                                            | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | Yes                                                                                 |        |  |
| Automatic Gain Control                                                           | Modifies microphone performance to produce the best voice quality                                                                         |                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | Yes                                                                                 |        |  |
| Microphone Distortion Control                                                    | Automatic microphone gain adjustment to reduce distortion                                                                                 |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | No                                                                                  |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | No                                                                                  |        |  |
| Tail Enhancement                                                                 | Additional processing to enhance rolling "r" sound so speech is clearer                                                                   |                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | Yes                                                                                 |        |  |
| IMPRES™ Energy Compatible                                                        | Use IMPRES™ batteries for longer life and optimal performance                                                                             |                                                                                   | No                                                                                | No                                                                                | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | n/a                                                                                 |        |  |
| IMPRES™ OTA Battery Management                                                   | Automatic collection of battery data over the air with radios still in use                                                                |                                                                                   | No                                                                                | No                                                                                | Yes <sup>19</sup>                                                                  |                                                                                     | Yes <sup>19</sup>                                                                   |                                                                                     | Yes <sup>19</sup>                                                                   |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes <sup>18</sup>                                                                                |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | n/a                                                                                 |        |  |
| ATEX Certified                                                                   | ATEX certified for use in potentially explosive environments                                                                              |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | No                                                                                  |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | Gas: Class II 2G Ex ib IIC T4 Gb Dust: Class II 2D Ex ib IIIC T130 °C Db Mining: I M2 Ex ib I Mb |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | No                                                                                  |        |  |
| IEC Ex Certified                                                                 | IEC Ex certified for use in potentially explosive environments                                                                            |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | No                                                                                  |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | Gas: Ex ib IIC T4 Gb / Dust: Ex ib IIIC T130°C Db / Mining: Ex ib I Mb                           |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | No                                                                                  |        |  |
| TIA4950 Certified                                                                | Telecommunications Industry Association (TIA) approved for IS use                                                                         |                                                                                   | No                                                                                | No                                                                                | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | No                                                                                  |        |  |
| SOLAS, MED/5.20, UK/5.20                                                         | Meets requirements of Marine Equipment Directive 2014/90/EU Item 5.20 and Merchant Shipping (Marine Equipment) Regulations 2016 Item 5.20 |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | No                                                                                  |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | Yes (UHF)                                                                                        |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | Menu buttons                                                                        | Menu buttons                                                                        | Menu buttons                                                                         | No                                                                                  |        |  |
| IP Rating                                                                        | Rated sealing for dust and water ingress                                                                                                  |                                                                                   | IP54                                                                              | IP55                                                                              | IP67                                                                               |                                                                                     | IP68                                                                                |                                                                                     | IP68                                                                                |                                                                                     |                                                                                     | IP67                                                                                |                                                                                     |                                                                                     | IP68 / IP68                                                                                      |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | IP68                                                                                |                                                                                     | IP54                                                                                | IP54                                                                                | IP54                                                                                 | IP54                                                                                |        |  |
| MIL-STD 810                                                                      | Rated to withstand environmental conditions                                                                                               |                                                                                   | C, D, E, F & G                                                                    | C, D, E, F, G & H                                                                 | C, D, E, F & G                                                                     |                                                                                     | C, D, E, F & G                                                                      |                                                                                     | C, D, E, F & G                                                                      |                                                                                     |                                                                                     | C, D, E, F & G                                                                      |                                                                                     |                                                                                     | C, D, E, F & G                                                                                   |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | C, D, E, F & G                                                                      |                                                                                     | C, D, E, F & G                                                                      | C, D, E, F & G                                                                      | C, D, E, F & G                                                                       | C, D, E, F & G                                                                      |        |  |
| Dimensions (HxWxL) mm                                                            | Physical size                                                                                                                             |                                                                                   | 128 x 62 x 39 <sup>1</sup>                                                        | 125 x 55 x 36.8 <sup>1</sup>                                                      | 122 x 56 x 36 <sup>1</sup>                                                         |                                                                                     | 100 x 55 x 30 <sup>3</sup>                                                          |                                                                                     | 130 x 55 x 34 <sup>3</sup>                                                          |                                                                                     |                                                                                     | 132 x 56 x 31 mm                                                                    |                                                                                     |                                                                                     | 138 x 57 x 30 <sup>3</sup>                                                                       |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | 126 x 55 x 22 <sup>3</sup>                                                          |                                                                                     | 44 x 169 x 134                                                                      | 44 x 169 x 134                                                                      | 53 x 175 x 206                                                                       | 53 x 175 x 206                                                                      |        |  |
| Dimensions (Weight)                                                              | Physical weight                                                                                                                           |                                                                                   | 341g <sup>1</sup>                                                                 | 286g <sup>1</sup>                                                                 | 285g <sup>1</sup>                                                                  |                                                                                     | 254g <sup>3</sup>                                                                   |                                                                                     | 290g <sup>3</sup>                                                                   |                                                                                     |                                                                                     | 295 g <sup>3</sup>                                                                  |                                                                                     |                                                                                     | 289 g                                                                                            |                                                                                     |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | 456g <sup>3</sup>                                                                   |                                                                                     | 414g <sup>3</sup>                                                                   | 414g <sup>3</sup>                                                                    | 1.8kg                                                                               | 1.8kg  |  |
| FEATURES AND FUNCTIONS                                                           |                                                                                                                                           |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                                  |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                     |        |  |
| Intelligent Audio                                                                | Automatic volume control based on background noise levels                                                                                 |                                                                                   | No                                                                                | No                                                                                | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | No                                                                                  | Yes                                                                                 | No                                                                                   | Yes                                                                                 | Yes    |  |
| User Selectable Audio Profiles                                                   | Optimises audio for specific environments and personal preferences                                                                        |                                                                                   | No                                                                                | Yes                                                                               | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | No                                                                                  | Yes                                                                                 | No                                                                                   | Yes                                                                                 | Yes    |  |
| Emergency Alarm                                                                  | Radio can initiate an Emergency call process                                                                                              |                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                  | Yes                                                                                 | Yes    |  |
| Lone Worker                                                                      | Initiates emergency if user does not respond to periodic alerts                                                                           |                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                  | Yes                                                                                 | Yes    |  |
| Remote Monitor                                                                   | Radio can remotely activate another radio's microphone                                                                                    |                                                                                   | Decode Only                                                                       | Decode Only                                                                       | Decode Only                                                                        |                                                                                     | Yes                                                                                 |                                                                                     | Decode Only                                                                         |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Decode Only                                                                                      |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Decode Only                                                                         |                                                                                     | Decode Only                                                                         | Yes                                                                                 | Yes                                                                                  | Yes                                                                                 | Yes    |  |
| VOX (supported on radio)                                                         | Voice activated calling allows handsfree operation                                                                                        |                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                  | Yes                                                                                 | Yes    |  |
| Audio Feedback Suppressor                                                        | Blocks feedback from other radios to eliminate "howling"                                                                                  |                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                  | Yes                                                                                 | Yes    |  |
| Freeform Text Messaging                                                          | User can enter and send free-form text messages                                                                                           |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | No                                                                                  |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | No                                                                                  | No                                                                                  | No                                                                                   | Yes <sup>6</sup>                                                                    | Yes    |  |
| Pre-programmed Text Messaging                                                    | Radio can send pre-programmed text messages                                                                                               |                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                  | Yes                                                                                 | Yes    |  |
| Extended Texting                                                                 | Maximum text message length is 280 character                                                                                              |                                                                                   | No                                                                                | No                                                                                | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                  | Yes                                                                                 | Yes    |  |
| Vibrate Alert                                                                    | Vibrate silently alerts the user to an incoming call                                                                                      |                                                                                   | No                                                                                | No                                                                                | Option                                                                             |                                                                                     | No                                                                                  |                                                                                     | Option                                                                              |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | No                                                                                  | No                                                                                  | No                                                                                   | No                                                                                  | No     |  |
| Covert Mode                                                                      | Disable display, LEDs and audible tones for ultimate discretion                                                                           |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | No                                                                                  |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | No                                                                                  | No                                                                                  | No                                                                                   | No                                                                                  | No     |  |
| All Call                                                                         | One-way call to all radios on a logical channel                                                                                           |                                                                                   | Decode Only                                                                       | Decode Only                                                                       | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Decode Only                                                                         | Yes                                                                                 | Decode Only                                                                          | Yes                                                                                 | Yes    |  |
| Radio Check                                                                      | Check if another radio is active on a system without notifying the user                                                                   |                                                                                   | Decode Only                                                                       | Decode Only                                                                       | Decode Only                                                                        |                                                                                     | Yes                                                                                 |                                                                                     | Decode Only                                                                         |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Decode Only                                                                                      |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Decode Only                                                                         | Yes                                                                                 | Decode Only                                                                          | Yes                                                                                 | Yes    |  |
| Digital Telephone Patch                                                          | Ability to connect to telephone system (requires additional hardware)                                                                     |                                                                                   | No                                                                                | No                                                                                | Option                                                                             |                                                                                     | Yes                                                                                 |                                                                                     | Decode Only                                                                         |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Decode Only                                                                                      |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | No                                                                                  | Option                                                                              | No                                                                                   | Yes                                                                                 | Yes    |  |
| Transmit Interrupt Encode                                                        | Radio can interrupt transmissions from other radios                                                                                       |                                                                                   | Decode Only                                                                       | Decode Only                                                                       | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | No                                                                                  | Option                                                                              | No                                                                                   | Yes                                                                                 | Yes    |  |
| Basic Privacy                                                                    | MOTOTRBO 16-bit encryption for protection against eavesdropping                                                                           |                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Decode Only                                                                         |                                                                                     | Yes                                                                                 | Option                                                                              | Decode Only                                                                          | Yes                                                                                 | Yes    |  |
| Enhanced Privacy                                                                 | MOTOTRBO 40-bit encryption for more robust protection                                                                                     |                                                                                   | No                                                                                | Option                                                                            | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | No                                                                                  | Option                                                                              | No                                                                                   | Yes                                                                                 | Yes    |  |
| AES256 Encryption                                                                | Advanced Encryption Standard (AES) 256-bit encryption                                                                                     |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | Option                                                                              |                                                                                     | Option                                                                              |                                                                                     |                                                                                     | Option                                                                              |                                                                                     |                                                                                     | Option                                                                                           |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | No                                                                                  | Option                                                                              | No                                                                                   | Option                                                                              | Option |  |
| Default Voice Announcement                                                       | Audible confirmation of selected operations of the radio                                                                                  |                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes (Text to Speech)                                                                |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                  | Yes                                                                                 | Yes    |  |
| Programmable Voice Announcement                                                  | Ability to use customised recordings for voice announcements                                                                              |                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes (Text to Speech)                                                                |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                  | Yes                                                                                 | Yes    |  |
| Text-to-Speech Voice Announcement                                                | Radio "reads out" Channel, Zone, Functions, Text Messages, Job Tickets                                                                    |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | No                                                                                  | No                                                                                  | No                                                                                   | Yes                                                                                 | Yes    |  |
| Radio Management                                                                 | Centralised radio configuration and code plug management                                                                                  |                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes (Radio Central)                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                  | Yes                                                                                 | Yes    |  |
| Over the Air Programming (OTAP)                                                  | Remote, over-air programming using Radio Management                                                                                       |                                                                                   | No                                                                                | No                                                                                | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes (Wi-Fi Only)                                                                    |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                  | Yes                                                                                 | Yes    |  |
| Integrated Wi-Fi                                                                 | Enables remote software updates for easier radio management                                                                               |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | Yes <sup>1</sup>                                                                    |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | Yes <sup>17</sup>                                                                   |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | No                                                                                  |                                                                                     | No                                                                                  | Yes                                                                                 | No                                                                                   | Yes                                                                                 | Yes    |  |
| Indoor Location Tracking                                                         | Use built-in Bluetooth with iBeacons and suitable apps to locate and track radios                                                         |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     | Yes <sup>1</sup>                                                                    |                                                                                     |                                                                                     | Yes <sup>17</sup>                                                                   |                                                                                     |                                                                                     | No                                                                                               |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | No                                                                                  | Option                                                                              | No                                                                                   | Yes                                                                                 | Yes    |  |
| Restricted Access to System                                                      | Prevents unauthorised users from communicating through the repeater                                                                       |                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                  | Yes                                                                                 | Yes    |  |
| Radio Enable / Disable                                                           | Radio can remotely disable and re-enable another radio                                                                                    |                                                                                   | Decode Only                                                                       | Decode Only                                                                       | Decode Only                                                                        |                                                                                     | Decode Only                                                                         |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Decode Only                                                                         |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Decode Only                                                                         |                                                                                     | No                                                                                  | Yes                                                                                 | Decode Only                                                                          | No                                                                                  | Yes    |  |
| Integrated Mandown                                                               | Built-in accelerometer enhances personnel safety by monitoring movement                                                                   |                                                                                   | No                                                                                | No                                                                                | No                                                                                 |                                                                                     | Yes <sup>13</sup>                                                                   |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | Yes <sup>17</sup>                                                                                |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | No                                                                                  | No                                                                                  | No                                                                                   | No                                                                                  | No     |  |
| Dual Capacity Direct Mode                                                        | Use both TDMA time slots to double system capacity without a repeater                                                                     |                                                                                   | Yes                                                                               | Yes                                                                               | Yes                                                                                |                                                                                     | Yes                                                                                 |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                              |                                                                                     | Capacitive touch-screen with Gorilla Glass                                          | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                  | Yes                                                                                 | Yes    |  |
| Telemetry Supported                                                              | Integrated basic telemetry capability                                                                                                     |                                                                                   | No                                                                                | No                                                                                |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                                  |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                     |        |  |