

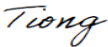


|  |  |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
|--|--|------------------------------|----------------|-----------------------|----------------|---------------------------|------------|----------------------|--------------------|-------------------------|-------------------------------------|-------------------------|--------|---------------------------|--------|----------------------------|------------------------------------|------------------------|----|-------------------------|---------|----------------------------|---------|------------------------|--|----------------|-------------|---|--------|
|  <b>MOTOROLA SOLUTIONS</b>  |  <b>MS ISO/IEC 17025 TESTING</b><br>SAMM No. 0826 |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
| <b>DECLARATION OF COMPLIANCE: MPE ASSESSMENT</b>   |  |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
| <p style="text-align: center;"> <b>Motorola Solutions, Inc.</b><br/> <b>EME Test Laboratory</b><br/>                 Motorola Solutions Malaysia Sdn Bhd (Innoplex)<br/>                 Plot 2A, Medan Bayan Lepas,<br/>                 Mukim 12 SWD 11900 Bayan Lepas Penang, Malaysia.             </p>  | <p> <b>Date of Report: 2/7/2018</b><br/> <b>Report Revision: A</b> </p>  |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
| <table border="0"> <tr> <td style="vertical-align: top;"><b>Responsible Engineer:</b></td> <td>Tiong Nguk Ing</td> </tr> <tr> <td style="vertical-align: top;"><b>Report Author:</b></td> <td>Tiong Nguk Ing</td> </tr> <tr> <td style="vertical-align: top;"><b>Assessment Date(s)</b></td> <td>12/18/2017</td> </tr> <tr> <td style="vertical-align: top;"><b>Manufacturer:</b></td> <td>Alert Technologies</td> </tr> <tr> <td style="vertical-align: top;"><b>DUT Description:</b></td> <td>Paging Transmitter 151.82-154.6 MHz</td> </tr> <tr> <td style="vertical-align: top;"><b>Test TX mode(s):</b></td> <td>Paging</td> </tr> <tr> <td style="vertical-align: top;"><b>Max. Power output:</b></td> <td>345 mW</td> </tr> <tr> <td style="vertical-align: top;"><b>Tx Frequency Bands:</b></td> <td>151.82 – 154.6 MHz (MURS Channels)</td> </tr> <tr> <td style="vertical-align: top;"><b>Signaling type:</b></td> <td>FM</td> </tr> <tr> <td style="vertical-align: top;"><b>Model(s) Tested:</b></td> <td>CB200-M</td> </tr> <tr> <td style="vertical-align: top;"><b>Model(s) Certified:</b></td> <td>CB200-M</td> </tr> <tr> <td style="vertical-align: top;"><b>Classification:</b></td> <td>General Population/ Uncontrolled Environment</td> </tr> <tr> <td style="vertical-align: top;"><b>FCC ID:</b></td> <td>AZ489FT3844</td> </tr> <tr> <td style="vertical-align: top;"><b>FCC Test Firm Registration Number:</b></td> <td>823256</td> </tr> </table> |  | <b>Responsible Engineer:</b> | Tiong Nguk Ing | <b>Report Author:</b> | Tiong Nguk Ing | <b>Assessment Date(s)</b> | 12/18/2017 | <b>Manufacturer:</b> | Alert Technologies | <b>DUT Description:</b> | Paging Transmitter 151.82-154.6 MHz | <b>Test TX mode(s):</b> | Paging | <b>Max. Power output:</b> | 345 mW | <b>Tx Frequency Bands:</b> | 151.82 – 154.6 MHz (MURS Channels) | <b>Signaling type:</b> | FM | <b>Model(s) Tested:</b> | CB200-M | <b>Model(s) Certified:</b> | CB200-M | <b>Classification:</b> | General Population/ Uncontrolled Environment | <b>FCC ID:</b> | AZ489FT3844 | <b>FCC Test Firm Registration Number:</b> | 823256 |
| <b>Responsible Engineer:</b>   | Tiong Nguk Ing   |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
| <b>Report Author:</b>  | Tiong Nguk Ing   |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
| <b>Assessment Date(s)</b>  | 12/18/2017   |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
| <b>Manufacturer:</b>   | Alert Technologies   |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
| <b>DUT Description:</b>  | Paging Transmitter 151.82-154.6 MHz  |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
| <b>Test TX mode(s):</b>  | Paging   |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
| <b>Max. Power output:</b>  | 345 mW   |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
| <b>Tx Frequency Bands:</b>   | 151.82 – 154.6 MHz (MURS Channels)   |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
| <b>Signaling type:</b>   | FM   |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
| <b>Model(s) Tested:</b>  | CB200-M  |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
| <b>Model(s) Certified:</b>   | CB200-M  |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
| <b>Classification:</b>   | General Population/ Uncontrolled Environment   |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
| <b>FCC ID:</b>   | AZ489FT3844  |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
| <b>FCC Test Firm Registration Number:</b>  | 823256   |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
| <p>Based on the information and the testing results provided herein, the undersigned certifies that when used as stated in the operating instructions supplied, said product complies with the national and international reference standards and guidelines listed in section 4.0 of this report. This report shall not be reproduced without written approval from an officially designated representative of the Motorola Solutions EME Laboratory. I attest to the accuracy of the data and assume full responsibility for the completeness of these measurements. This reporting format is consistent with the suggested guidelines of the TIA TSB-159 April 2006. The results and statements contained in this report pertain only to the device(s) evaluated herein.</p>  |  |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |
| <p style="text-align: center;"> <br/> <b>Tiong Nguk Ing</b><br/>                 Deputy Technical Manager<br/>                 Approval Date: 2/7/2018             </p>   |  |                              |                |                       |                |                           |            |                      |                    |                         |                                     |                         |        |                           |        |                            |                                    |                        |    |                         |         |                            |         |                        |  |                |             |   |        |

**Table of Contents**

1.0 Introduction..... 3  
 2.0 MPE Summary..... 3  
 3.0 Abbreviations / Definitions..... 3  
 4.0 Referenced Standards and Guidelines ..... 3  
 5.0 Power Density Limits ..... 4  
 6.0 Product and System Description..... 6  
 7.0 MPE Assessment ..... 6

**Report Revision History**

| Date     | Revision | Comments        |
|----------|----------|-----------------|
| 2/7/2018 | A        | Initial release |

**1.0 Introduction**

This report contains calculated Maximum Permissible Exposure (MPE) results for product model CB200-M operate at MURS channels.

**2.0 MPE Summary**

**Table 1**

| Frequency (MHz) | Power Density (mW/cm <sup>2</sup> ) | FCC Limit (mW/cm <sup>2</sup> ) |
|-----------------|-------------------------------------|---------------------------------|
| 151.82          | 0.034                               | 0.20                            |
| 154.6           | 0.034                               | 0.20                            |

**3.0 Abbreviations / Definitions**

- DUT: Device Under Test
- EME: Electromagnetic Energy
- MPE: Maximum Permissible Exposure

**4.0 Referenced Standards and Guidelines**

This product is designed to comply with the following applicable national and international standards and guidelines.

- United States Federal Communications Commission, Code of Federal Regulations; Rule Part 47CFR § 1.1310, § 2.1091 (d) and § 2.1093 for RF Exposure, where applicable.
- Federal Communications Commission, “Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields”, OET Bulletin 65 (Edition 97-01), FCC, Washington, D.C.: August 1997.
- American National Standards Institute (ANSI) / Institute of Electrical and Electronics Engineers (IEEE) C95. 1-1999
- American National Standards Institute (ANSI) / Institute of Electrical and Electronics Engineers (IEEE) C95. 1-1992. Specific to FCC rules and regulations.
- Institute of Electrical and Electronics Engineers (IEEE) C95.3-2002
- FCC KDB – 447498 D01 General RF Exposure Guidance v06
- FCC KDB – 865664 D02 RF Exposure Reporting v01r02

**5.0 Power Density Limits**

**Table 2 – Occupational / Controlled Exposure Limits**

| Frequency Range (MHz) | FCC OET Bulletin 65 | ICNIRP           | IEEE C95.1 1992/1999 | IEEE C95.1 2005  | RSS-102 Issue 5 2015    |
|-----------------------|---------------------|------------------|----------------------|------------------|-------------------------|
|                       | mW/cm <sup>2</sup>  | W/m <sup>2</sup> | mW/cm <sup>2</sup>   | W/m <sup>2</sup> | W/m <sup>2</sup>        |
| 10 – 20               |                     |                  |                      |                  | 10.0                    |
| 20 – 48               |                     |                  |                      |                  | $44.72 / f^{0.5}$       |
| 30 – 300              | 1.0                 |                  |                      |                  |                         |
| 48 – 100              |                     |                  |                      |                  | 6.455                   |
| 10 – 400              |                     | 10.0             |                      |                  |                         |
| 100 – 300             |                     |                  | 1.0                  | 10.0             |                         |
| 100 – 6,000           |                     |                  |                      |                  | $0.6455 f^{0.5}$        |
| 300 – 1,500           | f/300               |                  |                      |                  |                         |
| 300 – 3,000           |                     |                  | f/300                | f/30             |                         |
| 400 – 2,000           |                     | f/40             |                      |                  |                         |
| 1,500 – 15,000        |                     |                  |                      |                  |                         |
| 1,500 – 100,000       | 5.0                 |                  |                      |                  |                         |
| 2,000 – 300,000       |                     | 50.0             |                      |                  |                         |
| 3,000 – 300,000       |                     |                  | 10.0                 | 100.0            |                         |
| 6,000 – 15,000        |                     |                  |                      |                  | 50.0                    |
| 15000 – 150,000       |                     |                  |                      |                  | 50.0                    |
| 150000 – 300,000      |                     |                  |                      |                  | $3.33 \times 10^{-4} f$ |

**Table 3 – General Population / Uncontrolled Exposure Limits**

| Frequency Range<br>(MHz) | FCC OET<br>Bulletin 65 | ICNIRP           | IEEE C95.1<br>1992/1999 | IEEE<br>C95.1<br>2005 | RSS-102<br>Issue 5 2015 |
|--------------------------|------------------------|------------------|-------------------------|-----------------------|-------------------------|
|                          | mW/cm <sup>2</sup>     | W/m <sup>2</sup> | mW/cm <sup>2</sup>      | W/m <sup>2</sup>      | W/m <sup>2</sup>        |
| 10 – 20                  |                        |                  |                         |                       | 2.0                     |
| 20 – 48                  |                        |                  |                         |                       | $8.944 / f^{0.5}$       |
| 30 – 300                 | 0.2                    |                  |                         |                       |                         |
| 48 – 300                 |                        |                  |                         |                       | 1.291                   |
| 10 – 400                 |                        | 2.0              |                         |                       |                         |
| 100 – 300                |                        |                  | 0.2                     |                       |                         |
| 100 – 400                |                        |                  |                         | 2.0                   |                         |
| 300 – 1,500              | $f/1,500$              |                  |                         |                       |                         |
| 300 – 6000               |                        |                  |                         |                       | $0.02619 f^{0.6834}$    |
| 400 – 2,000              |                        | $f/200$          |                         | $f/200$               |                         |
| 300 – 15,000             |                        |                  | $f/1,500$               |                       |                         |
| 1,500 – 15,000           |                        |                  |                         |                       |                         |
| 1,500 – 100,000          | 1.0                    |                  |                         |                       |                         |
| 2,000 – 100,000          |                        |                  |                         | 10.0                  |                         |
| 2,000 – 300,000          |                        | 10.0             |                         |                       |                         |
| 6,000 – 15,000           |                        |                  |                         |                       | 10.0                    |
| 15,000 – 150,000         |                        |                  |                         |                       | 10.0                    |
| 150,000 – 300,000        |                        |                  |                         |                       | $6.67 \times 10^{-5} f$ |

### 6.0 Product and System Description

CB200 series call box is a battery operated call box typically installed mounted to a wall using 3M DuoLock strips or by using optional wall mounting bracket. The message will be prerecorded in call box; each message cannot longer than 10 seconds. When the center button of the call box is pressed and released, the prerecorded local audio message will send over the air. The call cycles to repeat the message can be set from 1 to 30 cycles. Call delay between repeating message can be set from 10 to 180 seconds.

Transmission time will be up to 10 seconds long maximum, the shortest delay is 10 seconds before 2<sup>nd</sup> transmission of the repeating message. The conservative duty cycle will be 50% with 10 seconds transmission with 20 seconds period.

### 7.0 MPE Assessment

MPE calculations were used to determine the RF exposure for this device. According to FCC’s OET Bulletin 65 Edition 97-01 Section 2, calculations can be made to predict RF field strength and power density levels around typical RF sources.

$$S = \frac{PG}{4\pi R^2}$$

- Where: S = power density (mW/cm<sup>2</sup>)
- P = power input to the antenna (mW)
- G = power gain of the antenna in the direction of interest relative to an isotropic radiator
- R = distance to center of radiation of the antenna (cm)

P = 345 mW\*50% duty cycle = 172.5 mW;  
 G= 0 dBi; Linear Gain = 10<sup>^(0 dBi/10)</sup> = 1;  
 R= 20 cm

$$S = \frac{172.5mW*1}{4* \pi*20^2} = 0.034 mW/cm^2$$

| Frequency (MHz) | Power Density (mW/cm <sup>2</sup> ) | FCC Limit (mW/cm <sup>2</sup> ) |
|-----------------|-------------------------------------|---------------------------------|
| 151.82          | 0.034                               | 0.20                            |
| 154.6           | 0.034                               | 0.20                            |

The MPE assessment presented in this report concludes that model CB200 was compliant to FCC General Population /Uncontrolled RF exposure limits.