

# FCC SAR Test Report

APPLICANT : Motorola Mobility LLC  
EQUIPMENT : Mobile Cellular Phone  
BRAND NAME : Motorola  
MODEL NAME : 10162  
FCC ID : IHDT56WE2  
STANDARD : FCC 47 CFR Part 2 (2.1093)  
ANSI/IEEE C95.1-1992  
IEEE 1528-2013

We, Sporton International (KunShan) INC., would like to declare that the tested sample has been evaluated in accordance with the procedures and had been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (KunShan) INC., the test report shall not be reproduced except in full.



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**Sporton International (KunShan) INC.**  
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**Sporton International (KunShan) INC.**

## 1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Motorola Mobility LLC, Mobile Cellular Phone, 10162** are as follows.

| Equipment Class  | Frequency Band |             | Highest SAR Summary      |                              |                                | Highest Simultaneous Transmission<br>1g SAR (W/kg) |
|------------------|----------------|-------------|--------------------------|------------------------------|--------------------------------|----------------------------------------------------|
|                  |                |             | Head<br>(Separation 0mm) | Hotspot<br>(Separation 10mm) | Body-worn<br>(Separation 10mm) |                                                    |
|                  |                |             | 1g SAR (W/kg)            |                              |                                |                                                    |
| Licensed         | GSM            | GSM850      | 0.57                     | 0.95                         | 0.95                           | 1.32                                               |
|                  |                | GSM1900     | 0.70                     | 0.63                         | 0.63                           |                                                    |
|                  | WCDMA          | Band V      | 0.35                     | 0.48                         | 0.48                           |                                                    |
|                  |                | Band II     | 0.41                     | 0.59                         | 0.59                           |                                                    |
|                  | LTE            | Band 5      | 0.28                     | 0.62                         | 0.62                           |                                                    |
|                  |                | Band 7      | 0.53                     | 1.08                         | 1.19                           |                                                    |
| DTS              | WLAN           | 2.4GHz WLAN | 0.46                     | 0.13                         | 0.13                           | 1.32                                               |
| Date of Testing: |                |             | 2017/2/4 ~ 2017/3/2      |                              |                                |                                                    |

This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.

## 2. Administration Data

| Testing Site       |                                                                                                                        |
|--------------------|------------------------------------------------------------------------------------------------------------------------|
| Test Site          | Sporton International (KunShan) INC.                                                                                   |
| Test Site Location | No.3-2, Pingxiang Road, Kunshan Development Zone, Jiangsu, China<br>TEL: +86-0512-5790-0158<br>FAX: +86-0512-5790-0958 |

| Applicant    |                                                     |
|--------------|-----------------------------------------------------|
| Company Name | Motorola Mobility LLC                               |
| Address      | 222 W, Merchandise Mart Plaza, Chicago IL 60654 USA |

| Manufacturer |                                                     |
|--------------|-----------------------------------------------------|
| Company Name | Motorola Mobility LLC                               |
| Address      | 222 W, Merchandise Mart Plaza, Chicago IL 60654 USA |

## 3. Guidance Applied

The Specific Absorption Rate (SAR) testing specification, method, and procedure for this device is in accordance with the following standards:

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06
- FCC KDB 648474 D04 SAR Evaluation Considerations for Wireless Handsets v01r03
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D06 Hotspot Mode SAR v02r01

## **4. Equipment Under Test (EUT) Information**

### **4.1 General Information**

| Product Feature & Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Equipment Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Mobile Cellular Phone                                                                                                                                                                                                                                                                                     |
| Brand Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Motorola                                                                                                                                                                                                                                                                                                  |
| Model Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 10162                                                                                                                                                                                                                                                                                                     |
| FCC ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | IHDT56WE2                                                                                                                                                                                                                                                                                                 |
| IMEI Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SIM1: 355645080023875<br>SIM2: 355645080023883                                                                                                                                                                                                                                                            |
| Wireless Technology and Frequency Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | GSM850: 824.2 MHz ~ 848.8 MHz<br>GSM1900: 1850.2 MHz ~ 1909.8 MHz<br>WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz<br>WCDMA Band V: 826.4 MHz ~ 846.6 MHz<br>LTE Band 5: 824.7 MHz ~ 848.3 MHz<br>LTE Band 7: 2502.5 MHz ~ 2567.5 MHz<br>WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz<br>Bluetooth: 2402 MHz ~ 2480 MHz |
| Mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>· GSM/GPRS/EGPRS</li> <li>· RMC/AMR 12.2Kbps</li> <li>· HSDPA</li> <li>· HSUPA</li> <li>· DC-HSDPA</li> <li>· HSPA+</li> <li>· LTE</li> <li>· 802.11b/g/n HT20</li> <li>· Bluetooth v3.0 + EDR, Bluetooth v4.0 LE, Bluetooth v4.1 LE, Bluetooth v4.2 LE</li> </ul> |
| HW Version                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | WKHMA1B2-2                                                                                                                                                                                                                                                                                                |
| SW Version                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | NRD90M.03                                                                                                                                                                                                                                                                                                 |
| GSM / (E)GPRS Transfer mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can automatically switch between Packet and Circuit Switched Network.                                                                                                                                        |
| EUT Stage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Identical Prototype                                                                                                                                                                                                                                                                                       |
| <b>Remark:</b> <ol style="list-style-type: none"> <li>1. This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.</li> <li>2. 802.11n-HT40 is not supported in 2.4GHz WLAN.</li> <li>3. This device 2.4GHz WLAN support hotspot operation.</li> <li>4. This device does not support DTM operation and support GRPS/EGRPS mode up to multi-slot class 12.</li> <li>5. The dual SIM card mobile has 2 SIM slots and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active). After pre-scan two SIM cards power, we found test result of the SIM1 was the worse, so we chose dual SIM1 card to perform all tests.</li> <li>6. When hotspot mode is enabled, power reduction will be activated to limit the maximum power of LTE Band 7.</li> </ol> |                                                                                                                                                                                                                                                                                                           |

## 4.2 General LTE SAR Test and Reporting Considerations

| Summarized necessary items addressed in KDB 941225 D05 v02r05           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |                  |             |                  |             |                  |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------|-------------|------------------|-------------|------------------|-------------|----------------------------------------------------------------|--|--|--|--|--|--|--|------------|-------------------------------------------------|--|--|--|--|--|----------|---------|---------|-------|--------|--------|--------|------|-----|-----|-----|------|------|------|-----|--------|-----|-----|-----|------|------|------|-----|--------|-----|-----|-----|------|------|------|-----|
| FCC ID                                                                  | IHDT56WE2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |                  |             |                  |             |                  |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| Equipment Name                                                          | Mobile Cellular Phone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |                  |             |                  |             |                  |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| Operating Frequency Range of each LTE transmission band                 | LTE Band 5: 824.7 MHz ~ 848.3 MHz<br>LTE Band 7: 2502.5 MHz ~ 2567.5 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |                  |             |                  |             |                  |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| Channel Bandwidth                                                       | LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz<br>LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |                  |             |                  |             |                  |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| Uplink Modulations Used                                                 | QPSK, and 16QAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |                  |             |                  |             |                  |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| LTE Voice / Data requirements                                           | Voice and Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |                  |             |                  |             |                  |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| LTE MPR Permanently Built-in by Design                                  | <table><tr><th colspan="8">Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3</th></tr><tr><th rowspan="3">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (RB)</th><th rowspan="3">MPR (dB)</th></tr><tr><th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr><tr><td>QPSK</td><td>&gt; 5</td><td>&gt; 4</td><td>&gt; 8</td><td>&gt; 12</td><td>&gt; 16</td><td>&gt; 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>&gt; 5</td><td>&gt; 4</td><td>&gt; 8</td><td>&gt; 12</td><td>&gt; 16</td><td>&gt; 18</td><td>≤ 2</td></tr></table> |             |                  |             |                  |             |                  |             | Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3 |  |  |  |  |  |  |  | Modulation | Channel bandwidth / Transmission bandwidth (RB) |  |  |  |  |  | MPR (dB) | 1.4 MHz | 3.0 MHz | 5 MHz | 10 MHz | 15 MHz | 20 MHz | QPSK | > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 1 | 16 QAM | ≤ 5 | ≤ 4 | ≤ 8 | ≤ 12 | ≤ 16 | ≤ 18 | ≤ 1 | 16 QAM | > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 2 |
| Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |                  |             |                  |             |                  |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| Modulation                                                              | Channel bandwidth / Transmission bandwidth (RB)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |                  |             |                  |             | MPR (dB)         |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
|                                                                         | 1.4 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3.0 MHz     | 5 MHz            | 10 MHz      | 15 MHz           | 20 MHz      |                  |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
|                                                                         | QPSK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | > 5         | > 4              | > 8         | > 12             | > 16        |                  | > 18        | ≤ 1                                                            |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| 16 QAM                                                                  | ≤ 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ≤ 4         | ≤ 8              | ≤ 12        | ≤ 16             | ≤ 18        | ≤ 1              |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| 16 QAM                                                                  | > 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | > 4         | > 8              | > 12        | > 16             | > 18        | ≤ 2              |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| LTE A-MPR                                                               | In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |                  |             |                  |             |                  |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| Spectrum Plots for RB Configuration                                     | A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |                  |             |                  |             |                  |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| Power reduction applied to satisfy SAR compliance                       | When hotspot mode is enabled, power reduction will be activated to limit the maximum power of LTE Band 7.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |                  |             |                  |             |                  |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| LTE Release Version                                                     | R8, Cat 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |                  |             |                  |             |                  |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| CA Support                                                              | Not Supported                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |                  |             |                  |             |                  |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| Transmission (H, M, L) channel numbers and frequencies in each LTE band |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |                  |             |                  |             |                  |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| LTE Band 5                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |                  |             |                  |             |                  |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
|                                                                         | Bandwidth 1.4 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             | Bandwidth 3 MHz  |             | Bandwidth 5 MHz  |             | Bandwidth 10 MHz |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
|                                                                         | Ch. #                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| L                                                                       | 20407                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 824.7       | 20415            | 825.5       | 20425            | 826.5       | 20450            | 829         |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| M                                                                       | 20525                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 836.5       | 20525            | 836.5       | 20525            | 836.5       | 20525            | 836.5       |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| H                                                                       | 20643                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 848.3       | 20635            | 847.5       | 20625            | 846.5       | 20600            | 844         |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| LTE Band 7                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |                  |             |                  |             |                  |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
|                                                                         | Bandwidth 5 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             | Bandwidth 10 MHz |             | Bandwidth 15 MHz |             | Bandwidth 20 MHz |             |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
|                                                                         | Ch. #                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| L                                                                       | 20775                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2502.5      | 20800            | 2505        | 20825            | 2507.5      | 20850            | 2510        |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| M                                                                       | 21100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2535        | 21100            | 2535        | 21100            | 2535        | 21100            | 2535        |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |
| H                                                                       | 21425                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2567.5      | 21400            | 2565        | 21375            | 2562.5      | 21350            | 2560        |                                                                |  |  |  |  |  |  |  |            |                                                 |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |



## **5. Re-use of Measured Data**

### **5.1 Introduction Section**

This application re-uses data collected on a similar device. The subject device of this application (Model: 10162, FCC ID: IHDT56WE2) is electrically identical to the reference device (Model: 9888, IHDT56WE1) for the portions of the circuitry corresponding to the data being re-used, as treated by KDB Publication 178919 D01.

### **5.2 Difference Section**

For details concerning the similarity with respect to component placement, mechanical/electrical design etc., please refer to the Product Equality Declaration "PED" file.

The re-used RF data includes the following bands provided in Appendix A (Sporton RF Report No. FA711809 for the reference device Model: 9888, IHDT56WE1):

- GSM850/1900,
- WCDMA Band V/II,
- LTE Band 5/7
- 2.4G WLAN
- Bluetooth

Spot check for WWAN and WLAN are performed for ensure that SAR measurement for both device are the same. So, the original SAR value can represent this application.



### 5.3 Spot Check Verification Data Section

| Band          | BW (MHz) | Modulation | RB Size | RB offset | Mode            | Test Position | Gap (mm) | Ch.   | Freq. (MHz) | Original model (FCC ID: IHDT56WE1) |                     |                        |                        | Spot check model (FCC ID: IHDT56WE2) |                     |                        |                        | Deviation |
|---------------|----------|------------|---------|-----------|-----------------|---------------|----------|-------|-------------|------------------------------------|---------------------|------------------------|------------------------|--------------------------------------|---------------------|------------------------|------------------------|-----------|
|               |          |            |         |           |                 |               |          |       |             | Average Power (dBm)                | Tune-Up Limit (dBm) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) | Average Power (dBm)                  | Tune-Up Limit (dBm) | Measured 1g SAR (W/kg) | Reported 1g SAR (W/kg) |           |
| GSM1900       | -        | -          | -       | -         | GPRS 2 Tx slots | Right Cheek   | 0        | 810   | 1909.8      | 29.27                              | 30.00               | 0.590                  | 0.698                  | 29.27                                | 30.00               | 0.552                  | 0.653                  | -6.89%    |
| WLAN2.4GHz    | -        | -          | -       | -         | 802.11b 1Mbps   | Right Cheek   | 0        | 6     | 2437        | 16.19                              | 16.5                | 0.430                  | 0.462                  | 16.19                                | 16.5                | 0.364                  | 0.391                  | -18.16%   |
| GSM 850       | -        | -          | -       | -         | GPRS 4 Tx slots | Back          | 10       | 251   | 848.8       | 29.27                              | 30.00               | 0.802                  | 0.949                  | 29.27                                | 30.00               | 0.915                  | 1.082                  | 12.29%    |
| WCDMA Band V  | -        | -          | -       | -         | RMC 12.2Kbps    | Back          | 10       | 4233  | 846.6       | 23.01                              | 24.00               | 0.383                  | 0.481                  | 23.01                                | 24.00               | 0.451                  | 0.566                  | 15.02%    |
| WCDMA Band II | -        | -          | -       | -         | RMC 12.2Kbps    | Back          | 10       | 9262  | 1852.4      | 22.98                              | 24.00               | 0.470                  | 0.594                  | 22.98                                | 24.00               | 0.549                  | 0.694                  | 14.41%    |
| LTE Band 5    | 10M      | QPSK       | 1RB     | 0Offset   | -               | Back          | 10       | 20525 | 836.5       | 22.70                              | 24.00               | 0.456                  | 0.615                  | 22.70                                | 24.00               | 0.389                  | 0.525                  | -17.14%   |
| LTE Band 7    | 20M      | QPSK       | 1RB     | 0Offset   | -               | Back          | 10       | 21100 | 2535        | 22.53                              | 23.00               | 1.070                  | 1.192                  | 22.53                                | 23.00               | 1.200                  | 1.337                  | 10.85%    |

**Note:** In the table above, all the deviation of SAR test results are compliant with uncertainty budget.

### 5.4 Reference detail Section

| Equipment Class | Reference FCC ID | Folder Test/RF Exposure | Report Title/Section    |
|-----------------|------------------|-------------------------|-------------------------|
| PCE (2G/3G/4G)  | IHDT56WE1        | RF Exposure(FA711809)   | All sections applicable |
| DTS (BLE)       | IHDT56WE1        | RF Exposure(FA711809)   | All sections applicable |
| DSS (BER)       | IHDT56WE1        | RF Exposure(FA711809)   | All sections applicable |
| DTS (WLAN)      | IHDT56WE1        | RF Exposure(FA711809)   | All sections applicable |

## 6. Simultaneous Transmission Analysis

| NO. | Simultaneous Transmission Configurations | Portable Handset |           |         | Note      |
|-----|------------------------------------------|------------------|-----------|---------|-----------|
|     |                                          | Head             | Body-worn | Hotspot |           |
| 1.  | GSM Voice + WLAN2.4GHz                   | Yes              | Yes       |         |           |
| 2.  | GPRS/EDGE + WLAN2.4GHz                   | Yes              | Yes       | Yes     | Hotspot   |
| 3.  | WCDMA + WLAN2.4GHz                       | Yes              | Yes       | Yes     | Hotspot   |
| 4.  | LTE + WLAN2.4GHz                         | Yes              | Yes       | Yes     | Hotspot   |
| 5.  | GSM Voice + Bluetooth                    |                  | Yes       |         |           |
| 6.  | GPRS/EDGE + Bluetooth                    |                  | Yes       |         | WWAN VoIP |
| 7.  | WCDMA + Bluetooth                        |                  | Yes       |         | WWAN VoIP |
| 8.  | LTE + Bluetooth                          |                  | Yes       |         | WWAN VoIP |

### 6.1 Head Exposure Conditions Head Exposure Conditions

| WWAN Band |         | Exposure Position | 1                | 2                | 1+2<br>Summed<br>1g SAR (W/kg) |
|-----------|---------|-------------------|------------------|------------------|--------------------------------|
|           |         |                   | WWAN             | 2.4GHz WLAN      |                                |
|           |         |                   | 1g SAR<br>(W/kg) | 1g SAR<br>(W/kg) |                                |
| GSM       | GSM850  | Right Cheek       | 0.498            | 0.462            | 0.96                           |
|           |         | Right Tilted      | 0.412            | 0.462            | 0.87                           |
|           |         | Left Cheek        | 0.567            | 0.462            | 1.03                           |
|           |         | Left Tilted       | 0.308            | 0.462            | 0.77                           |
|           | GSM1900 | Right Cheek       | 0.698            | 0.462            | 1.16                           |
|           |         | Right Tilted      | 0.252            | 0.462            | 0.71                           |
|           |         | Left Cheek        | 0.323            | 0.462            | 0.79                           |
|           |         | Left Tilted       | 0.232            | 0.462            | 0.69                           |
|           | Band V  | Right Cheek       | 0.322            | 0.462            | 0.78                           |
|           |         | Right Tilted      | 0.232            | 0.462            | 0.69                           |
|           |         | Left Cheek        | 0.345            | 0.462            | 0.81                           |
|           |         | Left Tilted       | 0.210            | 0.462            | 0.67                           |
|           | Band II | Right Cheek       | 0.409            | 0.462            | 0.87                           |
|           |         | Right Tilted      | 0.180            | 0.462            | 0.64                           |
|           |         | Left Cheek        | 0.192            | 0.462            | 0.65                           |
|           |         | Left Tilted       | 0.139            | 0.462            | 0.60                           |
| LTE       | Band 5  | Right Cheek       | 0.221            | 0.462            | 0.68                           |
|           |         | Right Tilted      | 0.174            | 0.462            | 0.64                           |
|           |         | Left Cheek        | 0.279            | 0.462            | 0.74                           |
|           |         | Left Tilted       | 0.152            | 0.462            | 0.61                           |
|           | Band 7  | Right Cheek       | 0.533            | 0.462            | 1.00                           |
|           |         | Right Tilted      | 0.160            | 0.462            | 0.62                           |
|           |         | Left Cheek        | 0.237            | 0.462            | 0.70                           |
|           |         | Left Tilted       | 0.237            | 0.462            | 0.70                           |

## 6.2 Hotspot Exposure Conditions

| WWAN Band |         | Exposure Position | 1                | 2                | 1+2<br>Summed<br>1g SAR (W/kg) |
|-----------|---------|-------------------|------------------|------------------|--------------------------------|
|           |         |                   | WWAN             | 2.4GHz WLAN      |                                |
|           |         |                   | 1g SAR<br>(W/kg) | 1g SAR<br>(W/kg) |                                |
| GSM       | GSM850  | Front             | 0.706            | 0.129            | 0.84                           |
|           |         | Back              | 0.949            | 0.129            | 1.08                           |
|           |         | Left side         | 0.661            | 0.129            | 0.79                           |
|           |         | Right side        | 0.550            |                  | 0.55                           |
|           |         | Top side          |                  | 0.129            | 0.13                           |
|           |         | Bottom side       | 0.123            |                  | 0.12                           |
|           | GSM1900 | Front             | 0.581            | 0.129            | 0.71                           |
|           |         | Back              | 0.628            | 0.129            | 0.76                           |
|           |         | Left side         | 0.211            | 0.129            | 0.34                           |
|           |         | Right side        | 0.351            |                  | 0.35                           |
|           |         | Top side          |                  | 0.129            | 0.13                           |
|           |         | Bottom side       | 0.353            |                  | 0.35                           |
| WCDMA     | Band V  | Front             | 0.397            | 0.129            | 0.53                           |
|           |         | Back              | 0.481            | 0.129            | 0.61                           |
|           |         | Left side         | 0.369            | 0.129            | 0.50                           |
|           |         | Right side        | 0.330            |                  | 0.33                           |
|           |         | Top side          |                  | 0.129            | 0.13                           |
|           |         | Bottom side       | 0.078            |                  | 0.08                           |
|           | Band II | Front             | 0.548            | 0.129            | 0.68                           |
|           |         | Back              | 0.594            | 0.129            | 0.72                           |
|           |         | Left side         | 0.168            | 0.129            | 0.30                           |
|           |         | Right side        | 0.358            |                  | 0.36                           |
|           |         | Top side          |                  | 0.129            | 0.13                           |
|           |         | Bottom side       | 0.269            |                  | 0.27                           |
| LTE       | Band 5  | Front             | 0.434            | 0.129            | 0.56                           |
|           |         | Back              | 0.615            | 0.129            | 0.74                           |
|           |         | Left side         | 0.479            | 0.129            | 0.61                           |
|           |         | Right side        | 0.424            |                  | 0.42                           |
|           |         | Top side          |                  | 0.129            | 0.13                           |
|           |         | Bottom side       | 0.060            |                  | 0.06                           |
|           | Band 7  | Front             | 0.666            | 0.129            | 0.80                           |
|           |         | Back              | 0.975            | 0.129            | 1.10                           |
|           |         | Left side         | 0.004            | 0.129            | 0.13                           |
|           |         | Right side        | 0.105            |                  | 0.11                           |
|           |         | Top side          |                  | 0.129            | 0.13                           |
|           |         | Bottom side       | 1.082            |                  | 1.08                           |

### **6.3 Body-Worn Accessory Exposure Conditions**

| WWAN Band |         | Exposure Position | 1                | 2                | 3                             | 1+2<br>Summed<br>1g SAR<br>(W/kg) | 1+3<br>Summed<br>1g SAR<br>(W/kg) |
|-----------|---------|-------------------|------------------|------------------|-------------------------------|-----------------------------------|-----------------------------------|
|           |         |                   | WWAN             | 2.4GHz<br>WLAN   | Bluetooth                     |                                   |                                   |
|           |         |                   | 1g SAR<br>(W/kg) | 1g SAR<br>(W/kg) | Estimated<br>1g SAR<br>(W/kg) |                                   |                                   |
| GSM       | GSM850  | Front             | 0.706            | 0.129            | 0.126                         | 0.84                              | 0.83                              |
|           |         | Back              | 0.949            | 0.129            | 0.126                         | 1.08                              | 1.08                              |
|           | GSM1900 | Front             | 0.581            | 0.129            | 0.126                         | 0.71                              | 0.71                              |
|           |         | Back              | 0.628            | 0.129            | 0.126                         | 0.76                              | 0.75                              |
| WCDMA     | Band V  | Front             | 0.397            | 0.129            | 0.126                         | 0.53                              | 0.52                              |
|           |         | Back              | 0.481            | 0.129            | 0.126                         | 0.61                              | 0.61                              |
|           | Band II | Front             | 0.548            | 0.129            | 0.126                         | 0.68                              | 0.67                              |
|           |         | Back              | 0.594            | 0.129            | 0.126                         | 0.72                              | 0.72                              |
| LTE       | Band 5  | Front             | 0.434            | 0.129            | 0.126                         | 0.56                              | 0.56                              |
|           |         | Back              | 0.615            | 0.129            | 0.126                         | 0.74                              | 0.74                              |
|           | Band 7  | Front             | 0.763            | 0.129            | 0.126                         | 0.89                              | 0.89                              |
|           |         | Back              | 1.192            | 0.129            | 0.126                         | <b>1.32</b>                       | 1.32                              |

**Test Engineer :** Nick Hu



## ***Appendix A. Reference Report***

Please refer to Sporton report number FA711809 which is issued separately.