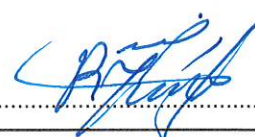


| <b>RF-EXPOSURE REPORT</b><br><br><b>FCC 47 CFR Part 2.1091</b><br><b>ISED RSS-102</b><br><br><b>Maximum permissible exposure</b> |                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Report Reference No</b>                                                                                                       | G0M-2304-2019-TFC091MP-V02                                                                                                                                                                                                           |
| <b>Testing Laboratory</b>                                                                                                        | Eurofins Product Service GmbH                                                                                                                                                                                                        |
| <b>Address</b>                                                                                                                   | Storkower Str. 38c<br>15526 Reichenwalde<br>Germany                                                                                                                                                                                  |
| <b>Accreditation</b>                                                                                                             | <br>A2LA Accredited Testing Laboratory, Certificate No.: 1983.01<br>FCC Test Firm Designation Number: DE0008<br>ISED Testing Laboratory site: 3470A |
| <b>Applicant</b>                                                                                                                 | Vaisala Oyj                                                                                                                                                                                                                          |
| <b>Address</b>                                                                                                                   | Vanha Nurmijärventie 21<br>01670 Vantaa<br>Finland                                                                                                                                                                                   |
| <b>Test Specification</b>                                                                                                        | According to FCC/ISED rules                                                                                                                                                                                                          |
| <b>Standard</b>                                                                                                                  | FCC 47 CFR 2.1091<br>ISED RSS-102                                                                                                                                                                                                    |
| <b>Non-Standard Test Method</b>                                                                                                  | None                                                                                                                                                                                                                                 |
| <b>Equipment under Test (EUT):</b>                                                                                               |                                                                                                                                                                                                                                      |
| <b>Product Description</b>                                                                                                       | TempCast FMP100                                                                                                                                                                                                                      |
| <b>Model(s)</b>                                                                                                                  | FMP103                                                                                                                                                                                                                               |
| <b>Additional Model(s)</b>                                                                                                       | None                                                                                                                                                                                                                                 |
| <b>Brand Name(s)</b>                                                                                                             | Vaisala                                                                                                                                                                                                                              |
| <b>Hardware Version(s)</b>                                                                                                       | F                                                                                                                                                                                                                                    |
| <b>Software Version(s)</b>                                                                                                       | 1.0.9                                                                                                                                                                                                                                |
| <b>FCC ID</b>                                                                                                                    | 2AO39-FMP100                                                                                                                                                                                                                         |
| <b>IC</b>                                                                                                                        | 23830-FMP100                                                                                                                                                                                                                         |
| <b>Test Result</b>                                                                                                               | <b>PASSED</b>                                                                                                                                                                                                                        |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------------------------------------------------------------------------|
| <b>Possible test case verdicts:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |                                                                                       |
| required by standard but not tested                                                                                                                                                                                                                                                                                                                                                                                                                                            | N/T             |                                                                                       |
| not required by standard                                                                                                                                                                                                                                                                                                                                                                                                                                                       | N/R             |                                                                                       |
| test object does meet the requirement                                                                                                                                                                                                                                                                                                                                                                                                                                          | P(PASS)         |                                                                                       |
| test object does not meet the requirement                                                                                                                                                                                                                                                                                                                                                                                                                                      | F(FAIL)         |                                                                                       |
| <b>Testing:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |                                                                                       |
| Test Lab Temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 20 °C - 30 °C   |                                                                                       |
| Test Lab Humidity                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 25 % - 55 %     |                                                                                       |
| Date of performance                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2023-09-21      |                                                                                       |
| Date of receipt of test item                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2023-05-05      |                                                                                       |
| <b>Report:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |                                                                                       |
| Compiled by                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Florian Voigt   |                                                                                       |
| Tested by (+ signature)                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Florian Voigt   |   |
| Test supervised by<br>(Responsible for Test)                                                                                                                                                                                                                                                                                                                                                                                                                                   | Burkhard Pudell |  |
| Approved by (+ signature)<br>(Test Lab Engineer)                                                                                                                                                                                                                                                                                                                                                                                                                               | Radwan Jaafar   |  |
| Date of Issue                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2023-09-22      |                                                                                       |
| Total number of pages                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 27              |                                                                                       |
| <b>General Remarks:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |                                                                                       |
| <p>The test results presented in this report relate only to the object tested.</p> <p>The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report.</p> <p>This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.</p> |                 |                                                                                       |
| <b>Additional Comments:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |                                                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |                                                                                       |

## VERSION HISTORY

| Version History |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |
|-----------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Version         | Issue Date | Remarks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Revised By    |
| 01              | 2023-07-14 | Initial Release                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Florian Voigt |
| 02              | 2023-09-22 | <p>Replaced document: G0M-2304-2019-TFC91MP-V01<br/>Replaced by: G0M-2304-2019-TFC91MP-V02</p> <p>Reason:</p> <ol style="list-style-type: none"> <li>Page 6: Replaced "Contains FCC ID" and "Contains IC" fields with FCC ID, IC, PMN, HVIN and FVIN from EUT.</li> <li>Page 7: Removed reference to unused radio report 59675RRF.002.</li> <li>Page 7: Added reference to BTLE radio report 3772RER005A1.</li> <li>Page 8: Changed maximum duty cycle of 20% to 100% for NB-IoT modem.</li> <li>Page 8: Added Bluetooth LE as a second transmitter.</li> <li>Recalculated MPE with Bluetooth LE which has major effect on all following pages from page 8.</li> </ol> | -             |

## ABBREVIATIONS AND ACRONYMS

| Acronyms |                                     |
|----------|-------------------------------------|
| Acronym  | Description                         |
| EIRP     | Equivalent Isotropic Radiated Power |
| EUT      | Equipment Under Test                |
| MPE      | Maximum Permissible Exposure        |

**REPORT INDEX**

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## 1 Equipment (Test Item) Under Test

|                     |                 |
|---------------------|-----------------|
| Description         | TempCast FMP100 |
| Model               | FMP103          |
| Additional Model(s) | None            |
| Brand Name(s)       | Vaisala         |
| Serial Number(s)    | Prototype       |
| Hardware Version(s) | F               |
| Software Version(s) | 1.0.9           |
| PMN                 | Tempcast FMP100 |
| HVIN                | FMP103, FMP102  |
| FVIN                | 1.0.9           |
| HMN                 | N/A             |
| FCC ID              | 2AO39-FMP100    |
| IC                  | 23830-FMP100    |
| Equipment type      | End Product     |
| Environment         | General public  |

## 1.1 Reference Documents

| Document Type                                    | Document No. | Issued by                                     | Date       |
|--------------------------------------------------|--------------|-----------------------------------------------|------------|
| Radio Test Report<br>47 CFR § 15.247,<br>RSS-247 | 3772RER005A1 | Eurofins Electric &<br>Electronics Finland Oy | 2023-07-25 |

## 1.2 Power density radiation sources

| Mode                                                                                                          | Operating Frequency [MHz] | Maximum conducted power [dBm] | Maximum radiated power [dBm EIRP] | Maximum duty cycle [%] | Maximum antenna gain [dBi] | Maximum antenna diameter [cm] |
|---------------------------------------------------------------------------------------------------------------|---------------------------|-------------------------------|-----------------------------------|------------------------|----------------------------|-------------------------------|
| LTE FDD2                                                                                                      | 1880.0                    | 25.7*                         | 29.4                              | 100                    | 3.7                        | N/A                           |
| LTE FDD4                                                                                                      | 1732.5                    | 25.7*                         | 29.4                              | 100                    | 3.7                        | N/A                           |
| LTE FDD5                                                                                                      | 836.5                     | 25.7*                         | 27.6                              | 100                    | 1.9                        | N/A                           |
| LTE FDD12                                                                                                     | 707.5                     | 25.7*                         | 27.6                              | 100                    | 1.9                        | N/A                           |
| LTE FDD13                                                                                                     | 782.0                     | 25.7*                         | 27.6                              | 100                    | 1.9                        | N/A                           |
| LTE FDD25                                                                                                     | 1882.5                    | 25.7*                         | 29.4                              | 100                    | 3.7                        | N/A                           |
| LTE FDD26                                                                                                     | 831.5                     | 25.7*                         | 27.6                              | 100                    | 1.9                        | N/A                           |
| LTE FDD66                                                                                                     | 1745                      | 25.7*                         | 29.4                              | 100                    | 3.7                        | N/A                           |
| Bluetooth LE                                                                                                  | 2402                      | -1.2                          | 2.5                               | 100                    | 3.7                        | N/A                           |
|                                                                                                               | 2440                      | -0.5                          | 3.2                               | 100                    | 3.7                        | N/A                           |
|                                                                                                               | 2480                      | -2.8                          | 0.9                               | 100                    | 3.7                        | N/A                           |
| Comment: *Using maximum allowed power of corresponding radio technology standard including tune up tolerance. |                           |                               |                                   |                        |                            |                               |

## 1.3 Field strength radiation sources

None

## 1.4 Concurrent Sources

| Concurrent operating conditions |
|---------------------------------|
| LTE FDD2 + Bluetooth LE         |
| LTE FDD4 + Bluetooth LE         |
| LTE FDD5 + Bluetooth LE         |
| LTE FDD12 + Bluetooth LE        |
| LTE FDD13 + Bluetooth LE        |
| LTE FDD25 + Bluetooth LE        |
| LTE FDD26 + Bluetooth LE        |
| LTE FDD66 + Bluetooth LE        |
| Comment:                        |

## 2 Result Summary

| FCC MPE Evaluation - Single radiation sources |                              |                  |              |              |         |
|-----------------------------------------------|------------------------------|------------------|--------------|--------------|---------|
| Product Standard Reference                    | Requirement                  | Reference Method | Mode         | Distance [m] | Verdict |
| 47 CFR 2.1091                                 | Maximum permissible exposure | FCC KDB 447498   | LTE FDD2     | 0.20         | PASS    |
| 47 CFR 2.1091                                 | Maximum permissible exposure | FCC KDB 447498   | LTE FDD4     | 0.20         | PASS    |
| 47 CFR 2.1091                                 | Maximum permissible exposure | FCC KDB 447498   | LTE FDD5     | 0.20         | PASS    |
| 47 CFR 2.1091                                 | Maximum permissible exposure | FCC KDB 447498   | LTE FDD12    | 0.20         | PASS    |
| 47 CFR 2.1091                                 | Maximum permissible exposure | FCC KDB 447498   | LTE FDD13    | 0.20         | PASS    |
| 47 CFR 2.1091                                 | Maximum permissible exposure | FCC KDB 447498   | LTE FDD25    | 0.20         | PASS    |
| 47 CFR 2.1091                                 | Maximum permissible exposure | FCC KDB 447498   | LTE FDD26    | 0.20         | PASS    |
| 47 CFR 2.1091                                 | Maximum permissible exposure | FCC KDB 447498   | LTE FDD66    | 0.20         | PASS    |
| 47 CFR 2.1091                                 | Maximum permissible exposure | FCC KDB 447498   | Bluetooth LE | 0.20         | PASS    |
| Comment:                                      |                              |                  |              |              |         |

| ISED MPE Evaluation - Single radiation sources |                              |                  |              |              |         |
|------------------------------------------------|------------------------------|------------------|--------------|--------------|---------|
| Product Standard Reference                     | Requirement                  | Reference Method | Mode         | Distance [m] | Verdict |
| ISED RSS-102                                   | Maximum permissible exposure | ISED RSS-102     | LTE FDD2     | 0.20         | PASS    |
| ISED RSS-102                                   | Maximum permissible exposure | ISED RSS-102     | LTE FDD4     | 0.20         | PASS    |
| ISED RSS-102                                   | Maximum permissible exposure | ISED RSS-102     | LTE FDD5     | 0.20         | PASS    |
| ISED RSS-102                                   | Maximum permissible exposure | ISED RSS-102     | LTE FDD12    | 0.20         | PASS    |
| ISED RSS-102                                   | Maximum permissible exposure | ISED RSS-102     | LTE FDD13    | 0.20         | PASS    |
| ISED RSS-102                                   | Maximum permissible exposure | ISED RSS-102     | LTE FDD25    | 0.20         | PASS    |
| ISED RSS-102                                   | Maximum permissible exposure | ISED RSS-102     | LTE FDD26    | 0.20         | PASS    |
| ISED RSS-102                                   | Maximum permissible exposure | ISED RSS-102     | LTE FDD66    | 0.20         | PASS    |
| ISED RSS-102                                   | Maximum permissible exposure | ISED RSS-102     | Bluetooth LE | 0.20         | PASS    |
| Comment:                                       |                              |                  |              |              |         |

| FCC MPE Evaluation - Multi-transmitter sources |                              |                  |                          |              |         |
|------------------------------------------------|------------------------------|------------------|--------------------------|--------------|---------|
| Product Standard Reference                     | Requirement                  | Reference Method | Mode                     | Distance [m] | Verdict |
| 47 CFR 2.1091                                  | Maximum permissible exposure | FCC KDB 447498   | LTE FDD2 + Bluetooth LE  | 0.20         | PASS    |
| 47 CFR 2.1091                                  | Maximum permissible exposure | FCC KDB 447498   | LTE FDD4 + Bluetooth LE  | 0.20         | PASS    |
| 47 CFR 2.1091                                  | Maximum permissible exposure | FCC KDB 447498   | LTE FDD5 + Bluetooth LE  | 0.20         | PASS    |
| 47 CFR 2.1091                                  | Maximum permissible exposure | FCC KDB 447498   | LTE FDD12 + Bluetooth LE | 0.20         | PASS    |
| 47 CFR 2.1091                                  | Maximum permissible exposure | FCC KDB 447498   | LTE FDD13 + Bluetooth LE | 0.20         | PASS    |
| 47 CFR 2.1091                                  | Maximum permissible exposure | FCC KDB 447498   | LTE FDD25 + Bluetooth LE | 0.20         | PASS    |
| 47 CFR 2.1091                                  | Maximum permissible exposure | FCC KDB 447498   | LTE FDD26 + Bluetooth LE | 0.20         | PASS    |
| 47 CFR 2.1091                                  | Maximum permissible exposure | FCC KDB 447498   | LTE FDD66 + Bluetooth LE | 0.20         | PASS    |
| Comment:                                       |                              |                  |                          |              |         |

| ISED MPE Evaluation - Multi-transmitter sources |                              |                  |                          |              |         |
|-------------------------------------------------|------------------------------|------------------|--------------------------|--------------|---------|
| Product Standard Reference                      | Requirement                  | Reference Method | Mode                     | Distance [m] | Verdict |
| ISED RSS-102                                    | Maximum permissible exposure | ISED RSS-102     | LTE FDD2 + Bluetooth LE  | 0.20         | PASS    |
| ISED RSS-102                                    | Maximum permissible exposure | ISED RSS-102     | LTE FDD4 + Bluetooth LE  | 0.20         | PASS    |
| ISED RSS-102                                    | Maximum permissible exposure | ISED RSS-102     | LTE FDD5 + Bluetooth LE  | 0.20         | PASS    |
| ISED RSS-102                                    | Maximum permissible exposure | ISED RSS-102     | LTE FDD12 + Bluetooth LE | 0.20         | PASS    |
| ISED RSS-102                                    | Maximum permissible exposure | ISED RSS-102     | LTE FDD13 + Bluetooth LE | 0.20         | PASS    |
| ISED RSS-102                                    | Maximum permissible exposure | ISED RSS-102     | LTE FDD25 + Bluetooth LE | 0.20         | PASS    |
| ISED RSS-102                                    | Maximum permissible exposure | ISED RSS-102     | LTE FDD26 + Bluetooth LE | 0.20         | PASS    |
| ISED RSS-102                                    | Maximum permissible exposure | ISED RSS-102     | LTE FDD66 + Bluetooth LE | 0.20         | PASS    |
| Comment:                                        |                              |                  |                          |              |         |

### 3 RF-Exposure classification

| RF-Exposure Categories |                                                                                                                                                                                                                                                                                                                        |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fixed                  | A fixed device is defined as a device physically secured at one fixed location and cannot be easily re-located.                                                                                                                                                                                                        |
| Mobile                 | A mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons. |
| Portable               | A portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user.                                                                                                                                       |

| RF-Exposure Categories            |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Occupational / Controlled         | Limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure. |
| General population / Uncontrolled | Exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.                                                                                                                                                                                           |

#### 4 RF-Exposure limits

| FCC Limits – General Population / Uncontrolled Exposure |                               |                               |                                   |                      |
|---------------------------------------------------------|-------------------------------|-------------------------------|-----------------------------------|----------------------|
| Frequency range [MHz]                                   | Electric field strength [V/M] | Magnetic field strength [A/M] | Power density [W/m <sup>2</sup> ] | Averaging time [min] |
| 0.3 – 1.34                                              | 614                           | 1.63                          | 1000                              | 30                   |
| 1.34 – 30                                               | 824/f                         | 2.19/f                        | 1800/f <sup>2</sup>               | 30                   |
| 30 – 300                                                | 27.5                          | 0.073                         | 2                                 | 30                   |
| 300 – 1500                                              | -                             | -                             | f/150                             | 30                   |
| 1500 – 100000                                           | -                             | -                             | 10.0                              | 30                   |

| FCC Limits – Occupational / Controlled Exposure |                               |                               |                                   |                      |
|-------------------------------------------------|-------------------------------|-------------------------------|-----------------------------------|----------------------|
| Frequency range [MHz]                           | Electric field strength [V/M] | Magnetic field strength [A/M] | Power density [W/m <sup>2</sup> ] | Averaging time [min] |
| 0.3 – 3.0                                       | 614                           | 1.63                          | 1000                              | 6                    |
| 3.0 – 30                                        | 1842/f                        | 4.89/f                        | 9000/f <sup>2</sup>               | 6                    |
| 30 – 300                                        | 61.4                          | 0.163                         | 10.0                              | 6                    |
| 300 – 1500                                      | -                             | -                             | f/30                              | 6                    |
| 1500 – 100000                                   | -                             | -                             | 50                                | 6                    |

| ISED Limits – General Population / Uncontrolled Exposure |                               |                                         |                                   |                         |
|----------------------------------------------------------|-------------------------------|-----------------------------------------|-----------------------------------|-------------------------|
| Frequency range [MHz]                                    | Electric field strength [V/M] | Magnetic field strength [A/M]           | Power density [W/m <sup>2</sup> ] | Averaging time [min]    |
| 0.003 – 10                                               | 83                            | 90                                      | -                                 | Instantaneous           |
| 0.1 – 10                                                 | -                             | 0.73/f                                  | -                                 | 6                       |
| 1.1 – 10                                                 | 87/f <sup>0.5</sup>           | -                                       | -                                 | 6                       |
| 10 – 20                                                  | 27.46                         | 0.0728                                  | 2                                 | 6                       |
| 20 – 48                                                  | 58.07/f <sup>0.5</sup>        | 0.1540/f <sup>0.25</sup>                | 8.944/f <sup>0.5</sup>            | 6                       |
| 48 – 300                                                 | 22.06                         | 0.05852                                 | 1.291                             | 6                       |
| 300 – 6000                                               | 3.142·f <sup>0.3417</sup>     | 0.008335·f <sup>0.3417</sup>            | 0.02619·f <sup>0.6834</sup>       | 6                       |
| 6000 – 15000                                             | 61.4                          | 0.163                                   | 10                                | 6                       |
| 15000 – 150000                                           | 61.4                          | 0.163                                   | 10                                | 616000/f <sup>1.2</sup> |
| 150000 – 300000                                          | 0.158·f <sup>0.5</sup>        | 4.21·10 <sup>-4</sup> ·f <sup>0.5</sup> | 6.67·10 <sup>-5</sup> ·f          | 616000/f <sup>1.2</sup> |

| ISED Limits – Occupational / Controlled Exposure |                               |                                         |                                   |                         |
|--------------------------------------------------|-------------------------------|-----------------------------------------|-----------------------------------|-------------------------|
| Frequency range [MHz]                            | Electric field strength [V/M] | Magnetic field strength [A/M]           | Power density [W/m <sup>2</sup> ] | Averaging time [min]    |
| 0.003 – 10                                       | 170                           | 180                                     | -                                 | Instantaneous           |
| 0.1 – 10                                         | -                             | 1.6/f                                   | -                                 | 6                       |
| 1.1 – 10                                         | 193/f <sup>0.5</sup>          | -                                       | -                                 | 6                       |
| 10 – 20                                          | 61.4                          | 0.163                                   | 10                                | 6                       |
| 20 – 48                                          | 129.8/f <sup>0.5</sup>        | 0.3444/f <sup>0.25</sup>                | 44.72/f <sup>0.5</sup>            | 6                       |
| 48 – 300                                         | 49.33                         | 0.1309                                  | 6.455                             | 6                       |
| 300 – 6000                                       | 15.60·f <sup>0.25</sup>       | 0.04138·f <sup>0.25</sup>               | 0.6455·f <sup>0.5</sup>           | 6                       |
| 6000 – 15000                                     | 137                           | 0.364                                   | 50                                | 6                       |
| 15000 – 150000                                   | 137                           | 0.364                                   | 50                                | 616000/f <sup>1.2</sup> |
| 150000 – 300000                                  | 0.354·f <sup>0.5</sup>        | 9.40·10 <sup>-4</sup> ·f <sup>0.5</sup> | 3.33·10 <sup>-4</sup> ·f          | 616000/f <sup>1.2</sup> |

## 5 RF-Exposure Evaluation

| Evaluation Relations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| $\lambda[m] = \frac{c \left[ \frac{m}{s} \right]}{f[Hz]} ; R_{FF}[m] \geq \frac{2 \cdot D[m]^2}{\lambda[m]}$ $S[W/m^2] = \frac{P_{E.I.R.P.}[W]}{4\pi R[m]^2} ; R[m] = \sqrt{\frac{P_{E.I.R.P.}[W]}{4\pi S[W/m^2]}}$ $DCC [dB] = 10 \cdot \log_{10} \left( \frac{DC[\%]}{100} \right)$ $\sum_{i=1}^N \frac{S_i \left[ \frac{W}{m^2} \right]}{S_{Li} \left[ \frac{W}{m^2} \right]} + \sum_{j=1}^M \left( \frac{E_j \left[ \frac{V}{m} \right]}{E_{Lj} \left[ \frac{V}{m} \right]} \right)^2 + \sum_{k=1}^O \left( \frac{H_k \left[ \frac{A}{m} \right]}{H_{Lk} \left[ \frac{A}{m} \right]} \right)^2 < 1$ |

| Evaluation Procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><u>Standalone operation evaluation:</u></p> <p>For each radio and frequency band the worst case transmission mode with the highest peak conducted or radiated power is evaluated at the frequency that results in the most restrictive rf-exposure limit. From the peak power values, antenna gains and duty cycles taken from the reference documents, the source average radiated power values are calculated. From the average radiated power the power densities at antenna far-field distance is calculated. The distance from the radiation source for compliance power density is calculated. If the separation distance is lower than the far-field distance, the far-field distance is given as compliance separation distance because the plane wave power density assessment is only valid in the far-field of the radiation source.</p> <p>For radiation sources for which the average electric and magnetic fields are measured using field probes, the measured field strength values are compared to the reference limits. For those sources no calculations are performed. Compliance with the reference values is determined with the near field measurements.</p> <p><u>Concurrent operation evaluation:</u></p> <p>First the evaluation distance is set to an appropriate value. For all radiation sources for which power densities are calculated, the power densities at the evaluation distance are calculated and for all other sources the electric or magnetic field strengths are measured using field probes. Finally the ratios of the power densities and/or field strength values and the corresponding limits are calculated and summed and the sum is compared to the maximum of 1.</p> |

## 6 Single Source Evaluation Results - FCC

| LTE FDD2                                                           |        |
|--------------------------------------------------------------------|--------|
| <b>Transmission Mode</b>                                           |        |
| Transmission Frequency (f) [MHz]                                   | 1880.0 |
| <b>Antenna far-field distance</b>                                  |        |
| Maximum antenna diameter (D) [m]                                   | N/A    |
| Transmission wavelength ( $\lambda$ ) [m]                          | N/A    |
| Antenna far-field distance ( $R_{FF}$ ) [m]                        | N/A    |
| <b>Source average power</b>                                        |        |
| Peak radiated power (PR) [dBm EIRP]                                | 29.4   |
| Maximum transmission duty cycle (DC)                               | 1.00   |
| Duty cycle correction (DCC) [dB]                                   | 0.00   |
| Average radiated power (PRAVG) [dBm EIRP]                          | 29.40  |
| <b>Power density</b>                                               |        |
| Compliance power density limit [W/m <sup>2</sup> ]                 | 10.000 |
| Power density (S) @ Antenna far-field distance [W/m <sup>2</sup> ] | N/A    |
| Power density (S) @ 0.20 m [W/m <sup>2</sup> ]                     | 1.733  |
| Power density ratio @ 0.20 m                                       | 0.17   |
| Distance for compliance power density (S=SL) [m]                   | 0.083  |
| <b>Compliance</b>                                                  |        |
| Verdict                                                            | PASS   |
| Comment:                                                           |        |

| LTE FDD4                                                           |        |
|--------------------------------------------------------------------|--------|
| <b>Transmission Mode</b>                                           |        |
| Transmission Frequency (f) [MHz]                                   | 1732.5 |
| <b>Antenna far-field distance</b>                                  |        |
| Maximum antenna diameter (D) [m]                                   | N/A    |
| Transmission wavelength ( $\lambda$ ) [m]                          | N/A    |
| Antenna far-field distance ( $R_{FF}$ ) [m]                        | N/A    |
| <b>Source average power</b>                                        |        |
| Peak radiated power (PR) [dBm EIRP]                                | 29.4   |
| Maximum transmission duty cycle (DC)                               | 1.00   |
| Duty cycle correction (DCC) [dB]                                   | 0.00   |
| Average radiated power (PRAVG) [dBm EIRP]                          | 29.40  |
| <b>Power density</b>                                               |        |
| Compliance power density limit [W/m <sup>2</sup> ]                 | 10.000 |
| Power density (S) @ Antenna far-field distance [W/m <sup>2</sup> ] | N/A    |
| Power density (S) @ 0.20 m [W/m <sup>2</sup> ]                     | 1.733  |
| Power density ratio @ 0.20 m                                       | 0.17   |
| Distance for compliance power density (S=SL) [m]                   | 0.083  |
| <b>Compliance</b>                                                  |        |
| Verdict                                                            | PASS   |
| Comment:                                                           |        |

| LTE FDD5                                                           |       |
|--------------------------------------------------------------------|-------|
| <b>Transmission Mode</b>                                           |       |
| Transmission Frequency (f) [MHz]                                   | 836.5 |
| <b>Antenna far-field distance</b>                                  |       |
| Maximum antenna diameter (D) [m]                                   | N/A   |
| Transmission wavelength ( $\lambda$ ) [m]                          | N/A   |
| Antenna far-field distance ( $R_{FF}$ ) [m]                        | N/A   |
| <b>Source average power</b>                                        |       |
| Peak radiated power (PR) [dBm EIRP]                                | 27.6  |
| Maximum transmission duty cycle (DC)                               | 1.00  |
| Duty cycle correction (DCC) [dB]                                   | 0.00  |
| Average radiated power (PRAVG) [dBm EIRP]                          | 27.60 |
| <b>Power density</b>                                               |       |
| Compliance power density limit [W/m <sup>2</sup> ]                 | 5.577 |
| Power density (S) @ Antenna far-field distance [W/m <sup>2</sup> ] | N/A   |
| Power density (S) @ 0.20 m [W/m <sup>2</sup> ]                     | 1.145 |
| Power density ratio @ 0.20 m                                       | 0.21  |
| Distance for compliance power density (S=SL) [m]                   | 0.091 |
| <b>Compliance</b>                                                  |       |
| Verdict                                                            | PASS  |
| Comment:                                                           |       |

| LTE FDD12                                                          |       |
|--------------------------------------------------------------------|-------|
| <b>Transmission Mode</b>                                           |       |
| Transmission Frequency (f) [MHz]                                   | 707.5 |
| <b>Antenna far-field distance</b>                                  |       |
| Maximum antenna diameter (D) [m]                                   | N/A   |
| Transmission wavelength ( $\lambda$ ) [m]                          | N/A   |
| Antenna far-field distance ( $R_{FF}$ ) [m]                        | N/A   |
| <b>Source average power</b>                                        |       |
| Peak radiated power (PR) [dBm EIRP]                                | 27.6  |
| Maximum transmission duty cycle (DC)                               | 1.00  |
| Duty cycle correction (DCC) [dB]                                   | 0.00  |
| Average radiated power (PRAVG) [dBm EIRP]                          | 27.60 |
| <b>Power density</b>                                               |       |
| Compliance power density limit [W/m <sup>2</sup> ]                 | 4.717 |
| Power density (S) @ Antenna far-field distance [W/m <sup>2</sup> ] | N/A   |
| Power density (S) @ 0.20 m [W/m <sup>2</sup> ]                     | 1.145 |
| Power density ratio @ 0.20 m                                       | 0.24  |
| Distance for compliance power density (S=SL) [m]                   | 0.099 |
| <b>Compliance</b>                                                  |       |
| Verdict                                                            | PASS  |
| Comment:                                                           |       |

| LTE FDD13                                                          |       |
|--------------------------------------------------------------------|-------|
| <b>Transmission Mode</b>                                           |       |
| Transmission Frequency (f) [MHz]                                   | 782.0 |
| <b>Antenna far-field distance</b>                                  |       |
| Maximum antenna diameter (D) [m]                                   | N/A   |
| Transmission wavelength ( $\lambda$ ) [m]                          | N/A   |
| Antenna far-field distance ( $R_{FF}$ ) [m]                        | N/A   |
| <b>Source average power</b>                                        |       |
| Peak radiated power (PR) [dBm EIRP]                                | 27.6  |
| Maximum transmission duty cycle (DC)                               | 1.00  |
| Duty cycle correction (DCC) [dB]                                   | 0.00  |
| Average radiated power (PRAVG) [dBm EIRP]                          | 27.60 |
| <b>Power density</b>                                               |       |
| Compliance power density limit [W/m <sup>2</sup> ]                 | 5.213 |
| Power density (S) @ Antenna far-field distance [W/m <sup>2</sup> ] | N/A   |
| Power density (S) @ 0.20 m [W/m <sup>2</sup> ]                     | 1.145 |
| Power density ratio @ 0.20 m                                       | 0.22  |
| Distance for compliance power density (S=SL) [m]                   | 0.094 |
| <b>Compliance</b>                                                  |       |
| Verdict                                                            | PASS  |
| Comment:                                                           |       |

| LTE FDD25                                                          |        |
|--------------------------------------------------------------------|--------|
| <b>Transmission Mode</b>                                           |        |
| Transmission Frequency (f) [MHz]                                   | 1882.5 |
| <b>Antenna far-field distance</b>                                  |        |
| Maximum antenna diameter (D) [m]                                   | N/A    |
| Transmission wavelength ( $\lambda$ ) [m]                          | N/A    |
| Antenna far-field distance ( $R_{FF}$ ) [m]                        | N/A    |
| <b>Source average power</b>                                        |        |
| Peak radiated power (PR) [dBm EIRP]                                | 29.4   |
| Maximum transmission duty cycle (DC)                               | 1.00   |
| Duty cycle correction (DCC) [dB]                                   | 0.00   |
| Average radiated power (PRAVG) [dBm EIRP]                          | 29.40  |
| <b>Power density</b>                                               |        |
| Compliance power density limit [W/m <sup>2</sup> ]                 | 10.000 |
| Power density (S) @ Antenna far-field distance [W/m <sup>2</sup> ] | N/A    |
| Power density (S) @ 0.20 m [W/m <sup>2</sup> ]                     | 1.733  |
| Power density ratio @ 0.20 m                                       | 0.17   |
| Distance for compliance power density (S=SL) [m]                   | 0.083  |
| <b>Compliance</b>                                                  |        |
| Verdict                                                            | PASS   |
| Comment:                                                           |        |

| LTE FDD26                                                          |       |
|--------------------------------------------------------------------|-------|
| <b>Transmission Mode</b>                                           |       |
| Transmission Frequency (f) [MHz]                                   | 831.5 |
| <b>Antenna far-field distance</b>                                  |       |
| Maximum antenna diameter (D) [m]                                   | N/A   |
| Transmission wavelength ( $\lambda$ ) [m]                          | N/A   |
| Antenna far-field distance ( $R_{FF}$ ) [m]                        | N/A   |
| <b>Source average power</b>                                        |       |
| Peak radiated power (PR) [dBm EIRP]                                | 27.6  |
| Maximum transmission duty cycle (DC)                               | 1.00  |
| Duty cycle correction (DCC) [dB]                                   | 0.00  |
| Average radiated power (PRAVG) [dBm EIRP]                          | 27.60 |
| <b>Power density</b>                                               |       |
| Compliance power density limit [W/m <sup>2</sup> ]                 | 5.543 |
| Power density (S) @ Antenna far-field distance [W/m <sup>2</sup> ] | N/A   |
| Power density (S) @ 0.20 m [W/m <sup>2</sup> ]                     | 1.145 |
| Power density ratio @ 0.20 m                                       | 0.21  |
| Distance for compliance power density (S=SL) [m]                   | 0.091 |
| <b>Compliance</b>                                                  |       |
| Verdict                                                            | PASS  |
| Comment:                                                           |       |

| LTE FDD66                                                          |        |
|--------------------------------------------------------------------|--------|
| <b>Transmission Mode</b>                                           |        |
| Transmission Frequency (f) [MHz]                                   | 1745   |
| <b>Antenna far-field distance</b>                                  |        |
| Maximum antenna diameter (D) [m]                                   | N/A    |
| Transmission wavelength ( $\lambda$ ) [m]                          | N/A    |
| Antenna far-field distance ( $R_{FF}$ ) [m]                        | N/A    |
| <b>Source average power</b>                                        |        |
| Peak radiated power (PR) [dBm EIRP]                                | 29.4   |
| Maximum transmission duty cycle (DC)                               | 1.00   |
| Duty cycle correction (DCC) [dB]                                   | 0.00   |
| Average radiated power (PRAVG) [dBm EIRP]                          | 29.40  |
| <b>Power density</b>                                               |        |
| Compliance power density limit [W/m <sup>2</sup> ]                 | 10.000 |
| Power density (S) @ Antenna far-field distance [W/m <sup>2</sup> ] | N/A    |
| Power density (S) @ 0.20 m [W/m <sup>2</sup> ]                     | 1.733  |
| Power density ratio @ 0.20 m                                       | 0.17   |
| Distance for compliance power density (S=SL) [m]                   | 0.083  |
| <b>Compliance</b>                                                  |        |
| Verdict                                                            | PASS   |
| Comment:                                                           |        |

| Bluetooth LE                                                       |        |        |        |
|--------------------------------------------------------------------|--------|--------|--------|
| <b>Transmission Mode</b>                                           |        |        |        |
| Transmission Frequency (f) [MHz]                                   | 2402   | 2440   | 2480   |
| <b>Antenna far-field distance</b>                                  |        |        |        |
| Maximum antenna diameter (D) [m]                                   | N/A    | N/A    | N/A    |
| Transmission wavelength ( $\lambda$ ) [m]                          | N/A    | N/A    | N/A    |
| Antenna far-field distance ( $R_{FF}$ ) [m]                        | N/A    | N/A    | N/A    |
| <b>Source average power</b>                                        |        |        |        |
| Peak radiated power (PR) [dBm EIRP]                                | 2.5    | 3.2    | 0.9    |
| Maximum transmission duty cycle (DC)                               | 1.00   | 1.00   | 1.00   |
| Duty cycle correction (DCC) [dB]                                   | 0.00   | 0.00   | 0.00   |
| Average radiated power (PRAVG) [dBm EIRP]                          | 2.50   | 3.20   | 0.90   |
| <b>Power density</b>                                               |        |        |        |
| Compliance power density limit [W/m <sup>2</sup> ]                 | 10.000 | 10.000 | 10.000 |
| Power density (S) @ Antenna far-field distance [W/m <sup>2</sup> ] | N/A    | N/A    | N/A    |
| Power density (S) @ 0.20 m [W/m <sup>2</sup> ]                     | 0.004  | 0.004  | 0.002  |
| Power density ratio @ 0.20 m                                       | 0.00   | 0.00   | 0.00   |
| Distance for compliance power density (S=SL) [m]                   | 0.004  | 0.004  | 0.003  |
| <b>Compliance</b>                                                  |        |        |        |
| Verdict                                                            | PASS   | PASS   | PASS   |
| Comment:                                                           |        |        |        |

## 7 Single Source Evaluation Results - ISED

| LTE FDD2                                                           |        |
|--------------------------------------------------------------------|--------|
| <b>Transmission Mode</b>                                           |        |
| Transmission Frequency (f) [MHz]                                   | 1880.0 |
| <b>Antenna far-field distance</b>                                  |        |
| Maximum antenna diameter (D) [m]                                   | N/A    |
| Transmission wavelength ( $\lambda$ ) [m]                          | N/A    |
| Antenna far-field distance ( $R_{FF}$ ) [m]                        | N/A    |
| <b>Source average power</b>                                        |        |
| Peak radiated power (PR) [dBm EIRP]                                | 29.4   |
| Maximum transmission duty cycle (DC)                               | 1.00   |
| Duty cycle correction (DCC) [dB]                                   | 0.00   |
| Average radiated power (PRAVG) [dBm EIRP]                          | 29.40  |
| <b>Power density</b>                                               |        |
| Compliance power density limit [W/m <sup>2</sup> ]                 | 4.526  |
| Power density (S) @ Antenna far-field distance [W/m <sup>2</sup> ] | N/A    |
| Power density (S) @ 0.20 m [W/m <sup>2</sup> ]                     | 1.733  |
| Power density ratio @ 0.20 m                                       | 0.38   |
| Distance for compliance power density (S=SL) [m]                   | 0.124  |
| <b>Compliance</b>                                                  |        |
| Verdict                                                            | PASS   |
| Comment:                                                           |        |

| LTE FDD4                                                           |        |
|--------------------------------------------------------------------|--------|
| <b>Transmission Mode</b>                                           |        |
| Transmission Frequency (f) [MHz]                                   | 1732.5 |
| <b>Antenna far-field distance</b>                                  |        |
| Maximum antenna diameter (D) [m]                                   | N/A    |
| Transmission wavelength ( $\lambda$ ) [m]                          | N/A    |
| Antenna far-field distance ( $R_{FF}$ ) [m]                        | N/A    |
| <b>Source average power</b>                                        |        |
| Peak radiated power (PR) [dBm EIRP]                                | 29.4   |
| Maximum transmission duty cycle (DC)                               | 1.00   |
| Duty cycle correction (DCC) [dB]                                   | 0.00   |
| Average radiated power (PRAVG) [dBm EIRP]                          | 29.40  |
| <b>Power density</b>                                               |        |
| Compliance power density limit [W/m <sup>2</sup> ]                 | 4.280  |
| Power density (S) @ Antenna far-field distance [W/m <sup>2</sup> ] | N/A    |
| Power density (S) @ 0.20 m [W/m <sup>2</sup> ]                     | 1.733  |
| Power density ratio @ 0.20 m                                       | 0.40   |
| Distance for compliance power density (S=SL) [m]                   | 0.127  |
| <b>Compliance</b>                                                  |        |
| Verdict                                                            | PASS   |
| Comment:                                                           |        |

| LTE FDD5                                                           |       |
|--------------------------------------------------------------------|-------|
| <b>Transmission Mode</b>                                           |       |
| Transmission Frequency (f) [MHz]                                   | 836.5 |
| <b>Antenna far-field distance</b>                                  |       |
| Maximum antenna diameter (D) [m]                                   | N/A   |
| Transmission wavelength ( $\lambda$ ) [m]                          | N/A   |
| Antenna far-field distance ( $R_{FF}$ ) [m]                        | N/A   |
| <b>Source average power</b>                                        |       |
| Peak radiated power (PR) [dBm EIRP]                                | 27.6  |
| Maximum transmission duty cycle (DC)                               | 1.00  |
| Duty cycle correction (DCC) [dB]                                   | 0.00  |
| Average radiated power (PRAVG) [dBm EIRP]                          | 27.60 |
| <b>Power density</b>                                               |       |
| Compliance power density limit [W/m <sup>2</sup> ]                 | 2.602 |
| Power density (S) @ Antenna far-field distance [W/m <sup>2</sup> ] | N/A   |
| Power density (S) @ 0.20 m [W/m <sup>2</sup> ]                     | 1.145 |
| Power density ratio @ 0.20 m                                       | 0.44  |
| Distance for compliance power density (S=SL) [m]                   | 0.133 |
| <b>Compliance</b>                                                  |       |
| Verdict                                                            | PASS  |
| Comment:                                                           |       |

| LTE FDD12                                                          |       |
|--------------------------------------------------------------------|-------|
| <b>Transmission Mode</b>                                           |       |
| Transmission Frequency (f) [MHz]                                   | 707.5 |
| <b>Antenna far-field distance</b>                                  |       |
| Maximum antenna diameter (D) [m]                                   | N/A   |
| Transmission wavelength ( $\lambda$ ) [m]                          | N/A   |
| Antenna far-field distance ( $R_{FF}$ ) [m]                        | N/A   |
| <b>Source average power</b>                                        |       |
| Peak radiated power (PR) [dBm EIRP]                                | 27.6  |
| Maximum transmission duty cycle (DC)                               | 1.00  |
| Duty cycle correction (DCC) [dB]                                   | 0.00  |
| Average radiated power (PRAVG) [dBm EIRP]                          | 27.60 |
| <b>Power density</b>                                               |       |
| Compliance power density limit [W/m <sup>2</sup> ]                 | 2.321 |
| Power density (S) @ Antenna far-field distance [W/m <sup>2</sup> ] | N/A   |
| Power density (S) @ 0.20 m [W/m <sup>2</sup> ]                     | 1.145 |
| Power density ratio @ 0.20 m                                       | 0.49  |
| Distance for compliance power density (S=SL) [m]                   | 0.140 |
| <b>Compliance</b>                                                  |       |
| Verdict                                                            | PASS  |
| Comment:                                                           |       |

| LTE FDD13                                                          |       |
|--------------------------------------------------------------------|-------|
| <b>Transmission Mode</b>                                           |       |
| Transmission Frequency (f) [MHz]                                   | 782.0 |
| <b>Antenna far-field distance</b>                                  |       |
| Maximum antenna diameter (D) [m]                                   | N/A   |
| Transmission wavelength ( $\lambda$ ) [m]                          | N/A   |
| Antenna far-field distance ( $R_{FF}$ ) [m]                        | N/A   |
| <b>Source average power</b>                                        |       |
| Peak radiated power (PR) [dBm EIRP]                                | 27.6  |
| Maximum transmission duty cycle (DC)                               | 1.00  |
| Duty cycle correction (DCC) [dB]                                   | 0.00  |
| Average radiated power (PRAVG) [dBm EIRP]                          | 27.60 |
| <b>Power density</b>                                               |       |
| Compliance power density limit [W/m <sup>2</sup> ]                 | 2.485 |
| Power density (S) @ Antenna far-field distance [W/m <sup>2</sup> ] | N/A   |
| Power density (S) @ 0.20 m [W/m <sup>2</sup> ]                     | 1.145 |
| Power density ratio @ 0.20 m                                       | 0.46  |
| Distance for compliance power density (S=SL) [m]                   | 0.136 |
| <b>Compliance</b>                                                  |       |
| Verdict                                                            | PASS  |
| Comment:                                                           |       |

| LTE FDD25                                                          |        |
|--------------------------------------------------------------------|--------|
| <b>Transmission Mode</b>                                           |        |
| Transmission Frequency (f) [MHz]                                   | 1882.5 |
| <b>Antenna far-field distance</b>                                  |        |
| Maximum antenna diameter (D) [m]                                   | N/A    |
| Transmission wavelength ( $\lambda$ ) [m]                          | N/A    |
| Antenna far-field distance ( $R_{FF}$ ) [m]                        | N/A    |
| <b>Source average power</b>                                        |        |
| Peak radiated power (PR) [dBm EIRP]                                | 29.4   |
| Maximum transmission duty cycle (DC)                               | 1.00   |
| Duty cycle correction (DCC) [dB]                                   | 0.00   |
| Average radiated power (PRAVG) [dBm EIRP]                          | 29.40  |
| <b>Power density</b>                                               |        |
| Compliance power density limit [W/m <sup>2</sup> ]                 | 4.530  |
| Power density (S) @ Antenna far-field distance [W/m <sup>2</sup> ] | N/A    |
| Power density (S) @ 0.20 m [W/m <sup>2</sup> ]                     | 1.733  |
| Power density ratio @ 0.20 m                                       | 0.38   |
| Distance for compliance power density (S=SL) [m]                   | 0.124  |
| <b>Compliance</b>                                                  |        |
| Verdict                                                            | PASS   |
| Comment:                                                           |        |

| LTE FDD26                                                          |       |
|--------------------------------------------------------------------|-------|
| <b>Transmission Mode</b>                                           |       |
| Transmission Frequency (f) [MHz]                                   | 831.5 |
| <b>Antenna far-field distance</b>                                  |       |
| Maximum antenna diameter (D) [m]                                   | N/A   |
| Transmission wavelength ( $\lambda$ ) [m]                          | N/A   |
| Antenna far-field distance ( $R_{FF}$ ) [m]                        | N/A   |
| <b>Source average power</b>                                        |       |
| Peak radiated power (PR) [dBm EIRP]                                | 27.6  |
| Maximum transmission duty cycle (DC)                               | 1.00  |
| Duty cycle correction (DCC) [dB]                                   | 0.00  |
| Average radiated power (PRAVG) [dBm EIRP]                          | 27.60 |
| <b>Power density</b>                                               |       |
| Compliance power density limit [W/m <sup>2</sup> ]                 | 2.592 |
| Power density (S) @ Antenna far-field distance [W/m <sup>2</sup> ] | N/A   |
| Power density (S) @ 0.20 m [W/m <sup>2</sup> ]                     | 1.145 |
| Power density ratio @ 0.20 m                                       | 0.44  |
| Distance for compliance power density (S=SL) [m]                   | 0.133 |
| <b>Compliance</b>                                                  |       |
| Verdict                                                            | PASS  |
| Comment:                                                           |       |

| LTE FDD66                                                          |       |
|--------------------------------------------------------------------|-------|
| <b>Transmission Mode</b>                                           |       |
| Transmission Frequency (f) [MHz]                                   | 1745  |
| <b>Antenna far-field distance</b>                                  |       |
| Maximum antenna diameter (D) [m]                                   | N/A   |
| Transmission wavelength ( $\lambda$ ) [m]                          | N/A   |
| Antenna far-field distance ( $R_{FF}$ ) [m]                        | N/A   |
| <b>Source average power</b>                                        |       |
| Peak radiated power (PR) [dBm EIRP]                                | 29.4  |
| Maximum transmission duty cycle (DC)                               | 1.00  |
| Duty cycle correction (DCC) [dB]                                   | 0.00  |
| Average radiated power (PRAVG) [dBm EIRP]                          | 29.40 |
| <b>Power density</b>                                               |       |
| Compliance power density limit [W/m <sup>2</sup> ]                 | 4.301 |
| Power density (S) @ Antenna far-field distance [W/m <sup>2</sup> ] | N/A   |
| Power density (S) @ 0.20 m [W/m <sup>2</sup> ]                     | 1.733 |
| Power density ratio @ 0.20 m                                       | 0.40  |
| Distance for compliance power density (S=SL) [m]                   | 0.127 |
| <b>Compliance</b>                                                  |       |
| Verdict                                                            | PASS  |
| Comment:                                                           |       |

| Bluetooth LE                                                       |       |       |       |
|--------------------------------------------------------------------|-------|-------|-------|
| <b>Transmission Mode</b>                                           |       |       |       |
| Transmission Frequency (f) [MHz]                                   | 2402  | 2440  | 2480  |
| <b>Antenna far-field distance</b>                                  |       |       |       |
| Maximum antenna diameter (D) [m]                                   | N/A   | N/A   | N/A   |
| Transmission wavelength ( $\lambda$ ) [m]                          | N/A   | N/A   | N/A   |
| Antenna far-field distance ( $R_{FF}$ ) [m]                        | N/A   | N/A   | N/A   |
| <b>Source average power</b>                                        |       |       |       |
| Peak radiated power (PR) [dBm EIRP]                                | 2.5   | 3.2   | 0.9   |
| Maximum transmission duty cycle (DC)                               | 1.00  | 1.00  | 1.00  |
| Duty cycle correction (DCC) [dB]                                   | 0.00  | 0.00  | 0.00  |
| Average radiated power (PRAVG) [dBm EIRP]                          | 2.50  | 3.20  | 0.90  |
| <b>Power density</b>                                               |       |       |       |
| Compliance power density limit [W/m <sup>2</sup> ]                 | 5.351 | 5.409 | 5.469 |
| Power density (S) @ Antenna far-field distance [W/m <sup>2</sup> ] | N/A   | N/A   | N/A   |
| Power density (S) @ 0.20 m [W/m <sup>2</sup> ]                     | 0.004 | 0.004 | 0.002 |
| Power density ratio @ 0.20 m                                       | 0.00  | 0.00  | 0.00  |
| Distance for compliance power density (S=SL) [m]                   | 0.005 | 0.006 | 0.004 |
| <b>Compliance</b>                                                  |       |       |       |
| Verdict                                                            | PASS  | PASS  | PASS  |
| Comment:                                                           |       |       |       |

## 8 Concurrent Evaluation Results - FCC

| LTE FDD2 + Bluetooth LE    |      |
|----------------------------|------|
| <b>Information</b>         |      |
| Number of concurrent modes | 2    |
| Evaluation distance [m]    | 0.20 |
| <b>Maximum MPE Ratios</b>  |      |
| LTE FDD2                   | 0.17 |
| Bluetooth LE               | 0.00 |
| <b>Sum of MPE Ratios</b>   |      |
| Sum                        | 0.17 |
| <b>Compliance</b>          |      |
| Verdict                    | PASS |

| LTE FDD4 + Bluetooth LE    |      |
|----------------------------|------|
| <b>Information</b>         |      |
| Number of concurrent modes | 2    |
| Evaluation distance [m]    | 0.20 |
| <b>Maximum MPE Ratios</b>  |      |
| LTE FDD4                   | 0.17 |
| Bluetooth LE               | 0.00 |
| <b>Sum of MPE Ratios</b>   |      |
| Sum                        | 0.17 |
| <b>Compliance</b>          |      |
| Verdict                    | PASS |

| LTE FDD5 + Bluetooth LE    |      |
|----------------------------|------|
| <b>Information</b>         |      |
| Number of concurrent modes | 2    |
| Evaluation distance [m]    | 0.20 |
| <b>Maximum MPE Ratios</b>  |      |
| LTE FDD5                   | 0.21 |
| Bluetooth LE               | 0.00 |
| <b>Sum of MPE Ratios</b>   |      |
| Sum                        | 0.21 |
| <b>Compliance</b>          |      |
| Verdict                    | PASS |

| LTE FDD12 + Bluetooth LE   |      |
|----------------------------|------|
| <b>Information</b>         |      |
| Number of concurrent modes | 2    |
| Evaluation distance [m]    | 0.20 |
| <b>Maximum MPE Ratios</b>  |      |
| LTE FDD12                  | 0.24 |
| Bluetooth LE               | 0.00 |
| <b>Sum of MPE Ratios</b>   |      |
| Sum                        | 0.24 |
| <b>Compliance</b>          |      |
| Verdict                    | PASS |

| LTE FDD13 + Bluetooth LE   |      |
|----------------------------|------|
| <b>Information</b>         |      |
| Number of concurrent modes | 2    |
| Evaluation distance [m]    | 0.20 |
| <b>Maximum MPE Ratios</b>  |      |
| LTE FDD13                  | 0.22 |
| Bluetooth LE               | 0.00 |
| <b>Sum of MPE Ratios</b>   |      |
| Sum                        | 0.22 |
| <b>Compliance</b>          |      |
| Verdict                    | PASS |

| LTE FDD25 + Bluetooth LE   |      |
|----------------------------|------|
| <b>Information</b>         |      |
| Number of concurrent modes | 2    |
| Evaluation distance [m]    | 0.20 |
| <b>Maximum MPE Ratios</b>  |      |
| LTE FDD25                  | 0.17 |
| Bluetooth LE               | 0.00 |
| <b>Sum of MPE Ratios</b>   |      |
| Sum                        | 0.17 |
| <b>Compliance</b>          |      |
| Verdict                    | PASS |

| LTE FDD26 + Bluetooth LE   |      |
|----------------------------|------|
| <b>Information</b>         |      |
| Number of concurrent modes | 2    |
| Evaluation distance [m]    | 0.20 |
| <b>Maximum MPE Ratios</b>  |      |
| LTE FDD26                  | 0.21 |
| Bluetooth LE               | 0.00 |
| <b>Sum of MPE Ratios</b>   |      |
| Sum                        | 0.21 |
| <b>Compliance</b>          |      |
| Verdict                    | PASS |

| LTE FDD66 + Bluetooth LE   |      |
|----------------------------|------|
| <b>Information</b>         |      |
| Number of concurrent modes | 2    |
| Evaluation distance [m]    | 0.20 |
| <b>Maximum MPE Ratios</b>  |      |
| LTE FDD66                  | 0.17 |
| Bluetooth LE               | 0.00 |
| <b>Sum of MPE Ratios</b>   |      |
| Sum                        | 0.17 |
| <b>Compliance</b>          |      |
| Verdict                    | PASS |

## 9 Concurrent Evaluation Results - ISED

| LTE FDD2 + Bluetooth LE    |      |
|----------------------------|------|
| <b>Information</b>         |      |
| Number of concurrent modes | 2    |
| Evaluation distance [m]    | 0.20 |
| <b>Maximum MPE Ratios</b>  |      |
| LTE FDD2                   | 0.38 |
| Bluetooth LE               | 0.00 |
| <b>Sum of MPE Ratios</b>   |      |
| Sum                        | 0.38 |
| <b>Compliance</b>          |      |
| Verdict                    | PASS |

| LTE FDD4 + Bluetooth LE    |      |
|----------------------------|------|
| <b>Information</b>         |      |
| Number of concurrent modes | 2    |
| Evaluation distance [m]    | 0.20 |
| <b>Maximum MPE Ratios</b>  |      |
| LTE FDD4                   | 0.40 |
| Bluetooth LE               | 0.00 |
| <b>Sum of MPE Ratios</b>   |      |
| Sum                        | 0.40 |
| <b>Compliance</b>          |      |
| Verdict                    | PASS |

| LTE FDD5 + Bluetooth LE    |      |
|----------------------------|------|
| <b>Information</b>         |      |
| Number of concurrent modes | 2    |
| Evaluation distance [m]    | 0.20 |
| <b>Maximum MPE Ratios</b>  |      |
| LTE FDD5                   | 0.44 |
| Bluetooth LE               | 0.00 |
| <b>Sum of MPE Ratios</b>   |      |
| Sum                        | 0.44 |
| <b>Compliance</b>          |      |
| Verdict                    | PASS |

| LTE FDD12 + Bluetooth LE   |      |
|----------------------------|------|
| <b>Information</b>         |      |
| Number of concurrent modes | 2    |
| Evaluation distance [m]    | 0.20 |
| <b>Maximum MPE Ratios</b>  |      |
| LTE FDD12                  | 0.49 |
| Bluetooth LE               | 0.00 |
| <b>Sum of MPE Ratios</b>   |      |
| Sum                        | 0.49 |
| <b>Compliance</b>          |      |
| Verdict                    | PASS |

| LTE FDD13 + Bluetooth LE   |      |
|----------------------------|------|
| <b>Information</b>         |      |
| Number of concurrent modes | 2    |
| Evaluation distance [m]    | 0.20 |
| <b>Maximum MPE Ratios</b>  |      |
| LTE FDD13                  | 0.46 |
| Bluetooth LE               | 0.00 |
| <b>Sum of MPE Ratios</b>   |      |
| Sum                        | 0.46 |
| <b>Compliance</b>          |      |
| Verdict                    | PASS |

| LTE FDD25 + Bluetooth LE   |      |
|----------------------------|------|
| <b>Information</b>         |      |
| Number of concurrent modes | 2    |
| Evaluation distance [m]    | 0.20 |
| <b>Maximum MPE Ratios</b>  |      |
| LTE FDD25                  | 0.38 |
| Bluetooth LE               | 0.00 |
| <b>Sum of MPE Ratios</b>   |      |
| Sum                        | 0.38 |
| <b>Compliance</b>          |      |
| Verdict                    | PASS |

| LTE FDD26 + Bluetooth LE   |      |
|----------------------------|------|
| <b>Information</b>         |      |
| Number of concurrent modes | 2    |
| Evaluation distance [m]    | 0.20 |
| <b>Maximum MPE Ratios</b>  |      |
| LTE FDD26                  | 0.44 |
| Bluetooth LE               | 0.00 |
| <b>Sum of MPE Ratios</b>   |      |
| Sum                        | 0.44 |
| <b>Compliance</b>          |      |
| Verdict                    | PASS |

| LTE FDD66 + Bluetooth LE   |      |
|----------------------------|------|
| <b>Information</b>         |      |
| Number of concurrent modes | 2    |
| Evaluation distance [m]    | 0.20 |
| <b>Maximum MPE Ratios</b>  |      |
| LTE FDD66                  | 0.40 |
| Bluetooth LE               | 0.00 |
| <b>Sum of MPE Ratios</b>   |      |
| Sum                        | 0.40 |
| <b>Compliance</b>          |      |
| Verdict                    | PASS |

=== END OF TEST REPORT ===