

|                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                           |                                                                                                                                     |                             |                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|----------------------------------------------|
| <b>Prüfbericht-Nr.:</b><br><i>Test report No.:</i>                                                                                                                                                                                                                                                                                                                                                                                                         | <b>50087264 001</b>                                                                                                                       | <b>Auftrags-Nr.:</b><br><i>Order No.:</i>                                                                                           | <b>164089911</b>            | <b>Seite 1 von 21</b><br><i>Page 1 of 21</i> |
| <b>Kunden-Referenz-Nr.:</b><br><i>Client reference No.:</i>                                                                                                                                                                                                                                                                                                                                                                                                | <b>N/A</b>                                                                                                                                | <b>Auftragsdatum:</b><br><i>Order date.:</i>                                                                                        | <b>06.04.2017</b>           |                                              |
| <b>Auftraggeber:</b><br><i>Client:</i>                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Accent Advanced Systems SLU</b><br>Bergueda 43 Local 18 Castellar del Valles Spain                                                     |                                                                                                                                     |                             |                                              |
| <b>Prüfgegenstand:</b><br><i>Test item:</i>                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Bluetooth Beacon</b>                                                                                                                   |                                                                                                                                     |                             |                                              |
| <b>Bezeichnung / Typ-Nr.:</b><br><i>Identification / Type No.:</i>                                                                                                                                                                                                                                                                                                                                                                                         | <b>iBKSPLUS</b>                                                                                                                           |                                                                                                                                     |                             |                                              |
| <b>Auftrags-Inhalt:</b><br><i>Order content:</i>                                                                                                                                                                                                                                                                                                                                                                                                           | <b>FCC approval</b>                                                                                                                       |                                                                                                                                     |                             |                                              |
| <b>Prüfgrundlage:</b><br><i>Test specification:</i>                                                                                                                                                                                                                                                                                                                                                                                                        | CFR47 FCC Part 15: Subpart C Section 15.247<br>CFR47 FCC Part 15: Subpart C Section 15.207<br>CFR47 FCC Part 15: Subpart C Section 15.209 |                                                                                                                                     |                             |                                              |
| <b>Wareneingangsdatum:</b><br><i>Date of receipt:</i>                                                                                                                                                                                                                                                                                                                                                                                                      | <b>15.04.2017</b>                                                                                                                         | Please refer to photo documents                                                                                                     |                             |                                              |
| <b>Prüfmuster-Nr.:</b><br><i>Test sample No.:</i>                                                                                                                                                                                                                                                                                                                                                                                                          | <b>A000523699-001</b><br><b>A000523699-002</b>                                                                                            |                                                                                                                                     |                             |                                              |
| <b>Prüfzeitraum:</b><br><i>Testing period:</i>                                                                                                                                                                                                                                                                                                                                                                                                             | <b>28.04.2017 - 08.05.2017</b>                                                                                                            |                                                                                                                                     |                             |                                              |
| <b>Ort der Prüfung:</b><br><i>Place of testing:</i>                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Accurate Technology Co., Ltd.</b>                                                                                                      |                                                                                                                                     |                             |                                              |
| <b>Prüflaboratorium:</b><br><i>Testing laboratory:</i>                                                                                                                                                                                                                                                                                                                                                                                                     | <b>TÜV Rheinland (Shenzhen) Co., Ltd.</b>                                                                                                 |                                                                                                                                     |                             |                                              |
| <b>Prüfergebnis*:</b><br><i>Test result*:</i>                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Pass</b>                                                                                                                               |                                                                                                                                     |                             |                                              |
| <b>geprüft von / tested by:</b>                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                           | <b>kontrolliert von / reviewed by:</b>                                                                                              |                             |                                              |
| <br>16.06.2017 Andy Yan / Project Manager                                                                                                                                                                                                                                                                                                                               |                                                                                                                                           | <br>16.06.2017 Owen Tian / Technical Certifier |                             |                                              |
| <b>Datum</b><br><i>Date</i>                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Name/Stellung</b><br><i>Name/Position</i>                                                                                              | <b>Unterschrift</b><br><i>Signature</i>                                                                                             | <b>Datum</b><br><i>Date</i> | <b>Name/Stellung</b><br><i>Name/Position</i> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                           |                                                                                                                                     |                             | <b>Unterschrift</b><br><i>Signature</i>      |
| <b>Sonstiges / Other:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                           |                                                                                                                                     |                             |                                              |
| FCC ID: 2ABTTIBKSPLUS                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                           |                                                                                                                                     |                             |                                              |
| <b>Zustand des Prüfgegenstandes bei Anlieferung:</b><br><i>Condition of the test item at delivery:</i>                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                           | <b>Prüfmuster vollständig und unbeschädigt</b><br><i>Test item complete and undamaged:</i>                                          |                             |                                              |
| * Legende: 1 = sehr gut 2 = gut 3 = befriedigend<br>P(ass) = entspricht o.g. Prüfgrundlage(n)                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                           | 4 = ausreichend 5 = mangelhaft<br>N/A = nicht anwendbar N/T = nicht getestet                                                        |                             |                                              |
| Legend: 1 = very good 2 = good 3 = satisfactory<br>P(ass) = passed a.m. test specifications(s)                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                           | 4 = sufficient 5 = poor<br>N/A = not applicable N/T = not tested                                                                    |                             |                                              |
| <b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b><br><i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i> |                                                                                                                                           |                                                                                                                                     |                             |                                              |

## ***Test Summary***

**5.1.1 ANTENNA REQUIREMENT**

*RESULT: Pass*

**5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER**

*RESULT: Pass*

**5.1.3 CONDUCTED POWER SPECTRAL DENSITY**

*RESULT: Pass*

**5.1.4 6dB BANDWIDTH**

*RESULT: Pass*

**5.1.5 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 kHz BANDWIDTH**

*RESULT: Pass*

**5.1.6 RADIATED SPURIOUS EMISSION**

*RESULT: Pass*

**6.1.1 ELECTROMAGNETIC FIELDS**

*RESULT: Pass*

## Contents

|            |                                                                         |           |
|------------|-------------------------------------------------------------------------|-----------|
| <b>1</b>   | <b>GENERAL REMARKS .....</b>                                            | <b>4</b>  |
| <b>1.1</b> | <b>COMPLEMENTARY MATERIALS .....</b>                                    | <b>4</b>  |
| <b>2</b>   | <b>TEST SITES .....</b>                                                 | <b>4</b>  |
| <b>2.1</b> | <b>TEST FACILITIES .....</b>                                            | <b>4</b>  |
| <b>2.2</b> | <b>LIST OF TEST AND MEASUREMENT INSTRUMENTS.....</b>                    | <b>5</b>  |
| <b>2.3</b> | <b>TRACEABILITY .....</b>                                               | <b>6</b>  |
| <b>2.4</b> | <b>CALIBRATION .....</b>                                                | <b>6</b>  |
| <b>2.5</b> | <b>MEASUREMENT UNCERTAINTY.....</b>                                     | <b>6</b>  |
| <b>2.6</b> | <b>LOCATION OF ORIGINAL DATA.....</b>                                   | <b>6</b>  |
| <b>2.7</b> | <b>STATUS OF FACILITY USED FOR TESTING.....</b>                         | <b>6</b>  |
| <b>3</b>   | <b>GENERAL PRODUCT INFORMATION .....</b>                                | <b>7</b>  |
| <b>3.1</b> | <b>PRODUCT FUNCTION AND INTENDED USE.....</b>                           | <b>7</b>  |
| <b>3.2</b> | <b>RATINGS AND SYSTEM DETAILS .....</b>                                 | <b>7</b>  |
| <b>3.3</b> | <b>INDEPENDENT OPERATION MODES .....</b>                                | <b>9</b>  |
| <b>3.4</b> | <b>NOISE GENERATING AND NOISE SUPPRESSING PARTS.....</b>                | <b>9</b>  |
| <b>3.5</b> | <b>SUBMITTED DOCUMENTS.....</b>                                         | <b>9</b>  |
| <b>4</b>   | <b>TEST SET-UP AND OPERATION MODES .....</b>                            | <b>10</b> |
| <b>4.1</b> | <b>PRINCIPLE OF CONFIGURATION SELECTION .....</b>                       | <b>10</b> |
| <b>4.2</b> | <b>TEST OPERATION AND TEST SOFTWARE .....</b>                           | <b>10</b> |
| <b>4.3</b> | <b>SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT .....</b>                | <b>10</b> |
| <b>4.4</b> | <b>COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE .....</b>                  | <b>10</b> |
| <b>4.5</b> | <b>TEST SETUP DIAGRAM .....</b>                                         | <b>11</b> |
| <b>5</b>   | <b>TEST RESULTS .....</b>                                               | <b>12</b> |
| <b>5.1</b> | <b>TRANSMITTER REQUIREMENT &amp; TEST SUITES .....</b>                  | <b>12</b> |
| 5.1.1      | <i>Antenna Requirement .....</i>                                        | <i>12</i> |
| 5.1.2      | <i>Maximum Peak Conducted Output Power .....</i>                        | <i>13</i> |
| 5.1.3      | <i>Conducted Power Spectral Density .....</i>                           | <i>14</i> |
| 5.1.4      | <i>6dB Bandwidth .....</i>                                              | <i>15</i> |
| 5.1.5      | <i>Conducted Spurious Emissions Measured in 100 kHz Bandwidth .....</i> | <i>16</i> |
| 5.1.6      | <i>Radiated Spurious Emission .....</i>                                 | <i>17</i> |
| <b>6</b>   | <b>SAFETY HUMAN EXPOSURE .....</b>                                      | <b>18</b> |
| <b>6.1</b> | <b>RADIO FREQUENCY EXPOSURE COMPLIANCE .....</b>                        | <b>18</b> |
| 6.1.1      | <i>Electromagnetic Fields .....</i>                                     | <i>18</i> |
| <b>7</b>   | <b>PHOTOGRAPHS OF THE TEST SET-UP .....</b>                             | <b>19</b> |
| <b>8</b>   | <b>LIST OF TABLES.....</b>                                              | <b>21</b> |
| <b>9</b>   | <b>LIST OF PHOTOGRAPHS .....</b>                                        | <b>21</b> |

# 1 General Remarks

## 1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:  
Appendix A: Test Results of Conducted and Radiated Testing

# 2 Test Sites

## 2.1 Test Facilities

**Accurate Technology Co., Ltd.**

F1, Bldg. A, Changyuan New Material Port Keyuan Rd., Science & Industry Park, Nanshan Shenzhen,  
518057, P.R. China

FCC Registration No.: 752051

The tests at the test sites have been conducted under the supervision of a TÜV engineer.

## 2.2 List of Test and Measurement Instruments

**Table 1: List of Test and Measurement Equipment**

**Accurate Technology Co., Ltd.**

| <b>Radio Spectrum Test</b> |                      |                  |                   |                   |
|----------------------------|----------------------|------------------|-------------------|-------------------|
| <b>Equipment</b>           | <b>Manufacturer</b>  | <b>Model No.</b> | <b>Serial No.</b> | <b>Cal. Until</b> |
| Spectrum Analyzer          | R&S                  | ESPI3            | 100396/003        | 09.01.2018        |
| <b>Spurious Emission</b>   |                      |                  |                   |                   |
| <b>Equipment</b>           | <b>Manufacturer</b>  | <b>Model No.</b> | <b>Serial No.</b> | <b>Cal. Until</b> |
| Spectrum Analyzer          | R&S                  | FSV40            | 101495            | 09.01.2018        |
| Test Receiver              | R&S                  | ESCS30           | 100307            | 09.01.2018        |
| Bilog Antenna              | Schwarzbeck          | VULB9163         | 9163-323          | 14.01.2018        |
| Loop Antenna               | Schwarzbeck          | FMZB1516         | 1516131           | 14.01.2018        |
| Horn Antenna               | Schwarzbeck          | BBHA9120D        | 9120D-655         | 14.01.2018        |
| Horn Antenna               | Schwarzbeck          | BBHA9170         | 9170-359          | 14.01.2018        |
| RF Switching Unit+PreAMP   | Compliance Direction | RSU-M2           | 38322             | 09.01.2018        |
| Pre-Amplifier              | R&S                  | CBLU11835 40-01  | 3791              | 09.01.2018        |
| 50 Coaxial Switch          | Anritsu Corp         | MP59B            | 6200506474        | 09.01. 2018       |
| RF Coaxial Cable           | SUHNER               | N-3m             | No.8              | 09.01.2018        |
| RF Coaxial Cable           | RESENBERGER          | N-3.5m           | No.9              | 09.01.2018        |
| RF Coaxial Cable           | SUHNER               | N-6m             | No.10             | 09.01.2018        |
| RF Coaxial Cable           | RESENBERGER          | N-12m            | No.11             | 09.01.2018        |
| 50_ Coaxial Switch         | Anritsu Corp         | MP59B            | 6200283933        | 09.01.2018        |

## 2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

## 2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

## 2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table

| Item                              |                         | Extended Uncertainty |
|-----------------------------------|-------------------------|----------------------|
| Conducted Emission                |                         | ± 3.0 dB             |
| Radiated Emission (9kHz-30MHz)    | Field strength (dBμV/m) | U=3.08dB, k=2, σ=95% |
| Radiated Emission (30-1000MHz)    | Field strength (dBμV/m) | U=4.42dB, k=2, σ=95% |
| Radiated Emission (above 1000MHz) | Field strength (dBμV/m) | U=4.06dB, k=2, σ=95% |
| Occupied Channel Bandwidth        |                         | ±5.0 %               |
| RF Output Power, Conducted        |                         | ±1.5 dB              |
| Power Spectral Density, Conducted |                         | ±3.0 dB              |
| Unwanted Emission, Conducted      |                         | ±3.0 dB              |
| Duty Cycle                        |                         | ±5.0 %               |

## 2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

## 2.7 Status of Facility Used for Testing

The Accurate Technology Co., Ltd. Test facility located at F1, Bldg. A, Changyuan New Material Port Keyuan Rd., Science & Industry Park, Nanshan Shenzhen, 518057, P.R. China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

## 3 General Product Information

### 3.1 Product Function and Intended Use

The EUT is a Bluetooth Beacon which supports Bluetooth Low Energy (Single mode).

For details refer to the User Manual, Technical Description and Circuit Diagram.

### 3.2 Ratings and System Details

Table 2: Technical Specification of EUT

| Technical Specification     | Value                                                         |
|-----------------------------|---------------------------------------------------------------|
| Kind of Equipment           | Bluetooth Beacon                                              |
| Type Designation            | iBKSPLUS                                                      |
| Trade Mark                  | Accent Systems                                                |
| FCC ID                      | 2ABTTIBKSPLUS                                                 |
| Operating Frequency         | 2402 - 2480 MHz                                               |
| Operating Temperature Range | -20 °C ~ +85 °C                                               |
| Operating Voltage           | DC 3.6 V or DC 3.0 V from Internal non-rechargeable battery   |
| Testing Voltage             | 4 x AA 1.5V Alkaline new batteries with 2 serial – 2 parallel |
| Type of Modulation          | GFSK                                                          |
| Channel Number              | 40 channels                                                   |
| Channel Separation          | 2MHz                                                          |
| Wireless Technology         | Bluetooth 4.0 (Single mode)                                   |
| Antenna Type                | Integral Antenna                                              |
| Max. Antenna Gain           | 5.30 dBi                                                      |

**Table 3: RF Channel and Frequency of Bluetooth**

| RF Channel | Frequency (MHz) | RF Channel | Frequency (MHz) | RF Channel | Frequency (MHz) | RF Channel | Frequency (MHz) |
|------------|-----------------|------------|-----------------|------------|-----------------|------------|-----------------|
| <b>00</b>  | <b>2402.00</b>  | 10         | 2422.00         | 20         | 2442.00         | 30         | 2462.00         |
| 01         | 2404.00         | 11         | 2424.00         | 21         | 2444.00         | 31         | 2464.00         |
| 02         | 2406.00         | 12         | 2426.00         | 22         | 2446.00         | 32         | 2466.00         |
| 03         | 2408.00         | 13         | 2428.00         | 23         | 2448.00         | 33         | 2468.00         |
| 04         | 2410.00         | 14         | 2430.00         | 24         | 2450.00         | 34         | 2470.00         |
| 05         | 2412.00         | 15         | 2432.00         | 25         | 2452.00         | 35         | 2472.00         |
| 06         | 2414.00         | 16         | 2434.00         | 26         | 2454.00         | 36         | 2474.00         |
| 07         | 2416.00         | 17         | 2436.00         | 27         | 2456.00         | 37         | 2476.00         |
| 08         | 2418.00         | 18         | 2438.00         | 28         | 2458.00         | 38         | 2478.00         |
| 09         | 2420.00         | <b>19</b>  | <b>2440.00</b>  | 29         | 2460.00         | <b>39</b>  | <b>2480.00</b>  |

### 3.3 Independent Operation Modes

The basic operation modes are:

- A. On (Bluetooth transmitting mode)
  - a) Low Channel
  - b) Middle Channel
  - c) High Channel
- B. On, Bluetooth connecting mode

### 3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

### 3.5 Submitted Documents

- |                         |                                  |
|-------------------------|----------------------------------|
| - Application Form      | - FCC/IC Label and Location Info |
| - Block Diagram         | - Photo Document                 |
| - Schematics            | - User Manual                    |
| - Technical Description |                                  |

## 4 Test Set-up and Operation Modes

### 4.1 Principle of Configuration Selection

**Radio Spectrum:** The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

**Emission:** The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

### 4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.10: 2013.

### 4.3 Special Accessories and Auxiliary Equipment

Table 4: List of Accessories and Auxiliary Equipment

| Description | Manufacturer | Model         | S/N | Rating |
|-------------|--------------|---------------|-----|--------|
| Notebook PC | Lenovo       | ThinkPad X240 | N/A | N/A    |

### 4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

## 4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

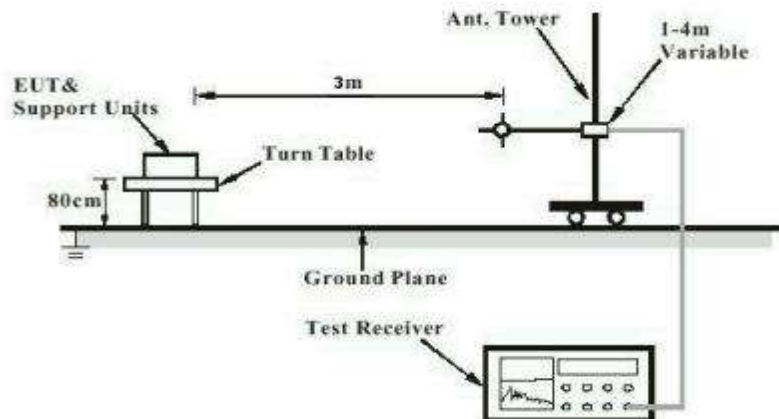


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

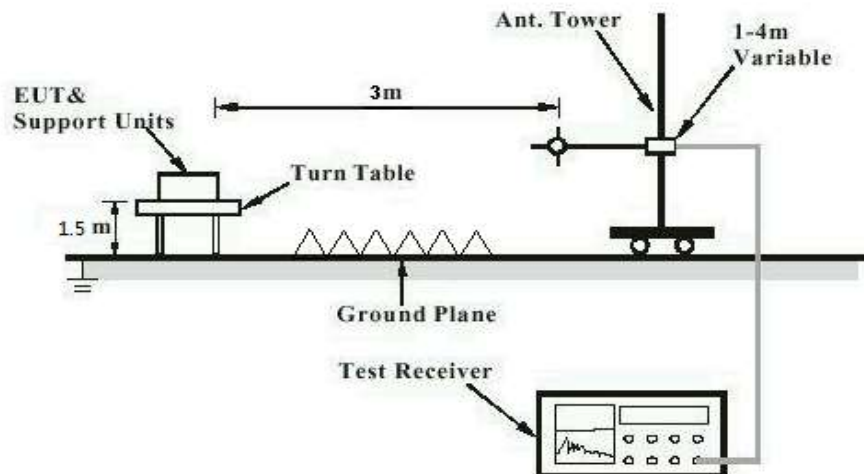
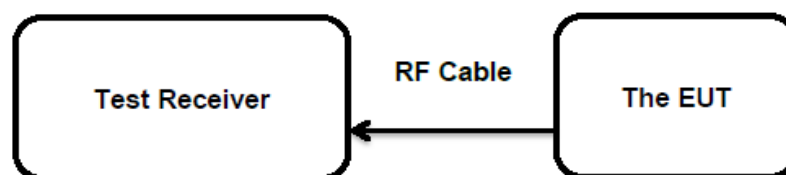


Diagram of Measurement Configuration for Conducted Transmitter Measurement



## 5 Test Results

### 5.1 Transmitter Requirement & Test Suites

#### 5.1.1 Antenna Requirement

**RESULT:****Pass****Test Specification**

Test standard : FCC Part 15.247(b)(4) and Part 15.203

According to the manufacturer declared, the EUT has an integral antenna, the directional gain of antenna is 5.30 dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

## 5.1.2 Maximum Peak Conducted Output Power

**RESULT:**
**Pass**
**Test Specification**

Test standard : FCC Part 15.247(b)(1)&(3)  
 Basic standard : ANSI C63.10: 2013  
 Limits : < 1.0 Watts  
 Kind of test site : Shielded Room

**Test Setup**

Date of testing : 28.04.2017  
 Input voltage : 4 X AA New batteries  
 Operation mode : A  
 Test channel : Low / Middle / High  
 Ambient temperature : 25 °C  
 Relative humidity : 56 %  
 Atmospheric pressure : 101 kPa

**Table 5: Test Result of Maximum Peak Conducted Output Power**

| Test Mode              | Channel Frequency (MHz) | Measured Peak Output Power |      | Limit (W) |
|------------------------|-------------------------|----------------------------|------|-----------|
|                        |                         | (dBm)                      | (W)  |           |
| Low Energy             | 2402                    | -0.54                      | 0.88 | < 1.0     |
|                        | 2440                    | -0.53                      | 0.89 |           |
|                        | 2480                    | -0.74                      | 0.84 |           |
| Maximum Measured Value |                         | -0.53                      | 0.89 | /         |

Note: The cable loss 0.5 dB is taken into account in results.

For the measurement records, refer to the appendix A.

### 5.1.3 Conducted Power Spectral Density

**RESULT:****Pass****Test Specification**

Test standard : FCC Part 15.247(e)  
Basic standard : ANSI C63.10: 2013  
Limits : 8 dBm/3kHz  
Kind of test site : Shielded Room

**Test Setup**

Date of testing : 28.04.2017  
Input voltage : 4 X AA New batteries  
Operation mode : A  
Test channel : Low / Middle / High  
Ambient temperature : 25 °C  
Relative humidity : 56 %  
Atmospheric pressure : 101 kPa

**Table 6: Test Result of Power Spectral Density, Low Energy**

| Test Mode              | Test Channel (MHz) | Power Spectrum Density(dBm/3kHz) | Limit (dBm/3kHz) |
|------------------------|--------------------|----------------------------------|------------------|
| Low Energy             | 2402               | -14.34                           | < 8.0            |
|                        | 2440               | -13.77                           |                  |
|                        | 2480               | -12.82                           |                  |
| Maximum Measured Value |                    | -12.82                           |                  |

Note: The cable loss 0.5 dB is taken into account in results.

For the measurement records, refer to the appendix A.

### 5.1.4 6dB Bandwidth

**RESULT:****Pass****Test Specification**

Test standard : FCC Part 15.247(a)(2)  
Basic standard : ANSI C63.10: 2013  
Limits : More than 500 KHz  
Kind of test site : Shielded Room

**Test Setup**

Date of testing : 28.04.2017  
Input voltage : 4 X AA New batteries  
Operation mode : A  
Test channel : Low / Middle / High  
Ambient temperature : 25 °C  
Relative humidity : 56 %  
Atmospheric pressure : 101 kPa

**Table 7: Test Result of 6dB Bandwidth, Low Energy**

| Test Mode              | Test Channel (MHz) | -6dB Bandwidth (kHz) | Limit (kHz) |
|------------------------|--------------------|----------------------|-------------|
| Low Energy             | 2402               | 677.0                | > 500       |
|                        | 2440               | 677.3                |             |
|                        | 2480               | 677.3                |             |
| Minimum Measured Value |                    | 677.0                |             |

For the measurement records, refer to the appendix A.

## 5.1.5 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

**RESULT:****Pass****Test Specification**

Test standard : FCC Part 15.247(d)  
Basic standard : ANSI C63.10: 2013  
Limits : 20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power);

Kind of test site : Shielded Room

**Test Setup**

Date of testing : 28.04.2017  
Input voltage : 4 X AA New batteries  
Operation mode : A  
Test channel : Low / Middle / High  
Ambient temperature : 25 °C  
Relative humidity : 56 %  
Atmospheric pressure : 101 kPa

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to following test plot, and compliance is achieved as well.

For the measurement records, refer to the appendix A.

### 5.1.6 Radiated Spurious Emission

**RESULT:****Pass****Test Specification**

|                   |                                                              |
|-------------------|--------------------------------------------------------------|
| Test standard     | : FCC Part 15.247(d) & FCC Part 15.205<br>RSS-247 Clause 3.3 |
| Basic standard    | : ANSI C63.10: 2013                                          |
| Limits            | : Refer to 15.209(a) of FCC part 15.247(d)                   |
| Kind of test site | : 3m Semi-anechoic Chamber                                   |

**Test Setup**

|                      |                        |
|----------------------|------------------------|
| Date of testing      | : 08.05.2017           |
| Input voltage        | : 4 X AA New batteries |
| Operation mode       | : A                    |
| Test channel         | : Low / Middle / High  |
| Ambient temperature  | : 23 °C                |
| Relative humidity    | : 48 %                 |
| Atmospheric pressure | : 101 kPa              |

**Remark:**

During the pretest the EUT was rotated through three orthogonal axes to determine the attitude that maximizes the emissions. After that the EUT was manually handled to find the orientation that has the maximum emission, which is the orientation shown in the test set-up photos.

Testing was carried out within frequency range 9kHz to the tenth harmonics.

For the measurement records, refer to the appendix A.

## 6 Safety Human Exposure

### 6.1 Radio Frequency Exposure Compliance

#### 6.1.1 Electromagnetic Fields

**RESULT:****Pass****Test Specification**

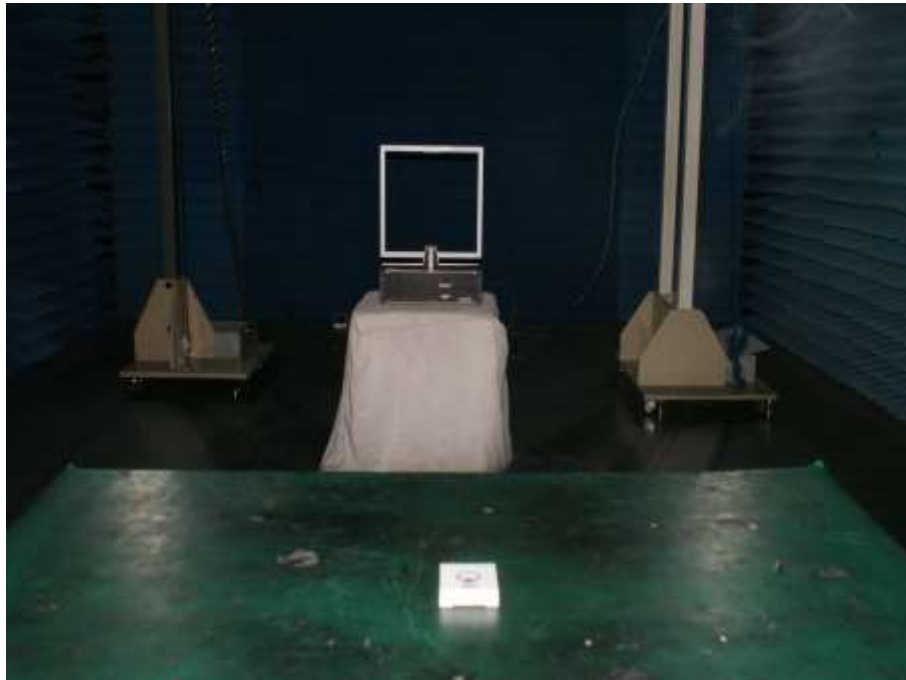
Test standard : CFR47 FCC Part 2.1093  
KDB 447498 D01

**Measurement Record:**

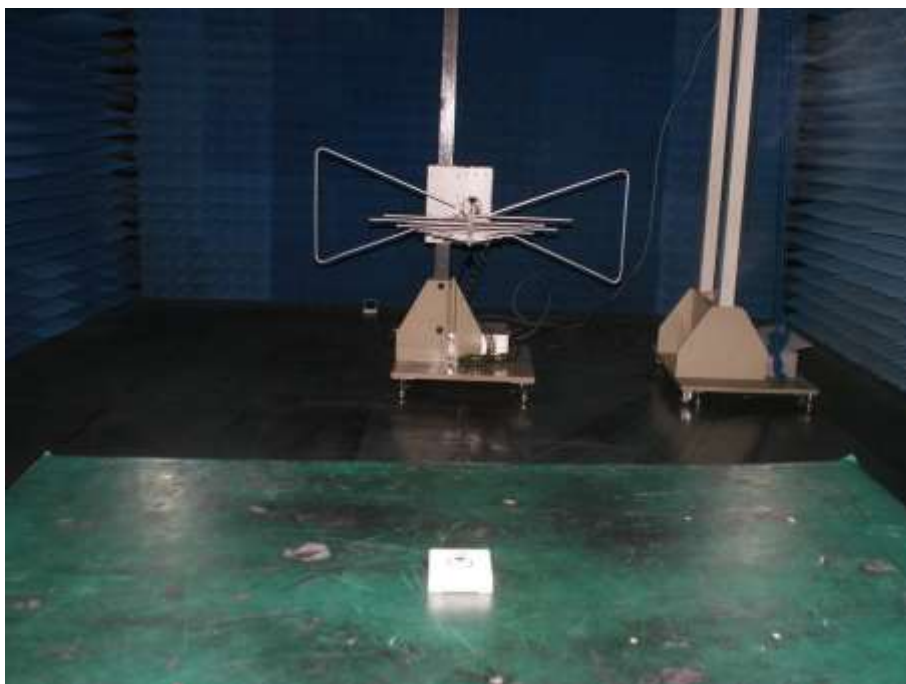
The Maximum tested and declared conducted output power is less than 0 dBm (1.0mW) which is less than SAR exclusion testing threshold 9.6mW for Bluetooth band according to KDB 447498 D01. So this device is compliance with the RF Exposure requirement.

## 7 Photographs of the Test Set-Up

**Photograph 1: Set-up for Radiated Spurious Emission (9kHz ~ 30MHz)**



**Photograph 2: Set-up for Radiated Spurious Emission (30MHz~1GHz)**



**Photograph 3: Set-up for Radiated Spurious Emission (1GHz ~ 18GHz)**



**Photograph 4: Set-up for Radiated Spurious Emission above 18GHz**



## 8 List of Tables

|                                                                  |    |
|------------------------------------------------------------------|----|
| Table 1: List of Test and Measurement Equipment.....             | 5  |
| Table 2: Technical Specification of EUT .....                    | 7  |
| Table 3: RF Channel and Frequency of Bluetooth .....             | 8  |
| Table 4: List of Accessories and Auxiliary Equipment.....        | 10 |
| Table 5: Test Result of Maximum Peak Conducted Output Power..... | 13 |
| Table 6: Test Result of Power Spectral Density, Low Energy ..... | 14 |
| Table 7: Test Result of 6dB Bandwidth, Low Energy .....          | 15 |

## 9 List of Photographs

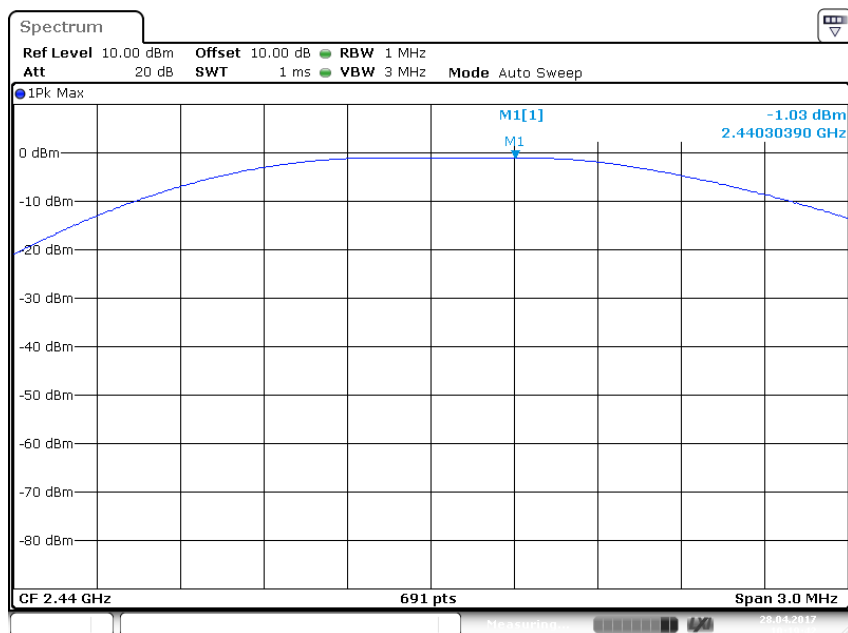
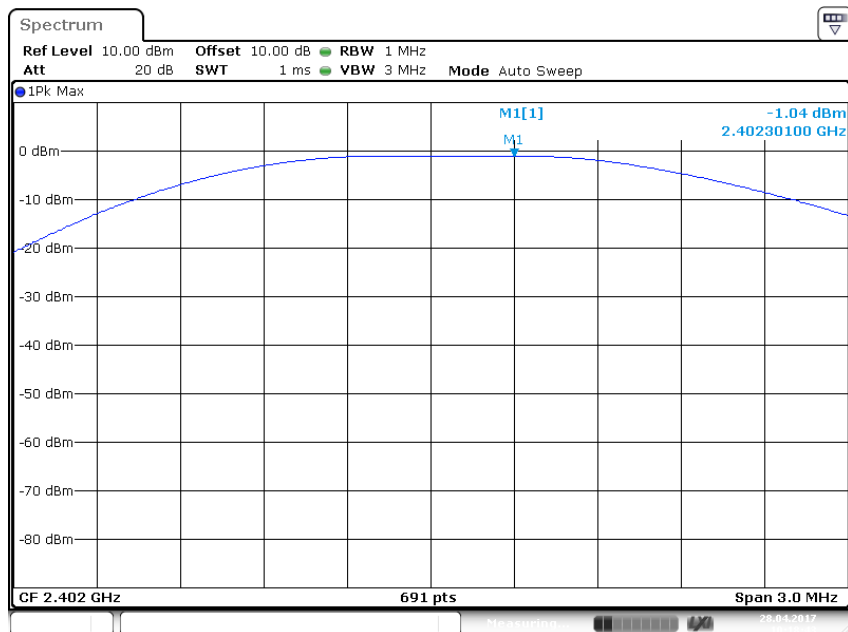
|                                                                          |    |
|--------------------------------------------------------------------------|----|
| Photograph 1: Set-up for Radiated Spurious Emission (9kHz ~ 30MHz) ..... | 19 |
| Photograph 2: Set-up for Radiated Spurious Emission (30MHz~1GHz) .....   | 19 |
| Photograph 3: Set-up for Radiated Spurious Emission (1GHz ~ 18GHz).....  | 20 |
| Photograph 4: Set-up for Radiated Spurious Emission above 18GHz .....    | 20 |

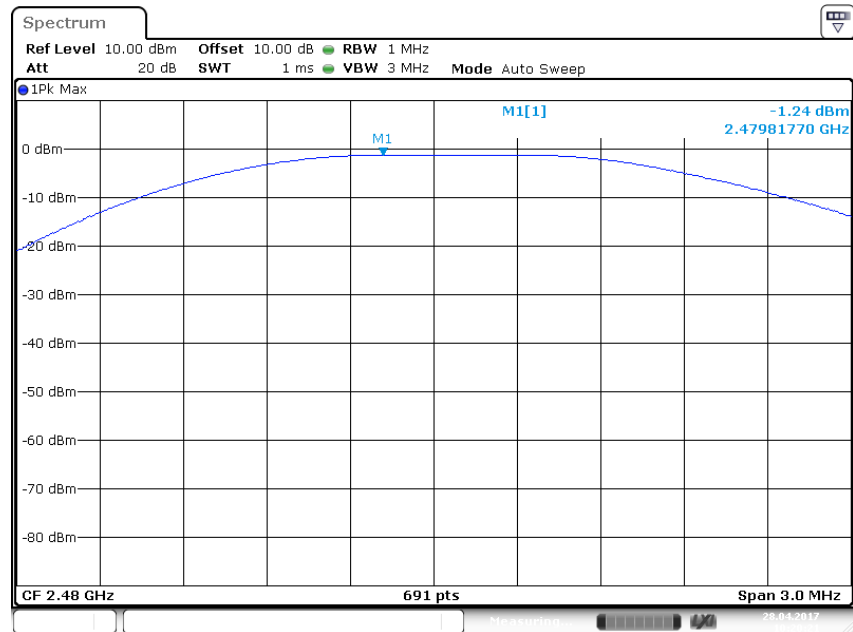
## Appendix A

### Test Results of Conducted and Radiated Testing

|                                                                                                     |           |
|-----------------------------------------------------------------------------------------------------|-----------|
| <b>APPENDIX A .....</b>                                                                             | <b>1</b>  |
| <b>APPENDIX A.1: TEST PLOTS OF MAXIMUM PEAK CONDUCTED OUTPUT POWER.....</b>                         | <b>2</b>  |
| <b>APPENDIX A.2: TEST PLOTS OF CONDUCTED POWER SPECTRAL DENSITY .....</b>                           | <b>4</b>  |
| <b>APPENDIX A.3: TEST PLOTS OF 6dB BANDWIDTH .....</b>                                              | <b>6</b>  |
| <b>APPENDIX A.4: TEST PLOTS OF CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHz BANDWIDTH .....</b> | <b>8</b>  |
| <b>APPENDIX A.5: TEST RESULT OF RADIATED EMISSION .....</b>                                         | <b>11</b> |

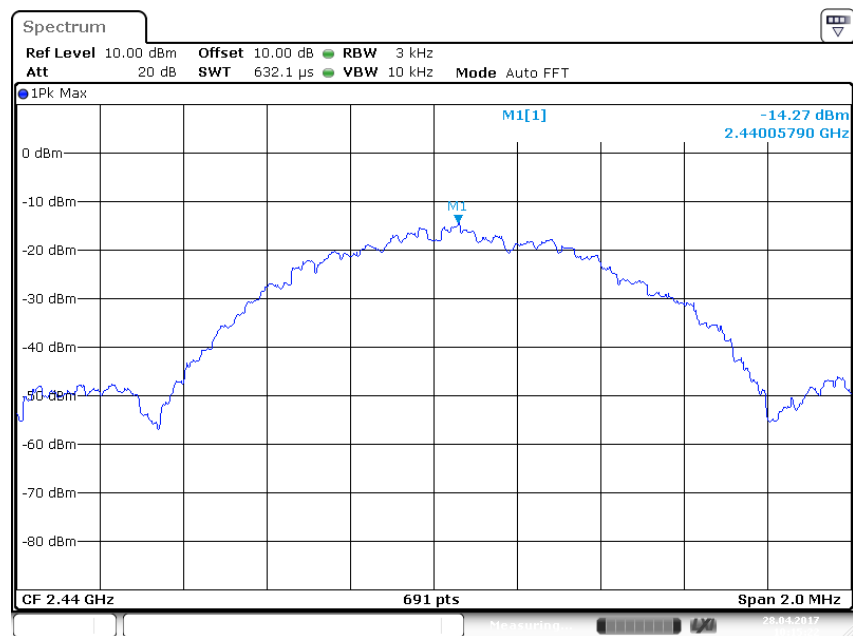
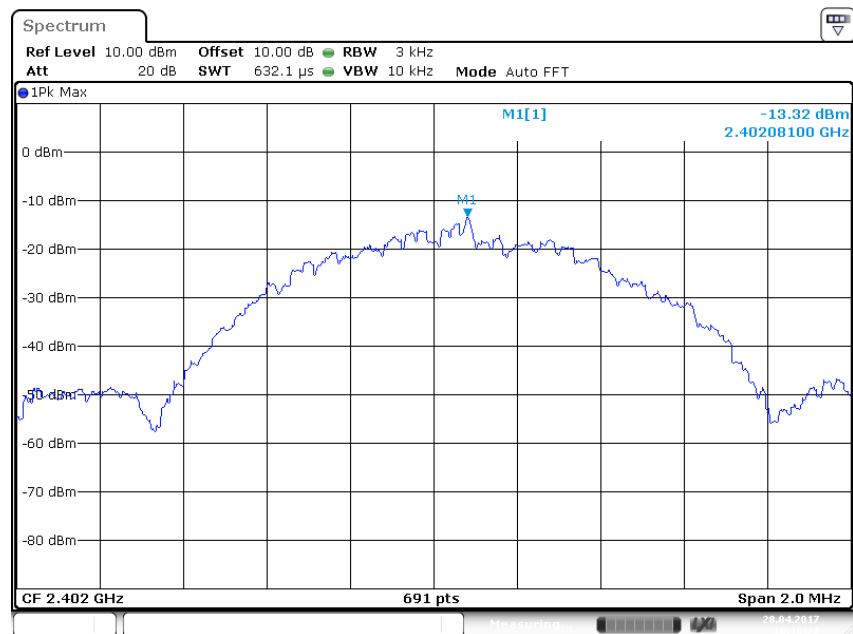
## Appendix A.1: Test Plots of Maximum Peak Conducted Output Power

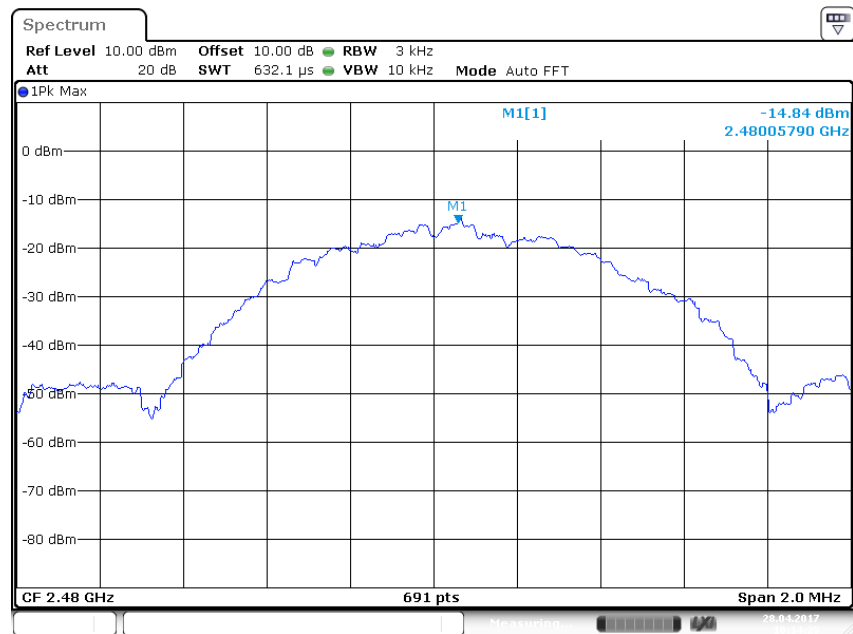




Date: 28.APR.2017 10:20:21

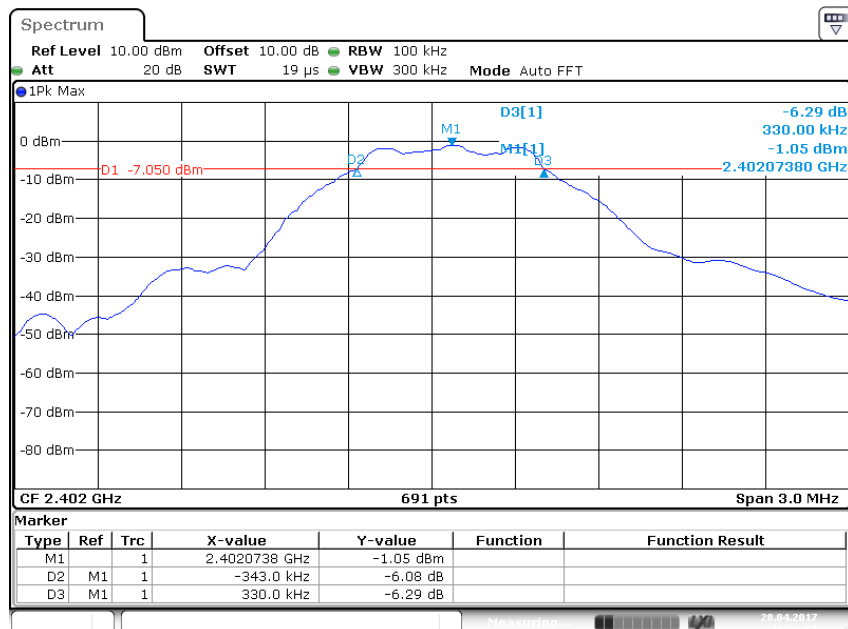
## Appendix A.2: Test Plots of Conducted Power Spectral Density



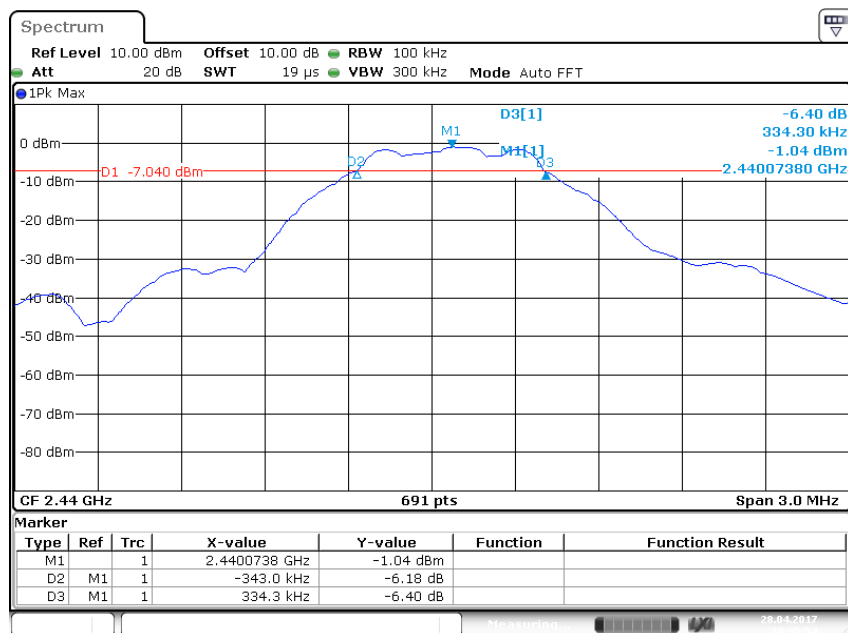


Date: 28.APR.2017 10:14:25

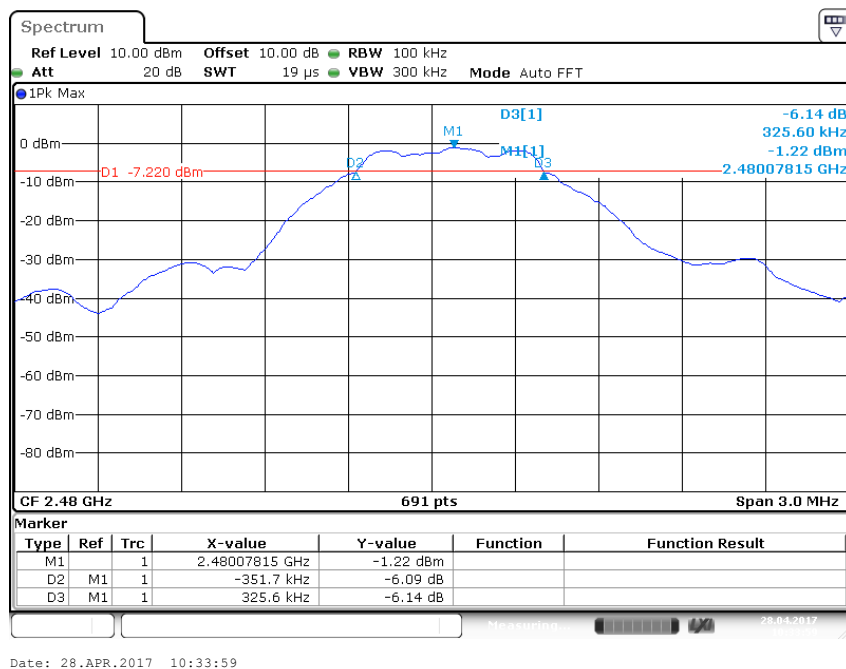
## Appendix A.3: Test Plots of 6dB Bandwidth



Date: 28.APR.2017 10:36:51

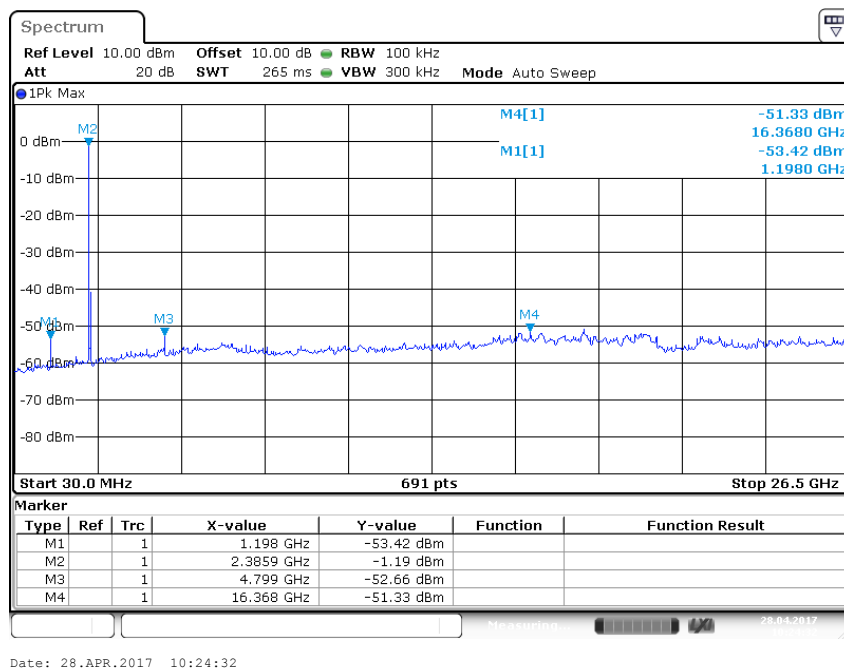


Date: 28.APR.2017 10:35:54

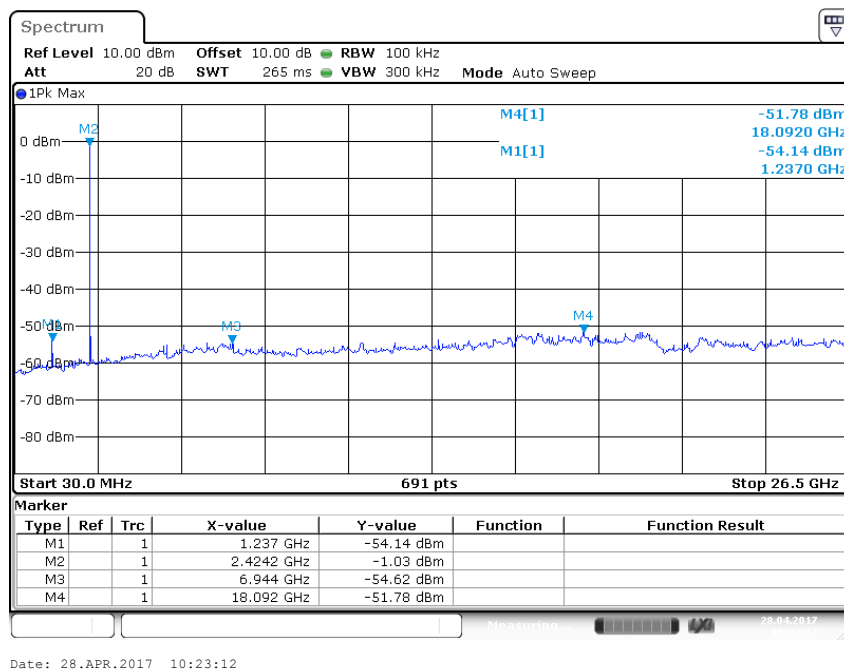


## Appendix A.4: Test Plots of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

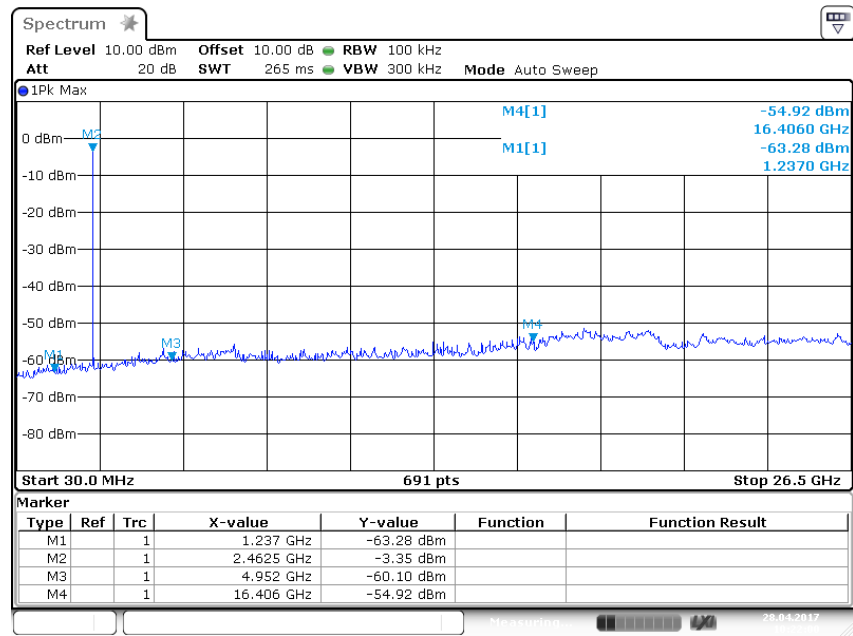
### Low Channel



### Middle Channel

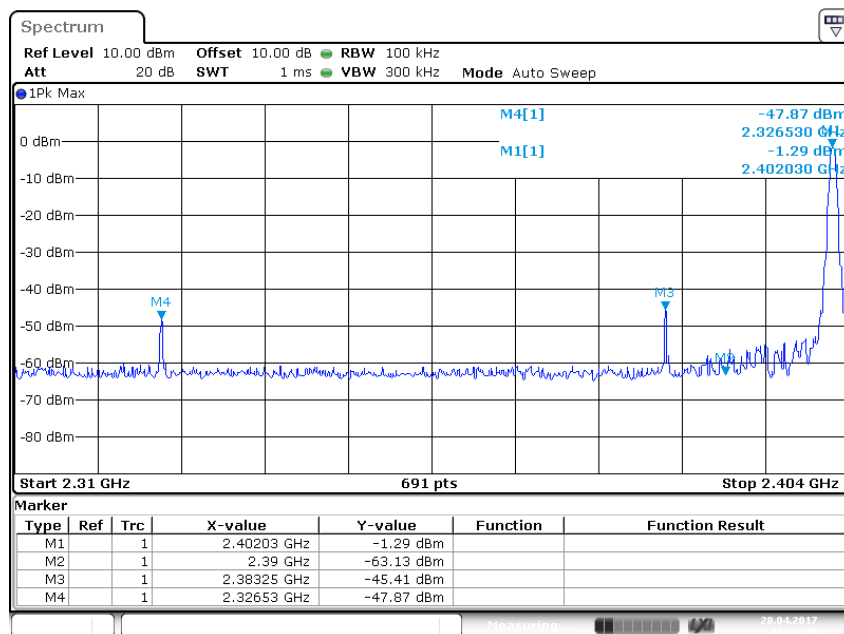


## High Channel



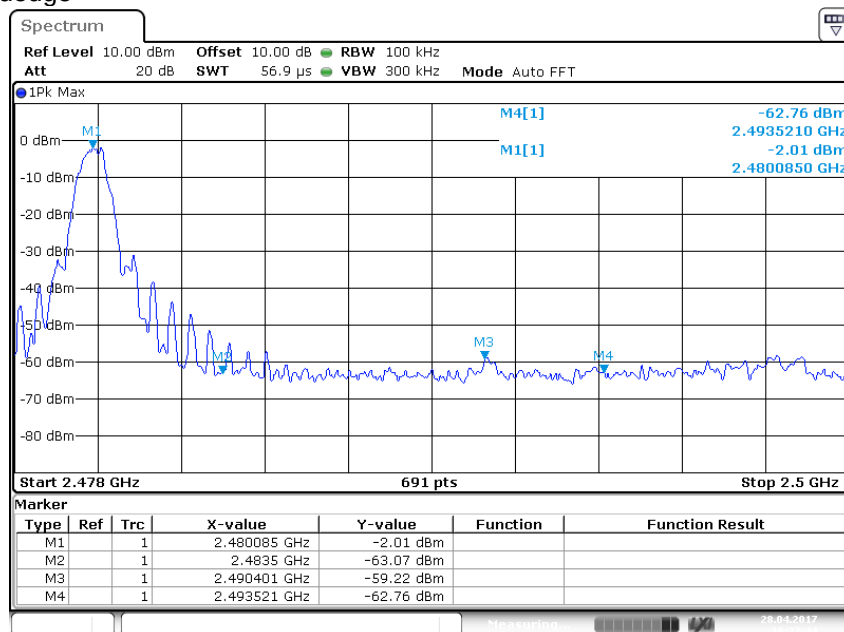
Date: 28.APR.2017 10:22:00

## Low Channel Bandedge



Date: 28.APR.2017 10:26:10

## High Channel Bandedge



Date: 28.APR.2017 10:27:45

## Appendix A.5: Test Result of Radiated Emission

Note: Radiated Spurious Emissions greater than 20dB below the limit are not showed.

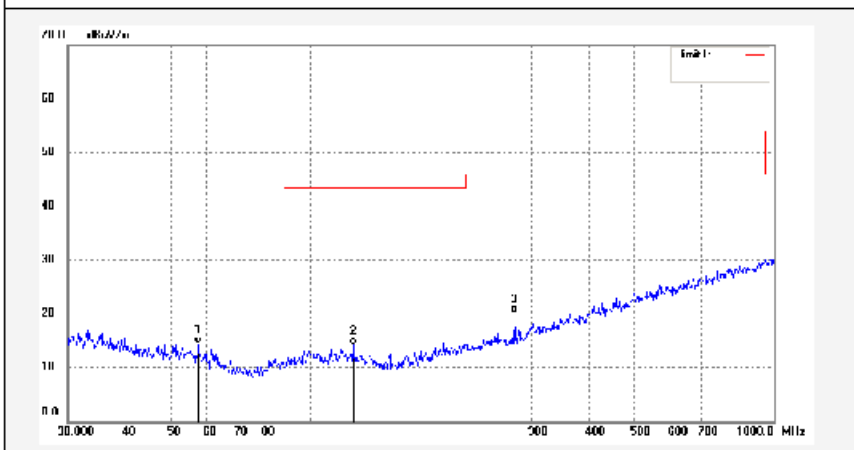


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Job No.: PING #3015  
Standard: FCC Class B 3M Radiated  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 23 C / 48 %  
EUT: iBKS Plus  
Mode: TX 2402MHz  
Model: iBKSPUS  
Manufacturer:  
Polarization: Vertical  
Power Source: DC 3V  
Date: 17/05/08/  
Time:  
Engineer Signature: PING  
Distance: 3m

Note:



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 57.1914     | 27.82            | -13.37      | 14.45           | 40.00          | -25.55      | QP       |             |               |        |
| 2   | 123.6984    | 27.67            | -13.48      | 14.19           | 43.50          | -29.31      | QP       |             |               |        |
| 3   | 276.1235    | 29.99            | -9.70       | 20.29           | 46.00          | -25.71      | QP       |             |               |        |

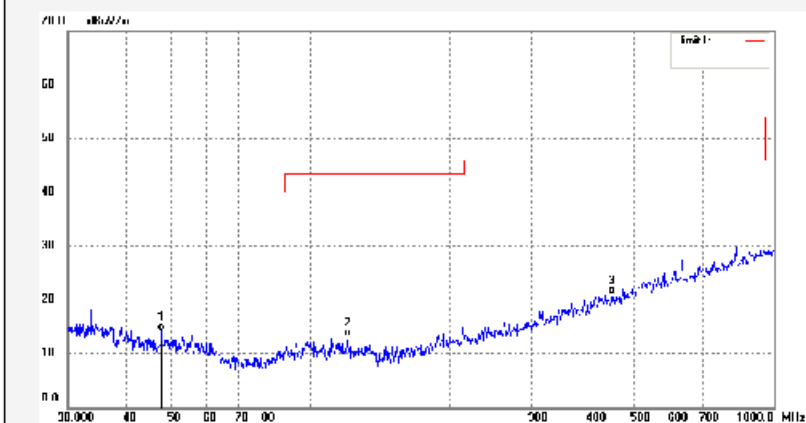


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|                                   |                          |
|-----------------------------------|--------------------------|
| Job No.: PING #3016               | Polarization: Horizontal |
| Standard: FCC Class B 3M Radiated | Power Source: DC 3V      |
| Test item: Radiation Test         | Date: 17/05/08/          |
| Temp.( C)/Hum.(%) 23 C / 48 %     | Time:                    |
| EUT: iBKS Plus                    | Engineer Signature: PING |
| Mode: TX 2402MHz                  | Distance: 3m             |
| Model: iBKSPLUS                   |                          |
| Manufacturer:                     |                          |

Note:



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 47.6584        | 26.88               | -12.60         | 14.28              | 40.00             | -25.72         | QP       |                |                  |        |
| 2   | 120.2768       | 26.30               | -13.09         | 13.21              | 43.50             | -30.29         | QP       |                |                  |        |
| 3   | 447.9821       | 26.51               | -5.38          | 21.13              | 46.00             | -24.87         | QP       |                |                  |        |

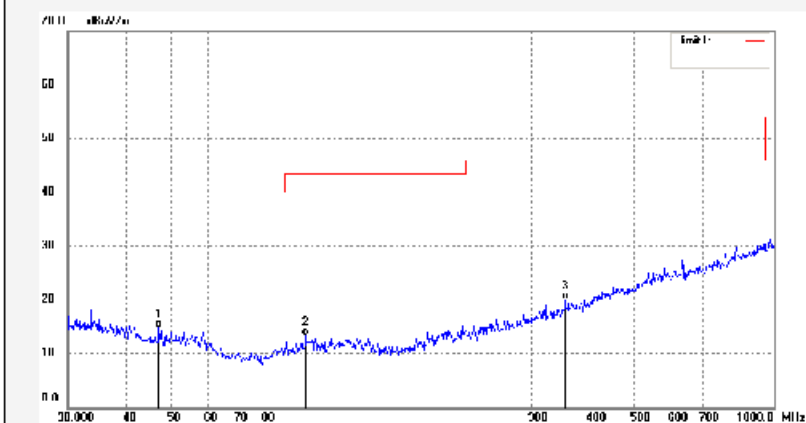


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|                                   |                          |
|-----------------------------------|--------------------------|
| Job No.: PING #3017               | Polarization: Horizontal |
| Standard: FCC Class B 3M Radiated | Power Source: DC 3V      |
| Test item: Radiation Test         | Date: 17/05/08/          |
| Temp.( C)/Hum.(%) 23 C / 48 %     | Time:                    |
| EUT: iBKS Plus                    | Engineer Signature: PING |
| Mode: TX 2440MHz                  | Distance: 3m             |
| Model: iBKSPLUS                   |                          |
| Manufacturer:                     |                          |

Note:



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 47.1599        | 27.40               | -12.60         | 14.80              | 40.00             | -25.20         | QP       |                |                  |        |
| 2   | 97.4560        | 27.31               | -13.91         | 13.40              | 43.50             | -30.10         | QP       |                |                  |        |
| 3   | 354.1831       | 27.38               | -7.38          | 20.00              | 46.00             | -26.00         | QP       |                |                  |        |

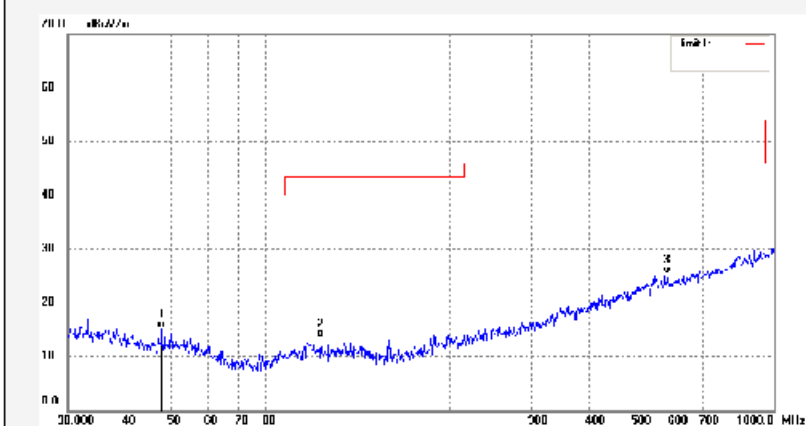


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|                                   |                          |
|-----------------------------------|--------------------------|
| Job No.: PING #3018               | Polarization: Vertical   |
| Standard: FCC Class B 3M Radiated | Power Source: DC 3V      |
| Test item: Radiation Test         | Date: 17/05/08/          |
| Temp.( C)/Hum.(%) 23 C / 48 %     | Time:                    |
| EUT: iBKS Plus                    | Engineer Signature: PING |
| Mode: TX 2440MHz                  | Distance: 3m             |
| Model: iBKSPLUS                   |                          |
| Manufacturer:                     |                          |

Note:



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 47.6584        | 27.91               | -12.60         | 15.31              | 40.00             | -24.69         | QP       |                |                  |        |
| 2   | 105.2717       | 27.35               | -13.87         | 13.48              | 43.50             | -30.02         | QP       |                |                  |        |
| 3   | 588.9050       | 27.91               | -2.47          | 25.44              | 46.00             | -20.56         | QP       |                |                  |        |

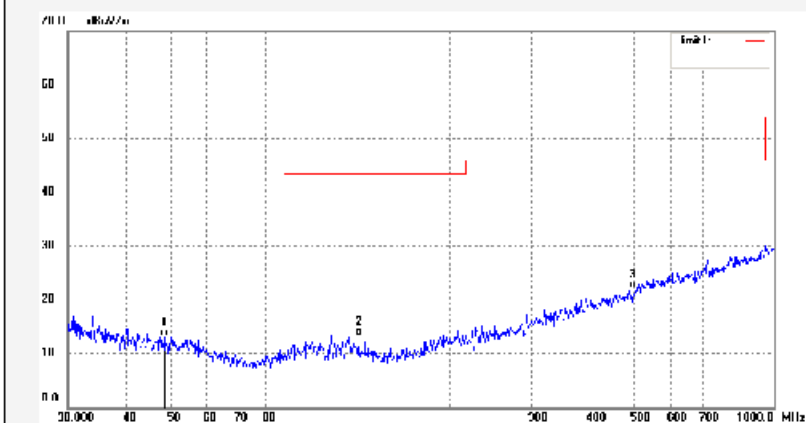


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|                                   |                          |
|-----------------------------------|--------------------------|
| Job No.: PING #3019               | Polarization: Vertical   |
| Standard: FCC Class B 3M Radiated | Power Source: DC 3V      |
| Test item: Radiation Test         | Date: 17/05/08/          |
| Temp.( C)/Hum.(%) 23 C / 48 %     | Time:                    |
| EUT: iBKS Plus                    | Engineer Signature: PING |
| Mode: TX 2480MHz                  | Distance: 3m             |
| Model: iBKSPLUS                   |                          |
| Manufacturer:                     |                          |

Note:



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 48.5016        | 25.85               | -12.60         | 13.25              | 40.00             | -26.75         | QP       |                |                  |        |
| 2   | 127.2176       | 27.02               | -13.69         | 13.33              | 43.50             | -30.17         | QP       |                |                  |        |
| 3   | 495.9343       | 26.68               | -4.53          | 22.15              | 46.00             | -23.85         | QP       |                |                  |        |

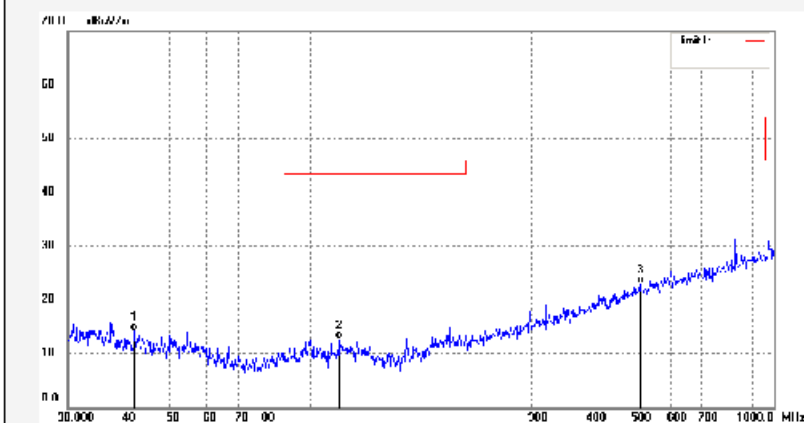


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|                                   |                          |
|-----------------------------------|--------------------------|
| Job No.: PING #3020               | Polarization: Horizontal |
| Standard: FCC Class B 3M Radiated | Power Source: DC 3V      |
| Test item: Radiation Test         | Date: 17/05/08/          |
| Temp.( C)/Hum.(%) 23 C / 48 %     | Time:                    |
| EUT: iBKS Plus                    | Engineer Signature: PING |
| Mode: TX 2480MHz                  | Distance: 3m             |
| Model: iBKSPLUS                   |                          |
| Manufacturer:                     |                          |

Note:



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 41.7129        | 26.13               | -11.91         | 14.22              | 40.00             | -25.78         | QP       |                |                  |        |
| 2   | 115.3204       | 25.80               | -13.06         | 12.74              | 43.50             | -30.76         | QP       |                |                  |        |
| 3   | 515.4374       | 27.02               | -3.98          | 23.04              | 46.00             | -22.96         | QP       |                |                  |        |

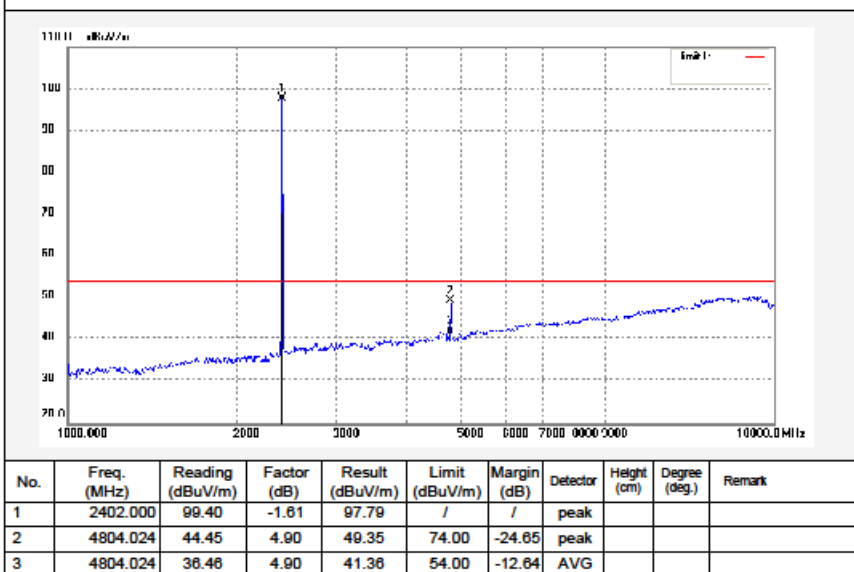


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|                                   |                          |
|-----------------------------------|--------------------------|
| Job No.: PING #3027               | Polarization: Horizontal |
| Standard: FCC Class B 3M Radiated | Power Source: DC 3V      |
| Test item: Radiation Test         | Date: 17/05/08/          |
| Temp.( C)/Hum.(%) 23 C / 48 %     | Time:                    |
| EUT: iBKS Plus                    | Engineer Signature: PING |
| Mode: TX 2402MHz                  | Distance: 3m             |
| Model: iBKSPLUS                   |                          |
| Manufacturer:                     |                          |

Note:



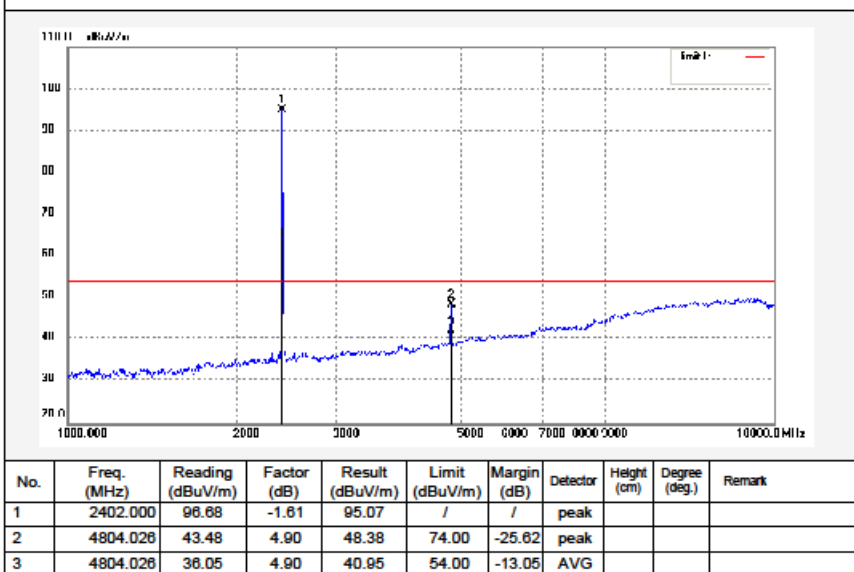


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|                                   |                          |
|-----------------------------------|--------------------------|
| Job No.: PING #3028               | Polarization: Vertical   |
| Standard: FCC Class B 3M Radiated | Power Source: DC 3V      |
| Test item: Radiation Test         | Date: 17/05/08/          |
| Temp.( C)/Hum.(%) 23 C / 48 %     | Time:                    |
| EUT: iBKS Plus                    | Engineer Signature: PING |
| Mode: TX 2402MHz                  | Distance: 3m             |
| Model: iBKSPLUS                   |                          |
| Manufacturer:                     |                          |

Note:



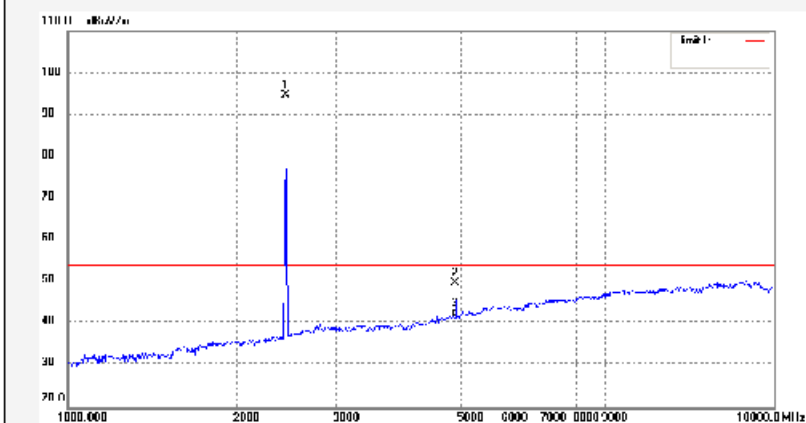


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|                                   |                          |
|-----------------------------------|--------------------------|
| Job No.: PING #3029               | Polarization: Vertical   |
| Standard: FCC Class B 3M Radiated | Power Source: DC 3V      |
| Test item: Radiation Test         | Date: 17/05/08/          |
| Temp.( C)/Hum.(%) 23 C / 48 %     | Time:                    |
| EUT: iBKS Plus                    | Engineer Signature: PING |
| Mode: TX 2440MHz                  | Distance: 3m             |
| Model: iBKSPLUS                   |                          |
| Manufacturer:                     |                          |

Note:



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 2440.000       | 95.98               | -1.46          | 94.52              | /                 | /              | peak     |                |                  |        |
| 2   | 4880.025       | 44.17               | 5.60           | 49.77              | 74.00             | -24.23         | peak     |                |                  |        |
| 3   | 4880.025       | 36.05               | 5.60           | 41.65              | 54.00             | -12.35         | AVG      |                |                  |        |

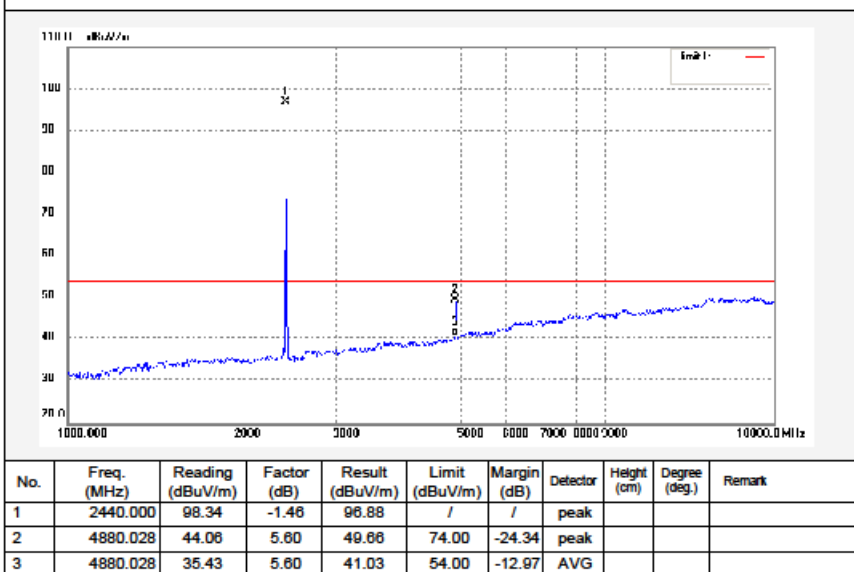


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|                                   |                          |
|-----------------------------------|--------------------------|
| Job No.: PING #3030               | Polarization: Horizontal |
| Standard: FCC Class B 3M Radiated | Power Source: DC 3V      |
| Test item: Radiation Test         | Date: 17/05/08/          |
| Temp.( C)/Hum.(%) 23 C / 48 %     | Time:                    |
| EUT: iBKS Plus                    | Engineer Signature: PING |
| Mode: TX 2440MHz                  | Distance: 3m             |
| Model: iBKSPLUS                   |                          |
| Manufacturer:                     |                          |

Note:



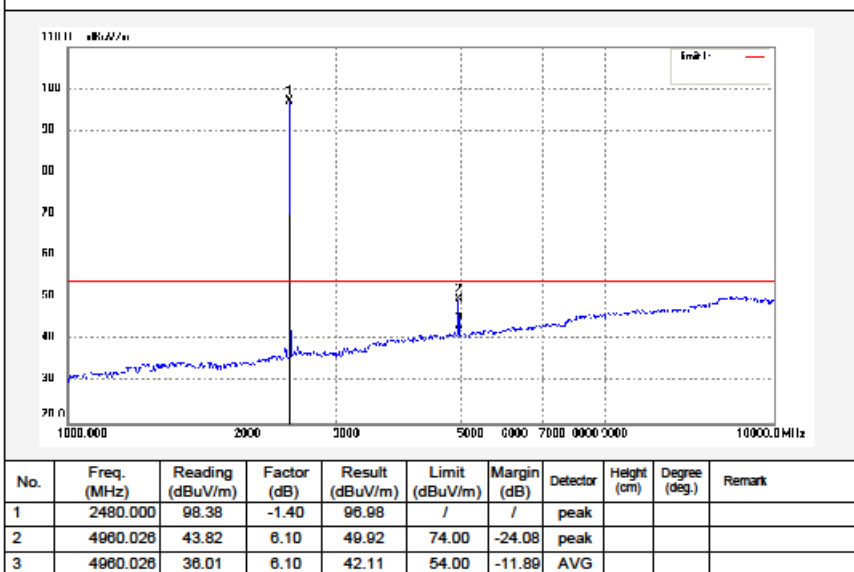


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|                                   |                          |
|-----------------------------------|--------------------------|
| Job No.: PING #3031               | Polarization: Horizontal |
| Standard: FCC Class B 3M Radiated | Power Source: DC 3V      |
| Test item: Radiation Test         | Date: 17/05/08/          |
| Temp.( C)/Hum.(%) 23 C / 48 %     | Time:                    |
| EUT: iBKS Plus                    | Engineer Signature: PING |
| Mode: TX 2480MHz                  | Distance: 3m             |
| Model: iBKSPLUS                   |                          |
| Manufacturer:                     |                          |

Note:





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|                                   |                          |
|-----------------------------------|--------------------------|
| Job No.: PING #3032               | Polarization: Vertical   |
| Standard: FCC Class B 3M Radiated | Power Source: DC 3V      |
| Test item: Radiation Test         | Date: 17/05/08/          |
| Temp.( C)/Hum.(%) 23 C / 48 %     | Time:                    |
| EUT: iBKS Plus                    | Engineer Signature: PING |
| Mode: TX 2480MHz                  | Distance: 3m             |
| Model: iBKSPLUS                   |                          |
| Manufacturer:                     |                          |

Note:

