



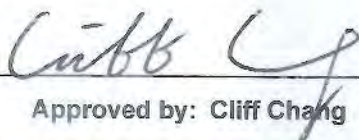
# FCC RADIO TEST REPORT

**FCC ID** : TE7P7  
**Equipment** : AC1300+AV600 Whole Home Hybrid Mesh Wi-Fi System  
**Brand Name** : tp-link  
**Model Name** : Deco P7  
**Applicant** : TP-Link Technologies Co., Ltd.  
Building 24 (floors 1,3,4,5) and 28 (floors1-4),  
Central Science and Technology Park,Nanshan  
Shenzhen, 518057 China  
**Manufacturer** : TP-Link Technologies Co., Ltd.  
Building 24 (floors 1,3,4,5) and 28 (floors1-4),  
Central Science and Technology Park,Nanshan  
Shenzhen, 518057 China  
**Standard** : 47 CFR FCC Part 15.247

The product was received on Jun. 29, 2016, and testing was started from Nov. 15, 2016 and completed on Mar. 04, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

  
Approved by: Cliff Chang

**SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory**  
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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## History of this test report

TEL : 886-3-656-9065  
FAX : 886-3-656-9085  
Report Template No.: CB Ver1.0

Page Number : 3 of 29  
Issued Date : Mar. 12, 2019  
Report Version : 01



## Summary of Test Result

| Report Clause | Ref Std. Clause | Test Items                                  | Result (PASS/FAIL) | Remark |
|---------------|-----------------|---------------------------------------------|--------------------|--------|
| 1.1.2         | 15.203          | Antenna Requirement                         | PASS               | -      |
| 3.1           | 15.207          | AC Power-line Conducted Emissions           | PASS               | -      |
| 3.2           | 15.247(a)       | DTS Bandwidth                               | PASS               | -      |
| 3.3           | 15.247(b)       | Maximum Conducted Output Power              | PASS               | -      |
| 3.4           | 15.247(e)       | Power Spectral Density                      | PASS               | -      |
| 3.5           | 15.247(d)       | Emissions in Non-restricted Frequency Bands | PASS               | -      |
| 3.6           | 15.247(d)       | Emissions in Restricted Frequency Bands     | PASS               | -      |

**Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and Explanations:**

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

**Reviewed by: Cliff Chang**

**Report Producer: Wendy Pan**



# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

| Frequency Range (MHz) | Bluetooth Mode | Ch. Frequency (MHz) | Channel Number |
|-----------------------|----------------|---------------------|----------------|
| 2400-2483.5           | LE             | 2402-2480           | 0-39 [40]      |

| Band | Mode         | BWch (MHz) | Nant |
|------|--------------|------------|------|
| 2.4G | BT-LE(1Mbps) | 1          | 1    |

Note:

- ♦ 2.4G is the 2.4GHz Band (2.4-2.4835GHz).
- ♦ Bluetooth LE uses a GFSK (1Mbps) modulation for DSSS.
- ♦ BWch is the channel separation
- ♦ Nss-Min is the minimum number of spatial streams.
- ♦ Nant is the number of outputs. e.g., 2(2, 3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.

**1.1.2 Antenna Information**

| Ant. | Port | Brand   | P/N          | Antenna Type             | Connector | Gain (dBi) |            |            |           |
|------|------|---------|--------------|--------------------------|-----------|------------|------------|------------|-----------|
|      |      |         |              |                          |           | WLAN 2.4G  | WLAN 5G B1 | WLAN 5G B4 | Bluetooth |
| 1    | 1    | TP-LINK | 3101501201   | Omni-Directional Antenna | I-PEX     | 1.30       | -          | -          | -         |
| 2    | 2    | TP-LINK | 3101501201   | Omni-Directional Antenna | I-PEX     | 1.30       | -          | -          | -         |
| 3    | 1    | TP-LINK | 5G2-M5       | Omni-Directional Antenna | N/A       | -          | 0.64       | 0.88       | -         |
| 4    | 2    | TP-LINK | 5G2-M5       | Omni-Directional Antenna | N/A       | -          | 0.64       | 0.88       | -         |
| 5    | 1    | TP-LINK | Bluetooth-M5 | Omni-Directional Antenna | N/A       | -          | -          | -          | 1.40      |

Note: The above information was declared by manufacturer.

**For 2.4GHz IEEE 802.11b/g/n/ac mode (2TX/2RX):**

Ant. 1 and Ant. 2 could transmit/receive simultaneously.

**For 5GHz IEEE 802.11n/a/ac mode (2TX/2RX):**

Ant. 3 and Ant. 4 could transmit/receive simultaneously.

**For bluetooth mode (1TX/1RX):**

Only Ant. 5 could transmit/receive.

**1.1.3 Table for EUT support function**

| Operating Mode                                                                                                                                                                                                                                      | WLAN                  | Bluetooth 4.0 | PLC |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------|-----|
| AP Router                                                                                                                                                                                                                                           | 2.4GHz/ 5GHz Band 1+4 | V             | X   |
| Extender                                                                                                                                                                                                                                            | 2.4GHz/ 5GHz Band 1+4 | X             | V   |
| Description                                                                                                                                                                                                                                         |                       |               |     |
| The EUT has two operating modes for detail as below:<br>1. At the AP router mode, it can support WLAN 2.4GHz + 5GHz and Bluetooth 4.0 simultaneous action.<br>2. At the Extender mode, only WLAN 2.4GHz + 5GHz simultaneous operation is supported. |                       |               |     |

Note: The above information was declared by manufacturer.

**1.1.4 Mode Test Duty Cycle**

| Mode         | DC    | T(s)  | VBW(Hz) $\geq 1/T$ |
|--------------|-------|-------|--------------------|
| BT-LE(1Mbps) | 0.168 | 7.747 | 108.75u            |

**1.1.5 EUT Operational Condition**

|                       |                    |
|-----------------------|--------------------|
| EUT Power Type        | From Power Adapter |
| Test Software Version | QRCT               |



## 1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR FCC Part 15
- ♦ ANSI C63.10-2013
- ♦ FCC KDB 558074 D01 v05r01

## 1.3 Testing Location Information

| Testing Location                    |        |                                                                                                                               |
|-------------------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/>            | HWA YA | ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.<br>TEL : 886-3-327-3456 FAX : 886-3-318-0055   |
| <input checked="" type="checkbox"/> | JHUBEI | ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.<br>TEL : 886-3-656-9065 FAX : 886-3-656-9085 |

| Test Condition                                         | Test Site No. | Test Engineer                                                         | Test Environment | Test Date                     |
|--------------------------------------------------------|---------------|-----------------------------------------------------------------------|------------------|-------------------------------|
| RF Conducted                                           | TH01-CB       | Gino Huang & Gary Chu                                                 | 22°C / 55%       | Nov. 19, 2016 ~ Jan. 13, 2017 |
| Radiated >1GHz<br>(For Other test)                     | 03CH01-CB     | Poul Chen & Mason Chen &<br>Welson Chen & Steven<br>Liang & Zero Chen | 22°C / 54%       | Nov. 15, 2016 ~ Dec. 13, 2016 |
| Radiated <1GHz<br>and Radiated<br>Emission Co-location | 03CH01-CB     | Robert Jiang                                                          | 22~24°C / 54~58% | Mar. 01, 2019 ~ Mar. 04, 2019 |
| AC Conduction                                          | CO02-CB       | Max Lin                                                               | 23~25°C / 51~58% | Jan. 28, 2019 ~ Jan. 29, 2019 |

Test site Designation No. TW0006 with FCC.

Test site registered number IC 4086B with Industry Canada.

## 1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

| Test Items                           | Uncertainty            | Remark                   |
|--------------------------------------|------------------------|--------------------------|
| Conducted Emission (150kHz ~ 30MHz)  | 2.0 dB                 | Confidence levels of 95% |
| Radiated Emission (30MHz ~ 1,000MHz) | 3.6 dB                 | Confidence levels of 95% |
| Radiated Emission (1GHz ~ 18GHz)     | 3.7 dB                 | Confidence levels of 95% |
| Radiated Emission (18GHz ~ 40GHz)    | 3.5 dB                 | Confidence levels of 95% |
| Conducted Emission                   | 1.7 dB                 | Confidence levels of 95% |
| Output Power Measurement             | 1.33 dB                | Confidence levels of 95% |
| Power Density Measurement            | 1.27 dB                | Confidence levels of 95% |
| Bandwidth Measurement                | 9.74 x10 <sup>-8</sup> | Confidence levels of 95% |



## 2 Test Configuration of EUT

### 2.1 Test Channel Mode

| Band | Mode  | BWch (MHz) | Nss-Min | Nant | Ch. (MHz) | Range | Power Setting |
|------|-------|------------|---------|------|-----------|-------|---------------|
| 2.4G | BT-LE | 1          | 1       | 1    | 2402      | L     | Default       |
| 2.4G | BT-LE | 1          | 1       | 1    | 2442      | M     | Default       |
| 2.4G | BT-LE | 1          | 1       | 1    | 2480      | H     | Default       |

Note:

- ♦ Test range channel consist of L (Low Ch.), M (Middle Ch.), H (High Ch.), S (Single Ch.) and C (Straddle Band Ch.).



## 2.2 The Worst Case Measurement Configuration

| The Worst Case Mode for Following Conformance Tests                           |                                                          |
|-------------------------------------------------------------------------------|----------------------------------------------------------|
| <b>Tests Item</b>                                                             | AC power-line conducted emissions                        |
| <b>Condition</b>                                                              | AC power-line conducted measurement for line and neutral |
| <b>Operating Mode</b>                                                         | Normal Link                                              |
| 1                                                                             | EUT - (AP Router Mode) + WLAN: 2.4GHz + 5GHz + BT        |
| 2                                                                             | EUT - (Extender Mode) + WLAN: 2.4GHz + 5GHz              |
| For operating mode 2 is the worst case and it was record in this test report. |                                                          |

| The Worst Case Mode for Following Conformance Tests |                                                                                                                          |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>Tests Item</b>                                   | DTS Bandwidth<br>Maximum Conducted Output Power<br>Power Spectral Density<br>Emissions in Non-restricted Frequency Bands |
| <b>Test Condition</b>                               | Conducted measurement at transmit chains                                                                                 |

| The Worst Case Mode for Following Conformance Tests                           |                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tests Item</b>                                                             | Emissions in Restricted Frequency Bands                                                                                                                                                                                                             |
| <b>Test Condition</b>                                                         | Radiated measurement<br>If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type. |
| <b>Operating Mode &lt; 1GHz</b>                                               | CTX                                                                                                                                                                                                                                                 |
| 1                                                                             | EUT CTX with BT                                                                                                                                                                                                                                     |
| 2                                                                             | EUT CTX with WLAN 2.4GHz                                                                                                                                                                                                                            |
| 3                                                                             | EUT CTX with WLAN 5GHz                                                                                                                                                                                                                              |
| For operating mode 2 is the worst case and it was record in this test report. |                                                                                                                                                                                                                                                     |
| <b>Operating Mode &gt; 1GHz</b>                                               | CTX                                                                                                                                                                                                                                                 |
| 1                                                                             | EUT in Z axis                                                                                                                                                                                                                                       |



| The Worst Case Mode for Following Conformance Tests                                                                                                                                                                                                                                                                      |                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Tests Item                                                                                                                                                                                                                                                                                                               | Simultaneous Transmission Analysis  |
| Test Condition                                                                                                                                                                                                                                                                                                           | Radiated measurement                |
| Operating Mode                                                                                                                                                                                                                                                                                                           | Normal Link                         |
| There are two radiated emission co-location modes of EUT. One is WLAN 2.4GHz + WLAN 5GHz + Bluetooth mode, and the other is WLAN 2.4GHz + WLAN 5GHz mode, after evaluating, WLAN 2.4GHz + WLAN 5GHz + Bluetooth mode has been evaluated to be the worst case, so it was selected to test and record in this test report. |                                     |
| 1                                                                                                                                                                                                                                                                                                                        | WLAN 2.4GHz + WLAN 5GHz + Bluetooth |
| Refer to Sporton Test Report No.: FA672842-04 for Co-location RF Exposure Evaluation and Appendix G for Radiated Emission Co-location.                                                                                                                                                                                   |                                     |

Note: The EUT only uses in Z axis.

## 2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

## 2.4 Accessories

| Accessories    |            |             |                                                                      |
|----------------|------------|-------------|----------------------------------------------------------------------|
| Equipment Name | Brand Name | Model Name  | Rating                                                               |
| Adapter        | TP-Link    | T120120-2B5 | Input: 100-240Vac ~ 50/60Hz, 0.4A<br>Output: 5Vdc, 1.2A, 12Vdc, 1.2A |



## 2.5 Support Equipment

For Test Site No: CO02-CB

| Support Equipment |                                                           |            |            |        |
|-------------------|-----------------------------------------------------------|------------|------------|--------|
| No.               | Equipment                                                 | Brand Name | Model Name | FCC ID |
| A                 | WAN NB                                                    | DELL       | E6430      | N/A    |
| B                 | 2.4G NB                                                   | DELL       | E6430      | N/A    |
| C                 | 5G NB                                                     | DELL       | E6430      | N/A    |
| D                 | LAN NB                                                    | DELL       | E6430      | N/A    |
| E                 | AC1300+AV600 Whole Home Hybrid Mesh Wi-Fi System (Device) | tp-link    | Deco P7    | TE7P7  |
| F                 | Router                                                    | TP-LINK    | Archer C55 | N/A    |
| G                 | Device NB                                                 | DELL       | E6430      | N/A    |

For Test Site No: 03CH01-CB (below 1GHz)

| Support Equipment |           |            |            |        |
|-------------------|-----------|------------|------------|--------|
| No.               | Equipment | Brand Name | Model Name | FCC ID |
| A                 | NB        | DELL       | E4300      | N/A    |

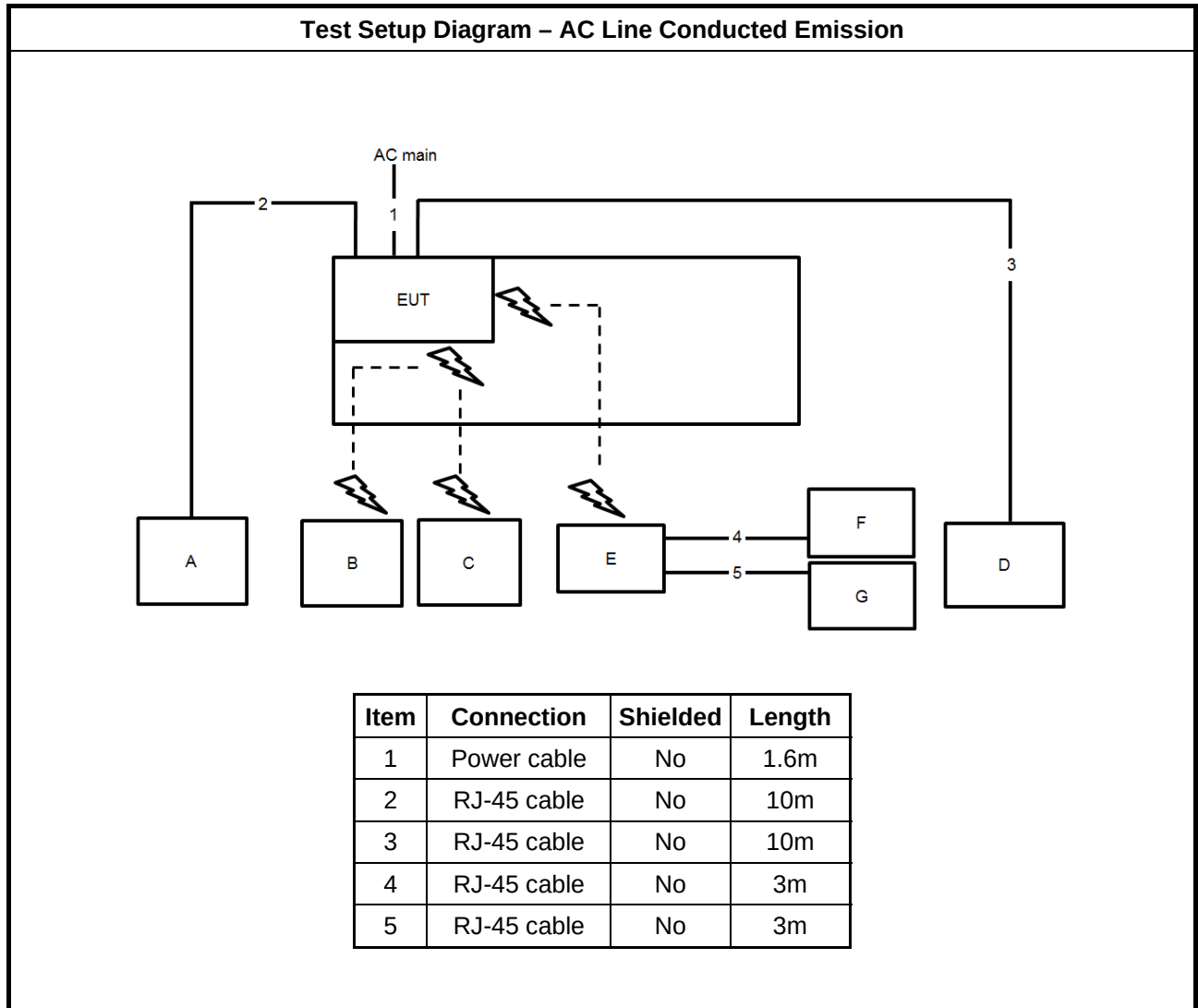
For Test Site No: 03CH01-CB (above 1GHz)

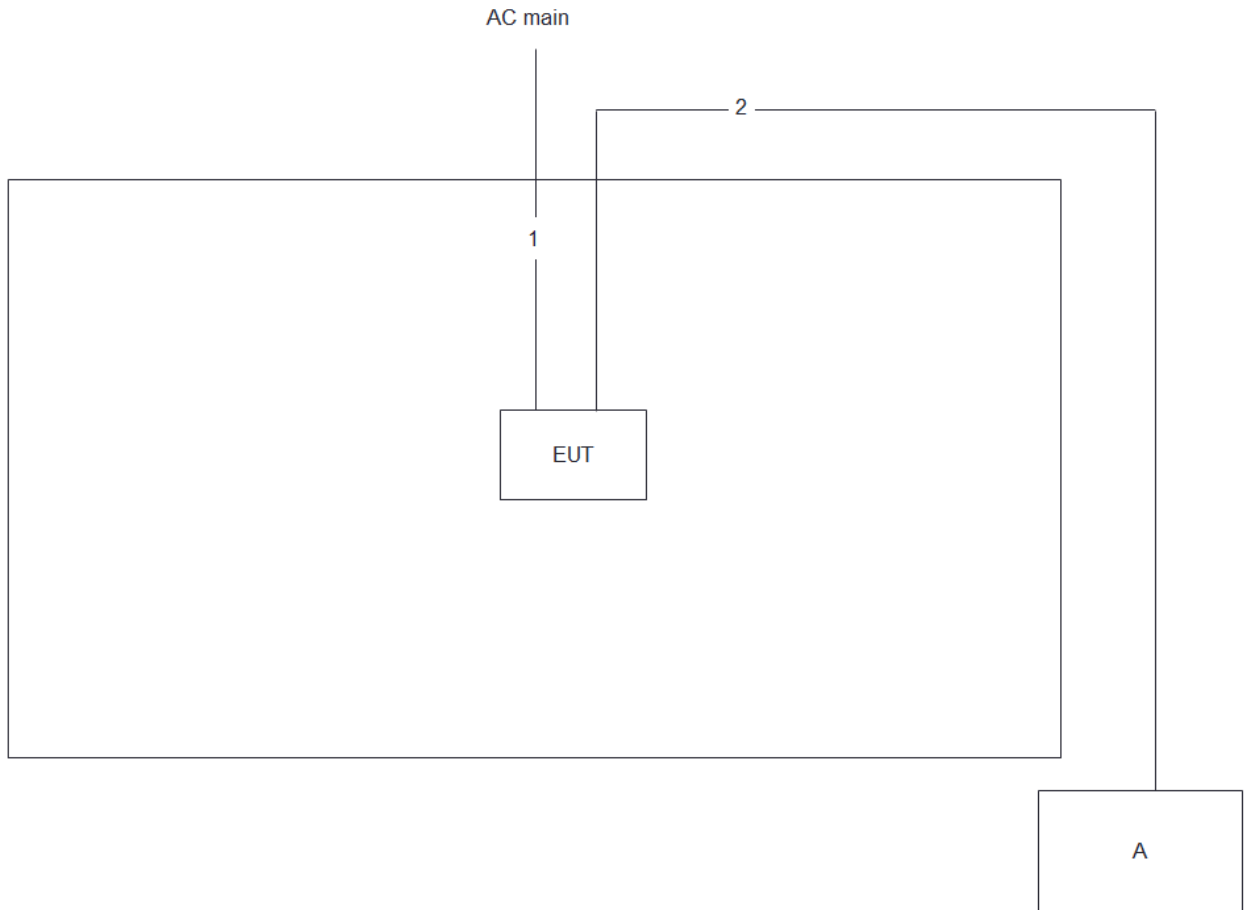
| Support Equipment |              |            |            |        |
|-------------------|--------------|------------|------------|--------|
| No.               | Equipment    | Brand Name | Model Name | FCC ID |
| A                 | NB           | DELL       | E4300      | N/A    |
| B                 | Test Fixture | TP-Link    | ZLR113590  | N/A    |

For Test Site No: TH01-CB

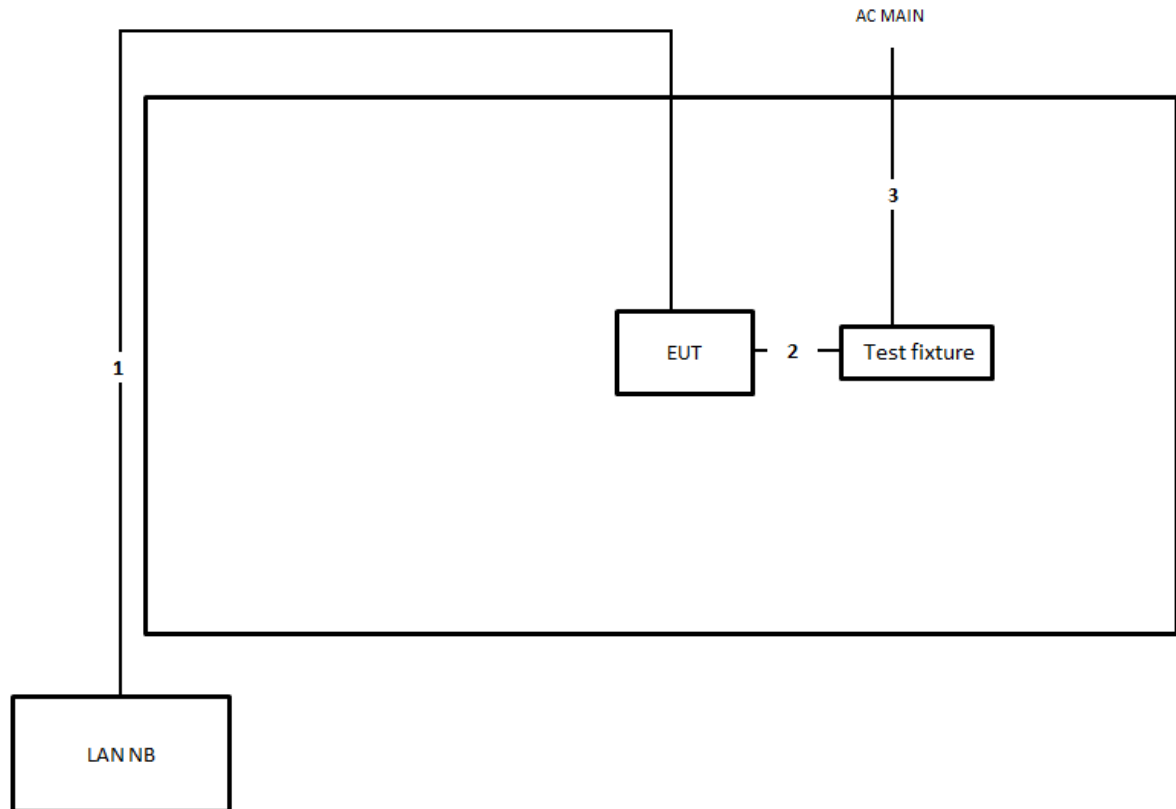
| Support Equipment |              |            |            |        |
|-------------------|--------------|------------|------------|--------|
| No.               | Equipment    | Brand Name | Model Name | FCC ID |
| A                 | NB           | DELL       | E4300      | N/A    |
| B                 | Test Fixture | TP-Link    | ZLR113590  | N/A    |

## 2.6 Test Setup Diagram



**Test Setup Diagram - Radiated Test < 1GHz**


| Item | Connection  | Shielded | Length |
|------|-------------|----------|--------|
| 1    | Power cable | No       | 1.6m   |
| 2    | RJ-45 cable | No       | 10m    |

**Test Setup Diagram - Radiated Test > 1GHz**


| Item | Connection  | Shielded | Length |
|------|-------------|----------|--------|
| 1    | RJ-45 cable | No       | 10m    |
| 2    | USB cable   | Yes      | 0.15m  |
| 3    | Power cable | No       | 1.6m   |



### 3 Transmitter Test Result

#### 3.1 AC Power-line Conducted Emissions

##### 3.1.1 AC Power-line Conducted Emissions Limit

| AC Power-line Conducted Emissions Limit |            |           |
|-----------------------------------------|------------|-----------|
| Frequency Emission (MHz)                | Quasi-Peak | Average   |
| 0.15-0.5                                | 66 - 56 *  | 56 - 46 * |
| 0.5-5                                   | 56         | 46        |
| 5-30                                    | 60         | 50        |

Note 1: \* Decreases with the logarithm of the frequency.

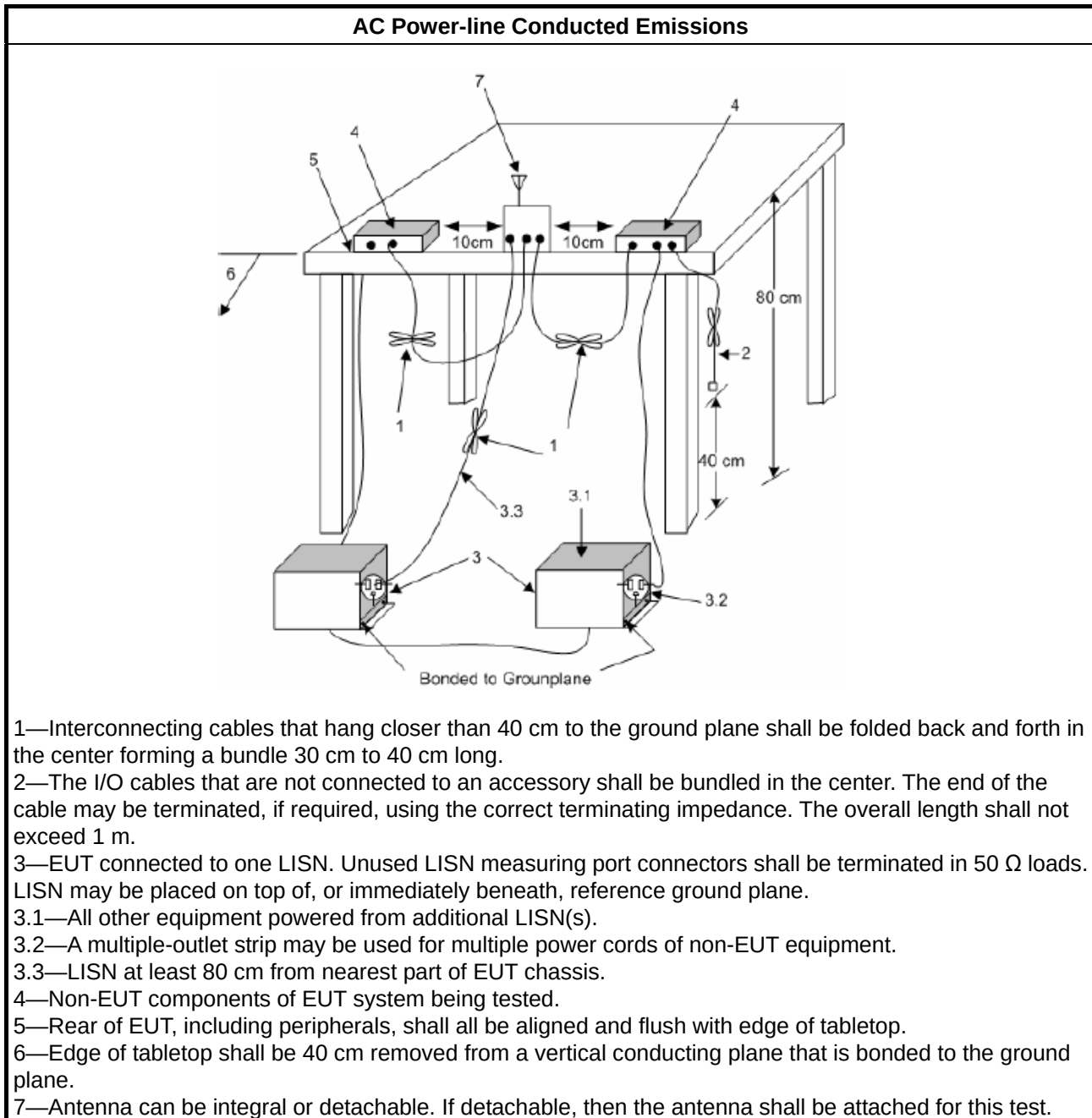
##### 3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

##### 3.1.3 Test Procedures

| Test Method                                                                                                      |
|------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions. |

### 3.1.4 Test Setup



### 3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A



## 3.2 DTS Bandwidth

### 3.2.1 6dB Bandwidth Limit

| 6dB Bandwidth Limit                                 |                                |
|-----------------------------------------------------|--------------------------------|
| <b>Systems using digital modulation techniques:</b> |                                |
| ▪                                                   | 6 dB bandwidth $\geq$ 500 kHz. |

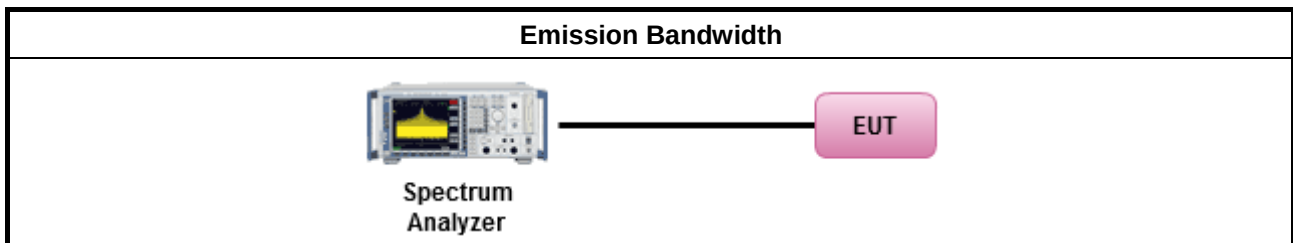
### 3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

### 3.2.3 Test Procedures

| Test Method                         |                                                                                                     |
|-------------------------------------|-----------------------------------------------------------------------------------------------------|
| ▪                                   | For the emission bandwidth shall be measured using one of the options below:                        |
| <input checked="" type="checkbox"/> | Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement. |
| <input type="checkbox"/>            | Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.2 Option 2 for 6 dB bandwidth measurement. |
| <input type="checkbox"/>            | Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.                                  |

### 3.2.4 Test Setup



### 3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

### 3.3 Maximum Conducted Output Power

#### 3.3.1 Maximum Conducted Output Power Limit

| Maximum Conducted Output Power Limit                                                                                                                              |                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                   | ▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)                                           |
|                                                                                                                                                                   | ▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm     |
|                                                                                                                                                                   | ▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm        |
|                                                                                                                                                                   | ▪ Smart antenna system (SAS):                                                                        |
|                                                                                                                                                                   | - Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm                         |
|                                                                                                                                                                   | - Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm                        |
|                                                                                                                                                                   | - Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm |
| $P_{Out}$ = maximum peak conducted output power or maximum conducted output power in dBm,<br>$G_{TX}$ = the maximum transmitting antenna directional gain in dBi. |                                                                                                      |

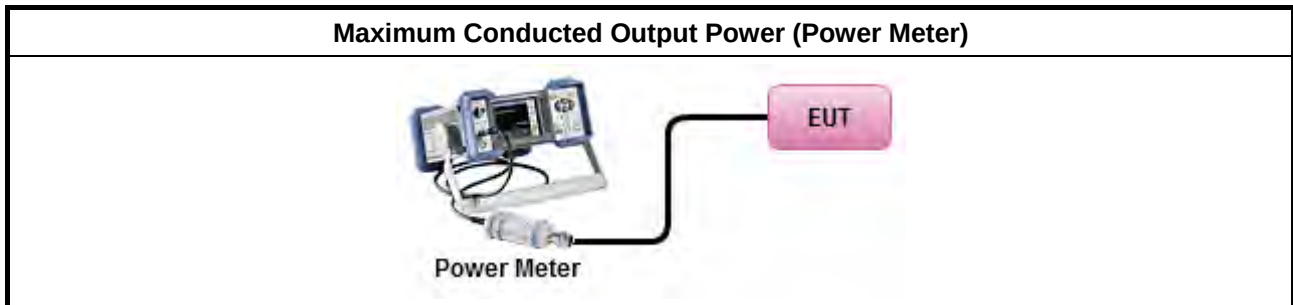
#### 3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

### 3.3.3 Test Procedures

| Test Method                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Maximum Peak Conducted Output Power</li> </ul>                                                                                                                                                                                                                                                                                  |                                                                                                                           |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                               | Refer as FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).                                      |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                               | Refer as FCC KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).                                      |
| <ul style="list-style-type: none"> <li>Maximum Conducted Output Power</li> </ul>                                                                                                                                                                                                                                                                                       |                                                                                                                           |
| [duty cycle ≥ 98% or external video / power trigger]                                                                                                                                                                                                                                                                                                                   |                                                                                                                           |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                               | Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.                                        |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                               | Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.3 Method AVGSA-1A. (alternative)                         |
| duty cycle < 98% and average over on/off periods with duty factor                                                                                                                                                                                                                                                                                                      |                                                                                                                           |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                               | Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.                                        |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                               | Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)                          |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                               | Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3                                         |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                               | Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.7 Method AVGSA-3A (alternative)                          |
| Measurement using a power meter (PM)                                                                                                                                                                                                                                                                                                                                   |                                                                                                                           |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                    | Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.1 Method AVGPM (using an RF average power meter).        |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                               | Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.2 Method AVGPM-G (using an gate RF average power meter). |
| <ul style="list-style-type: none"> <li>For conducted measurement.</li> </ul>                                                                                                                                                                                                                                                                                           |                                                                                                                           |
| <ul style="list-style-type: none"> <li>If the EUT supports multiple transmit chains using options given below:<br/>Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.</li> </ul> |                                                                                                                           |
| <ul style="list-style-type: none"> <li>If multiple transmit chains, EIRP calculation could be following as methods:<br/> <math display="block">P_{total} = P_1 + P_2 + \dots + P_n</math> (calculated in linear unit [mW] and transfer to log unit [dBm])<br/> <math display="block">EIRP_{total} = P_{total} + DG</math> </li> </ul>                                  |                                                                                                                           |

### 3.3.4 Test Setup



### 3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



### 3.4 Power Spectral Density

#### 3.4.1 Power Spectral Density Limit

| Power Spectral Density Limit                     |
|--------------------------------------------------|
| ▪ Power Spectral Density (PSD) $\leq 8$ dBm/3kHz |

#### 3.4.2 Measuring Instruments

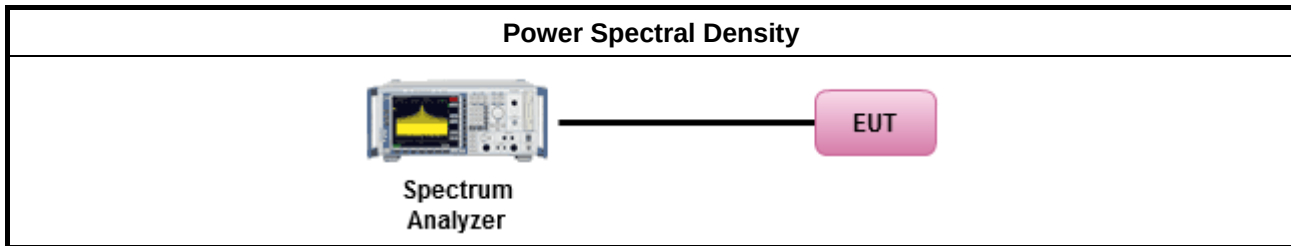
Refer a test equipment and calibration data table in this test report.

#### 3.4.3 Test Procedures

| Test Method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ▪ Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option). |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.2 Method PKPSD.<br>[duty cycle $\geq 98\%$ or external video / power trigger]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.3 Method AVGPSD-1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.5 Method AVGPSD-2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.7 Method AVGPSD-3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| duty cycle $< 98\%$ and average over on/off periods with duty factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.4 Method AVGPSD-1A.<br>(alternative).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.6 Method AVGPSD-2A.<br>(alternative)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.8 Method AVGPSD-3A.<br>(alternative)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| ▪ For conducted measurement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| ▪ If The EUT supports multiple transmit chains using options given below:                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace. |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,                                                                                                                                                                                                         |

- |  |                                                                                                                                                                                                                                                                                                                                                                                              |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <input type="checkbox"/> Option 3: Measure and add $10 \log(N)$ dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with $10 \log(N)$ . Or each transmit chains shall be add $10 \log(N)$ to compared with the limit. |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 3.4.4 Test Setup



### 3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

### 3.5 Emissions in Non-restricted Frequency Bands

#### 3.5.1 Emissions in Non-restricted Frequency Bands Limit

| Un-restricted Band Emissions Limit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| RF output power procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Limit (dBc) |
| Peak output power procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 20          |
| Average output power procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 30          |
| <p>Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.</p> <p>Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.</p> |             |

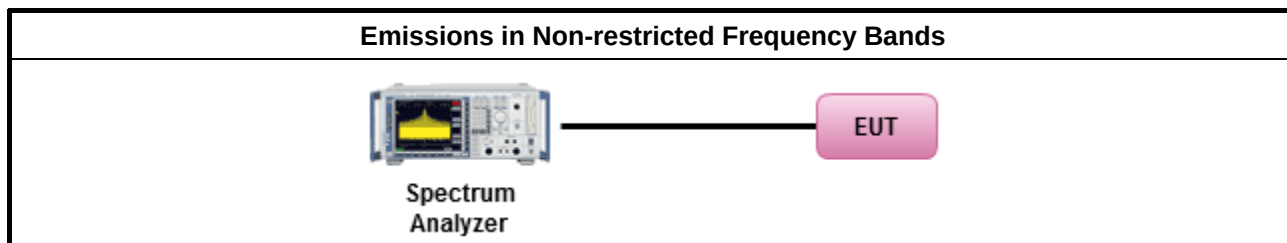
#### 3.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

#### 3.5.3 Test Procedures

| Test Method                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Refer as FCC KDB 558074, clause 8.5 for unwanted emissions into non-restricted bands.</li> </ul> |

#### 3.5.4 Test Setup



#### 3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

### 3.6 Emissions in Restricted Frequency Bands

#### 3.6.1 Emissions in Restricted Frequency Bands Limit

| Restricted Band Emissions Limit |                       |                         |                      |
|---------------------------------|-----------------------|-------------------------|----------------------|
| Frequency Range (MHz)           | Field Strength (uV/m) | Field Strength (dBuV/m) | Measure Distance (m) |
| 0.009~0.490                     | 2400/F(kHz)           | 48.5 - 13.8             | 300                  |
| 0.490~1.705                     | 24000/F(kHz)          | 33.8 - 23               | 30                   |
| 1.705~30.0                      | 30                    | 29                      | 30                   |
| 30~88                           | 100                   | 40                      | 3                    |
| 88~216                          | 150                   | 43.5                    | 3                    |
| 216~960                         | 200                   | 46                      | 3                    |
| Above 960                       | 500                   | 54                      | 3                    |

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

#### 3.6.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

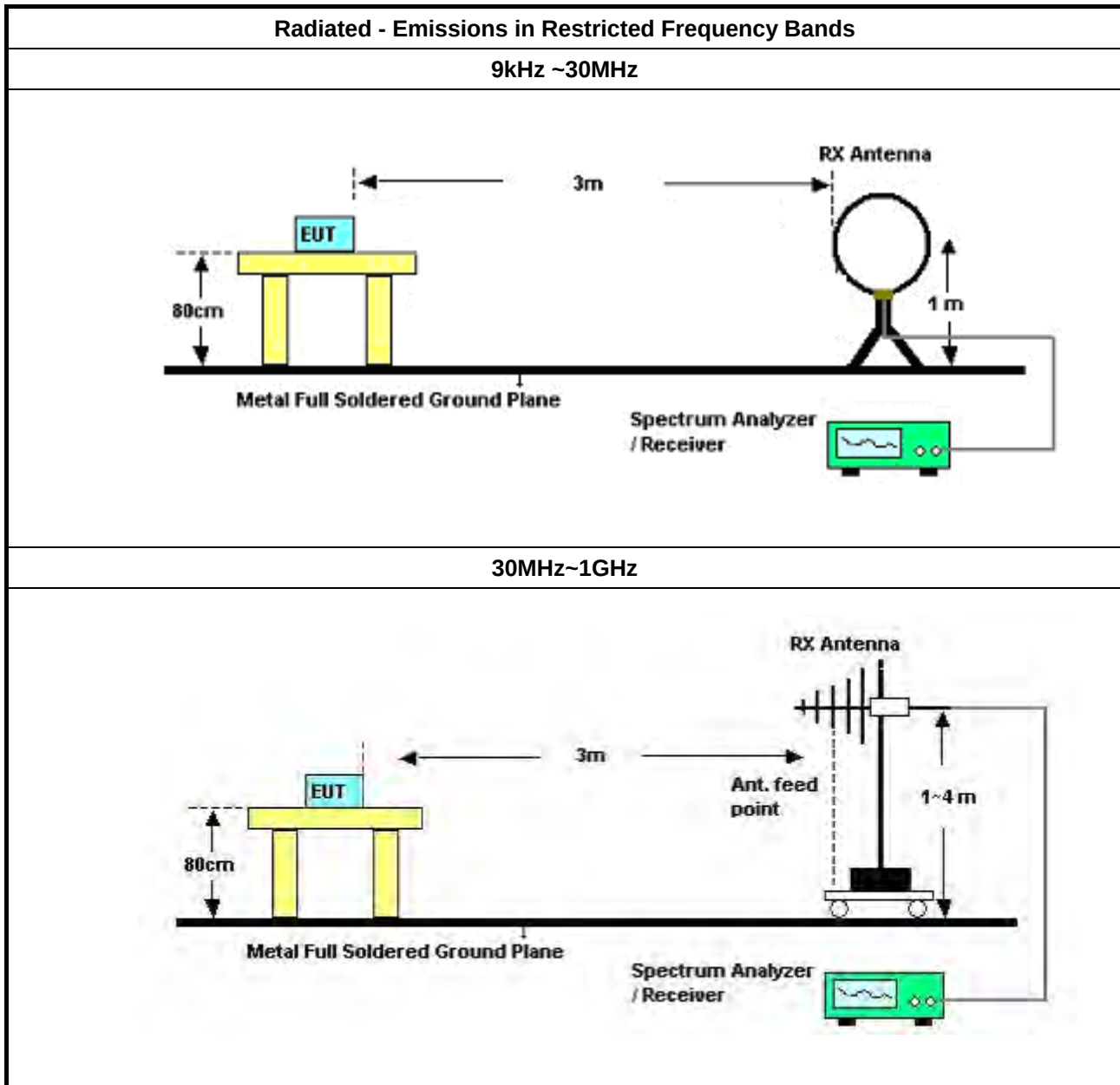


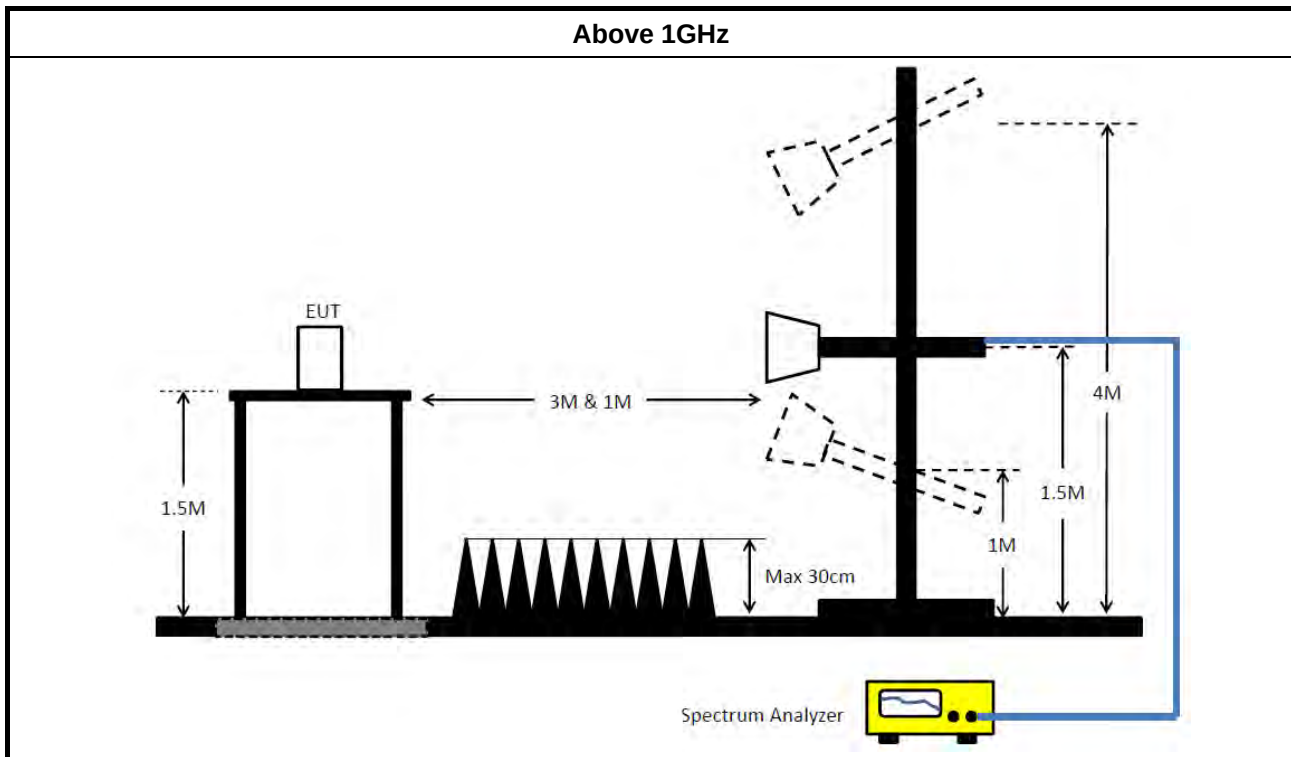


### 3.6.3 Test Procedures

| Test Method                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ▪ The average emission levels shall be measured in [duty cycle $\geq 98$ or duty factor].                                                                                   |                                                                                                                                                                                                                                                                                                                                                |
| ▪ Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band. |                                                                                                                                                                                                                                                                                                                                                |
| ▪ For the transmitter unwanted emissions shall be measured using following options below:                                                                                   |                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                             | ▪ Refer as FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.                                                                                                                                                                                                                                                            |
|                                                                                                                                                                             | <input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle $\geq 98\%$ ).                                                                                                                                                                                                         |
|                                                                                                                                                                             | <input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).                                                                                                                                                                                                                       |
|                                                                                                                                                                             | <input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW $\geq 1/T$ ).                                                                                                                                                                                                                  |
|                                                                                                                                                                             | <input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW $\geq 1/T$ , where T is pulse time.                                                                                                                                                                                                                       |
|                                                                                                                                                                             | <input type="checkbox"/> Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.                                                                                                                                                                                                                                                   |
|                                                                                                                                                                             | <input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.                                                                                                                                                                                                            |
| ▪ For the transmitter band-edge emissions shall be measured using following options below:                                                                                  |                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                             | ▪ Refer as FCC KDB 558074 clause 8.7 & C63.10 clause 11.13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.                                                                                                     |
|                                                                                                                                                                             | ▪ Refer as FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.                                                                                                                                                                                                                         |
|                                                                                                                                                                             | ▪ Refer as FCC KDB 558074, clause 8.7 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).                                                                                                                                                                                           |
|                                                                                                                                                                             | ▪ For conducted unwanted emissions into restricted bands (absolute emission limits).<br>Devices with multiple transmit chains using options given below:<br>(1) Measure and sum the spectra across the outputs or<br>(2) Measure and add 10 log(N) dB                                                                                          |
|                                                                                                                                                                             | ▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred. |

### 3.6.4 Test Setup





### 3.6.5 Emissions in Restricted Frequency Bands (Below 30MHz)

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10 harmonic or 40 GHz, whichever is appropriate.

### 3.6.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F



## 4 Test Equipment and Calibration Data

| Instrument                        | Manufacturer | Model No.         | Serial No.       | Characteristics | Calibration Date | Calibration Due Date | Remark                |
|-----------------------------------|--------------|-------------------|------------------|-----------------|------------------|----------------------|-----------------------|
| LISN                              | Schwarzbeck  | NSLK 8127         | 8127650          | 9kHz ~ 30MHz    | Nov. 21, 2018    | Nov. 20, 2019        | Conduction (CO02-CB)  |
| LISN                              | Schwarzbeck  | NSLK 8127         | 8127478          | 9kHz ~ 30MHz    | Nov. 05, 2018    | Nov. 04, 2019        | Conduction (CO02-CB)  |
| EMI Receiver                      | Agilent      | N9038A            | MY52260140       | 9kHz ~ 8.4GHz   | Jan. 16, 2019    | Jan. 15, 2020        | Conduction (CO02-CB)  |
| COND Cable                        | Woken        | Cable             | 2                | 0.15MHz ~ 30MHz | Nov. 06, 2018    | Nov. 05, 2019        | Conduction (CO02-CB)  |
| Software                          | Audix        | E3                | 6.120210n        | -               | N.C.R.           | N.C.R.               | Conduction (CO02-CB)  |
| BILOG ANTENNA with 6dB Attenuator | TESEQ & EMCI | CBL6112D & N-6-06 | 37880 & AT-N0609 | 20MHz ~ 2GHz    | Aug. 27, 2018    | Aug. 26, 2019        | Radiation (03CH01-CB) |
| Loop Antenna                      | Teseq        | HLA 6120          | 24155            | 9kHz - 30 MHz   | Mar. 16, 2018    | Mar. 15, 2019        | Radiation (03CH01-CB) |
| Horn Antenna                      | EMCO         | 3115              | 00075790         | 750MHz ~ 18GHz  | Nov. 10, 2016    | Nov. 09, 2017        | Radiation (03CH01-CB) |
| Horn Antenna                      | EMCO         | 3115              | 00075790         | 750MHz ~ 18GHz  | Nov. 13, 2018    | Nov. 12, 2019        | Radiation (03CH01-CB) |
| Horn Antenna                      | Schwarzbeck  | BBHA 9170         | BBHA9170252      | 15GHz ~ 40GHz   | Jul. 25, 2016    | Jul. 24, 2017        | Radiation (03CH01-CB) |
| Horn Antenna                      | Schwarzbeck  | BBHA 9170         | BBHA9170252      | 15GHz ~ 40GHz   | Jun. 28, 2018    | Jun. 27, 2019        | Radiation (03CH01-CB) |
| Pre-Amplifier                     | EMCI         | EMC330N           | 980332           | 20MHz ~ 3GHz    | May 02, 2018     | May 01, 2019         | Radiation (03CH01-CB) |
| Pre-Amplifier                     | Agilent      | 8449B             | 3008A02310       | 1GHz ~ 26.5GHz  | Jan. 18, 2016    | Jan. 17, 2017        | Radiation (03CH01-CB) |
| Pre-Amplifier                     | Agilent      | 8449B             | 3008A02310       | 1GHz ~ 26.5GHz  | Jan. 08, 2019    | Jan. 07, 2020        | Radiation (03CH01-CB) |
| Pre-Amplifier                     | MITEQ        | TTA1840-35-H G    | 1864479          | 18GHz ~ 40GHz   | Jun. 28, 2016    | Jun. 27, 2017        | Radiation (03CH01-CB) |
| Pre-Amplifier                     | MITEQ        | TTA1840-35-H G    | 1864479          | 18GHz ~ 40GHz   | Jul. 04, 2018    | Jul. 03, 2019        | Radiation (03CH01-CB) |
| Spectrum Analyzer                 | R&S          | FSP-40            | 100019           | 9kHz ~ 40GHz    | Apr. 21, 2016    | Apr. 20, 2017        | Radiation (03CH01-CB) |
| Spectrum Analyzer                 | R&S          | FSP-40            | 100019           | 9kHz ~ 40GHz    | Apr. 25, 2018    | Apr. 24, 2019        | Radiation (03CH01-CB) |
| EMI Test Receiver                 | R&S          | ESCS              | 100359           | 9kHz ~ 2.75GHz  | Jul. 03, 2018    | Jul. 02, 2019        | Radiation (03CH01-CB) |
| RF Cable-low                      | Woken        | Low Cable-16+17   | N/A              | 30 MHz ~ 1 GHz  | Oct. 08, 2018    | Oct. 07, 2019        | Radiation (03CH01-CB) |
| RF Cable-high                     | Woken        | High Cable-16     | N/A              | 1 GHz ~ 18 GHz  | Oct. 24, 2016    | Oct. 23, 2017        | Radiation (03CH01-CB) |
| RF Cable-high                     | Woken        | High Cable-16     | N/A              | 1 GHz ~ 18 GHz  | Oct. 08, 2018    | Oct. 07, 2019        | Radiation (03CH01-CB) |



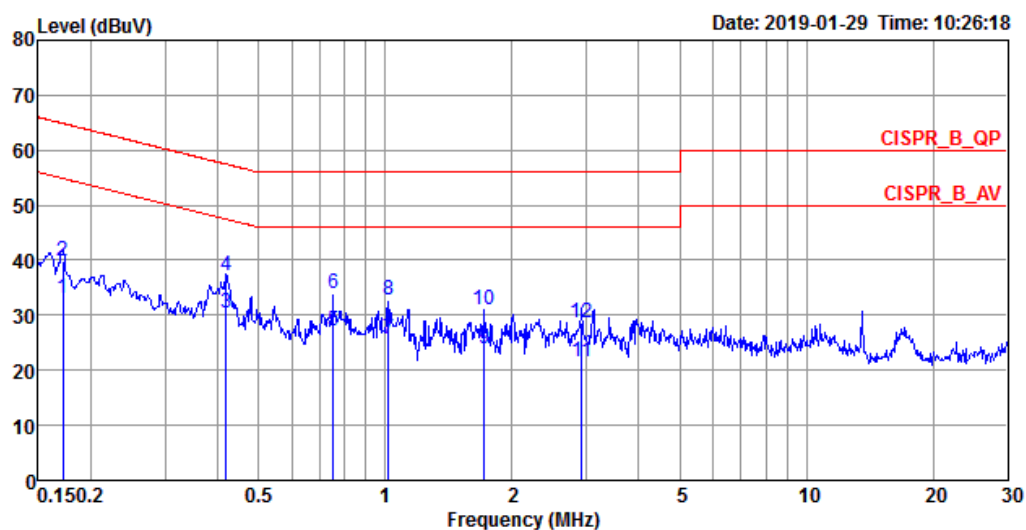
| Instrument        | Manufacturer | Model No.        | Serial No.    | Characteristics  | Calibration Date | Calibration Due Date | Remark                |
|-------------------|--------------|------------------|---------------|------------------|------------------|----------------------|-----------------------|
| RF Cable-high     | Woken        | High Cable-16+17 | N/A           | 1 GHz ~ 18 GHz   | Oct. 24, 2016    | Oct. 23, 2017        | Radiation (03CH01-CB) |
| RF Cable-high     | Woken        | High Cable-16+17 | N/A           | 1 GHz ~ 18 GHz   | Oct. 08, 2018    | Oct. 07, 2019        | Radiation (03CH01-CB) |
| RF Cable-high     | Woken        | High Cable-40G#1 | N/A           | 18GHz ~ 40 GHz   | Oct. 24, 2016    | Oct. 23, 2017        | Radiation (03CH01-CB) |
| RF Cable-high     | Woken        | High Cable-40G#1 | N/A           | 18GHz ~ 40 GHz   | Jul. 27, 2018    | Jul. 26, 2019        | Radiation (03CH01-CB) |
| RF Cable-high     | Woken        | High Cable-40G#2 | N/A           | 18GHz ~ 40 GHz   | Oct. 24, 2016    | Oct. 23, 2017        | Radiation (03CH01-CB) |
| RF Cable-high     | Woken        | High Cable-40G#2 | N/A           | 18GHz ~ 40 GHz   | Jul. 27, 2018    | Jul. 26, 2019        | Radiation (03CH01-CB) |
| Spectrum analyzer | R&S          | FSV40            | 101027        | 9kHz~40GHz       | Jul. 26, 2016    | Jul. 25, 2017        | Conducted (TH01-CB)   |
| RF Cable-high     | Woken        | RG402            | High Cable-6  | 1 GHz ~ 26.5 GHz | Oct. 24, 2016    | Oct. 23, 2017        | Conducted (TH01-CB)   |
| RF Cable-high     | Woken        | RG402            | High Cable-7  | 1 GHz ~ 26.5 GHz | Oct. 24, 2016    | Oct. 23, 2017        | Conducted (TH01-CB)   |
| RF Cable-high     | Woken        | RG402            | High Cable-8  | 1 GHz ~ 26.5 GHz | Oct. 24, 2016    | Oct. 23, 2017        | Conducted (TH01-CB)   |
| RF Cable-high     | Woken        | RG402            | High Cable-9  | 1 GHz ~ 26.5 GHz | Oct. 24, 2016    | Oct. 23, 2017        | Conducted (TH01-CB)   |
| RF Cable-high     | Woken        | RG402            | High Cable-10 | 1 GHz ~ 26.5 GHz | Oct. 24, 2016    | Oct. 23, 2017        | Conducted (TH01-CB)   |
| Power Sensor      | Anritsu      | MA2411B          | 1126203       | 300MHz~40GHz     | Sep. 09, 2016    | Sep. 08, 2017        | Conducted (TH01-CB)   |

Note: Calibration Interval of instruments listed above is one year.

N.C.R. means Non-Calibration required.

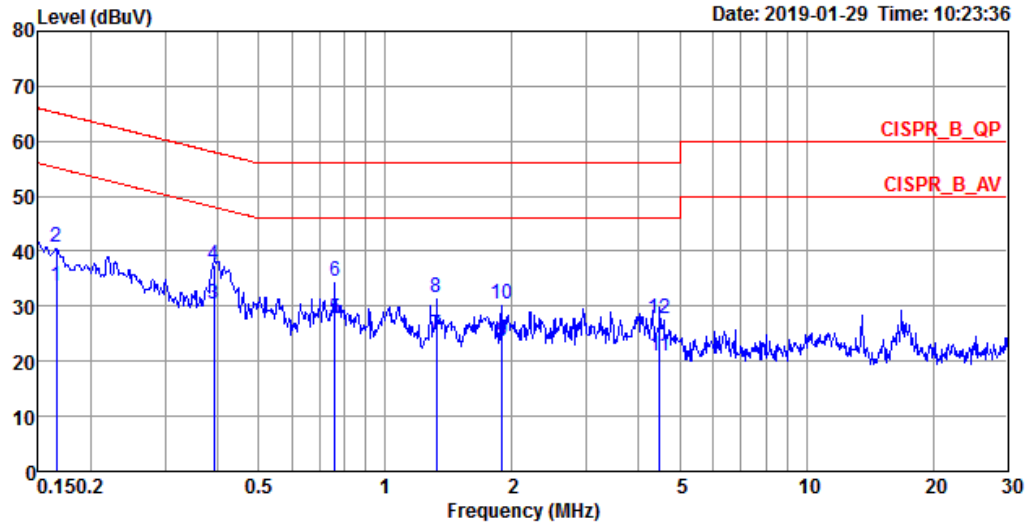
|           |        |                 |                    |
|-----------|--------|-----------------|--------------------|
| Test Mode | Mode 2 | Frequency Range | 0.15 MHz to 30 MHz |
|-----------|--------|-----------------|--------------------|

Line



|    | Freq   | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Remark  | Pol/Phase |
|----|--------|-------|------------|------------|------------|-------------|------------|---------|-----------|
|    | MHz    | dBuV  | dB         | dBuV       | dBuV       | dB          | dB         |         |           |
| 1  | 0.1712 | 33.02 | -21.88     | 54.90      | 22.85      | 10.15       | 0.02       | Average | LINE      |
| 2  | 0.1712 | 39.83 | -25.07     | 64.90      | 29.66      | 10.15       | 0.02       | QP      | LINE      |
| 3  | 0.4193 | 30.37 | -17.09     | 47.46      | 20.19      | 10.16       | 0.02       | Average | LINE      |
| 4  | 0.4193 | 37.11 | -20.35     | 57.46      | 26.93      | 10.16       | 0.02       | QP      | LINE      |
| 5  | 0.7509 | 27.02 | -18.98     | 46.00      | 16.83      | 10.17       | 0.02       | Average | LINE      |
| 6  | 0.7509 | 33.93 | -22.07     | 56.00      | 23.74      | 10.17       | 0.02       | QP      | LINE      |
| 7  | 1.0157 | 25.72 | -20.28     | 46.00      | 15.53      | 10.17       | 0.02       | Average | LINE      |
| 8  | 1.0157 | 32.64 | -23.36     | 56.00      | 22.45      | 10.17       | 0.02       | QP      | LINE      |
| 9  | 1.7162 | 23.90 | -22.10     | 46.00      | 13.67      | 10.19       | 0.04       | Average | LINE      |
| 10 | 1.7162 | 30.97 | -25.03     | 56.00      | 20.74      | 10.19       | 0.04       | QP      | LINE      |
| 11 | 2.9307 | 21.58 | -24.42     | 46.00      | 11.31      | 10.21       | 0.06       | Average | LINE      |
| 12 | 2.9307 | 28.58 | -27.42     | 56.00      | 18.31      | 10.21       | 0.06       | QP      | LINE      |

### Neutral



|    | Freq   | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Remark  | Pol/Phase |
|----|--------|-------|------------|------------|------------|-------------|------------|---------|-----------|
|    | MHz    | dBuV  | dB         | dBuV       | dBuV       | dB          | dB         |         |           |
| 1  | 0.1659 | 33.56 | -21.60     | 55.16      | 23.41      | 10.13       | 0.02       | Average | NEUTRAL   |
| 2  | 0.1659 | 40.60 | -24.56     | 65.16      | 30.45      | 10.13       | 0.02       | QP      | NEUTRAL   |
| 3  | 0.3914 | 30.53 | -17.50     | 48.03      | 20.37      | 10.14       | 0.02       | Average | NEUTRAL   |
| 4  | 0.3914 | 37.54 | -20.49     | 58.03      | 27.38      | 10.14       | 0.02       | QP      | NEUTRAL   |
| 5  | 0.7589 | 27.69 | -18.31     | 46.00      | 17.53      | 10.14       | 0.02       | Average | NEUTRAL   |
| 6  | 0.7589 | 34.42 | -21.58     | 56.00      | 24.26      | 10.14       | 0.02       | QP      | NEUTRAL   |
| 7  | 1.3238 | 24.76 | -21.24     | 46.00      | 14.58      | 10.15       | 0.03       | Average | NEUTRAL   |
| 8  | 1.3238 | 31.63 | -24.37     | 56.00      | 21.45      | 10.15       | 0.03       | QP      | NEUTRAL   |
| 9  | 1.8979 | 23.49 | -22.51     | 46.00      | 13.28      | 10.16       | 0.05       | Average | NEUTRAL   |
| 10 | 1.8979 | 30.27 | -25.73     | 56.00      | 20.06      | 10.16       | 0.05       | QP      | NEUTRAL   |
| 11 | 4.4777 | 20.96 | -25.04     | 46.00      | 10.70      | 10.19       | 0.07       | Average | NEUTRAL   |
| 12 | 4.4777 | 27.83 | -28.17     | 56.00      | 17.57      | 10.19       | 0.07       | QP      | NEUTRAL   |

**Summary**

| Mode          | Max-N dB<br>(Hz) | Max-OBW<br>(Hz) | ITU-Code | Min-N dB<br>(Hz) | Min-OBW<br>(Hz) |
|---------------|------------------|-----------------|----------|------------------|-----------------|
| BT-LE(1Mbps)  | -                | -               | -        | -                | -               |
| 2.4-2.4835GHz | 648.75k          | 1.017M          | 1M02F1D  | 537.5k           | 1.011M          |

**Max-N dB** = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

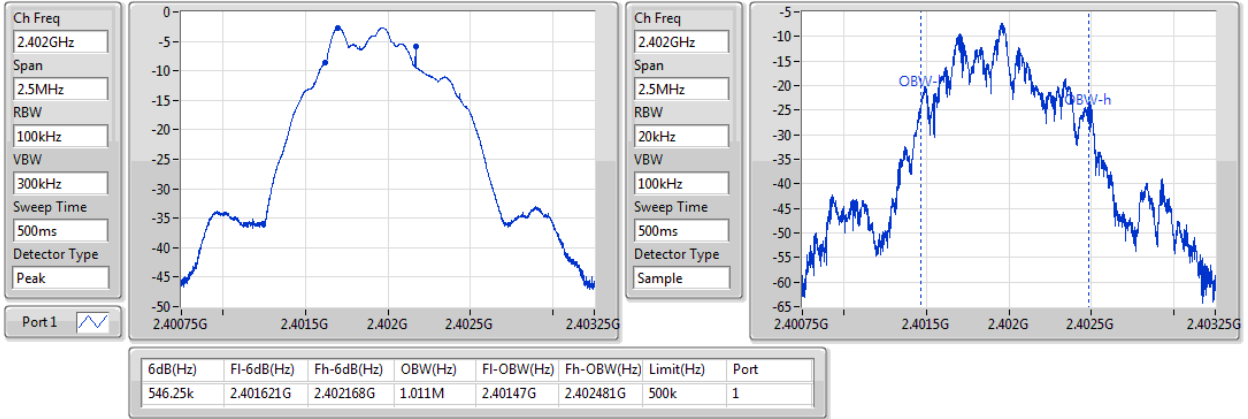
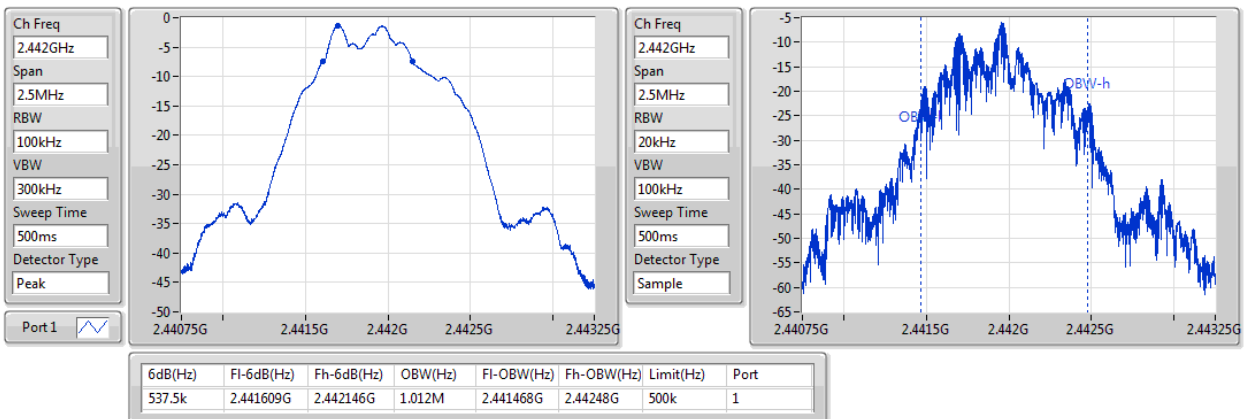
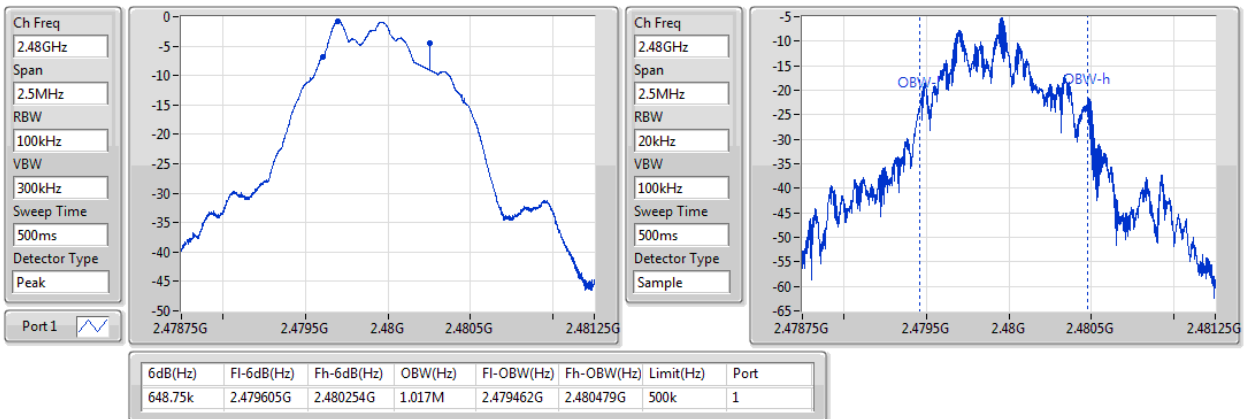
**Min-N dB** = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

**Result**

| Mode         | Result | Limit<br>(Hz) | Port 1-N dB<br>(Hz) | Port 1-OBW<br>(Hz) |
|--------------|--------|---------------|---------------------|--------------------|
| BT-LE(1Mbps) | -      | -             | -                   | -                  |
| 2402MHz      | Pass   | 500k          | 546.25k             | 1.011M             |
| 2442MHz      | Pass   | 500k          | 537.5k              | 1.012M             |
| 2480MHz      | Pass   | 500k          | 648.75k             | 1.017M             |

**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



**BT-LE(1Mbps)**
**EBW**
**2402MHz**

**BT-LE(1Mbps)**
**EBW**
**2442MHz**

**BT-LE(1Mbps)**
**EBW**
**2480MHz**


### Summary

| Mode          | Power | Power   |
|---------------|-------|---------|
|               | (dBm) | (W)     |
| BT-LE(1Mbps)  | -     | -       |
| 2.4-2.4835GHz | 8.48  | 0.00705 |

### Result

| Mode         | Result | Gain<br>(dBi) | Power<br>(dBm) | Power Limit<br>(dBm) |
|--------------|--------|---------------|----------------|----------------------|
| BT-LE(1Mbps) | -      | -             | -              | -                    |
| 2402MHz      | Pass   | 1.40          | 7.02           | 30.00                |
| 2442MHz      | Pass   | 1.40          | 7.99           | 30.00                |
| 2480MHz      | Pass   | 1.40          | 8.48           | 30.00                |

**Summary**

| Mode          | PD<br>(dBm/RBW) |
|---------------|-----------------|
| BT-LE(1Mbps)  | -               |
| 2.4-2.4835GHz | -17.61          |

RBW=3kHz.

**Result**

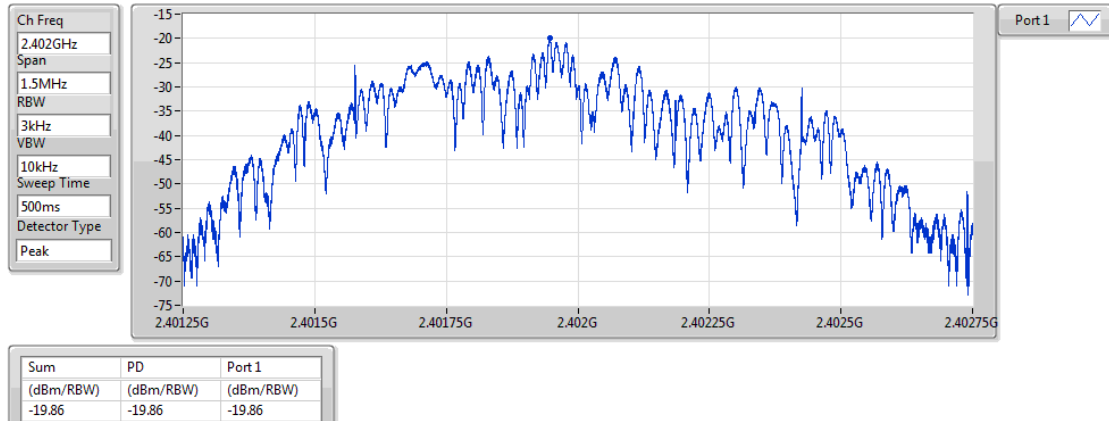
| Mode         | Result | Gain<br>(dBi) | PD<br>(dBm/RBW) | PD Limit<br>(dBm/RBW) |
|--------------|--------|---------------|-----------------|-----------------------|
| BT-LE(1Mbps) | -      | -             | -               | -                     |
| 2402MHz      | Pass   | 1.40          | -19.86          | 8.00                  |
| 2442MHz      | Pass   | 1.40          | -18.20          | 8.00                  |
| 2480MHz      | Pass   | 1.40          | -17.61          | 8.00                  |

RBW=3kHz.

### BT-LE(1Mbps)

PSD

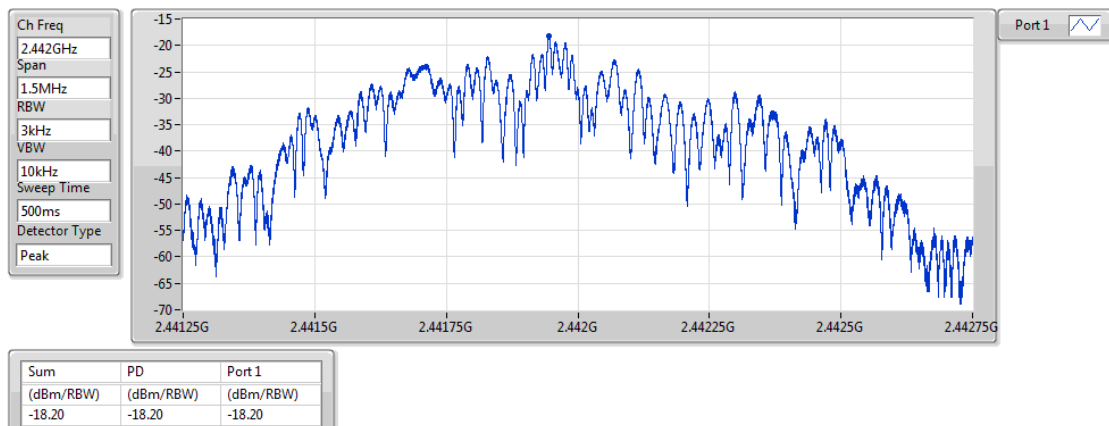
2402MHz



### BT-LE(1Mbps)

PSD

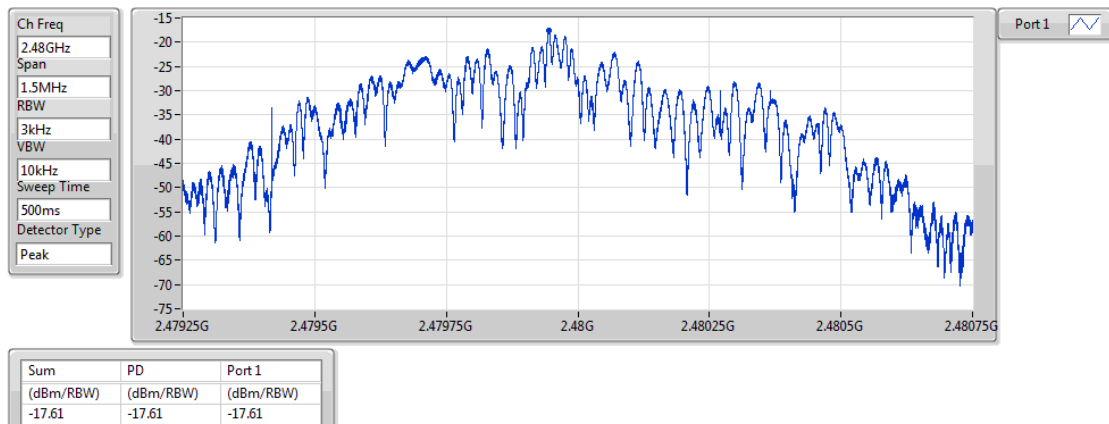
2442MHz



### BT-LE(1Mbps)

PSD

2480MHz



**Summary**

| Mode          | Result | Ref<br>(Hz) | Ref<br>(dBm) | Limit<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Port |
|---------------|--------|-------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|------|
| BT-LE(1Mbps)  | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 2.4-2.4835GHz | Pass   | 2.402004G   | -4.86        | -34.86         | 1.834416G    | -62.37         | 2.399144G    | -49.18         | 2.484032G    | -60.70         | 2.555858G    | -49.30         | 1    |

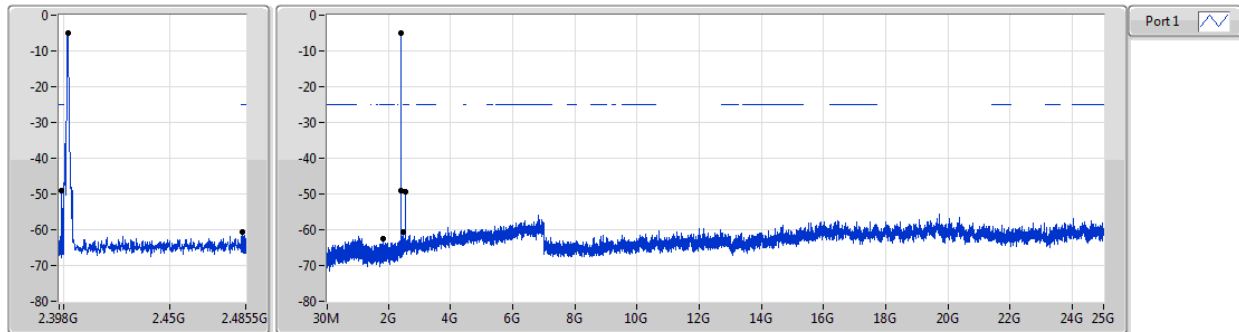
**Result**

| Mode         | Result | Ref<br>(Hz) | Ref<br>(dBm) | Limit<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Freq<br>(Hz) | Level<br>(dBm) | Port |
|--------------|--------|-------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|------|
| BT-LE(1Mbps) | -      | -           | -            | -              | -            | -              | -            | -              | -            | -              | -            | -              | -    |
| 2402MHz      | Pass   | 2.402004G   | -4.86        | -34.86         | 1.834416G    | -62.37         | 2.399144G    | -49.18         | 2.484032G    | -60.70         | 2.555858G    | -49.30         | 1    |
| 2442MHz      | Pass   | 2.441917G   | -1.41        | -31.41         | 1.830864G    | -62.56         | 2.399368G    | -61.98         | 2.483816G    | -61.82         | 2.598073G    | -55.66         | 1    |
| 2480MHz      | Pass   | 2.479826G   | -2.51        | -32.51         | 798.416M     | -61.52         | 2.399428G    | -61.91         | 2.485392G    | -60.70         | 24.043134G   | -56.50         | 1    |

### BT-LE(1Mbps)

CSE NdB

2402MHz

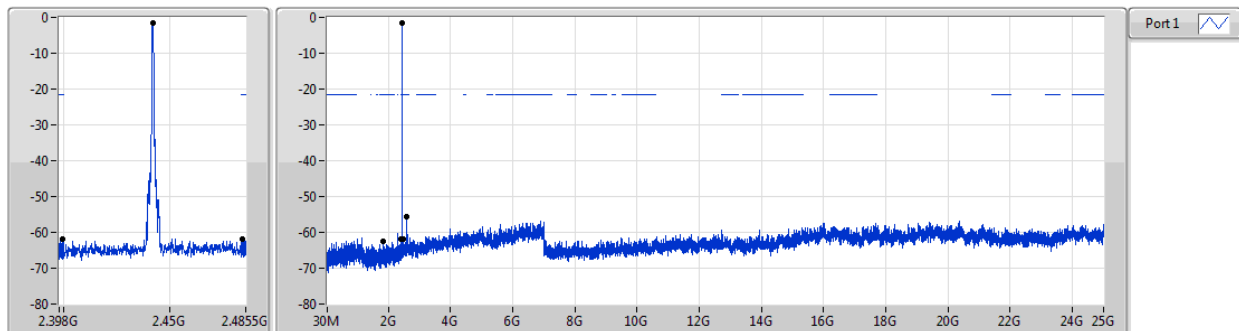


| Ref(Hz)   | Ref(dBm) | Limit(dBm) | Freq(Hz)  | Level(dBm) | Freq(Hz)  | Level(dBm) | Freq(Hz)  | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|-----------|----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|------|
| 2.402004G | -4.86    | -34.86     | 1.834416G | -62.37     | 2.399144G | -49.18     | 2.484032G | -60.70     | 2.555858G | -49.30     | 1    |

### BT-LE(1Mbps)

CSE NdB

2442MHz

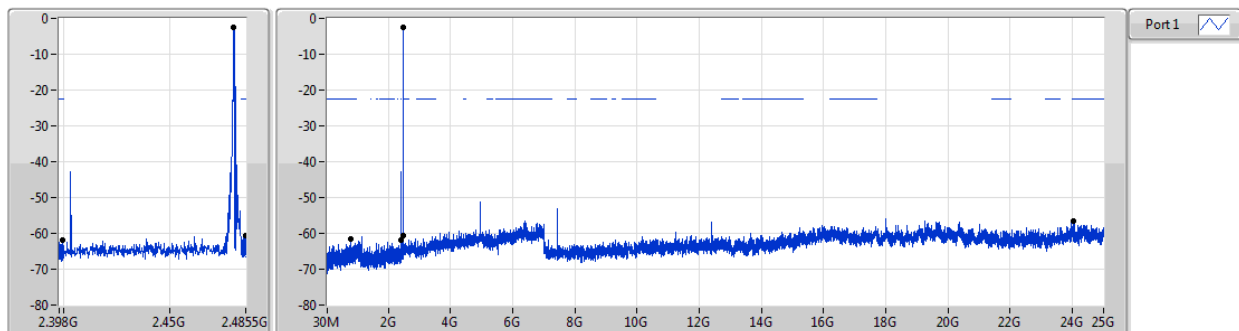


| Ref(Hz)   | Ref(dBm) | Limit(dBm) | Freq(Hz)  | Level(dBm) | Freq(Hz)  | Level(dBm) | Freq(Hz)  | Level(dBm) | Freq(Hz)  | Level(dBm) | Port |
|-----------|----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|------|
| 2.441917G | -1.41    | -31.41     | 1.830864G | -62.56     | 2.399368G | -61.98     | 2.483816G | -61.82     | 2.598073G | -55.66     | 1    |

### BT-LE(1Mbps)

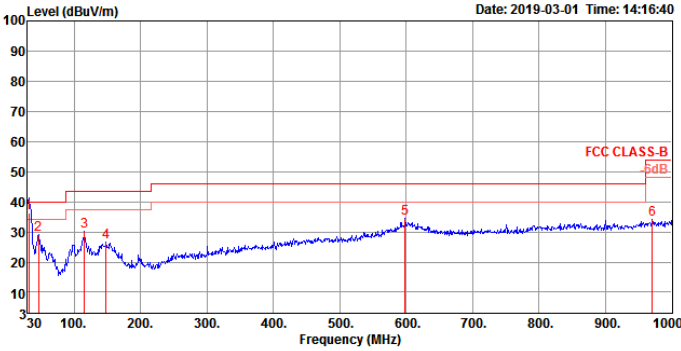
CSE NdB

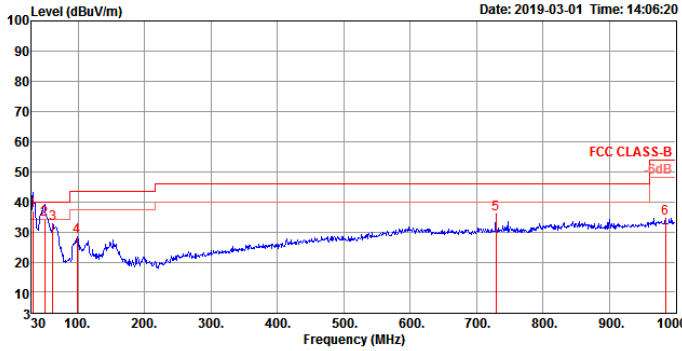
2480MHz



| Ref(Hz)   | Ref(dBm) | Limit(dBm) | Freq(Hz) | Level(dBm) | Freq(Hz)  | Level(dBm) | Freq(Hz)  | Level(dBm) | Freq(Hz)   | Level(dBm) | Port |
|-----------|----------|------------|----------|------------|-----------|------------|-----------|------------|------------|------------|------|
| 2.479826G | -2.51    | -32.51     | 798.416M | -61.52     | 2.399428G | -61.91     | 2.485392G | -60.70     | 24.043134G | -56.50     | 1    |



| RSE below 1GHz Result                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |        |       |        |              |        |       |       |            |           |            |  |      |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |            |   |       |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|-------|--------|--------------|--------|-------|-------|------------|-----------|------------|--|------|-------|-------|------|------|--------------|--------|-------|-------|--------|-----------|-----|--------|--------|----|------|----|------|----|----|-----|--|---|-------|-------|-------|-------|-------|------|-------|-------|-----|--------|------------|---|-------|-------|-------|--------|-------|------|-------|-------|-----|----------|------------|---|--------|-------|-------|--------|-------|------|-------|-------|-----|----------|------------|---|--------|-------|-------|--------|-------|------|-------|-------|-----|----------|------------|---|--------|-------|-------|--------|-------|------|-------|-------|-----|----------|------------|---|--------|-------|-------|--------|-------|------|-------|-------|-----|----------|------------|
| Operating Mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2      |        |       |        | Polarization |        |       |       | Horizontal |           |            |  |      |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |            |   |       |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |
| Operating Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CTX    |        |       |        |              |        |       |       |            |           |            |  |      |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |            |   |       |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |
| <div><div>Level (dBuV/m)</div><div>Date: 2019-03-01 Time: 14:16:40</div><div></div><div>Frequency (MHz)</div></div> <table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Over</th><th>Read</th><th>CableAntenna</th><th>Preamp</th><th>A/Pos</th><th>T/Pos</th><th>Remark</th><th>Pol/Phase</th></tr><tr><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB</th><th>dB/m</th><th>dB</th><th>cm</th><th>deg</th><th></th></tr><tr><td>1</td><td>31.94</td><td>36.42</td><td>40.00</td><td>-3.58</td><td>45.40</td><td>0.52</td><td>22.93</td><td>32.43</td><td>127</td><td>168 QP</td><td>HORIZONTAL</td></tr><tr><td>2</td><td>46.49</td><td>29.15</td><td>40.00</td><td>-10.85</td><td>45.72</td><td>0.69</td><td>15.16</td><td>32.42</td><td>300</td><td>360 Peak</td><td>HORIZONTAL</td></tr><tr><td>3</td><td>115.36</td><td>30.27</td><td>43.50</td><td>-13.23</td><td>43.24</td><td>1.11</td><td>18.28</td><td>32.36</td><td>300</td><td>360 Peak</td><td>HORIZONTAL</td></tr><tr><td>4</td><td>148.34</td><td>26.61</td><td>43.50</td><td>-16.89</td><td>41.24</td><td>1.25</td><td>16.45</td><td>32.33</td><td>300</td><td>360 Peak</td><td>HORIZONTAL</td></tr><tr><td>5</td><td>598.42</td><td>34.45</td><td>46.00</td><td>-11.55</td><td>39.50</td><td>2.59</td><td>24.74</td><td>32.38</td><td>300</td><td>360 Peak</td><td>HORIZONTAL</td></tr><tr><td>6</td><td>970.90</td><td>34.03</td><td>54.00</td><td>-19.97</td><td>34.99</td><td>3.24</td><td>26.79</td><td>30.99</td><td>300</td><td>360 Peak</td><td>HORIZONTAL</td></tr></table> |        |        |       |        |              |        |       |       |            |           |            |  | Freq | Level | Limit | Over | Read | CableAntenna | Preamp | A/Pos | T/Pos | Remark | Pol/Phase | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | dB/m | dB | cm | deg |  | 1 | 31.94 | 36.42 | 40.00 | -3.58 | 45.40 | 0.52 | 22.93 | 32.43 | 127 | 168 QP | HORIZONTAL | 2 | 46.49 | 29.15 | 40.00 | -10.85 | 45.72 | 0.69 | 15.16 | 32.42 | 300 | 360 Peak | HORIZONTAL | 3 | 115.36 | 30.27 | 43.50 | -13.23 | 43.24 | 1.11 | 18.28 | 32.36 | 300 | 360 Peak | HORIZONTAL | 4 | 148.34 | 26.61 | 43.50 | -16.89 | 41.24 | 1.25 | 16.45 | 32.33 | 300 | 360 Peak | HORIZONTAL | 5 | 598.42 | 34.45 | 46.00 | -11.55 | 39.50 | 2.59 | 24.74 | 32.38 | 300 | 360 Peak | HORIZONTAL | 6 | 970.90 | 34.03 | 54.00 | -19.97 | 34.99 | 3.24 | 26.79 | 30.99 | 300 | 360 Peak | HORIZONTAL |
| Freq                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Level  | Limit  | Over  | Read   | CableAntenna | Preamp | A/Pos | T/Pos | Remark     | Pol/Phase |            |  |      |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |            |   |       |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |
| MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | dBuV/m | dBuV/m | dB    | dBuV   | dB           | dB/m   | dB    | cm    | deg        |           |            |  |      |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |            |   |       |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 31.94  | 36.42  | 40.00 | -3.58  | 45.40        | 0.52   | 22.93 | 32.43 | 127        | 168 QP    | HORIZONTAL |  |      |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |            |   |       |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 46.49  | 29.15  | 40.00 | -10.85 | 45.72        | 0.69   | 15.16 | 32.42 | 300        | 360 Peak  | HORIZONTAL |  |      |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |            |   |       |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 115.36 | 30.27  | 43.50 | -13.23 | 43.24        | 1.11   | 18.28 | 32.36 | 300        | 360 Peak  | HORIZONTAL |  |      |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |            |   |       |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 148.34 | 26.61  | 43.50 | -16.89 | 41.24        | 1.25   | 16.45 | 32.33 | 300        | 360 Peak  | HORIZONTAL |  |      |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |            |   |       |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 598.42 | 34.45  | 46.00 | -11.55 | 39.50        | 2.59   | 24.74 | 32.38 | 300        | 360 Peak  | HORIZONTAL |  |      |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |            |   |       |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 970.90 | 34.03  | 54.00 | -19.97 | 34.99        | 3.24   | 26.79 | 30.99 | 300        | 360 Peak  | HORIZONTAL |  |      |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |            |   |       |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |
| <div>Note 1: "&gt;20dB" means emission levels that exceed the level of 20 dB below the applicable limit.</div> <div>Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |        |       |        |              |        |       |       |            |           |            |  |      |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |            |   |       |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |   |        |       |       |        |       |      |       |       |     |          |            |

| RSE below 1GHz Result                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |        |       |        |              |        |       |          |        |           |          |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |       |       |      |       |       |     |       |          |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |        |       |      |       |       |     |        |          |   |        |       |       |       |       |      |       |       |     |        |          |   |        |       |       |        |       |      |       |       |     |        |          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|-------|--------|--------------|--------|-------|----------|--------|-----------|----------|-------|-------|------|------|--------------|--------|-------|-------|--------|-----------|-----|--------|--------|----|------|----|------|----|----|-----|--|---|-------|-------|-------|-------|-------|------|-------|-------|-----|--------|----------|---|-------|-------|-------|-------|-------|------|-------|-------|-----|-------|----------|---|-------|-------|-------|-------|-------|------|-------|-------|-----|--------|----------|---|-------|-------|-------|--------|-------|------|-------|-------|-----|--------|----------|---|--------|-------|-------|-------|-------|------|-------|-------|-----|--------|----------|---|--------|-------|-------|--------|-------|------|-------|-------|-----|--------|----------|
| Operating Mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2      |        |       |        | Power Phase  |        |       | Vertical |        |           |          |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |       |       |      |       |       |     |       |          |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |        |       |      |       |       |     |        |          |   |        |       |       |       |       |      |       |       |     |        |          |   |        |       |       |        |       |      |       |       |     |        |          |
| Operating Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CTX    |        |       |        |              |        |       |          |        |           |          |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |       |       |      |       |       |     |       |          |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |        |       |      |       |       |     |        |          |   |        |       |       |       |       |      |       |       |     |        |          |   |        |       |       |        |       |      |       |       |     |        |          |
| <div><div><div>Level (dBuV/m)</div><div>Date: 2019-03-01 Time: 14:06:20</div><div></div><div>Frequency (MHz)</div></div><table><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Over</th><th>Read</th><th>CableAntenna</th><th>Preamp</th><th>A/Pos</th><th>T/Pos</th><th>Remark</th><th>Pol/Phase</th></tr><tr><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB</th><th>dB/m</th><th>dB</th><th>cm</th><th>deg</th><th></th></tr><tr><td>1</td><td>31.94</td><td>36.83</td><td>40.00</td><td>-3.17</td><td>45.81</td><td>0.52</td><td>22.93</td><td>32.43</td><td>122</td><td>178 QP</td><td>VERTICAL</td></tr><tr><td>2</td><td>49.40</td><td>34.08</td><td>40.00</td><td>-5.92</td><td>51.90</td><td>0.72</td><td>13.88</td><td>32.42</td><td>100</td><td>89 QP</td><td>VERTICAL</td></tr><tr><td>3</td><td>62.01</td><td>32.63</td><td>40.00</td><td>-7.37</td><td>51.97</td><td>0.83</td><td>12.23</td><td>32.40</td><td>300</td><td>0 Peak</td><td>VERTICAL</td></tr><tr><td>4</td><td>98.87</td><td>28.34</td><td>43.50</td><td>-15.16</td><td>42.91</td><td>1.06</td><td>16.74</td><td>32.37</td><td>300</td><td>0 Peak</td><td>VERTICAL</td></tr><tr><td>5</td><td>729.37</td><td>36.09</td><td>46.00</td><td>-9.91</td><td>39.94</td><td>2.89</td><td>25.53</td><td>32.27</td><td>300</td><td>0 Peak</td><td>VERTICAL</td></tr><tr><td>6</td><td>984.48</td><td>34.55</td><td>54.00</td><td>-19.45</td><td>35.39</td><td>3.20</td><td>26.87</td><td>30.91</td><td>300</td><td>0 Peak</td><td>VERTICAL</td></tr></table></div> |        |        |       |        |              |        |       |          |        |           | Freq     | Level | Limit | Over | Read | CableAntenna | Preamp | A/Pos | T/Pos | Remark | Pol/Phase | MHz | dBuV/m | dBuV/m | dB | dBuV | dB | dB/m | dB | cm | deg |  | 1 | 31.94 | 36.83 | 40.00 | -3.17 | 45.81 | 0.52 | 22.93 | 32.43 | 122 | 178 QP | VERTICAL | 2 | 49.40 | 34.08 | 40.00 | -5.92 | 51.90 | 0.72 | 13.88 | 32.42 | 100 | 89 QP | VERTICAL | 3 | 62.01 | 32.63 | 40.00 | -7.37 | 51.97 | 0.83 | 12.23 | 32.40 | 300 | 0 Peak | VERTICAL | 4 | 98.87 | 28.34 | 43.50 | -15.16 | 42.91 | 1.06 | 16.74 | 32.37 | 300 | 0 Peak | VERTICAL | 5 | 729.37 | 36.09 | 46.00 | -9.91 | 39.94 | 2.89 | 25.53 | 32.27 | 300 | 0 Peak | VERTICAL | 6 | 984.48 | 34.55 | 54.00 | -19.45 | 35.39 | 3.20 | 26.87 | 30.91 | 300 | 0 Peak | VERTICAL |
| Freq                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Level  | Limit  | Over  | Read   | CableAntenna | Preamp | A/Pos | T/Pos    | Remark | Pol/Phase |          |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |       |       |      |       |       |     |       |          |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |        |       |      |       |       |     |        |          |   |        |       |       |       |       |      |       |       |     |        |          |   |        |       |       |        |       |      |       |       |     |        |          |
| MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | dBuV/m | dBuV/m | dB    | dBuV   | dB           | dB/m   | dB    | cm       | deg    |           |          |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |       |       |      |       |       |     |       |          |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |        |       |      |       |       |     |        |          |   |        |       |       |       |       |      |       |       |     |        |          |   |        |       |       |        |       |      |       |       |     |        |          |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 31.94  | 36.83  | 40.00 | -3.17  | 45.81        | 0.52   | 22.93 | 32.43    | 122    | 178 QP    | VERTICAL |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |       |       |      |       |       |     |       |          |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |        |       |      |       |       |     |        |          |   |        |       |       |       |       |      |       |       |     |        |          |   |        |       |       |        |       |      |       |       |     |        |          |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 49.40  | 34.08  | 40.00 | -5.92  | 51.90        | 0.72   | 13.88 | 32.42    | 100    | 89 QP     | VERTICAL |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |       |       |      |       |       |     |       |          |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |        |       |      |       |       |     |        |          |   |        |       |       |       |       |      |       |       |     |        |          |   |        |       |       |        |       |      |       |       |     |        |          |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 62.01  | 32.63  | 40.00 | -7.37  | 51.97        | 0.83   | 12.23 | 32.40    | 300    | 0 Peak    | VERTICAL |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |       |       |      |       |       |     |       |          |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |        |       |      |       |       |     |        |          |   |        |       |       |       |       |      |       |       |     |        |          |   |        |       |       |        |       |      |       |       |     |        |          |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 98.87  | 28.34  | 43.50 | -15.16 | 42.91        | 1.06   | 16.74 | 32.37    | 300    | 0 Peak    | VERTICAL |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |       |       |      |       |       |     |       |          |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |        |       |      |       |       |     |        |          |   |        |       |       |       |       |      |       |       |     |        |          |   |        |       |       |        |       |      |       |       |     |        |          |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 729.37 | 36.09  | 46.00 | -9.91  | 39.94        | 2.89   | 25.53 | 32.27    | 300    | 0 Peak    | VERTICAL |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |       |       |      |       |       |     |       |          |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |        |       |      |       |       |     |        |          |   |        |       |       |       |       |      |       |       |     |        |          |   |        |       |       |        |       |      |       |       |     |        |          |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 984.48 | 34.55  | 54.00 | -19.45 | 35.39        | 3.20   | 26.87 | 30.91    | 300    | 0 Peak    | VERTICAL |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |       |       |      |       |       |     |       |          |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |        |       |      |       |       |     |        |          |   |        |       |       |       |       |      |       |       |     |        |          |   |        |       |       |        |       |      |       |       |     |        |          |
| <div>Note 1: "&gt;20dB" means emission levels that exceed the level of 20 dB below the applicable limit.</div> <div>Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |        |       |        |              |        |       |          |        |           |          |       |       |      |      |              |        |       |       |        |           |     |        |        |    |      |    |      |    |    |     |  |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |       |       |      |       |       |     |       |          |   |       |       |       |       |       |      |       |       |     |        |          |   |       |       |       |        |       |      |       |       |     |        |          |   |        |       |       |       |       |      |       |       |     |        |          |   |        |       |       |        |       |      |       |       |     |        |          |

**Radiated Emissions (1GHz~10<sup>th</sup> Harmonic)**

|                       |                    |
|-----------------------|--------------------|
| <b>Configurations</b> | GFSK CH 0 / Ant. 5 |
|-----------------------|--------------------|

**Horizontal**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | A/Pos | T/Pos | Remark  | Pol/Phase  |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|-------|-------|---------|------------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            | cm    | deg   |         |            |
| 1 | 4803.48 | 40.17  | 54.00      | -13.83     | 33.09      | 9.03       | 31.10          | 33.05         | 117   | 195   | Average | HORIZONTAL |
| 2 | 4803.70 | 48.91  | 74.00      | -25.09     | 41.83      | 9.03       | 31.10          | 33.05         | 117   | 195   | Peak    | HORIZONTAL |

**Vertical**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | A/Pos | T/Pos | Remark  | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|-------|-------|---------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            | cm    | deg   |         |           |
| 1 | 4803.39 | 44.81  | 54.00      | -9.19      | 37.73      | 9.03       | 31.10          | 33.05         | 112   | 263   | Average | VERTICAL  |
| 2 | 4803.67 | 51.04  | 74.00      | -22.96     | 43.96      | 9.03       | 31.10          | 33.05         | 112   | 263   | Peak    | VERTICAL  |

|                       |                     |
|-----------------------|---------------------|
| <b>Configurations</b> | GFSK CH 19 / Ant. 5 |
|-----------------------|---------------------|

**Horizontal**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | A/Pos | T/Pos | Remark  | Pol/Phase  |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|-------|-------|---------|------------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            | cm    | deg   |         |            |
| 1 | 4883.53 | 40.86  | 54.00      | -13.14     | 33.72      | 8.93       | 31.23          | 33.02         | 125   | 237   | Average | HORIZONTAL |
| 2 | 4884.00 | 49.57  | 74.00      | -24.43     | 42.43      | 8.93       | 31.23          | 33.02         | 125   | 237   | Peak    | HORIZONTAL |

**Vertical**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | A/Pos | T/Pos | Remark  | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|-------|-------|---------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            | cm    | deg   |         |           |
| 1 | 4883.28 | 42.27  | 54.00      | -11.73     | 35.13      | 8.93       | 31.23          | 33.02         | 113   | 105   | Average | VERTICAL  |
| 2 | 4883.96 | 50.07  | 74.00      | -23.93     | 42.93      | 8.93       | 31.23          | 33.02         | 113   | 105   | Peak    | VERTICAL  |



|                       |                     |
|-----------------------|---------------------|
| <b>Configurations</b> | GFSK CH 39 / Ant. 5 |
|-----------------------|---------------------|

**Horizontal**

|   | Freq    | Level  | Limit<br>Line | Over<br>Limit | Read<br>Level | CableAntenna<br>Loss Factor | Preamp<br>Factor | A/Pos | T/Pos | Remark | Pol/Phase |            |
|---|---------|--------|---------------|---------------|---------------|-----------------------------|------------------|-------|-------|--------|-----------|------------|
|   | MHz     | dBuV/m | dBuV/m        | dB            | dBuV          | dB                          | dB/m             | dB    | cm    | deg    |           |            |
| 1 | 4959.38 | 41.93  | 54.00         | -12.07        | 34.73         | 8.85                        | 31.33            | 32.98 | 132   | 194    | Average   | HORIZONTAL |
| 2 | 4959.45 | 50.95  | 74.00         | -23.05        | 43.75         | 8.85                        | 31.33            | 32.98 | 132   | 194    | Peak      | HORIZONTAL |

**Vertical**

|   | Freq    | Level  | Limit<br>Line | Over<br>Limit | Read<br>Level | CableAntenna<br>Loss Factor | Preamp<br>Factor | A/Pos | T/Pos | Remark | Pol/Phase |          |
|---|---------|--------|---------------|---------------|---------------|-----------------------------|------------------|-------|-------|--------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m        | dB            | dBuV          | dB                          | dB/m             | dB    | cm    | deg    |           |          |
| 1 | 4959.38 | 42.03  | 54.00         | -11.97        | 34.83         | 8.85                        | 31.33            | 32.98 | 147   | 247    | Average   | VERTICAL |
| 2 | 4959.71 | 49.92  | 74.00         | -24.08        | 42.72         | 8.85                        | 31.33            | 32.98 | 147   | 247    | Peak      | VERTICAL |

**Note:**

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

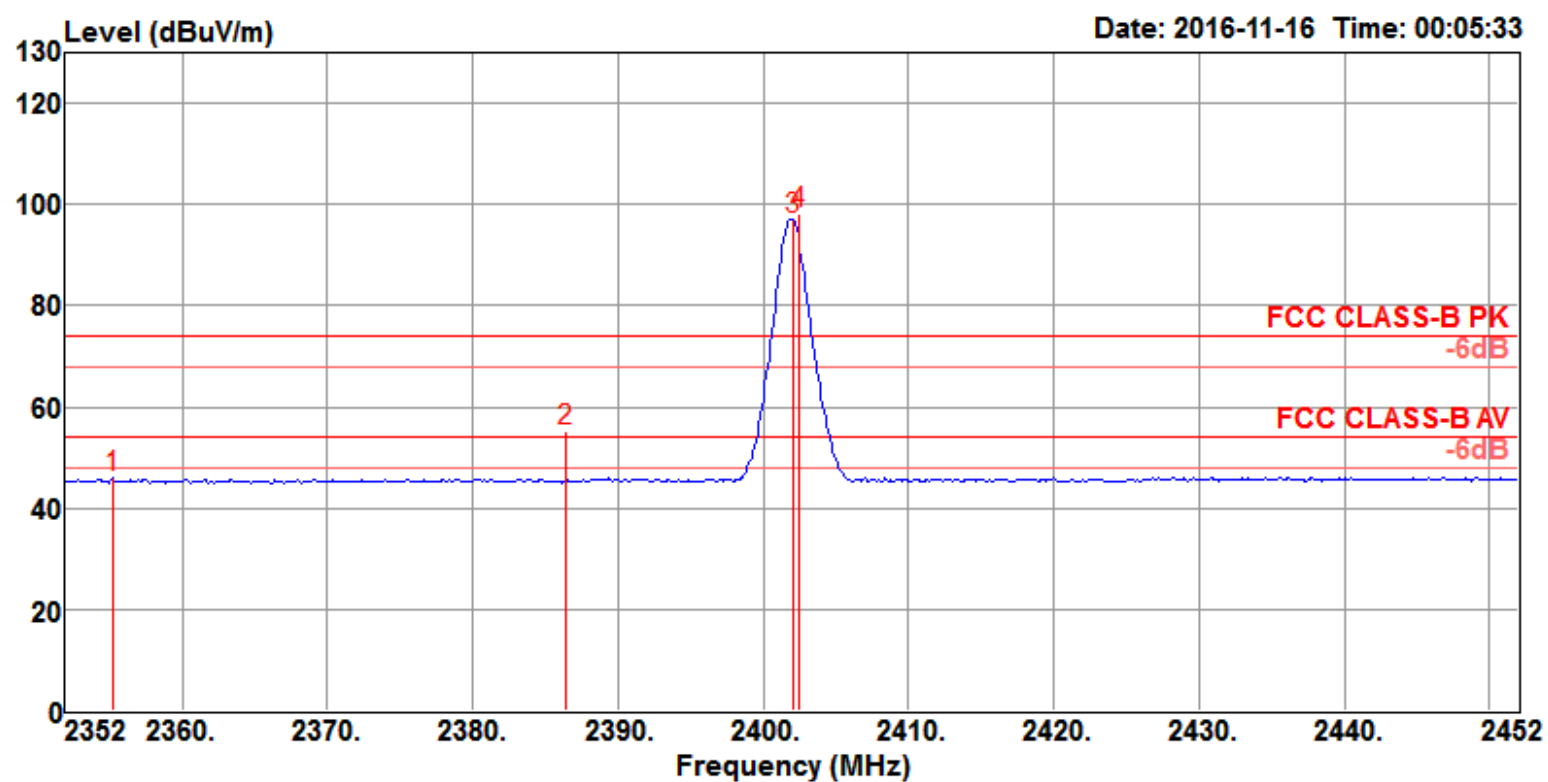
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

## Band Edge Emissions

Configurations

GFSK CH 0, 19, 39 / Ant. 5

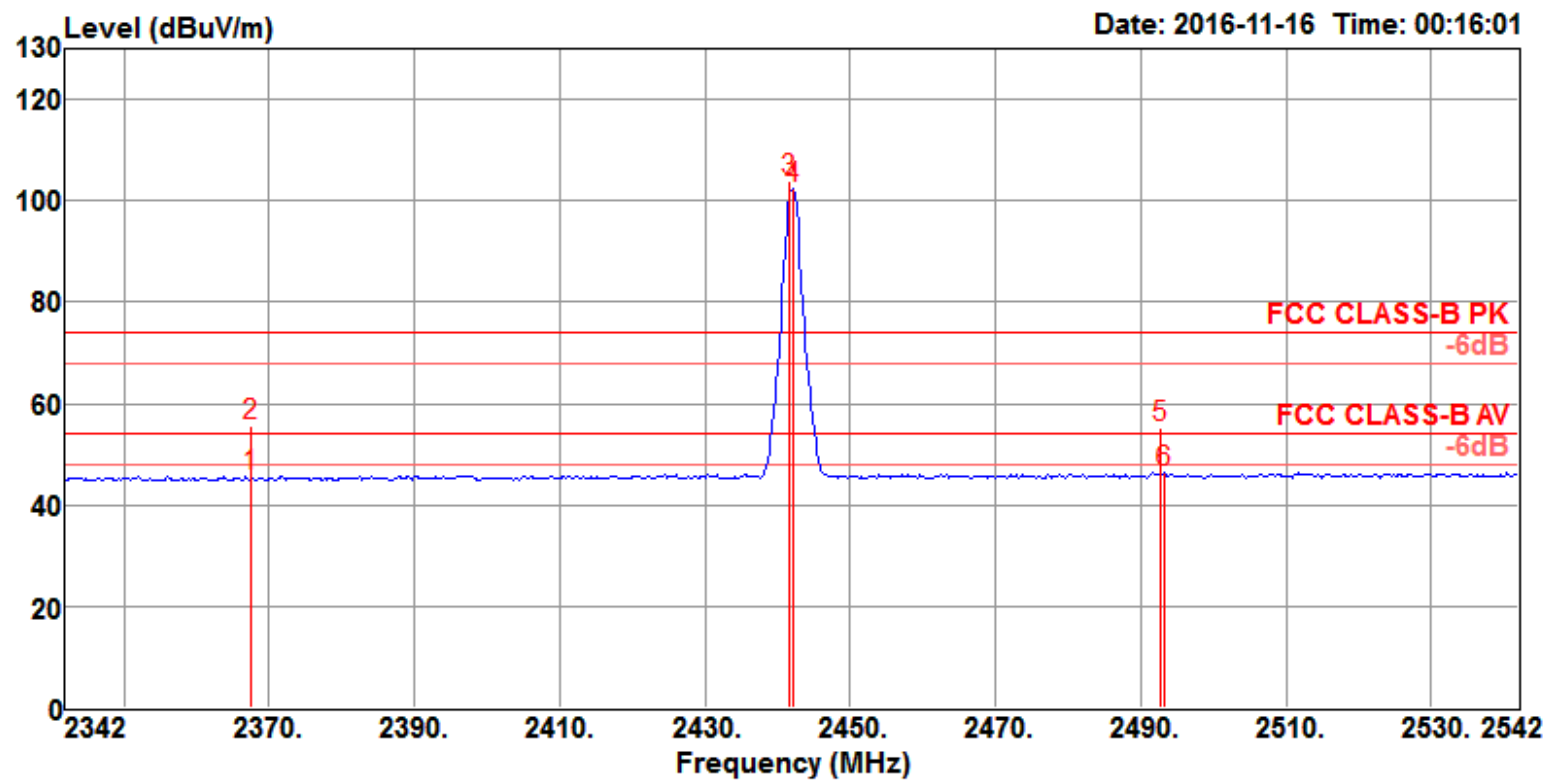
Channel 0



|     | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Factor | Preamp Factor | A/Pos | T/Pos | Remark  | Pol/Phase |
|-----|---------|--------|------------|------------|------------|-------------------|--------|---------------|-------|-------|---------|-----------|
|     | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m   | dB            | cm    | deg   |         |           |
| 1   | 2355.20 | 46.01  | 54.00      | -7.99      | 13.65      | 5.41              | 26.95  | 0.00          | 206   | 245   | Average | VERTICAL  |
| 2   | 2386.40 | 55.13  | 74.00      | -18.87     | 22.64      | 5.46              | 27.03  | 0.00          | 206   | 245   | Peak    | VERTICAL  |
| 3 ● | 2402.00 | 97.05  |            |            | 64.51      | 5.48              | 27.06  | 0.00          | 206   | 245   | Average | VERTICAL  |
| 4 ● | 2402.40 | 98.35  |            |            | 65.81      | 5.48              | 27.06  | 0.00          | 206   | 245   | Peak    | VERTICAL  |

Item 3, 4 are the fundamental frequency at 2402 MHz.

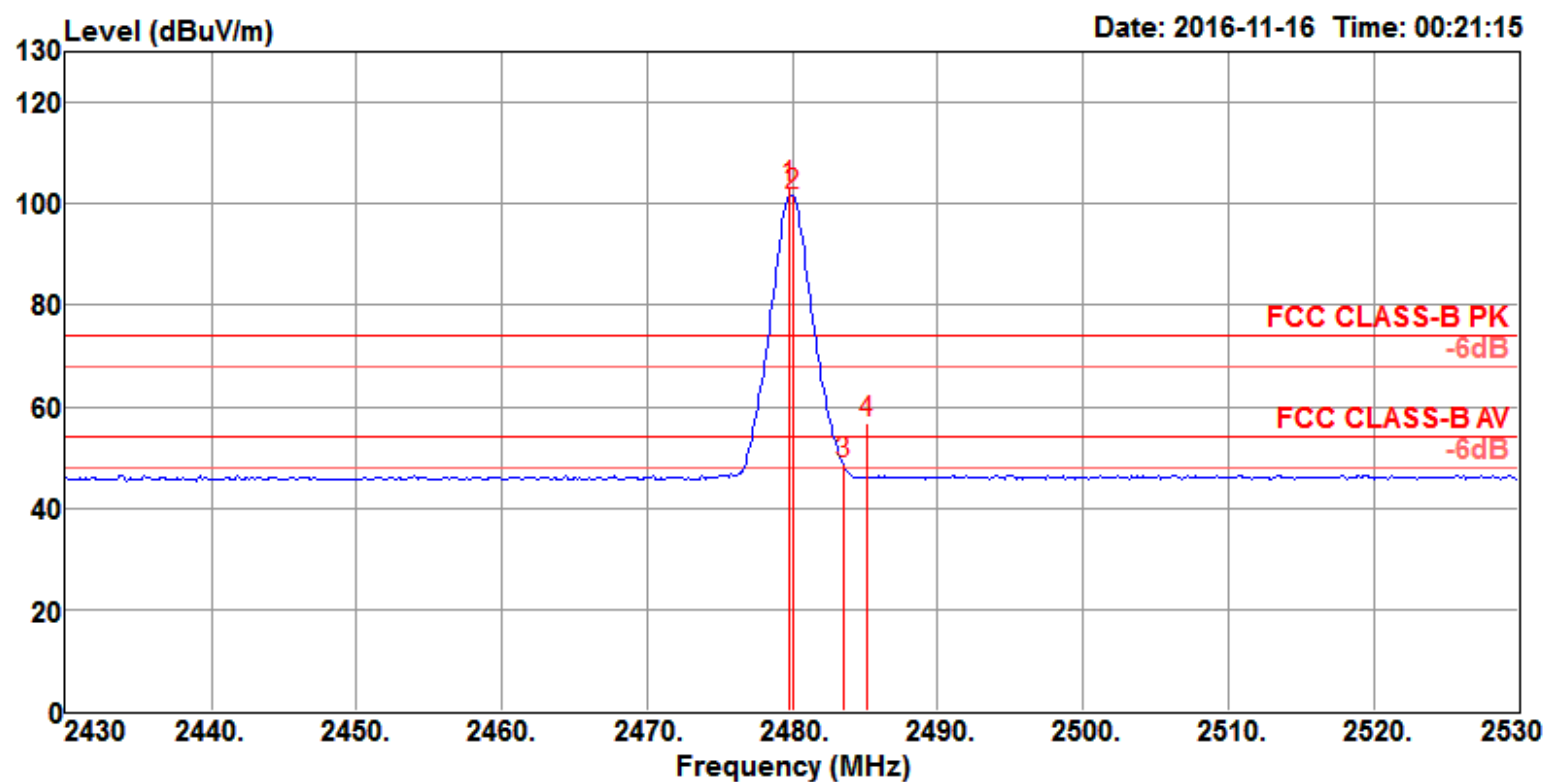
Channel 19



|     | Freq    | Level  | Limit<br>Line | Over<br>Limit | Read<br>Level | CableAntenna<br>Loss Factor | Preamplifier<br>Factor | A/Pos | T/Pos | Remark | Pol/Phase |
|-----|---------|--------|---------------|---------------|---------------|-----------------------------|------------------------|-------|-------|--------|-----------|
|     | MHz     | dBuV/m | dBuV/m        | dB            | dBuV          | dB                          | dB/m                   | dB    | cm    | deg    |           |
| 1   | 2367.60 | 45.70  | 54.00         | -8.30         | 13.29         | 5.43                        | 26.98                  | 0.00  | 131   | 309    | Average   |
| 2   | 2367.60 | 55.65  | 74.00         | -18.35        | 23.24         | 5.43                        | 26.98                  | 0.00  | 131   | 309    | Peak      |
| 3 • | 2441.60 | 103.80 |               |               | 71.10         | 5.54                        | 27.16                  | 0.00  | 131   | 309    | Peak      |
| 4 • | 2442.00 | 102.45 |               |               | 69.75         | 5.54                        | 27.16                  | 0.00  | 131   | 309    | Average   |
| 5   | 2492.80 | 55.35  | 74.00         | -18.65        | 22.47         | 5.60                        | 27.28                  | 0.00  | 131   | 309    | Peak      |
| 6   | 2493.20 | 46.24  | 54.00         | -7.76         | 13.36         | 5.60                        | 27.28                  | 0.00  | 131   | 309    | Average   |

Item 3, 4 are the fundamental frequency at 2442 MHz.

Channel 39



|     | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamplifier Factor | A/Pos | T/Pos | Remark  | Pol/Phase  |
|-----|---------|--------|------------|------------|------------|------------|----------------|---------------------|-------|-------|---------|------------|
|     | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB                  | cm    | deg   |         |            |
| 1 • | 2479.80 | 103.00 |            |            | 70.17      | 5.58       | 27.25          | 0.00                | 137   | 305   | Peak    | HORIZONTAL |
| 2 • | 2480.00 | 101.71 |            |            | 68.88      | 5.58       | 27.25          | 0.00                | 137   | 305   | Average | HORIZONTAL |
| 3   | 2483.50 | 48.72  | 54.00      | -5.28      | 15.86      | 5.59       | 27.27          | 0.00                | 137   | 305   | Average | HORIZONTAL |
| 4   | 2485.20 | 56.64  | 74.00      | -17.36     | 23.78      | 5.59       | 27.27          | 0.00                | 137   | 305   | Peak    | HORIZONTAL |

Item 1, 2 are the fundamental frequency at 2480 MHz.

Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamplifier Factor = Level.

