

Test Report No.:  
**FCC2022-0020-RF2**

## **RF Test Report**

**EUT** : **ActivPanel 9 WiFi and Bluetooth Module**  
**MODEL** : **AP9-WIFIBT-AB-02**  
**BRAND NAME** : **Promethean**  
**CLIENT** : **Promethean Limited**  
**Classification Of Test** : **N/A**

**CVC Testing Technology Co., Ltd.**



|                                                                                                                |                                                                                                          |                                                                                       |                       |
|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------|
| <b>Client</b>                                                                                                  | Name : Promethean Limited                                                                                |                                                                                       |                       |
|                                                                                                                | Address : Promethean House,Lower Philips Rd,whitebirk Industrial Estate,Blackburn,Bb1 5th United Kingdom |                                                                                       |                       |
| <b>Manufacturer</b>                                                                                            | Name : Promethean Limited                                                                                |                                                                                       |                       |
|                                                                                                                | Address : Promethean House,Lower Philips Rd,whitebirk Industrial Estate,Blackburn,Bb1 5th United Kingdom |                                                                                       |                       |
| <b>Equipment Under Test</b>                                                                                    | Name : ActivPanel 9 WiFi and Bluetooth Module                                                            |                                                                                       |                       |
|                                                                                                                | Model/Type: AP9-WIFIBT-AB-02                                                                             |                                                                                       |                       |
|                                                                                                                | Trade mark : Promethean                                                                                  |                                                                                       |                       |
|                                                                                                                | Serial NO.:N/A                                                                                           |                                                                                       |                       |
|                                                                                                                | Sample NO.:3-1                                                                                           |                                                                                       |                       |
| Date of Receipt.                                                                                               | 2022.03.25                                                                                               | Date of Testing                                                                       | 2022.03.25~2022.05.24 |
| <b>Test Specification</b>                                                                                      |                                                                                                          | <b>Test Result</b>                                                                    |                       |
| FCC Part 15, Subpart C, Section 15.247<br>Canada RSS-247 Issue 2 (2017-02)<br>Canada RSS-Gen Issue 5 (2019-03) |                                                                                                          | PASS                                                                                  |                       |
| <b>Evaluation of Test Result</b>                                                                               | The equipment under test was found to comply with the requirements of the standards applied.             |                                                                                       |                       |
|                                                                                                                | Issue Date: 2022.05.25                                                                                   |                                                                                       |                       |
| Tested by:                                                                                                     | Reviewed by:                                                                                             | Approved by:                                                                          |                       |
|                             |                       |  |                       |
| Xu ZhenFei<br>Name Signature                                                                                   | Liu YongHai<br>Name Signature                                                                            | Chen HuaWen<br>Name Signature                                                         |                       |
| <b>Other Aspects: NONE.</b>                                                                                    |                                                                                                          |                                                                                       |                       |
| Abbreviations:OK, Pass= passed Fail = failed N/A= not applicable EUT= equipment, sample(s) under tested        |                                                                                                          |                                                                                       |                       |

This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.



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## **RELEASE CONTROL RECORD**

| <b>ISSUE NO.</b> | <b>REASON FOR CHANGE</b> | <b>DATE ISSUED</b> |
|------------------|--------------------------|--------------------|
| FCC2022-0020-RF2 | Original release         | 2022.05.25         |



## 1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

| APPLIED STANDARD: FCC Part 15, Subpart C           |                             |        |                                |
|----------------------------------------------------|-----------------------------|--------|--------------------------------|
| STANDARD SECTION                                   | TEST TYPE AND LIMIT         | RESULT | REMARK                         |
| 15.207<br>RSS-Gen 8.8                              | AC Power Conducted Emission | PASS   | Meet the requirement of limit. |
| RSS-Gen 6.7                                        | Radiated Emissions          | PASS   | Meet the requirement of limit. |
| 15.247(d)<br>15.209<br>8.10 Table 7<br>8.9 Table 5 | Band Edge Measurement       | PASS   | Meet the requirement of limit. |
| 15.247(d)<br>5.5                                   | 6dB bandwidth               | PASS   | Meet the requirement of limit. |
| 15.247(a)(2)<br>5.2(a)                             | Conducted Output power      | PASS   | Meet the requirement of limit. |
| 15.247(b)<br>5.4(d)                                | Power Spectral Density      | PASS   | Meet the requirement of limit. |
| 15.247(e)<br>5.2(b)                                | Antenna Requirement         | PASS   | Meet the requirement of limit. |



## 1.1 LIST OF TEST AND MEASUREMENT INSTRUMENTS

| Test Equipment                    | Type/Mode                                    | SERIAL NO.     | Equipment No. | Manufacturer | Cal. Due   |
|-----------------------------------|----------------------------------------------|----------------|---------------|--------------|------------|
| WIFI & Bluetooth Test System 1    |                                              |                |               |              | /          |
| Communication Shielded Room 1     | 4m*3m*3m                                     | CRTDSWKSR44301 | VGDS-0699     | CRT          | 2024/04/24 |
| Spectrum Analyzer                 | FSV30                                        | 104337         | DZ-000235     | R&S          | 2022/11/03 |
| Comprehensive Test Instrument     | CMW500                                       | 137779         | DZ-000220     | R&S          | 2022/06/30 |
| Comprehensive Test Instrument     | CMW500                                       | 169888         | DZ-000342     | R&S          | 2022/12/01 |
| LTE Comprehensive Test Instrument | E7515A                                       | MY58010639     | DZ-000173     | KEYSIGHT     | 2022/04/14 |
| Analog Signal Generator           | SMA100B                                      | 103663         | DZ-000239-2   | R&S          | 2022/06/30 |
| Vector Signal Generator           | SMBV100B                                     | 101757         | DZ-000239-1   | R&S          | 2022/06/30 |
| Programmable DC Power Supply      | E3642A                                       | MY59108106     | DZ-000242-2   | KEYSIGHT     | 2022/08/05 |
| Radiation Spurious Test System    |                                              |                |               |              | /          |
| 3m Semi-Anechoic Chamber          | FACT-4                                       | ST08035        | WKNA-0024     | ETS          | 2024/12/12 |
| Spectrum Analyzer                 | N9010B                                       | MY57470323     | DZ-000174     | KEYSIGHT     | 2023/03/02 |
| EMI Test Receiver                 | N9038A-508                                   | MY532290079    | EM-000397     | Agilent      | 2023/03/02 |
| Broadband Antenna                 | VULB 9163                                    | 9163-530       | EM-000342     | SCHWARZBECK  | 2022/06/26 |
| Waveguide Horn Antenna            | HF906                                        | 360306/008     | WKNA-0024-8   | R&S          | 2023/03/04 |
| Waveguide Horn Antenna            | BBHA9170                                     | 00949          | DZ-000209-2   | SCHWARZBECK  | 2022/08/27 |
| Preamplifier                      | BBV 9721                                     | 9721-050       | DZ-000209-1   | SCHWARZBECK  | 2022/06/30 |
| 5G Bandstop Filters               | WRCJV12-4<br>900-5100-5<br>900-6100-5<br>0EE | 1              | DZ-000186     | WI           | 2022/12/20 |
| Comprehensive tester              | CMW500                                       | 159000         | DZ-000240-2   | R&S          | 2022/12/20 |
| Conducted emission                |                                              |                |               |              | /          |
| EMI Test Receiver                 | ESCI                                         | 100857         | WKNB-0081     | R&S          | 2022-12-08 |
| EMI Test Receiver                 | ESR3                                         | 102394         | VG DY-0705    | R&S          | 2023-03-04 |
| LISN                              | NSLK 8127                                    | 8127644        | VG DY-0150    | SCHWARZBECK  | 2022-09-01 |
| DC LISN                           | PVDC8301-017                                 | PVDC8301#17    | VG DY-0692    | SCHWARZBECK  | 2022-06-07 |
| LISN                              | NSLK 8129                                    | 8129-268       | EM-000388     | SCHWARZBECK  | 2023-03-03 |
| Plus Limiter (#1)                 | VTSD 9561 F-N                                | 00515          | VG DY-0808    | SCHWARZBECK  | 2023-03-04 |
| Impedance Stabilization Network   | ISN T800                                     | 27095          | WKNE-0195     | TESEQ        | 2022-09-01 |
| Impedance Stabilization Network   | NTFM8158                                     | 8158-0092      | VG DY-0356    | SCHWARZBECK  | 2022-06-07 |
| Impedance Stabilization Network   | NTFM8131                                     | #184           | EM-000498     | SCHWARZBECK  | 2022-06-05 |
| Voltage Probe                     | TK9420                                       | 9420-499       | VG DY-0128    | SCHWARZBECK  | 2023-03-04 |
| Power Divider                     | 4901.17.B                                    | 22643830       | DB-0016       | HUBER+SUHNER | 2023-09-01 |
| Video Signal Generator            | GV-798+                                      | 151064920001   | VGDS-0215     | PROMAX       | 2022-06-07 |
| Audio Signal Generator            | GAG-810                                      | EK871591       | EM-000309     | GW           | 2022-12-08 |
| Shielding Room(#1)                | GP1A                                         | 001            | WKNF-0001     | LEINING      | 2024-08-08 |



## 1.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

| No. | ITEM                | FREQUENCY     | UNCERTAINTY |
|-----|---------------------|---------------|-------------|
| 1   | Conducted emissions | 9kHz~30MHz    | ±2.66dB     |
| 2   | Radiated emissions  | 9KHz ~ 30MHz  | ±0.769dB    |
|     |                     | 30MHz ~ 1GMHz | ±0.877dB    |
|     |                     | 1GHz ~ 18GHz  | ±0.777dB    |
|     |                     | 18GHz ~ 40GHz | ±1.315dB    |

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

## 1.3 TEST LOCATION

The tests and measurements refer to this report were performed by EMC testing Lab. of CVC Testing Technology Co., Ltd.

Address: No.3,TiantaiyiRoad,KaitaiAvenue,ScienceCity,Guangzhou,China

Post Code: 510663

Tel: 020-32293888

FAX: 020-32293889

E-mail: [office@cvc.org.cn](mailto:office@cvc.org.cn)





## 2 GENERAL INFORMATION

### 2.1 GENERAL PRODUCT INFORMATION

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| PRODUCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ActivPanel 9 WiFi and Bluetooth Module                                                                                                      |
| BRAND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Promethean                                                                                                                                  |
| MODEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | AP9-WIFIBT-AB-02                                                                                                                            |
| ADDITIONAL MODEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A                                                                                                                                         |
| FCC ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | QAM023                                                                                                                                      |
| IC ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5459A-023                                                                                                                                   |
| POWER SUPPLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | DC 5V from USB host unit                                                                                                                    |
| MODULATIONTECHNOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | DSSS, GFSK, OFDM, OFDMA                                                                                                                     |
| MODULATION TYPE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CCK, DQPSK, DBPSK for DSSS<br>64QAM, 16QAM, QPSK, BPSK for OFDM<br>64QAM, 16QAM, QPSK, BPSK for OFDMA<br>GFSK for BT-LE                     |
| OPERATING FREQUENCY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2412MHz ~ 2462MHz for 11b/g/n(HT20)/ax (HE20)<br>2422MHz ~ 2452MHz for 11n(HT40)/ax (HE40)<br>2402MHz ~ 2480MHz for BT-LE                   |
| NUMBER OF CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 802.11b/g/n (HT20)/ax (HE20): 11<br>802.11n (HT40)/ax (HE40): 7<br>BT-LE: 40                                                                |
| PEAK OUTPUT POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | WLAN: 23.95dBm (Maximum)<br>BLE:6.66dBm (Maximum)                                                                                           |
| ANTENNA TYPE (Remark 4)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | WLAN:<br>ANT0:External Antenna, with 2.9dBi gain<br>ANT1:External Antenna, with 2.9dBi gain<br>BT-LE:<br>External Antenna, with 2.9dBi gain |
| I/O PORTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Refer to user's manual                                                                                                                      |
| CABLE SUPPLIED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | N/A                                                                                                                                         |
| Remark:<br><ol style="list-style-type: none"><li>For more detailed features description, please refer to the manufacturer's specifications or the User's Manual.</li><li>For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.</li><li>Please refer to the EUT photo document for detailed product photo. (Report NO.: FCC2022-0020-E )</li><li>Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information, CVC is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.</li><li>The EUT have MIMO function, provides 2 completed transmitter and 2 receiver</li></ol> |                                                                                                                                             |

### 2.2 Description of Accessories

N/A

## 2.3 OTHER INFORMATION

Operating frequency of each channel

| 2.4G WIFI                   |             |         |             |         |             |         |             |
|-----------------------------|-------------|---------|-------------|---------|-------------|---------|-------------|
| 802.11b/g/n (HT20)/ax(HE20) |             |         |             |         |             |         |             |
| CHANNEL                     | FREQ. (MHz) | CHANNEL | FREQ. (MHz) | CHANNEL | FREQ. (MHz) |         |             |
| 1                           | 2412        | 5       | 2432        | 9       | 2452        |         |             |
| 2                           | 2417        | 6       | 2437        | 10      | 2457        |         |             |
| 3                           | 2422        | 7       | 2442        | 11      | 2462        |         |             |
| 4                           | 2427        | 8       | 2447        |         |             |         |             |
| 802.11n (HT40) ax(HE40)     |             |         |             |         |             |         |             |
| CHANNEL                     | FREQ. (MHz) | CHANNEL | FREQ. (MHz) | CHANNEL | FREQ. (MHz) |         |             |
| 3                           | 2422        | 6       | 2437        | 9       | 2452        |         |             |
| 4                           | 2427        | 7       | 2442        |         |             |         |             |
| 5                           | 2432        | 8       | 2447        |         |             |         |             |
| BT-LE(1 Mbps)               |             |         |             |         |             |         |             |
| CHANNEL                     | FREQ. (MHz) | CHANNEL | FREQ. (MHz) | CHANNEL | FREQ. (MHz) | CHANNEL | FREQ. (MHz) |
| 0                           | 2402        | 10      | 2422        | 20      | 2442        | 30      | 2462        |
| 1                           | 2404        | 11      | 2424        | 21      | 2444        | 31      | 2464        |
| 2                           | 2406        | 12      | 2426        | 22      | 2446        | 32      | 2466        |
| 3                           | 2408        | 13      | 2428        | 23      | 2448        | 33      | 2468        |
| 4                           | 2410        | 14      | 2430        | 24      | 2450        | 34      | 2470        |
| 5                           | 2412        | 15      | 2432        | 25      | 2452        | 35      | 2472        |
| 6                           | 2414        | 16      | 2434        | 26      | 2454        | 36      | 2474        |
| 7                           | 2416        | 17      | 2436        | 27      | 2456        | 37      | 2476        |
| 8                           | 2418        | 18      | 2438        | 28      | 2458        | 38      | 2478        |
| 9                           | 2420        | 19      | 2440        | 29      | 2460        | 39      | 2480        |

- The channels which were indicated in bold type of the above channel list were selected as representative test channel. Therefore only the data of the test channels were recorded in this report.
- By means of test software which provided by manufacture, the power levels during the tests were set according to the following codes:

| 2.4G WIFI       |               |                 |               |                 |               |                 |               |                 |               |
|-----------------|---------------|-----------------|---------------|-----------------|---------------|-----------------|---------------|-----------------|---------------|
| 802.11b         |               | 802.11g         |               | 802.11n(HT20)   |               | 802.11n(HT40)   |               | 802.11ax (HE40) |               |
| FREQUEN CY(MHZ) | POWER SETTING | FREQUEN CY(MHZ) | POWER SETTING | FREQUEN CY(MHZ) | POWER SETTING | FREQUEN CY(MHZ) | POWER SETTING | FREQUEN CY(MHZ) | POWER SETTING |
| <b>2412</b>     | 17            | <b>2412</b>     | 13            | <b>2412</b>     | 12            | <b>2422</b>     | 12            | <b>2422</b>     | 11            |
| <b>2437</b>     | 17            | <b>2437</b>     | 13            | <b>2437</b>     | 12            | <b>2437</b>     | 12            | <b>2437</b>     | 11            |
| <b>2462</b>     | 17            | <b>2462</b>     | 13            | <b>2462</b>     | 12            | <b>2452</b>     | 12            | <b>2452</b>     | 11            |
| BT-LE(1 Mbps)   |               |                 |               |                 |               |                 |               |                 |               |
| GFSK            |               |                 |               |                 |               |                 |               |                 |               |
| CHANNEL         | POWER SETTING | CHANNEL         | POWER SETTING | CHANNEL         | POWER SETTING | CHANNEL         | POWER SETTING | CHANNEL         | POWER SETTING |
| <b>0</b>        | 6             | <b>19</b>       | 6             | <b>39</b>       | 6             |                 |               |                 |               |



## 2.4 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, xyz axis and antenna ports

| EUT<br>CONFIGURE<br>MODE | APPLICABLE TEST ITEMS |       |     |      | DESCRIPTION        |
|--------------------------|-----------------------|-------|-----|------|--------------------|
|                          | RE<1G                 | RE≥1G | PLC | APCM |                    |
| A                        | √                     | √     | √   | √    | 2.4G WIFI Function |
| B                        | √                     | √     | √   | √    | BT Function        |

Where **RE<1G**: Radiated Emission below 1GHz  
**PLC**: Power Line Conducted Emission

**RE≥1G**: Radiated Emission above 1GHz  
**APCM**: Antenna Port Conducted Measurement

### RADIATED EMISSION TEST (BELOW 1 GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, XYZ axis, antenna ports (if EUT with antenna diversity architecture) and packet type.
- ☒ The worst case was found when positioned on x axis for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

| EUT<br>CONFIGURE<br>MODE | MODE    | AVAILABLE<br>CHANNEL | TESTED<br>CHANNEL | MODULATION<br>TECHNOLOGY | MODULATION<br>TYPE | DATA RATE<br>(Mbps) |
|--------------------------|---------|----------------------|-------------------|--------------------------|--------------------|---------------------|
| A                        | 802.11b | 1 to 11              | 1                 | DSSS                     | DBPSK              | 6.0                 |

For the test results, only the worst case was shown in test report.

### RADIATED EMISSION TEST (ABOVE 1 GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, XYZ axis, antenna ports (if EUT with antenna diversity architecture) and packet type.
- ☒ The worst case was found when positioned on x axis for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

| EUT<br>CONFIGURE<br>MODE | MODE            | AVAILABLE<br>CHANNEL | TESTED<br>CHANNEL | MODULATION<br>TECHNOLOGY | MODULATION<br>TYPE | DATA RATE<br>PARAMETER |
|--------------------------|-----------------|----------------------|-------------------|--------------------------|--------------------|------------------------|
| A                        | 802.11b         | 1 to 11              | 1, 6, 11          | DSSS                     | DBPSK              | 1.0 Mbit/s             |
| A                        | 802.11g         | 1 to 11              | 1, 6, 11          | OFDM                     | BPSK               | 6.0 Mbit/s             |
| A                        | 802.11n(HT20)   | 1 to 11              | 1, 6, 11          | OFDM                     | BPSK               | MCS0                   |
| A                        | 802.11n(HT40)   | 3 to 9               | 3, 6, 9           | OFDM                     | BPSK               | MCS0                   |
| A                        | 802.11ax (HE40) | 3 to 9               | 3, 6, 9           | OFDMA                    | BPSK               | MCS0                   |
| B                        | BT-LE           | 0 to 39              | 0,19, 39          | DTS                      | GFSK               | 1.0 Mbit/s             |

**POWER LINE CONDUCTED EMISSION TEST:**

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, antenna ports (if EUT with antenna diversity architecture), and packet types.
- ☒ Following channel(s) was (were) selected for the final test as listed below.

| EUT CONFIGURE MODE | TESTED CONDITION           |
|--------------------|----------------------------|
| -                  | BT LINK + WIFI (2.4G) Link |

**ANTENNA PORT CONDUCTED MEASUREMENT:**

- ☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, antenna ports (if EUT with antenna diversity architecture), and packet types.
- ☒ Following channel(s) was (were) selected for the final test as listed below.

| EUT CONFIGURE MODE | MODE            | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
|--------------------|-----------------|-------------------|----------------|-----------------------|-----------------|------------------|
| A                  | 802.11b         | 1 to 11           | 1, 6, 11       | DSSS                  | DBPSK           | 1.0 Mbit/s       |
| A                  | 802.11g         | 1 to 11           | 1, 6, 11       | OFDM                  | BPSK            | 6.0 Mbit/s       |
| A                  | 802.11n(HT20)   | 1 to 11           | 1, 6, 11       | OFDM                  | BPSK            | MCS0             |
| A                  | 802.11n(HT40)   | 3 to 9            | 3, 6, 9        | OFDM                  | BPSK            | MCS0             |
| A                  | 802.11ax (HE40) | 3 to 9            | 3, 6, 9        | OFDMA                 | BPSK            | MCS0             |
| B                  | BT-LE           | 0 to 39           | 0, 19, 39      | DSS                   | GFSK            | 1.0 Mbit/s       |

**TEST CONDITION:**

| APPLICABLE TO | ENVIRONMENTAL CONDITIONS | TEST VOLTAGE (SYSTEM)    | TESTED BY  |
|---------------|--------------------------|--------------------------|------------|
| RE<1G         | 24deg. C, 55%RH          | DC 5V from USB host unit | Liu ShiWei |
| RE≥1G         | 24deg. C, 55%RH          | DC 5V from USB host unit | Liu ShiWei |
| PLC           | 24deg. C, 55%RH          | DC 5V from USB host unit | Liu ShiWei |
| APCM          | 25deg. C, 58%RH          | DC 5V from USB host unit | Liu ShiWei |



## 2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product, according to the specifications of the manufacturers. It must comply with the requirements of the following standards:

**FCC PART 15, Subpart C. Section 15.247**  
**KDB 558074 D01 15.247 Meas Guidance v05r02**  
**ANSI C63.10-2020**  
**Canada RSS-247 Issue 2 (2017-02)**  
**Canada RSS-Gen Issue 5 (2019-03)**

All test items have been performed and recorded as per the above standards

## 2.6 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| Support Equipment |             |                   |             |                      |                    |                |             |
|-------------------|-------------|-------------------|-------------|----------------------|--------------------|----------------|-------------|
| NO                | Description | Brand             | Model No.   | Serial Number        | Supplied by        |                |             |
| N/A               | N/A         | N/A               | N/A         | N/A                  | N/A                |                |             |
|                   |             |                   |             |                      |                    |                |             |
| Support Cable     |             |                   |             |                      |                    |                |             |
| NO                | Description | Quantity (Number) | Length (cm) | Detachable (Yes/ No) | Shielded (Yes/ No) | Cores (Number) | Supplied by |
| N/A               | N/A         | N/A               | N/A         | N/A                  | N/A                | N/A            | N/A         |
|                   |             |                   |             |                      |                    |                |             |

## 3 TEST TYPES AND RESULTS

### 3.1 CONDUCTED EMISSION MEASUREMENT

#### 3.1.1 Limit

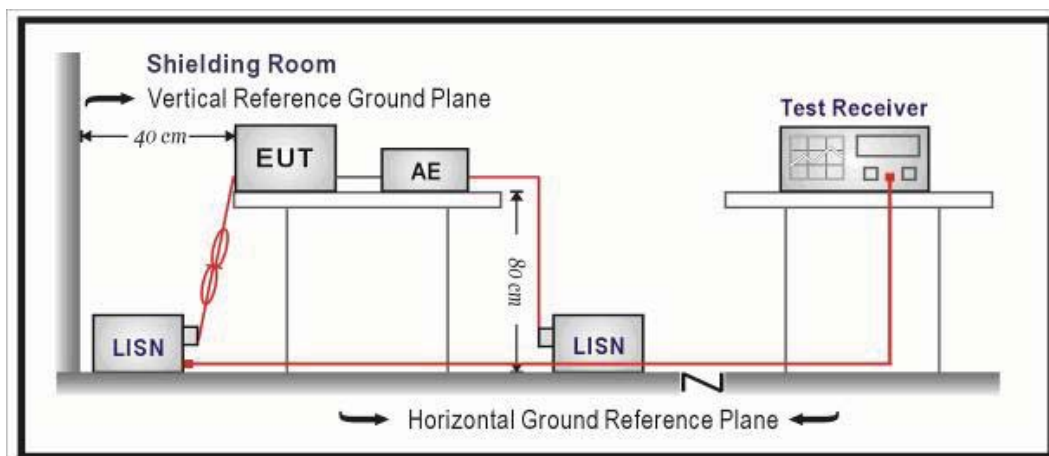
| Frequency<br>(MHz) | Conducted Limits(dBμV) |           |
|--------------------|------------------------|-----------|
|                    | Quasi-peak             | Average   |
| 0.15 - 0.5         | 66 to 56 *             | 56 to 46* |
| 0.5 - 5            | 56                     | 46        |
| 5 - 30             | 60                     | 50        |

NOTE: 1. The lower limit shall apply at the transition frequencies.  
NOTE: 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

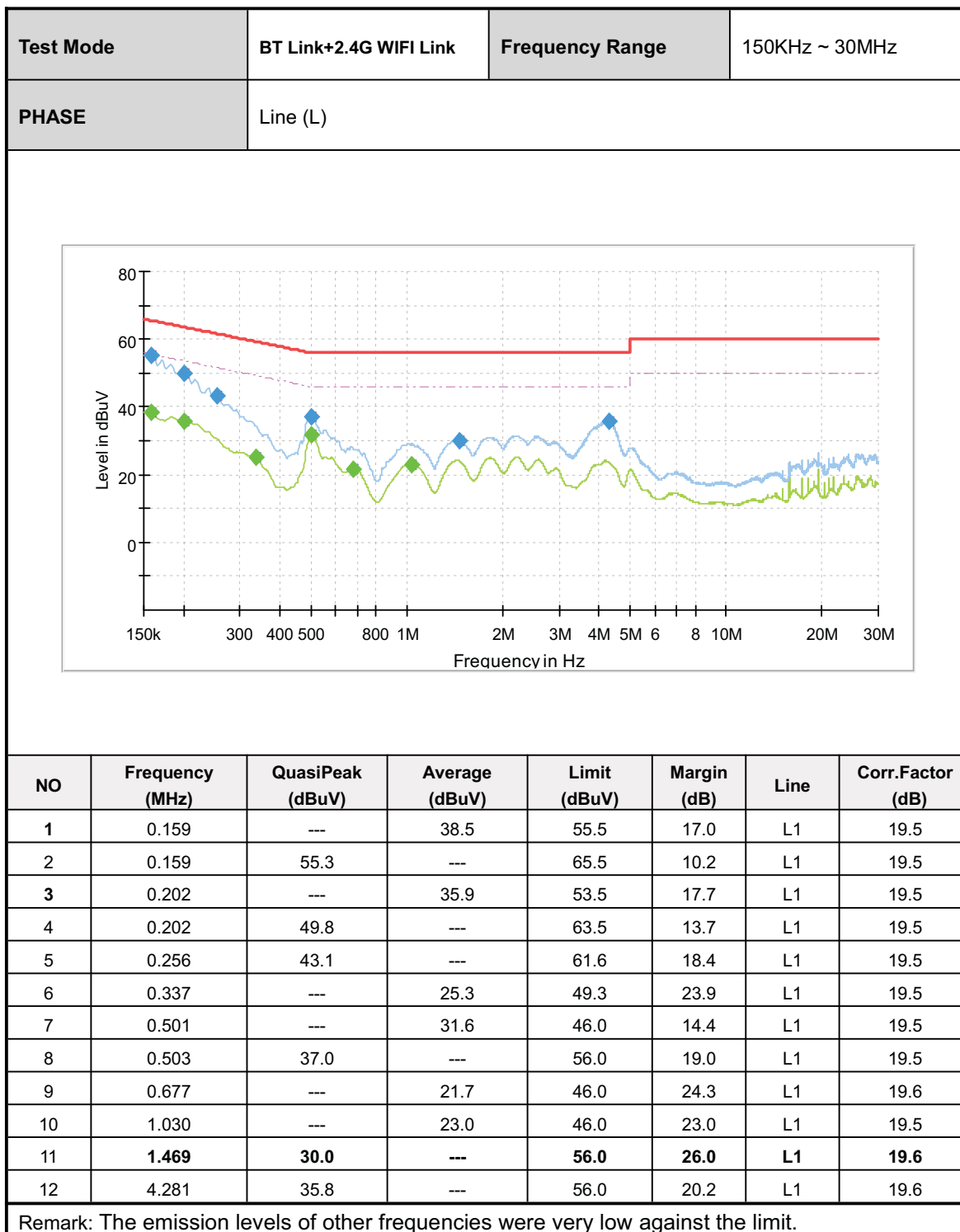
#### 3.1.2 Measurement procedure

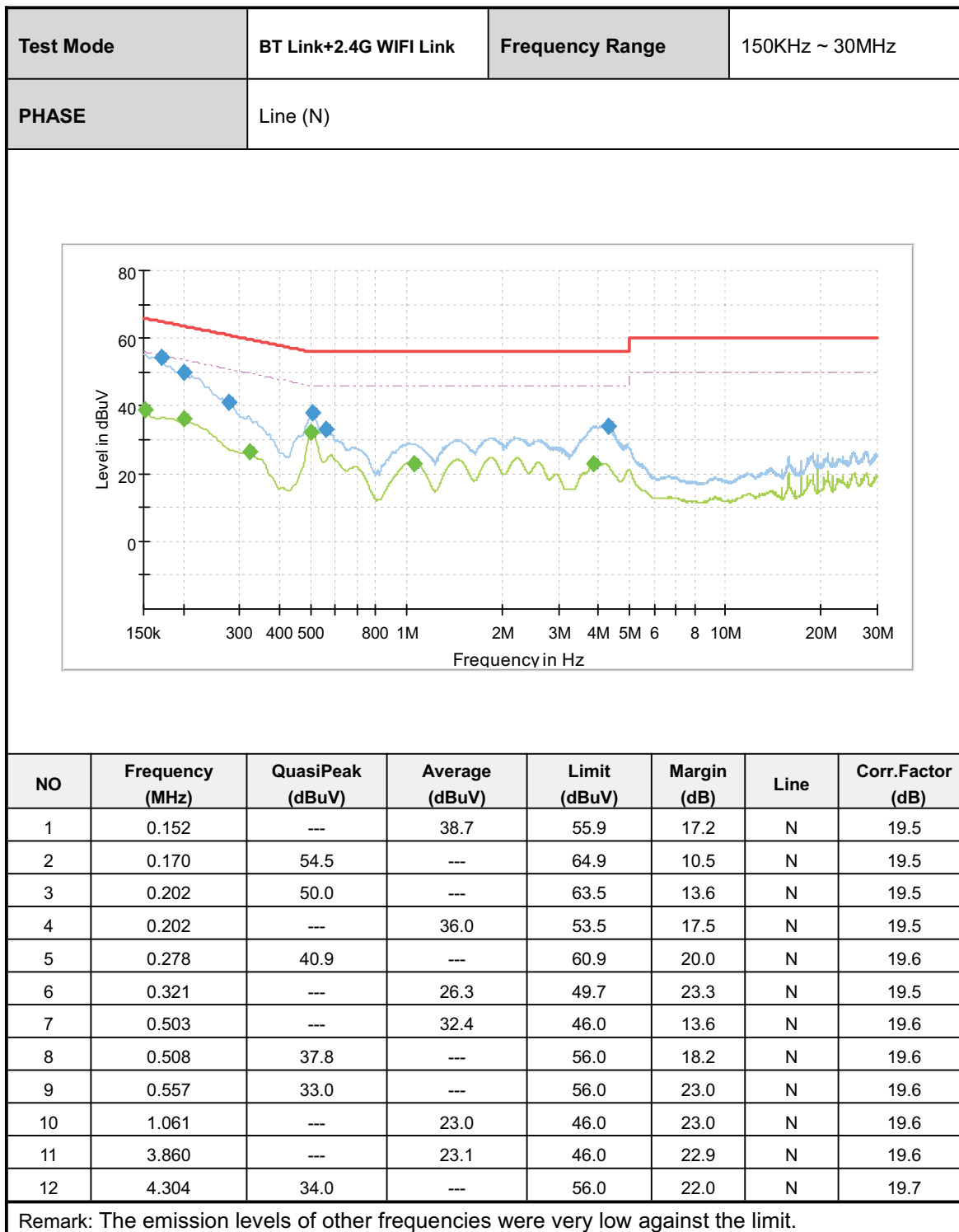
- The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the Test photographs) Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source. The equipment under test shall be placed on a support of non-metallic material, the height of which shall be 1.5m above the ground,
- The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
- Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

#### 3.1.3 Test setup



## 3.1.4 Test results









## 3.2 RADIATED EMISSION AND BANDEDGE MEASUREMENT

### 3.2.1 Limit

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

| FREQUENCIES (MHz) | FIELD STRENGTH<br>(Microvolts/Meter) | MEASUREMENT DISTANCE<br>(Meters) |
|-------------------|--------------------------------------|----------------------------------|
| 0.009 ~ 0.490     | 2400/F(kHz)                          | 300                              |
| 0.490 ~ 1.705     | 24000/F(kHz)                         | 30                               |
| 1.705 ~ 30.0      | 30                                   | 30                               |
| 30 ~ 88           | 100                                  | 3                                |
| 88 ~ 216          | 150                                  | 3                                |
| 216 ~ 960         | 200                                  | 3                                |
| Above 960         | 500                                  | 3                                |

NOTE: 1. The lower limit shall apply at the transition frequencies.  
NOTE: 2. Emission level (dBuV/m) = 20 log Emission level (uV/m).  
NOTE: 3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

### 3.2.2 Measurement procedure

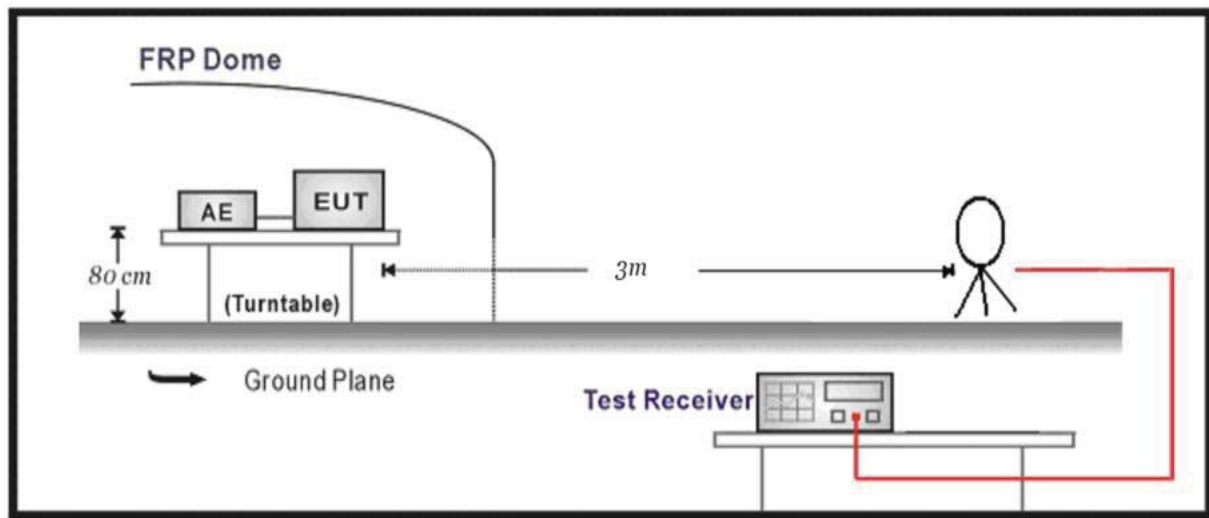
- The EUT was placed on the top of a rotating table 1.5 meters(above 1GHz) and 0.8 meters(below 1GHz) above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- For below 1GHz was used bilog antenna, and above 1GHz was used horn antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- For below 30MHz, a loop antenna with its vertical plane is place 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1m above the ground.
- During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, For battery operated equipment, the equipment tests shall be perform using fresh batteries. The turntable was rotated to maximize the emission level.

**NOTE:**

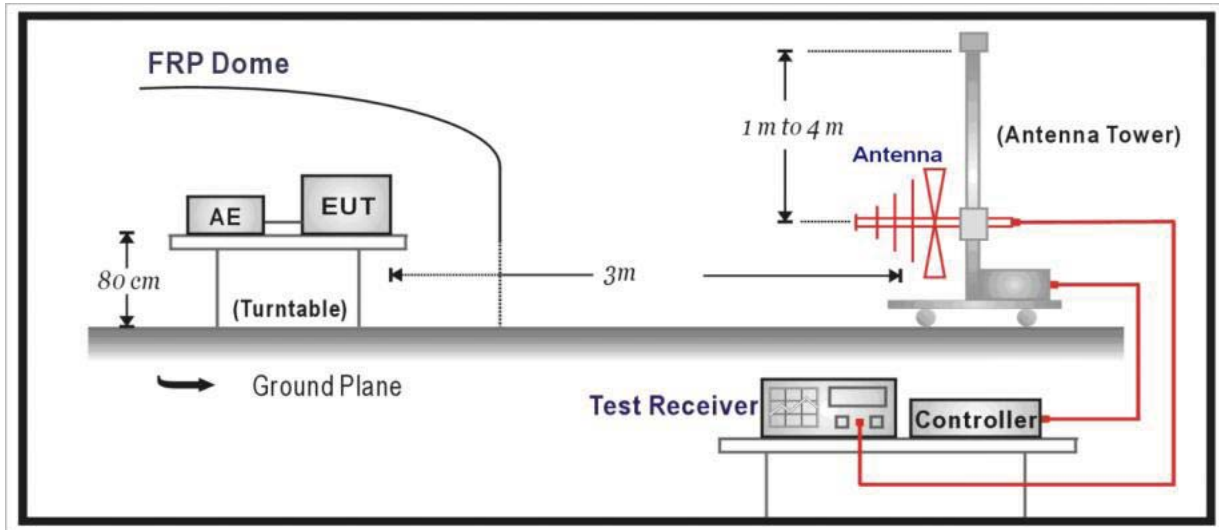
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is  $\geq 1/T$  (Duty cycle  $< 98\%$ ) or 10Hz (Duty cycle  $> 98\%$ ) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.
5. The testing of the EUT was performed on all 3 orthogonal axes; the worst-case test configuration was reported on the file test setup photo.

### 3.2.3 Test setup

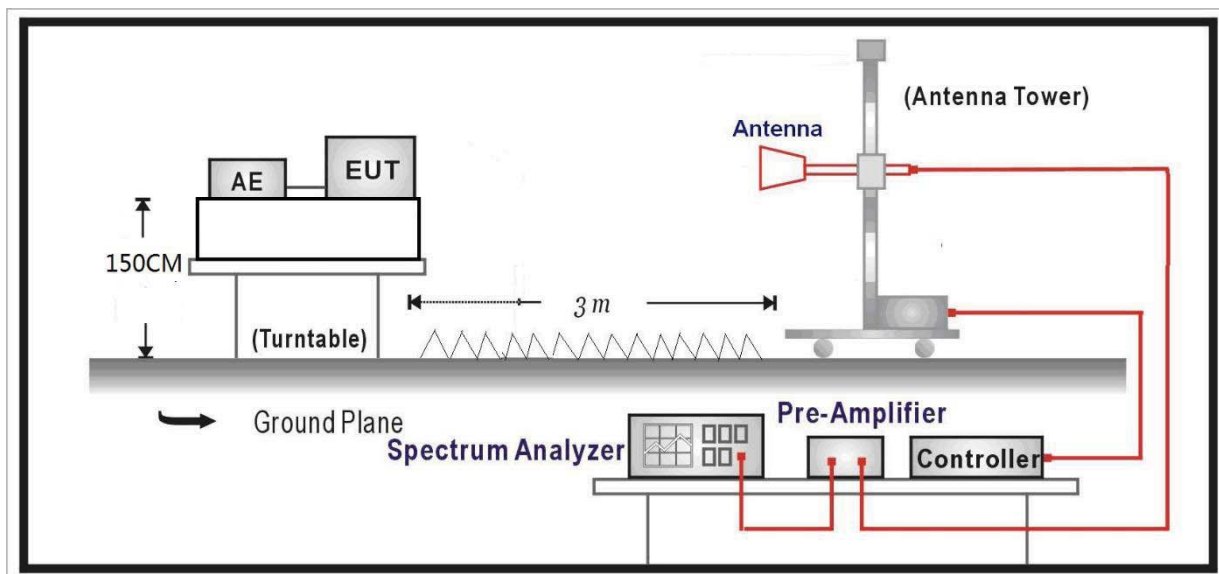
Below 30MHz Test Setup:



Below 1GHz Test Setup:

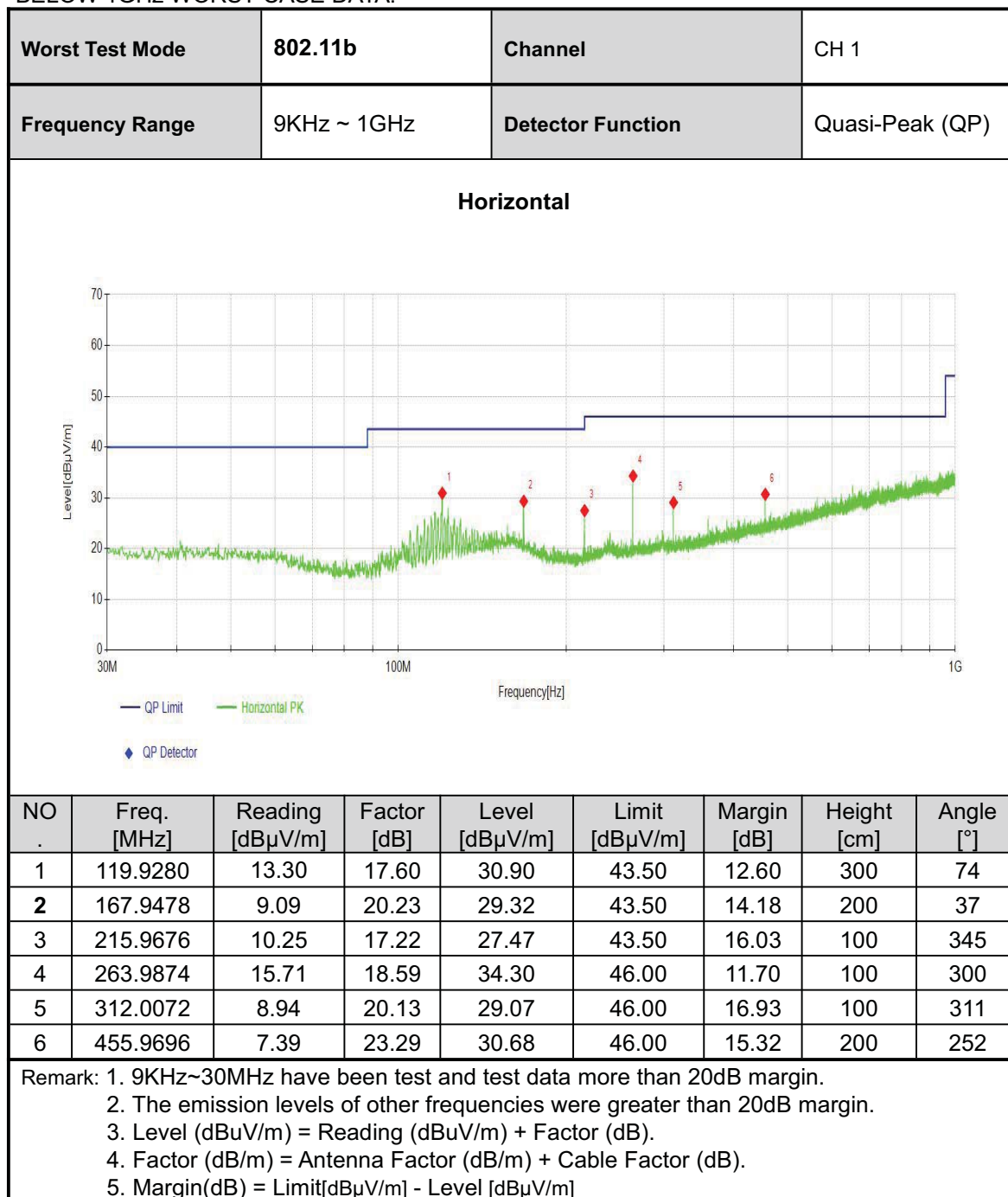


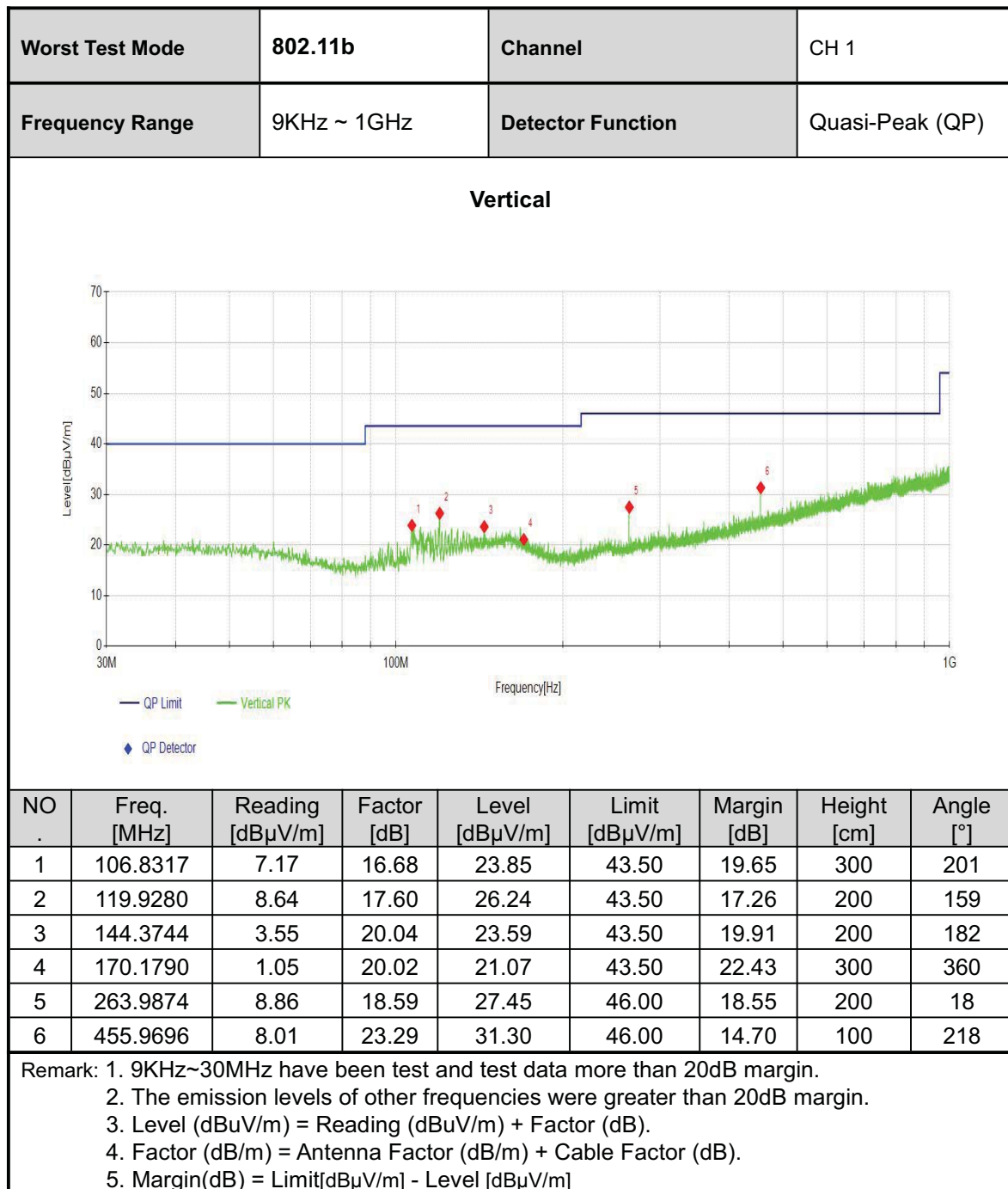
Above 1GHz Test Setup:



## 3.2.4 Test results

BELOW 1GHz WORST-CASE DATA:







## ABOVE 1GHz DATA

|                                                                                                                                                                                                                                                              |             |                  |             |                |                   |             |                      |           |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------|-------------|----------------|-------------------|-------------|----------------------|-----------|----------|
| Channel                                                                                                                                                                                                                                                      |             | 802.11b CH 1     |             |                | Frequency         |             | 2412MHz <sub>z</sub> |           |          |
| Frequency Range                                                                                                                                                                                                                                              |             | Above 1G         |             |                | Detector Function |             | PK/AV                |           |          |
| Horizontal                                                                                                                                                                                                                                                   |             |                  |             |                |                   |             |                      |           |          |
| NO                                                                                                                                                                                                                                                           | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m]    | Margin [dB] | Height [cm]          | Angle [°] | Detector |
| 1                                                                                                                                                                                                                                                            | 2390        | 36.61            | -0.15       | 36.46          | 54.00             | 17.54       | 341                  | 15        | AV       |
| 2                                                                                                                                                                                                                                                            | 2390        | 44.05            | -0.15       | 43.90          | 74.00             | 30.10       | 343                  | 0         | PK       |
| 3                                                                                                                                                                                                                                                            | 2412        | 96.16            | 0.16        | 96.32          |                   |             | 351                  | 15        | PK       |
| 4                                                                                                                                                                                                                                                            | 2412        | 94.31            | 0.17        | 94.48          |                   |             | 139                  | 22        | AV       |
| 5                                                                                                                                                                                                                                                            | 4824        | 42.34            | 9.68        | 52.02          | 74.00             | 21.98       | 108                  | 99        | PK       |
| 6                                                                                                                                                                                                                                                            | 4824        | 34.68            | 9.68        | 44.36          | 54.00             | 9.64        | 217                  | 86        | AV       |
| 7                                                                                                                                                                                                                                                            | 7236        | 19.47            | 12.39       | 31.86          | 54.00             | 22.14       | 283                  | 357       | AV       |
| 8                                                                                                                                                                                                                                                            | 7236        | 28.18            | 12.39       | 40.57          | 74.00             | 33.43       | 314                  | 354       | PK       |
| 9                                                                                                                                                                                                                                                            | 9648        | 26.97            | 13.13       | 40.10          | 74.00             | 33.90       | 160                  | 354       | PK       |
| 10                                                                                                                                                                                                                                                           | 9648        | 19.46            | 13.13       | 32.59          | 54.00             | 21.41       | 320                  | 348       | AV       |
| Vertical                                                                                                                                                                                                                                                     |             |                  |             |                |                   |             |                      |           |          |
| NO                                                                                                                                                                                                                                                           | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m]    | Margin [dB] | Height [cm]          | Angle [°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 2390        | 38.40            | -0.15       | 38.25          | 54.00             | 15.75       | 333                  | 314       | AV       |
| 2                                                                                                                                                                                                                                                            | 2390        | 45.13            | -0.15       | 44.98          | 74.00             | 29.02       | 265                  | 19        | PK       |
| 3                                                                                                                                                                                                                                                            | 2412        | 98.83            | 0.16        | 98.99          |                   |             | 101                  | 19        | PK       |
| 4                                                                                                                                                                                                                                                            | 2412        | 97.04            | 0.16        | 97.20          |                   |             | 302                  | 357       | AV       |
| 5                                                                                                                                                                                                                                                            | 4824        | 42.36            | 9.68        | 52.04          | 74.00             | 21.96       | 209                  | 109       | PK       |
| 6                                                                                                                                                                                                                                                            | 4824        | 35.28            | 9.68        | 44.96          | 54.00             | 9.04        | 336                  | 76        | AV       |
| 7                                                                                                                                                                                                                                                            | 7236        | 19.82            | 12.39       | 32.21          | 54.00             | 21.79       | 275                  | 125       | AV       |
| 8                                                                                                                                                                                                                                                            | 7236        | 27.40            | 12.39       | 39.79          | 74.00             | 34.21       | 152                  | 225       | PK       |
| 9                                                                                                                                                                                                                                                            | 9648        | 28.31            | 13.13       | 41.44          | 74.00             | 32.56       | 218                  | 252       | PK       |
| 10                                                                                                                                                                                                                                                           | 9648        | 19.29            | 13.13       | 32.42          | 54.00             | 21.58       | 145                  | 1         | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m] |             |                  |             |                |                   |             |                      |           |          |



|                                                                                                                                                                                                                                                              |                |                     |                |                   |                   |                |                |              |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|----------------|-------------------|-------------------|----------------|----------------|--------------|----------|
| Channel                                                                                                                                                                                                                                                      |                | 802.11b CH 6        |                | Frequency         |                   | 2437MHz        |                |              |          |
| Frequency Range                                                                                                                                                                                                                                              |                | Above 1G            |                | Detector Function |                   | PK/AV          |                |              |          |
| Horizontal                                                                                                                                                                                                                                                   |                |                     |                |                   |                   |                |                |              |          |
| NO                                                                                                                                                                                                                                                           | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Detector |
| 1                                                                                                                                                                                                                                                            | 4874           | 42.13               | 9.70           | 51.83             | 74.00             | 22.17          | 209            | 296          | PK       |
| 2                                                                                                                                                                                                                                                            | 4874           | 34.61               | 9.70           | 44.31             | 54.00             | 9.69           | 336            | 117          | AV       |
| 3                                                                                                                                                                                                                                                            | 7311           | 19.66               | 11.03          | 30.69             | 54.00             | 23.31          | 275            | 262          | AV       |
| 4                                                                                                                                                                                                                                                            | 7311           | 27.70               | 11.03          | 38.73             | 74.00             | 35.27          | 152            | 210          | PK       |
| 5                                                                                                                                                                                                                                                            | 9748           | 27.38               | 13.23          | 40.61             | 74.00             | 33.39          | 218            | 137          | PK       |
| 6                                                                                                                                                                                                                                                            | 9748           | 18.47               | 13.23          | 31.70             | 54.00             | 22.30          | 145            | 44           | AV       |
| Vertical                                                                                                                                                                                                                                                     |                |                     |                |                   |                   |                |                |              |          |
| NO                                                                                                                                                                                                                                                           | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 4874           | 43.27               | 9.70           | 52.97             | 74.00             | 21.03          | 254            | 162          | PK       |
| 2                                                                                                                                                                                                                                                            | 4874           | 34.82               | 9.70           | 44.52             | 54.00             | 9.48           | 224            | 156          | AV       |
| 3                                                                                                                                                                                                                                                            | 7311           | 20.05               | 11.03          | 31.08             | 54.00             | 22.92          | 266            | 38           | AV       |
| 4                                                                                                                                                                                                                                                            | 7311           | 27.97               | 11.03          | 39.00             | 74.00             | 35.00          | 265            | 277          | PK       |
| 5                                                                                                                                                                                                                                                            | 9748           | 26.92               | 13.23          | 40.15             | 74.00             | 33.85          | 272            | 65           | PK       |
| 6                                                                                                                                                                                                                                                            | 9748           | 18.76               | 13.23          | 31.99             | 54.00             | 22.01          | 387            | 360          | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m] |                |                     |                |                   |                   |                |                |              |          |



|                                                                                                                                                                                                                                                              |                |                     |                |                   |                   |                |                |              |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|----------------|-------------------|-------------------|----------------|----------------|--------------|----------|
| Channel                                                                                                                                                                                                                                                      |                | 802.11b CH 11       |                |                   | Frequency         |                | 2462MHz        |              |          |
| Frequency Range                                                                                                                                                                                                                                              |                | Above 1G            |                |                   | Detector Function |                | PK/AV          |              |          |
| Horizontal                                                                                                                                                                                                                                                   |                |                     |                |                   |                   |                |                |              |          |
| NO                                                                                                                                                                                                                                                           | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Detector |
| 1                                                                                                                                                                                                                                                            | 2462.0000      | 90.42               | 0.79           | 91.21             |                   |                | 176            | 31           | AV       |
| 2                                                                                                                                                                                                                                                            | 2462.0000      | 92.38               | 0.79           | 93.17             |                   |                | 312            | 31           | PK       |
| 3                                                                                                                                                                                                                                                            | 2483.5000      | 36.65               | 0.46           | 37.11             | 54.00             | 16.89          | 176            | 31           | AV       |
| 4                                                                                                                                                                                                                                                            | 2483.5000      | 43.96               | 0.46           | 44.42             | 74.00             | 29.58          | 106            | 359          | PK       |
| 5                                                                                                                                                                                                                                                            | 4926.0000      | 42.50               | 10.07          | 52.57             | 74.00             | 21.43          | 200            | 32           | PK       |
| 6                                                                                                                                                                                                                                                            | 4926.0000      | 35.19               | 10.07          | 45.26             | 54.00             | 8.74           | 249            | 257          | AV       |
| 7                                                                                                                                                                                                                                                            | 7386.0000      | 20.34               | 9.80           | 30.14             | 54.00             | 23.86          | 198            | 29           | AV       |
| 8                                                                                                                                                                                                                                                            | 7386.0000      | 28.82               | 9.80           | 38.62             | 74.00             | 35.38          | 295            | 42           | PK       |
| 9                                                                                                                                                                                                                                                            | 9848.0000      | 26.85               | 13.24          | 40.09             | 74.00             | 33.91          | 105            | 357          | PK       |
| 10                                                                                                                                                                                                                                                           | 9848.0000      | 18.85               | 13.24          | 32.09             | 54.00             | 21.91          | 256            | 357          | AV       |
| Vertical                                                                                                                                                                                                                                                     |                |                     |                |                   |                   |                |                |              |          |
| NO                                                                                                                                                                                                                                                           | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 2462.0000      | 96.48               | 0.79           | 97.27             |                   |                | 297            | 351          | AV       |
| 2                                                                                                                                                                                                                                                            | 2462.0000      | 98.35               | 0.79           | 99.14             |                   |                | 135            | 345          | PK       |
| 3                                                                                                                                                                                                                                                            | 2483.5000      | 40.62               | 0.46           | 41.08             | 54.00             | 12.92          | 348            | 345          | AV       |
| 4                                                                                                                                                                                                                                                            | 2483.5000      | 48.40               | 0.46           | 48.86             | 74.00             | 25.14          | 163            | 12           | PK       |
| 5                                                                                                                                                                                                                                                            | 4926.0000      | 42.75               | 10.07          | 52.82             | 74.00             | 21.18          | 351            | 123          | PK       |
| 6                                                                                                                                                                                                                                                            | 4926.0000      | 34.59               | 10.07          | 44.66             | 54.00             | 9.34           | 160            | 242          | AV       |
| 7                                                                                                                                                                                                                                                            | 7386.0000      | 20.50               | 9.80           | 30.30             | 54.00             | 23.70          | 383            | 1            | AV       |
| 8                                                                                                                                                                                                                                                            | 7386.0000      | 29.30               | 9.80           | 39.10             | 74.00             | 34.90          | 372            | 39           | PK       |
| 9                                                                                                                                                                                                                                                            | 9848.0000      | 27.42               | 13.24          | 40.66             | 74.00             | 33.34          | 339            | 12           | PK       |
| 10                                                                                                                                                                                                                                                           | 9848.0000      | 19.06               | 13.24          | 32.30             | 54.00             | 21.70          | 353            | 158          | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m] |                |                     |                |                   |                   |                |                |              |          |





|                                                                                                                                                                                                                                                              |             |                  |             |                |                   |             |             |           |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------|-------------|----------------|-------------------|-------------|-------------|-----------|----------|
| Channel                                                                                                                                                                                                                                                      |             | 802.11g CH 1     |             |                | Frequency         |             | 2412MHz     |           |          |
| Frequency Range                                                                                                                                                                                                                                              |             | Above 1G         |             |                | Detector Function |             | PK/AV       |           |          |
| Horizontal                                                                                                                                                                                                                                                   |             |                  |             |                |                   |             |             |           |          |
| NO                                                                                                                                                                                                                                                           | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m]    | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1                                                                                                                                                                                                                                                            | 2390        | 41.01            | -0.15       | 40.86          | 54.00             | 13.14       | 351         | 12        | AV       |
| 2                                                                                                                                                                                                                                                            | 2390        | 49.93            | -0.15       | 49.78          | 74.00             | 24.22       | 160         | 12        | PK       |
| 3                                                                                                                                                                                                                                                            | 2412        | 99.49            | 0.16        | 99.65          |                   |             | 383         | 31        | PK       |
| 4                                                                                                                                                                                                                                                            | 2412        | 92.21            | 0.16        | 92.37          |                   |             | 372         | 12        | AV       |
| 5                                                                                                                                                                                                                                                            | 4824        | 43.14            | 9.68        | 52.82          | 74.00             | 21.18       | 278         | 1         | PK       |
| 6                                                                                                                                                                                                                                                            | 4824        | 34.72            | 9.68        | 44.40          | 54.00             | 9.60        | 275         | 204       | AV       |
| 7                                                                                                                                                                                                                                                            | 7236        | 19.73            | 12.39       | 32.12          | 54.00             | 21.88       | 340         | 62        | AV       |
| 8                                                                                                                                                                                                                                                            | 7236        | 28.72            | 12.39       | 41.11          | 74.00             | 32.89       | 204         | 222       | PK       |
| 9                                                                                                                                                                                                                                                            | 9648        | 26.65            | 13.13       | 39.78          | 74.00             | 34.22       | 373         | 70        | PK       |
| 10                                                                                                                                                                                                                                                           | 9648        | 19.55            | 13.13       | 32.68          | 54.00             | 21.32       | 268         | 62        | AV       |
| Vertical                                                                                                                                                                                                                                                     |             |                  |             |                |                   |             |             |           |          |
| NO                                                                                                                                                                                                                                                           | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m]    | Margin [dB] | Height [cm] | Angle [°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 2390        | 42.28            | -0.15       | 42.13          | 54.00             | 11.87       | 173         | 19        | AV       |
| 2                                                                                                                                                                                                                                                            | 2390        | 51.96            | -0.15       | 51.81          | 74.00             | 22.19       | 395         | 334       | PK       |
| 3                                                                                                                                                                                                                                                            | 2412        | 94.86            | 0.17        | 95.03          |                   |             | 189         | 19        | AV       |
| 4                                                                                                                                                                                                                                                            | 2412        | 102.43           | 0.17        | 102.60         |                   |             | 305         | 357       | PK       |
| 5                                                                                                                                                                                                                                                            | 4824        | 42.84            | 9.68        | 52.52          | 74.00             | 21.48       | 310         | 215       | PK       |
| 6                                                                                                                                                                                                                                                            | 4824        | 34.68            | 9.68        | 44.36          | 54.00             | 9.64        | 331         | 334       | AV       |
| 7                                                                                                                                                                                                                                                            | 7236        | 20.13            | 12.39       | 32.52          | 54.00             | 21.48       | 306         | 45        | AV       |
| 8                                                                                                                                                                                                                                                            | 7236        | 28.11            | 12.39       | 40.50          | 74.00             | 33.50       | 117         | 333       | PK       |
| 9                                                                                                                                                                                                                                                            | 9648        | 28.92            | 13.13       | 42.05          | 74.00             | 31.95       | 314         | 119       | PK       |
| 10                                                                                                                                                                                                                                                           | 9648        | 19.31            | 13.13       | 32.44          | 54.00             | 21.56       | 290         | 326       | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m] |             |                  |             |                |                   |             |             |           |          |



|                                                                                                                                                                                                                                                              |                |                     |                |                   |                   |                |                |              |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|----------------|-------------------|-------------------|----------------|----------------|--------------|----------|
| Channel                                                                                                                                                                                                                                                      |                | 802.11g CH 6        |                | Frequency         |                   | 2437MHz        |                |              |          |
| Frequency Range                                                                                                                                                                                                                                              |                | Above 1G            |                | Detector Function |                   | PK/AV          |                |              |          |
| Horizontal                                                                                                                                                                                                                                                   |                |                     |                |                   |                   |                |                |              |          |
| NO                                                                                                                                                                                                                                                           | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Detector |
| 1                                                                                                                                                                                                                                                            | 4874           | 43.86               | 9.70           | 53.56             | 74.00             | 20.44          | 280            | 244          | PK       |
| 2                                                                                                                                                                                                                                                            | 4874           | 34.63               | 9.70           | 44.33             | 54.00             | 9.67           | 135            | 138          | AV       |
| 3                                                                                                                                                                                                                                                            | 7311           | 20.25               | 11.03          | 31.28             | 54.00             | 22.72          | 308            | 242          | AV       |
| 4                                                                                                                                                                                                                                                            | 7311           | 27.80               | 11.03          | 38.83             | 74.00             | 35.17          | 306            | 242          | PK       |
| 5                                                                                                                                                                                                                                                            | 9748           | 26.75               | 13.23          | 39.98             | 74.00             | 34.02          | 102            | 162          | PK       |
| 6                                                                                                                                                                                                                                                            | 9748           | 19.31               | 13.23          | 32.54             | 54.00             | 21.46          | 329            | 209          | AV       |
| Vertical                                                                                                                                                                                                                                                     |                |                     |                |                   |                   |                |                |              |          |
| NO                                                                                                                                                                                                                                                           | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 4874           | 42.96               | 9.70           | 52.66             | 74.00             | 21.34          | 175            | 308          | PK       |
| 2                                                                                                                                                                                                                                                            | 4874           | 34.91               | 9.70           | 44.61             | 54.00             | 9.39           | 146            | 48           | AV       |
| 3                                                                                                                                                                                                                                                            | 7311           | 19.81               | 11.03          | 30.84             | 54.00             | 23.16          | 225            | 360          | AV       |
| 4                                                                                                                                                                                                                                                            | 7311           | 27.53               | 11.03          | 38.56             | 74.00             | 35.44          | 267            | 360          | PK       |
| 5                                                                                                                                                                                                                                                            | 9748           | 27.30               | 13.23          | 40.53             | 74.00             | 33.47          | 125            | 125          | PK       |
| 6                                                                                                                                                                                                                                                            | 9748           | 18.90               | 13.23          | 32.13             | 54.00             | 21.87          | 304            | 105          | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m] |                |                     |                |                   |                   |                |                |              |          |



|                                                                                                                                                                                                                                                              |             |                  |             |                |                   |             |             |           |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------|-------------|----------------|-------------------|-------------|-------------|-----------|----------|
| Channel                                                                                                                                                                                                                                                      |             | 802.11g CH 11    |             |                | Frequency         |             | 2462MHz     |           |          |
| Frequency Range                                                                                                                                                                                                                                              |             | Above 1G         |             |                | Detector Function |             | PK/AV       |           |          |
| Horizontal                                                                                                                                                                                                                                                   |             |                  |             |                |                   |             |             |           |          |
| NO                                                                                                                                                                                                                                                           | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m]    | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1                                                                                                                                                                                                                                                            | 2462        | 94.97            | 0.80        | 95.77          |                   |             | 260         | 268       | PK       |
| 2                                                                                                                                                                                                                                                            | 2462        | 88.84            | 0.78        | 89.62          |                   |             | 339         | 295       | AV       |
| 3                                                                                                                                                                                                                                                            | 2483.5      | 39.78            | 0.46        | 40.24          | 54.00             | 13.76       | 156         | 321       | AV       |
| 4                                                                                                                                                                                                                                                            | 2483.5      | 49.10            | 0.46        | 49.56          | 74.00             | 24.44       | 120         | 321       | PK       |
| 5                                                                                                                                                                                                                                                            | 4924        | 43.66            | 10.07       | 53.73          | 74.00             | 20.27       | 203         | 238       | PK       |
| 6                                                                                                                                                                                                                                                            | 4924        | 34.10            | 10.07       | 44.17          | 54.00             | 9.83        | 235         | 19        | AV       |
| 7                                                                                                                                                                                                                                                            | 7386        | 20.52            | 9.80        | 30.32          | 54.00             | 23.68       | 381         | 116       | AV       |
| 8                                                                                                                                                                                                                                                            | 7386        | 27.95            | 9.80        | 37.75          | 74.00             | 36.25       | 191         | 357       | PK       |
| 9                                                                                                                                                                                                                                                            | 9848        | 26.44            | 13.24       | 39.68          | 74.00             | 34.32       | 365         | 348       | PK       |
| 10                                                                                                                                                                                                                                                           | 9848        | 18.95            | 13.24       | 32.19          | 54.00             | 21.81       | 104         | 202       | AV       |
| Vertical                                                                                                                                                                                                                                                     |             |                  |             |                |                   |             |             |           |          |
| NO                                                                                                                                                                                                                                                           | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m]    | Margin [dB] | Height [cm] | Angle [°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 2462        | 94.85            | 0.77        | 95.62          |                   |             | 386         | 258       | AV       |
| 2                                                                                                                                                                                                                                                            | 2462        | 101.47           | 0.72        | 102.19         |                   |             | 261         | 258       | PK       |
| 3                                                                                                                                                                                                                                                            | 2483.5      | 47.40            | 0.46        | 47.86          | 54.00             | 6.14        | 339         | 272       | AV       |
| 4                                                                                                                                                                                                                                                            | 2483.5      | 56.60            | 0.46        | 57.06          | 74.00             | 16.94       | 101         | 245       | PK       |
| 5                                                                                                                                                                                                                                                            | 4924        | 42.84            | 10.07       | 52.91          | 74.00             | 21.09       | 203         | 89        | PK       |
| 6                                                                                                                                                                                                                                                            | 4924        | 34.07            | 10.07       | 44.14          | 54.00             | 9.86        | 235         | 63        | AV       |
| 7                                                                                                                                                                                                                                                            | 7386        | 20.56            | 9.80        | 30.36          | 54.00             | 23.64       | 381         | 360       | AV       |
| 8                                                                                                                                                                                                                                                            | 7386        | 28.01            | 9.80        | 37.81          | 74.00             | 36.19       | 191         | 7         | PK       |
| 9                                                                                                                                                                                                                                                            | 9848        | 27.29            | 13.24       | 40.53          | 74.00             | 33.47       | 365         | 226       | PK       |
| 10                                                                                                                                                                                                                                                           | 9848        | 18.66            | 13.24       | 31.90          | 54.00             | 22.10       | 104         | 60        | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m] |             |                  |             |                |                   |             |             |           |          |



|                                                                                                                                                                                                                                                              |             |                  |             |                |                   |             |             |           |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------|-------------|----------------|-------------------|-------------|-------------|-----------|----------|
| Channel                                                                                                                                                                                                                                                      |             | 802.11n20 CH 1   |             |                | Frequency         |             | 2412MHz     |           |          |
| Frequency Range                                                                                                                                                                                                                                              |             | Above 1G         |             |                | Detector Function |             | PK/AV       |           |          |
| Horizontal                                                                                                                                                                                                                                                   |             |                  |             |                |                   |             |             |           |          |
| NO                                                                                                                                                                                                                                                           | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m]    | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1                                                                                                                                                                                                                                                            | 2390        | 39.79            | -0.15       | 39.64          | 54.00             | 14.36       | 337         | 302       | AV       |
| 2                                                                                                                                                                                                                                                            | 2390        | 47.81            | -0.15       | 47.66          | 74.00             | 26.34       | 386         | 329       | PK       |
| 3                                                                                                                                                                                                                                                            | 2412        | 97.51            | 0.16        | 97.67          |                   |             | 110         | 296       | PK       |
| 4                                                                                                                                                                                                                                                            | 2412        | 90.51            | 0.19        | 90.70          |                   |             | 255         | 296       | AV       |
| 5                                                                                                                                                                                                                                                            | 4824        | 42.88            | 9.68        | 52.56          | 74.00             | 21.44       | 148         | 32        | PK       |
| 6                                                                                                                                                                                                                                                            | 4824        | 34.70            | 9.68        | 44.38          | 54.00             | 9.62        | 128         | 144       | AV       |
| 7                                                                                                                                                                                                                                                            | 7236        | 19.75            | 12.39       | 32.14          | 54.00             | 21.86       | 207         | 275       | AV       |
| 8                                                                                                                                                                                                                                                            | 7236        | 28.24            | 12.39       | 40.63          | 74.00             | 33.37       | 159         | 116       | PK       |
| 9                                                                                                                                                                                                                                                            | 9648        | 26.56            | 13.13       | 39.69          | 74.00             | 34.31       | 107         | 176       | PK       |
| 10                                                                                                                                                                                                                                                           | 9648        | 19.60            | 13.13       | 32.73          | 54.00             | 21.27       | 253         | 10        | AV       |
| Vertical                                                                                                                                                                                                                                                     |             |                  |             |                |                   |             |             |           |          |
| NO                                                                                                                                                                                                                                                           | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m]    | Margin [dB] | Height [cm] | Angle [°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 2390        | 40.69            | -0.15       | 40.54          | 54.00             | 13.46       | 269         | 281       | AV       |
| 2                                                                                                                                                                                                                                                            | 2390        | 47.80            | -0.15       | 47.65          | 74.00             | 26.35       | 338         | 274       | PK       |
| 3                                                                                                                                                                                                                                                            | 2412        | 101.05           | 0.17        | 101.22         |                   |             | 322         | 333       | PK       |
| 4                                                                                                                                                                                                                                                            | 2412        | 93.24            | 0.17        | 93.41          |                   |             | 326         | 254       | AV       |
| 5                                                                                                                                                                                                                                                            | 4824        | 42.45            | 9.68        | 52.13          | 74.00             | 21.87       | 198         | 70        | PK       |
| 6                                                                                                                                                                                                                                                            | 4824        | 34.45            | 9.68        | 44.13          | 54.00             | 9.87        | 274         | 222       | AV       |
| 7                                                                                                                                                                                                                                                            | 7236        | 19.74            | 12.39       | 32.13          | 54.00             | 21.87       | 323         | 351       | AV       |
| 8                                                                                                                                                                                                                                                            | 7236        | 27.46            | 12.39       | 39.85          | 74.00             | 34.15       | 155         | 138       | PK       |
| 9                                                                                                                                                                                                                                                            | 9648        | 27.95            | 13.13       | 41.08          | 74.00             | 32.92       | 341         | 92        | PK       |
| 10                                                                                                                                                                                                                                                           | 9648        | 19.31            | 13.13       | 32.44          | 54.00             | 21.56       | 336         | 278       | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m] |             |                  |             |                |                   |             |             |           |          |



|                                                                                                                                                                                                                                                              |                |                     |                |                   |                   |                |                |              |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|----------------|-------------------|-------------------|----------------|----------------|--------------|----------|
| Channel                                                                                                                                                                                                                                                      |                | 802.11n20 CH 6      |                | Frequency         |                   | 2437MHz        |                |              |          |
| Frequency Range                                                                                                                                                                                                                                              |                | Above 1G            |                | Detector Function |                   | PK/AV          |                |              |          |
| Horizontal                                                                                                                                                                                                                                                   |                |                     |                |                   |                   |                |                |              |          |
| NO                                                                                                                                                                                                                                                           | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Detector |
| 1                                                                                                                                                                                                                                                            | 4874           | 42.75               | 9.70           | 52.45             | 74.00             | 21.55          | 301            | 72           | PK       |
| 2                                                                                                                                                                                                                                                            | 4874           | 34.60               | 9.70           | 44.30             | 54.00             | 9.70           | 264            | 211          | AV       |
| 3                                                                                                                                                                                                                                                            | 7311           | 19.89               | 11.03          | 30.92             | 54.00             | 23.08          | 217            | 101          | AV       |
| 4                                                                                                                                                                                                                                                            | 7311           | 28.34               | 11.03          | 39.37             | 74.00             | 34.63          | 136            | 262          | PK       |
| 5                                                                                                                                                                                                                                                            | 9748           | 26.78               | 13.23          | 40.01             | 74.00             | 33.99          | 173            | 101          | PK       |
| 6                                                                                                                                                                                                                                                            | 9748           | 18.89               | 13.23          | 32.12             | 54.00             | 21.88          | 102            | 188          | AV       |
| Vertical                                                                                                                                                                                                                                                     |                |                     |                |                   |                   |                |                |              |          |
| NO                                                                                                                                                                                                                                                           | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 4874           | 43.22               | 9.70           | 52.92             | 74.00             | 21.08          | 339            | 123          | PK       |
| 2                                                                                                                                                                                                                                                            | 4874           | 34.86               | 9.70           | 44.56             | 54.00             | 9.44           | 382            | 295          | AV       |
| 3                                                                                                                                                                                                                                                            | 7311           | 20.36               | 11.03          | 31.39             | 54.00             | 22.61          | 230            | 3            | AV       |
| 4                                                                                                                                                                                                                                                            | 7311           | 27.95               | 11.03          | 38.98             | 74.00             | 35.02          | 383            | 138          | PK       |
| 5                                                                                                                                                                                                                                                            | 9748           | 26.39               | 13.23          | 39.62             | 74.00             | 34.38          | 242            | 125          | PK       |
| 6                                                                                                                                                                                                                                                            | 9748           | 19.02               | 13.23          | 32.25             | 54.00             | 21.75          | 199            | 12           | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m] |                |                     |                |                   |                   |                |                |              |          |



|                                                                                                                                                                                                                                                              |             |                  |             |                |                   |             |             |           |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------|-------------|----------------|-------------------|-------------|-------------|-----------|----------|
| Channel                                                                                                                                                                                                                                                      |             | 802.11n20 CH 11  |             |                | Frequency         |             | 2462MHz     |           |          |
| Frequency Range                                                                                                                                                                                                                                              |             | Above 1G         |             |                | Detector Function |             | PK/AV       |           |          |
| Horizontal                                                                                                                                                                                                                                                   |             |                  |             |                |                   |             |             |           |          |
| NO                                                                                                                                                                                                                                                           | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m]    | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1                                                                                                                                                                                                                                                            | 2462        | 88.17            | 0.56        | 88.73          |                   |             | 186         | 289       | AV       |
| 2                                                                                                                                                                                                                                                            | 2462        | 95.08            | 0.56        | 95.64          |                   |             | 288         | 269       | PK       |
| 3                                                                                                                                                                                                                                                            | 2483.5      | 36.66            | 0.46        | 37.12          | 54.00             | 16.88       | 100         | 91        | AV       |
| 4                                                                                                                                                                                                                                                            | 2483.5      | 44.47            | 0.46        | 44.93          | 74.00             | 29.07       | 384         | 315       | PK       |
| 5                                                                                                                                                                                                                                                            | 4924        | 34.75            | 10.10       | 44.85          | 54.00             | 9.15        | 229         | 265       | AV       |
| 6                                                                                                                                                                                                                                                            | 4924        | 43.19            | 10.07       | 53.26          | 74.00             | 20.74       | 146         | 72        | PK       |
| 7                                                                                                                                                                                                                                                            | 7386        | 20.16            | 10.31       | 30.47          | 54.00             | 23.53       | 335         | 155       | AV       |
| 8                                                                                                                                                                                                                                                            | 7386        | 29.19            | 9.80        | 38.99          | 74.00             | 35.01       | 280         | 2         | PK       |
| 9                                                                                                                                                                                                                                                            | 9848        | 18.96            | 13.20       | 32.16          | 54.00             | 21.84       | 268         | 209       | AV       |
| 10                                                                                                                                                                                                                                                           | 9848        | 27.98            | 13.24       | 41.22          | 74.00             | 32.78       | 103         | 9         | PK       |
| Vertical                                                                                                                                                                                                                                                     |             |                  |             |                |                   |             |             |           |          |
| NO                                                                                                                                                                                                                                                           | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m]    | Margin [dB] | Height [cm] | Angle [°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 2462        | 100.12           | 0.56        | 100.68         |                   |             | 228         | 244       | PK       |
| 2                                                                                                                                                                                                                                                            | 2462        | 94.25            | 0.59        | 94.84          |                   |             | 343         | 244       | RMS      |
| 3                                                                                                                                                                                                                                                            | 2483.5      | 42.64            | 0.46        | 43.10          | 54.00             | 10.90       | 111         | 46        | AV       |
| 4                                                                                                                                                                                                                                                            | 2483.5      | 53.61            | 0.46        | 54.07          | 74.00             | 19.93       | 161         | 46        | PK       |
| 5                                                                                                                                                                                                                                                            | 4924        | 42.30            | 10.07       | 52.37          | 74.00             | 21.63       | 229         | 201       | PK       |
| 6                                                                                                                                                                                                                                                            | 4924        | 33.72            | 10.07       | 43.79          | 54.00             | 10.21       | 146         | 93        | AV       |
| 7                                                                                                                                                                                                                                                            | 7386        | 21.06            | 9.80        | 30.86          | 54.00             | 23.14       | 335         | 6         | AV       |
| 8                                                                                                                                                                                                                                                            | 7386        | 29.07            | 9.80        | 38.87          | 74.00             | 35.13       | 280         | 98        | PK       |
| 9                                                                                                                                                                                                                                                            | 9848        | 27.25            | 13.24       | 40.49          | 74.00             | 33.51       | 268         | 91        | PK       |
| 10                                                                                                                                                                                                                                                           | 9848        | 18.98            | 13.24       | 32.22          | 54.00             | 21.78       | 103         | 65        | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m] |             |                  |             |                |                   |             |             |           |          |



|                                                                                                                                                                                                                                                              |                |                     |                |                   |                   |                |                |              |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|----------------|-------------------|-------------------|----------------|----------------|--------------|----------|
| Channel                                                                                                                                                                                                                                                      |                | 802.11n40 CH 3      |                |                   | Frequency         |                | 2422MHz        |              |          |
| Frequency Range                                                                                                                                                                                                                                              |                | Above 1G            |                |                   | Detector Function |                | PK/AV          |              |          |
| Horizontal                                                                                                                                                                                                                                                   |                |                     |                |                   |                   |                |                |              |          |
| NO                                                                                                                                                                                                                                                           | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Detector |
| 1                                                                                                                                                                                                                                                            | 2390           | 44.64               | -0.15          | 44.49             | 54.00             | 9.51           | 112            | 111          | AV       |
| 2                                                                                                                                                                                                                                                            | 2390           | 52.77               | -0.15          | 52.62             | 74.00             | 21.38          | 301            | 111          | PK       |
| 3                                                                                                                                                                                                                                                            | 2422           | 96.06               | 0.20           | 96.26             |                   |                | 342            | 276          | PK       |
| 4                                                                                                                                                                                                                                                            | 2422           | 88.66               | 0.20           | 88.86             |                   |                | 311            | 282          | AV       |
| 5                                                                                                                                                                                                                                                            | 4844           | 42.62               | 9.70           | 52.32             | 74.00             | 21.68          | 220            | 340          | PK       |
| 6                                                                                                                                                                                                                                                            | 4844           | 35.30               | 9.70           | 45.00             | 54.00             | 9.00           | 390            | 241          | AV       |
| 7                                                                                                                                                                                                                                                            | 7266           | 20.10               | 11.03          | 31.13             | 54.00             | 22.87          | 357            | 114          | AV       |
| 8                                                                                                                                                                                                                                                            | 7266           | 29.20               | 11.03          | 40.23             | 74.00             | 33.77          | 159            | 128          | PK       |
| 9                                                                                                                                                                                                                                                            | 9688           | 26.66               | 13.23          | 39.89             | 74.00             | 34.11          | 132            | 24           | PK       |
| 10                                                                                                                                                                                                                                                           | 9688           | 19.14               | 13.23          | 32.37             | 54.00             | 21.63          | 144            | 44           | AV       |
| Vertical                                                                                                                                                                                                                                                     |                |                     |                |                   |                   |                |                |              |          |
| NO                                                                                                                                                                                                                                                           | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 2390           | 46.52               | -0.15          | 46.37             | 54.00             | 7.63           | 215            | 77           | AV       |
| 2                                                                                                                                                                                                                                                            | 2390           | 54.15               | -0.15          | 54.00             | 74.00             | 20.00          | 366            | 91           | PK       |
| 3                                                                                                                                                                                                                                                            | 2422           | 98.60               | 0.22           | 98.82             |                   |                | 281            | 328          | PK       |
| 4                                                                                                                                                                                                                                                            | 2422           | 91.55               | 0.22           | 91.77             |                   |                | 278            | 295          | RMS      |
| 5                                                                                                                                                                                                                                                            | 4844           | 42.93               | 9.70           | 52.63             | 74.00             | 21.37          | 110            | 53           | PK       |
| 6                                                                                                                                                                                                                                                            | 4844           | 34.99               | 9.70           | 44.69             | 54.00             | 9.31           | 280            | 34           | AV       |
| 7                                                                                                                                                                                                                                                            | 7266           | 20.11               | 11.03          | 31.14             | 54.00             | 22.86          | 223            | 1            | AV       |
| 8                                                                                                                                                                                                                                                            | 7266           | 28.52               | 11.03          | 39.55             | 74.00             | 34.45          | 365            | 218          | PK       |
| 9                                                                                                                                                                                                                                                            | 9688           | 27.80               | 13.23          | 41.03             | 74.00             | 32.97          | 318            | 347          | PK       |
| 10                                                                                                                                                                                                                                                           | 9688           | 19.37               | 13.23          | 32.60             | 54.00             | 21.40          | 342            | 322          | AV       |
| 11                                                                                                                                                                                                                                                           | 2390           | 42.93               | 9.70           | 52.63             | 74.00             | 21.37          | 110            | 53           | PK       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m] |                |                     |                |                   |                   |                |                |              |          |



|                                                                                                                                                                                                                                                              |             |                  |             |                |                   |             |             |           |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------|-------------|----------------|-------------------|-------------|-------------|-----------|----------|
| Channel                                                                                                                                                                                                                                                      |             | 802.11n40 CH 9   |             |                | Frequency         |             | 2452MHz     |           |          |
| Frequency Range                                                                                                                                                                                                                                              |             | Above 1G         |             |                | Detector Function |             | PK/AV       |           |          |
| Horizontal                                                                                                                                                                                                                                                   |             |                  |             |                |                   |             |             |           |          |
| NO                                                                                                                                                                                                                                                           | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m]    | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1                                                                                                                                                                                                                                                            | 2452        | 86.37            | 0.56        | 86.93          |                   |             | 182         | 302       | AV       |
| 2                                                                                                                                                                                                                                                            | 2452        | 93.13            | 0.56        | 93.69          |                   |             | 109         | 315       | PK       |
| 3                                                                                                                                                                                                                                                            | 2483.5      | 45.09            | 0.46        | 45.55          | 74.00             | 8.45        | 290         | 92        | AV       |
| 4                                                                                                                                                                                                                                                            | 2483.5      | 55.49            | 0.46        | 55.95          | 54.00             | 18.05       | 298         | 92        | PK       |
| 5                                                                                                                                                                                                                                                            | 4904        | 41.85            | 10.07       | 51.92          | 74.00             | 22.08       | 314         | 359       | PK       |
| 6                                                                                                                                                                                                                                                            | 4904        | 34.20            | 10.07       | 44.27          | 54.00             | 9.73        | 235         | 330       | AV       |
| 7                                                                                                                                                                                                                                                            | 7356        | 20.47            | 9.80        | 30.27          | 54.00             | 23.73       | 284         | 206       | AV       |
| 8                                                                                                                                                                                                                                                            | 7356        | 28.92            | 9.80        | 38.72          | 74.00             | 35.28       | 110         | 79        | PK       |
| 9                                                                                                                                                                                                                                                            | 9808        | 26.68            | 13.24       | 39.92          | 74.00             | 34.08       | 276         | 187       | PK       |
| 10                                                                                                                                                                                                                                                           | 9808        | 18.77            | 13.24       | 32.01          | 54.00             | 21.99       | 116         | 3         | AV       |
| Vertical                                                                                                                                                                                                                                                     |             |                  |             |                |                   |             |             |           |          |
| NO                                                                                                                                                                                                                                                           | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m]    | Margin [dB] | Height [cm] | Angle [°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 2452        | 99.23            | 0.57        | 99.80          |                   |             | 224         | 314       | PK       |
| 2                                                                                                                                                                                                                                                            | 2452        | 91.97            | 0.58        | 92.55          |                   |             | 135         | 235       | AV       |
| 3                                                                                                                                                                                                                                                            | 2483.5      | 51.03            | 0.46        | 51.49          | 54.00             | 2.51        | 202         | 268       | AV       |
| 4                                                                                                                                                                                                                                                            | 2483.5      | 61.13            | 0.46        | 61.59          | 74.00             | 12.41       | 369         | 268       | PK       |
| 5                                                                                                                                                                                                                                                            | 4904        | 41.99            | 10.07       | 52.06          | 74.00             | 21.94       | 138         | 197       | PK       |
| 6                                                                                                                                                                                                                                                            | 4904        | 34.87            | 10.07       | 44.94          | 54.00             | 9.06        | 127         | 20        | AV       |
| 7                                                                                                                                                                                                                                                            | 7356        | 20.37            | 9.80        | 30.17          | 54.00             | 23.83       | 241         | 227       | AV       |
| 8                                                                                                                                                                                                                                                            | 7356        | 28.29            | 9.80        | 38.09          | 74.00             | 35.91       | 151         | 178       | PK       |
| 9                                                                                                                                                                                                                                                            | 9808        | 27.22            | 13.24       | 40.46          | 74.00             | 33.54       | 215         | 286       | PK       |
| 10                                                                                                                                                                                                                                                           | 9808        | 18.91            | 13.24       | 32.15          | 54.00             | 21.85       | 159         | 188       | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m] |             |                  |             |                |                   |             |             |           |          |





|                                                                                                                                                                                                                                                              |             |                  |             |                |                   |             |             |           |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------|-------------|----------------|-------------------|-------------|-------------|-----------|----------|
| Channel                                                                                                                                                                                                                                                      |             | 802.11ax40 CH 3  |             |                | Frequency         |             | 2422MHz     |           |          |
| Frequency Range                                                                                                                                                                                                                                              |             | Above 1G         |             |                | Detector Function |             | PK/AV       |           |          |
| Horizontal                                                                                                                                                                                                                                                   |             |                  |             |                |                   |             |             |           |          |
| NO                                                                                                                                                                                                                                                           | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m]    | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1                                                                                                                                                                                                                                                            | 2390        | 41.90            | -0.15       | 41.75          | 54.00             | 12.25       | 165         | 104       | AV       |
| 2                                                                                                                                                                                                                                                            | 2390        | 49.31            | -0.15       | 49.16          | 74.00             | 24.84       | 112         | 309       | PK       |
| 3                                                                                                                                                                                                                                                            | 2422        | 94.97            | 0.21        | 95.18          |                   |             | 124         | 282       | PK       |
| 4                                                                                                                                                                                                                                                            | 2422        | 86.76            | 0.25        | 87.01          |                   |             | 102         | 282       | AV       |
| 5                                                                                                                                                                                                                                                            | 4844        | 42.20            | 9.70        | 51.90          | 74.00             | 22.10       | 221         | 360       | PK       |
| 6                                                                                                                                                                                                                                                            | 4844        | 34.47            | 9.70        | 44.17          | 54.00             | 9.83        | 144         | 179       | AV       |
| 7                                                                                                                                                                                                                                                            | 7266        | 20.09            | 11.03       | 31.12          | 54.00             | 22.88       | 398         | 53        | AV       |
| 8                                                                                                                                                                                                                                                            | 7266        | 28.06            | 11.03       | 39.09          | 74.00             | 34.91       | 244         | 324       | PK       |
| 9                                                                                                                                                                                                                                                            | 9688        | 26.96            | 13.23       | 40.19          | 74.00             | 33.81       | 250         | 0         | PK       |
| 10                                                                                                                                                                                                                                                           | 9688        | 18.88            | 13.23       | 32.11          | 54.00             | 21.89       | 184         | 167       | AV       |
| Vertical                                                                                                                                                                                                                                                     |             |                  |             |                |                   |             |             |           |          |
| NO                                                                                                                                                                                                                                                           | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m]    | Margin [dB] | Height [cm] | Angle [°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 2390        | 44.77            | -0.15       | 44.62          | 54.00             | 9.38        | 128         | 58        | AV       |
| 2                                                                                                                                                                                                                                                            | 2390        | 52.30            | -0.15       | 52.15          | 74.00             | 21.85       | 179         | 58        | PK       |
| 3                                                                                                                                                                                                                                                            | 2422        | 89.53            | 0.22        | 89.75          |                   |             | 238         | 321       | AV       |
| 4                                                                                                                                                                                                                                                            | 2422        | 97.67            | 0.23        | 97.90          |                   |             | 112         | 321       | PK       |
| 5                                                                                                                                                                                                                                                            | 4844        | 43.20            | 9.70        | 52.90          | 74.00             | 21.10       | 285         | 88        | PK       |
| 6                                                                                                                                                                                                                                                            | 4844        | 35.10            | 9.70        | 44.80          | 54.00             | 9.20        | 190         | 9         | AV       |
| 7                                                                                                                                                                                                                                                            | 7266        | 19.98            | 11.03       | 31.01          | 54.00             | 22.99       | 319         | 1         | AV       |
| 8                                                                                                                                                                                                                                                            | 7266        | 28.67            | 11.03       | 39.70          | 74.00             | 34.30       | 216         | 302       | PK       |
| 9                                                                                                                                                                                                                                                            | 9688        | 26.94            | 13.23       | 40.17          | 74.00             | 33.83       | 222         | 115       | PK       |
| 10                                                                                                                                                                                                                                                           | 9688        | 18.67            | 13.23       | 31.90          | 54.00             | 22.10       | 208         | 115       | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m] |             |                  |             |                |                   |             |             |           |          |



|                                                                                                                                                                                                                                                              |             |                  |             |                |                   |             |             |           |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------|-------------|----------------|-------------------|-------------|-------------|-----------|----------|
| Channel                                                                                                                                                                                                                                                      |             | 802.11ax40 CH 9  |             |                | Frequency         |             | 2452MHz     |           |          |
| Frequency Range                                                                                                                                                                                                                                              |             | Above 1G         |             |                | Detector Function |             | PK/AV       |           |          |
| Horizontal                                                                                                                                                                                                                                                   |             |                  |             |                |                   |             |             |           |          |
| NO                                                                                                                                                                                                                                                           | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m]    | Margin [dB] | Height [cm] | Angle [°] | Detector |
| 1                                                                                                                                                                                                                                                            | 2452        | 83.67            | 0.56        | 84.23          |                   |             | 216         | 288       | AV       |
| 2                                                                                                                                                                                                                                                            | 2452        | 93.03            | 0.56        | 93.59          |                   |             | 219         | 305       | PK       |
| 3                                                                                                                                                                                                                                                            | 2483.5      | 41.61            | 0.46        | 42.07          | 54.00             | 11.93       | 285         | 65        | AV       |
| 4                                                                                                                                                                                                                                                            | 2483.5      | 49.37            | 0.46        | 49.83          | 74.00             | 24.17       | 352         | 311       | PK       |
| 5                                                                                                                                                                                                                                                            | 4904        | 41.77            | 10.07       | 51.84          | 74.00             | 22.16       | 349         | 168       | PK       |
| 6                                                                                                                                                                                                                                                            | 4904        | 34.11            | 10.07       | 44.18          | 54.00             | 9.82        | 322         | 158       | AV       |
| 7                                                                                                                                                                                                                                                            | 7356        | 20.38            | 9.80        | 30.18          | 54.00             | 23.82       | 323         | 148       | AV       |
| 8                                                                                                                                                                                                                                                            | 7356        | 29.10            | 9.80        | 38.90          | 74.00             | 35.10       | 279         | 182       | PK       |
| 9                                                                                                                                                                                                                                                            | 9808        | 27.66            | 13.24       | 40.90          | 74.00             | 33.10       | 157         | 286       | PK       |
| 10                                                                                                                                                                                                                                                           | 9808        | 18.89            | 13.24       | 32.13          | 54.00             | 21.87       | 336         | 202       | AV       |
| Vertical                                                                                                                                                                                                                                                     |             |                  |             |                |                   |             |             |           |          |
| NO                                                                                                                                                                                                                                                           | Freq. [MHz] | Reading [dBμV/m] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m]    | Margin [dB] | Height [cm] | Angle [°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 2452        | 89.42            | 0.56        | 89.98          |                   |             | 100         | 227       | AV       |
| 2                                                                                                                                                                                                                                                            | 2452        | 98.25            | 0.56        | 98.81          |                   |             | 278         | 312       | PK       |
| 3                                                                                                                                                                                                                                                            | 2483.5      | 49.41            | 0.46        | 49.87          | 54.00             | 4.13        | 319         | 116       | AV       |
| 4                                                                                                                                                                                                                                                            | 2483.5      | 56.83            | 0.46        | 57.29          | 74.00             | 16.71       | 350         | 286       | PK       |
| 5                                                                                                                                                                                                                                                            | 4904        | 42.65            | 10.10       | 52.75          | 74.00             | 21.25       | 300         | 1         | PK       |
| 6                                                                                                                                                                                                                                                            | 4904        | 34.18            | 10.10       | 44.28          | 54.00             | 9.72        | 281         | 152       | AV       |
| 7                                                                                                                                                                                                                                                            | 7356        | 20.23            | 10.31       | 30.54          | 54.00             | 23.46       | 340         | 35        | AV       |
| 8                                                                                                                                                                                                                                                            | 7356        | 28.63            | 10.31       | 38.94          | 74.00             | 35.06       | 175         | 197       | PK       |
| 9                                                                                                                                                                                                                                                            | 9808        | 26.81            | 13.20       | 40.01          | 74.00             | 33.99       | 260         | 286       | PK       |
| 10                                                                                                                                                                                                                                                           | 9808        | 18.73            | 13.20       | 31.93          | 54.00             | 22.07       | 332         | 237       | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m] |             |                  |             |                |                   |             |             |           |          |



| Channel                                                                                                                                                                                                                                                      |                | BT-LE CH0           |                | Frequency         |                   | 2402MHz        |                |              |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|----------------|-------------------|-------------------|----------------|----------------|--------------|----------|
| Frequency Range                                                                                                                                                                                                                                              |                | Above 1G            |                | Detector Function |                   | PK/AV          |                |              |          |
| Horizontal                                                                                                                                                                                                                                                   |                |                     |                |                   |                   |                |                |              |          |
| NO                                                                                                                                                                                                                                                           | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Detector |
| 1                                                                                                                                                                                                                                                            | 2390.0000      | 35.90               | -0.15          | 35.75             | 54.00             | 18.25          | 400            | 358          | AV       |
| 2                                                                                                                                                                                                                                                            | 2390.0000      | 43.58               | -0.15          | 43.43             | 74.00             | 30.57          | 268            | 292          | PK       |
| 3                                                                                                                                                                                                                                                            | 2401.7222      | 88.14               | -0.04          | 88.10             |                   |                | 118            | 122          | PK       |
| 4                                                                                                                                                                                                                                                            | 2401.7982      | 87.25               | -0.03          | 87.22             |                   |                | 137            | 96           | AV       |
| 5                                                                                                                                                                                                                                                            | 4804.0000      | 41.24               | 9.29           | 50.53             | 74.00             | 23.47          | 170            | 328          | PK       |
| 6                                                                                                                                                                                                                                                            | 4804.0000      | 34.09               | 9.29           | 43.38             | 54.00             | 10.62          | 359            | 220          | AV       |
| 7                                                                                                                                                                                                                                                            | 7206.0000      | 19.22               | 12.81          | 32.03             | 54.00             | 21.97          | 118            | 152          | AV       |
| 8                                                                                                                                                                                                                                                            | 7206.0000      | 26.40               | 12.81          | 39.21             | 74.00             | 34.79          | 178            | 119          | PK       |
| 9                                                                                                                                                                                                                                                            | 9608.0000      | 27.74               | 13.32          | 41.06             | 74.00             | 32.94          | 398            | 179          | PK       |
| 10                                                                                                                                                                                                                                                           | 9608.0000      | 18.92               | 13.32          | 32.24             | 54.00             | 21.76          | 364            | 325          | AV       |
| Vertical                                                                                                                                                                                                                                                     |                |                     |                |                   |                   |                |                |              |          |
| NO                                                                                                                                                                                                                                                           | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 2390.0000      | 43.63               | -0.15          | 43.48             | 74.00             | 30.52          | 399            | 315          | PK       |
| 2                                                                                                                                                                                                                                                            | 2390.0000      | 36.23               | -0.15          | 36.08             | 54.00             | 17.92          | 215            | 334          | AV       |
| 3                                                                                                                                                                                                                                                            | 2401.7412      | 94.65               | -0.04          | 94.61             |                   |                | 100            | 39           | PK       |
| 4                                                                                                                                                                                                                                                            | 2401.7602      | 94.02               | -0.04          | 93.98             |                   |                | 133            | 39           | AV       |
| 5                                                                                                                                                                                                                                                            | 4804.0000      | 42.89               | 9.29           | 52.18             | 74.00             | 21.82          | 150            | 345          | PK       |
| 6                                                                                                                                                                                                                                                            | 4804.0000      | 34.08               | 9.29           | 43.37             | 54.00             | 10.63          | 150            | 79           | AV       |
| 7                                                                                                                                                                                                                                                            | 7206.0000      | 19.50               | 12.81          | 32.31             | 54.00             | 21.69          | 150            | 359          | AV       |
| 8                                                                                                                                                                                                                                                            | 7206.0000      | 27.89               | 12.81          | 40.70             | 74.00             | 33.30          | 150            | 4            | PK       |
| 9                                                                                                                                                                                                                                                            | 9608.0000      | 27.46               | 13.32          | 40.78             | 74.00             | 33.22          | 150            | 20           | PK       |
| 10                                                                                                                                                                                                                                                           | 9608.0000      | 19.10               | 13.32          | 32.42             | 54.00             | 21.58          | 150            | 168          | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m] |                |                     |                |                   |                   |                |                |              |          |



|                                                                                                                                                                                                                                                              |                |                     |                |                   |                   |                |                |              |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|----------------|-------------------|-------------------|----------------|----------------|--------------|----------|
| Channel                                                                                                                                                                                                                                                      |                | BT-LE CH19          |                | Frequency         |                   | 2440MHz        |                |              |          |
| Frequency Range                                                                                                                                                                                                                                              |                | Above 1G            |                | Detector Function |                   | PK/AV          |                |              |          |
| Horizontal                                                                                                                                                                                                                                                   |                |                     |                |                   |                   |                |                |              |          |
| NO                                                                                                                                                                                                                                                           | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Detector |
| 1                                                                                                                                                                                                                                                            | 4880.0000      | 42.00               | 9.80           | 51.80             | 74.00             | 22.20          | 150            | 341          | PK       |
| 2                                                                                                                                                                                                                                                            | 4880.0000      | 33.91               | 9.80           | 43.71             | 54.00             | 10.29          | 150            | 181          | AV       |
| 3                                                                                                                                                                                                                                                            | 7320.0000      | 20.05               | 11.01          | 31.06             | 54.00             | 22.94          | 150            | 239          | AV       |
| 4                                                                                                                                                                                                                                                            | 7320.0000      | 27.58               | 11.01          | 38.59             | 74.00             | 35.41          | 150            | 152          | PK       |
| 5                                                                                                                                                                                                                                                            | 9760.0000      | 25.98               | 13.25          | 39.23             | 74.00             | 34.77          | 150            | 226          | PK       |
| 6                                                                                                                                                                                                                                                            | 9760.0000      | 18.99               | 13.25          | 32.24             | 54.00             | 21.76          | 150            | 332          | AV       |
| Vertical                                                                                                                                                                                                                                                     |                |                     |                |                   |                   |                |                |              |          |
| NO                                                                                                                                                                                                                                                           | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 4880.0000      | 42.19               | 9.80           | 51.99             | 74.00             | 22.01          | 201            | 359          | PK       |
| 2                                                                                                                                                                                                                                                            | 4880.0000      | 34.68               | 9.80           | 44.48             | 54.00             | 9.52           | 257            | 333          | AV       |
| 3                                                                                                                                                                                                                                                            | 7320.0000      | 20.20               | 11.01          | 31.21             | 54.00             | 22.79          | 142            | 348          | AV       |
| 4                                                                                                                                                                                                                                                            | 7320.0000      | 28.42               | 11.01          | 39.43             | 74.00             | 34.57          | 300            | 240          | PK       |
| 5                                                                                                                                                                                                                                                            | 9760.0000      | 26.44               | 13.25          | 39.69             | 74.00             | 34.31          | 306            | 20           | PK       |
| 6                                                                                                                                                                                                                                                            | 9760.0000      | 18.80               | 13.25          | 32.05             | 54.00             | 21.95          | 128            | 32           | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m] |                |                     |                |                   |                   |                |                |              |          |



|                                                                                                                                                                                                                                                              |                |                     |                |                   |                   |                |                |              |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|----------------|-------------------|-------------------|----------------|----------------|--------------|----------|
| Channel                                                                                                                                                                                                                                                      |                | BT-LE CH39          |                |                   | Frequency         |                | 2480MHz        |              |          |
| Frequency Range                                                                                                                                                                                                                                              |                | Above 1G            |                |                   | Detector Function |                | PK/AV          |              |          |
| Horizontal                                                                                                                                                                                                                                                   |                |                     |                |                   |                   |                |                |              |          |
| NO                                                                                                                                                                                                                                                           | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Detector |
| 1                                                                                                                                                                                                                                                            | 2479.9340      | 84.19               | 0.32           | 84.51             |                   |                | 218            | 332          | AV       |
| 2                                                                                                                                                                                                                                                            | 2480.2190      | 84.97               | 0.32           | 85.29             |                   |                | 102            | 25           | PK       |
| 3                                                                                                                                                                                                                                                            | 2483.5000      | 36.12               | 0.46           | 36.58             | 54.00             | 17.42          | 371            | 1            | AV       |
| 4                                                                                                                                                                                                                                                            | 2483.5000      | 44.61               | 0.46           | 45.07             | 74.00             | 28.93          | 149            | 1            | PK       |
| 5                                                                                                                                                                                                                                                            | 4960.0000      | 42.16               | 10.69          | 52.85             | 74.00             | 21.15          | 233            | 218          | PK       |
| 6                                                                                                                                                                                                                                                            | 4960.0000      | 33.93               | 10.69          | 44.62             | 54.00             | 9.38           | 214            | 69           | AV       |
| 7                                                                                                                                                                                                                                                            | 7440.0000      | 20.38               | 9.75           | 30.13             | 54.00             | 23.87          | 138            | 167          | AV       |
| 8                                                                                                                                                                                                                                                            | 7440.0000      | 27.75               | 9.75           | 37.50             | 74.00             | 36.50          | 175            | 142          | PK       |
| 9                                                                                                                                                                                                                                                            | 9920.0000      | 26.48               | 13.83          | 40.31             | 74.00             | 33.69          | 345            | 156          | PK       |
| 10                                                                                                                                                                                                                                                           | 9920.0000      | 18.48               | 13.83          | 32.31             | 54.00             | 21.69          | 254            | 107          | AV       |
| Vertical                                                                                                                                                                                                                                                     |                |                     |                |                   |                   |                |                |              |          |
| NO                                                                                                                                                                                                                                                           | Freq.<br>[MHz] | Reading<br>[dBμV/m] | Factor<br>[dB] | Level<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Remark   |
| 1                                                                                                                                                                                                                                                            | 2479.8200      | 96.21               | 0.32           | 96.53             |                   |                | 261            | 47           | AV       |
| 2                                                                                                                                                                                                                                                            | 2480.2380      | 96.91               | 0.32           | 97.23             |                   |                | 129            | 47           | PK       |
| 3                                                                                                                                                                                                                                                            | 2483.5000      | 44.88               | 0.46           | 45.34             | 74.00             | 28.66          | 274            | 321          | PK       |
| 4                                                                                                                                                                                                                                                            | 2483.5000      | 35.93               | 0.46           | 36.39             | 54.00             | 17.61          | 316            | 359          | AV       |
| 5                                                                                                                                                                                                                                                            | 4960.0000      | 41.89               | 10.69          | 52.58             | 74.00             | 21.42          | 266            | 277          | PK       |
| 6                                                                                                                                                                                                                                                            | 4960.0000      | 34.65               | 10.69          | 45.34             | 54.00             | 8.66           | 286            | 147          | AV       |
| 7                                                                                                                                                                                                                                                            | 7440.0000      | 20.39               | 9.75           | 30.14             | 54.00             | 23.86          | 400            | 13           | AV       |
| 8                                                                                                                                                                                                                                                            | 7440.0000      | 28.40               | 9.75           | 38.15             | 74.00             | 35.85          | 113            | 178          | PK       |
| 9                                                                                                                                                                                                                                                            | 9920.0000      | 27.47               | 13.83          | 41.30             | 74.00             | 32.70          | 205            | 283          | PK       |
| 10                                                                                                                                                                                                                                                           | 9920.0000      | 19.08               | 13.83          | 32.91             | 54.00             | 21.09          | 100            | 318          | AV       |
| Remark: 1. The emission levels of other frequencies were greater than 20dB margin.<br>2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).<br>3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).<br>4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m] |                |                     |                |                   |                   |                |                |              |          |

## 3.3 6dB BANDWIDTH MEASUREMENT

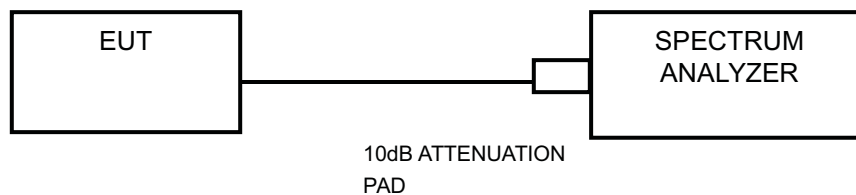
### 3.3.1 Limits

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

### 3.3.2 Measurement procedure

- Set resolution bandwidth (RBW) = 100KHz
- Set the video bandwidth (VBW)  $\geq 3 \times$  RBW, Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

### 3.3.3 Test setup



### 3.3.4 Test result

Please refer Annex A

## 3.4 CONDUCTED OUTPUT POWER

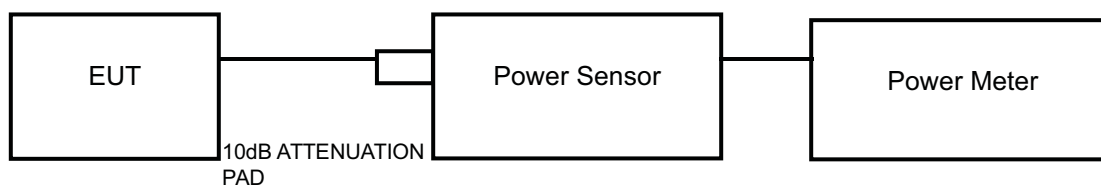
### 3.4.1 Limits

Forsystems using digital modulation in the 2400–2483.5 MHz band: 1 Watt (30dBm).

### 3.4.2 Measurement procedure

- A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor and set the detector to PEAK. Record the power level.
- An average power sensor was used on the output port of the EUT. A power meter was used to read the response of the average power sensor and set the detector to AVERAGE. Record the power level.

### 3.4.3 Test setup



### 3.4.4 Test result

Please refer Annex A.

## 3.5 POWER SPECTRAL DENSITY MEASUREMENT

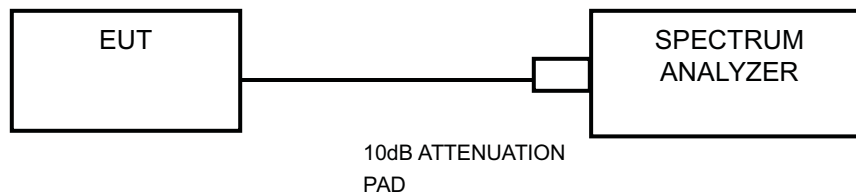
### 3.5.1 Limits

The Maximum of Power Spectral Density Measurement is 8dBm/3KHz.

### 3.5.2 Measurement procedure

- Set instrument center frequency to DTS channel center frequency.
- Set the span to 1.5 times the DTS bandwidth.
- Set RBW to: 3KHz
- Set VBW  $\geq 3 \times$  RBW.
- Detector = peak
- Ensure that the number of measurement points in the sweep  $\geq 2 \times$  span/RBW.
- Sweep time = auto couple.
- Use the peak marker function to determine the maximum amplitude level.

### 3.5.3 Test setup



### 3.5.4 Test result

Please refer Annex A.



### 3.6 OUT OF BAND EMISSION MEASUREMENT

#### 3.6.1 Limits

Below -20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

#### 3.6.2 Measurement procedure

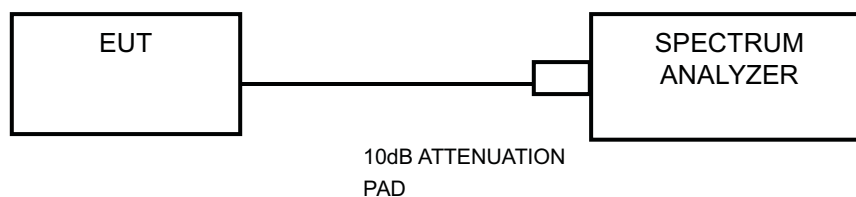
##### Measurement Procedure -Reference Level

- Set the RBW = 100 kHz.
- Set the VBW  $\geq$  300 kHz.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum power level in any 100 kHzband segment within the fundamental EBW.

##### Measurement Procedure –Unwanted Emission Level

- Set RBW = 100 kHz.
- Set VBW  $\geq$  300 kHz.
- Set span to encompass the spectrum to be examined
- Detector = peak.
- Trace Mode = max hold.
- Sweep = auto couple.

#### 3.6.3 Test setup



#### 3.6.4 Test result

Please refer Annex A.

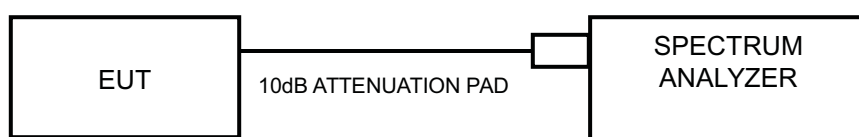
### 3.7 OCCUPIED BANDWIDTH MEASUREMENT

#### 3.7.1 Measurement procedure

The transmitter antenna output was connected to the spectrum analyzer through an attenuator. The resolution bandwidth shall be set to the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth.

below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

#### 3.7.2 TEST SETUP



#### 3.7.3 Test result

Please refer Annex A.



## 4 PHOTOGRAPHS OF TEST SETUP

Please refer to the attached file (Test Setup Photo).

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## 5 PHOTOGRAPHS OF THE EUT

Please refer to the attached file (External Photos report and Internal Photos).



## 6 Appendix A

Please refer to the following pages for test results.

### 6.1 6DB BANDWIDTH MEASUREMENT

#### 6.1.1 Test Result

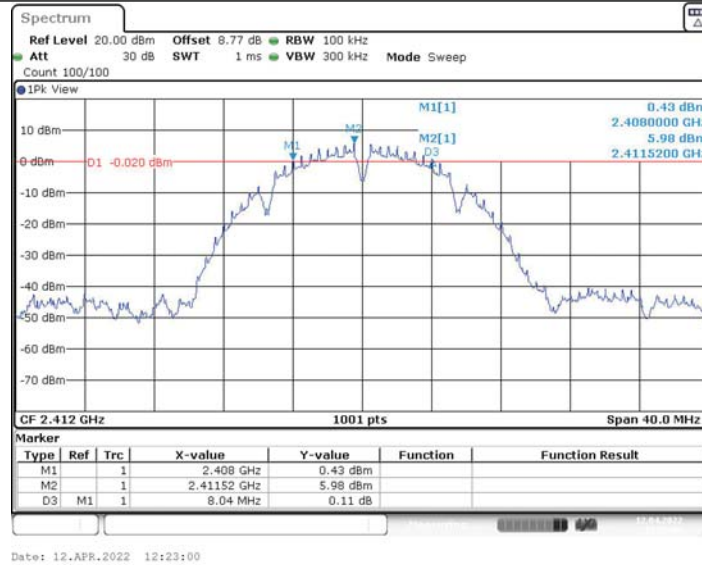
| TestMode   | Antenna | Frequency[MHz] | DTS BW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|------------|---------|----------------|--------------|---------|---------|------------|---------|
| 11B        | Ant1    | 2412           | 8.04         | 2408.00 | 2416.04 | 0.5        | PASS    |
|            | Ant2    | 2412           | 7.56         | 2408.00 | 2415.56 | 0.5        | PASS    |
|            | Ant1    | 2437           | 8.04         | 2433.00 | 2441.04 | 0.5        | PASS    |
|            | Ant2    | 2437           | 8.04         | 2433.00 | 2441.04 | 0.5        | PASS    |
|            | Ant1    | 2462           | 8.04         | 2458.00 | 2466.04 | 0.5        | PASS    |
|            | Ant2    | 2462           | 7.56         | 2458.48 | 2466.04 | 0.5        | PASS    |
| 11G        | Ant1    | 2412           | 15.12        | 2404.44 | 2419.56 | 0.5        | PASS    |
|            | Ant2    | 2412           | 15.32        | 2404.24 | 2419.56 | 0.5        | PASS    |
|            | Ant1    | 2437           | 15.44        | 2429.12 | 2444.56 | 0.5        | PASS    |
|            | Ant2    | 2437           | 16.32        | 2428.84 | 2445.16 | 0.5        | PASS    |
|            | Ant1    | 2462           | 15.80        | 2454.12 | 2469.92 | 0.5        | PASS    |
|            | Ant2    | 2462           | 15.72        | 2454.44 | 2470.16 | 0.5        | PASS    |
| 11N20MIMO  | Ant1    | 2412           | 15.04        | 2404.52 | 2419.56 | 0.5        | PASS    |
|            | Ant2    | 2412           | 15.68        | 2403.88 | 2419.56 | 0.5        | PASS    |
|            | Ant1    | 2437           | 17.28        | 2428.24 | 2445.52 | 0.5        | PASS    |
|            | Ant2    | 2437           | 17.60        | 2428.20 | 2445.80 | 0.5        | PASS    |
|            | Ant1    | 2462           | 16.04        | 2454.48 | 2470.52 | 0.5        | PASS    |
|            | Ant2    | 2462           | 16.96        | 2453.84 | 2470.80 | 0.5        | PASS    |
| 11N40MIMO  | Ant1    | 2422           | 35.12        | 2404.48 | 2439.60 | 0.5        | PASS    |
|            | Ant2    | 2422           | 35.12        | 2404.48 | 2439.60 | 0.5        | PASS    |
|            | Ant1    | 2437           | 35.12        | 2419.48 | 2454.60 | 0.5        | PASS    |
|            | Ant2    | 2437           | 35.68        | 2419.48 | 2455.16 | 0.5        | PASS    |
|            | Ant1    | 2452           | 35.12        | 2434.48 | 2469.60 | 0.5        | PASS    |
|            | Ant2    | 2452           | 33.20        | 2436.96 | 2470.16 | 0.5        | PASS    |
| 11AX40MIMO | Ant1    | 2422           | 37.36        | 2403.44 | 2440.80 | 0.5        | PASS    |
|            | Ant2    | 2422           | 37.36        | 2403.20 | 2440.56 | 0.5        | PASS    |
|            | Ant1    | 2437           | 37.28        | 2418.20 | 2455.48 | 0.5        | PASS    |
|            | Ant2    | 2437           | 37.52        | 2418.52 | 2456.04 | 0.5        | PASS    |
|            | Ant1    | 2452           | 37.84        | 2433.04 | 2470.88 | 0.5        | PASS    |
|            | Ant2    | 2452           | 36.56        | 2434.48 | 2471.04 | 0.5        | PASS    |

| TestMode | Antenna | Frequency[MHz] | DTS BW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|----------|---------|----------------|--------------|---------|---------|------------|---------|
| BLE_1M   | Ant1    | 2402           | 0.70         | 2401.65 | 2402.34 | 0.5        | PASS    |
|          |         | 2440           | 0.70         | 2439.65 | 2440.34 | 0.5        | PASS    |
|          |         | 2480           | 0.69         | 2479.65 | 2480.34 | 0.5        | PASS    |

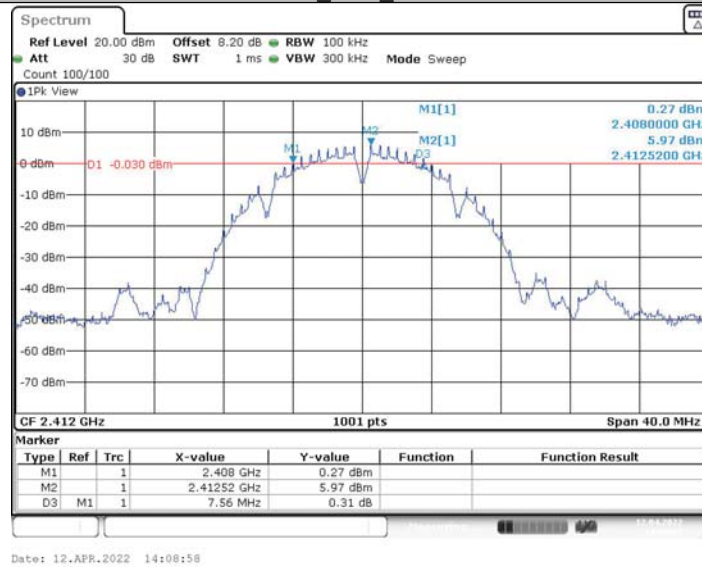


## 6.1.2 Test Graphs

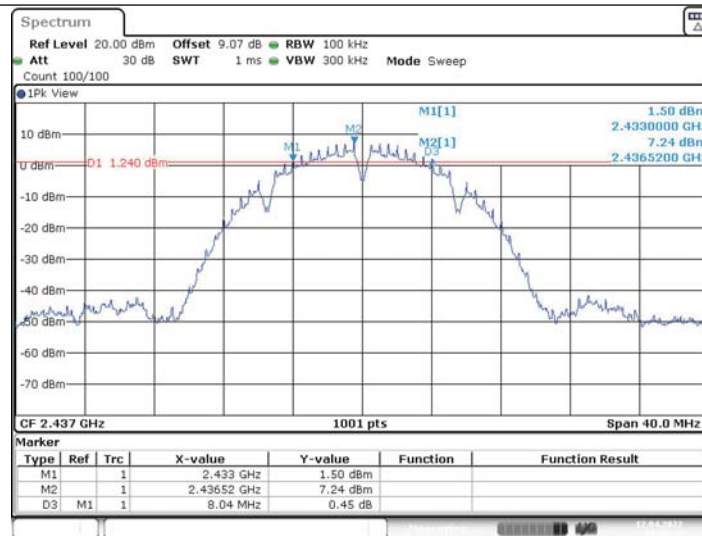
11B\_Ant1\_2412



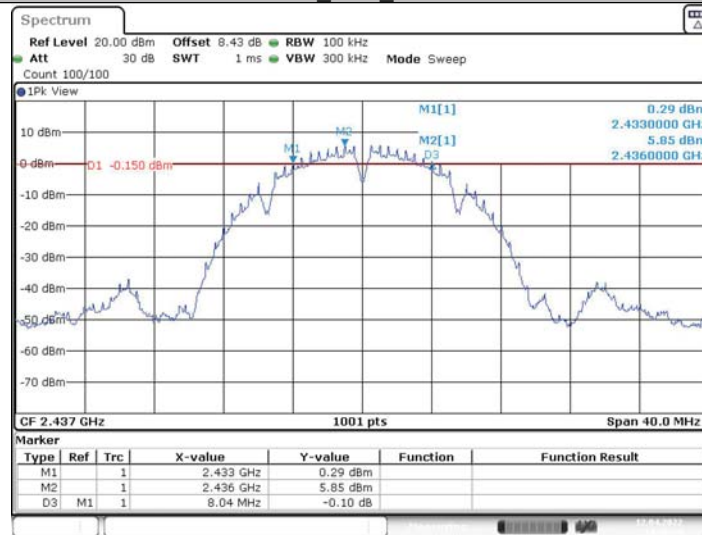
11B\_Ant2\_2412



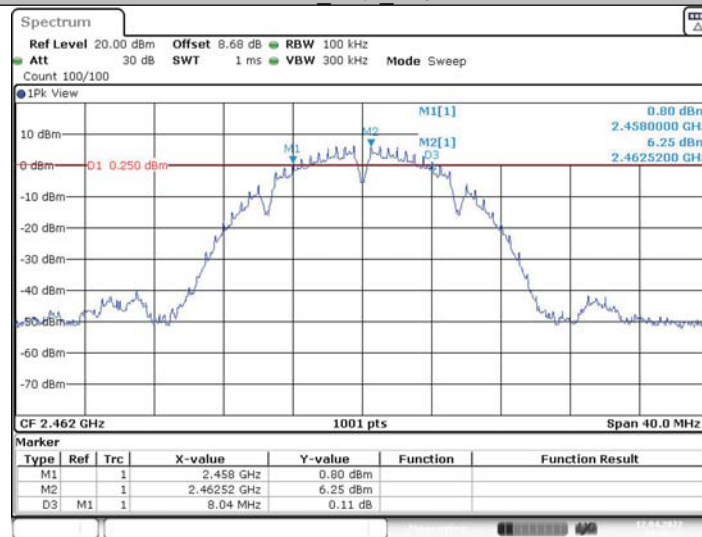
11B\_Ant1\_2437



11B Ant2 2437

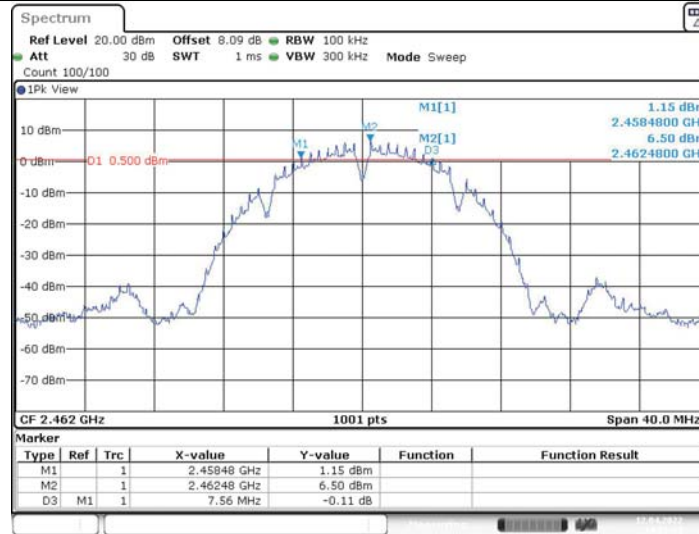


11B Ant1 2462

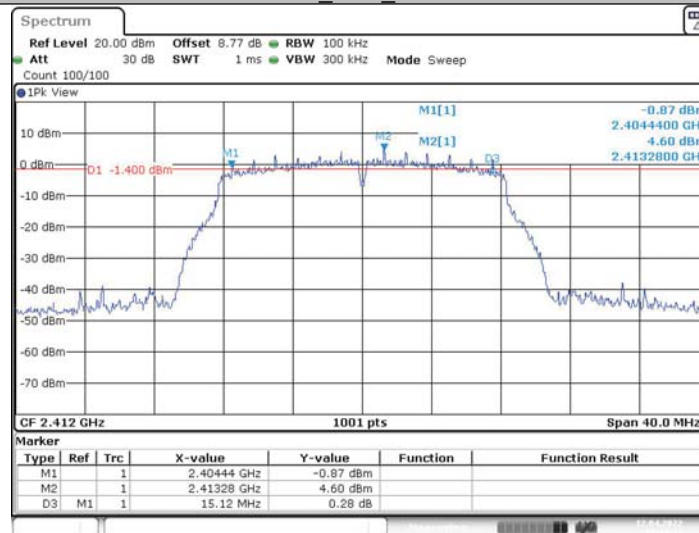




## 11B\_Ant2\_2462

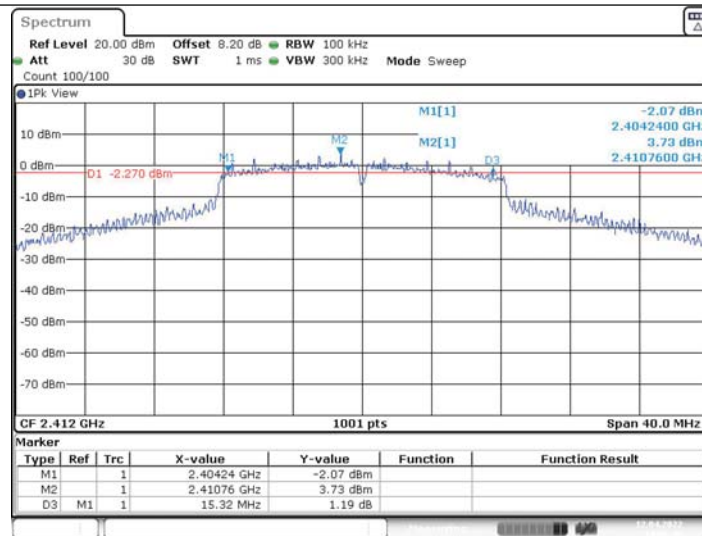


## 11G\_Ant1\_2412

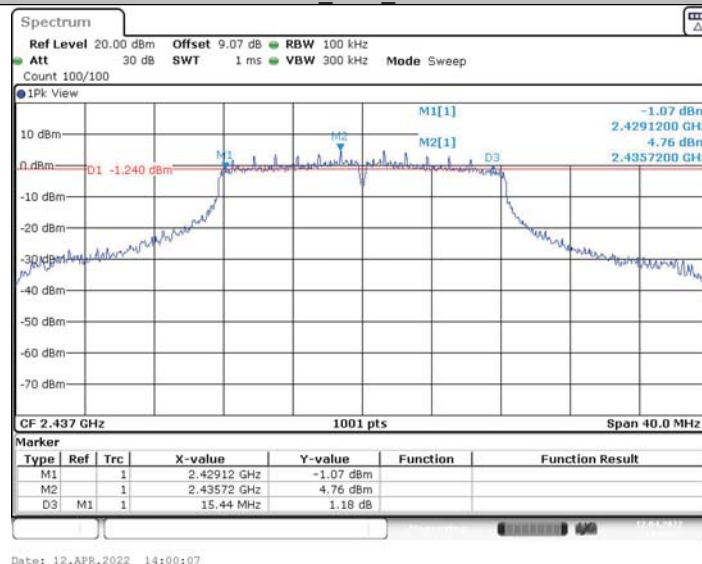


## 11G\_Ant2\_2412

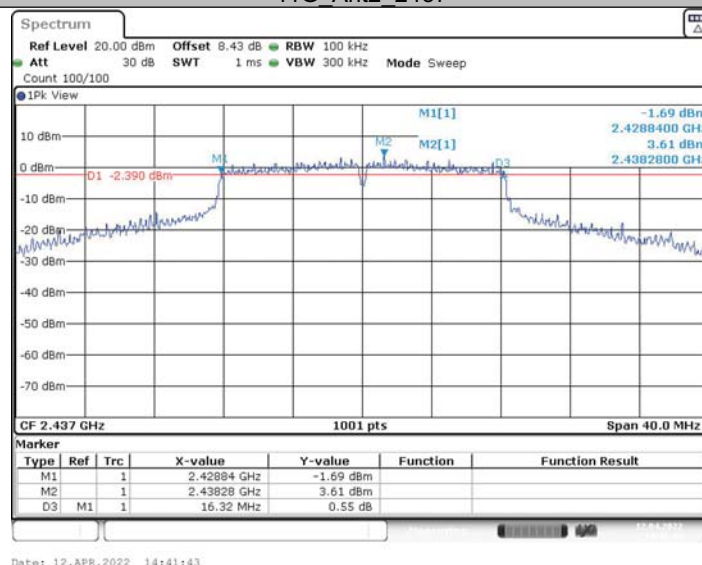




11G\_Ant1\_2437

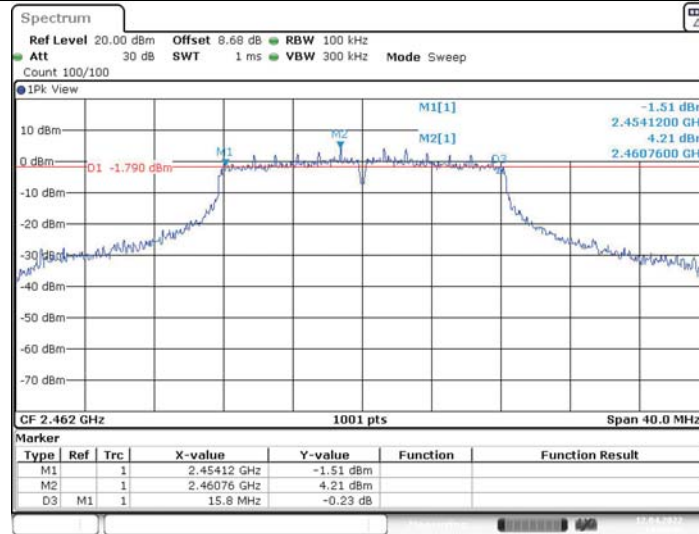


11G\_Ant2\_2437

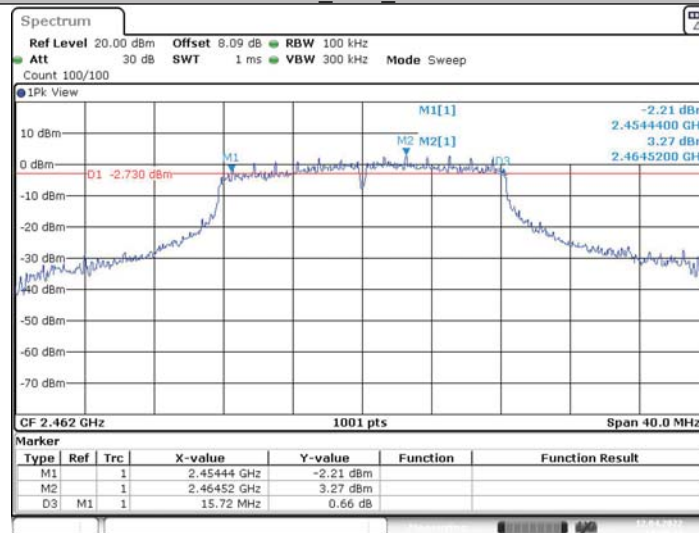




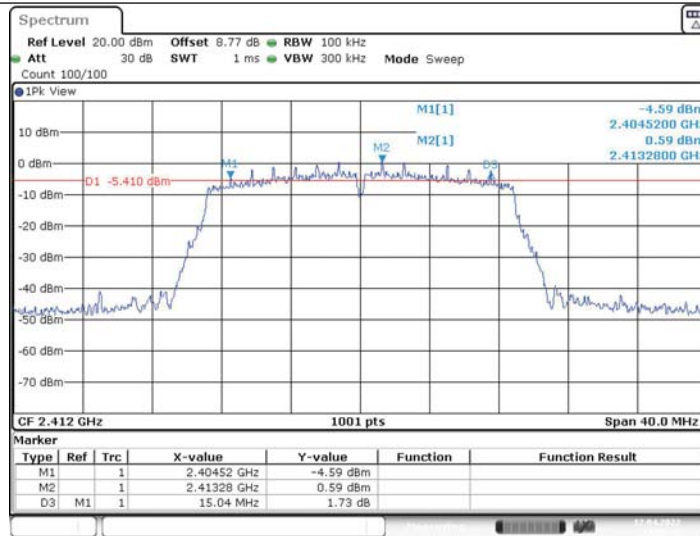
## 11G\_Ant1\_2462



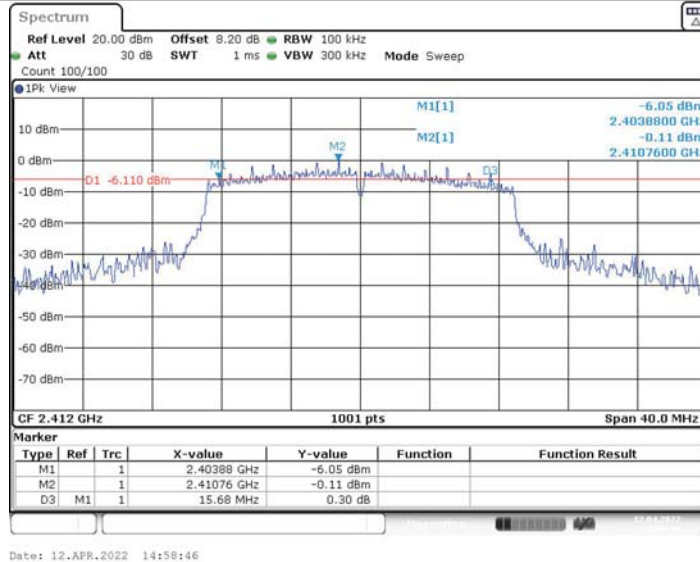
## 11G\_Ant2\_2462



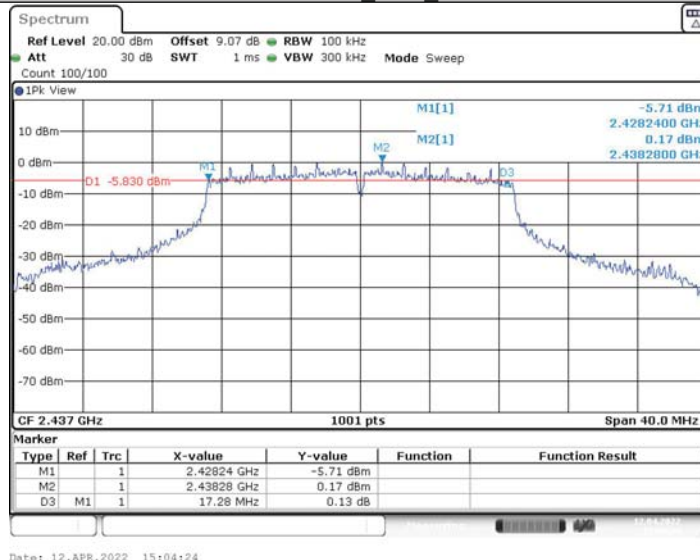
## 11N20MIMO\_Ant1\_2412



11N20MIMO\_Ant2\_2412

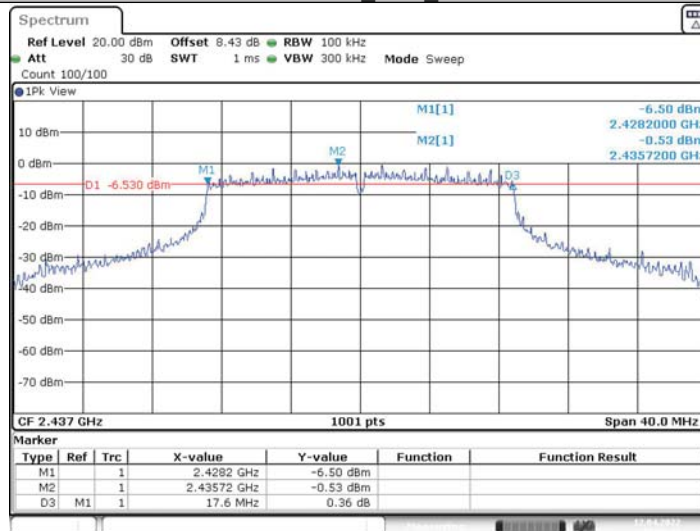


11N20MIMO\_Ant1\_2437



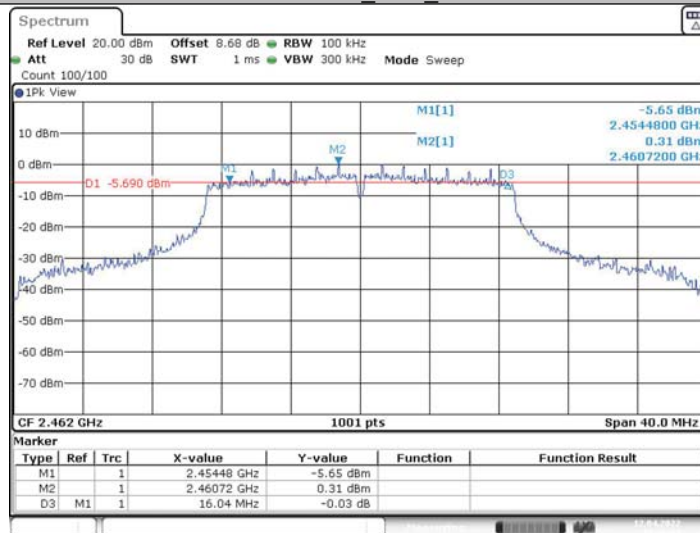


## 11N20MIMO\_Ant2\_2437



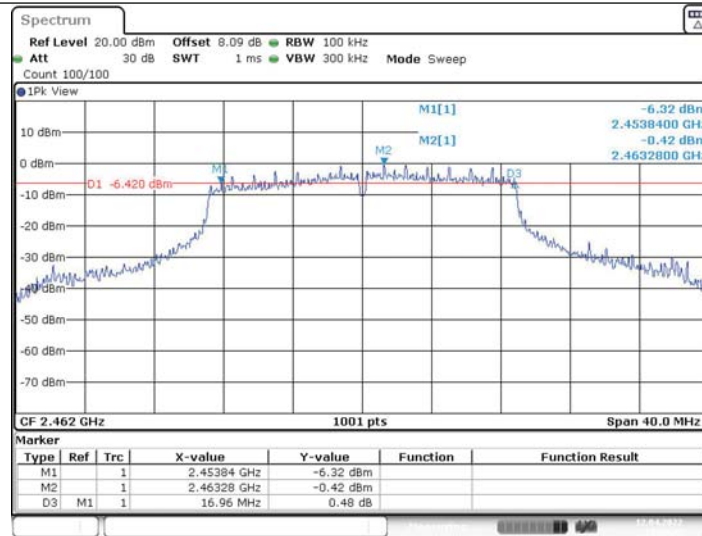
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## 11N20MIMO\_Ant1\_2462

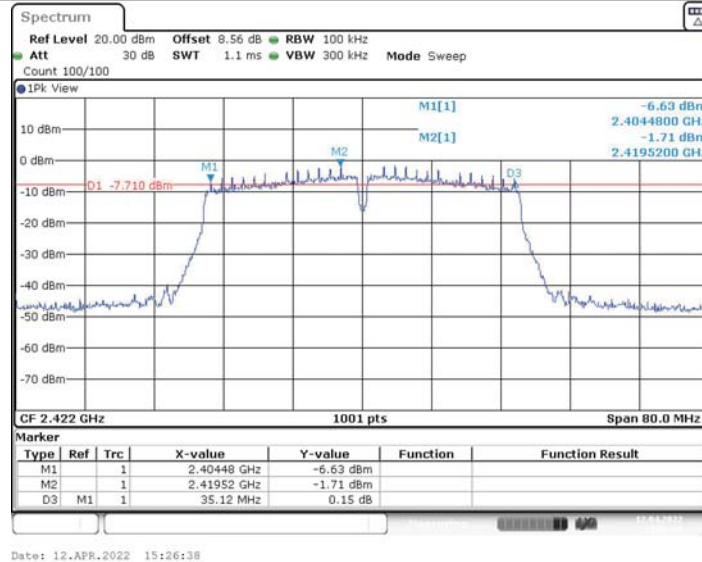


Date: 12.APR.2022 15:16:51

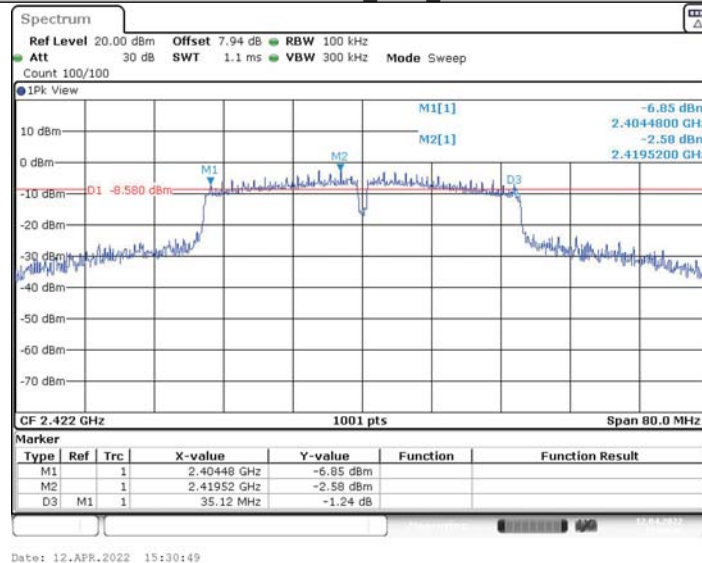
## 11N20MIMO\_Ant2\_2462



11N40MIMO\_Ant1\_2422

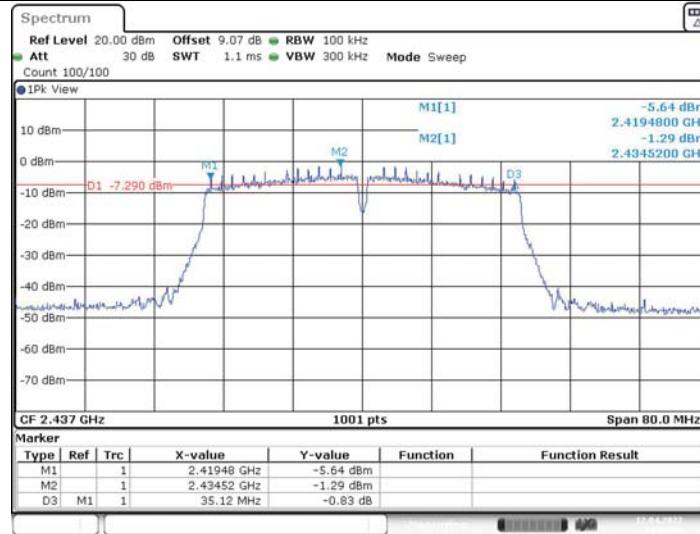


11N40MIMO\_Ant2\_2422



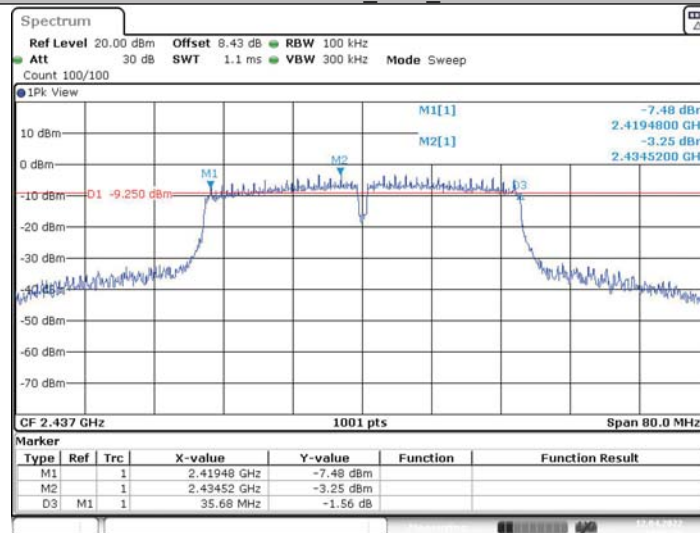


## 11N40MIMO\_Ant1\_2437



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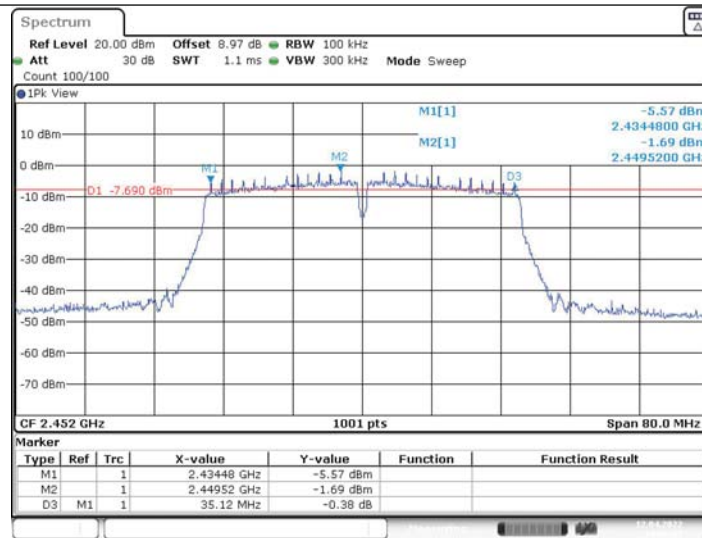
## 11N40MIMO\_Ant2\_2437



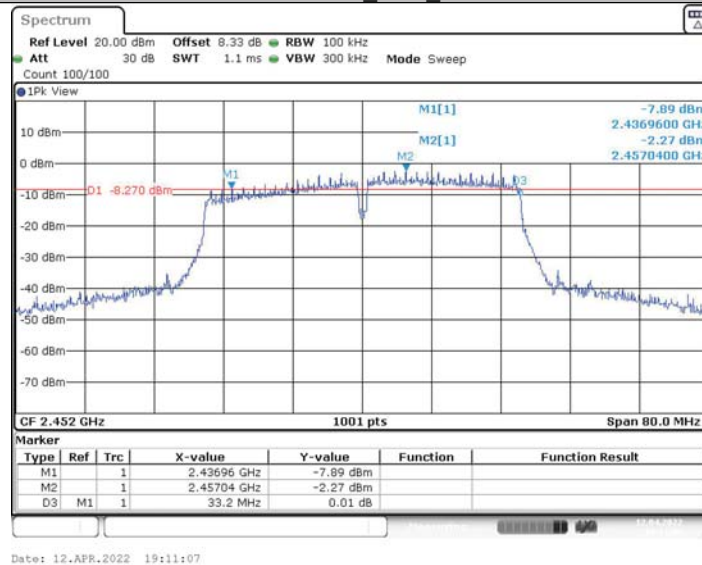
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## 11N40MIMO\_Ant1\_2452

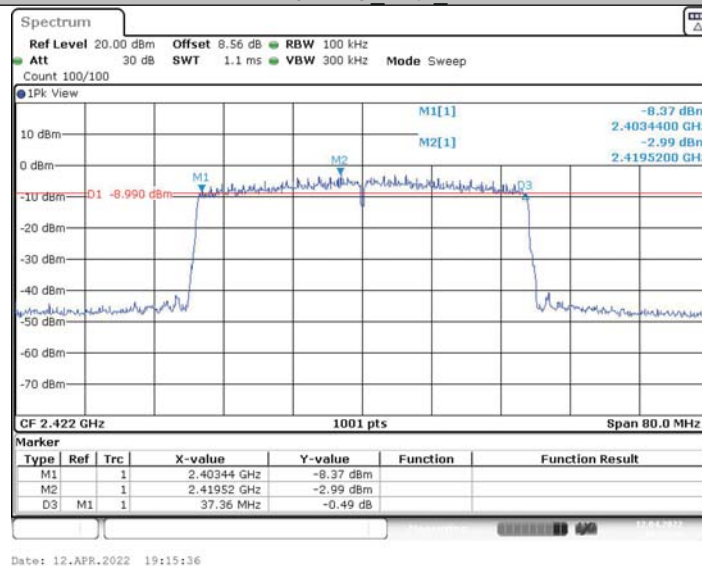




11N40MIMO\_Ant2\_2452

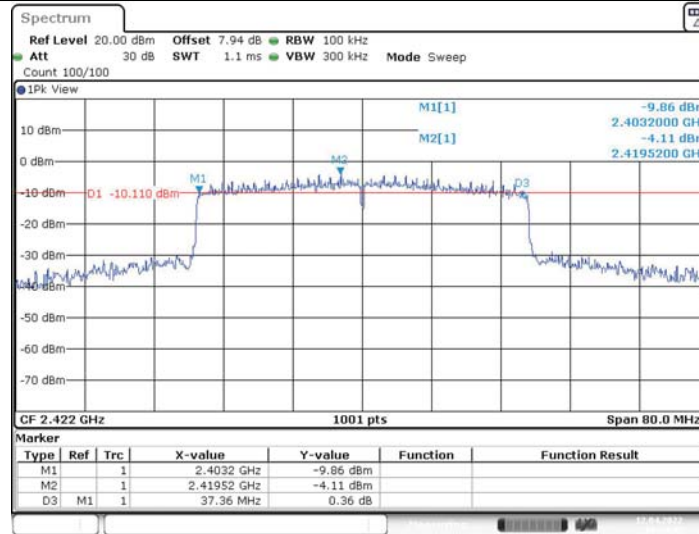


11AX40MIMO\_Ant1\_2422



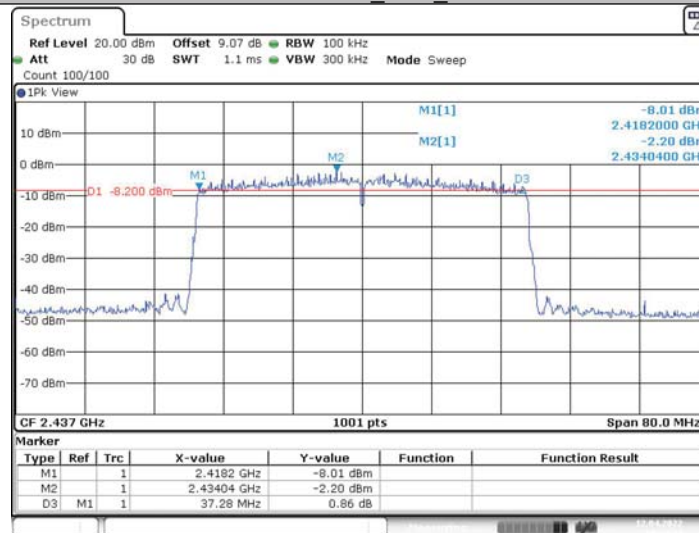


## 11AX40MIMO\_Ant2\_2422



Date: 12.APR.2022 19:19:48

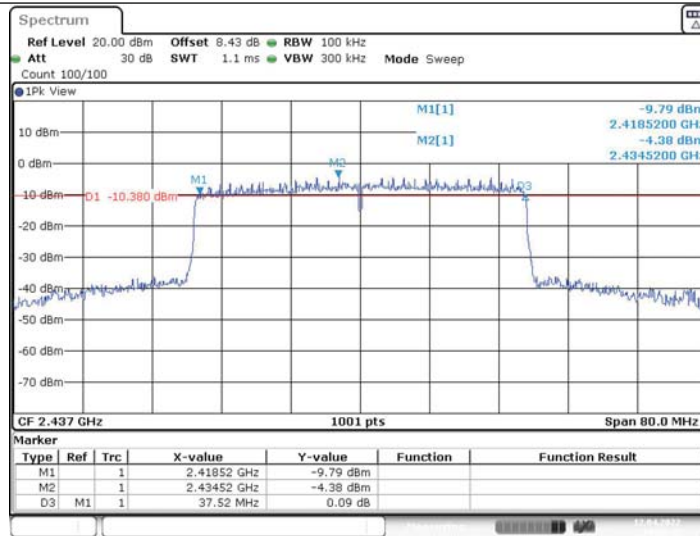
## 11AX40MIMO\_Ant1\_2437



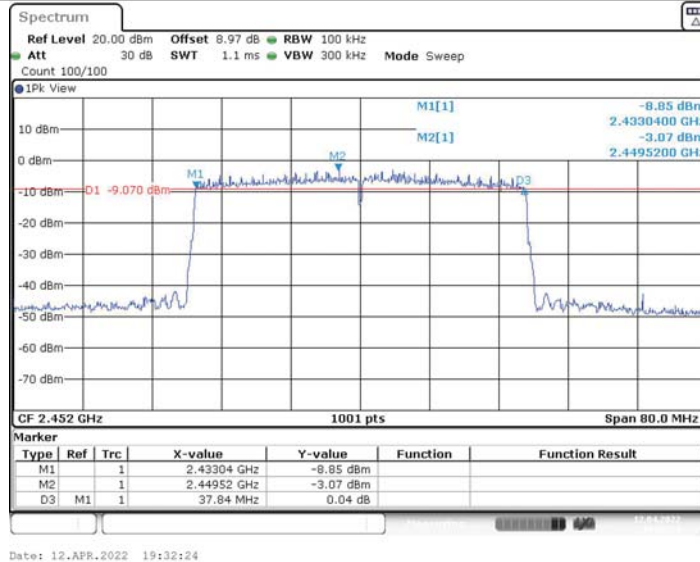
Date: 12.APR.2022 19:24:23

## 11AX40MIMO\_Ant2\_2437

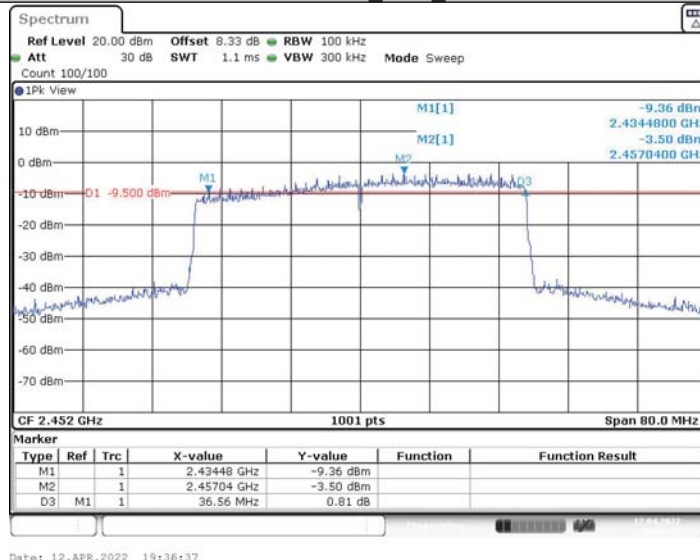




11AX40MIMO\_Ant1\_2452

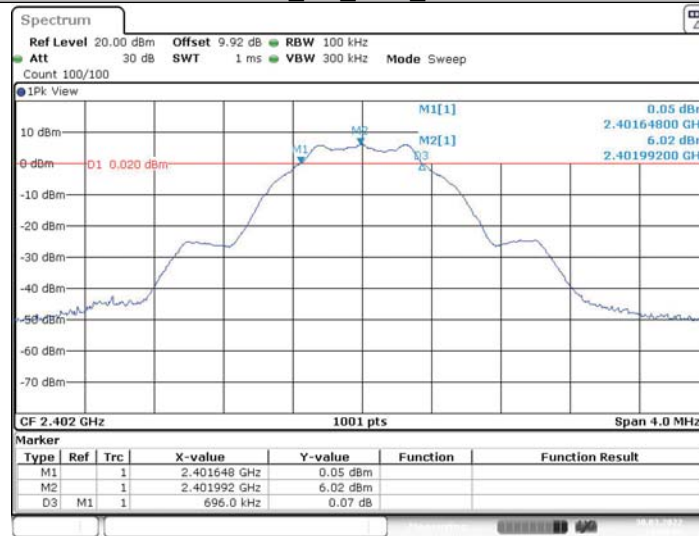


11AX40MIMO\_Ant2\_2452

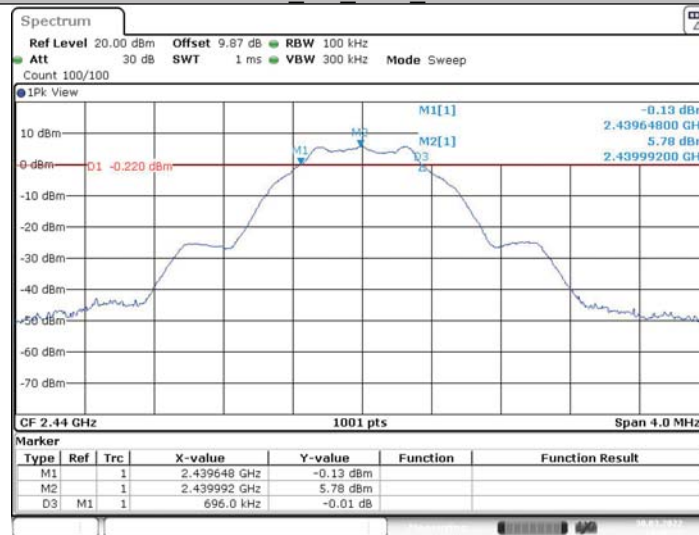




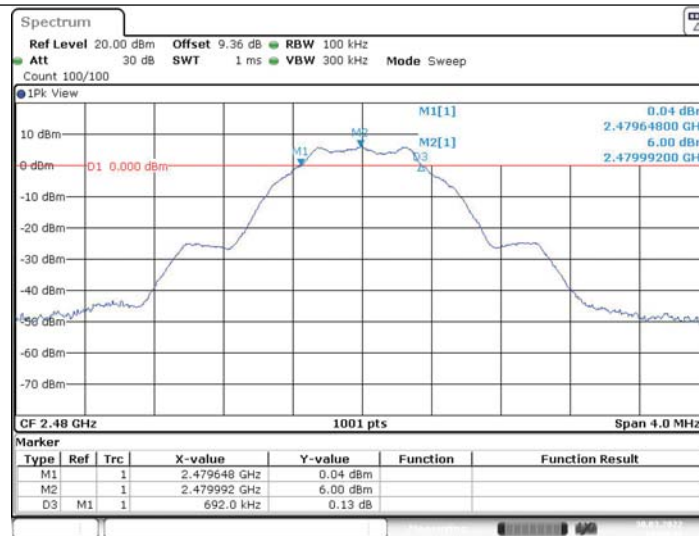
## BLE\_1M\_Ant1\_2402



## BLE\_1M\_Ant1\_2440



## BLE\_1M\_Ant1\_2480



Date: 30.MAR.2022 10:50:41



## 6.2 Occupied Channel Bandwidth

### 6.2.1 Test Result

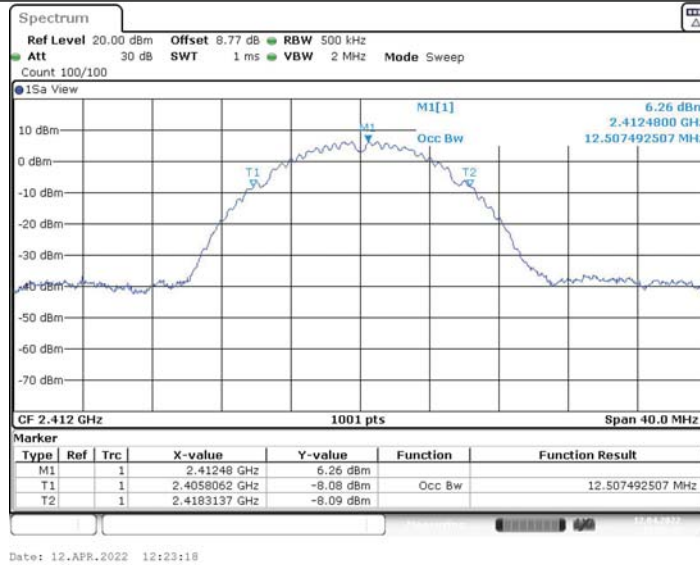
| TestMode   | Antenna | Channel Frequency[MHz] | OCB [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|------------|---------|------------------------|-----------|----------|----------|------------|---------|
| 11B        | Ant1    | 2412                   | 12.507    | 2405.806 | 2418.314 | ---        | ---     |
|            | Ant2    | 2412                   | 12.228    | 2405.806 | 2418.034 | ---        | ---     |
|            | Ant1    | 2437                   | 12.587    | 2430.646 | 2443.234 | ---        | ---     |
|            | Ant2    | 2437                   | 12.388    | 2430.846 | 2443.234 | ---        | ---     |
|            | Ant1    | 2462                   | 12.627    | 2455.726 | 2468.354 | ---        | ---     |
|            | Ant2    | 2462                   | 12.308    | 2456.046 | 2468.354 | ---        | ---     |
| 11G        | Ant1    | 2412                   | 17.143    | 2403.449 | 2420.591 | ---        | ---     |
|            | Ant2    | 2412                   | 28.611    | 2397.894 | 2426.505 | ---        | ---     |
|            | Ant1    | 2437                   | 18.781    | 2427.370 | 2446.151 | ---        | ---     |
|            | Ant2    | 2437                   | 23.417    | 2424.972 | 2448.389 | ---        | ---     |
|            | Ant1    | 2462                   | 19.061    | 2452.490 | 2471.550 | ---        | ---     |
|            | Ant2    | 2462                   | 18.941    | 2453.089 | 2472.030 | ---        | ---     |
| 11N20MIMO  | Ant1    | 2412                   | 17.942    | 2403.049 | 2420.991 | ---        | ---     |
|            | Ant2    | 2412                   | 17.982    | 2402.969 | 2420.951 | ---        | ---     |
|            | Ant1    | 2437                   | 19.66     | 2426.970 | 2446.630 | ---        | ---     |
|            | Ant2    | 2437                   | 18.941    | 2427.569 | 2446.510 | ---        | ---     |
|            | Ant1    | 2462                   | 19.9      | 2452.090 | 2471.990 | ---        | ---     |
|            | Ant2    | 2462                   | 18.741    | 2453.009 | 2471.750 | ---        | ---     |
| 11N40MIMO  | Ant1    | 2422                   | 36.204    | 2403.938 | 2440.142 | ---        | ---     |
|            | Ant2    | 2422                   | 42.597    | 2400.821 | 2443.419 | ---        | ---     |
|            | Ant1    | 2437                   | 36.284    | 2418.858 | 2455.142 | ---        | ---     |
|            | Ant2    | 2437                   | 36.683    | 2418.778 | 2455.462 | ---        | ---     |
|            | Ant1    | 2452                   | 36.523    | 2433.698 | 2470.222 | ---        | ---     |
|            | Ant2    | 2452                   | 36.204    | 2434.258 | 2470.462 | ---        | ---     |
| 11AX40MIMO | Ant1    | 2422                   | 37.722    | 2403.139 | 2440.861 | ---        | ---     |
|            | Ant2    | 2422                   | 38.601    | 2402.819 | 2441.421 | ---        | ---     |
|            | Ant1    | 2437                   | 37.802    | 2418.059 | 2455.861 | ---        | ---     |
|            | Ant2    | 2437                   | 37.882    | 2418.139 | 2456.021 | ---        | ---     |
|            | Ant1    | 2452                   | 37.802    | 2433.059 | 2470.861 | ---        | ---     |
|            | Ant2    | 2452                   | 37.722    | 2433.379 | 2471.101 | ---        | ---     |

| TestMode | Antenna | Frequency[MHz] | OCB [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|----------------|-----------|----------|----------|------------|---------|
| BLE_1M   | Ant1    | 2402           | 1.039     | 2401.489 | 2402.527 | ---        | ---     |
|          |         | 2440           | 1.035     | 2439.489 | 2440.523 | ---        | ---     |
|          |         | 2480           | 1.035     | 2479.489 | 2480.523 | ---        | ---     |

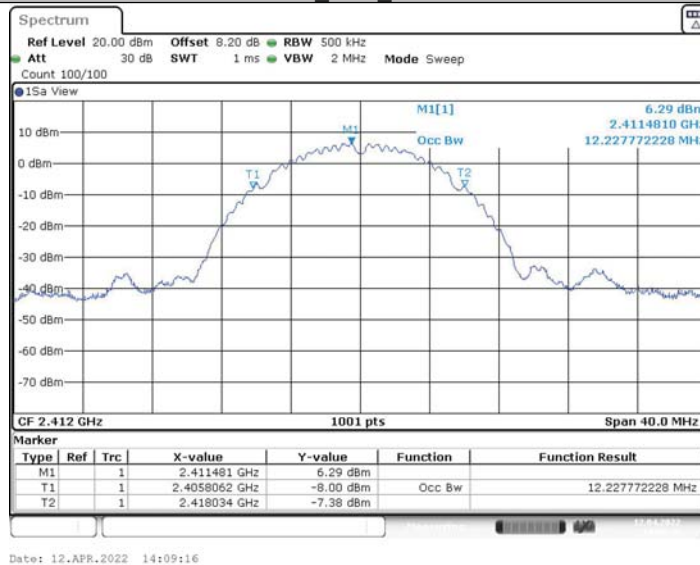


## 6.2.2 Test Graphs

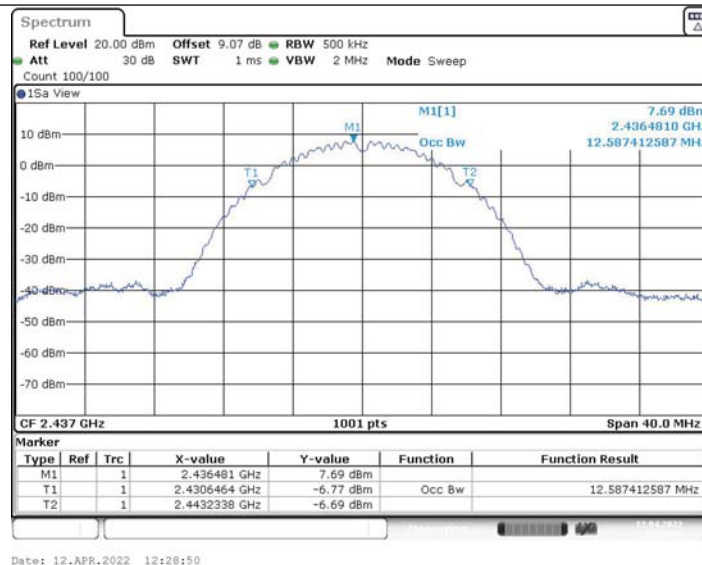
11B\_Ant1\_2412



11B\_Ant2\_2412



11B\_Ant1\_2437



11B\_Ant2\_2437



11B\_Ant1\_2462

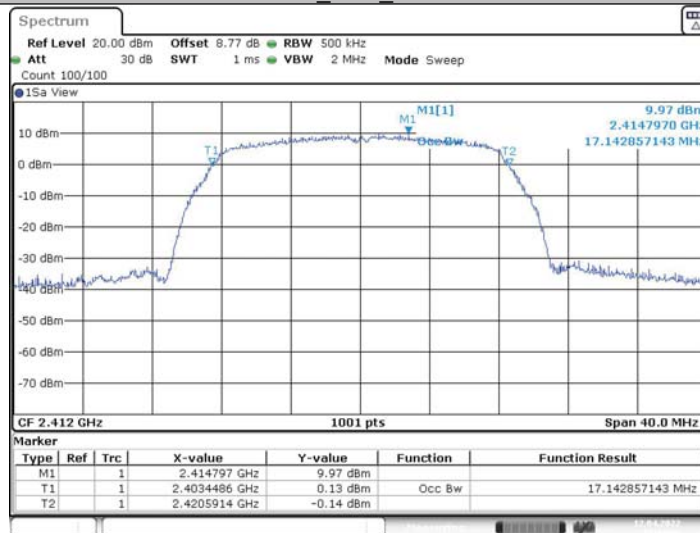




## 11B\_Ant2\_2462

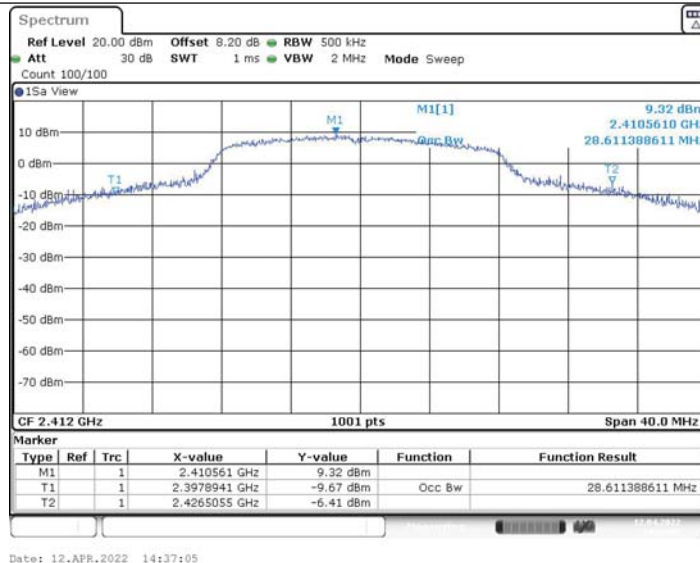


## 11G\_Ant1\_2412

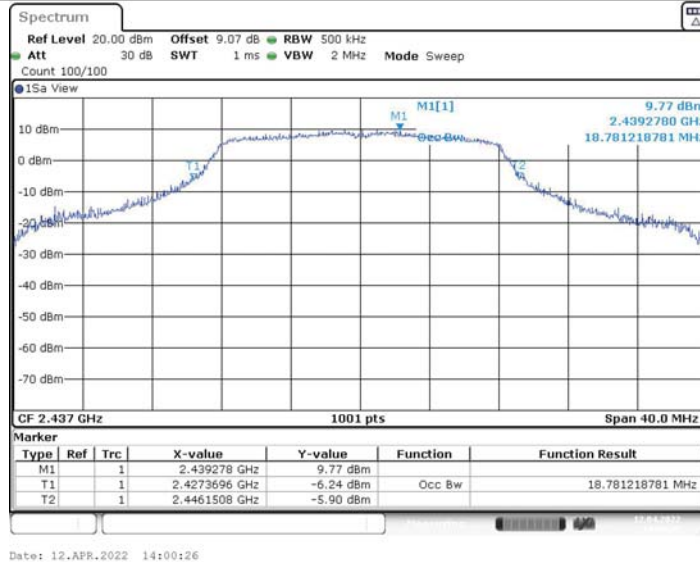


## 11G\_Ant2\_2412

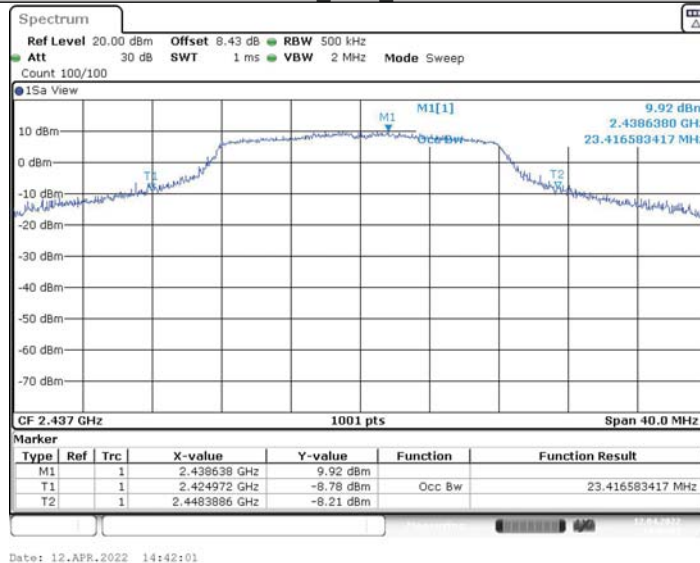




11G\_Ant1\_2437



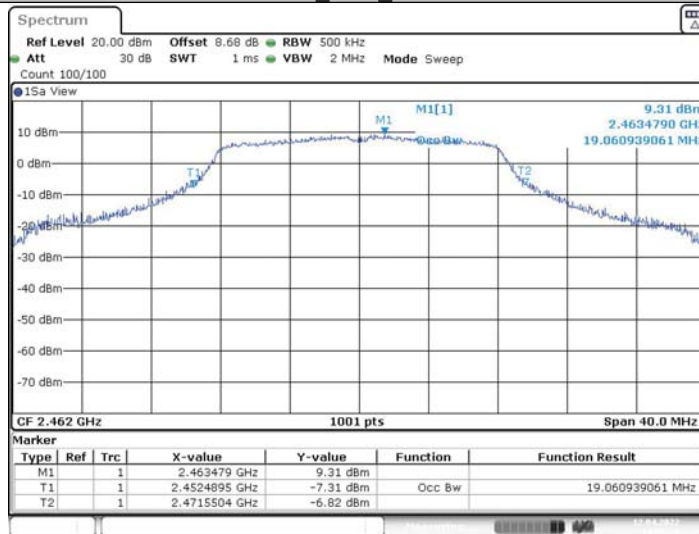
11G\_Ant2\_2437



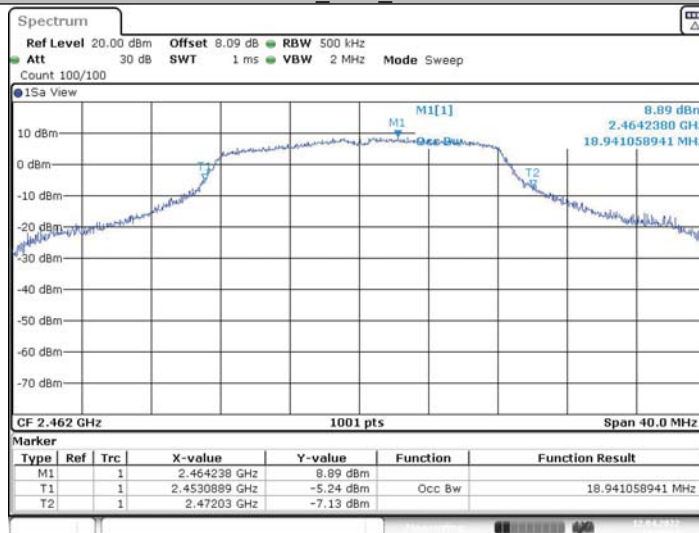




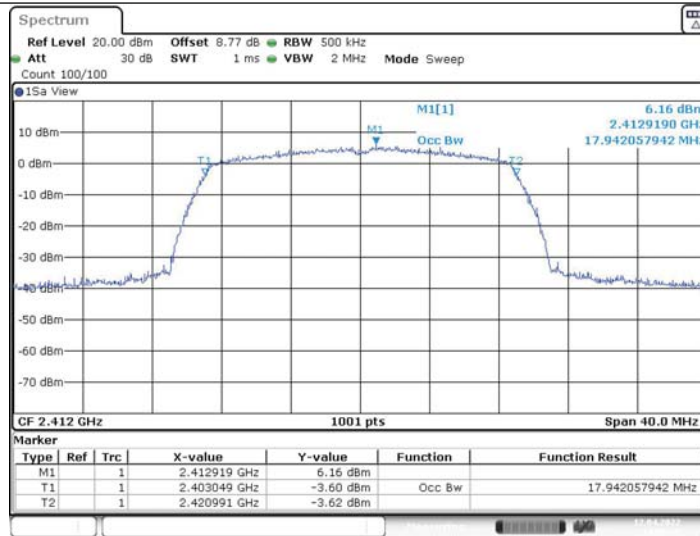
## 11G\_Ant1\_2462



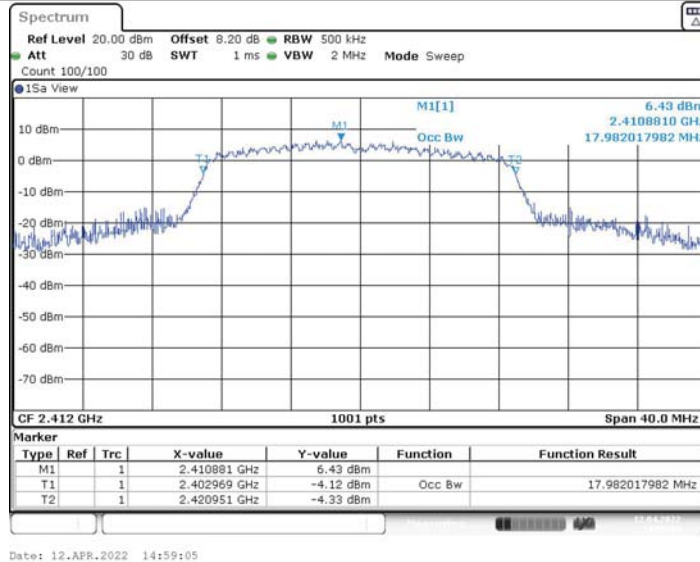
## 11G\_Ant2\_2462



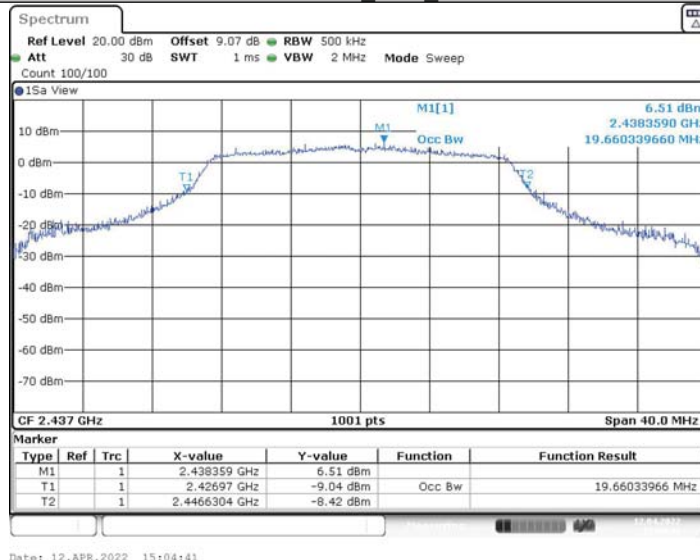
## 11N20MIMO\_Ant1\_2412



11N20MIMO\_Ant2\_2412

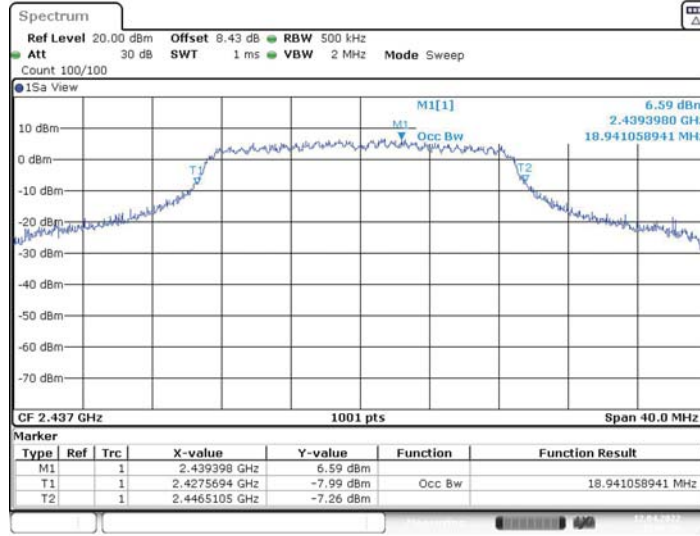


11N20MIMO\_Ant1\_2437



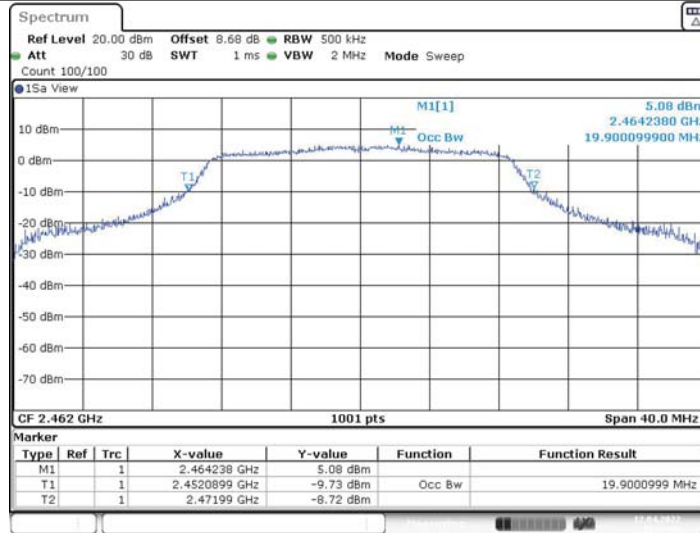


## 11N20MIMO\_Ant2\_2437



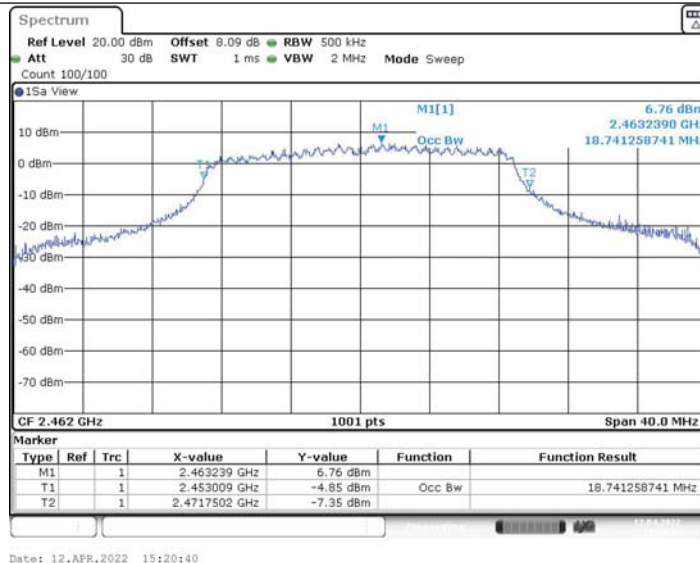
Date: 12.APR.2022 15:07:59

## 11N20MIMO\_Ant1\_2462

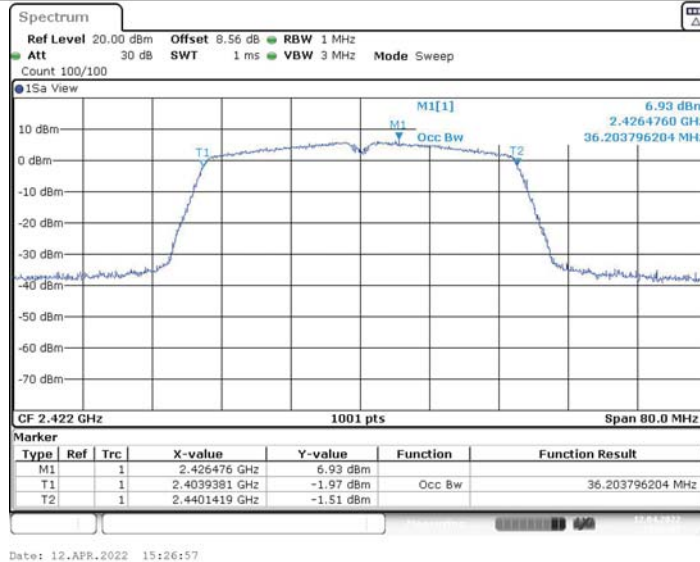


Date: 12.APR.2022 15:17:09

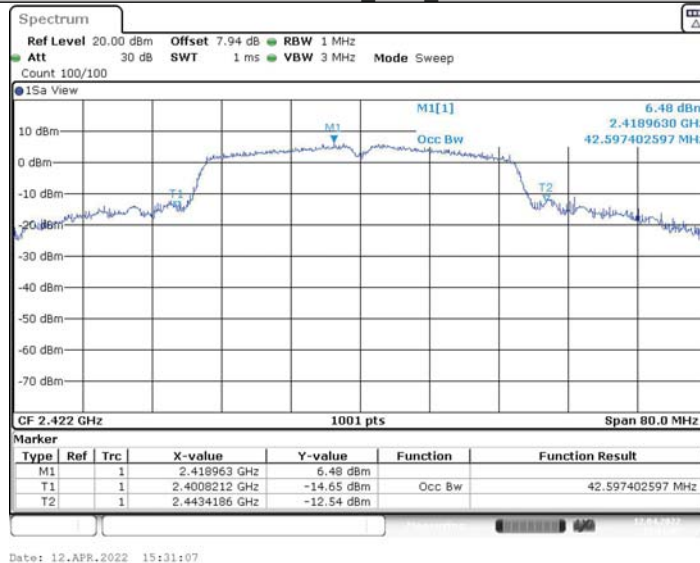
## 11N20MIMO\_Ant2\_2462



11N40MIMO\_Ant1\_2422

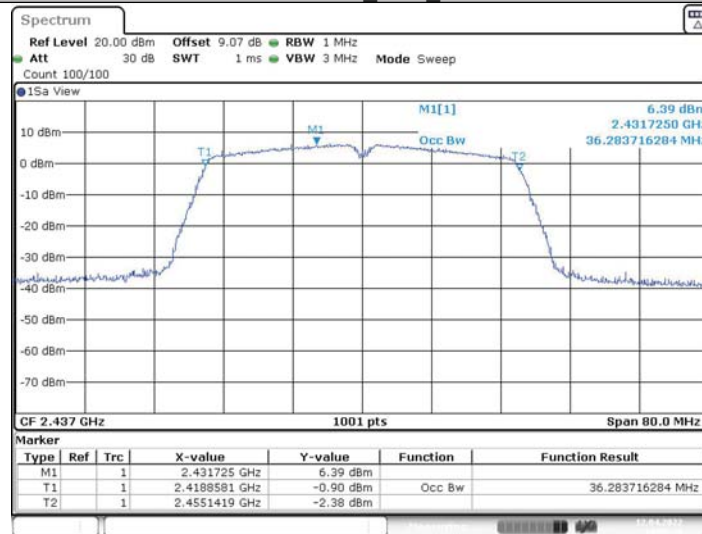


11N40MIMO\_Ant2\_2422



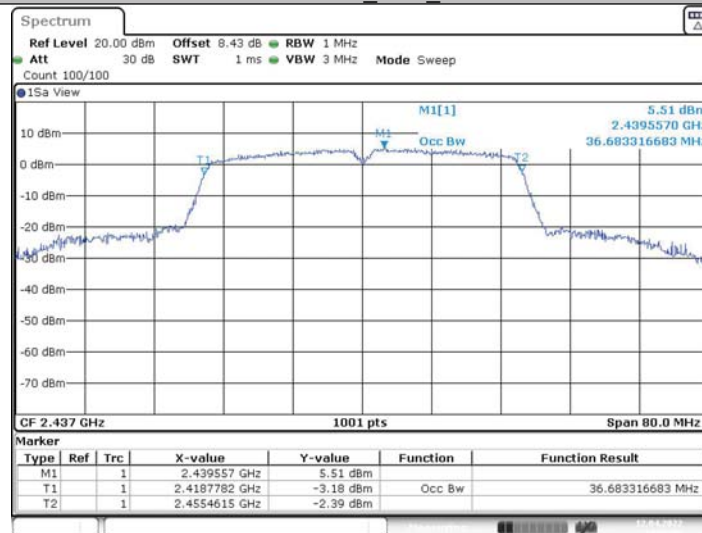


## 11N40MIMO\_Ant1\_2437



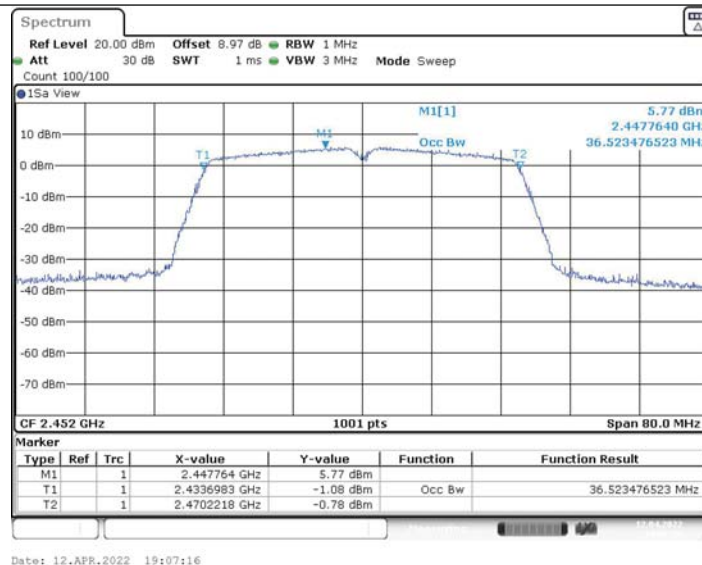
Date: 12.APR.2022 18:59:18

## 11N40MIMO\_Ant2\_2437

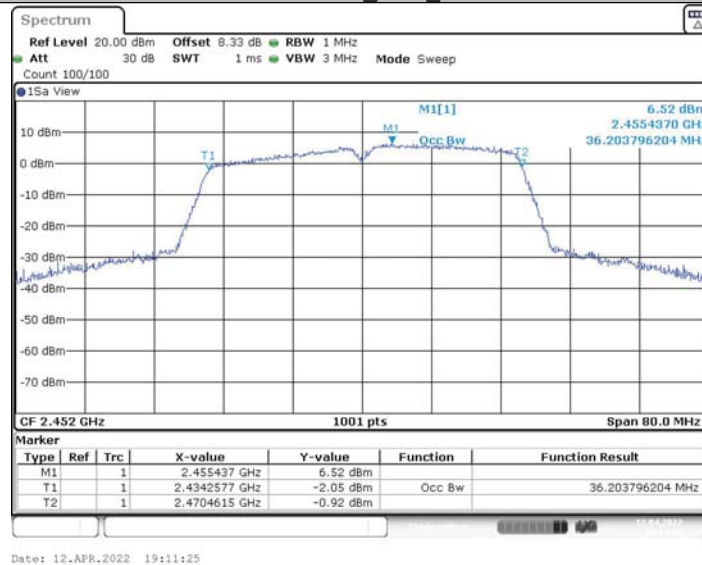


Date: 12.APR.2022 19:03:09

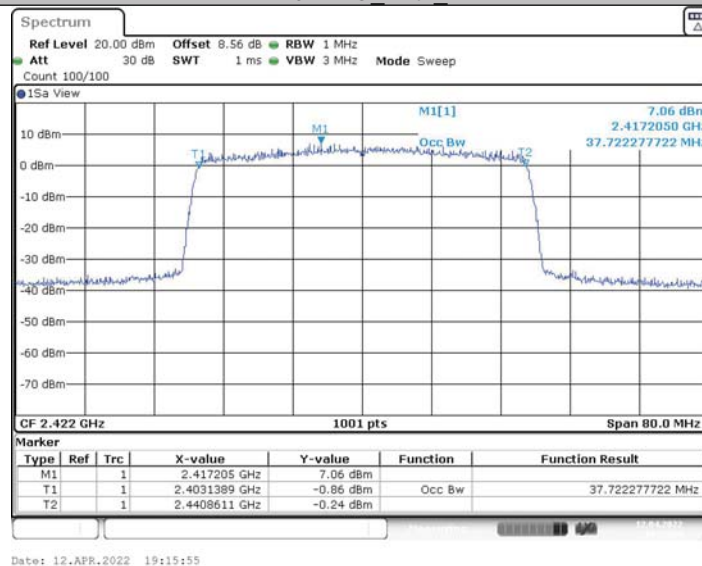
## 11N40MIMO\_Ant1\_2452



11N40MIMO\_Ant2\_2452

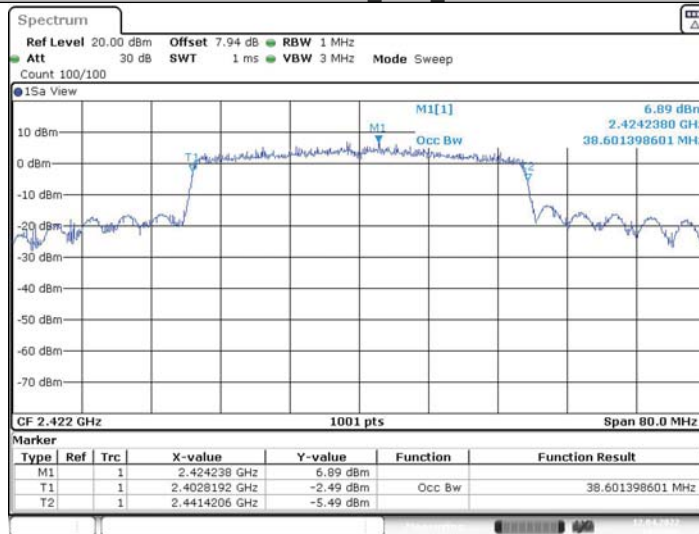


11AX40MIMO\_Ant1\_2422



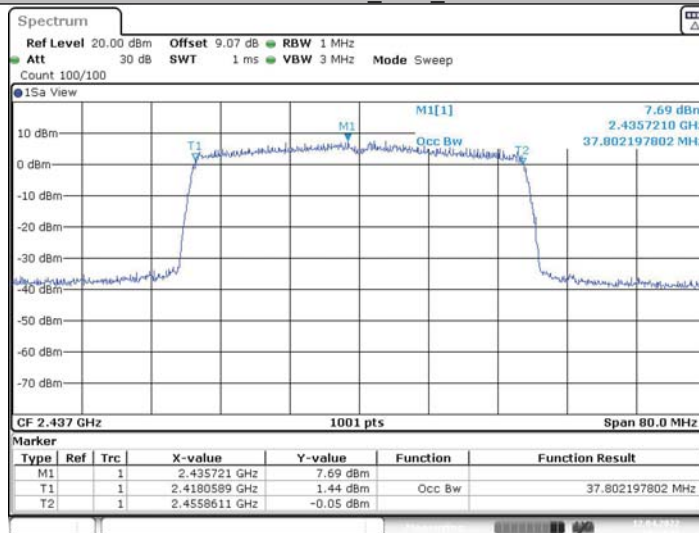


## 11AX40MIMO\_Ant2\_2422



Date: 12.APR.2022 19:20:06

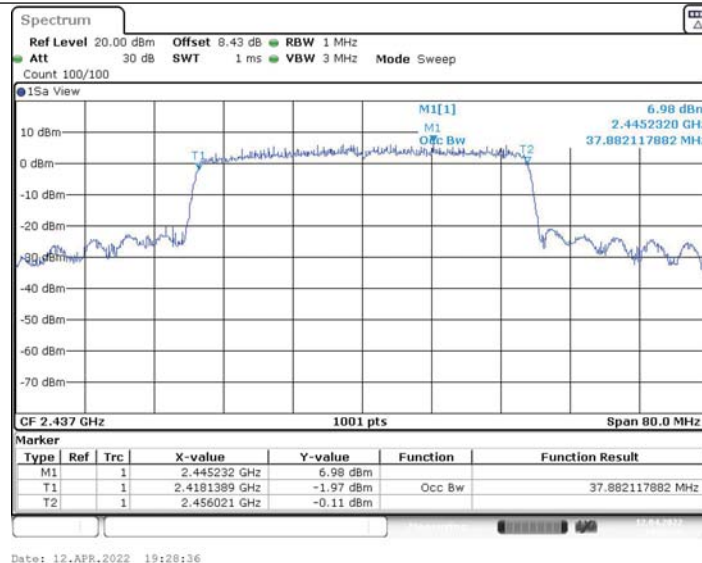
## 11AX40MIMO\_Ant1\_2437



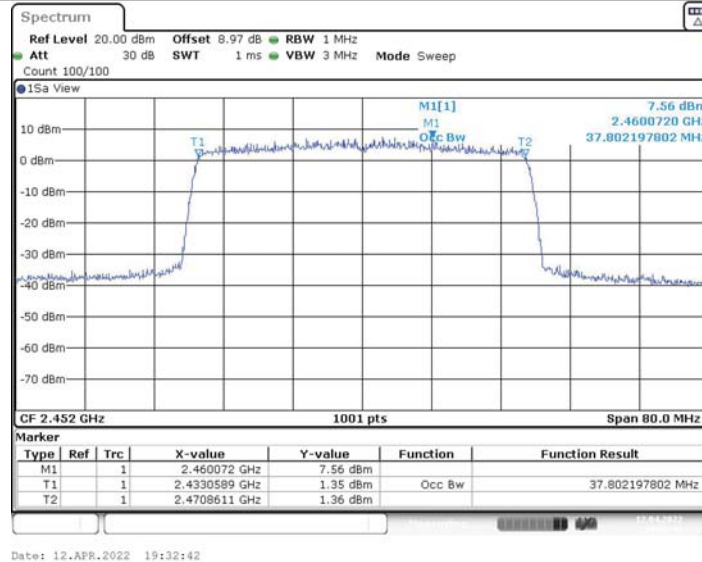
Date: 12.APR.2022 19:24:42

## 11AX40MIMO\_Ant2\_2437

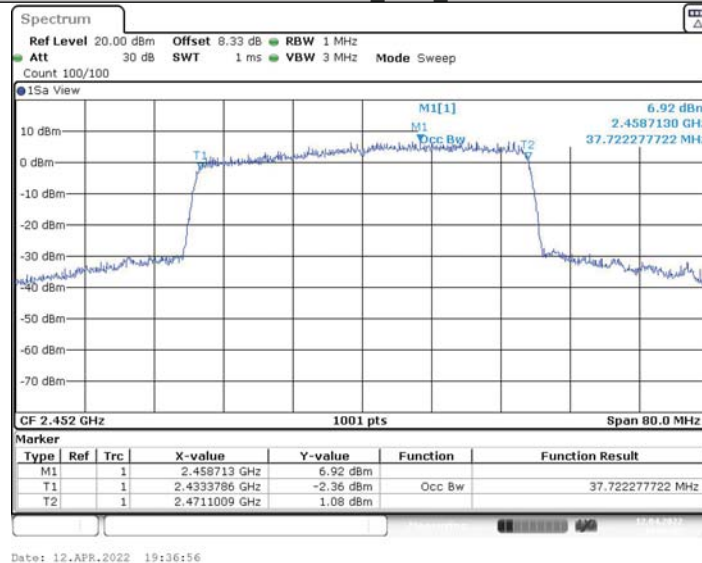




11AX40MIMO\_Ant1\_2452



11AX40MIMO\_Ant2\_2452







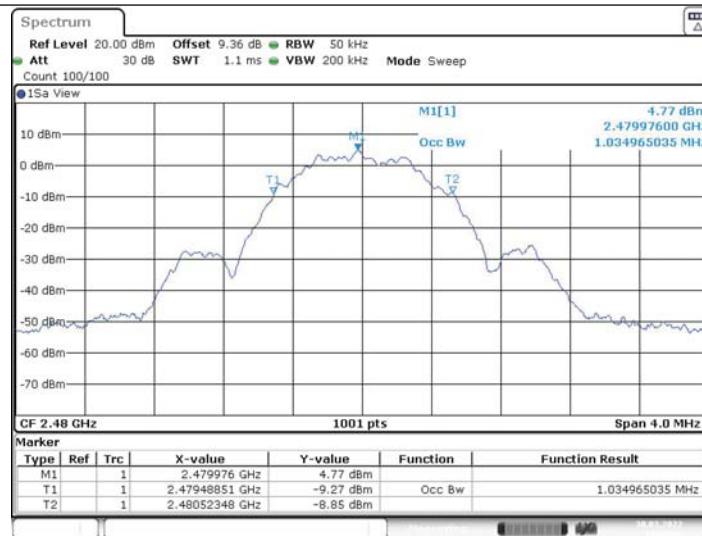
## BLE\_1M\_Ant1\_2402



## BLE\_1M\_Ant1\_2440



## BLE\_1M\_Ant1\_2480



Date: 30.MAR.2022 10:50:59



## 6.3 CONDUCTED OUTPUT POWER

### 6.3.1 Test Result

#### PK

| TestMode   | Antenna | Frequency[MHz] | Peak Power[dBm] | Conducted Limit[dBm] | EIRP [dBm] | EIRP Limit[dBm] | Verdict |
|------------|---------|----------------|-----------------|----------------------|------------|-----------------|---------|
| 11B        | Ant1    | 2412           | 17.49           | ≤30.00               | 20.39      | ≤36.00          | PASS    |
|            | Ant2    | 2412           | 16.29           | ≤30.00               | 19.19      | ≤36.00          | PASS    |
|            | Ant1    | 2437           | 17.81           | ≤30.00               | 20.71      | ≤36.00          | PASS    |
|            | Ant2    | 2437           | 16.90           | ≤30.00               | 19.80      | ≤36.00          | PASS    |
|            | Ant1    | 2462           | 17.13           | ≤30.00               | 20.03      | ≤36.00          | PASS    |
|            | Ant2    | 2462           | 16.76           | ≤30.00               | 19.66      | ≤36.00          | PASS    |
| 11G        | Ant1    | 2412           | 22.83           | ≤30.00               | 25.73      | ≤36.00          | PASS    |
|            | Ant2    | 2412           | 22.79           | ≤30.00               | 25.69      | ≤36.00          | PASS    |
|            | Ant1    | 2437           | 22.97           | ≤30.00               | 25.87      | ≤36.00          | PASS    |
|            | Ant2    | 2437           | 23.95           | ≤30.00               | 26.85      | ≤36.00          | PASS    |
|            | Ant1    | 2462           | 22.61           | ≤30.00               | 25.51      | ≤36.00          | PASS    |
|            | Ant2    | 2462           | 21.99           | ≤30.00               | 24.89      | ≤36.00          | PASS    |
| 11N20MIMO  | Ant1    | 2412           | 18.62           | ≤30.00               | 21.52      | ≤36.00          | PASS    |
|            | Ant2    | 2412           | 18.11           | ≤30.00               | 21.01      | ≤36.00          | PASS    |
|            | total   | 2412           | 21.38           | ≤30.00               | 24.28      | ≤36.00          | PASS    |
|            | Ant1    | 2437           | 19.17           | ≤30.00               | 22.07      | ≤36.00          | PASS    |
|            | Ant2    | 2437           | 19.07           | ≤30.00               | 21.97      | ≤36.00          | PASS    |
|            | total   | 2437           | 22.13           | ≤30.00               | 25.03      | ≤36.00          | PASS    |
|            | Ant1    | 2462           | 18.56           | ≤30.00               | 21.46      | ≤36.00          | PASS    |
|            | Ant2    | 2462           | 18.58           | ≤30.00               | 21.48      | ≤36.00          | PASS    |
|            | total   | 2462           | 21.58           | ≤30.00               | 24.48      | ≤36.00          | PASS    |
| 11N40MIMO  | Ant1    | 2422           | 19.19           | ≤30.00               | 22.09      | ≤36.00          | PASS    |
|            | Ant2    | 2422           | 18.64           | ≤30.00               | 21.54      | ≤36.00          | PASS    |
|            | total   | 2422           | 21.93           | ≤30.00               | 24.83      | ≤36.00          | PASS    |
|            | Ant1    | 2437           | 19.46           | ≤30.00               | 22.36      | ≤36.00          | PASS    |
|            | Ant2    | 2437           | 18.59           | ≤30.00               | 21.49      | ≤36.00          | PASS    |
|            | total   | 2437           | 22.06           | ≤30.00               | 24.96      | ≤36.00          | PASS    |
|            | Ant1    | 2452           | 19.25           | ≤30.00               | 22.15      | ≤36.00          | PASS    |
|            | Ant2    | 2452           | 18.86           | ≤30.00               | 21.76      | ≤36.00          | PASS    |
|            | total   | 2452           | 22.07           | ≤30.00               | 24.97      | ≤36.00          | PASS    |
| 11AX40MIMO | Ant1    | 2422           | 19.12           | ≤30.00               | 22.02      | ≤36.00          | PASS    |
|            | Ant2    | 2422           | 17.98           | ≤30.00               | 20.88      | ≤36.00          | PASS    |
|            | total   | 2422           | 21.60           | ≤30.00               | 24.50      | ≤36.00          | PASS    |
|            | Ant1    | 2437           | 19.51           | ≤30.00               | 22.41      | ≤36.00          | PASS    |
|            | Ant2    | 2437           | 18.39           | ≤30.00               | 21.29      | ≤36.00          | PASS    |
|            | total   | 2437           | 22.00           | ≤30.00               | 24.90      | ≤36.00          | PASS    |
|            | Ant1    | 2452           | 19.25           | ≤30.00               | 22.15      | ≤36.00          | PASS    |
|            | Ant2    | 2452           | 18.64           | ≤30.00               | 21.54      | ≤36.00          | PASS    |
|            | total   | 2452           | 21.97           | ≤30.00               | 24.87      | ≤36.00          | PASS    |



| TestMode | Antenna | Frequency[MHz] | Conducted Peak Power[dBm] | Conducted Limit[dBm] | EIRP[dBm] | EIRP Limit[dBm] | Verdict |
|----------|---------|----------------|---------------------------|----------------------|-----------|-----------------|---------|
| BLE_1M   | Ant1    | 2402           | 6.66                      | ≤30.00               | 9.56      | ≤36.00          | PASS    |
|          |         | 2440           | 6.27                      | ≤30.00               | 9.17      | ≤36.00          | PASS    |
|          |         | 2480           | 6.33                      | ≤30.00               | 9.23      | ≤36.00          | PASS    |

## AV

| Test Mode  | Antenna | Frequency[MHz] | Average power [dBm] | Limit [dBm] | Gain [dBi] | EIRP [dBm] | EIRP Limit [dBm] | Verdict |
|------------|---------|----------------|---------------------|-------------|------------|------------|------------------|---------|
| 11B        | Ant1    | 2412           | 13.81               | ≤30.00      | 2.90       | 16.71      | ≤36.00           | PASS    |
|            | Ant2    | 2412           | 14.23               | ≤30.00      | 2.90       | 17.13      | ≤36.00           | PASS    |
|            | Ant1    | 2437           | 13.70               | ≤30.00      | 2.90       | 16.60      | ≤36.00           | PASS    |
|            | Ant2    | 2437           | 14.33               | ≤30.00      | 2.90       | 17.23      | ≤36.00           | PASS    |
|            | Ant1    | 2462           | 13.70               | ≤30.00      | 2.90       | 16.60      | ≤36.00           | PASS    |
|            | Ant2    | 2462           | 14.50               | ≤30.00      | 2.90       | 17.40      | ≤36.00           | PASS    |
| 11G        | Ant1    | 2412           | 13.72               | ≤30.00      | 2.90       | 16.62      | ≤36.00           | PASS    |
|            | Ant2    | 2412           | 14.65               | ≤30.00      | 2.90       | 17.55      | ≤36.00           | PASS    |
|            | Ant1    | 2437           | 13.50               | ≤30.00      | 2.90       | 16.40      | ≤36.00           | PASS    |
|            | Ant2    | 2437           | 15.00               | ≤30.00      | 2.90       | 17.90      | ≤36.00           | PASS    |
|            | Ant1    | 2462           | 13.76               | ≤30.00      | 2.90       | 16.66      | ≤36.00           | PASS    |
|            | Ant2    | 2462           | 14.19               | ≤30.00      | 2.90       | 17.09      | ≤36.00           | PASS    |
| 11N20MIMO  | Ant1    | 2412           | 9.99                | ≤30.00      | 2.90       | 12.89      | ≤36.00           | PASS    |
|            | Ant2    | 2412           | 10.52               | ≤30.00      | 2.90       | 13.42      | ≤36.00           | PASS    |
|            | total   | 2412           | 13.27               | ≤30.00      | ---        | 16.17      | ≤36.00           | PASS    |
|            | Ant1    | 2437           | 9.81                | ≤30.00      | 2.90       | 12.71      | ≤36.00           | PASS    |
|            | Ant2    | 2437           | 10.70               | ≤30.00      | 2.90       | 13.60      | ≤36.00           | PASS    |
|            | total   | 2437           | 13.29               | ≤30.00      | ---        | 16.19      | ≤36.00           | PASS    |
|            | Ant1    | 2462           | 9.97                | ≤30.00      | 2.90       | 12.87      | ≤36.00           | PASS    |
|            | Ant2    | 2462           | 10.57               | ≤30.00      | 2.90       | 13.47      | ≤36.00           | PASS    |
|            | total   | 2462           | 13.29               | ≤30.00      | ---        | 16.19      | ≤36.00           | PASS    |
| 11N40MIMO  | Ant1    | 2422           | 10.31               | ≤30.00      | 2.90       | 13.21      | ≤36.00           | PASS    |
|            | Ant2    | 2422           | 10.91               | ≤30.00      | 2.90       | 13.81      | ≤36.00           | PASS    |
|            | total   | 2422           | 13.63               | ≤30.00      | ---        | 16.53      | ≤36.00           | PASS    |
|            | Ant1    | 2437           | 10.18               | ≤30.00      | 2.90       | 13.08      | ≤36.00           | PASS    |
|            | Ant2    | 2437           | 10.46               | ≤30.00      | 2.90       | 13.36      | ≤36.00           | PASS    |
|            | total   | 2437           | 13.33               | ≤30.00      | ---        | 16.23      | ≤36.00           | PASS    |
|            | Ant1    | 2452           | 11.13               | ≤30.00      | 2.90       | 14.03      | ≤36.00           | PASS    |
|            | Ant2    | 2452           | 10.82               | ≤30.00      | 2.90       | 13.72      | ≤36.00           | PASS    |
|            | total   | 2452           | 13.99               | ≤30.00      | ---        | 16.89      | ≤36.00           | PASS    |
| 11AX40MIMO | Ant1    | 2422           | 9.55                | ≤30.00      | 2.90       | 12.45      | ≤36.00           | PASS    |
|            | Ant2    | 2422           | 9.97                | ≤30.00      | 2.90       | 12.87      | ≤36.00           | PASS    |
|            | total   | 2422           | 12.78               | ≤30.00      | ---        | 15.68      | ≤36.00           | PASS    |
|            | Ant1    | 2437           | 9.56                | ≤30.00      | 2.90       | 12.46      | ≤36.00           | PASS    |
|            | Ant2    | 2437           | 9.93                | ≤30.00      | 2.90       | 12.83      | ≤36.00           | PASS    |
|            | total   | 2437           | 12.76               | ≤30.00      | ---        | 15.66      | ≤36.00           | PASS    |
|            | Ant1    | 2452           | 9.58                | ≤30.00      | 2.90       | 12.48      | ≤36.00           | PASS    |
|            | Ant2    | 2452           | 10.19               | ≤30.00      | 2.90       | 13.09      | ≤36.00           | PASS    |
|            | total   | 2452           | 12.91               | ≤30.00      | ---        | 15.81      | ≤36.00           | PASS    |