

# RADIO PERFORMANCE TEST REPORT

Test Report No. : OT-223-RWD-047

Reception No. : 2112005097

Applicant : LG Innotek Co., Ltd.

Address : 26, Hanamsandan 5beon-ro Gwangsan-gu, Gwangju, 506-731, South Korea

Manufacturer : LG Innotek Co., Ltd.

Address : 26, Hanamsandan 5beon-ro Gwangsan-gu, Gwangju, 506-731, South Korea

Type of Equipment : RF Module

FCC ID. : YZP-ATC6NPL002

Model Name : ATC6NPL002

Multiple Model Name : N/A

Serial number : N/A

Total page of Report : 337 pages (including this page)

Date of Incoming : December 01, 2021

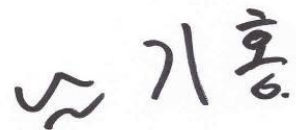
Date of issue : March 21, 2022

## SUMMARY

The equipment complies with the regulation; **FCC PART 15 SUBPART E Section 15.407**

This test report only contains the result of a single test of the sample supplied for the examination.

It is not a generally valid assessment of the features of the respective products of the mass-production.



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OTC-TRF-RF-001(0)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

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※ Please refer to the Annex section for All test plots

**Revision History**

| Rev. No. | Issue Report No. | Issued Date    | Revisions       | Section Affected |
|----------|------------------|----------------|-----------------|------------------|
| 0        | OT-223-RWD-047   | March 21, 2022 | Initial Release | All              |
|          |                  |                |                 |                  |
|          |                  |                |                 |                  |

## 1. VERIFICATION OF COMPLIANCE

Applicant : LG Innotek Co., Ltd.

Address : 26, Hanamsandan 5beon-ro Gwangsan-gu, Gwangju, 506-731, South Korea

Contact Person : Jeong Inchang / Senior Research Engineer

Telephone No. : +82-62-950-0332

FCC ID : YZP-ATC6NPL002

Model Name : ATC6NPL002

Brand Name :  **LG Innotek**

Serial Number : N/A

Date : March 21, 2022

|                                                      |                                                                                                  |
|------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| EQUIPMENT CLASS                                      | Unlicensed National Information infrastructure(UNII)                                             |
| E.U.T. DESCRIPTION                                   | RF Module                                                                                        |
| THIS REPORT CONCERNS                                 | Original Grant                                                                                   |
| MEASUREMENT PROCEDURES                               | ANSI C63.10: 2020                                                                                |
| TYPE OF EQUIPMENT TESTED                             | Pre-Production                                                                                   |
| KIND OF EQUIPMENT AUTHORIZATION REQUESTED            | Certification                                                                                    |
| EQUIPMENT WILL BE OPERATED UNDER FCC RULES PART(S)   | FCC PART 15 SUBPART E Section 15.407<br>789033 D02 General UNII Test Procedures New Rules v02r01 |
| Modifications on the Equipment to Achieve Compliance | None                                                                                             |
| Final Test was Conducted On                          | 3 m, Semi Anechoic Chamber                                                                       |

-. The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

## 2. TEST SUMMARY

### 2.1 Test items and results

| SECTION           | TEST ITEMS                                                                    | RESULTS              |
|-------------------|-------------------------------------------------------------------------------|----------------------|
| 15.407(a)         | 26 dB Bandwidth                                                               | PASS                 |
| 15.407(a)         | Maximum Conducted Output Power                                                | Met the Limit / PASS |
| 15.407(a)         | Peak Power Spectral Density                                                   | Met the Limit / PASS |
| 15.407(e)         | 6 dB Bandwidth                                                                | Met the Limit / PASS |
| 15.407(g)         | Frequency Stability                                                           | Met the Limit / PASS |
| 15.407(b)         | Undesirable Emissions                                                         | Met the Limit / PASS |
| 15.205, 15.407(b) | General Field Strength Limits (Restricted Bands and Radiated Emission Limits) | Met the Limit / PASS |
| 15.207            | Conducted Limits                                                              | Met the Limit / PASS |

### 2.2 Additions, deviations, exclusions from standards

No additions, deviations or exclusions have been made from standard.

### 2.3 Related Submittal(s) / Grant(s)

Original submittal only

### 2.4 Purpose of the test

To determine whether the equipment under test fulfills the requirements of the regulation stated in FCC PART 15 SUBPART E Section 15.407

### 2.5 Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10: 2020. Radiated testing was performed at a distance of 3 m from EUT to the antenna.

### 2.6 Test Facility

The Onetech Corp. has been designated to perform equipment testing in compliance with ISO/IEC 17025.

The Electromagnetic compatibility measurement facilities are located at 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea.

-. Site Filing:

VCCI (Voluntary Control Council for Interference) – Registration No. R-20122/ C-14617/ G-10666/ T-11842

ISED (Innovation, Science and Economic Development Canada) – Registration No. Site# 3736A-3

KOLAS (Korea Laboratory Accreditation Scheme) - Accreditation NO. KT085

FCC (Federal Communications Commission) - Accreditation No. KR0013

RRA (Radio Research Agency) – Designation No. KR0013

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### 3. GENERAL INFORMATION

#### 3.1 Product Description

The LG Innotek Co., Ltd., Model ATC6NPL002 (referred to as the EUT in this report) is a RF Module. The product specification described herein was obtained from product data sheet or user's manual.

| DEVICE TYPE            | RF Module                             |                                                                                                         |
|------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------------|
| OPERATING<br>FREQUENCY | Bluetooth LE                          | 2 402 MHz ~ 2 480 MHz                                                                                   |
|                        | Bluetooth                             | 2 402 MHz ~ 2 480 MHz                                                                                   |
|                        | WLAN 2.4 GHz                          | 2 412 MHz ~ 2 462 MHz (802.11b/g/n(HT20)/ax(HE20))                                                      |
|                        |                                       | 2 422 MHz ~ 2 452 MHz (802.11n(HT40)/ax(HE40))                                                          |
|                        | WLAN<br>5 150 MHz ~<br>5 250 MHz Band | 5 180 MHz ~ 5 240 MHz (802.11a/n(HT20)/ac(VHT20)/ax(HE20))                                              |
|                        |                                       | 5 190 MHz ~ 5 230 MHz (802.11n(HT40)/ac(VHT40)/ax(HE40))                                                |
|                        |                                       | 5 210 MHz (802.11ac(VHT80)/ax(HE80))                                                                    |
|                        | WLAN<br>5 250 MHz ~<br>5 350 MHz Band | 5 260 MHz ~ 5 320 MHz (802.11a/n(HT20)/ac(VHT20)/ax(HE20))                                              |
|                        |                                       | 5 270 MHz ~ 5 310 MHz (802.11n(HT40)/ac(VHT40)/ax(HE40))                                                |
|                        |                                       | 5 290 MHz (802.11ac(VHT80)/ax(HE80))                                                                    |
|                        | WLAN<br>5 470 MHz ~<br>5 725 MHz Band | 5 500 MHz ~ 5 720 MHz (802.11a/n(HT20)/ac(VHT20)/ax(HE20))                                              |
|                        |                                       | 5 510 MHz ~ 5 710 MHz (802.11n(HT40)/ac(VHT40)/ax(HE40))                                                |
|                        |                                       | 5 530 MHz ~ 5 690 MHz (802.11ac(VHT80)/ax(HE80))                                                        |
|                        | WLAN<br>5 725 MHz ~<br>5 850 MHz Band | 5 745 MHz ~ 5 825 MHz (802.11a/n(HT20)/ac(VHT20)/ax(HE20))                                              |
|                        |                                       | 5 755 MHz ~ 5 795 MHz (802.11n(HT40)/ac(VHT40)/ax(HE40))                                                |
|                        |                                       | 5 775 MHz (802.11ac(VHT80)/ax(HE80))                                                                    |
| MODULATION<br>TYPE     | Bluetooth LE                          | GFSK for 1 Mbps / 2 Mbps / 125 kbps / 500 kbps                                                          |
|                        | Bluetooth                             | GFSK for 1Mbps, $\pi/4$ -DQPSK for 2Mbps, 8-DPSK for 3Mbps                                              |
|                        | WLAN 2.4 GHz                          | 802.11b:<br>DSSS Modulation(DBPSK/DQPSK/CCK)                                                            |
|                        |                                       | 802.11g/n(HT20)/n(HT40)/ax(HE20)/ax(HE40):<br>OFDM Modulation(BPSK/QPSK/16QAM/64QAM)                    |
|                        | WLAN 5 GHz                            | 802.11a/n(HT20)/n(HT40)/ac(VHT80)/ax(HE20)/ax(HE40)/ax(HE80):<br>OFDM Modulation(BPSK/QPSK/16QAM/64QAM) |

|                    |              |           |                                      |
|--------------------|--------------|-----------|--------------------------------------|
| RF OUTPUT<br>POWER | Bluetooth LE | 1 Mbps    | 1.21 dBm                             |
|                    |              | 2 Mbps    | 1.17 dBm                             |
|                    |              | 125 kbps  | 1.22 dBm                             |
|                    |              | 500 kbps  | 1.24 dBm                             |
|                    | Bluetooth    | 1 Mbps    | 0.67 dBm                             |
|                    |              | 2 Mbps    | -0.27 dBm                            |
|                    |              | 3 Mbps    | 0.09 dBm                             |
|                    | WLAN 2.4 GHz | Antenna 0 | 15.57 dBm(802.11b)                   |
|                    |              |           | 11.80 dBm(802.11g)                   |
|                    |              |           | 11.67 dBm(802.11n_HT20)              |
|                    |              |           | 13.27 dBm(802.11ax_HE20)_26 Tone     |
|                    |              |           | 13.06 dBm(802.11ax_HE20)_52 Tone     |
|                    |              |           | 12.66 dBm(802.11ax_HE20)_106 Tone    |
|                    |              |           | 11.85 dBm(802.11ax_HE20)_242 Tone    |
|                    |              |           | 11.47 dBm(802.11ax_HE20)_Single User |
|                    |              |           | 11.31 dBm(802.11n_HT40)              |
|                    |              |           | 12.02 dBm(802.11ax_HE40)_26 Tone     |
|                    |              |           | 12.93 dBm(802.11ax_HE40)_52 Tone     |
|                    |              |           | 13.04 dBm(802.11ax_HE40)_106 Tone    |
|                    |              |           | 12.44 dBm(802.11ax_HE40)_242 Tone    |
|                    |              |           | 11.52 dBm(802.11ax_HE40)_484 Tone    |
|                    |              |           | 11.50 dBm(802.11ax_HE40)_Single User |

|                    |              |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------|--------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RF OUTPUT<br>POWER | WLAN 2.4 GHz | Antenna 1        | 16.19 dBm(802.11b)<br>12.88 dBm(802.11g)<br>13.11 dBm(802.11n_HT20)<br>13.35 dBm(802.11ax_HE20)_26 Tone<br>13.57 dBm(802.11ax_HE20)_52 Tone<br>13.47 dBm(802.11ax_HE20)_106 Tone<br>13.33 dBm(802.11ax_HE20)_242 Tone<br>13.65 dBm(802.11ax_HE20)_Single User<br>12.11 dBm(802.11n_HT40)<br>12.31 dBm(802.11ax_HE40)_26 Tone<br>12.67 dBm(802.11ax_HE40)_52 Tone<br>12.70 dBm(802.11ax_HE40)_106 Tone<br>12.68 dBm(802.11ax_HE40)_242 Tone<br>12.48 dBm(802.11ax_HE40)_484 Tone<br>12.69 dBm(802.11ax_HE40)_Single User |
|                    |              | Multiple Antenna | 15.46 dBm(802.11n_HT20)<br>16.32 dBm(802.11ax_HE20)_26 Tone<br>16.22 dBm(802.11ax_HE20)_52 Tone<br>16.09 dBm(802.11ax_HE20)_106 Tone<br>15.66 dBm(802.11ax_HE20)_242 Tone<br>15.70 dBm(802.11ax_HE20)_Single User<br>14.74 dBm(802.11n_HT40)<br>14.90 dBm(802.11ax_HE40)_26 Tone<br>15.78 dBm(802.11ax_HE40)_52 Tone<br>15.83 dBm(802.11ax_HE40)_106 Tone<br>15.57 dBm(802.11ax_HE40)_242 Tone<br>15.04 dBm(802.11ax_HE40)_484 Tone<br>15.15 dBm(802.11ax_HE40)_Single User                                             |

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| RF OUTPUT<br>POWER | WLAN<br>5 150 MHz ~<br>5 250 MHz Band | Antenna 0 | 12.59 dBm(802.11a)<br>12.15 dBm(802.11n_HT20)<br>2.53 dBm(802.11ax_HE20)_26 Tone<br>4.65 dBm(802.11ax_HE20)_52 Tone<br>7.54 dBm(802.11ax_HE20)_106 Tone<br>10.29 dBm(802.11ax_HE20)_242 Tone<br>12.19 dBm(802.11ax_HE20)_Single User<br>9.02 dBm(802.11n_HT40)<br>3.32 dBm(802.11ax_HE40)_26 Tone<br>5.26 dBm(802.11ax_HE40)_52 Tone<br>7.72 dBm(802.11ax_HE40)_106 Tone<br>7.54 dBm(802.11ax_HE40)_242 Tone<br>7.43 dBm(802.11ax_HE40)_484 Tone<br>9.15 dBm(802.11ax_HE40)_Single User<br>8.33 dBm(802.11ac_VHT80)<br>3.10 dBm(802.11ax_HE40)_26 Tone<br>5.03 dBm(802.11ax_HE40)_52 Tone<br>4.87 dBm(802.11ax_HE40)_106 Tone<br>4.76 dBm(802.11ax_HE40)_242 Tone<br>4.72 dBm(802.11ax_HE40)_484 Tone<br>4.33 dBm(802.11ax_HE40)_996 Tone<br>8.55 dBm(802.11ax_HE40)_Single User |
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| RF OUTPUT<br>POWER | WLAN<br>5 150 MHz ~<br>5 250 MHz Band | Antenna 1 | 12.45 dBm(802.11a)<br>12.01 dBm(802.11n_HT20)<br>3.45 dBm(802.11ax_HE20)_26 Tone<br>5.63 dBm(802.11ax_HE20)_52 Tone<br>8.30 dBm(802.11ax_HE20)_106 Tone<br>10.77 dBm(802.11ax_HE20)_242 Tone<br>12.02 dBm(802.11ax_HE20)_Single User<br>8.87 dBm(802.11n_HT40)<br>4.18 dBm(802.11ax_HE40)_26 Tone<br>6.25 dBm(802.11ax_HE40)_52 Tone<br>8.44 dBm(802.11ax_HE40)_106 Tone<br>8.29 dBm(802.11ax_HE40)_242 Tone<br>8.20 dBm(802.11ax_HE40)_484 Tone<br>9.21 dBm(802.11ax_HE40)_Single User<br>8.11 dBm(802.11ac_VHT80)<br>4.10 dBm(802.11ax_HE40)_26 Tone<br>6.10 dBm(802.11ax_HE40)_52 Tone<br>5.90 dBm(802.11ax_HE40)_106 Tone<br>5.81 dBm(802.11ax_HE40)_242 Tone<br>5.75 dBm(802.11ax_HE40)_484 Tone<br>5.50 dBm(802.11ax_HE40)_996 Tone<br>8.27 dBm(802.11ax_HE40)_Single User |
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| RF OUTPUT<br>POWER | WLAN<br>5 150 MHz ~<br>5 250 MHz Band | Multiple Antenna | 15.09 dBm(802.11n_HT20)<br>6.03 dBm(802.11ax_HE20)_26 Tone<br>8.18 dBm(802.11ax_HE20)_52 Tone<br>10.95 dBm(802.11ax_HE20)_106 Tone<br>13.55 dBm(802.11ax_HE20)_242 Tone<br>15.11 dBm(802.11ax_HE20)_Single User<br>11.95 dBm(802.11n_HT40)<br>6.78 dBm(802.11ax_HE40)_26 Tone<br>8.80 dBm(802.11ax_HE40)_52 Tone<br>11.11 dBm(802.11ax_HE40)_106 Tone<br>10.94 dBm(802.11ax_HE40)_242 Tone<br>10.84 dBm(802.11ax_HE40)_484 Tone<br>12.19 dBm(802.11ax_HE40)_Single User<br>11.24 dBm(802.11ac_VHT80)<br>6.64 dBm(802.11ax_HE40)_26 Tone<br>8.61 dBm(802.11ax_HE40)_52 Tone<br>8.42 dBm(802.11ax_HE40)_106 Tone<br>8.32 dBm(802.11ax_HE40)_242 Tone<br>8.27 dBm(802.11ax_HE40)_484 Tone<br>7.96 dBm(802.11ax_HE40)_996 Tone<br>11.42 dBm(802.11ax_HE40)_Single User |
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| RF OUTPUT<br>POWER | WLAN<br>5 250 MHz ~<br>5 350 MHz Band | Antenna 0 | 12.38 dBm(802.11a)<br>11.90 dBm(802.11n_HT20)<br>2.66 dBm(802.11ax_HE20)_26 Tone<br>4.79 dBm(802.11ax_HE20)_52 Tone<br>7.63 dBm(802.11ax_HE20)_106 Tone<br>10.35 dBm(802.11ax_HE20)_242 Tone<br>11.97 dBm(802.11ax_HE20)_Single User<br>8.28 dBm(802.11n_HT40)<br>3.52 dBm(802.11ax_HE40)_26 Tone<br>5.62 dBm(802.11ax_HE40)_52 Tone<br>7.88 dBm(802.11ax_HE40)_106 Tone<br>5.55 dBm(802.11ax_HE40)_242 Tone<br>7.49 dBm(802.11ax_HE40)_484 Tone<br>8.44 dBm(802.11ax_HE40)_Single User<br>6.35 dBm(802.11ac_VHT80)<br>3.18 dBm(802.11ax_HE40)_26 Tone<br>5.13 dBm(802.11ax_HE40)_52 Tone<br>4.96 dBm(802.11ax_HE40)_106 Tone<br>4.88 dBm(802.11ax_HE40)_242 Tone<br>4.86 dBm(802.11ax_HE40)_484 Tone<br>4.82 dBm(802.11ax_HE40)_996 Tone<br>6.54 dBm(802.11ax_HE40)_Single User |
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| RF OUTPUT<br>POWER | WLAN<br>5 250 MHz ~<br>5 350 MHz Band | Antenna 1 | 12.39 dBm(802.11a)<br>11.94 dBm(802.11n_HT20)<br>3.67 dBm(802.11ax_HE20)_26 Tone<br>5.73 dBm(802.11ax_HE20)_52 Tone<br>8.46 dBm(802.11ax_HE20)_106 Tone<br>10.87 dBm(802.11ax_HE20)_242 Tone<br>12.03 dBm(802.11ax_HE20)_Single User<br>8.21 dBm(802.11n_HT40)<br>4.43 dBm(802.11ax_HE40)_26 Tone<br>6.58 dBm(802.11ax_HE40)_52 Tone<br>8.63 dBm(802.11ax_HE40)_106 Tone<br>6.48 dBm(802.11ax_HE40)_242 Tone<br>8.39 dBm(802.11ax_HE40)_484 Tone<br>8.48 dBm(802.11ax_HE40)_Single User<br>6.23 dBm(802.11ac_VHT80)<br>4.28 dBm(802.11ax_HE40)_26 Tone<br>6.24 dBm(802.11ax_HE40)_52 Tone<br>6.07 dBm(802.11ax_HE40)_106 Tone<br>5.88 dBm(802.11ax_HE40)_242 Tone<br>5.90 dBm(802.11ax_HE40)_484 Tone<br>5.86 dBm(802.11ax_HE40)_996 Tone<br>6.54 dBm(802.11ax_HE40)_Single User |
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| RF OUTPUT<br>POWER | WLAN<br>5 250 MHz ~<br>5 350 MHz Band | Multiple Antenna | 14.89 dBm(802.11n_HT20)<br>6.21 dBm(802.11ax_HE20)_26 Tone<br>8.29 dBm(802.11ax_HE20)_52 Tone<br>11.07 dBm(802.11ax_HE20)_106 Tone<br>13.58 dBm(802.11ax_HE20)_242 Tone<br>15.01 dBm(802.11ax_HE20)_Single User<br>11.23 dBm(802.11n_HT40)<br>6.98 dBm(802.11ax_HE40)_26 Tone<br>9.14 dBm(802.11ax_HE40)_52 Tone<br>11.28 dBm(802.11ax_HE40)_106 Tone<br>9.05 dBm(802.11ax_HE40)_242 Tone<br>10.97 dBm(802.11ax_HE40)_484 Tone<br>11.47 dBm(802.11ax_HE40)_Single User<br>9.30 dBm(802.11ac_VHT80)<br>6.77 dBm(802.11ax_HE40)_26 Tone<br>8.73 dBm(802.11ax_HE40)_52 Tone<br>8.56 dBm(802.11ax_HE40)_106 Tone<br>8.41 dBm(802.11ax_HE40)_242 Tone<br>8.42 dBm(802.11ax_HE40)_484 Tone<br>8.38 dBm(802.11ax_HE40)_996 Tone<br>9.55 dBm(802.11ax_HE40)_Single User |
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| RF OUTPUT<br>POWER | WLAN<br>5 470 MHz ~<br>5 725 MHz Band | Antenna 0 | 12.24 dBm(802.11a)<br>11.76 dBm(802.11n_HT20)<br>2.82 dBm(802.11ax_HE20)_26 Tone<br>4.98 dBm(802.11ax_HE20)_52 Tone<br>7.90 dBm(802.11ax_HE20)_106 Tone<br>10.64 dBm(802.11ax_HE20)_242 Tone<br>12.03 dBm(802.11ax_HE20)_Single User<br>9.62 dBm(802.11n_HT40)<br>3.69 dBm(802.11ax_HE40)_26 Tone<br>5.92 dBm(802.11ax_HE40)_52 Tone<br>8.02 dBm(802.11ax_HE40)_106 Tone<br>7.72 dBm(802.11ax_HE40)_242 Tone<br>7.76 dBm(802.11ax_HE40)_484 Tone<br>9.99 dBm(802.11ax_HE40)_Single User<br>5.91 dBm(802.11ac_VHT80)<br>3.20 dBm(802.11ax_HE40)_26 Tone<br>5.21 dBm(802.11ax_HE40)_52 Tone<br>4.98 dBm(802.11ax_HE40)_106 Tone<br>4.80 dBm(802.11ax_HE40)_242 Tone<br>4.78 dBm(802.11ax_HE40)_484 Tone<br>4.46 dBm(802.11ax_HE40)_996 Tone<br>6.27 dBm(802.11ax_HE40)_Single User |
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| RF OUTPUT<br>POWER | WLAN<br>5 470 MHz ~<br>5 725 MHz Band | Antenna 0_Straddle | 9.32 dBm(802.11a)<br>9.20 dBm(802.11n_HT20)<br>2.00 dBm(802.11ax_HE20)_26 Tone<br>4.19 dBm(802.11ax_HE20)_52 Tone<br>6.86 dBm(802.11ax_HE20)_106 Tone<br>8.57 dBm(802.11ax_HE20)_242 Tone<br>9.31 dBm(802.11ax_HE20)_Single User<br>7.36 dBm(802.11n_HT40)<br>-14.30 dBm(802.11ax_HE40)_26 Tone<br>-6.24 dBm(802.11ax_HE40)_52 Tone<br>3.73 dBm(802.11ax_HE40)_106 Tone<br>5.66 dBm(802.11ax_HE40)_242 Tone<br>6.45 dBm(802.11ax_HE40)_484 Tone<br>7.74 dBm(802.11ax_HE40)_Single User<br>4.72 dBm(802.11ac_VHT80)<br>-15.24 dBm(802.11ax_HE40)_26 Tone<br>-7.11 dBm(802.11ax_HE40)_52 Tone<br>1.12 dBm(802.11ax_HE40)_106 Tone<br>2.80 dBm(802.11ax_HE40)_242 Tone<br>3.65 dBm(802.11ax_HE40)_484 Tone<br>4.16 dBm(802.11ax_HE40)_996 Tone<br>5.03 dBm(802.11ax_HE40)_Single User |
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| RF OUTPUT<br>POWER | WLAN<br>5 470 MHz ~<br>5 725 MHz Band | Antenna 1 | 12.50 dBm(802.11a)<br>11.89 dBm(802.11n_HT20)<br>3.90 dBm(802.11ax_HE20)_26 Tone<br>8.53 dBm(802.11ax_HE20)_52 Tone<br>8.55 dBm(802.11ax_HE20)_106 Tone<br>11.07 dBm(802.11ax_HE20)_242 Tone<br>12.15 dBm(802.11ax_HE20)_Single User<br>9.93 dBm(802.11n_HT40)<br>5.05 dBm(802.11ax_HE40)_26 Tone<br>7.13 dBm(802.11ax_HE40)_52 Tone<br>9.13 dBm(802.11ax_HE40)_106 Tone<br>8.84 dBm(802.11ax_HE40)_242 Tone<br>8.81 dBm(802.11ax_HE40)_484 Tone<br>10.15 dBm(802.11ax_HE40)_Single User<br>5.90 dBm(802.11ac_VHT80)<br>4.26 dBm(802.11ax_HE40)_26 Tone<br>6.28 dBm(802.11ax_HE40)_52 Tone<br>6.15 dBm(802.11ax_HE40)_106 Tone<br>6.02 dBm(802.11ax_HE40)_242 Tone<br>5.96 dBm(802.11ax_HE40)_484 Tone<br>5.71 dBm(802.11ax_HE40)_996 Tone<br>6.27 dBm(802.11ax_HE40)_Single User |
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| RF OUTPUT<br>POWER | WLAN<br>5 470 MHz ~<br>5 725 MHz Band | Antenna 1_Straddle | 9.42 dBm(802.11a)<br>9.23 dBm(802.11n_HT20)<br>3.92 dBm(802.11ax_HE20)_26 Tone<br>5.88 dBm(802.11ax_HE20)_52 Tone<br>8.59 dBm(802.11ax_HE20)_106 Tone<br>9.80 dBm(802.11ax_HE20)_242 Tone<br>9.35 dBm(802.11ax_HE20)_Single User<br>7.45 dBm(802.11n_HT40)<br>-12.01 dBm(802.11ax_HE40)_26 Tone<br>-4.37 dBm(802.11ax_HE40)_52 Tone<br>5.52 dBm(802.11ax_HE40)_106 Tone<br>7.38 dBm(802.11ax_HE40)_242 Tone<br>7.74 dBm(802.11ax_HE40)_484 Tone<br>7.79 dBm(802.11ax_HE40)_Single User<br>4.37 dBm(802.11ac_VHT80)<br>-13.11 dBm(802.11ax_HE40)_26 Tone<br>-5.17 dBm(802.11ax_HE40)_52 Tone<br>2.86 dBm(802.11ax_HE40)_106 Tone<br>4.42 dBm(802.11ax_HE40)_242 Tone<br>5.11 dBm(802.11ax_HE40)_484 Tone<br>5.32 dBm(802.11ax_HE40)_996 Tone<br>4.66 dBm(802.11ax_HE40)_Single User |
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| RF OUTPUT<br>POWER | WLAN<br>5 470 MHz ~<br>5 725 MHz Band | Multiple Antenna | 14.89 dBm(802.11n_HT20)<br>6.33 dBm(802.11ax_HE20)_26 Tone<br>9.99 dBm(802.11ax_HE20)_52 Tone<br>11.21 dBm(802.11ax_HE20)_106 Tone<br>13.87 dBm(802.11ax_HE20)_242 Tone<br>15.10 dBm(802.11ax_HE20)_Single User<br>12.79 dBm(802.11n_HT40)<br>7.44 dBm(802.11ax_HE40)_26 Tone<br>9.58 dBm(802.11ax_HE40)_52 Tone<br>11.62 dBm(802.11ax_HE40)_106 Tone<br>11.31 dBm(802.11ax_HE40)_242 Tone<br>11.33 dBm(802.11ax_HE40)_484 Tone<br>13.09 dBm(802.11ax_HE40)_Single User<br>8.92 dBm(802.11ac_VHT80)<br>6.77 dBm(802.11ax_HE40)_26 Tone<br>8.79 dBm(802.11ax_HE40)_52 Tone<br>8.61 dBm(802.11ax_HE40)_106 Tone<br>8.46 dBm(802.11ax_HE40)_242 Tone<br>8.42 dBm(802.11ax_HE40)_484 Tone<br>8.14 dBm(802.11ax_HE40)_996 Tone<br>9.28 dBm(802.11ax_HE40)_Single User |
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| RF OUTPUT<br>POWER | WLAN<br>5 470 MHz ~<br>5 725 MHz Band | Multiple Antenna<br>_Straddle | 12.22 dBm(802.11n_HT20)<br>5.99 dBm(802.11ax_HE20)_26 Tone<br>8.12 dBm(802.11ax_HE20)_52 Tone<br>10.82 dBm(802.11ax_HE20)_106 Tone<br>12.24 dBm(802.11ax_HE20)_242 Tone<br>12.34 dBm(802.11ax_HE20)_Single User<br>10.41 dBm(802.11n_HT40)<br>-9.99 dBm(802.11ax_HE40)_26 Tone<br>-2.19 dBm(802.11ax_HE40)_52 Tone<br>7.73 dBm(802.11ax_HE40)_106 Tone<br>9.62 dBm(802.11ax_HE40)_242 Tone<br>10.15 dBm(802.11ax_HE40)_484 Tone<br>10.78 dBm(802.11ax_HE40)_Single User<br>7.56 dBm(802.11ac_VHT80)<br>-11.04 dBm(802.11ax_HE40)_26 Tone<br>-3.02 dBm(802.11ax_HE40)_52 Tone<br>5.08 dBm(802.11ax_HE40)_106 Tone<br>6.69 dBm(802.11ax_HE40)_242 Tone<br>7.45 dBm(802.11ax_HE40)_484 Tone<br>7.79 dBm(802.11ax_HE40)_996 Tone<br>7.86 dBm(802.11ax_HE40)_Single User |
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| RF OUTPUT<br>POWER | WLAN<br>5 725 MHz ~<br>5 850 MHz Band | Antenna 0 | 11.47 dBm(802.11a)<br>11.43 dBm(802.11n_HT20)<br>10.25 dBm(802.11ax_HE20)_26 Tone<br>10.40 dBm(802.11ax_HE20)_52 Tone<br>10.13 dBm(802.11ax_HE20)_106 Tone<br>10.13 dBm(802.11ax_HE20)_242 Tone<br>11.28 dBm(802.11ax_HE20)_Single User<br>10.37 dBm(802.11n_HT40)<br>7.10 dBm(802.11ax_HE40)_26 Tone<br>7.39 dBm(802.11ax_HE40)_52 Tone<br>7.69 dBm(802.11ax_HE40)_106 Tone<br>7.32 dBm(802.11ax_HE40)_242 Tone<br>7.16 dBm(802.11ax_HE40)_484 Tone<br>10.38 dBm(802.11ax_HE40)_Single User<br>8.02 dBm(802.11ac_VHT80)<br>4.77 dBm(802.11ax_HE40)_26 Tone<br>4.91 dBm(802.11ax_HE40)_52 Tone<br>4.76 dBm(802.11ax_HE40)_106 Tone<br>4.66 dBm(802.11ax_HE40)_242 Tone<br>4.57 dBm(802.11ax_HE40)_484 Tone<br>4.48 dBm(802.11ax_HE40)_996 Tone<br>8.01 dBm(802.11ax_HE40)_Single User |
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| RF OUTPUT<br>POWER | WLAN<br>5 725 MHz ~<br>5 850 MHz Band | Antenna 0_Straddle | 3.14 dBm(802.11a)<br>3.50 dBm(802.11n_HT20)<br>1.68 dBm(802.11ax_HE20)_26 Tone<br>3.49 dBm(802.11ax_HE20)_52 Tone<br>3.76 dBm(802.11ax_HE20)_106 Tone<br>3.11 dBm(802.11ax_HE20)_242 Tone<br>3.94 dBm(802.11ax_HE20)_Single User<br>-2.90 dBm(802.11n_HT40)<br>1.45 dBm(802.11ax_HE40)_26 Tone<br>4.04 dBm(802.11ax_HE40)_52 Tone<br>3.01 dBm(802.11ax_HE40)_106 Tone<br>-0.30 dBm(802.11ax_HE40)_242 Tone<br>-3.47 dBm(802.11ax_HE40)_484 Tone<br>-2.02 dBm(802.11ax_HE40)_Single User<br>-9.20 dBm(802.11ac_VHT80)<br>2.00 dBm(802.11ax_HE40)_26 Tone<br>3.63 dBm(802.11ax_HE40)_52 Tone<br>0.73 dBm(802.11ax_HE40)_106 Tone<br>-2.85 dBm(802.11ax_HE40)_242 Tone<br>-5.78 dBm(802.11ax_HE40)_484 Tone<br>-8.89 dBm(802.11ax_HE40)_996 Tone<br>-8.06 dBm(802.11ax_HE40)_Single User |
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|                    |                                       |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------|---------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RF OUTPUT<br>POWER | WLAN<br>5 725 MHz ~<br>5 850 MHz Band | Antenna 1 | 11.78 dBm(802.11a)<br>11.49 dBm(802.11n_HT20)<br>11.36 dBm(802.11ax_HE20)_26 Tone<br>11.55 dBm(802.11ax_HE20)_52 Tone<br>11.29 dBm(802.11ax_HE20)_106 Tone<br>11.21 dBm(802.11ax_HE20)_242 Tone<br>11.16 dBm(802.11ax_HE20)_Single User<br>10.47 dBm(802.11n_HT40)<br>8.73 dBm(802.11ax_HE40)_26 Tone<br>9.01 dBm(802.11ax_HE40)_52 Tone<br>9.13 dBm(802.11ax_HE40)_106 Tone<br>8.83 dBm(802.11ax_HE40)_242 Tone<br>8.72 dBm(802.11ax_HE40)_484 Tone<br>10.31 dBm(802.11ax_HE40)_Single User<br>7.69 dBm(802.11ac_VHT80)<br>6.50 dBm(802.11ax_HE40)_26 Tone<br>6.53 dBm(802.11ax_HE40)_52 Tone<br>6.39 dBm(802.11ax_HE40)_106 Tone<br>6.26 dBm(802.11ax_HE40)_242 Tone<br>6.26 dBm(802.11ax_HE40)_484 Tone<br>5.91 dBm(802.11ax_HE40)_996 Tone<br>7.47 dBm(802.11ax_HE40)_Single User |
|--------------------|---------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                    |                                       |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------|---------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RF OUTPUT<br>POWER | WLAN<br>5 725 MHz ~<br>5 850 MHz Band | Antenna 1_Straddle | 3.33 dBm(802.11a)<br>3.62 dBm(802.11n_HT20)<br>3.83 dBm(802.11ax_HE20)_26 Tone<br>5.36 dBm(802.11ax_HE20)_52 Tone<br>5.47 dBm(802.11ax_HE20)_106 Tone<br>4.50 dBm(802.11ax_HE20)_242 Tone<br>4.12 dBm(802.11ax_HE20)_Single User<br>-2.38 dBm(802.11n_HT40)<br>3.33 dBm(802.11ax_HE40)_26 Tone<br>5.93 dBm(802.11ax_HE40)_52 Tone<br>4.85 dBm(802.11ax_HE40)_106 Tone<br>1.50 dBm(802.11ax_HE40)_242 Tone<br>-1.68 dBm(802.11ax_HE40)_484 Tone<br>-1.56 dBm(802.11ax_HE40)_Single User<br>-8.90 dBm(802.11ac_VHT80)<br>3.96 dBm(802.11ax_HE40)_26 Tone<br>5.51 dBm(802.11ax_HE40)_52 Tone<br>2.53 dBm(802.11ax_HE40)_106 Tone<br>-0.93 dBm(802.11ax_HE40)_242 Tone<br>-3.96 dBm(802.11ax_HE40)_484 Tone<br>-7.03 dBm(802.11ax_HE40)_996 Tone<br>-7.70 dBm(802.11ax_HE40)_Single User |
|--------------------|---------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                    |                                       |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------|---------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RF OUTPUT<br>POWER | WLAN<br>5 725 MHz ~<br>5 850 MHz Band | Multiple Antenna | 14.34 dBm(802.11n_HT20)<br>13.70 dBm(802.11ax_HE20)_26 Tone<br>13.90 dBm(802.11ax_HE20)_52 Tone<br>13.63 dBm(802.11ax_HE20)_106 Tone<br>13.54 dBm(802.11ax_HE20)_242 Tone<br>14.17 dBm(802.11ax_HE20)_Single User<br>13.43 dBm(802.11n_HT40)<br>10.97 dBm(802.11ax_HE40)_26 Tone<br>11.25 dBm(802.11ax_HE40)_52 Tone<br>11.33 dBm(802.11ax_HE40)_106 Tone<br>11.04 dBm(802.11ax_HE40)_242 Tone<br>11.02 dBm(802.11ax_HE40)_484 Tone<br>13.34 dBm(802.11ax_HE40)_Single User<br>10.87 dBm(802.11ac_VHT80)<br>8.60 dBm(802.11ax_HE40)_26 Tone<br>8.61 dBm(802.11ax_HE40)_52 Tone<br>8.50 dBm(802.11ax_HE40)_106 Tone<br>8.50 dBm(802.11ax_HE40)_242 Tone<br>8.48 dBm(802.11ax_HE40)_484 Tone<br>8.26 dBm(802.11ax_HE40)_996 Tone<br>10.76 dBm(802.11ax_HE40)_Single User |
|--------------------|---------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                    |                                       |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------|---------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RF OUTPUT<br>POWER | WLAN<br>5 725 MHz ~<br>5 850 MHz Band | Multiple Antenna<br>_Straddle | 6.57 dBm(802.11n_HT20)<br>5.90 dBm(802.11ax_HE20)_26 Tone<br>7.53 dBm(802.11ax_HE20)_52 Tone<br>7.71 dBm(802.11ax_HE20)_106 Tone<br>6.87 dBm(802.11ax_HE20)_242 Tone<br>7.04 dBm(802.11ax_HE20)_Single User<br>0.38 dBm(802.11n_HT40)<br>5.50 dBm(802.11ax_HE40)_26 Tone<br>8.10 dBm(802.11ax_HE40)_52 Tone<br>7.05 dBm(802.11ax_HE40)_106 Tone<br>3.70 dBm(802.11ax_HE40)_242 Tone<br>0.53 dBm(802.11ax_HE40)_484 Tone<br>1.23 dBm(802.11ax_HE40)_Single User<br>-6.03 dBm(802.11ac_VHT80)<br>6.10 dBm(802.11ax_HE40)_26 Tone<br>7.68 dBm(802.11ax_HE40)_52 Tone<br>4.73 dBm(802.11ax_HE40)_106 Tone<br>1.23 dBm(802.11ax_HE40)_242 Tone<br>-1.76 dBm(802.11ax_HE40)_484 Tone<br>-4.85 dBm(802.11ax_HE40)_996 Tone<br>-4.87 dBm(802.11ax_HE40)_Single User |
|--------------------|---------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| ANTENNA TYPE                                          | Dipole Antenna                |                  |           |
|-------------------------------------------------------|-------------------------------|------------------|-----------|
| ANTENNA GAIN                                          | Bluetooth LE                  | 7 dBi            |           |
|                                                       | Bluetooth                     | 7 dBi            |           |
|                                                       | WLAN 2.4 GHz                  | Antenna 0        | 7 dBi     |
|                                                       |                               | Antenna 1        | 7 dBi     |
|                                                       |                               | Multiple Antenna | 10.01 dBi |
|                                                       | 5 150 MHz ~<br>5 250 MHz Band | Antenna 0        | 9 dBi     |
|                                                       |                               | Antenna 1        | 9 dBi     |
|                                                       |                               | Multiple Antenna | 12.01 dBi |
|                                                       | 5 250 MHz ~<br>5 350 MHz Band | Antenna 0        | 9 dBi     |
|                                                       |                               | Antenna 1        | 9 dBi     |
|                                                       |                               | Multiple Antenna | 12.01 dBi |
|                                                       | 5 470 MHz ~<br>5 725 MHz Band | Antenna 0        | 9 dBi     |
|                                                       |                               | Antenna 1        | 9 dBi     |
|                                                       |                               | Multiple Antenna | 12.01 dBi |
|                                                       | 5 725 MHz ~<br>5 850 MHz Band | Antenna 0        | 9 dBi     |
|                                                       |                               | Antenna 1        | 9 dBi     |
|                                                       |                               | Multiple Antenna | 12.01 dBi |
| List of each Osc. or crystal<br>Freq.(Freq. >= 1 MHz) |                               | 40 MHz           |           |

### 3.2 Alternative type(s)/model(s); also covered by this test report.

-. None

### 4. EUT MODIFICATIONS

-. None

## 5. SYSTEM TEST CONFIGURATION

### 5.1 Justification

This device was configured for testing in a typical way as a normal customer is supposed to be used. During the test, the following components were installed inside of the EUT.

| DEVICE TYPE | MANUFACTURER         | MODEL/PART NUMBER | FCC ID |
|-------------|----------------------|-------------------|--------|
| Main Board  | LG Innotek Co., Ltd. | cTP3.0_Rev0.1     | N/A    |

### 5.2 Peripheral equipment

Defined as equipment needed for correct operation of the EUT, but not considered as tested:

| Model      | Manufacturer         | Description     | Connected to |
|------------|----------------------|-----------------|--------------|
| ATC6NPL002 | LG Innotek Co., Ltd. | RF Module (EUT) | -            |
| ZUP36-6    | NEMIC-LAMBDA         | DC Power Supply | EUT          |
| ideapad320 | Lenovo               | Notebook PC     | EUT          |

### 5.3 Mode of operation during the test

For the testing, software used to control the EUT for staying in continuous transmitting mode is programmed.

#### 5.3.1 Test RU offset for Tones

| BW (MHz) | Tones (T) | RU offset | Test RU offset |     |      |
|----------|-----------|-----------|----------------|-----|------|
|          |           |           | Low            | Mid | High |
| 20       | 26        | 0~8       | 0              | 4   | 8    |
|          | 52        | 37~40     | 37             | 38  | 40   |
|          | 106       | 53~54     | 53             | -   | 54   |
|          | 242       | 61        | -              | 61  | -    |
|          | SU        | -         | -              | -   | -    |
| 40       | 26        | 0~17      | 0              | 9   | 17   |
|          | 52        | 37~44     | 37             | 41  | 44   |
|          | 106       | 53~56     | 53             | 54  | 56   |
|          | 242       | 61~62     | 61             | -   | 62   |
|          | 484       | 65        | -              | 65  | -    |
|          | SU        | -         | -              | -   | -    |
| 80       | 26        | 0~36      | 0              | 18  | 36   |
|          | 52        | 37~52     | 37             | 45  | 52   |
|          | 106       | 53~60     | 53             | 57  | 60   |
|          | 242       | 61~64     | 61             | 62  | 64   |
|          | 484       | 65~66     | 65             | -   | 66   |
|          | 996       | 67        | -              | 67  | -    |
|          | SU        | -         | -              | -   | -    |

### 5.3.2 Worst case configuration and mode

#### Conducted Test

- 1) All data rate of operation were investigated and the worst case results are reported. (Worst case : MCS0)

#### Radiated Test

- 1) All modes of operation were investigated and the worst case configuration results are reported.
- 2) The EUT was moved throughout the XY, XZ, and YZ planes and the worst case is “XY” axis, but the worst data was recorded in this report.
- 3) All data rate of operation were investigated and the worst case results are reported. (Worst case : MCS0)
- 4) All mode(Tone, RU Offset) of operation were investigated and the worst case configuration results are reported

--. BW 20 MHz

| Test                                  | Tone                         | RU Offset            |
|---------------------------------------|------------------------------|----------------------|
| Radiated Spurious Emission & Harmonic | Tone :<br>26, 52, 106, 242 T | 26 T : 4             |
|                                       |                              | 52T : 38             |
|                                       |                              | 106 T : 53           |
|                                       |                              | 242 T : 61           |
|                                       | SU                           | -                    |
| Restricted Band                       | Tone :<br>26, 52, 106 T      | Low Edge: 0, 37, 53  |
|                                       |                              | High Edge: 8, 40, 54 |
|                                       | 242 T                        | 61                   |
|                                       | SU                           | -                    |

- . BW 40 MHz

| Test                                  | Tone                              | RU Offset                 |
|---------------------------------------|-----------------------------------|---------------------------|
| Radiated Spurious Emission & Harmonic | Tone :<br>26, 52, 106, 242, 484 T | 26 T : 9                  |
|                                       |                                   | 52T : 41                  |
|                                       |                                   | 106 T : 54                |
|                                       |                                   | 242 T : 61                |
|                                       |                                   | 484 T : 65                |
|                                       | SU                                | -                         |
| Restricted Band                       | Tone :<br>26, 52, 106, 242 T      | Low Edge: 0, 37, 53, 61   |
|                                       |                                   | High Edge: 17, 44, 56, 62 |
|                                       | 484T                              | 65                        |
|                                       | SU                                | -                         |

- . BW 80 MHz

| Test                                  | Tone                                | RU Offset                     |
|---------------------------------------|-------------------------------------|-------------------------------|
| Radiated Spurious Emission & Harmonic | Tone : 26, 52, 106, 242, 484, 996 T | 26 T : 18                     |
|                                       |                                     | 52T : 45                      |
|                                       |                                     | 106 T : 57                    |
|                                       |                                     | 242 T : 62                    |
|                                       |                                     | 484 T : 65                    |
|                                       |                                     | 996 T : 67                    |
|                                       | SU                                  | -                             |
| Restricted Band                       | Tone : 26, 52, 106, 242, 484 T      | Low Edge: 0, 37, 53, 61, 65   |
|                                       |                                     | High Edge: 36, 52, 60, 64, 66 |
|                                       | 996 T                               | 67                            |
|                                       | SU                                  | -                             |

### 5.3.3 Frequency / Channel Operations

|               |          | Channel | Frequency |
|---------------|----------|---------|-----------|
| 802.11ax HE20 | Band 1   | 36      | 5 180     |
|               |          | 44      | 5 220     |
|               |          | 48      | 5 240     |
|               | Band 2A  | 52      | 5 260     |
|               |          | 60      | 5 300     |
|               |          | 64      | 5 320     |
|               | Band 2C  | 100     | 5 500     |
|               |          | 116     | 5 580     |
|               |          | 140     | 5 700     |
|               | Straddle | 144     | 5 720     |
|               | Band 3   | 149     | 5 745     |
|               |          | 157     | 5 785     |
|               |          | 165     | 5 825     |
| 802.11ax HE40 | Band 1   | 38      | 5 190     |
|               |          | 46      | 5 230     |
|               | Band 2A  | 54      | 5 270     |
|               |          | 62      | 5 310     |
|               | Band 2C  | 102     | 5 510     |
|               |          | 110     | 5 550     |
|               |          | 134     | 5 670     |
|               | Straddle | 142     | 5 710     |
|               | Band 3   | 151     | 5 755     |
|               |          | 159     | 5 795     |
| 802.11ax HE80 | Band 1   | 42      | 5 210     |
|               | Band 2A  | 58      | 5 290     |
|               | Band 2C  | 106     | 5 530     |
|               | Straddle | 138     | 5 690     |
|               | Band 3   | 155     | 5 775     |

-. Duty Cycle

### 802.11 ax(HE20)\_ANT 0

| Mode            | Tone (T) | Data Rate | On Time (ms) | Total Time (ms) | Duty Cycle (%) | Duty Cycle Factor (dB) |
|-----------------|----------|-----------|--------------|-----------------|----------------|------------------------|
| 802.11ax (HE20) | 26       | MCS0      | 1.360        | 1.552           | 87.63          | 0.574                  |
|                 |          | MCS1      | 1.360        | 1.560           | 87.18          | 0.596                  |
|                 |          | MCS2      | 1.360        | 1.568           | 86.73          | 0.618                  |
|                 |          | MCS3      | 1.360        | 1.568           | 86.73          | 0.618                  |
|                 |          | MCS4      | 1.360        | 1.560           | 87.18          | 0.596                  |
|                 |          | MCS5      | 1.360        | 1.560           | 87.18          | 0.596                  |
|                 |          | MCS6      | 1.360        | 1.560           | 87.18          | 0.596                  |
|                 |          | MCS7      | 1.360        | 1.552           | 87.63          | 0.574                  |
|                 |          | MCS8      | 1.360        | 1.552           | 87.63          | 0.574                  |
|                 |          | MCS9      | 1.360        | 1.568           | 86.73          | 0.618                  |
|                 | 52       | MCS0      | 1.352        | 1.544           | 87.56          | 0.577                  |
|                 |          | MCS1      | 1.360        | 1.560           | 87.18          | 0.596                  |
|                 |          | MCS2      | 1.360        | 1.560           | 87.18          | 0.596                  |
|                 |          | MCS3      | 1.360        | 1.560           | 87.18          | 0.596                  |
|                 |          | MCS4      | 1.360        | 1.560           | 87.18          | 0.596                  |
|                 |          | MCS5      | 1.360        | 1.552           | 87.63          | 0.574                  |
|                 |          | MCS6      | 1.360        | 1.560           | 87.18          | 0.596                  |
|                 |          | MCS7      | 1.360        | 1.560           | 87.18          | 0.596                  |
|                 |          | MCS8      | 1.360        | 1.560           | 87.18          | 0.596                  |
|                 |          | MCS9      | 1.352        | 1.552           | 87.11          | 0.599                  |
|                 | 106      | MCS0      | 1.357        | 1.552           | 87.46          | 0.582                  |
|                 |          | MCS1      | 1.357        | 1.555           | 87.31          | 0.590                  |
|                 |          | MCS2      | 1.357        | 1.552           | 87.46          | 0.582                  |
|                 |          | MCS3      | 1.355        | 1.552           | 87.29          | 0.591                  |
|                 |          | MCS4      | 1.355        | 1.552           | 87.29          | 0.591                  |
|                 |          | MCS5      | 1.355        | 1.552           | 87.29          | 0.591                  |
|                 |          | MCS6      | 1.355        | 1.552           | 87.29          | 0.591                  |
|                 |          | MCS7      | 1.355        | 1.552           | 87.29          | 0.591                  |
|                 |          | MCS8      | 1.355        | 1.552           | 87.29          | 0.591                  |
|                 |          | MCS9      | 1.355        | 1.552           | 87.29          | 0.591                  |

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| Mode               | Tone (T) | Data Rate | On Time (ms) | Total Time (ms) | Duty Cycle (%) | Duty Cycle Factor (dB) |
|--------------------|----------|-----------|--------------|-----------------|----------------|------------------------|
| 802.11ax<br>(HE20) | 242      | MCS0      | 1.357        | 1.552           | 87.46          | 0.582                  |
|                    |          | MCS1      | 1.355        | 1.552           | 87.29          | 0.591                  |
|                    |          | MCS2      | 1.357        | 1.552           | 87.46          | 0.582                  |
|                    |          | MCS3      | 1.357        | 1.552           | 87.46          | 0.582                  |
|                    |          | MCS4      | 1.355        | 1.549           | 87.44          | 0.583                  |
|                    |          | MCS5      | 1.355        | 1.552           | 87.29          | 0.591                  |
|                    |          | MCS6      | 1.357        | 1.552           | 87.46          | 0.582                  |
|                    |          | MCS7      | 1.355        | 1.552           | 87.29          | 0.591                  |
|                    |          | MCS8      | 1.355        | 1.557           | 86.99          | 0.605                  |
|                    |          | MCS9      | 1.355        | 1.549           | 87.44          | 0.583                  |
|                    |          | MCS10     | 1.357        | 1.552           | 87.46          | 0.582                  |
|                    |          | MCS11     | 1.357        | 1.552           | 87.46          | 0.582                  |

### 802.11 ax(HE20)\_ANT 1

| Mode            | Tone (T) | Data Rate | On Time (ms) | Total Time (ms) | Duty Cycle (%) | Duty Cycle Factor (dB) |
|-----------------|----------|-----------|--------------|-----------------|----------------|------------------------|
| 802.11ax (HE20) | 26       | MCS0      | 1.355        | 1.548           | 87.53          | 0.578                  |
|                 |          | MCS1      | 1.355        | 1.556           | 87.08          | 0.601                  |
|                 |          | MCS2      | 1.355        | 1.556           | 87.08          | 0.601                  |
|                 |          | MCS3      | 1.355        | 1.556           | 87.08          | 0.601                  |
|                 |          | MCS4      | 1.355        | 1.556           | 87.08          | 0.601                  |
|                 |          | MCS5      | 1.355        | 1.556           | 87.08          | 0.601                  |
|                 |          | MCS6      | 1.355        | 1.548           | 87.53          | 0.578                  |
|                 |          | MCS7      | 1.355        | 1.548           | 87.53          | 0.578                  |
|                 |          | MCS8      | 1.355        | 1.548           | 87.53          | 0.578                  |
|                 |          | MCS9      | 1.347        | 1.548           | 87.02          | 0.604                  |
|                 | 52       | MCS0      | 1.355        | 1.548           | 87.53          | 0.578                  |
|                 |          | MCS1      | 1.355        | 1.556           | 87.08          | 0.601                  |
|                 |          | MCS2      | 1.355        | 1.556           | 87.08          | 0.601                  |
|                 |          | MCS3      | 1.355        | 1.548           | 87.53          | 0.578                  |
|                 |          | MCS4      | 1.355        | 1.548           | 87.53          | 0.578                  |
|                 |          | MCS5      | 1.355        | 1.556           | 87.08          | 0.601                  |
|                 |          | MCS6      | 1.355        | 1.556           | 87.08          | 0.601                  |
|                 |          | MCS7      | 1.355        | 1.556           | 87.08          | 0.601                  |
|                 |          | MCS8      | 1.355        | 1.548           | 87.53          | 0.578                  |
|                 |          | MCS9      | 1.355        | 1.548           | 87.53          | 0.578                  |
|                 | 106      | MCS0      | 1.358        | 1.551           | 87.55          | 0.577                  |
|                 |          | MCS1      | 1.355        | 1.551           | 87.38          | 0.586                  |
|                 |          | MCS2      | 1.355        | 1.551           | 87.38          | 0.586                  |
|                 |          | MCS3      | 1.355        | 1.551           | 87.38          | 0.586                  |
|                 |          | MCS4      | 1.355        | 1.551           | 87.38          | 0.586                  |
|                 |          | MCS5      | 1.355        | 1.551           | 87.38          | 0.586                  |
|                 |          | MCS6      | 1.358        | 1.551           | 87.55          | 0.577                  |
|                 |          | MCS7      | 1.355        | 1.551           | 87.38          | 0.586                  |
|                 |          | MCS8      | 1.358        | 1.551           | 87.55          | 0.577                  |
|                 |          | MCS9      | 1.355        | 1.551           | 87.38          | 0.586                  |

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| Mode               | Tone (T) | Data Rate | On Time (ms) | Total Time (ms) | Duty Cycle (%) | Duty Cycle Factor (dB) |
|--------------------|----------|-----------|--------------|-----------------|----------------|------------------------|
| 802.11ax<br>(HE20) | 242      | MCS0      | 1.358        | 1.551           | 87.55          | 0.577                  |
|                    |          | MCS1      | 1.355        | 1.551           | 87.38          | 0.586                  |
|                    |          | MCS2      | 1.355        | 1.551           | 87.38          | 0.586                  |
|                    |          | MCS3      | 1.355        | 1.551           | 87.38          | 0.586                  |
|                    |          | MCS4      | 1.355        | 1.551           | 87.38          | 0.586                  |
|                    |          | MCS5      | 1.358        | 1.551           | 87.55          | 0.577                  |
|                    |          | MCS6      | 1.355        | 1.548           | 87.53          | 0.578                  |
|                    |          | MCS7      | 1.358        | 1.551           | 87.55          | 0.577                  |
|                    |          | MCS8      | 1.355        | 1.551           | 87.38          | 0.586                  |
|                    |          | MCS9      | 1.355        | 1.548           | 87.53          | 0.578                  |
|                    |          | MCS10     | 1.358        | 1.551           | 87.55          | 0.577                  |
|                    |          | MCS11     | 1.358        | 1.551           | 87.55          | 0.577                  |

**802.11 ax(HE40)\_ANT 0**

| Mode               | Tone (T) | Data Rate | On Time (ms) | Total Time (ms) | Duty Cycle (%) | Duty Cycle Factor (dB) |
|--------------------|----------|-----------|--------------|-----------------|----------------|------------------------|
| 802.11ax<br>(HE40) | 26       | MCS0      | 1.355        | 1.499           | 90.39          | 0.439                  |
|                    |          | MCS1      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                    |          | MCS2      | 1.355        | 1.507           | 89.91          | 0.462                  |
|                    |          | MCS3      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                    |          | MCS4      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                    |          | MCS5      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                    |          | MCS6      | 1.355        | 1.499           | 90.39          | 0.439                  |
|                    |          | MCS7      | 1.352        | 1.501           | 90.05          | 0.455                  |
|                    |          | MCS8      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                    |          | MCS9      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                    | 52       | MCS0      | 1.355        | 1.499           | 90.39          | 0.439                  |
|                    |          | MCS1      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                    |          | MCS2      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                    |          | MCS3      | 1.352        | 1.499           | 90.21          | 0.447                  |
|                    |          | MCS4      | 1.355        | 1.499           | 90.39          | 0.439                  |
|                    |          | MCS5      | 1.355        | 1.499           | 90.39          | 0.439                  |
|                    |          | MCS6      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                    |          | MCS7      | 1.355        | 1.499           | 90.39          | 0.439                  |
|                    |          | MCS8      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                    |          | MCS9      | 1.352        | 1.499           | 90.21          | 0.447                  |
|                    | 106      | MCS0      | 1.357        | 1.501           | 90.41          | 0.438                  |
|                    |          | MCS1      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                    |          | MCS2      | 1.355        | 1.499           | 90.39          | 0.439                  |
|                    |          | MCS3      | 1.357        | 1.501           | 90.41          | 0.438                  |
|                    |          | MCS4      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                    |          | MCS5      | 1.357        | 1.501           | 90.41          | 0.438                  |
|                    |          | MCS6      | 1.357        | 1.501           | 90.41          | 0.438                  |
|                    |          | MCS7      | 1.357        | 1.501           | 90.41          | 0.438                  |
|                    |          | MCS8      | 1.352        | 1.499           | 90.21          | 0.447                  |
|                    |          | MCS9      | 1.357        | 1.501           | 90.41          | 0.438                  |

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| Mode            | Tone (T) | Data Rate | On Time (ms) | Total Time (ms) | Duty Cycle (%) | Duty Cycle Factor (dB) |
|-----------------|----------|-----------|--------------|-----------------|----------------|------------------------|
| 802.11ax (HE40) | 242      | MCS0      | 1.357        | 1.501           | 90.41          | 0.438                  |
|                 |          | MCS1      | 1.357        | 1.501           | 90.41          | 0.438                  |
|                 |          | MCS2      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                 |          | MCS3      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                 |          | MCS4      | 1.357        | 1.501           | 90.41          | 0.438                  |
|                 |          | MCS5      | 1.352        | 1.501           | 90.05          | 0.455                  |
|                 |          | MCS6      | 1.357        | 1.501           | 90.41          | 0.438                  |
|                 |          | MCS7      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                 |          | MCS8      | 1.357        | 1.501           | 90.41          | 0.438                  |
|                 |          | MCS9      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                 |          | MCS10     | 1.355        | 1.499           | 90.39          | 0.439                  |
|                 |          | MCS11     | 1.355        | 1.501           | 90.23          | 0.446                  |
|                 | 484      | MCS0      | 1.357        | 1.501           | 90.41          | 0.438                  |
|                 |          | MCS1      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                 |          | MCS2      | 1.357        | 1.507           | 90.09          | 0.453                  |
|                 |          | MCS3      | 1.355        | 1.499           | 90.39          | 0.439                  |
|                 |          | MCS4      | 1.352        | 1.496           | 90.37          | 0.440                  |
|                 |          | MCS5      | 1.352        | 1.499           | 90.21          | 0.447                  |
|                 |          | MCS6      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                 |          | MCS7      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                 |          | MCS8      | 1.355        | 1.501           | 90.23          | 0.446                  |
|                 |          | MCS9      | 1.355        | 1.499           | 90.39          | 0.439                  |
|                 |          | MCS10     | 1.355        | 1.501           | 90.23          | 0.446                  |
|                 |          | MCS11     | 1.352        | 1.499           | 90.21          | 0.447                  |

# 802.11 ax(HE40)\_ANT 1

| Mode            | Tone (T) | Data Rate | On Time (ms) | Total Time (ms) | Duty Cycle (%) | Duty Cycle Factor (dB) |
|-----------------|----------|-----------|--------------|-----------------|----------------|------------------------|
| 802.11ax (HE40) | 26       | MCS0      | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 |          | MCS1      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS2      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS3      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS4      | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 |          | MCS5      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS6      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS7      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS8      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS9      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 | 52       | MCS0      | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 |          | MCS1      | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 |          | MCS2      | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 |          | MCS3      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS4      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS5      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS6      | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 |          | MCS7      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS8      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS9      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 | 106      | MCS0      | 1.358        | 1.500           | 90.51          | 0.433                  |
|                 |          | MCS1      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS2      | 1.358        | 1.500           | 90.51          | 0.433                  |
|                 |          | MCS3      | 1.358        | 1.500           | 90.51          | 0.433                  |
|                 |          | MCS4      | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 |          | MCS5      | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 |          | MCS6      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS7      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS8      | 1.358        | 1.500           | 90.51          | 0.433                  |
|                 |          | MCS9      | 1.355        | 1.500           | 90.33          | 0.442                  |

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| Mode            | Tone (T) | Data Rate | On Time (ms) | Total Time (ms) | Duty Cycle (%) | Duty Cycle Factor (dB) |
|-----------------|----------|-----------|--------------|-----------------|----------------|------------------------|
| 802.11ax (HE40) | 242      | MCS0      | 1.358        | 1.500           | 90.51          | 0.433                  |
|                 |          | MCS1      | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 |          | MCS2      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS3      | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 |          | MCS4      | 1.358        | 1.500           | 90.51          | 0.433                  |
|                 |          | MCS5      | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 |          | MCS6      | 1.358        | 1.500           | 90.51          | 0.433                  |
|                 |          | MCS7      | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 |          | MCS8      | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 |          | MCS9      | 1.358        | 1.500           | 90.51          | 0.433                  |
|                 |          | MCS10     | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS11     | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 | 484      | MCS0      | 1.358        | 1.500           | 90.51          | 0.433                  |
|                 |          | MCS1      | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 |          | MCS2      | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 |          | MCS3      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS4      | 1.358        | 1.500           | 90.51          | 0.433                  |
|                 |          | MCS5      | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 |          | MCS6      | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 |          | MCS7      | 1.355        | 1.497           | 90.49          | 0.434                  |
|                 |          | MCS8      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS9      | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS10     | 1.355        | 1.500           | 90.33          | 0.442                  |
|                 |          | MCS11     | 1.355        | 1.500           | 90.33          | 0.442                  |

**802.11 ax(HE80)\_ANT 0**

| Mode               | Tone (T) | Data Rate | On Time (ms) | Total Time (ms) | Duty Cycle (%) | Duty Cycle Factor (dB) |
|--------------------|----------|-----------|--------------|-----------------|----------------|------------------------|
| 802.11ax<br>(HE80) | 26       | MCS0      | 1.355        | 1.536           | 88.19          | 0.546                  |
|                    |          | MCS1      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                    |          | MCS2      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                    |          | MCS3      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                    |          | MCS4      | 1.352        | 1.536           | 88.02          | 0.554                  |
|                    |          | MCS5      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                    |          | MCS6      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                    |          | MCS7      | 1.355        | 1.541           | 87.89          | 0.561                  |
|                    |          | MCS8      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                    |          | MCS9      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                    | 52       | MCS0      | 1.357        | 1.539           | 88.21          | 0.545                  |
|                    |          | MCS1      | 1.355        | 1.541           | 87.89          | 0.561                  |
|                    |          | MCS2      | 1.352        | 1.539           | 87.87          | 0.562                  |
|                    |          | MCS3      | 1.355        | 1.536           | 88.19          | 0.546                  |
|                    |          | MCS4      | 1.349        | 1.533           | 88.00          | 0.555                  |
|                    |          | MCS5      | 1.355        | 1.541           | 87.89          | 0.561                  |
|                    |          | MCS6      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                    |          | MCS7      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                    |          | MCS8      | 1.349        | 1.544           | 87.39          | 0.585                  |
|                    |          | MCS9      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                    | 106      | MCS0      | 1.357        | 1.539           | 88.21          | 0.545                  |
|                    |          | MCS1      | 1.355        | 1.536           | 88.19          | 0.546                  |
|                    |          | MCS2      | 1.352        | 1.533           | 88.17          | 0.547                  |
|                    |          | MCS3      | 1.357        | 1.539           | 88.21          | 0.545                  |
|                    |          | MCS4      | 1.355        | 1.541           | 87.89          | 0.561                  |
|                    |          | MCS5      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                    |          | MCS6      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                    |          | MCS7      | 1.357        | 1.539           | 88.21          | 0.545                  |
|                    |          | MCS8      | 1.355        | 1.536           | 88.19          | 0.546                  |
|                    |          | MCS9      | 1.355        | 1.539           | 88.04          | 0.553                  |

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| Mode            | Tone (T) | Data Rate | On Time (ms) | Total Time (ms) | Duty Cycle (%) | Duty Cycle Factor (dB) |
|-----------------|----------|-----------|--------------|-----------------|----------------|------------------------|
| 802.11ax (HE80) | 242      | MCS0      | 1.357        | 1.539           | 88.21          | 0.545                  |
|                 |          | MCS1      | 1.357        | 1.539           | 88.21          | 0.545                  |
|                 |          | MCS2      | 1.355        | 1.536           | 88.19          | 0.546                  |
|                 |          | MCS3      | 1.357        | 1.539           | 88.21          | 0.545                  |
|                 |          | MCS4      | 1.352        | 1.533           | 88.17          | 0.547                  |
|                 |          | MCS5      | 1.357        | 1.539           | 88.21          | 0.545                  |
|                 |          | MCS6      | 1.355        | 1.536           | 88.19          | 0.546                  |
|                 |          | MCS7      | 1.355        | 1.536           | 88.19          | 0.546                  |
|                 |          | MCS8      | 1.355        | 1.536           | 88.19          | 0.546                  |
|                 |          | MCS9      | 1.357        | 1.539           | 88.21          | 0.545                  |
|                 |          | MCS10     | 1.357        | 1.539           | 88.21          | 0.545                  |
|                 |          | MCS11     | 1.357        | 1.539           | 88.21          | 0.545                  |
|                 | 484      | MCS0      | 1.357        | 1.539           | 88.21          | 0.545                  |
|                 |          | MCS1      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                 |          | MCS2      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                 |          | MCS3      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                 |          | MCS4      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                 |          | MCS5      | 1.355        | 1.536           | 88.19          | 0.546                  |
|                 |          | MCS6      | 1.357        | 1.539           | 88.21          | 0.545                  |
|                 |          | MCS7      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                 |          | MCS8      | 1.355        | 1.536           | 88.19          | 0.546                  |
|                 |          | MCS9      | 1.357        | 1.539           | 88.21          | 0.545                  |
|                 |          | MCS10     | 1.357        | 1.539           | 88.21          | 0.545                  |
|                 |          | MCS11     | 1.355        | 1.539           | 88.04          | 0.553                  |

| Mode               | Tone (T) | Data Rate | On Time (ms) | Total Time (ms) | Duty Cycle (%) | Duty Cycle Factor (dB) |
|--------------------|----------|-----------|--------------|-----------------|----------------|------------------------|
| 802.11ax<br>(HE80) | 996      | MCS0      | 1.357        | 1.539           | 88.21          | 0.545                  |
|                    |          | MCS1      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                    |          | MCS2      | 1.355        | 1.541           | 87.89          | 0.561                  |
|                    |          | MCS3      | 1.357        | 1.539           | 88.21          | 0.545                  |
|                    |          | MCS4      | 1.357        | 1.541           | 88.06          | 0.552                  |
|                    |          | MCS5      | 1.355        | 1.536           | 88.19          | 0.546                  |
|                    |          | MCS6      | 1.355        | 1.539           | 88.04          | 0.553                  |
|                    |          | MCS7      | 1.357        | 1.539           | 88.21          | 0.545                  |
|                    |          | MCS8      | 1.357        | 1.539           | 88.21          | 0.545                  |
|                    |          | MCS9      | 1.355        | 1.536           | 88.19          | 0.546                  |
|                    |          | MCS10     | 1.357        | 1.539           | 88.21          | 0.545                  |
|                    |          | MCS11     | 1.357        | 1.541           | 88.06          | 0.552                  |

**802.11 ax(HE80)\_ANT 1**

| Mode            | Tone (T) | Data Rate | On Time (ms) | Total Time (ms) | Duty Cycle (%) | Duty Cycle Factor (dB) |
|-----------------|----------|-----------|--------------|-----------------|----------------|------------------------|
| 802.11ax (HE80) | 26       | MCS0      | 1.355        | 1.535           | 88.29          | 0.541                  |
|                 |          | MCS1      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS2      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS3      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS4      | 1.355        | 1.535           | 88.29          | 0.541                  |
|                 |          | MCS5      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS6      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS7      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS8      | 1.355        | 1.535           | 88.29          | 0.541                  |
|                 |          | MCS9      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 | 52       | MCS0      | 1.358        | 1.537           | 88.31          | 0.540                  |
|                 |          | MCS1      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS2      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS3      | 1.355        | 1.535           | 88.29          | 0.541                  |
|                 |          | MCS4      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS5      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS6      | 1.358        | 1.537           | 88.31          | 0.540                  |
|                 |          | MCS7      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS8      | 1.358        | 1.537           | 88.31          | 0.540                  |
|                 |          | MCS9      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 | 106      | MCS0      | 1.358        | 1.537           | 88.31          | 0.540                  |
|                 |          | MCS1      | 1.358        | 1.537           | 88.31          | 0.540                  |
|                 |          | MCS2      | 1.358        | 1.537           | 88.31          | 0.540                  |
|                 |          | MCS3      | 1.355        | 1.535           | 88.29          | 0.541                  |
|                 |          | MCS4      | 1.358        | 1.537           | 88.31          | 0.540                  |
|                 |          | MCS5      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS6      | 1.355        | 1.535           | 88.29          | 0.541                  |
|                 |          | MCS7      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS8      | 1.355        | 1.535           | 88.29          | 0.541                  |
|                 |          | MCS9      | 1.358        | 1.537           | 88.31          | 0.540                  |

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| Mode            | Tone (T) | Data Rate | On Time (ms) | Total Time (ms) | Duty Cycle (%) | Duty Cycle Factor (dB) |
|-----------------|----------|-----------|--------------|-----------------|----------------|------------------------|
| 802.11ax (HE80) | 242      | MCS0      | 1.358        | 1.537           | 88.31          | 0.540                  |
|                 |          | MCS1      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS2      | 1.355        | 1.535           | 88.29          | 0.541                  |
|                 |          | MCS3      | 1.358        | 1.537           | 88.31          | 0.540                  |
|                 |          | MCS4      | 1.358        | 1.537           | 88.31          | 0.540                  |
|                 |          | MCS5      | 1.358        | 1.537           | 88.31          | 0.540                  |
|                 |          | MCS6      | 1.355        | 1.535           | 88.29          | 0.541                  |
|                 |          | MCS7      | 1.358        | 1.537           | 88.31          | 0.540                  |
|                 |          | MCS8      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS9      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS10     | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS11     | 1.358        | 1.537           | 88.31          | 0.540                  |
|                 | 484      | MCS0      | 1.358        | 1.537           | 88.31          | 0.540                  |
|                 |          | MCS1      | 1.355        | 1.535           | 88.29          | 0.541                  |
|                 |          | MCS2      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS3      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS4      | 1.355        | 1.535           | 88.29          | 0.541                  |
|                 |          | MCS5      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS6      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS7      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS8      | 1.355        | 1.535           | 88.29          | 0.541                  |
|                 |          | MCS9      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS10     | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS11     | 1.355        | 1.535           | 88.29          | 0.541                  |

| Mode            | Tone (T) | Data Rate | On Time (ms) | Total Time (ms) | Duty Cycle (%) | Duty Cycle Factor (dB) |
|-----------------|----------|-----------|--------------|-----------------|----------------|------------------------|
| 802.11ax (HE80) | 996      | MCS0      | 1.358        | 1.537           | 88.31          | 0.540                  |
|                 |          | MCS1      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS2      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS3      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS4      | 1.355        | 1.535           | 88.29          | 0.541                  |
|                 |          | MCS5      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS6      | 1.358        | 1.537           | 88.31          | 0.540                  |
|                 |          | MCS7      | 1.355        | 1.535           | 88.29          | 0.541                  |
|                 |          | MCS8      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS9      | 1.355        | 1.537           | 88.14          | 0.548                  |
|                 |          | MCS10     | 1.358        | 1.537           | 88.31          | 0.540                  |
|                 |          | MCS11     | 1.355        | 1.535           | 88.29          | 0.541                  |

**802.11 ax(SU)\_ANT 0**

| Mode             | BW    | Data Rate | On Time<br>(ms) | Total Time<br>(ms) | Duty Cycle<br>(%) | Duty Cycle<br>Factor (dB) |
|------------------|-------|-----------|-----------------|--------------------|-------------------|---------------------------|
| 802.11ax<br>(SU) | BW 20 | MCS0      | 1.042           | 1.058              | 98.49             | 0.066                     |
|                  |       | MCS1      | 0.550           | 0.566              | 97.17             | 0.125                     |
|                  |       | MCS2      | 0.384           | 0.400              | 96.00             | 0.177                     |
|                  |       | MCS3      | 0.302           | 0.318              | 94.97             | 0.224                     |
|                  |       | MCS4      | 0.220           | 0.236              | 93.22             | 0.305                     |
|                  |       | MCS5      | 0.180           | 0.196              | 91.84             | 0.370                     |
|                  |       | MCS6      | 0.166           | 0.182              | 91.21             | 0.400                     |
|                  |       | MCS7      | 0.156           | 0.172              | 90.70             | 0.424                     |
|                  |       | MCS8      | 0.140           | 0.156              | 89.74             | 0.470                     |
|                  |       | MCS9      | 0.128           | 0.144              | 88.89             | 0.512                     |
|                  |       | MCS10     | 0.126           | 0.142              | 88.73             | 0.519                     |
|                  |       | MCS11     | 0.116           | 0.132              | 87.88             | 0.561                     |
|                  | BW 40 | MCS0      | 0.552           | 0.568              | 97.18             | 0.124                     |
|                  |       | MCS1      | 0.302           | 0.318              | 94.97             | 0.224                     |
|                  |       | MCS2      | 0.220           | 0.236              | 93.22             | 0.305                     |
|                  |       | MCS3      | 0.180           | 0.196              | 91.84             | 0.370                     |
|                  |       | MCS4      | 0.144           | 0.160              | 90.00             | 0.458                     |
|                  |       | MCS5      | 0.120           | 0.136              | 88.24             | 0.544                     |
|                  |       | MCS6      | 0.116           | 0.132              | 87.88             | 0.561                     |
|                  |       | MCS7      | 0.106           | 0.122              | 86.89             | 0.611                     |
|                  |       | MCS8      | 0.102           | 0.118              | 86.44             | 0.633                     |
|                  |       | MCS9      | 0.096           | 0.112              | 85.71             | 0.669                     |
|                  |       | MCS10     | 0.092           | 0.108              | 85.19             | 0.696                     |
|                  |       | MCS11     | 0.084           | 0.100              | 84.00             | 0.757                     |

| Mode             | BW    | Data Rate | On Time<br>(ms) | Total Time<br>(ms) | Duty Cycle<br>(%) | Duty Cycle<br>Factor (dB) |
|------------------|-------|-----------|-----------------|--------------------|-------------------|---------------------------|
| 802.11ax<br>(SU) | BW 80 | MCS0      | 0.292           | 0.308              | 94.81             | 0.232                     |
|                  |       | MCS1      | 0.174           | 0.190              | 91.58             | 0.382                     |
|                  |       | MCS2      | 0.140           | 0.156              | 89.74             | 0.470                     |
|                  |       | MCS3      | 0.116           | 0.132              | 87.88             | 0.561                     |
|                  |       | MCS4      | 0.098           | 0.114              | 85.96             | 0.657                     |
|                  |       | MCS5      | 0.085           | 0.101              | 84.16             | 0.749                     |
|                  |       | MCS6      | 0.085           | 0.101              | 84.16             | 0.749                     |
|                  |       | MCS7      | 0.083           | 0.099              | 83.84             | 0.766                     |
|                  |       | MCS8      | 0.079           | 0.095              | 83.16             | 0.801                     |
|                  |       | MCS9      | 0.079           | 0.095              | 83.16             | 0.801                     |
|                  |       | MCS10     | 0.075           | 0.091              | 82.42             | 0.840                     |
|                  |       | MCS11     | 0.075           | 0.091              | 82.42             | 0.840                     |

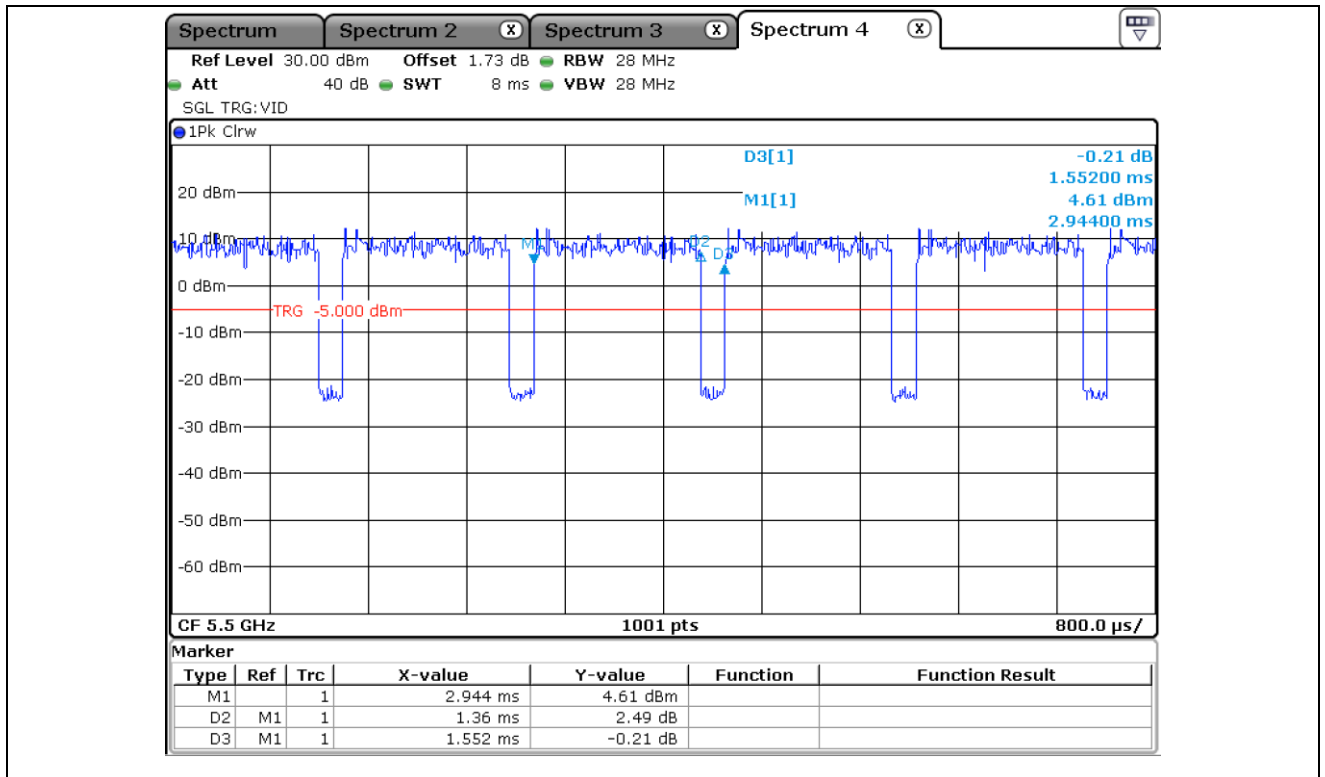
**802.11 ax(SU)\_ANT 1**

| Mode             | BW    | Data Rate | On Time<br>(ms) | Total Time<br>(ms) | Duty Cycle<br>(%) | Duty Cycle<br>Factor (dB) |
|------------------|-------|-----------|-----------------|--------------------|-------------------|---------------------------|
| 802.11ax<br>(SU) | BW 20 | MCS0      | 1.041           | 1.057              | 98.49             | 0.066                     |
|                  |       | MCS1      | 0.545           | 0.561              | 97.15             | 0.126                     |
|                  |       | MCS2      | 0.383           | 0.399              | 95.99             | 0.178                     |
|                  |       | MCS3      | 0.301           | 0.317              | 94.95             | 0.225                     |
|                  |       | MCS4      | 0.219           | 0.235              | 93.19             | 0.306                     |
|                  |       | MCS5      | 0.179           | 0.195              | 91.79             | 0.372                     |
|                  |       | MCS6      | 0.165           | 0.181              | 91.16             | 0.402                     |
|                  |       | MCS7      | 0.157           | 0.173              | 90.75             | 0.421                     |
|                  |       | MCS8      | 0.137           | 0.153              | 89.54             | 0.480                     |
|                  |       | MCS9      | 0.127           | 0.143              | 88.81             | 0.515                     |
|                  |       | MCS10     | 0.125           | 0.141              | 88.65             | 0.523                     |
|                  |       | MCS11     | 0.115           | 0.131              | 87.79             | 0.566                     |
|                  | BW 40 | MCS0      | 0.551           | 0.567              | 97.18             | 0.124                     |
|                  |       | MCS1      | 0.303           | 0.319              | 94.98             | 0.223                     |
|                  |       | MCS2      | 0.219           | 0.235              | 93.19             | 0.306                     |
|                  |       | MCS3      | 0.179           | 0.195              | 91.79             | 0.372                     |
|                  |       | MCS4      | 0.143           | 0.159              | 89.94             | 0.461                     |
|                  |       | MCS5      | 0.121           | 0.137              | 88.32             | 0.539                     |
|                  |       | MCS6      | 0.115           | 0.131              | 87.79             | 0.566                     |
|                  |       | MCS7      | 0.107           | 0.123              | 86.99             | 0.605                     |
|                  |       | MCS8      | 0.103           | 0.119              | 86.55             | 0.627                     |
|                  |       | MCS9      | 0.097           | 0.113              | 85.84             | 0.663                     |
|                  |       | MCS10     | 0.093           | 0.109              | 85.32             | 0.689                     |
|                  |       | MCS11     | 0.085           | 0.101              | 84.16             | 0.749                     |

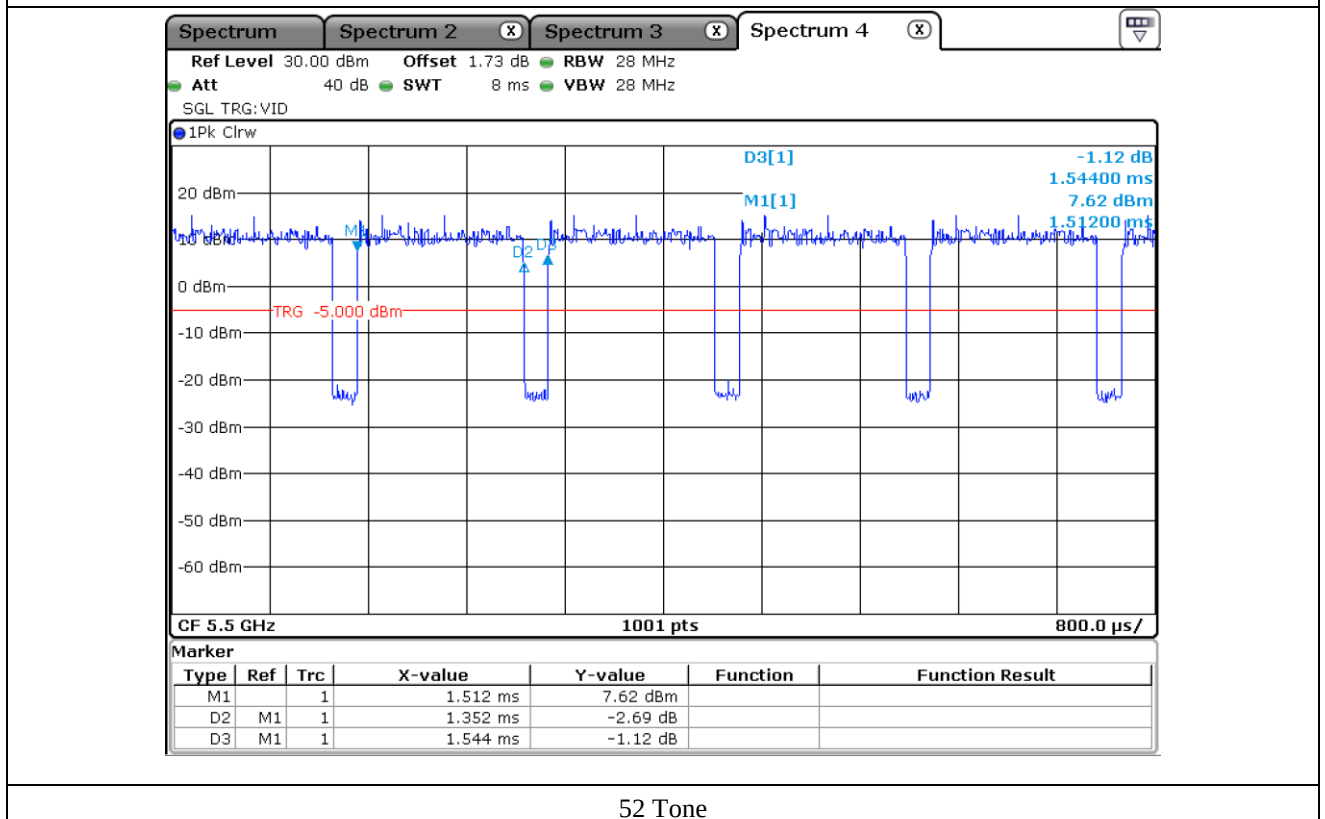
| Mode             | BW    | Data Rate | On Time<br>(ms) | Total Time<br>(ms) | Duty Cycle<br>(%) | Duty Cycle<br>Factor (dB) |
|------------------|-------|-----------|-----------------|--------------------|-------------------|---------------------------|
| 802.11ax<br>(SU) | BW 80 | MCS0      | 0.295           | 0.311              | 94.86             | 0.229                     |
|                  |       | MCS1      | 0.173           | 0.189              | 91.53             | 0.384                     |
|                  |       | MCS2      | 0.137           | 0.153              | 89.54             | 0.480                     |
|                  |       | MCS3      | 0.115           | 0.131              | 87.79             | 0.566                     |
|                  |       | MCS4      | 0.097           | 0.113              | 85.84             | 0.663                     |
|                  |       | MCS5      | 0.085           | 0.101              | 84.16             | 0.749                     |
|                  |       | MCS6      | 0.085           | 0.101              | 84.16             | 0.749                     |
|                  |       | MCS7      | 0.083           | 0.099              | 83.84             | 0.766                     |
|                  |       | MCS8      | 0.079           | 0.095              | 83.16             | 0.801                     |
|                  |       | MCS9      | 0.079           | 0.095              | 83.16             | 0.801                     |
|                  |       | MCS10     | 0.075           | 0.091              | 82.42             | 0.840                     |
|                  |       | MCS11     | 0.075           | 0.091              | 82.42             | 0.840                     |

# -. Test Plot for 802.11 ax(HE20)

## -. Antenna 0



## 26 Tone



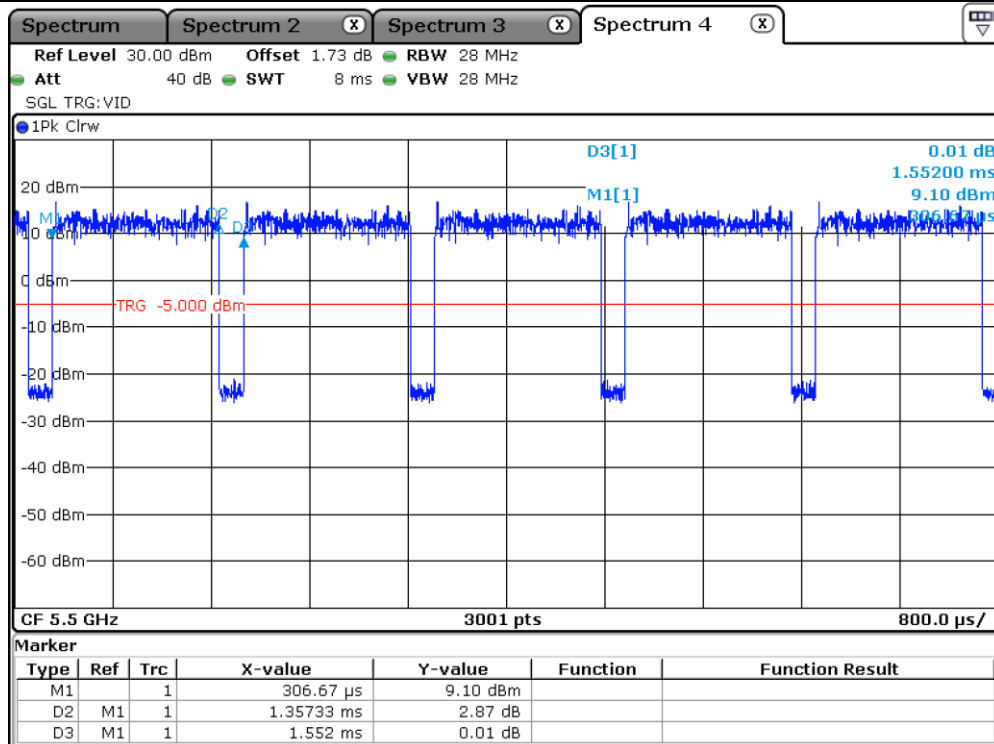
## 52 Tone

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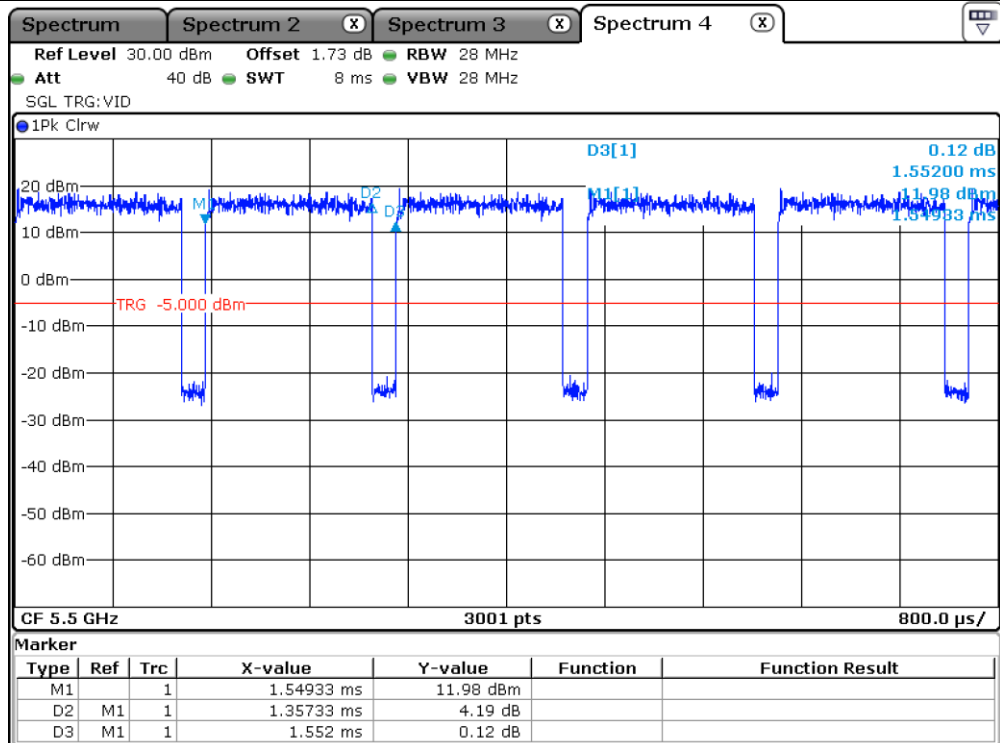
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### 106 Tone



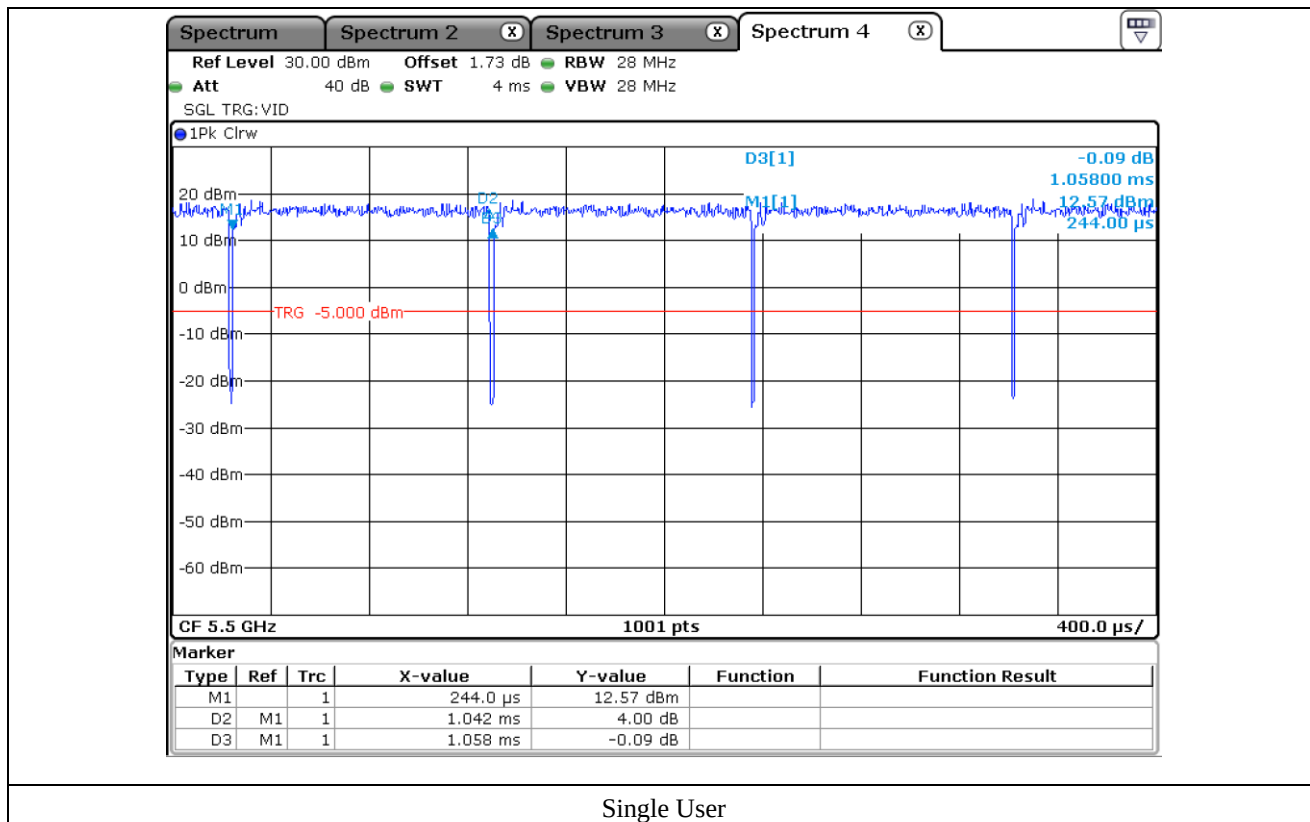
### 242 Tone

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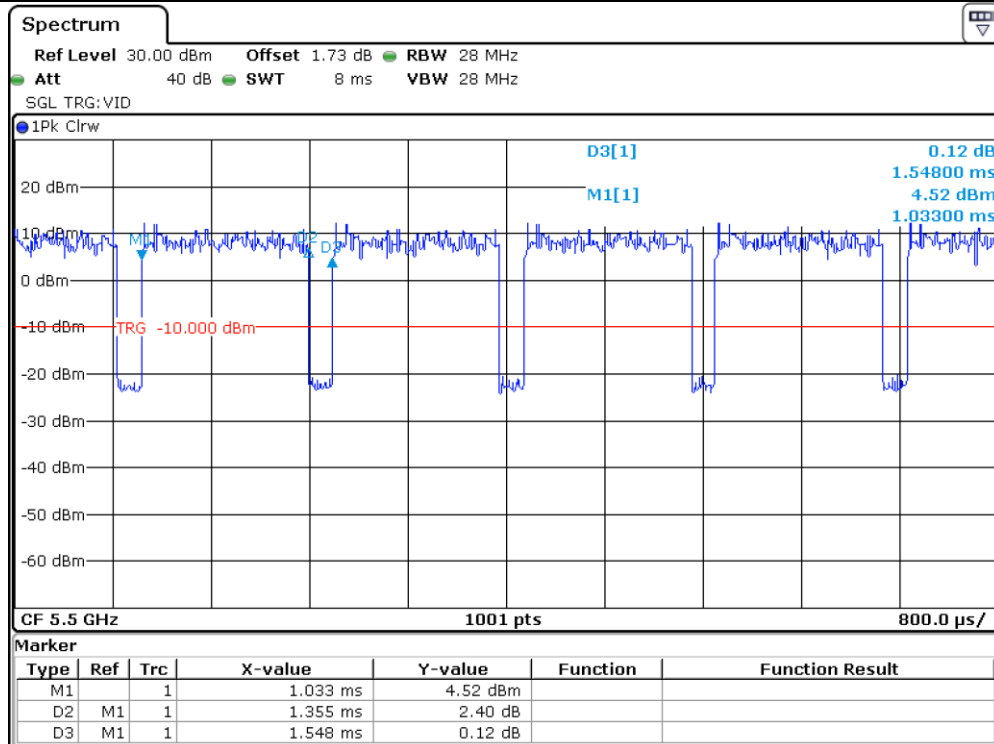
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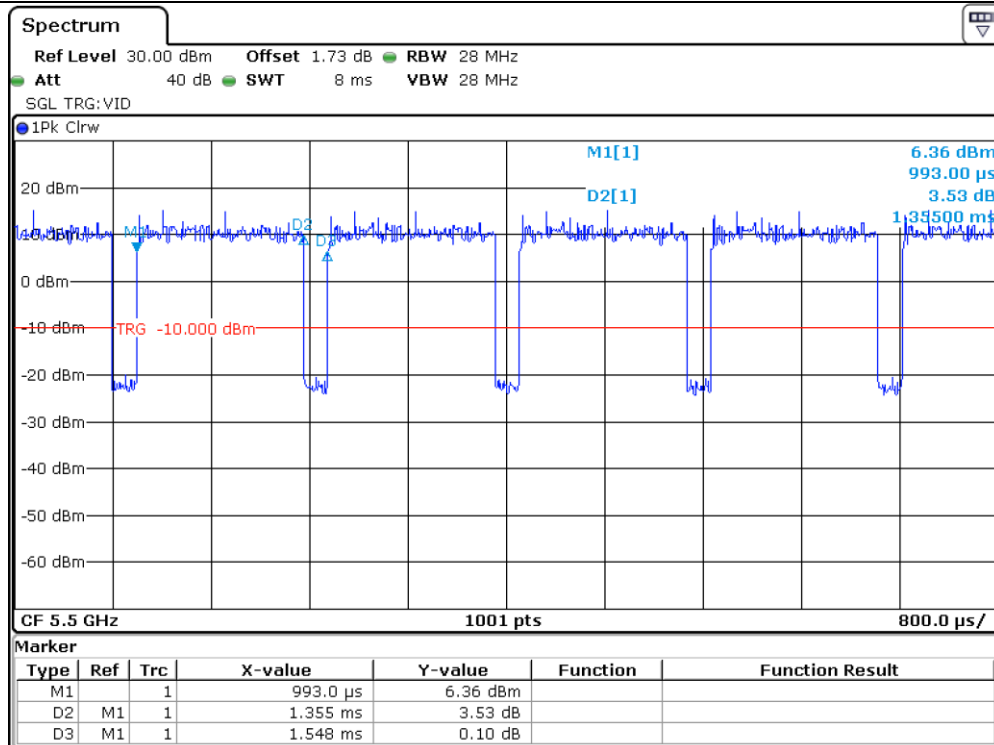
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# -. Antenna 1



## 26 Tone



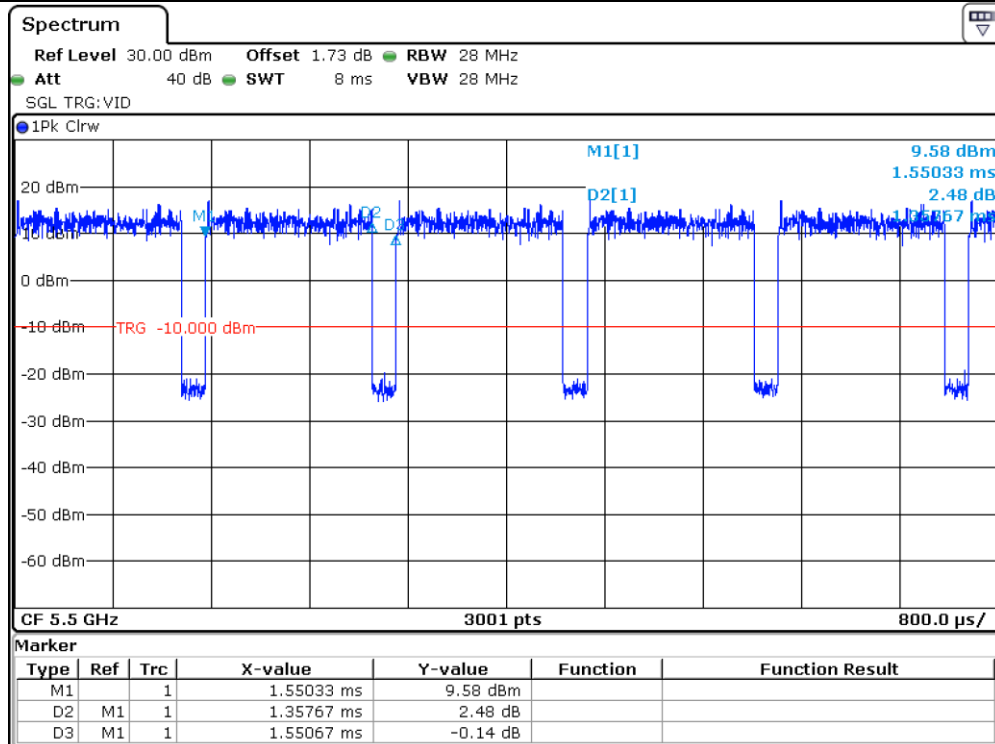
## 52 Tone

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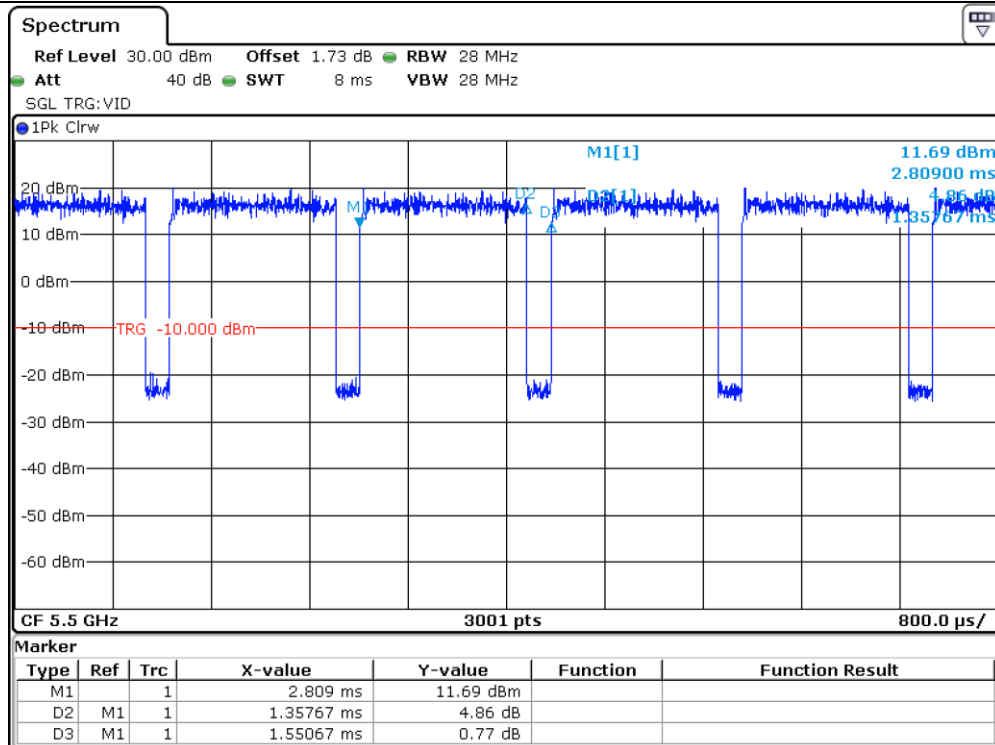
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106 Tone



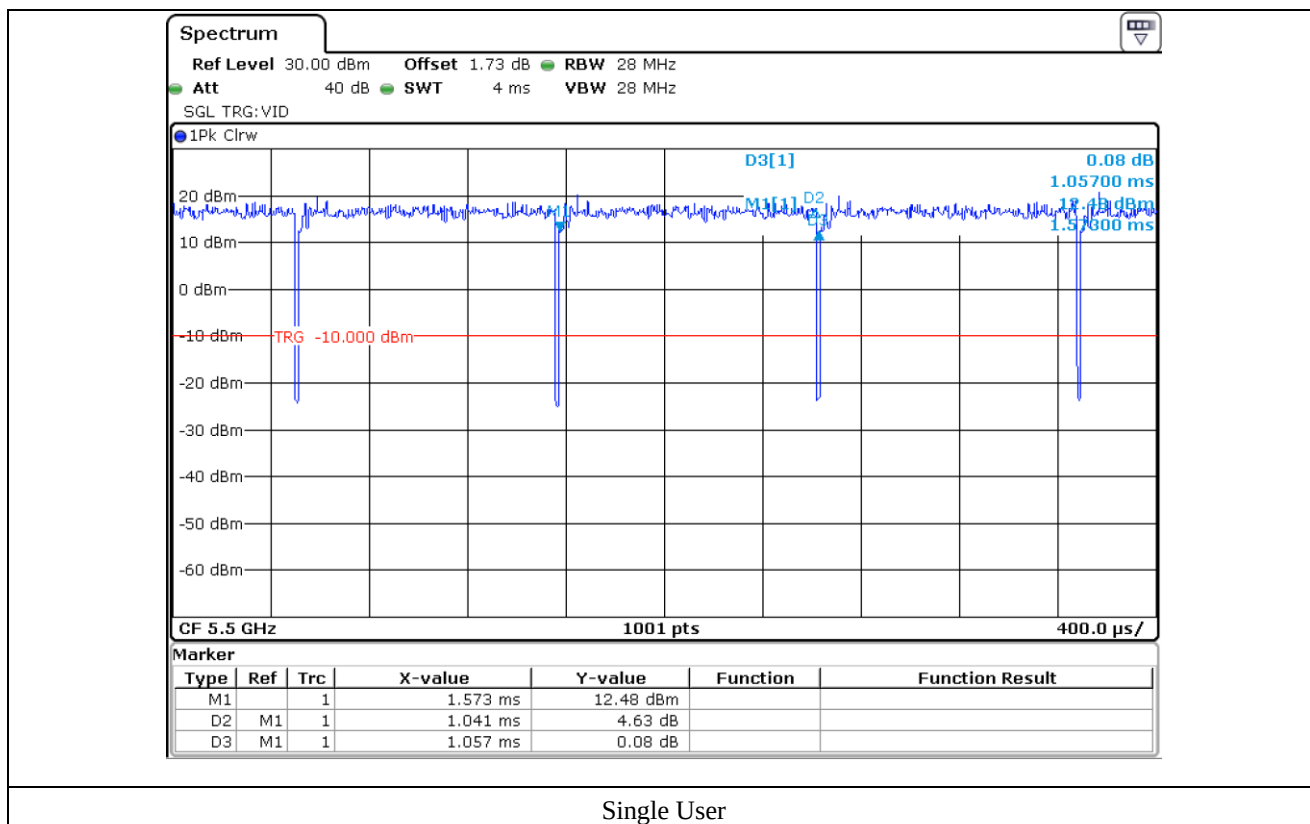
242 Tone

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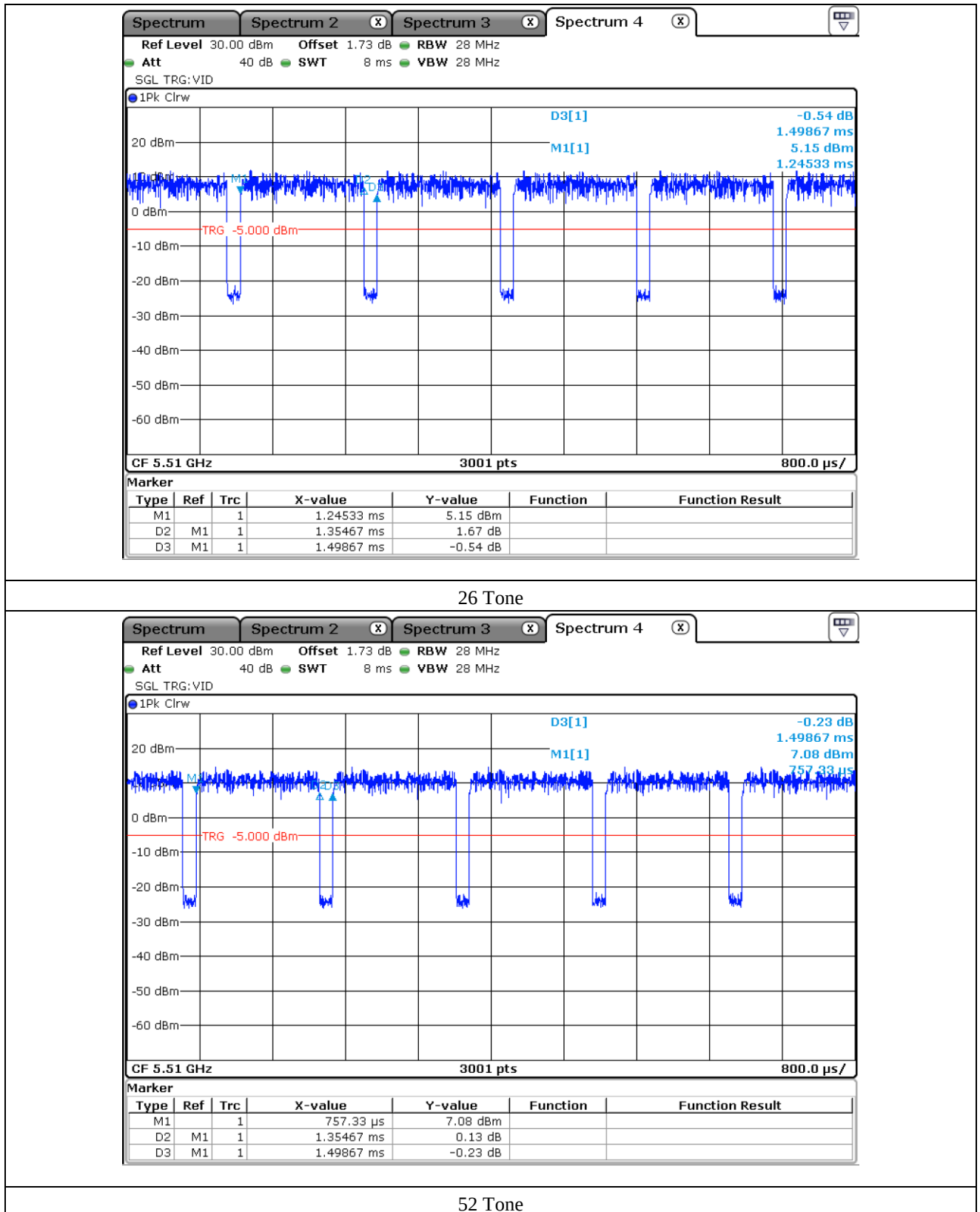
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## -. Test Plot for 802.11 ax(HE40)

### -. Antenna 0

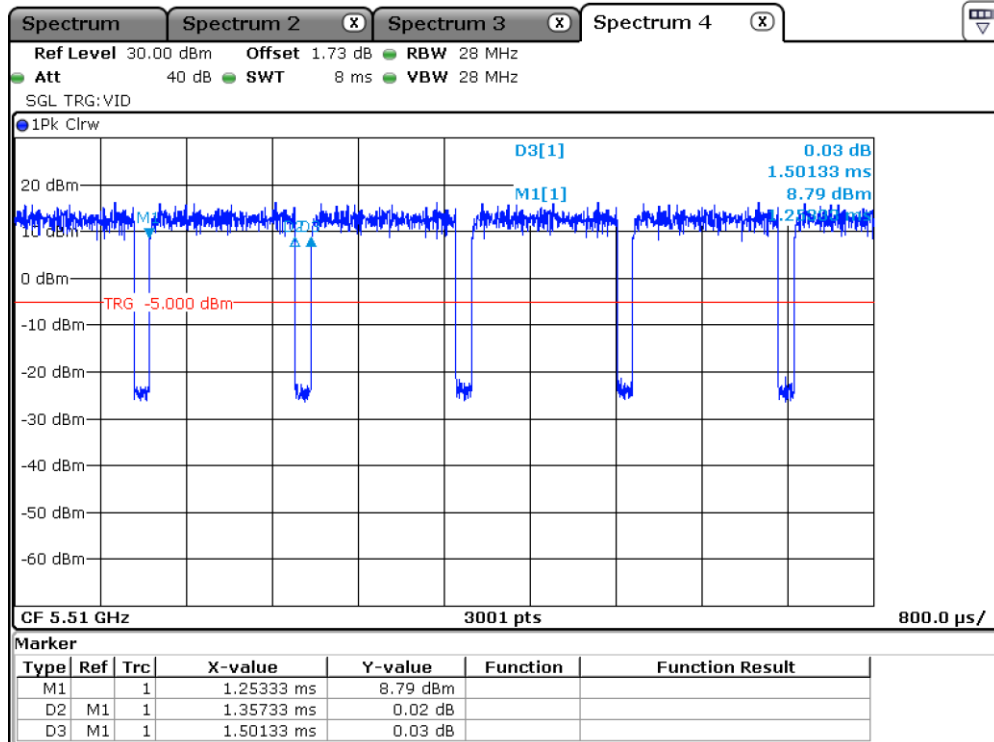


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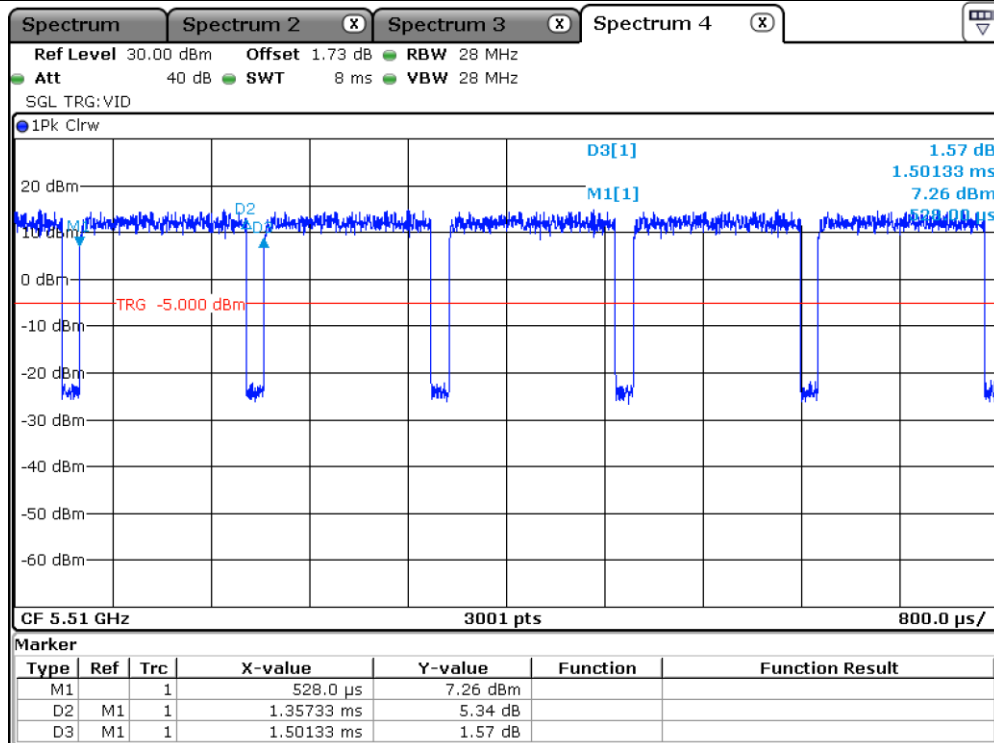
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### 106 Tone



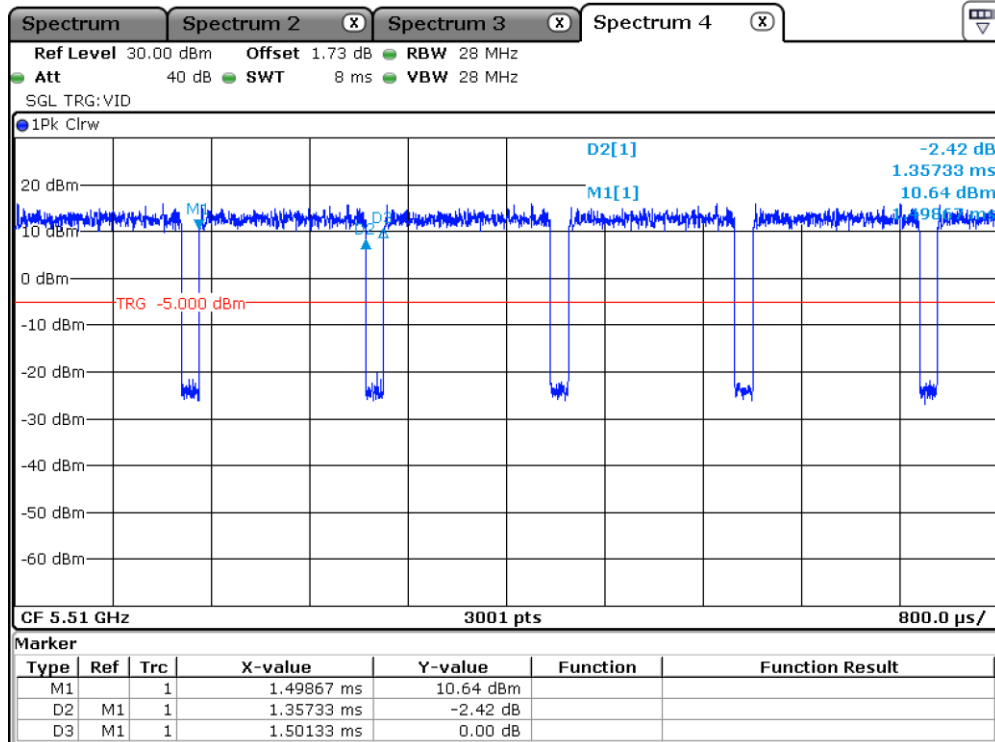
### 242 Tone

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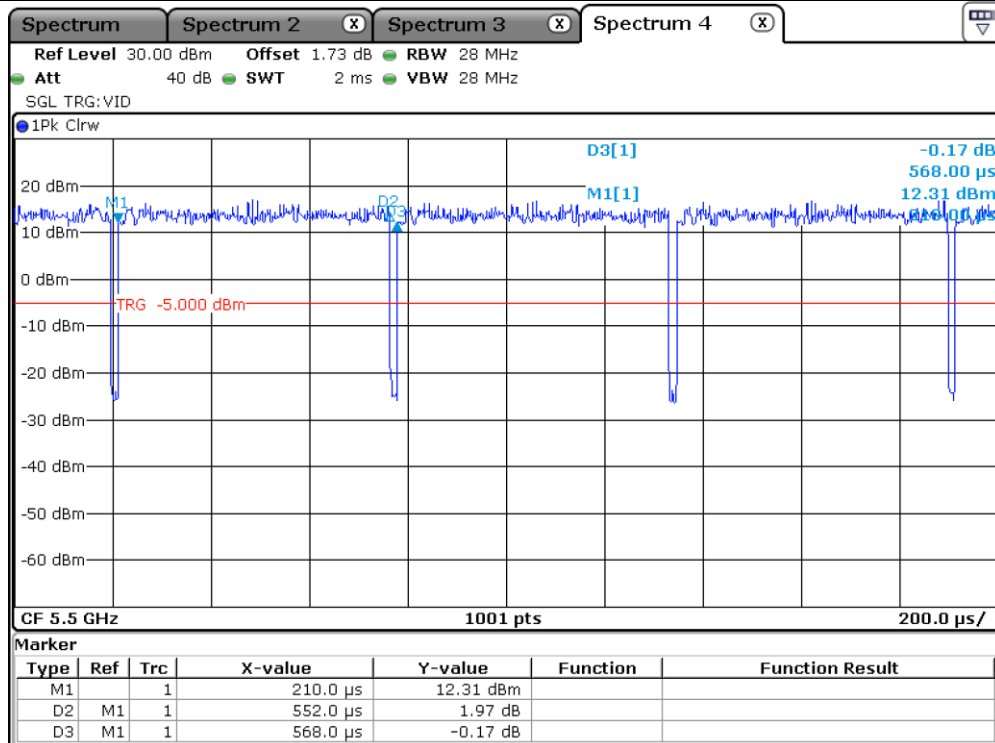
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### 484 Tone



### Single User

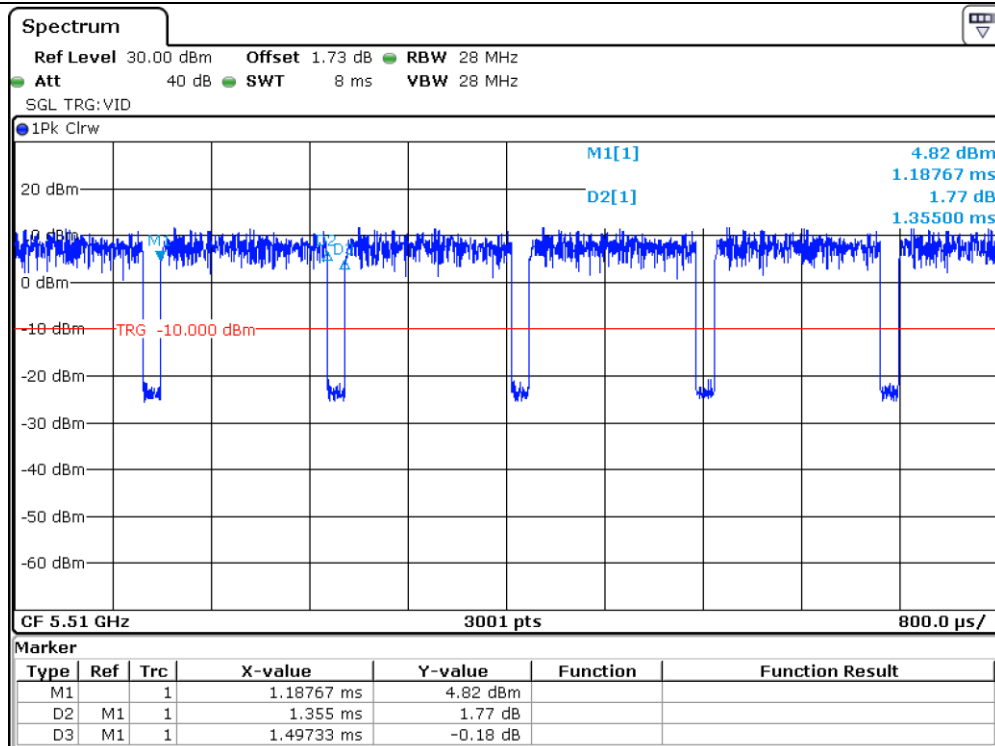
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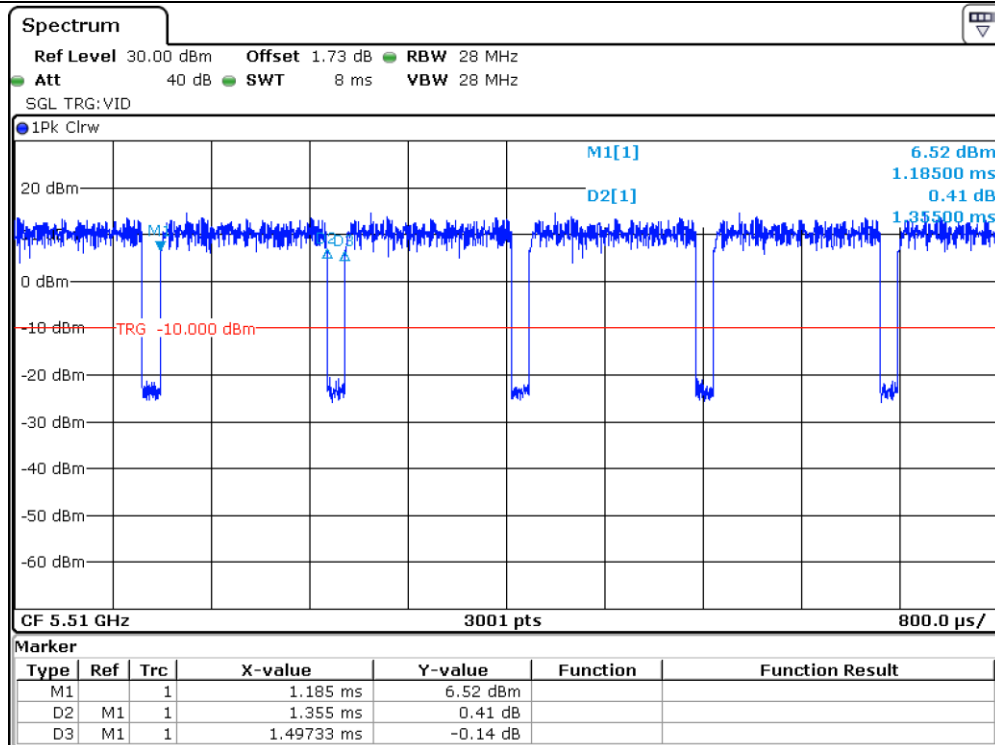
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# - Antenna 1



## 26 Tone



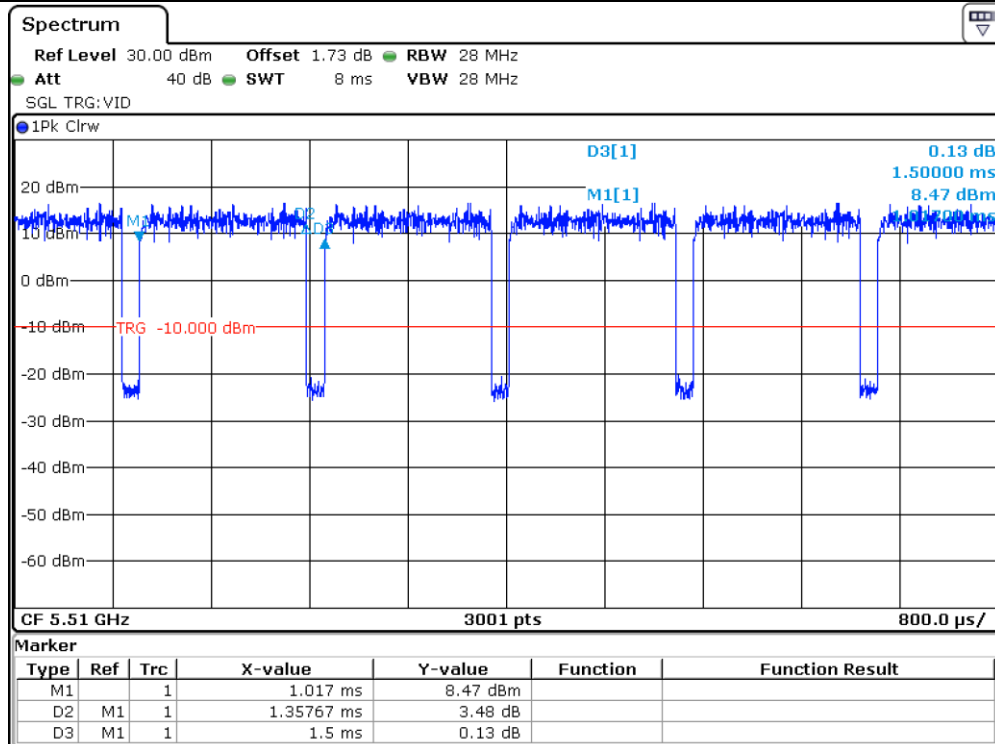
## 52 Tone

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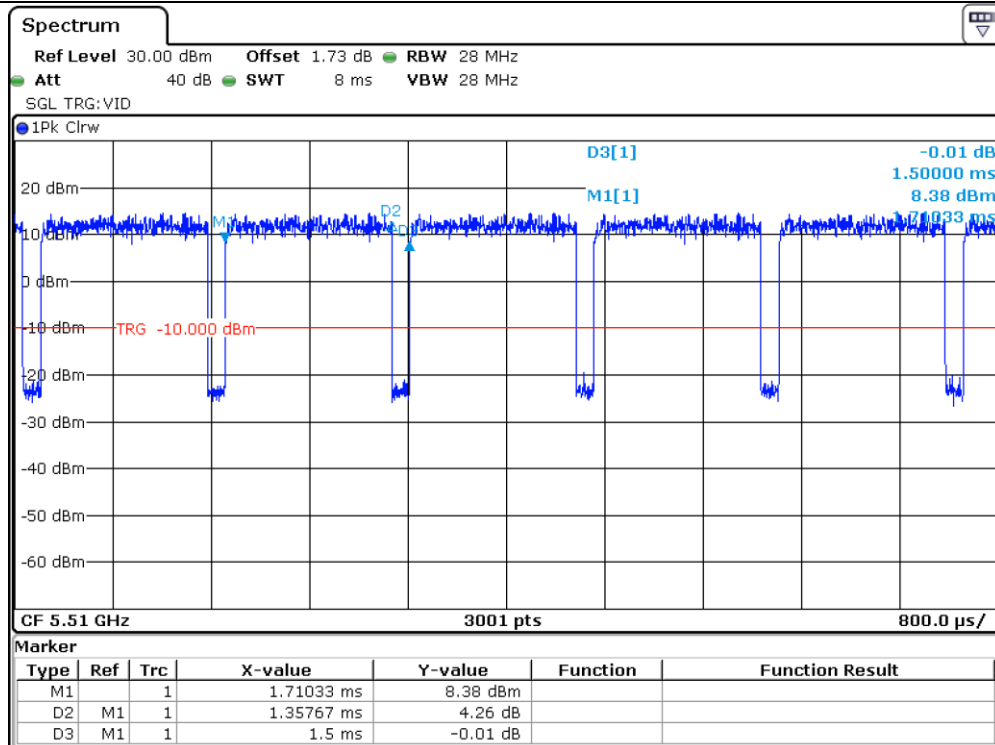
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106 Tone



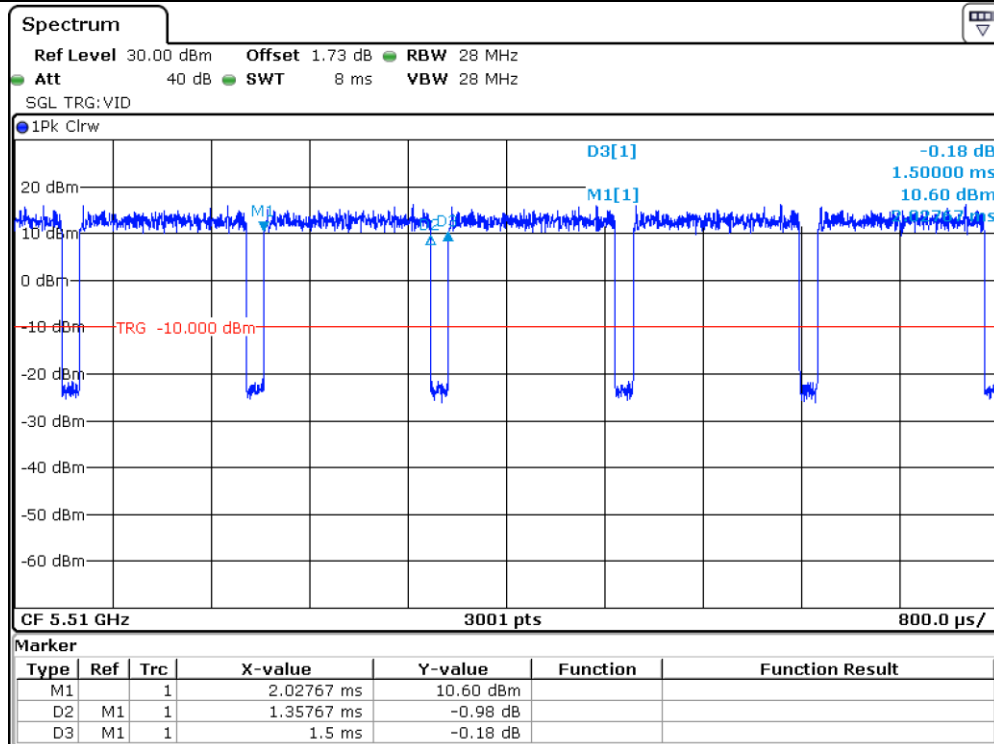
242 Tone

This Report is not correlated with the authentication of KOLAS

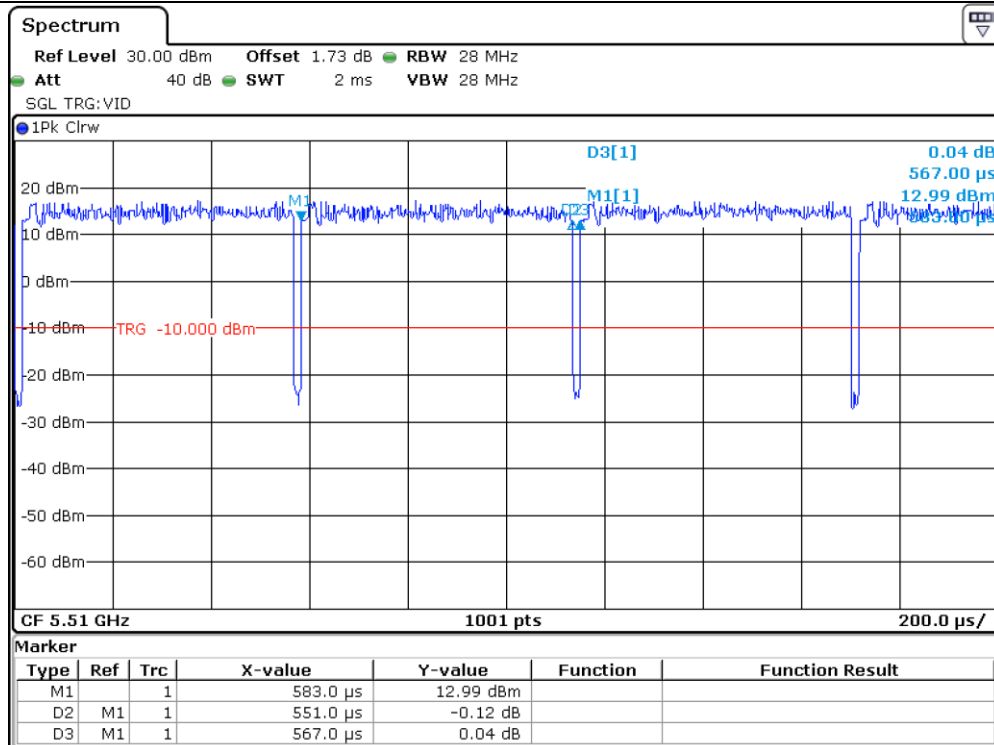
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### 484 Tone



### Single User

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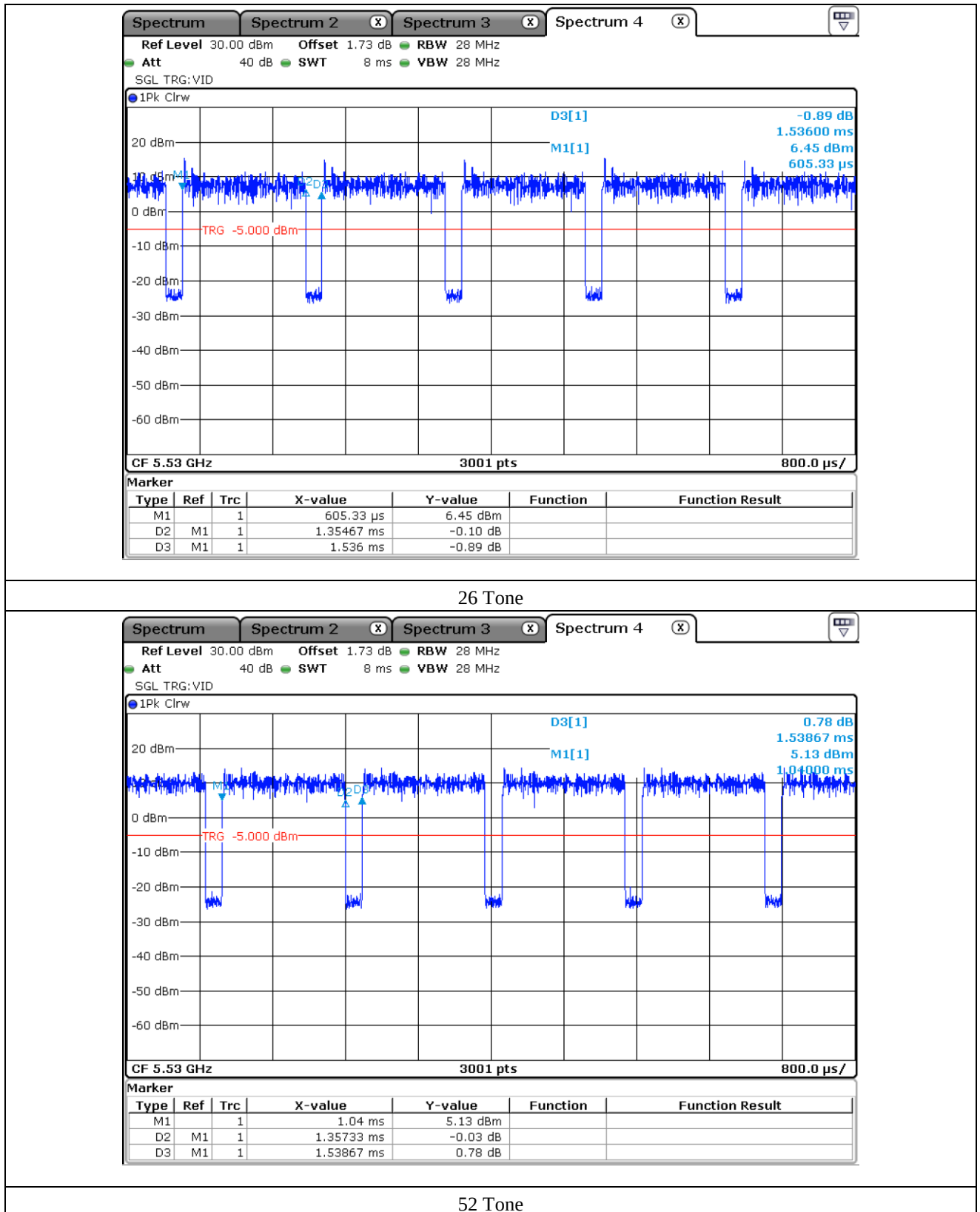
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## -. Test Plot for 802.11 ax(HE80)

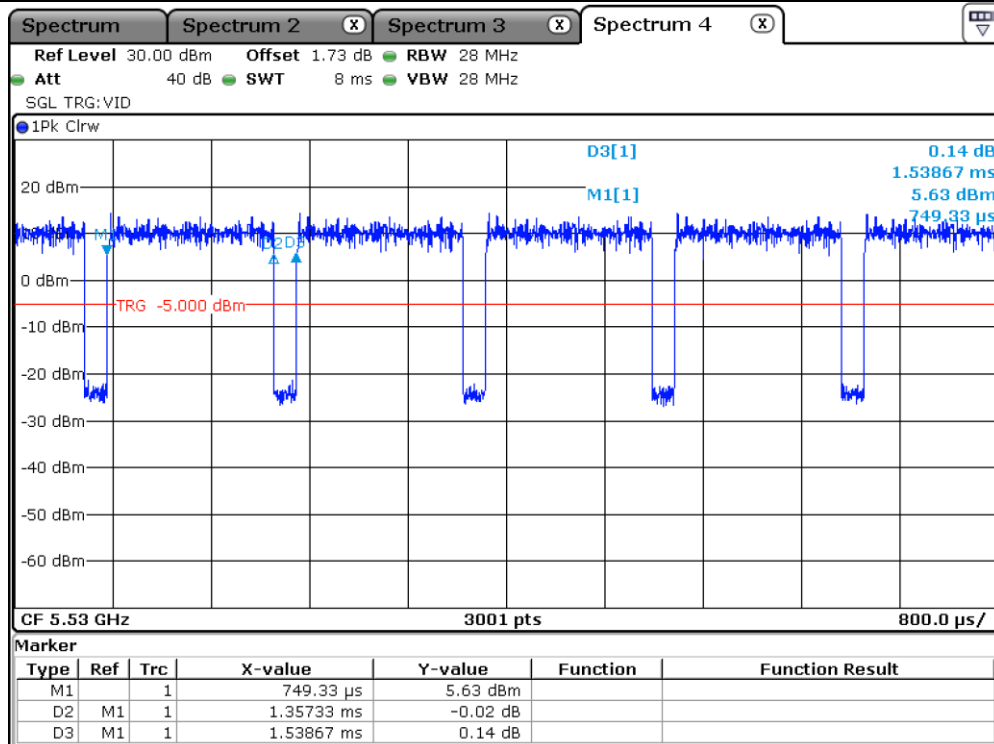
### -. Antenna 0



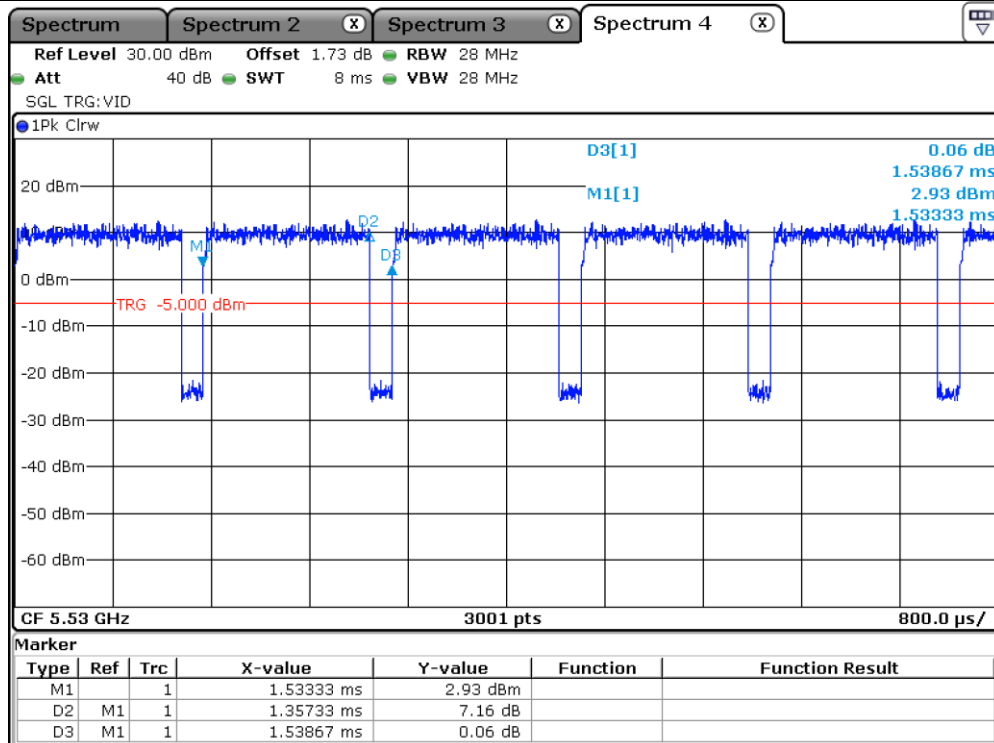
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### 106 Tone



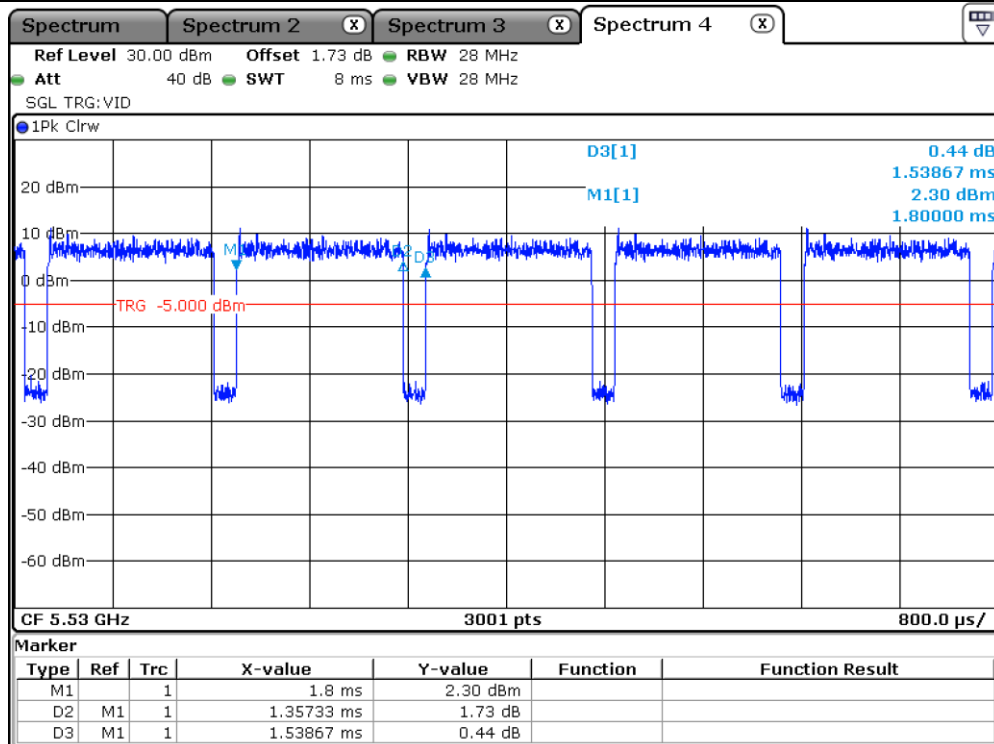
### 242 Tone

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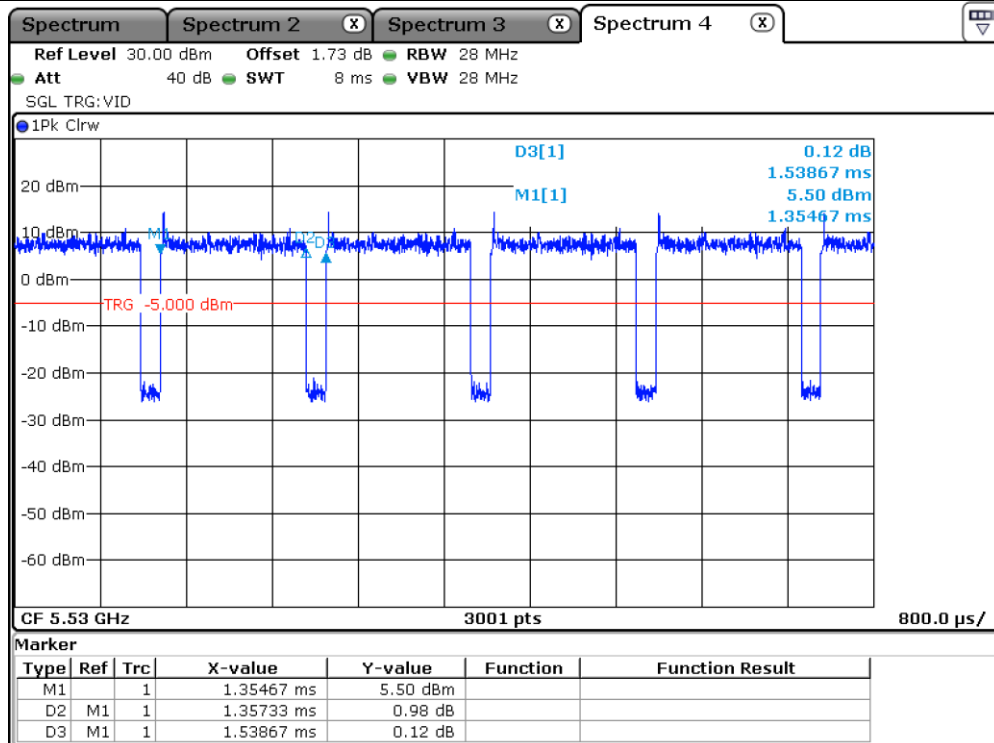
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### 484 Tone



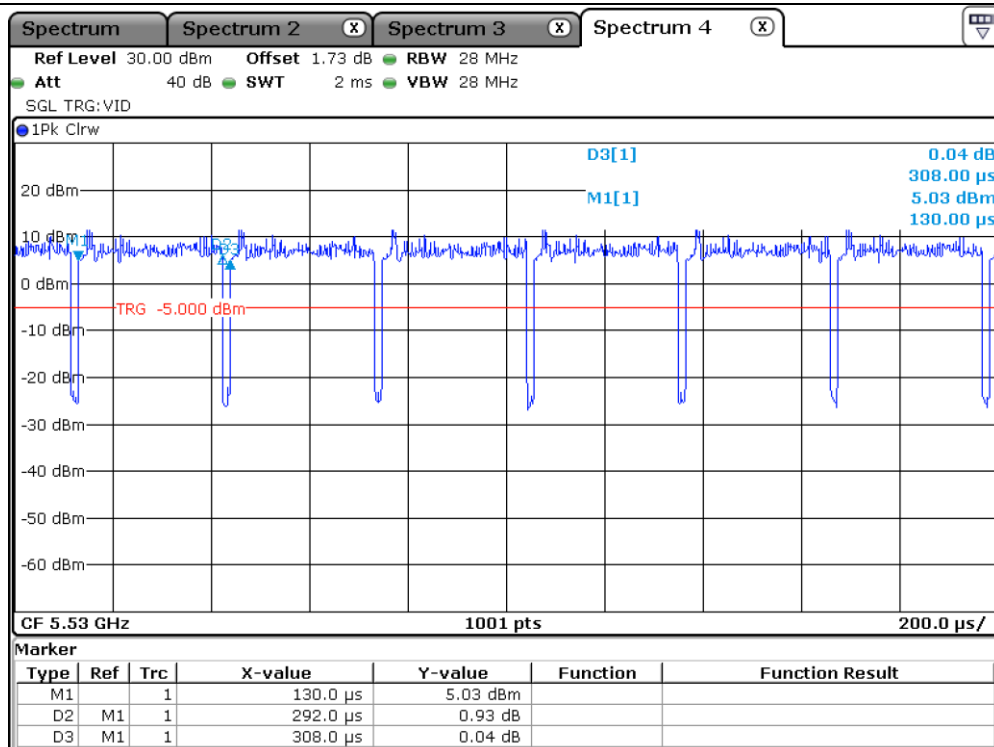
### 996 Tone

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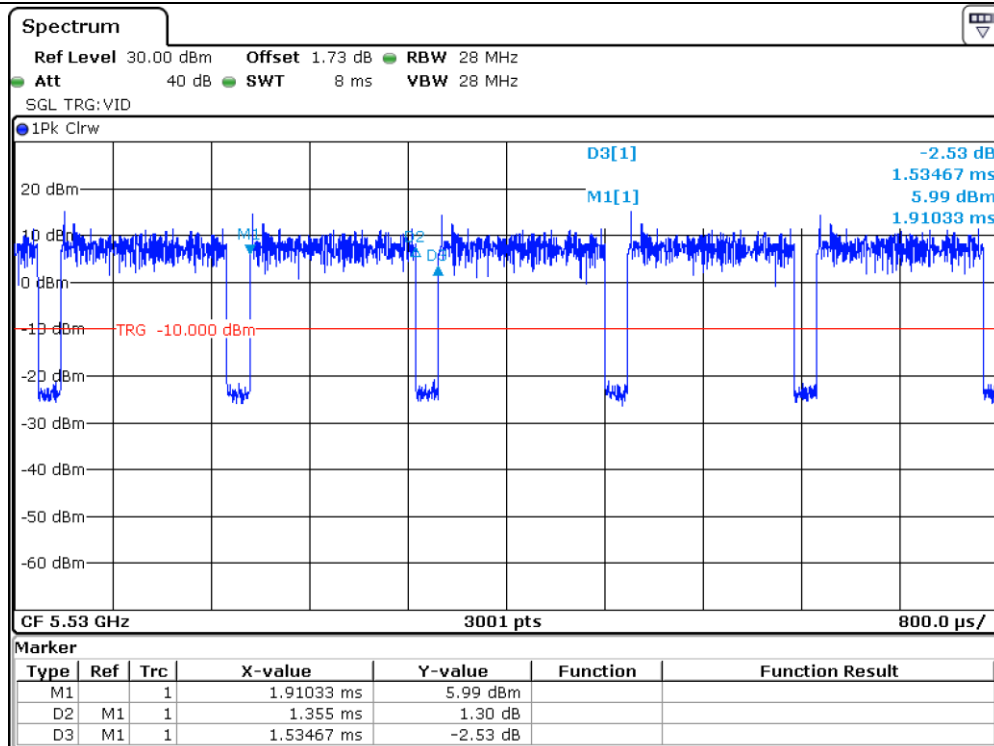
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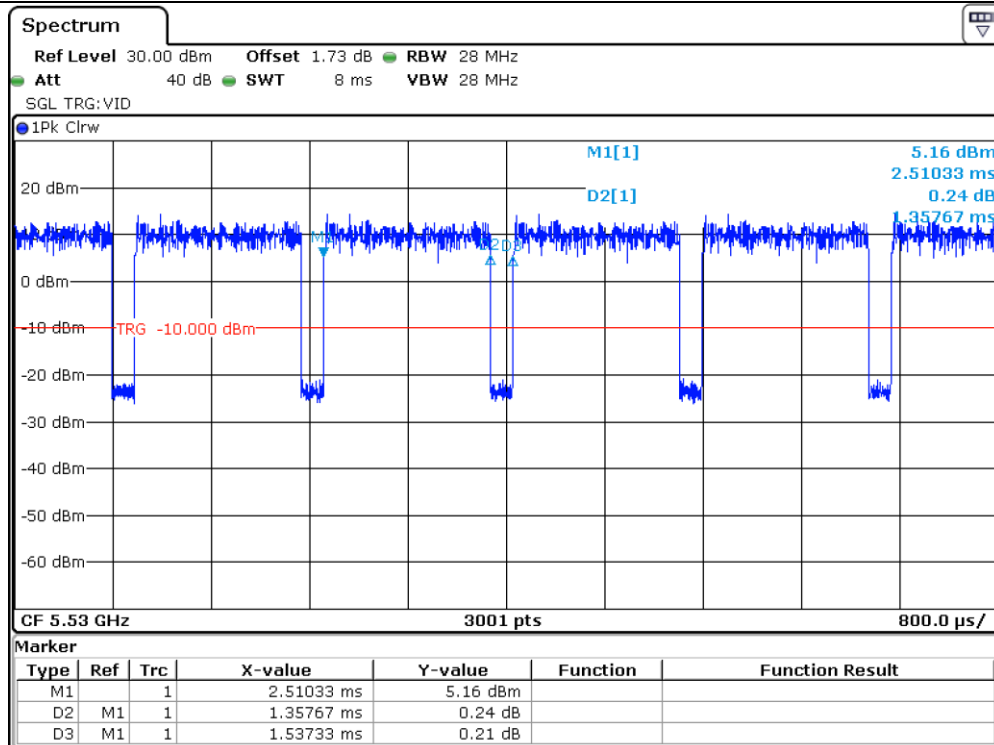


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# - Antenna 1



## 26 Tone



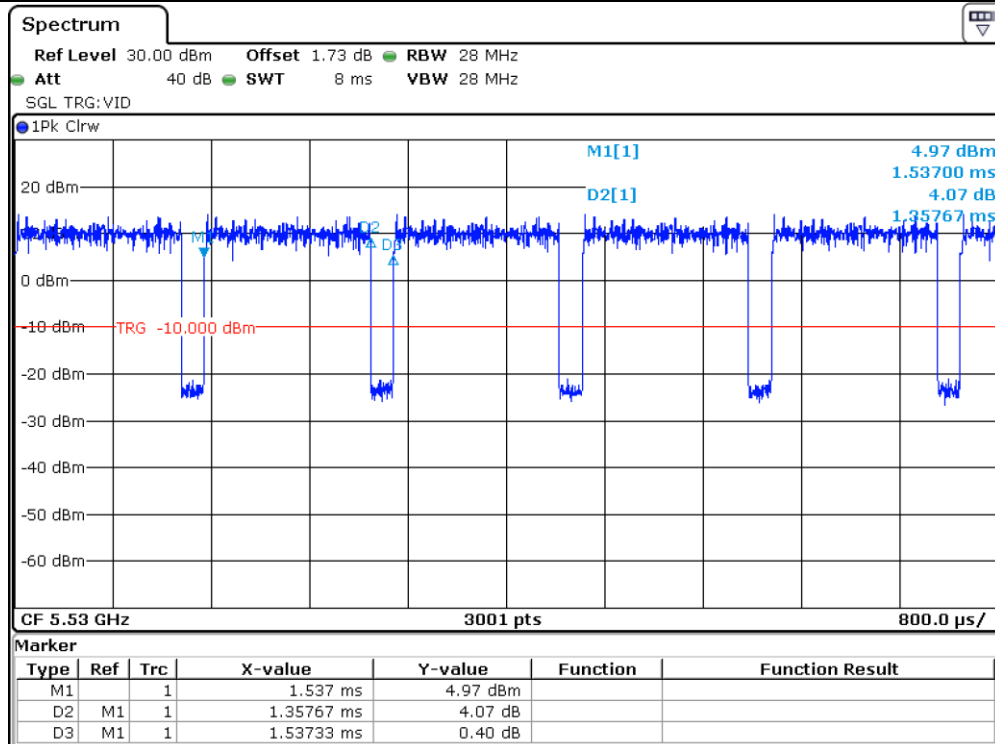
## 52 Tone

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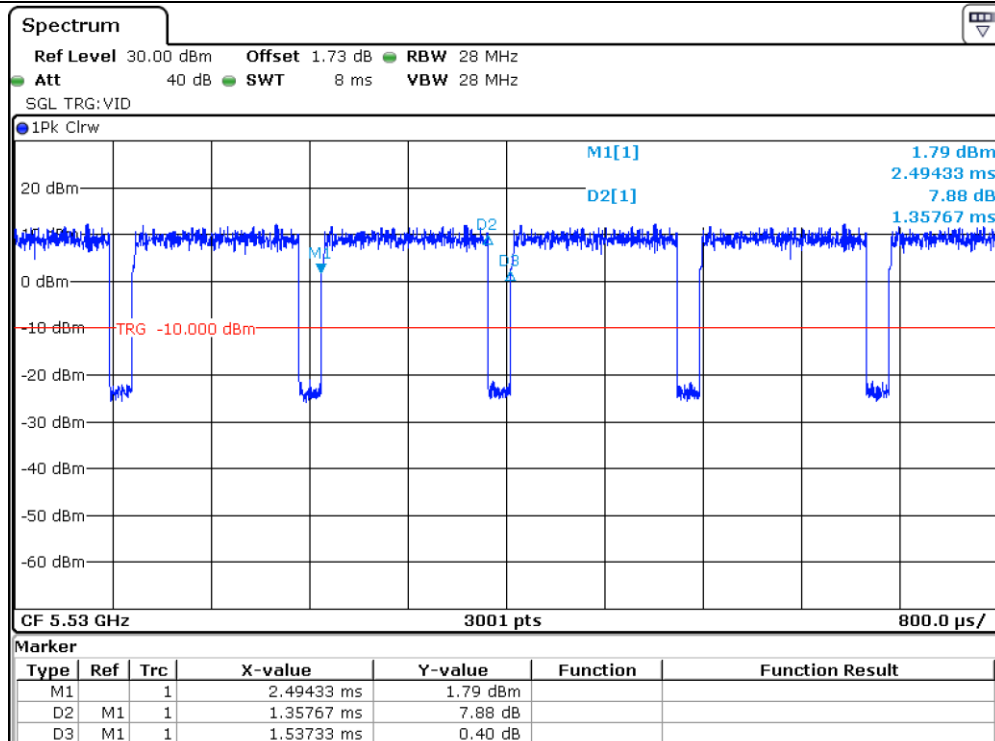
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106 Tone



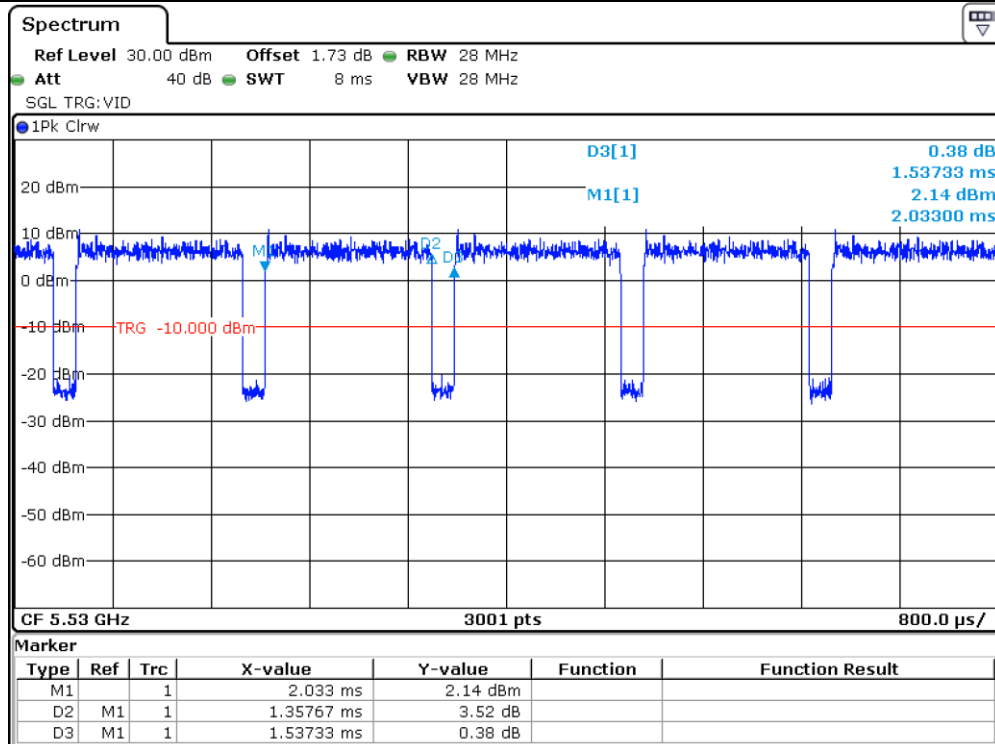
242 Tone

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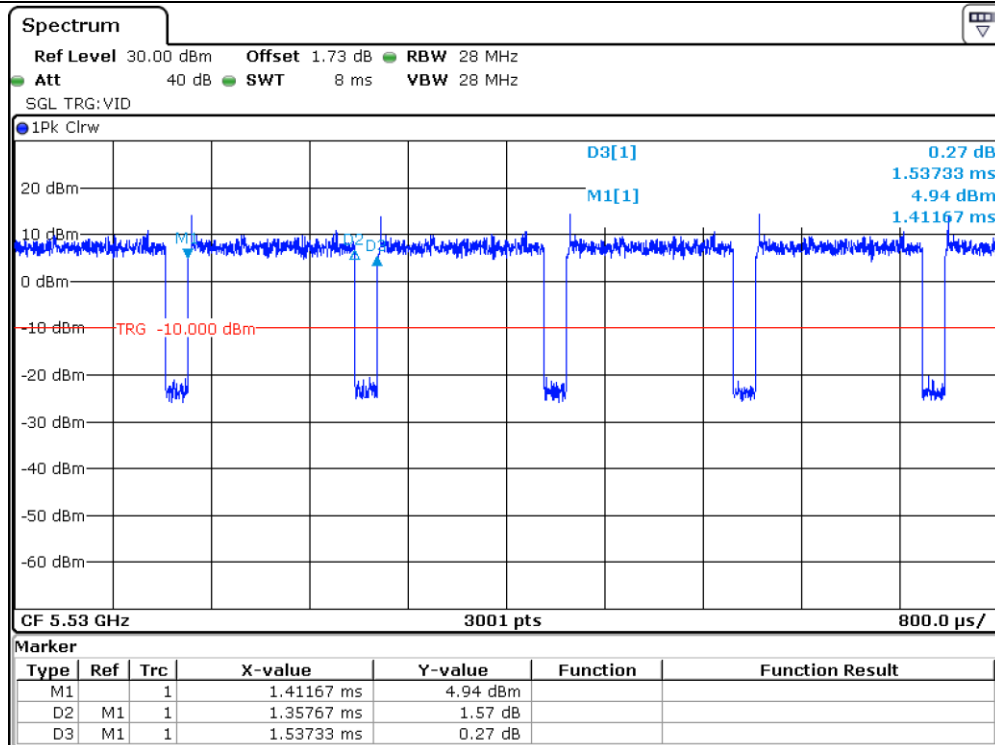
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484 Tone



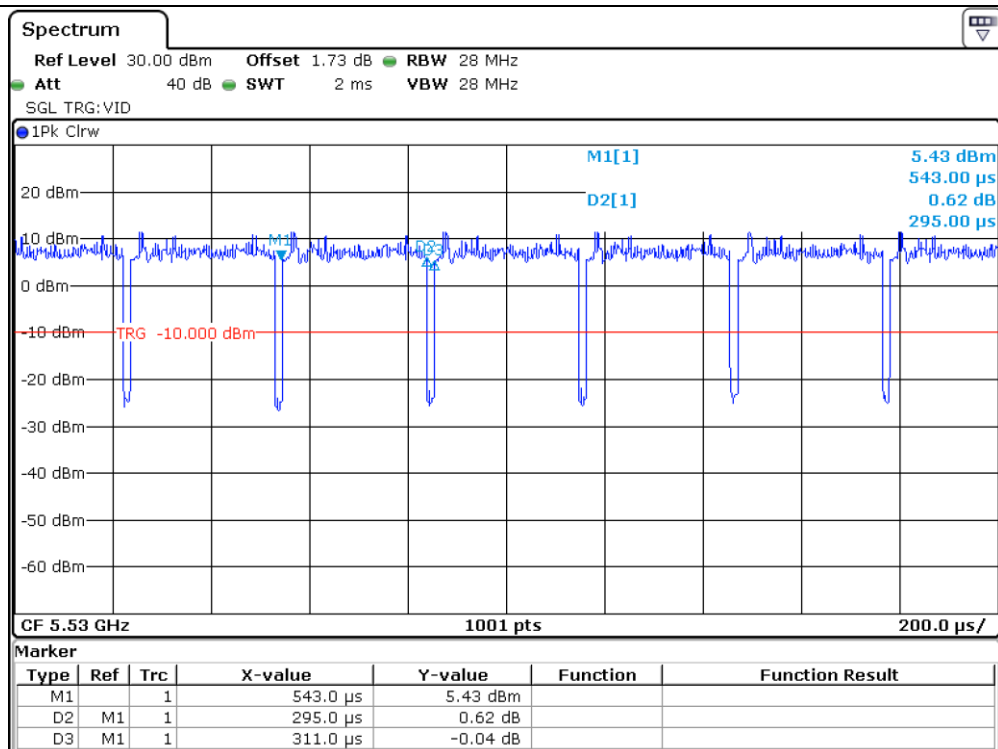
996 Tone

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Single User

## 5.4 Configuration of Test System

**Line Conducted Test:** The EUT was tested in the Transmitting mode. All supporting equipment were connected to another LISN. Preliminary Power line Conducted Emission test was performed by using the procedure in ANSI C63.10: 2020 to determine the worse operating conditions.

**Radiated Emission Test:** Preliminary radiated emissions test were conducted using the procedure in ANSI C63.10: 2020 to determine the worse operating conditions. Final radiated emission tests were conducted at 3 meter Semi Anechoic Chamber.

The turntable was rotated through 360 degrees and the EUT was tested by positioned three orthogonal planes to obtain the highest reading on the field strength meter. Once maximum reading was determined, the search antenna was raised and lowered in both vertical and horizontal polarization.

## 5.5 Antenna Requirement

For intentional device, according to section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

### Antenna Construction:

The antenna of the EUT is a Dipole Antenna. However, The manufacture has designed a strucyure that connects to the antenna using a unique coupling connector of the Fakra Type. So no consideration of replacement by the user.

## 6. PRELIMINARY TEST

### 6.1 AC Power line Conducted Emissions Tests

During Preliminary Test, the following operating mode was investigated.

| Operation Mode    | The Worse operating condition (Please check one only) |
|-------------------|-------------------------------------------------------|
| Transmitting Mode | X                                                     |

### 6.2 General Radiated Emissions Tests

During Preliminary Test, the following operating mode was investigated.

| Operation Mode    | The Worse operating condition (Please check one only) |
|-------------------|-------------------------------------------------------|
| Transmitting Mode | X                                                     |

## 7. MINIMUM 26 dB BANDWIDTH

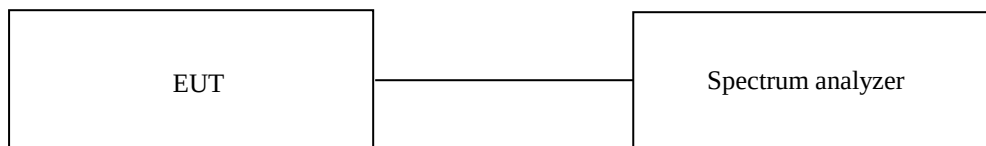
### 7.1 Operating environment

Temperature : 23 °C

Relative humidity : 45 % R.H.

### 7.2 Test set-up

The antenna output of the EUT was connected to the spectrum analyzer. The resolution bandwidth is set to approximately 1% of the emission bandwidth, and peak detection was used. The 26 dB bandwidth is defined as the total spectrum over which the power is higher than the peak power minus 26 dB.



### 7.3 Test Date

December 05, 2021 ~ March 08, 2022

## 7.4 Test data for 802.11 ax(HE20) WLAN Mode

### 7.4.1 Test data for Antenna 0

| HE20    | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | 26dB BW<br>(MHz) |       |       |       |       |
|---------|--------------------|----------------|-------------|------------------|-------|-------|-------|-------|
|         |                    |                |             | 26 T             | 52 T  | 106 T | 242 T | SU    |
| UNII 1  | 5180               | 36             | Low         | 19.13            | 19.08 | 19.13 | -     | -     |
|         |                    |                | Mid         | 17.98            | 17.98 | -     | 20.23 | 20.18 |
|         |                    |                | High        | 19.13            | 19.13 | 19.28 | -     | -     |
|         | 5220               | 44             | Low         | 19.33            | 19.13 | 19.33 | -     | -     |
|         |                    |                | Mid         | 17.98            | 17.93 | -     | 20.33 | 20.23 |
|         |                    |                | High        | 19.23            | 19.03 | 19.13 | -     | -     |
|         | 5240               | 48             | Low         | 19.13            | 18.98 | 19.03 | -     | -     |
|         |                    |                | Mid         | 17.93            | 17.98 | -     | 20.13 | 20.28 |
|         |                    |                | High        | 19.13            | 19.18 | 19.28 | -     | -     |
| UNII 2A | 5260               | 52             | Low         | 19.23            | 19.08 | 19.08 | -     | -     |
|         |                    |                | Mid         | 17.93            | 17.98 | -     | 19.78 | 19.88 |
|         |                    |                | High        | 19.08            | 19.13 | 19.08 | -     | -     |
|         | 5300               | 60             | Low         | 18.93            | 19.28 | 19.18 | -     | -     |
|         |                    |                | Mid         | 17.93            | 17.98 | -     | 19.88 | 20.18 |
|         |                    |                | High        | 19.28            | 19.03 | 18.98 | -     | -     |
|         | 5320               | 64             | Low         | 19.03            | 19.13 | 19.23 | -     | -     |
|         |                    |                | Mid         | 17.93            | 17.98 | -     | 19.98 | 20.13 |
|         |                    |                | High        | 19.18            | 18.93 | 19.13 | -     | -     |
| UNII 2C | 5500               | 100            | Low         | 19.03            | 19.13 | 19.18 | -     | -     |
|         |                    |                | Mid         | 17.93            | 18.08 | -     | 20.33 | 20.08 |
|         |                    |                | High        | 19.08            | 19.18 | 19.08 | -     | -     |
|         | 5580               | 116            | Low         | 19.08            | 19.13 | 19.28 | -     | -     |
|         |                    |                | Mid         | 17.93            | 17.98 | -     | 20.03 | 20.18 |
|         |                    |                | High        | 19.28            | 19.08 | 19.28 | -     | -     |
|         | 5700               | 140            | Low         | 18.98            | 19.03 | 19.13 | -     | -     |
|         |                    |                | Mid         | 17.93            | 17.93 | -     | 20.33 | 19.98 |
|         |                    |                | High        | 19.18            | 19.08 | 19.23 | -     | -     |

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| HE20   | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | 26dB BW<br>(MHz) |       |       |       |       |
|--------|--------------------|----------------|-------------|------------------|-------|-------|-------|-------|
|        |                    |                |             | 26 T             | 52 T  | 106 T | 242 T | SU    |
| UNII 3 | 5745               | 149            | Low         | 18.83            | 19.08 | 19.03 | -     | -     |
|        |                    |                | Mid         | 17.93            | 17.93 | -     | 20.03 | 20.03 |
|        |                    |                | High        | 18.98            | 19.08 | 19.13 | -     | -     |
|        | 5785               | 157            | Low         | 18.98            | 19.23 | 19.28 | -     | -     |
|        |                    |                | Mid         | 17.93            | 17.98 | -     | 20.18 | 20.13 |
|        |                    |                | High        | 19.08            | 19.18 | 19.18 | -     | -     |
|        | 5825               | 165            | Low         | 19.13            | 19.23 | 19.23 | -     | -     |
|        |                    |                | Mid         | 17.98            | 17.98 | -     | 20.03 | 20.03 |
|        |                    |                | High        | 19.18            | 18.93 | 19.08 | -     | -     |

Remark. 1: [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]

Remark. 2: [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz

#### 7.4.2 Test data for Antenna 1

| HE20    | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | 26dB BW<br>(MHz) |       |       |       |       |
|---------|--------------------|----------------|-------------|------------------|-------|-------|-------|-------|
|         |                    |                |             | 26 T             | 52 T  | 106 T | 242 T | SU    |
| UNII 1  | 5180               | 36             | Low         | 19.18            | 19.08 | 19.23 | -     | -     |
|         |                    |                | Mid         | 17.98            | 18.18 | -     | 20.33 | 20.18 |
|         |                    |                | High        | 19.18            | 19.28 | 19.78 | -     | -     |
|         | 5220               | 44             | Low         | 19.08            | 19.23 | 19.13 | -     | -     |
|         |                    |                | Mid         | 17.93            | 18.13 | -     | 20.23 | 20.13 |
|         |                    |                | High        | 19.33            | 19.08 | 19.38 | -     | -     |
|         | 5240               | 48             | Low         | 18.98            | 19.03 | 19.03 | -     | -     |
|         |                    |                | Mid         | 18.03            | 17.98 | -     | 20.03 | 20.23 |
|         |                    |                | High        | 18.98            | 19.13 | 19.38 | -     | -     |
| UNII 2A | 5260               | 52             | Low         | 19.03            | 19.13 | 19.03 | -     | -     |
|         |                    |                | Mid         | 17.93            | 18.08 | -     | 20.28 | 20.23 |
|         |                    |                | High        | 19.38            | 19.13 | 19.38 | -     | -     |
|         | 5300               | 60             | Low         | 18.98            | 19.23 | 19.13 | -     | -     |
|         |                    |                | Mid         | 17.98            | 18.08 | -     | 20.33 | 20.18 |
|         |                    |                | High        | 19.13            | 19.08 | 19.33 | -     | -     |
|         | 5320               | 64             | Low         | 18.98            | 18.98 | 19.18 | -     | -     |
|         |                    |                | Mid         | 18.03            | 17.98 | -     | 20.28 | 20.18 |
|         |                    |                | High        | 19.13            | 18.98 | 19.43 | -     | -     |
| UNII 2C | 5500               | 100            | Low         | 18.98            | 19.13 | 18.83 | -     | -     |
|         |                    |                | Mid         | 18.13            | 17.94 | -     | 20.23 | 20.23 |
|         |                    |                | High        | 19.23            | 19.08 | 19.08 | -     | -     |
|         | 5580               | 116            | Low         | 19.13            | 19.18 | 19.13 | -     | -     |
|         |                    |                | Mid         | 18.03            | 18.03 | -     | 20.18 | 20.13 |
|         |                    |                | High        | 19.33            | 19.08 | 19.08 | -     | -     |
|         | 5700               | 140            | Low         | 19.03            | 19.23 | 19.28 | -     | -     |
|         |                    |                | Mid         | 17.88            | 17.98 | -     | 20.13 | 20.23 |
|         |                    |                | High        | 18.98            | 19.08 | 19.43 | -     | -     |

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| HE20   | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | 26dB BW<br>(MHz) |       |       |       |       |
|--------|--------------------|----------------|-------------|------------------|-------|-------|-------|-------|
|        |                    |                |             | 26 T             | 52 T  | 106 T | 242 T | SU    |
| UNII 3 | 5745               | 149            | Low         | 19.08            | 19.13 | 19.13 | -     | -     |
|        |                    |                | Mid         | 18.03            | 18.08 | -     | 20.28 | 20.48 |
|        |                    |                | High        | 19.33            | 19.08 | 19.38 | -     | -     |
|        | 5785               | 157            | Low         | 18.68            | 19.23 | 19.18 | -     | -     |
|        |                    |                | Mid         | 18.08            | 18.03 | -     | 20.33 | 20.33 |
|        |                    |                | High        | 19.33            | 19.53 | 19.48 | -     | -     |
|        | 5825               | 165            | Low         | 18.98            | 19.13 | 19.13 | -     | -     |
|        |                    |                | Mid         | 18.03            | 17.98 | -     | 20.43 | 20.13 |
|        |                    |                | High        | 19.33            | 19.13 | 19.08 | -     | -     |

Remark. 1: [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]

Remark. 2: [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz

### 7.4.3 Test data for Staddle Channel\_Antenna 0

| BW   | Frequency<br>[MHz] | Channel<br>No. | Tone | RU<br>Index | 26dB BW<br>(MHz) |        |
|------|--------------------|----------------|------|-------------|------------------|--------|
|      |                    |                |      |             | UNII 2C          | UNII 3 |
| HE20 | 5720               | 144            | 26T  | Low         | 15.19            | 3.94   |
|      |                    |                |      | Mid         | 14.05            | 3.89   |
|      |                    |                |      | High        | 13.59            | 4.99   |
|      |                    |                | 52T  | Low         | 15.19            | 3.94   |
|      |                    |                |      | Mid         | 14.04            | 3.89   |
|      |                    |                |      | High        | 14.04            | 5.04   |
|      |                    |                | 106T | Low         | 15.09            | 4.09   |
|      |                    |                |      | High        | 14.04            | 4.99   |
|      |                    |                | 242T | Mid         | 15.04            | 4.99   |
|      |                    |                | SU   | -           | 15.09            | 5.14   |

### 7.4.4 Test data for Staddle Channel\_Antenna 1

| BW   | Frequency<br>[MHz] | Channel<br>No. | Tone | RU<br>Index | 26dB BW<br>(MHz) |        |
|------|--------------------|----------------|------|-------------|------------------|--------|
|      |                    |                |      |             | UNII 2C          | UNII 3 |
| HE20 | 5720               | 144            | 26T  | Low         | 15.19            | 3.89   |
|      |                    |                |      | Mid         | 14.09            | 3.89   |
|      |                    |                |      | High        | 14.09            | 5.19   |
|      |                    |                | 52T  | Low         | 15.29            | 3.94   |
|      |                    |                |      | Mid         | 14.04            | 3.99   |
|      |                    |                |      | High        | 14.09            | 5.04   |
|      |                    |                | 106T | Low         | 15.09            | 3.99   |
|      |                    |                |      | High        | 14.44            | 4.99   |
|      |                    |                | 242T | Mid         | 15.09            | 5.04   |
|      |                    |                | SU   | -           | 15.14            | 5.39   |

## 7.5 Test data for 802.11 ax(HE40) WLAN Mode

### 7.5.1 Test data for Antenna 0

| HE40       | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | 26dB BW(MHz) |       |       |       |       |       |
|------------|--------------------|----------------|-------------|--------------|-------|-------|-------|-------|-------|
|            |                    |                |             | 26 T         | 52 T  | 106 T | 242 T | 484 T | SU    |
| UNII<br>1  | 5190               | 38             | Low         | 19.18        | 19.18 | 19.58 | 25.07 | -     | -     |
|            |                    |                | Mid         | 18.18        | 21.38 | 20.48 | -     | 40.26 | 39.96 |
|            |                    |                | High        | 19.08        | 18.78 | 18.88 | 24.18 | -     | -     |
|            | 5230               | 46             | Low         | 19.08        | 19.38 | 19.28 | 27.07 | -     | -     |
|            |                    |                | Mid         | 20.08        | 21.08 | 21.48 | -     | 39.86 | 40.16 |
|            |                    |                | High        | 18.98        | 18.98 | 19.08 | 23.88 | -     | -     |
| UNII<br>2A | 5270               | 54             | Low         | 18.78        | 18.88 | 19.48 | 27.07 | -     | -     |
|            |                    |                | Mid         | 20.28        | 20.28 | 20.18 | -     | 39.56 | 39.26 |
|            |                    |                | High        | 19.28        | 18.98 | 19.08 | 24.08 | -     | -     |
|            | 5310               | 62             | Low         | 19.08        | 19.58 | 19.58 | 24.98 | -     | -     |
|            |                    |                | Mid         | 19.08        | 21.58 | 20.88 | -     | 39.46 | 39.46 |
|            |                    |                | High        | 18.98        | 19.08 | 18.98 | 23.48 | -     | -     |
| UNII<br>2C | 5510               | 102            | Low         | 18.16        | 19.38 | 18.98 | 25.07 | -     | -     |
|            |                    |                | Mid         | 20.38        | 20.08 | 20.28 | -     | 40.06 | 39.96 |
|            |                    |                | High        | 18.98        | 19.08 | 19.18 | 27.27 | -     | -     |
|            | 5550               | 110            | Low         | 19.18        | 19.08 | 18.88 | 26.77 | -     | -     |
|            |                    |                | Mid         | 20.98        | 21.28 | 21.08 | -     | 39.66 | 39.46 |
|            |                    |                | High        | 18.88        | 18.88 | 18.88 | 26.47 | -     | -     |
|            | 5670               | 134            | Low         | 18.88        | 19.38 | 18.88 | 27.17 | -     | -     |
|            |                    |                | Mid         | 21.18        | 21.38 | 19.98 | -     | 40.06 | 39.76 |
|            |                    |                | High        | 18.98        | 19.18 | 18.98 | 25.87 | -     | -     |
| UNII<br>3  | 5755               | 151            | Low         | 18.88        | 19.08 | 19.18 | 25.77 | -     | -     |
|            |                    |                | Mid         | 20.88        | 20.78 | 20.08 | -     | 39.56 | 40.06 |
|            |                    |                | High        | 18.98        | 18.98 | 19.08 | 24.48 | -     | -     |
|            | 5795               | 159            | Low         | 19.18        | 19.18 | 19.18 | 24.08 | -     | -     |
|            |                    |                | Mid         | 19.88        | 19.78 | 20.58 | -     | 39.86 | 39.96 |
|            |                    |                | High        | 18.88        | 18.78 | 18.78 | 25.37 | -     | -     |

Remark. 1: [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]

Remark. 2: [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz

Remark. 3: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

### 7.5.2 Test data for Antenna 1

| HE40       | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | 26dB BW(MHz) |       |       |       |       |       |
|------------|--------------------|----------------|-------------|--------------|-------|-------|-------|-------|-------|
|            |                    |                |             | 26 T         | 52 T  | 106 T | 242 T | 484 T | SU    |
| UNII<br>1  | 5190               | 38             | Low         | 18.78        | 19.28 | 19.48 | 24.28 | -     | -     |
|            |                    |                | Mid         | 19.48        | 21.58 | 21.08 | -     | 40.46 | 40.46 |
|            |                    |                | High        | 18.98        | 19.18 | 19.58 | 23.48 | -     | -     |
|            | 5230               | 46             | Low         | 18.98        | 18.98 | 19.18 | 27.87 | -     | -     |
|            |                    |                | Mid         | 20.38        | 21.08 | 20.28 | -     | 40.76 | 39.56 |
|            |                    |                | High        | 19.48        | 19.58 | 18.88 | 22.88 | -     | -     |
| UNII<br>2A | 5270               | 54             | Low         | 19.08        | 19.48 | 19.48 | 24.38 | -     | -     |
|            |                    |                | Mid         | 20.58        | 21.28 | 22.88 | -     | 39.46 | 40.16 |
|            |                    |                | High        | 19.68        | 19.08 | 19.18 | 23.38 | -     | -     |
|            | 5310               | 62             | Low         | 19.28        | 18.78 | 19.48 | 23.78 | -     | -     |
|            |                    |                | Mid         | 20.28        | 21.68 | 18.68 | -     | 40.86 | 40.06 |
|            |                    |                | High        | 18.88        | 19.38 | 18.48 | 23.38 | -     | -     |
| UNII<br>2C | 5510               | 102            | Low         | 19.28        | 19.28 | 19.18 | 26.97 | -     | -     |
|            |                    |                | Mid         | 19.88        | 21.38 | 19.88 | -     | 40.16 | 39.66 |
|            |                    |                | High        | 19.08        | 18.88 | 18.68 | 25.97 | -     | -     |
|            | 5550               | 110            | Low         | 18.98        | 18.98 | 19.48 | 26.67 | -     | -     |
|            |                    |                | Mid         | 21.88        | 20.78 | 20.38 | -     | 40.66 | 39.76 |
|            |                    |                | High        | 19.18        | 18.98 | 19.18 | 24.98 | -     | -     |
|            | 5670               | 134            | Low         | 18.88        | 19.08 | 19.68 | 28.07 | -     | -     |
|            |                    |                | Mid         | 21.08        | 21.18 | 20.48 | -     | 39.96 | 39.76 |
|            |                    |                | High        | 19.58        | 19.08 | 19.78 | 25.07 | -     | -     |
| UNII<br>3  | 5755               | 151            | Low         | 18.98        | 19.18 | 19.38 | 25.37 | -     | -     |
|            |                    |                | Mid         | 20.28        | 20.98 | 20.98 | -     | 40.36 | 39.86 |
|            |                    |                | High        | 19.08        | 18.88 | 19.38 | 25.27 | -     | -     |
|            | 5795               | 159            | Low         | 19.08        | 18.78 | 19.38 | 26.57 | -     | -     |
|            |                    |                | Mid         | 20.48        | 20.78 | 20.58 | -     | 40.06 | 40.56 |
|            |                    |                | High        | 19.28        | 19.18 | 18.98 | 25.87 | -     | -     |

Remark. 1: [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]

Remark. 2: [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz

Remark. 3: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

### 7.5.3 Test data for Staddle Channel\_Antenna 0

| BW   | Frequency<br>[MHz] | Channel<br>No. | Tone | RU<br>Index | 26dB BW<br>(MHz) |        |
|------|--------------------|----------------|------|-------------|------------------|--------|
|      |                    |                |      |             | UNII 2C          | UNII 3 |
| HE40 | 5710               | 142            | 26T  | # Low       | -                | -      |
|      |                    |                |      | # Mid       | -                | -      |
|      |                    |                |      | High        | 14.50            | 5.18   |
|      |                    |                | 52T  | # Low       | -                | -      |
|      |                    |                |      | # Mid       | -                | -      |
|      |                    |                |      | High        | 14.40            | 5.18   |
|      |                    |                | 106T | # Low       | -                | -      |
|      |                    |                |      | # Mid       | -                | -      |
|      |                    |                |      | High        | 14.80            | 5.18   |
|      |                    |                | 242T | # Low       | -                | -      |
|      |                    |                |      | High        | 19.40            | 5.08   |
|      |                    |                | 484T | Mid         | 35.38            | 4.78   |
|      |                    |                | SU   | -           | 35.18            | 4.78   |

### 7.5.4 Test data for Staddle Channel\_Antenna 1

| BW   | Frequency<br>[MHz] | Channel<br>No. | Tone | RU<br>Index | 26dB BW<br>(MHz) |        |
|------|--------------------|----------------|------|-------------|------------------|--------|
|      |                    |                |      |             | UNII 2C          | UNII 3 |
| HE40 | 5710               | 142            | 26T  | # Low       | -                | -      |
|      |                    |                |      | # Mid       | -                | -      |
|      |                    |                |      | High        | 15.90            | 4.98   |
|      |                    |                | 52T  | # Low       | -                | -      |
|      |                    |                |      | # Mid       | -                | -      |
|      |                    |                |      | High        | 14.40            | 4.98   |
|      |                    |                | 106T | # Low       | -                | -      |
|      |                    |                |      | # Mid       | -                | -      |
|      |                    |                |      | High        | 15.30            | 4.78   |
|      |                    |                | 242T | # Low       | -                | -      |
|      |                    |                |      | High        | 20.19            | 4.98   |
|      |                    |                | 484T | Mid         | 35.38            | 5.18   |
|      |                    |                | SU   | -           | 35.38            | 5.38   |

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## 7.6 Test data for 802.11 ax(HE80) WLAN Mode

### 7.6.1 Test data for Antenna 0

| HE80       | Freq.<br>[MHz] | Channel<br>No. | RU<br>Index | 26dB BW<br>(MHz) |       |       |       |       |       |       |
|------------|----------------|----------------|-------------|------------------|-------|-------|-------|-------|-------|-------|
|            |                |                |             | 26 T             | 52 T  | 106 T | 242 T | 484 T | 996 T | SU    |
| UNII<br>1  | 5210           | 42             | Low         | 18.78            | 18.98 | 18.98 | 22.38 | 40.56 | -     | -     |
|            |                |                | Mid         | 38.36            | 19.38 | 18.78 | 20.38 | -     | 80.92 | 80.72 |
|            |                |                | High        | 18.58            | 18.18 | 18.78 | 22.18 | 40.36 | -     | -     |
| UNII<br>2A | 5290           | 58             | Low         | 18.98            | 18.78 | 18.98 | 20.78 | 43.16 | -     | -     |
|            |                |                | Mid         | 37.56            | 19.38 | 19.38 | 20.78 | -     | 80.52 | 80.52 |
|            |                |                | High        | 18.98            | 18.38 | 18.98 | 20.98 | 42.56 | -     | -     |
| UNII<br>2C | 5530           | 106            | Low         | 18.98            | 18.98 | 18.98 | 21.78 | 42.16 | -     | -     |
|            |                |                | Mid         | 38.36            | 18.78 | 19.18 | 21.58 | -     | 80.52 | 80.32 |
|            |                |                | High        | 18.78            | 18.98 | 18.98 | 21.18 | 40.36 | -     | -     |
| UNII<br>3  | 5775           | 155            | Low         | 18.98            | 18.78 | 18.78 | 20.78 | 40.36 | -     | -     |
|            |                |                | Mid         | 38.16            | 19.18 | 19.18 | 20.58 | -     | 80.12 | 80.32 |
|            |                |                | High        | 18.98            | 18.78 | 18.98 | 19.98 | 40.56 | -     | -     |

Remark. 1: [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]

Remark. 2: [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz

Remark. 3: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

### 7.6.2 Test data for Antenna 1

| HE80       | Freq.<br>[MHz] | Channel<br>No. | RU<br>Index | 26dB BW<br>(MHz) |       |       |       |       |       |       |
|------------|----------------|----------------|-------------|------------------|-------|-------|-------|-------|-------|-------|
|            |                |                |             | 26 T             | 52 T  | 106 T | 242 T | 484 T | 996 T | SU    |
| UNII<br>1  | 5210           | 42             | Low         | 18.78            | 18.98 | 19.18 | 21.98 | 40.56 | -     | -     |
|            |                |                | Mid         | 39.36            | 19.78 | 20.58 | 21.78 | -     | 80.72 | 80.72 |
|            |                |                | High        | 18.58            | 18.78 | 18.78 | 22.18 | 41.76 | -     | -     |
| UNII<br>2A | 5290           | 58             | Low         | 18.98            | 19.18 | 18.98 | 21.98 | 42.76 | -     | -     |
|            |                |                | Mid         | 39.76            | 19.38 | 20.18 | 20.78 | -     | 80.92 | 80.72 |
|            |                |                | High        | 18.78            | 18.98 | 18.98 | 20.38 | 42.76 | -     | -     |
| UNII<br>2C | 5530           | 106            | Low         | 18.98            | 18.98 | 18.78 | 21.18 | 40.36 | -     | -     |
|            |                |                | Mid         | 38.56            | 19.98 | 19.38 | 20.58 | -     | 80.52 | 80.32 |
|            |                |                | High        | 18.98            | 18.98 | 18.98 | 20.38 | 40.56 | -     | -     |
| UNII<br>3  | 5775           | 155            | Low         | 18.98            | 18.98 | 19.58 | 20.18 | 41.76 | -     | -     |
|            |                |                | Mid         | 38.56            | 19.38 | 19.18 | 20.38 | -     | 80.72 | 80.92 |
|            |                |                | High        | 18.98            | 18.98 | 18.78 | 20.98 | 41.36 | -     | -     |

Remark. 1: [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]

Remark. 2: [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz

Remark. 3: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

### 7.6.3 Test data for Staddle Channel\_Antenna 0

| BW   | Frequency<br>[MHz] | Channel<br>No. | Tone | RU<br>Index | 26dB BW<br>(MHz) |        |
|------|--------------------|----------------|------|-------------|------------------|--------|
|      |                    |                |      |             | UNII 2C          | UNII 3 |
| HE80 | 5690               | 138            | 26T  | # Low       | -                | -      |
|      |                    |                |      | # Mid       | -                | -      |
|      |                    |                |      | High        | 14.62            | 5.16   |
|      |                    |                | 52T  | # Low       | -                | -      |
|      |                    |                |      | # Mid       | -                | -      |
|      |                    |                |      | High        | 14.02            | 5.16   |
|      |                    |                | 106T | # Low       | -                | -      |
|      |                    |                |      | # Mid       | -                | -      |
|      |                    |                |      | High        | 13.82            | 5.16   |
|      |                    |                | 242T | # Low       | -                | -      |
|      |                    |                |      | # Mid       | -                | -      |
|      |                    |                |      | High        | 16.02            | 5.56   |
|      |                    |                | 484T | # Low       | -                | -      |
|      |                    |                |      | High        | 41.79            | 5.16   |
|      |                    |                | 996T | Mid         | 75.56            | 5.16   |
|      |                    |                | SU   | -           | 75.36            | 5.36   |

#### 7.6.4 Test data for Staddle Channel\_Antenna 1

| BW   | Frequency<br>[MHz] | Channel<br>No. | Tone | RU<br>Index | 26dB BW<br>(MHz) |        |
|------|--------------------|----------------|------|-------------|------------------|--------|
|      |                    |                |      |             | UNII 2C          | UNII 3 |
| HE80 | 5690               | 138            | 26T  | # Low       | -                | -      |
|      |                    |                |      | # Mid       | -                | -      |
|      |                    |                |      | High        | 13.62            | 5.16   |
|      |                    |                | 52T  | # Low       | -                | -      |
|      |                    |                |      | # Mid       | -                | -      |
|      |                    |                |      | High        | 14.62            | 5.16   |
|      |                    |                | 106T | # Low       | -                | -      |
|      |                    |                |      | # Mid       | -                | -      |
|      |                    |                |      | High        | 14.62            | 4.96   |
|      |                    |                | 242T | # Low       | -                | -      |
|      |                    |                |      | # Mid       | -                | -      |
|      |                    |                |      | High        | 16.82            | 5.16   |
|      |                    |                | 484T | # Low       | -                | -      |
|      |                    |                |      | High        | 37.40            | 5.16   |
|      |                    |                | 996T | Mid         | 75.76            | 5.36   |
|      |                    |                | SU   | -           | 75.36            | 5.36   |

## 8. 6 dB BANDWIDTH

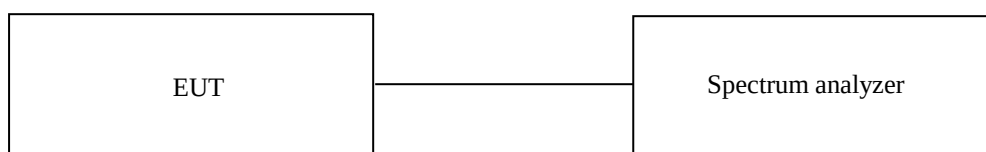
### 8.1 Operating environment

Temperature : 23 °C

Relative humidity : 45 % R.H.

### 8.2 Test set-up

The antenna output of the EUT was connected to the spectrum analyzer. The resolution bandwidth is set to 100 kHz, and peak detection was used. The 6 dB bandwidth is defined as the total spectrum over which the power is higher than the peak power minus 6 dB.



### 8.3 Test Date

December 05, 2021 ~ March 08, 2022

## 8.4 Test data for 802.11 ax(HE20) WLAN Mode

### 8.4.1 Test data for Antenna 0

-. Test Result : Pass

| HE20   | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | 6dB BW<br>(MHz) |      |       |       |       |
|--------|--------------------|----------------|-------------|-----------------|------|-------|-------|-------|
|        |                    |                |             | 26 T            | 52 T | 106 T | 242 T | SU    |
| UNII 3 | 5745               | 149            | Low         | 2.10            | 4.00 | 8.29  | -     | -     |
|        |                    |                | Mid         | 2.70            | 4.10 | -     | 18.38 | 18.28 |
|        |                    |                | High        | 2.00            | 4.00 | 8.19  | -     | -     |
|        | 5785               | 157            | Low         | 2.05            | 4.05 | 8.29  | -     | -     |
|        |                    |                | Mid         | 2.75            | 4.10 | -     | 18.63 | 18.38 |
|        |                    |                | High        | 2.05            | 4.05 | 8.29  | -     | -     |
|        | 5825               | 165            | Low         | 2.10            | 4.05 | 8.29  | -     | -     |
|        |                    |                | Mid         | 2.65            | 4.10 | -     | 18.53 | 18.08 |
|        |                    |                | High        | 2.05            | 4.00 | 8.29  | -     | -     |

Remark. 1: 6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

Remark. 2: 6dB bandwidth is only located in UNII 2C. Therefore 6dB bandwidth do not overlap.

Remark. 3: Limit : > 0.5 MHz

## 8.4.2 Test data for Antenna 1

-. Test Result : Pass

| HE20   | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | 6dB BW<br>(MHz) |      |       |       |       |
|--------|--------------------|----------------|-------------|-----------------|------|-------|-------|-------|
|        |                    |                |             | 26 T            | 52 T | 106 T | 242 T | SU    |
| UNII 3 | 5745               | 149            | Low         | 2.10            | 4.00 | 8.29  | -     | -     |
|        |                    |                | Mid         | 2.65            | 4.15 | -     | 18.53 | 18.48 |
|        |                    |                | High        | 2.05            | 4.05 | 8.29  | -     | -     |
|        | 5785               | 157            | Low         | 2.10            | 4.00 | 8.29  | -     | -     |
|        |                    |                | Mid         | 2.70            | 4.10 | -     | 18.68 | 18.18 |
|        |                    |                | High        | 2.05            | 4.00 | 8.29  | -     | -     |
|        | 5825               | 165            | Low         | 2.10            | 4.05 | 8.34  | -     | -     |
|        |                    |                | Mid         | 2.70            | 4.15 | -     | 18.43 | 17.83 |
|        |                    |                | High        | 2.05            | 4.00 | 8.29  | -     | -     |

Remark. 1: 6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

Remark. 2: 6dB bandwidth is only located in UNII 2C. Therefore 6dB bandwidth do not overlap.

Remark. 3: Limit : > 0.5 MHz

#### 8.4.3 Test data for Staddle Channel\_Antenna 0

| BW   | Frequency [MHz] | Channel No. | Tone | RU Index | 6dB BW (MHz) |
|------|-----------------|-------------|------|----------|--------------|
|      |                 |             |      |          | UNII 3       |
| HE20 | 5720            | 144         | 26T  | # Low    | -            |
|      |                 |             |      | # Mid    | -            |
|      |                 |             |      | High     | 4.34         |
|      |                 |             | 52T  | # Low    | -            |
|      |                 |             |      | # Mid    | -            |
|      |                 |             |      | High     | 4.34         |
|      |                 |             | 106T | # Low    | -            |
|      |                 |             |      | High     | 4.29         |
|      |                 |             | 242T | Mid      | 4.29         |
|      |                 |             | SU   | -        | 4.34         |

#### 8.4.4 Test data for Staddle Channel\_Antenna 1

| BW   | Frequency [MHz] | Channel No. | Tone | RU Index | 6dB BW (MHz) |
|------|-----------------|-------------|------|----------|--------------|
|      |                 |             |      |          | UNII 3       |
| HE20 | 5720            | 144         | 26T  | # Low    | -            |
|      |                 |             |      | # Mid    | -            |
|      |                 |             |      | High     | 4.39         |
|      |                 |             | 52T  | # Low    | -            |
|      |                 |             |      | # Mid    | -            |
|      |                 |             |      | High     | 4.39         |
|      |                 |             | 106T | # Low    | -            |
|      |                 |             |      | High     | 4.44         |
|      |                 |             | 242T | Mid      | 4.24         |
|      |                 |             | SU   | -        | 4.14         |

## 8.5 Test data for 802.11 ax(HE40) WLAN Mode

### 8.5.1 Test data for Antenna 0

-. Test Result : Pass

| HE40      | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | 6dB BW |      |       |       |       |       |
|-----------|--------------------|----------------|-------------|--------|------|-------|-------|-------|-------|
|           |                    |                |             | 26 T   | 52 T | 106 T | 242 T | 484 T | SU    |
| UNII<br>3 | 5755               | 151            | Low         | 2.00   | 4.00 | 8.29  | 17.68 | -     | -     |
|           |                    |                | Mid         | 2.20   | 4.20 | 8.49  | -     | 36.36 | 37.46 |
|           |                    |                | High        | 2.00   | 4.10 | 8.19  | 17.98 | -     | -     |
|           | 5795               | 159            | Low         | 2.00   | 4.00 | 7.69  | 18.78 | -     | -     |
|           |                    |                | Mid         | 2.20   | 4.00 | 8.49  | -     | 37.76 | 37.66 |
|           |                    |                | High        | 2.10   | 4.10 | 8.19  | 18.38 | -     | -     |

Remark. 1: 6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

Remark. 2: 6dB bandwidth is only located in UNII 2C. Therefore 6dB bandwidth do not overlap.

Remark. 3: Limit : > 0.5 MHz

### 8.5.2 Test data for Antenna 1

-. Test Result : Pass

| HE40      | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | 6dB BW |      |       |       |       |       |
|-----------|--------------------|----------------|-------------|--------|------|-------|-------|-------|-------|
|           |                    |                |             | 26 T   | 52 T | 106 T | 242 T | 484 T | SU    |
| UNII<br>3 | 5755               | 151            | Low         | 1.90   | 4.20 | 8.29  | 18.08 | -     | -     |
|           |                    |                | Mid         | 2.20   | 4.10 | 8.49  | -     | 36.96 | 36.36 |
|           |                    |                | High        | 2.10   | 4.10 | 8.19  | 18.08 | -     | -     |
|           | 5795               | 159            | Low         | 2.10   | 4.20 | 8.39  | 17.68 | -     | -     |
|           |                    |                | Mid         | 2.20   | 4.20 | 8.19  | -     | 36.66 | 36.96 |
|           |                    |                | High        | 2.10   | 4.10 | 8.19  | 18.08 | -     | -     |

Remark. 1: 6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

Remark. 2: 6dB bandwidth is only located in UNII 2C. Therefore 6dB bandwidth do not overlap.

Remark. 3: Limit : > 0.5 MHz

### 8.5.3 Test data for Staddle Channel\_Antenna 0

| BW   | Frequency [MHz] | Channel No. | Tone | RU Index | 6dB BW (MHz) |
|------|-----------------|-------------|------|----------|--------------|
|      |                 |             |      |          | UNII 3       |
| HE40 | 5710            | 142         | 26T  | # Low    | -            |
|      |                 |             |      | # Mid    | -            |
|      |                 |             |      | High     | 3.98         |
|      |                 |             | 52T  | # Low    | -            |
|      |                 |             |      | # Mid    | -            |
|      |                 |             |      | High     | 3.78         |
|      |                 |             | 106T | # Low    | -            |
|      |                 |             |      | # Mid    | -            |
|      |                 |             |      | High     | 3.88         |
|      |                 |             | 242T | # Low    | -            |
|      |                 |             |      | High     | 3.88         |
|      |                 |             | 484T | Mid      | 3.68         |
|      |                 |             | SU   | -        | 2.68         |

### 8.5.4 Test data for Staddle Channel\_Antenna 1

| BW   | Frequency [MHz] | Channel No. | Tone | RU Index | 6dB BW (MHz) |
|------|-----------------|-------------|------|----------|--------------|
|      |                 |             |      |          | UNII 3       |
| HE40 | 5710            | 142         | 26T  | # Low    | -            |
|      |                 |             |      | # Mid    | -            |
|      |                 |             |      | High     | 4.08         |
|      |                 |             | 52T  | # Low    | -            |
|      |                 |             |      | # Mid    | -            |
|      |                 |             |      | High     | 3.88         |
|      |                 |             | 106T | # Low    | -            |
|      |                 |             |      | # Mid    | -            |
|      |                 |             |      | High     | 3.78         |
|      |                 |             | 242T | # Low    | -            |
|      |                 |             |      | High     | 3.28         |
|      |                 |             | 484T | Mid      | 3.78         |
|      |                 |             | SU   | -        | 3.48         |

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## 8.6 Test data for 802.11 ax(HE80) WLAN Mode

### 8.6.1 Test data for Antenna 0

-. Test Result : Pass

| HE80      | Freq.<br>[MHz] | Channel<br>No. | RU<br>Index | 6dB BW<br>(MHz) |      |       |       |       |       |       |
|-----------|----------------|----------------|-------------|-----------------|------|-------|-------|-------|-------|-------|
|           |                |                |             | 26 T            | 52 T | 106 T | 242 T | 484 T | 996 T | SU    |
| UNII<br>3 | 5775           | 155            | Low         | 2.20            | 4.20 | 8.39  | 18.78 | 37.76 | -     | -     |
|           |                |                | Mid         | 2.80            | 4.20 | 8.39  | 18.78 | -     | 77.92 | 77.52 |
|           |                |                | High        | 2.00            | 4.20 | 8.19  | 18.78 | 37.76 | -     | -     |

Remark. 1: 6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

Remark. 2: 6dB bandwidth is only located in UNII 2C. Therefore 6dB bandwidth do not overlap.

Remark. 3: Limit : > 0.5 MHz

### 8.6.2 Test data for Antenna 1

-. Test Result : Pass

| HE80      | Freq.<br>[MHz] | Channel<br>No. | RU<br>Index | 6dB BW<br>(MHz) |      |       |       |       |       |       |
|-----------|----------------|----------------|-------------|-----------------|------|-------|-------|-------|-------|-------|
|           |                |                |             | 26 T            | 52 T | 106 T | 242 T | 484 T | 996 T | SU    |
| UNII<br>3 | 5775           | 155            | Low         | 2.20            | 4.20 | 8.39  | 18.78 | 37.76 | -     | -     |
|           |                |                | Mid         | 2.80            | 4.20 | 8.39  | 19.18 | -     | 78.12 | 78.32 |
|           |                |                | High        | 2.00            | 4.20 | 8.19  | 18.98 | 37.76 | -     | -     |

Remark. 1: 6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

Remark. 2: 6dB bandwidth is only located in UNII 2C. Therefore 6dB bandwidth do not overlap.

Remark. 3: Limit : > 0.5 MHz

### 8.6.3 Test data for Staddle Channel\_Antenna 0

| BW   | Frequency [MHz] | Channel No. | Tone | RU Index | 6dB BW (MHz) |
|------|-----------------|-------------|------|----------|--------------|
|      |                 |             |      |          | UNII 3       |
| HE80 | 5690            | 138         | 26T  | # Low    | -            |
|      |                 |             |      | # Mid    | -            |
|      |                 |             |      | High     | 3.96         |
|      |                 |             | 52T  | # Low    | -            |
|      |                 |             |      | # Mid    | -            |
|      |                 |             |      | High     | 3.96         |
|      |                 |             | 106T | # Low    | -            |
|      |                 |             |      | # Mid    | -            |
|      |                 |             |      | High     | 3.96         |
|      |                 |             | 242T | # Low    | -            |
|      |                 |             |      | # Mid    | -            |
|      |                 |             |      | High     | 4.16         |
|      |                 |             | 484T | # Low    | -            |
|      |                 |             |      | High     | 3.96         |
|      |                 |             | 996T | Mid      | 3.56         |
|      |                 |             | SU   | -        | 3.96         |

#### 8.6.4 Test data for Staddle Channel\_Antenna 1

| BW   | Frequency [MHz] | Channel No. | Tone | RU Index | 6dB BW (MHz) |
|------|-----------------|-------------|------|----------|--------------|
|      |                 |             |      |          | UNII 3       |
| HE80 | 5690            | 138         | 26T  | # Low    | -            |
|      |                 |             |      | # Mid    | -            |
|      |                 |             |      | High     | 3.96         |
|      |                 |             | 52T  | # Low    | -            |
|      |                 |             |      | # Mid    | -            |
|      |                 |             |      | High     | 3.96         |
|      |                 |             | 106T | # Low    | -            |
|      |                 |             |      | # Mid    | -            |
|      |                 |             |      | High     | 4.16         |
|      |                 |             | 242T | # Low    | -            |
|      |                 |             |      | # Mid    | -            |
|      |                 |             |      | High     | 4.16         |
|      |                 |             | 484T | # Low    | -            |
|      |                 |             |      | High     | 4.16         |
|      |                 |             | 996T | Mid      | 3.96         |
|      |                 |             | SU   | -        | 3.96         |

## 9. MAXIMUM CONDUCTED(AVERAGE) OUTPUT POWER

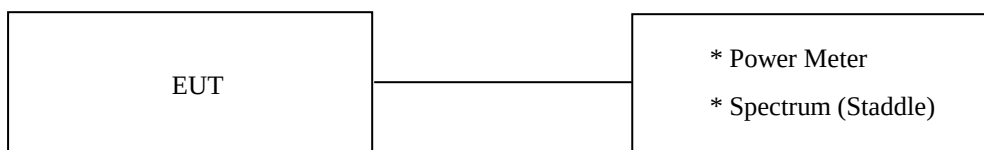
### 9.1 Operating environment

Temperature : 23 °C

Relative humidity : 45 % R.H.

### 9.2 Test set-up

The maximum peak output power was measured with the Power Meter connected to the antenna output of the EUT. The EUT was operating in transmit mode at the appropriate center frequency. The test of the staddle channel is performed by spectrum.



### 9.3 Test Date

December 05, 2021 ~ March 08, 2022

## 9.4 Test data for 802.11 ax(HE20) WLAN Mode

### 9.4.1 Test data for Antenna 0

-. Test Result : Pass

| HE20       | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | Conducted Average Total Power<br>(dBm) |      |       |       |       |
|------------|--------------------|----------------|-------------|----------------------------------------|------|-------|-------|-------|
|            |                    |                |             | 26 T                                   | 52 T | 106 T | 242 T | SU    |
| UNII<br>1  | 5180               | 36             | Low         | 1.24                                   | 3.21 | 6.59  | -     | -     |
|            |                    |                | Mid         | 1.47                                   | 3.64 | -     | 9.43  | 11.25 |
|            |                    |                | High        | 1.46                                   | 3.44 | 6.74  | -     | -     |
|            | 5220               | 44             | Low         | 2.03                                   | 3.93 | 7.26  | -     | -     |
|            |                    |                | Mid         | 2.30                                   | 4.41 | -     | 10.07 | 11.83 |
|            |                    |                | High        | 2.22                                   | 4.14 | 7.37  | -     | -     |
|            | 5240               | 48             | Low         | 2.25                                   | 4.26 | 7.53  | -     | -     |
|            |                    |                | Mid         | 2.53                                   | 4.65 | -     | 10.29 | 12.19 |
|            |                    |                | High        | 2.41                                   | 4.35 | 7.54  | -     | -     |
| UNII<br>2A | 5260               | 52             | Low         | 2.46                                   | 4.37 | 7.63  | -     | -     |
|            |                    |                | Mid         | 2.63                                   | 4.79 | -     | 10.35 | 11.91 |
|            |                    |                | High        | 2.45                                   | 4.36 | 7.59  | -     | -     |
|            | 5300               | 60             | Low         | 2.34                                   | 4.32 | 7.45  | -     | -     |
|            |                    |                | Mid         | 2.55                                   | 4.72 | -     | 10.22 | 11.80 |
|            |                    |                | High        | 2.36                                   | 4.32 | 7.45  | -     | -     |
|            | 5320               | 64             | Low         | 2.44                                   | 4.36 | 7.48  | -     | -     |
|            |                    |                | Mid         | 2.66                                   | 4.73 | -     | 10.25 | 11.97 |
|            |                    |                | High        | 2.50                                   | 4.42 | 7.61  | -     | -     |
| UNII<br>2C | 5500               | 100            | Low         | 1.67                                   | 3.66 | 7.11  | -     | -     |
|            |                    |                | Mid         | 1.91                                   | 4.06 | -     | 10.01 | 11.26 |
|            |                    |                | High        | 1.83                                   | 3.76 | 7.10  | -     | -     |
|            | 5580               | 116            | Low         | 2.60                                   | 4.63 | 7.90  | -     | -     |
|            |                    |                | Mid         | 2.82                                   | 4.98 | -     | 10.64 | 12.03 |
|            |                    |                | High        | 2.63                                   | 4.57 | 7.83  | -     | -     |
|            | 5700               | 140            | Low         | 2.61                                   | 4.54 | 7.63  | -     | -     |
|            |                    |                | Mid         | 2.62                                   | 4.79 | -     | 10.26 | 11.31 |
|            |                    |                | High        | 2.22                                   | 4.17 | 7.35  | -     | -     |

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| HE20      | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | Conducted Average Total Power<br>(dBm) |       |       |       |       |
|-----------|--------------------|----------------|-------------|----------------------------------------|-------|-------|-------|-------|
|           |                    |                |             | 26 T                                   | 52 T  | 106 T | 242 T | SU    |
| UNII<br>3 | 5745               | 149            | Low         | 9.72                                   | 9.69  | 9.83  | -     | -     |
|           |                    |                | Mid         | 9.89                                   | 10.12 | -     | 9.73  | 11.16 |
|           |                    |                | High        | 9.81                                   | 9.86  | 9.85  | -     | -     |
|           | 5785               | 157            | Low         | 10.04                                  | 10.10 | 10.13 | -     | -     |
|           |                    |                | Mid         | 10.25                                  | 10.40 | -     | 10.13 | 11.28 |
|           |                    |                | High        | 9.89                                   | 9.91  | 10.04 | -     | -     |
|           | 5825               | 165            | Low         | 9.13                                   | 9.18  | 9.26  | -     | -     |
|           |                    |                | Mid         | 9.15                                   | 9.41  | -     | 9.15  | 10.58 |
|           |                    |                | High        | 8.84                                   | 8.88  | 9.04  | -     | -     |

Remark. 1: Conducted Average Total Power = Measured Value +Duty Factor

# Limit : UNII 1 / UNII 2A / UNII 2C : 21 dBm / UNII 3 : 27 dBm

### 9.4.2 Test data for Antenna 1

-. Test Result : Pass

| HE20       | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | Conducted Average Total Power<br>(dBm) |      |       |       |       |
|------------|--------------------|----------------|-------------|----------------------------------------|------|-------|-------|-------|
|            |                    |                |             | 26 T                                   | 52 T | 106 T | 242 T | SU    |
| UNII<br>1  | 5180               | 36             | Low         | 2.56                                   | 4.65 | 7.69  | -     | -     |
|            |                    |                | Mid         | 2.76                                   | 5.01 | -     | 10.21 | 11.35 |
|            |                    |                | High        | 2.65                                   | 4.70 | 7.73  | -     | -     |
|            | 5220               | 44             | Low         | 2.90                                   | 4.94 | 8.01  | -     | -     |
|            |                    |                | Mid         | 3.22                                   | 5.38 | -     | 10.61 | 11.77 |
|            |                    |                | High        | 3.16                                   | 5.10 | 8.11  | -     | -     |
|            | 5240               | 48             | Low         | 3.24                                   | 5.18 | 8.23  | -     | -     |
|            |                    |                | Mid         | 3.45                                   | 5.63 | -     | 10.77 | 12.02 |
|            |                    |                | High        | 3.32                                   | 5.28 | 8.30  | -     | -     |
| UNII<br>2A | 5260               | 52             | Low         | 3.40                                   | 5.33 | 8.33  | -     | -     |
|            |                    |                | Mid         | 3.51                                   | 5.73 | -     | 10.76 | 11.83 |
|            |                    |                | High        | 3.30                                   | 5.29 | 8.30  | -     | -     |
|            | 5300               | 60             | Low         | 3.31                                   | 4.23 | 8.22  | -     | -     |
|            |                    |                | Mid         | 3.42                                   | 5.57 | -     | 10.64 | 11.87 |
|            |                    |                | High        | 3.32                                   | 5.21 | 8.27  | -     | -     |
|            | 5320               | 64             | Low         | 3.39                                   | 5.34 | 8.32  | -     | -     |
|            |                    |                | Mid         | 3.67                                   | 5.73 | -     | 10.87 | 12.03 |
|            |                    |                | High        | 3.59                                   | 5.45 | 8.46  | -     | -     |
| UNII<br>2C | 5500               | 100            | Low         | 2.71                                   | 4.89 | 7.93  | -     | -     |
|            |                    |                | Mid         | 2.88                                   | 5.25 | -     | 10.55 | 11.52 |
|            |                    |                | High        | 2.78                                   | 4.91 | 7.91  | -     | -     |
|            | 5580               | 116            | Low         | 3.63                                   | 5.58 | 7.83  | -     | -     |
|            |                    |                | Mid         | 3.77                                   | 5.92 | -     | 11.07 | 12.15 |
|            |                    |                | High        | 3.61                                   | 5.53 | 8.55  | -     | -     |
|            | 5700               | 140            | Low         | 3.73                                   | 8.53 | 8.53  | -     | -     |
|            |                    |                | Mid         | 3.90                                   | 5.84 | -     | 10.93 | 11.12 |
|            |                    |                | High        | 3.70                                   | 5.42 | 8.44  | -     | -     |

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| HE20      | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | Conducted Average Total Power<br>(dBm) |       |       |       |       |
|-----------|--------------------|----------------|-------------|----------------------------------------|-------|-------|-------|-------|
|           |                    |                |             | 26 T                                   | 52 T  | 106 T | 242 T | SU    |
| UNII<br>3 | 5745               | 149            | Low         | 11.16                                  | 11.18 | 11.29 | -     | -     |
|           |                    |                | Mid         | 11.36                                  | 11.55 | -     | 11.21 | 11.16 |
|           |                    |                | High        | 11.14                                  | 11.20 | 11.22 | -     | -     |
|           | 5785               | 157            | Low         | 10.73                                  | 10.70 | 10.71 | -     | -     |
|           |                    |                | Mid         | 10.76                                  | 10.79 | -     | 10.65 | 10.70 |
|           |                    |                | High        | 10.38                                  | 10.46 | 10.52 | -     | -     |
|           | 5825               | 165            | Low         | 10.43                                  | 10.30 | 10.53 | -     | -     |
|           |                    |                | Mid         | 10.61                                  | 10.73 | -     | 10.56 | 10.51 |
|           |                    |                | High        | 10.45                                  | 10.45 | 10.60 | -     | -     |

Remark. 1: Conducted Average Total Power = Measured Value +Duty Factor

# Limit : UNII 1 / UNII 2A / UNII 2C : 21 dBm / UNII 3 : 27 dBm

### 9.4.3 Test data for Multiple Transmit

-. Test Result : Pass

| HE20       | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | Conducted Average Total Power<br>(dBm) |      |       |       |       |
|------------|--------------------|----------------|-------------|----------------------------------------|------|-------|-------|-------|
|            |                    |                |             | 26 T                                   | 52 T | 106 T | 242 T | SU    |
| UNII<br>1  | 5180               | 36             | Low         | 4.96                                   | 7.00 | 10.18 | -     | -     |
|            |                    |                | Mid         | 5.17                                   | 7.39 | -     | 12.85 | 14.31 |
|            |                    |                | High        | 5.11                                   | 7.12 | 10.27 | -     | -     |
|            | 5220               | 44             | Low         | 5.50                                   | 7.47 | 10.66 | -     | -     |
|            |                    |                | Mid         | 5.80                                   | 7.93 | -     | 13.36 | 14.81 |
|            |                    |                | High        | 5.73                                   | 7.65 | 10.77 | -     | -     |
|            | 5240               | 48             | Low         | 5.78                                   | 7.75 | 10.90 | -     | -     |
|            |                    |                | Mid         | 6.03                                   | 8.18 | -     | 13.55 | 15.11 |
|            |                    |                | High        | 5.90                                   | 7.85 | 10.95 | -     | -     |
| UNII<br>2A | 5260               | 52             | Low         | 5.97                                   | 7.88 | 11.00 | -     | -     |
|            |                    |                | Mid         | 6.10                                   | 8.29 | -     | 13.57 | 14.88 |
|            |                    |                | High        | 5.91                                   | 7.86 | 10.97 | -     | -     |
|            | 5300               | 60             | Low         | 5.86                                   | 7.28 | 10.86 | -     | -     |
|            |                    |                | Mid         | 6.02                                   | 8.17 | -     | 13.44 | 14.84 |
|            |                    |                | High        | 5.88                                   | 7.80 | 10.89 | -     | -     |
|            | 5320               | 64             | Low         | 5.95                                   | 7.89 | 10.93 | -     | -     |
|            |                    |                | Mid         | 6.21                                   | 8.27 | -     | 13.58 | 15.01 |
|            |                    |                | High        | 6.09                                   | 7.97 | 11.07 | -     | -     |
| UNII<br>2C | 5500               | 100            | Low         | 5.23                                   | 7.33 | 10.55 | -     | -     |
|            |                    |                | Mid         | 5.43                                   | 7.70 | -     | 13.30 | 14.40 |
|            |                    |                | High        | 5.34                                   | 7.38 | 10.53 | -     | -     |
|            | 5580               | 116            | Low         | 6.16                                   | 8.14 | 10.87 | -     | -     |
|            |                    |                | Mid         | 6.33                                   | 8.48 | -     | 13.87 | 15.10 |
|            |                    |                | High        | 6.16                                   | 8.08 | 11.21 | -     | -     |
|            | 5700               | 140            | Low         | 6.22                                   | 9.99 | 11.11 | -     | -     |
|            |                    |                | Mid         | 6.32                                   | 8.35 | -     | 13.62 | 14.22 |
|            |                    |                | High        | 6.03                                   | 7.85 | 10.94 | -     | -     |

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OTC-TRF-RF-001(0)

| HE20      | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | Conducted Average Total Power<br>(dBm) |       |       |       |       |
|-----------|--------------------|----------------|-------------|----------------------------------------|-------|-------|-------|-------|
|           |                    |                |             | 26 T                                   | 52 T  | 106 T | 242 T | SU    |
| UNII<br>3 | 5745               | 149            | Low         | 13.51                                  | 13.51 | 13.63 | -     | -     |
|           |                    |                | Mid         | 13.70                                  | 13.90 | -     | 13.54 | 14.17 |
|           |                    |                | High        | 13.54                                  | 13.59 | 13.60 | -     | -     |
|           | 5785               | 157            | Low         | 13.41                                  | 13.42 | 13.44 | -     | -     |
|           |                    |                | Mid         | 13.52                                  | 13.61 | -     | 13.41 | 14.01 |
|           |                    |                | High        | 13.15                                  | 13.20 | 13.30 | -     | -     |
|           | 5825               | 165            | Low         | 12.84                                  | 12.78 | 12.95 | -     | -     |
|           |                    |                | Mid         | 12.95                                  | 13.13 | -     | 12.92 | 13.55 |
|           |                    |                | High        | 12.73                                  | 12.74 | 12.90 | -     | -     |

# Limit : UNII 1 / UNII 2A / UNII 2C : 18 dBm / UNII 3 : 24 dBm

#### 9.4.4 Test data for Staddle Channel\_Antenna 0

| BW   | Frequency<br>[MHz] | Channel No. | Tone | RU<br>Index | Conducted Average Total Power<br>(dBm) |        |
|------|--------------------|-------------|------|-------------|----------------------------------------|--------|
|      |                    |             |      |             | UNII 2C                                | UNII 3 |
| HE20 | 5720               | 144         | 26T  | Low         | 1.76                                   | -20.77 |
|      |                    |             |      | Mid         | 2.00                                   | -20.89 |
|      |                    |             |      | High        | -14.63                                 | 1.68   |
|      |                    |             | 52T  | Low         | 3.91                                   | -18.72 |
|      |                    |             |      | Mid         | 4.19                                   | -18.87 |
|      |                    |             |      | High        | -11.37                                 | 3.49   |
|      |                    |             | 106T | Low         | 6.86                                   | -15.27 |
|      |                    |             |      | High        | 3.72                                   | 3.76   |
|      |                    |             | 242T | Mid         | 8.57                                   | 3.11   |
|      |                    |             | SU   | -           | 9.31                                   | 3.94   |

Remark. 1: Conducted Average Total Power = Measured Value +Duty Factor

# Limit : UNII 2C : 21 dBm / UNII 3 : 27 dBm

#### 9.4.5 Test data for Staddle Channel\_Antenna 1

| BW   | Frequency<br>[MHz] | Channel No. | Tone | RU<br>Index | Conducted Average Total Power<br>(dBm) |        |
|------|--------------------|-------------|------|-------------|----------------------------------------|--------|
|      |                    |             |      |             | UNII 2C                                | UNII 3 |
| HE20 | 5720               | 144         | 26T  | Low         | 3.92                                   | -18.94 |
|      |                    |             |      | Mid         | 3.77                                   | -18.50 |
|      |                    |             |      | High        | -13.02                                 | 3.83   |
|      |                    |             | 52T  | Low         | 5.45                                   | -16.62 |
|      |                    |             |      | Mid         | 5.88                                   | -17.46 |
|      |                    |             |      | High        | -9.12                                  | 5.36   |
|      |                    |             | 106T | Low         | 8.59                                   | -14.66 |
|      |                    |             |      | High        | 5.50                                   | 5.47   |
|      |                    |             | 242T | Mid         | 9.80                                   | 4.50   |
|      |                    |             | SU   | -           | 9.35                                   | 4.12   |

Remark. 1: Conducted Average Total Power = Measured Value +Duty Factor

# Limit : UNII 2C : 21 dBm / UNII 3 : 27 dBm

#### 9.4.6 Test data for Staddle Channel\_Multiple Transmit

| BW   | Frequency<br>[MHz] | Channel No. | Tone | RU<br>Index | Conducted Average Total Power<br>(dBm) |        |
|------|--------------------|-------------|------|-------------|----------------------------------------|--------|
|      |                    |             |      |             | UNII 2C                                | UNII 3 |
| HE20 | 5720               | 144         | 26T  | Low         | 5.98                                   | -16.75 |
|      |                    |             |      | Mid         | 5.99                                   | -16.52 |
|      |                    |             |      | High        | -10.74                                 | 5.90   |
|      |                    |             | 52T  | Low         | 7.76                                   | -14.54 |
|      |                    |             |      | Mid         | 8.12                                   | -15.10 |
|      |                    |             |      | High        | -7.09                                  | 7.53   |
|      |                    |             | 106T | Low         | 10.82                                  | -11.94 |
|      |                    |             |      | High        | 7.71                                   | 7.71   |
|      |                    |             | 242T | Mid         | 12.24                                  | 6.87   |
|      |                    |             | SU   | -           | 12.34                                  | 7.04   |

# Limit : UNII 2C : 18 dBm / UNII 3 : 24 dBm

## 9.5 Test data for 802.11 ax(HE40) WLAN Mode

### 9.5.1 Test data for Antenna 0

-. Test Result : Pass

| HE40       | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | Conducted Average Total Power (dBm) |      |       |       |       |       |
|------------|--------------------|----------------|-------------|-------------------------------------|------|-------|-------|-------|-------|
|            |                    |                |             | 26 T                                | 52 T | 106 T | 242 T | 484 T | SU    |
| UNII<br>1  | 5190               | 38             | Low         | 1.36                                | 4.21 | 6.47  | 6.62  | -     | -     |
|            |                    |                | Mid         | 2.60                                | 4.80 | 7.04  | -     | 6.77  | 8.71  |
|            |                    |                | High        | 1.93                                | 4.77 | 6.84  | 6.92  | -     | -     |
|            | 5230               | 46             | Low         | 2.05                                | 4.40 | 7.41  | 7.26  | -     | -     |
|            |                    |                | Mid         | 3.32                                | 4.99 | 7.72  | -     | 7.43  | 9.15  |
|            |                    |                | High        | 2.44                                | 5.26 | 7.39  | 7.54  | -     | -     |
| UNII<br>2A | 5270               | 54             | Low         | 2.50                                | 5.31 | 7.45  | 5.55  | -     | -     |
|            |                    |                | Mid         | 3.52                                | 5.39 | 7.88  | -     | 7.48  | 8.30  |
|            |                    |                | High        | 2.39                                | 5.18 | 7.32  | 5.43  | -     | -     |
|            | 5310               | 62             | Low         | 2.44                                | 5.21 | 7.32  | 5.41  | -     | -     |
|            |                    |                | Mid         | 3.39                                | 5.62 | 7.74  | -     | 7.49  | 8.44  |
|            |                    |                | High        | 2.59                                | 5.36 | 7.38  | 5.49  | -     | -     |
| UNII<br>2C | 5510               | 102            | Low         | 1.80                                | 4.63 | 6.89  | 7.03  | -     | -     |
|            |                    |                | Mid         | 2.88                                | 5.10 | 7.39  | -     | 7.16  | 9.34  |
|            |                    |                | High        | 2.06                                | 4.88 | 7.04  | 7.18  | -     | -     |
|            | 5550               | 110            | Low         | 2.16                                | 5.02 | 7.24  | 7.48  | -     | -     |
|            |                    |                | Mid         | 3.44                                | 5.62 | 7.86  | -     | 7.59  | 9.99  |
|            |                    |                | High        | 2.68                                | 5.50 | 7.66  | 7.72  | -     | -     |
|            | 5670               | 134            | Low         | 2.52                                | 5.37 | 7.51  | 7.68  | -     | -     |
|            |                    |                | Mid         | 3.69                                | 5.92 | 8.02  | -     | 7.76  | 9.75  |
|            |                    |                | High        | 2.72                                | 5.59 | 7.49  | 7.72  | -     | -     |
| UNII<br>3  | 5755               | 151            | Low         | 5.95                                | 6.77 | 6.77  | 6.97  | -     | -     |
|            |                    |                | Mid         | 7.02                                | 7.30 | 7.33  | -     | 7.16  | 10.35 |
|            |                    |                | High        | 6.29                                | 7.17 | 7.15  | 7.27  | -     | -     |
|            | 5795               | 159            | Low         | 6.45                                | 7.23 | 7.32  | 7.32  | -     | -     |
|            |                    |                | Mid         | 7.10                                | 7.39 | 7.69  | -     | 7.16  | 10.38 |
|            |                    |                | High        | 5.56                                | 6.50 | 6.59  | 6.84  | -     | -     |

Remark. 1: Conducted Average Total Power = Measured Value +Duty Factor

# Limit : UNII 1 / UNII 2A / UNII 2C : 21 dBm / UNII 3 : 27 dBm

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### 9.5.2 Test data for Antenna 1

-. Test Result : Pass

| HE40       | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | Conducted Average Total Power (dBm) |      |       |       |       |       |
|------------|--------------------|----------------|-------------|-------------------------------------|------|-------|-------|-------|-------|
|            |                    |                |             | 26 T                                | 52 T | 106 T | 242 T | 484 T | SU    |
| UNII<br>1  | 5190               | 38             | Low         | 2.80                                | 5.66 | 7.57  | 7.70  | -     | -     |
|            |                    |                | Mid         | 3.71                                | 6.06 | 8.09  | -     | 7.76  | 8.74  |
|            |                    |                | High        | 2.93                                | 5.88 | 7.68  | 7.83  | -     | -     |
|            | 5230               | 46             | Low         | 3.05                                | 5.33 | 8.14  | 7.98  | -     | -     |
|            |                    |                | Mid         | 4.18                                | 6.00 | 8.44  | -     | 8.20  | 9.21  |
|            |                    |                | High        | 3.41                                | 6.25 | 8.12  | 8.29  | -     | -     |
| UNII<br>2A | 5270               | 54             | Low         | 3.49                                | 6.28 | 8.20  | 6.48  | -     | -     |
|            |                    |                | Mid         | 4.38                                | 6.33 | 8.63  | -     | 8.26  | 8.39  |
|            |                    |                | High        | 3.32                                | 6.13 | 8.04  | 6.36  | -     | -     |
|            | 5310               | 62             | Low         | 3.32                                | 6.18 | 8.13  | 6.37  | -     | -     |
|            |                    |                | Mid         | 4.43                                | 6.58 | 8.59  | -     | 8.39  | 8.48  |
|            |                    |                | High        | 3.65                                | 6.36 | 8.23  | 6.48  | -     | -     |
| UNII<br>2C | 5510               | 102            | Low         | 2.86                                | 5.89 | 7.79  | 7.95  | -     | -     |
|            |                    |                | Mid         | 3.88                                | 6.31 | 8.30  | -     | 8.02  | 9.69  |
|            |                    |                | High        | 3.11                                | 6.12 | 8.18  | 8.07  | -     | -     |
|            | 5550               | 110            | Low         | 3.25                                | 6.23 | 8.11  | 8.36  | -     | -     |
|            |                    |                | Mid         | 4.48                                | 6.78 | 8.73  | -     | 8.48  | 10.15 |
|            |                    |                | High        | 3.71                                | 6.57 | 8.44  | 8.57  | -     | -     |
|            | 5670               | 134            | Low         | 4.15                                | 6.84 | 8.70  | 8.84  | -     | -     |
|            |                    |                | Mid         | 5.05                                | 7.13 | 9.13  | -     | 8.81  | 9.54  |
|            |                    |                | High        | 3.88                                | 6.56 | 8.42  | 8.65  | -     | -     |
| UNII<br>3  | 5755               | 151            | Low         | 7.83                                | 8.70 | 8.67  | 8.83  | -     | -     |
|            |                    |                | Mid         | 8.73                                | 9.01 | 9.13  | -     | 8.72  | 10.31 |
|            |                    |                | High        | 7.40                                | 8.28 | 8.38  | 8.67  | -     | -     |
|            | 5795               | 159            | Low         | 7.47                                | 8.22 | 8.27  | 8.29  | -     | -     |
|            |                    |                | Mid         | 8.14                                | 8.29 | 8.57  | -     | 8.22  | 9.78  |
|            |                    |                | High        | 7.05                                | 7.89 | 7.93  | 8.05  | -     | -     |

Remark. 1: Conducted Average Total Power = Measured Value +Duty Factor

# Limit : UNII 1 / UNII 2A / UNII 2C : 21 dBm / UNII 3 : 27 dBm

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### 9.5.3 Test data for Multiple Transmit

-. Test Result : Pass

| HE40       | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | Conducted Average Total Power (dBm) |       |       |       |       |       |
|------------|--------------------|----------------|-------------|-------------------------------------|-------|-------|-------|-------|-------|
|            |                    |                |             | 26 T                                | 52 T  | 106 T | 242 T | 484 T | SU    |
| UNII<br>1  | 5190               | 38             | Low         | 5.15                                | 8.01  | 10.07 | 10.20 | -     | -     |
|            |                    |                | Mid         | 6.20                                | 8.49  | 10.61 | -     | 10.30 | 11.74 |
|            |                    |                | High        | 5.47                                | 8.37  | 10.29 | 10.41 | -     | -     |
|            | 5230               | 46             | Low         | 5.59                                | 7.90  | 10.80 | 10.65 | -     | -     |
|            |                    |                | Mid         | 6.78                                | 8.54  | 11.11 | -     | 10.84 | 12.19 |
|            |                    |                | High        | 5.96                                | 8.80  | 10.78 | 10.94 | -     | -     |
| UNII<br>2A | 5270               | 54             | Low         | 6.04                                | 8.83  | 10.85 | 9.05  | -     | -     |
|            |                    |                | Mid         | 6.98                                | 8.90  | 11.28 | -     | 10.90 | 11.36 |
|            |                    |                | High        | 5.89                                | 8.69  | 10.71 | 8.93  | -     | -     |
|            | 5310               | 62             | Low         | 5.91                                | 8.73  | 10.75 | 8.93  | -     | -     |
|            |                    |                | Mid         | 6.95                                | 9.14  | 11.20 | -     | 10.97 | 11.47 |
|            |                    |                | High        | 6.16                                | 8.90  | 10.84 | 9.02  | -     | -     |
| UNII<br>2C | 5510               | 102            | Low         | 5.37                                | 8.32  | 10.37 | 10.53 | -     | -     |
|            |                    |                | Mid         | 6.42                                | 8.76  | 10.88 | -     | 10.62 | 12.53 |
|            |                    |                | High        | 5.63                                | 8.56  | 10.66 | 10.66 | -     | -     |
|            | 5550               | 110            | Low         | 5.75                                | 8.68  | 10.71 | 10.95 | -     | -     |
|            |                    |                | Mid         | 7.00                                | 9.25  | 11.33 | -     | 11.07 | 13.09 |
|            |                    |                | High        | 6.24                                | 9.08  | 11.08 | 11.18 | -     | -     |
|            | 5670               | 134            | Low         | 6.42                                | 9.18  | 11.16 | 11.31 | -     | -     |
|            |                    |                | Mid         | 7.44                                | 9.58  | 11.62 | -     | 11.33 | 12.66 |
|            |                    |                | High        | 6.35                                | 9.11  | 10.99 | 11.22 | -     | -     |
| UNII<br>3  | 5755               | 151            | Low         | 10.00                               | 10.85 | 10.83 | 11.01 | -     | -     |
|            |                    |                | Mid         | 10.97                               | 11.25 | 11.33 | -     | 11.02 | 13.34 |
|            |                    |                | High        | 9.89                                | 10.77 | 10.82 | 11.04 | -     | -     |
|            | 5795               | 159            | Low         | 10.00                               | 10.77 | 10.83 | 10.84 | -     | -     |
|            |                    |                | Mid         | 10.66                               | 10.88 | 11.16 | -     | 10.73 | 13.10 |
|            |                    |                | High        | 9.38                                | 10.26 | 10.32 | 10.50 | -     | -     |

# Limit : UNII 1 / UNII 2A / UNII 2C : 18 dBm / UNII 3 : 24 dBm

#### 9.5.4 Test data for Staddle Channel\_Antenna 0

| BW   | Frequency<br>[MHz] | Channel No. | Tone | RU<br>Index | Conducted Average Total Power<br>(dBm) |        |
|------|--------------------|-------------|------|-------------|----------------------------------------|--------|
|      |                    |             |      |             | UNII 2C                                | UNII 3 |
| HE40 | 5710               | 142         | 26T  | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | -14.30                                 | 1.45   |
|      |                    |             | 52T  | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | -6.24                                  | 4.04   |
|      |                    |             | 106T | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | 3.73                                   | 3.03   |
|      |                    |             | 242T | # Low       | -                                      | -      |
|      |                    |             |      | High        | 5.66                                   | -0.30  |
|      |                    |             | 484T | Mid         | 6.45                                   | -3.47  |
|      |                    |             | SU   | -           | 7.74                                   | -2.02  |

Remark. 1: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

Remark. 2: Conducted Average Total Power = Measured Value +Duty Factor

# Limit : UNII 2C : 21 dBm / UNII 3 : 27 dBm

### 9.5.5 Test data for Staddle Channel\_Antenna 1

| BW   | Frequency<br>[MHz] | Channel No. | Tone | RU<br>Index | Conducted Average Total Power<br>(dBm) |        |
|------|--------------------|-------------|------|-------------|----------------------------------------|--------|
|      |                    |             |      |             | UNII 2C                                | UNII 3 |
| HE40 | 5710               | 142         | 26T  | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | -12.01                                 | 3.33   |
|      |                    |             | 52T  | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | -4.37                                  | 5.93   |
|      |                    |             | 106T | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | 5.52                                   | 4.85   |
|      |                    |             | 242T | # Low       | -                                      | -      |
|      |                    |             |      | High        | 7.38                                   | 1.50   |
|      |                    |             | 484T | Mid         | 7.74                                   | -1.68  |
|      |                    |             | SU   | -           | 7.79                                   | -1.56  |

Remark. 1: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

Remark. 2: Conducted Average Total Power = Measured Value +Duty Factor

# Limit : UNII 2C : 21 dBm / UNII 3 : 27 dBm

### 9.5.6 Test data for Staddle Channel\_Multiple Transmit

| BW   | Frequency<br>[MHz] | Channel No. | Tone | RU<br>Index | Conducted Average Total Power<br>(dBm) |        |
|------|--------------------|-------------|------|-------------|----------------------------------------|--------|
|      |                    |             |      |             | UNII 2C                                | UNII 3 |
| HE40 | 5710               | 142         | 26T  | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | -9.99                                  | 5.50   |
|      |                    |             | 52T  | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | -2.19                                  | 8.10   |
|      |                    |             | 106T | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | 7.73                                   | 7.05   |
|      |                    |             | 242T | # Low       | -                                      | -      |
|      |                    |             |      | High        | 9.62                                   | 3.70   |
|      |                    |             | 484T | Mid         | 10.15                                  | 0.53   |
|      |                    |             | SU   | -           | 10.78                                  | 1.23   |

Remark. 1: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

# Limit : UNII 2C : 18 dBm / UNII 3 : 24 dBm

## 9.6 Test data for 802.11 ax(HE80) WLAN Mode

### 9.6.1 Test data for Antenna 0

-. Test Result : Pass

| HE80       | Freq.<br>[MHz] | Channel<br>No. | RU<br>Index | Conducted Average Total Power<br>(dBm) |      |       |       |       |       |      |
|------------|----------------|----------------|-------------|----------------------------------------|------|-------|-------|-------|-------|------|
|            |                |                |             | 26 T                                   | 52 T | 106 T | 242 T | 484 T | 996 T | SU   |
| UNII<br>1  | 5210           | 42             | Low         | 1.94                                   | 3.86 | 3.81  | 3.76  | 4.04  | -     | -    |
|            |                |                | Mid         | 2.53                                   | 4.43 | 4.36  | 4.23  | -     | 4.33  | 8.55 |
|            |                |                | High        | 3.10                                   | 5.03 | 4.87  | 4.76  | 4.72  | -     | -    |
| UNII<br>2A | 5290           | 58             | Low         | 3.09                                   | 5.08 | 4.94  | 4.83  | 4.86  | -     | -    |
|            |                |                | Mid         | 2.96                                   | 4.96 | 4.91  | 4.88  | -     | 4.82  | 6.54 |
|            |                |                | High        | 3.18                                   | 5.13 | 4.96  | 4.87  | 4.86  | -     | -    |
| UNII<br>2C | 5530           | 106            | Low         | 2.24                                   | 4.28 | 4.14  | 4.10  | 4.22  | -     | -    |
|            |                |                | Mid         | 2.47                                   | 4.51 | 4.43  | 4.33  | -     | 4.46  | 6.27 |
|            |                |                | High        | 3.20                                   | 5.21 | 4.98  | 4.80  | 4.78  | -     | -    |
| UNII<br>3  | 5775           | 155            | Low         | 4.44                                   | 4.42 | 4.33  | 4.21  | 4.51  | -     | -    |
|            |                |                | Mid         | 4.77                                   | 4.91 | 4.76  | 4.66  | -     | 4.48  | 8.01 |
|            |                |                | High        | 4.12                                   | 4.22 | 4.18  | 4.23  | 4.57  | -     | -    |

Remark. 1: Conducted Average Total Power = Measured Value +Duty Factor

# Limit : UNII 1 / UNII 2A / UNII 2C : 21 dBm / UNII 3 : 27 dBm

## 9.6.2 Test data for Antenna 1

-. Test Result : Pass

| HE80       | Freq.<br>[MHz] | Channel<br>No. | RU<br>Index | Conducted Average Total Power<br>(dBm) |      |       |       |       |       |      |
|------------|----------------|----------------|-------------|----------------------------------------|------|-------|-------|-------|-------|------|
|            |                |                |             | 26 T                                   | 52 T | 106 T | 242 T | 484 T | 996 T | SU   |
| UNII<br>1  | 5210           | 42             | Low         | 3.41                                   | 5.43 | 5.33  | 5.22  | 5.34  | -     | -    |
|            |                |                | Mid         | 3.53                                   | 5.53 | 5.47  | 5.41  | -     | 5.50  | 8.27 |
|            |                |                | High        | 4.10                                   | 6.10 | 5.90  | 5.81  | 5.75  | -     | -    |
| UNII<br>2A | 5290           | 58             | Low         | 4.16                                   | 6.09 | 5.98  | 5.85  | 5.87  | -     | -    |
|            |                |                | Mid         | 3.88                                   | 5.90 | 5.86  | 5.85  | -     | 5.86  | 6.54 |
|            |                |                | High        | 4.28                                   | 6.24 | 6.07  | 5.88  | 5.90  | -     | -    |
| UNII<br>2C | 5530           | 106            | Low         | 3.37                                   | 5.64 | 5.47  | 5.40  | 5.52  | -     | -    |
|            |                |                | Mid         | 3.59                                   | 5.77 | 5.67  | 5.60  | -     | 5.71  | 6.27 |
|            |                |                | High        | 4.26                                   | 6.28 | 6.15  | 6.02  | 5.96  | -     | -    |
| UNII<br>3  | 5775           | 155            | Low         | 6.50                                   | 6.53 | 6.39  | 6.26  | 6.26  | -     | -    |
|            |                |                | Mid         | 5.91                                   | 6.13 | 6.11  | 6.19  | -     | 5.91  | 7.47 |
|            |                |                | High        | 5.72                                   | 5.75 | 5.59  | 5.51  | 5.67  | -     | -    |

Remark. 1: Conducted Average Total Power = Measured Value +Duty Factor

# Limit : UNII 1 / UNII 2A / UNII 2C : 21 dBm / UNII 3 : 27 dBm

### 9.6.3 Test data for Multiple Transmit

-. Test Result : Pass

| HE80       | Freq.<br>[MHz] | Channel<br>No. | RU<br>Index | Conducted Average Total Power<br>(dBm) |      |       |       |       |       |       |
|------------|----------------|----------------|-------------|----------------------------------------|------|-------|-------|-------|-------|-------|
|            |                |                |             | 26 T                                   | 52 T | 106 T | 242 T | 484 T | 996 T | SU    |
| UNII<br>1  | 5210           | 42             | Low         | 5.75                                   | 7.72 | 7.64  | 7.56  | 7.75  | -     | -     |
|            |                |                | Mid         | 6.07                                   | 8.02 | 7.96  | 7.87  | -     | 7.96  | 11.42 |
|            |                |                | High        | 6.64                                   | 8.61 | 8.42  | 8.32  | 8.27  | -     | -     |
| UNII<br>2A | 5290           | 58             | Low         | 6.67                                   | 8.62 | 8.50  | 8.38  | 8.40  | -     | -     |
|            |                |                | Mid         | 6.45                                   | 8.46 | 8.42  | 8.40  | -     | 8.38  | 9.55  |
|            |                |                | High        | 6.77                                   | 8.73 | 8.56  | 8.41  | 8.42  | -     | -     |
| UNII<br>2C | 5530           | 106            | Low         | 5.85                                   | 8.02 | 7.86  | 7.81  | 7.93  | -     | -     |
|            |                |                | Mid         | 6.08                                   | 8.19 | 8.10  | 8.02  | -     | 8.14  | 9.28  |
|            |                |                | High        | 6.77                                   | 8.79 | 8.61  | 8.46  | 8.42  | -     | -     |
| UNII<br>3  | 5775           | 155            | Low         | 8.60                                   | 8.61 | 8.49  | 8.36  | 8.48  | -     | -     |
|            |                |                | Mid         | 8.39                                   | 8.57 | 8.50  | 8.50  | -     | 8.26  | 10.76 |
|            |                |                | High        | 8.00                                   | 8.06 | 7.95  | 7.93  | 8.16  | -     | -     |

# Limit : UNII 1 / UNII 2A / UNII 2C : 18 dBm / UNII 3 : 24 dBm

#### 9.6.4 Test data for Staddle Channel\_Antenna 0

| BW   | Frequency<br>[MHz] | Channel No. | Tone | RU<br>Index | Conducted Average Total Power<br>(dBm) |        |
|------|--------------------|-------------|------|-------------|----------------------------------------|--------|
|      |                    |             |      |             | UNII 2C                                | UNII 3 |
| HE80 | 5690               | 138         | 26T  | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | -15.24                                 | 2.00   |
|      |                    |             | 52T  | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | -7.11                                  | 3.63   |
|      |                    |             | 106T | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | 1.12                                   | 0.73   |
|      |                    |             | 242T | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | 2.80                                   | -2.85  |
|      |                    |             | 484T | # Low       | -                                      | -      |
|      |                    |             |      | High        | 3.65                                   | -5.78  |
|      |                    |             | 996T | Mid         | 4.16                                   | -8.89  |
|      |                    |             | SU   | -           | 5.03                                   | -8.06  |

Remark. 1: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

Remark. 2: Conducted Average Total Power = Measured Value +Duty Factor

# Limit : UNII 2C : 21 dBm / UNII 3 : 27 dBm

### 9.6.5 Test data for Staddle Channel\_Antenna 1

| BW   | Frequency<br>[MHz] | Channel No. | Tone | RU<br>Index | Conducted Average Total Power<br>(dBm) |        |
|------|--------------------|-------------|------|-------------|----------------------------------------|--------|
|      |                    |             |      |             | UNII 2C                                | UNII 3 |
| HE80 | 5690               | 138         | 26T  | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | -13.11                                 | 3.96   |
|      |                    |             | 52T  | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | -5.17                                  | 5.51   |
|      |                    |             | 106T | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | 2.86                                   | 2.53   |
|      |                    |             | 242T | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | 4.42                                   | -0.93  |
|      |                    |             | 484T | # Low       | -                                      | -      |
|      |                    |             |      | High        | 5.11                                   | -3.96  |
|      |                    |             | 996T | Mid         | 5.32                                   | -7.03  |
|      |                    |             | SU   | -           | 4.66                                   | -7.70  |

Remark. 1: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

Remark. 2: Conducted Average Total Power = Measured Value +Duty Factor

# Limit : UNII 2C : 21 dBm / UNII 3 : 27 dBm

### 9.6.6 Test data for Staddle Channel\_Multiple Transmit

| BW   | Frequency<br>[MHz] | Channel No. | Tone | RU<br>Index | Conducted Average Total Power<br>(dBm) |        |
|------|--------------------|-------------|------|-------------|----------------------------------------|--------|
|      |                    |             |      |             | UNII 2C                                | UNII 3 |
| HE80 | 5690               | 138         | 26T  | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | -11.04                                 | 6.10   |
|      |                    |             | 52T  | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | -3.02                                  | 7.68   |
|      |                    |             | 106T | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | 5.08                                   | 4.73   |
|      |                    |             | 242T | # Low       | -                                      | -      |
|      |                    |             |      | # Mid       | -                                      | -      |
|      |                    |             |      | High        | 6.69                                   | 1.23   |
|      |                    |             | 484T | # Low       | -                                      | -      |
|      |                    |             |      | High        | 7.45                                   | -1.76  |
|      |                    |             | 996T | Mid         | 7.79                                   | -4.85  |
|      |                    |             | SU   | -           | 7.86                                   | -4.87  |

Remark. 1: 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

# Limit : UNII 2C : 18 dBm / UNII 3 : 24 dBm

## 10. PEAK POWER SPECTRAL DENSITY

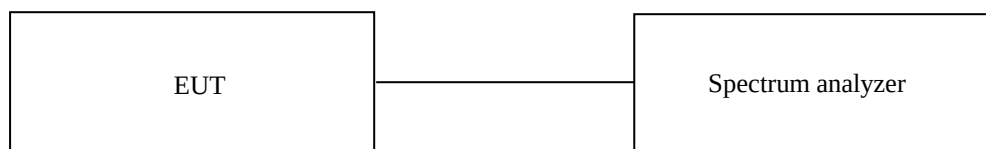
### 10.1 Operating environment

Temperature : 23 °C

Relative humidity : 45 % R.H.

### 10.2 Test set-up

The antenna output of the EUT was connected to the spectrum analyzer. The resolution bandwidth is set to 1 MHz(500 kHz for frequency range 5 725 MHz ~ 5 850 MHz), the video bandwidth is set to 3 times the resolution bandwidth. The maximum level from the EUT in 1 MHz bandwidth was measured with above condition.



### 10.3 Test Date

December 05, 2021 ~ March 08, 2022

## 10.4 Test data for 802.11 ax(HE20) WLAN Mode

### 10.4.1 Test data for Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

| HE20       | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | Peak Power Spectral Density<br>(dBm) |       |       |       |       |
|------------|--------------------|----------------|-------------|--------------------------------------|-------|-------|-------|-------|
|            |                    |                |             | 26 T                                 | 52 T  | 106 T | 242 T | SU    |
| UNII<br>1  | 5180               | 36             | Low         | -0.46                                | -0.97 | -1.03 | -     | -     |
|            |                    |                | Mid         | -1.53                                | -0.90 | -     | -1.29 | 0.49  |
|            |                    |                | High        | -0.39                                | -0.87 | -1.17 | -     | -     |
|            | 5220               | 44             | Low         | -0.18                                | -0.47 | -0.81 | -     | -     |
|            |                    |                | Mid         | -1.27                                | -0.39 | -     | -1.05 | 0.63  |
|            |                    |                | High        | 0.90                                 | -0.09 | -0.57 | -     | -     |
|            | 5240               | 48             | Low         | 0.22                                 | -0.02 | -0.53 | -     | -     |
|            |                    |                | Mid         | -0.85                                | 0.03  | -     | -1.01 | 0.98  |
|            |                    |                | High        | 0.28                                 | -0.14 | -0.29 | -     | -     |
| UNII<br>2A | 5260               | 52             | Low         | -0.26                                | -0.60 | -0.44 | -     | -     |
|            |                    |                | Mid         | -1.34                                | -0.42 | -     | -0.88 | 0.16  |
|            |                    |                | High        | -0.04                                | -0.63 | -0.40 | -     | -     |
|            | 5300               | 60             | Low         | -0.03                                | -0.49 | -0.45 | -     | -     |
|            |                    |                | Mid         | -1.10                                | -0.25 | -     | -1.22 | 0.05  |
|            |                    |                | High        | -0.28                                | -0.41 | -0.41 | -     | -     |
|            | 5320               | 64             | Low         | -0.28                                | -0.36 | -0.40 | -     | -     |
|            |                    |                | Mid         | -1.16                                | -0.29 | -     | -0.94 | 0.06  |
|            |                    |                | High        | 0.01                                 | -0.64 | -0.18 | -     | -     |
| UNII<br>2C | 5500               | 100            | Low         | -0.86                                | -1.63 | -1.67 | -     | -     |
|            |                    |                | Mid         | -1.94                                | -1.25 | -     | -2.17 | 0.27  |
|            |                    |                | High        | -0.88                                | -1.40 | -1.50 | -     | -     |
|            | 5580               | 116            | Low         | -0.14                                | -0.70 | -0.92 | -     | -     |
|            |                    |                | Mid         | -1.51                                | -0.38 | -     | -1.66 | 0.57  |
|            |                    |                | High        | -0.30                                | -0.97 | -0.99 | -     | -     |
|            | 5700               | 140            | Low         | -0.85                                | -1.01 | -1.80 | -     | -     |
|            |                    |                | Mid         | -1.89                                | -0.80 | -     | -2.20 | -0.17 |
|            |                    |                | High        | -1.10                                | -1.55 | -2.08 | -     | -     |

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OTC-TRF-RF-001(0)

| HE20      | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | Peak Power Spectral Density<br>(dBm) |      |       |       |       |
|-----------|--------------------|----------------|-------------|--------------------------------------|------|-------|-------|-------|
|           |                    |                |             | 26 T                                 | 52 T | 106 T | 242 T | SU    |
| UNII<br>3 | 5745               | 149            | Low         | 3.59                                 | 1.03 | -2.37 | -     | -     |
|           |                    |                | Mid         | 3.26                                 | 1.35 | -     | -5.63 | -3.00 |
|           |                    |                | High        | 3.47                                 | 1.11 | -1.61 | -     | -     |
|           | 5785               | 157            | Low         | 3.96                                 | 1.17 | -1.59 | -     | -     |
|           |                    |                | Mid         | 2.76                                 | 1.00 | -     | -5.25 | -2.97 |
|           |                    |                | High        | 3.84                                 | 0.19 | -1.99 | -     | -     |
|           | 5825               | 165            | Low         | 3.27                                 | 0.35 | -2.47 | -     | -     |
|           |                    |                | Mid         | 2.50                                 | 0.55 | -     | -6.09 | -3.43 |
|           |                    |                | High        | 3.24                                 | 0.14 | -2.04 | -     | -     |

Remark. 1: Peak Power Spectral Density = Measured Value +Duty Factor

# Limit : UNII 1 / UNII 2A / UNII 2C : 8 dBm / MHz / UNII 3 : 27 dBm / 500 kHz

#### 10.4.2 Test data for Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

| HE20       | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | Peak Power Spectral Density<br>(dBm) |       |       |       |       |
|------------|--------------------|----------------|-------------|--------------------------------------|-------|-------|-------|-------|
|            |                    |                |             | 26 T                                 | 52 T  | 106 T | 242 T | SU    |
| UNII<br>1  | 5180               | 36             | Low         | -0.95                                | -1.19 | -1.60 | -     | -     |
|            |                    |                | Mid         | -2.01                                | -0.99 | -     | -1.78 | -0.16 |
|            |                    |                | High        | -0.52                                | -1.46 | -1.48 | -     | -     |
|            | 5220               | 44             | Low         | -0.56                                | -0.77 | -1.21 | -     | -     |
|            |                    |                | Mid         | -1.75                                | -0.94 | -     | -1.72 | 0.25  |
|            |                    |                | High        | -0.12                                | -0.78 | -1.46 | -     | -     |
|            | 5240               | 48             | Low         | -0.62                                | -0.88 | -1.20 | -     | -     |
|            |                    |                | Mid         | -1.81                                | -0.54 | -     | -1.71 | 0.42  |
|            |                    |                | High        | -0.47                                | -0.86 | -1.12 | -     | -     |
| UNII<br>2A | 5260               | 52             | Low         | 0.45                                 | 0.33  | 0.11  | -     | -     |
|            |                    |                | Mid         | -0.69                                | -0.05 | -     | -1.04 | -0.01 |
|            |                    |                | High        | 0.19                                 | -0.12 | -0.04 | -     | -     |
|            | 5300               | 60             | Low         | 0.44                                 | -0.22 | 0.03  | -     | -     |
|            |                    |                | Mid         | -0.75                                | -0.10 | -     | -0.89 | 0.15  |
|            |                    |                | High        | 0.56                                 | 0.10  | 0.10  | -     | -     |
|            | 5320               | 64             | Low         | 0.43                                 | 0.44  | 0.28  | -     | -     |
|            |                    |                | Mid         | -0.50                                | 0.21  | -     | -0.66 | 0.22  |
|            |                    |                | High        | 0.72                                 | 0.41  | 0.13  | -     | -     |
| UNII<br>2C | 5500               | 100            | Low         | -1.38                                | -1.60 | -1.67 | -     | -     |
|            |                    |                | Mid         | -2.28                                | -1.20 | -     | -1.96 | 0.37  |
|            |                    |                | High        | -1.11                                | -1.60 | -1.48 | -     | -     |
|            | 5580               | 116            | Low         | -0.61                                | -0.64 | -0.76 | -     | -     |
|            |                    |                | Mid         | -1.55                                | -0.77 | -     | -1.73 | 0.55  |
|            |                    |                | High        | -0.23                                | -0.64 | -0.83 | -     | -     |
|            | 5700               | 140            | Low         | -0.83                                | -1.37 | -1.94 | -     | -     |
|            |                    |                | Mid         | -2.47                                | -1.39 | -     | -2.25 | -0.37 |
|            |                    |                | High        | -1.10                                | -1.25 | -1.78 | -     | -     |

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| HE20      | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | Peak Power Spectral Density<br>(dBm) |      |       |       |       |
|-----------|--------------------|----------------|-------------|--------------------------------------|------|-------|-------|-------|
|           |                    |                |             | 26 T                                 | 52 T | 106 T | 242 T | SU    |
| UNII<br>3 | 5745               | 149            | Low         | 4.08                                 | 1.42 | -1.94 | -     | -     |
|           |                    |                | Mid         | 3.16                                 | 1.11 | -     | -5.26 | -3.05 |
|           |                    |                | High        | 3.76                                 | 1.03 | -1.79 | -     | -     |
|           | 5785               | 157            | Low         | 3.69                                 | 0.71 | -1.75 | -     | -     |
|           |                    |                | Mid         | 2.40                                 | 0.88 | -     | -5.94 | -4.05 |
|           |                    |                | High        | 3.33                                 | 0.31 | -2.06 | -     | -     |
|           | 5825               | 165            | Low         | 3.99                                 | 0.96 | -2.43 | -     | -     |
|           |                    |                | Mid         | 3.18                                 | 0.79 | -     | -5.89 | -3.70 |
|           |                    |                | High        | 3.13                                 | 0.74 | -2.11 | -     | -     |

Remark. 1: Peak Power Spectral Density = Measured Value +Duty Factor

# Limit : UNII 1 / UNII 2A / UNII 2C : 8 dBm / MHz / UNII 3 : 27 dBm / 500 kHz

### 10.4.3 Test data for Multiple Transmit

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

| HE20       | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | Peak Power Spectral Density<br>(dBm) |      |       |       |      |
|------------|--------------------|----------------|-------------|--------------------------------------|------|-------|-------|------|
|            |                    |                |             | 26 T                                 | 52 T | 106 T | 242 T | SU   |
| UNII<br>1  | 5180               | 36             | Low         | 2.31                                 | 1.93 | 1.70  | -     | -    |
|            |                    |                | Mid         | 1.25                                 | 2.06 | -     | 1.48  | 3.18 |
|            |                    |                | High        | 2.56                                 | 1.85 | 1.69  | -     | -    |
|            | 5220               | 44             | Low         | 2.65                                 | 2.39 | 2.00  | -     | -    |
|            |                    |                | Mid         | 1.51                                 | 2.35 | -     | 1.64  | 3.45 |
|            |                    |                | High        | 3.43                                 | 2.59 | 2.02  | -     | -    |
|            | 5240               | 48             | Low         | 2.83                                 | 2.58 | 2.16  | -     | -    |
|            |                    |                | Mid         | 1.71                                 | 2.76 | -     | 1.66  | 3.72 |
|            |                    |                | High        | 2.93                                 | 2.52 | 2.32  | -     | -    |
| UNII<br>2A | 5260               | 52             | Low         | 3.12                                 | 2.90 | 2.85  | -     | -    |
|            |                    |                | Mid         | 2.01                                 | 2.78 | -     | 2.05  | 3.08 |
|            |                    |                | High        | 3.09                                 | 2.64 | 2.79  | -     | -    |
|            | 5300               | 60             | Low         | 3.22                                 | 2.65 | 2.81  | -     | -    |
|            |                    |                | Mid         | 2.09                                 | 2.83 | -     | 1.96  | 3.11 |
|            |                    |                | High        | 3.17                                 | 2.86 | 2.86  | -     | -    |
|            | 5320               | 64             | Low         | 3.10                                 | 3.07 | 2.96  | -     | -    |
|            |                    |                | Mid         | 2.19                                 | 2.98 | -     | 2.21  | 3.15 |
|            |                    |                | High        | 3.39                                 | 2.92 | 2.99  | -     | -    |
| UNII<br>2C | 5500               | 100            | Low         | 1.90                                 | 1.39 | 1.34  | -     | -    |
|            |                    |                | Mid         | 0.90                                 | 1.78 | -     | 0.95  | 3.33 |
|            |                    |                | High        | 2.02                                 | 1.51 | 1.52  | -     | -    |
|            | 5580               | 116            | Low         | 2.64                                 | 2.34 | 2.17  | -     | -    |
|            |                    |                | Mid         | 1.48                                 | 2.44 | -     | 1.31  | 3.57 |
|            |                    |                | High        | 2.75                                 | 2.21 | 2.10  | -     | -    |
|            | 5700               | 140            | Low         | 2.17                                 | 1.82 | 1.14  | -     | -    |
|            |                    |                | Mid         | 0.84                                 | 1.92 | -     | 0.78  | 2.74 |
|            |                    |                | High        | 1.91                                 | 1.61 | 1.08  | -     | -    |

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| HE20      | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | Peak Power Spectral Density<br>(dBm) |      |       |       |       |
|-----------|--------------------|----------------|-------------|--------------------------------------|------|-------|-------|-------|
|           |                    |                |             | 26 T                                 | 52 T | 106 T | 242 T | SU    |
| UNII<br>3 | 5745               | 149            | Low         | 6.85                                 | 4.24 | 0.86  | -     | -     |
|           |                    |                | Mid         | 6.22                                 | 4.24 | -     | -2.43 | -0.02 |
|           |                    |                | High        | 6.63                                 | 4.08 | 1.31  | -     | -     |
|           | 5785               | 157            | Low         | 6.84                                 | 3.95 | 1.34  | -     | -     |
|           |                    |                | Mid         | 5.60                                 | 3.95 | -     | -2.57 | -0.47 |
|           |                    |                | High        | 6.60                                 | 3.26 | 0.98  | -     | -     |
|           | 5825               | 165            | Low         | 6.66                                 | 3.67 | 0.56  | -     | -     |
|           |                    |                | Mid         | 5.86                                 | 3.68 | -     | -2.98 | -0.56 |
|           |                    |                | High        | 6.20                                 | 3.46 | 0.93  | -     | -     |

# Limit : UNII 1 / UNII 2A / UNII 2C : 5 dBm / MHz / UNII 3 : 24 dBm / 500 kHz

#### 10.4.4 Test data for Staddle Channel\_Antenna 0

| BW   | Frequency<br>[MHz] | Channel No. | Tone | RU<br>Index | Peak Power Spectrul Density<br>(dBm) |        |
|------|--------------------|-------------|------|-------------|--------------------------------------|--------|
|      |                    |             |      |             | UNII 2C                              | UNII 3 |
| HE20 | 5720               | 144         | 26T  | Low         | -1.49                                | -27.03 |
|      |                    |             |      | Mid         | -2.71                                | -26.65 |
|      |                    |             |      | High        | -20.70                               | -4.22  |
|      |                    |             | 52T  | Low         | -1.70                                | -24.44 |
|      |                    |             |      | Mid         | -1.81                                | -23.71 |
|      |                    |             |      | High        | -10.99                               | -5.36  |
|      |                    |             | 106T | Low         | -1.94                                | -18.70 |
|      |                    |             |      | High        | -1.90                                | -5.11  |
|      |                    |             | 242T | Mid         | -2.73                                | -5.95  |
|      |                    |             | SU   | -           | -0.85                                | -4.03  |

Remark. 1: Peak Power Spectrul Density = Measured Value +Duty Factor

# Limit : UNII 2C : 8 dBm / MHz / UNII 3 : 27 dBm / 500 kHz

#### 10.4.5 Test data for Staddle Channel\_Antenna 1

| BW   | Frequency<br>[MHz] | Channel No. | Tone | RU<br>Index | Peak Power Spectrul Density<br>(dBm) |        |
|------|--------------------|-------------|------|-------------|--------------------------------------|--------|
|      |                    |             |      |             | UNII 2C                              | UNII 3 |
| HE20 | 5720               | 144         | 26T  | Low         | 0.03                                 | -26.13 |
|      |                    |             |      | Mid         | -1.11                                | -23.56 |
|      |                    |             |      | High        | -21.25                               | -2.07  |
|      |                    |             | 52T  | Low         | -0.13                                | -24.56 |
|      |                    |             |      | Mid         | -0.20                                | -24.42 |
|      |                    |             |      | High        | -9.25                                | -3.33  |
|      |                    |             | 106T | Low         | -0.48                                | -20.01 |
|      |                    |             |      | High        | -0.16                                | -3.21  |
|      |                    |             | 242T | Mid         | -0.95                                | -4.42  |
|      |                    |             | SU   | -           | -0.74                                | -3.98  |

Remark. 1: Peak Power Spectrul Density = Measured Value +Duty Factor

# Limit : UNII 2C : 8 dBm / MHz / UNII 3 : 27 dBm / 500 kHz

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#### 10.4.6 Test data for Staddle Channel\_Multiple Transmit

| BW   | Frequency<br>[MHz] | Channel No. | Tone | RU<br>Index | Peak Power Spectral Density<br>(dBm) |        |
|------|--------------------|-------------|------|-------------|--------------------------------------|--------|
|      |                    |             |      |             | UNII 2C                              | UNII 3 |
| HE20 | 5720               | 144         | 26T  | Low         | 2.35                                 | -23.55 |
|      |                    |             |      | Mid         | 1.17                                 | -21.83 |
|      |                    |             |      | High        | -17.95                               | 0.00   |
|      |                    |             | 52T  | Low         | 2.16                                 | -21.49 |
|      |                    |             |      | Mid         | 2.08                                 | -21.04 |
|      |                    |             |      | High        | -7.03                                | -1.22  |
|      |                    |             | 106T | Low         | 1.86                                 | -16.30 |
|      |                    |             |      | High        | 2.07                                 | -1.05  |
|      |                    |             | 242T | Mid         | 1.26                                 | -2.11  |
|      |                    |             | SU   | -           | 2.21                                 | -1.00  |

# Limit : UNII 2C : 5 dBm / MHz / UNII 3 : 24 dBm / 500 kHz

## 10.5 Test data for 802.11 ax(HE40) WLAN Mode

### 10.5.1 Test data for Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

| HE40       | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | Peak Power Spectrul Density |       |       |       |        |       |
|------------|--------------------|----------------|-------------|-----------------------------|-------|-------|-------|--------|-------|
|            |                    |                |             | 26 T                        | 52 T  | 106 T | 242 T | 484 T  | SU    |
| UNII<br>1  | 5190               | 38             | Low         | -0.54                       | -0.13 | -1.21 | -4.72 | -      | -     |
|            |                    |                | Mid         | 0.02                        | -0.07 | -1.33 | -     | -7.44  | -5.40 |
|            |                    |                | High        | -0.44                       | 0.09  | -0.89 | -4.57 | -      | -     |
|            | 5230               | 46             | Low         | -0.32                       | 0.29  | -1.45 | -4.15 | -      | -     |
|            |                    |                | Mid         | -0.48                       | 0.47  | -0.66 | -     | -7.19  | -4.74 |
|            |                    |                | High        | -0.75                       | 0.77  | -0.66 | -3.86 | -      | -     |
| UNII<br>2A | 5270               | 54             | Low         | -0.34                       | 0.34  | -0.40 | -5.91 | -      | -     |
|            |                    |                | Mid         | -0.29                       | 0.34  | -0.24 | -     | -6.79  | -5.81 |
|            |                    |                | High        | -0.01                       | 0.16  | -0.32 | -5.78 | -      | -     |
|            | 5310               | 62             | Low         | -0.20                       | 0.34  | -0.54 | -5.98 | -      | -     |
|            |                    |                | Mid         | -0.38                       | 0.08  | -0.43 | -     | -6.45  | -5.74 |
|            |                    |                | High        | 0.17                        | 0.04  | -0.39 | -5.97 | -      | -     |
| UNII<br>2C | 5510               | 102            | Low         | -1.27                       | -0.54 | -1.99 | -5.10 | -      | -     |
|            |                    |                | Mid         | -0.20                       | -0.45 | -1.46 | -     | -7.95  | -4.55 |
|            |                    |                | High        | -0.76                       | -0.31 | -1.61 | -5.03 | -      | -     |
|            | 5550               | 110            | Low         | -1.12                       | -0.48 | -1.41 | -4.79 | -      | -     |
|            |                    |                | Mid         | 0.15                        | -0.34 | -1.61 | -     | -7.47  | -4.12 |
|            |                    |                | High        | -0.52                       | -0.03 | -1.43 | -4.98 | -      | -     |
|            | 5670               | 134            | Low         | -1.25                       | -0.16 | -1.58 | -4.98 | -      | -     |
|            |                    |                | Mid         | 0.03                        | 0.08  | -1.03 | -     | -7.67  | -4.61 |
|            |                    |                | High        | -0.91                       | -0.01 | -1.54 | -4.86 | -      | -     |
| UNII<br>3  | 5755               | 151            | Low         | -0.22                       | -1.50 | -4.30 | -8.12 | -      | -     |
|            |                    |                | Mid         | 0.74                        | -1.15 | -4.61 | -     | -10.40 | -6.53 |
|            |                    |                | High        | 0.14                        | -1.23 | -3.86 | -7.42 | -      | -     |
|            | 5795               | 159            | Low         | 0.33                        | -1.87 | -4.66 | -7.82 | -      | -     |
|            |                    |                | Mid         | 0.46                        | -2.20 | -4.55 | -     | -10.94 | -7.25 |
|            |                    |                | High        | -0.96                       | -2.32 | -5.05 | -8.51 | -      | -     |

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### 10.5.2 Test data for Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

| HE40       | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | Peak Power Spectral Density |       |       |       |        |       |
|------------|--------------------|----------------|-------------|-----------------------------|-------|-------|-------|--------|-------|
|            |                    |                |             | 26 T                        | 52 T  | 106 T | 242 T | 484 T  | SU    |
| UNII<br>1  | 5190               | 38             | Low         | -1.35                       | -0.70 | -1.81 | -5.17 | -      | -     |
|            |                    |                | Mid         | -0.26                       | -0.58 | -1.83 | -     | -7.96  | -6.03 |
|            |                    |                | High        | -0.51                       | -0.53 | -1.65 | -5.01 | -      | -     |
|            | 5230               | 46             | Low         | -0.82                       | -0.40 | -1.61 | -4.85 | -      | -     |
|            |                    |                | Mid         | -0.99                       | -0.10 | -1.31 | -     | -7.81  | -5.38 |
|            |                    |                | High        | -1.35                       | 0.09  | -1.43 | -4.77 | -      | -     |
| UNII<br>2A | 5270               | 54             | Low         | 0.32                        | 0.80  | 0.10  | -5.47 | -      | -     |
|            |                    |                | Mid         | 0.04                        | 0.60  | 0.01  | -     | -6.36  | -6.44 |
|            |                    |                | High        | 0.36                        | 0.94  | 0.06  | -5.43 | -      | -     |
|            | 5310               | 62             | Low         | 0.51                        | 0.51  | -0.16 | -5.39 | -      | -     |
|            |                    |                | Mid         | 0.15                        | 0.87  | 0.03  | -     | -6.10  | -6.11 |
|            |                    |                | High        | 0.58                        | 0.93  | 0.12  | -5.19 | -      | -     |
| UNII<br>2C | 5510               | 102            | Low         | -1.10                       | -0.49 | -1.50 | -4.95 | -      | -     |
|            |                    |                | Mid         | -0.30                       | -0.57 | -1.33 | -     | -7.77  | -4.62 |
|            |                    |                | High        | -1.11                       | -0.07 | -1.79 | -5.03 | -      | -     |
|            | 5550               | 110            | Low         | -0.85                       | -0.08 | -1.47 | -4.56 | -      | -     |
|            |                    |                | Mid         | 0.24                        | -0.09 | -1.35 | -     | -7.49  | -4.08 |
|            |                    |                | High        | -0.51                       | 0.05  | -1.23 | -4.70 | -      | -     |
|            | 5670               | 134            | Low         | -1.09                       | -0.41 | -1.31 | -4.95 | -      | -     |
|            |                    |                | Mid         | -0.57                       | -0.39 | -1.33 | -     | -7.82  | -5.03 |
|            |                    |                | High        | -1.60                       | -0.37 | -1.56 | -4.77 | -      | -     |
| UNII<br>3  | 5755               | 151            | Low         | 0.14                        | -1.65 | -4.62 | -8.13 | -      | -     |
|            |                    |                | Mid         | 0.64                        | -1.72 | -5.00 | -     | -10.85 | -7.09 |
|            |                    |                | High        | -0.65                       | -2.12 | -5.21 | -8.14 | -      | -     |
|            | 5795               | 159            | Low         | -0.59                       | -2.08 | -5.24 | -8.43 | -      | -     |
|            |                    |                | Mid         | 0.35                        | -2.59 | -5.05 | -     | -11.49 | -7.81 |
|            |                    |                | High        | -0.21                       | -2.04 | -4.71 | -8.67 | -      | -     |

Remark. 1: Peak Power Spectral Density = Measured Value +Duty Factor

# Limit : UNII 1 / UNII 2A / UNII 2C : 8 dBm / MHz / UNII 3 : 27 dBm / 500 kHz

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### 10.5.3 Test data for Multiple Transmit

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

| HE40       | Frequency<br>[MHz] | Channel<br>No. | RU<br>Index | Peak Power Spectrul Density |      |       |       |       |       |
|------------|--------------------|----------------|-------------|-----------------------------|------|-------|-------|-------|-------|
|            |                    |                |             | 26 T                        | 52 T | 106 T | 242 T | 484 T | SU    |
| UNII<br>1  | 5190               | 38             | Low         | 2.09                        | 2.61 | 1.51  | -1.93 | -     | -     |
|            |                    |                | Mid         | 2.89                        | 2.69 | 1.44  | -     | -4.68 | -2.69 |
|            |                    |                | High        | 2.54                        | 2.80 | 1.76  | -1.77 | -     | -     |
|            | 5230               | 46             | Low         | 2.45                        | 2.97 | 1.48  | -1.48 | -     | -     |
|            |                    |                | Mid         | 2.28                        | 3.21 | 2.04  | -     | -4.48 | -2.03 |
|            |                    |                | High        | 1.97                        | 3.45 | 1.98  | -1.28 | -     | -     |
| UNII<br>2A | 5270               | 54             | Low         | 3.01                        | 3.59 | 2.87  | -2.67 | -     | -     |
|            |                    |                | Mid         | 2.89                        | 3.48 | 2.90  | -     | -3.56 | -3.10 |
|            |                    |                | High        | 3.19                        | 3.58 | 2.89  | -2.59 | -     | -     |
|            | 5310               | 62             | Low         | 3.18                        | 3.44 | 2.67  | -2.66 | -     | -     |
|            |                    |                | Mid         | 2.91                        | 3.50 | 2.82  | -     | -3.26 | -2.91 |
|            |                    |                | High        | 3.39                        | 3.52 | 2.88  | -2.55 | -     | -     |
| UNII<br>2C | 5510               | 102            | Low         | 1.83                        | 2.50 | 1.27  | -2.01 | -     | -     |
|            |                    |                | Mid         | 2.76                        | 2.50 | 1.62  | -     | -4.85 | -1.57 |
|            |                    |                | High        | 2.08                        | 2.82 | 1.31  | -2.02 | -     | -     |
|            | 5550               | 110            | Low         | 2.03                        | 2.74 | 1.57  | -1.66 | -     | -     |
|            |                    |                | Mid         | 3.21                        | 2.80 | 1.53  | -     | -4.47 | -1.09 |
|            |                    |                | High        | 2.50                        | 3.02 | 1.68  | -1.83 | -     | -     |
|            | 5670               | 134            | Low         | 1.84                        | 2.73 | 1.57  | -1.95 | -     | -     |
|            |                    |                | Mid         | 2.75                        | 2.86 | 1.83  | -     | -4.73 | -1.80 |
|            |                    |                | High        | 1.77                        | 2.83 | 1.46  | -1.80 | -     | -     |
| UNII<br>3  | 5755               | 151            | Low         | 2.98                        | 1.44 | -1.45 | -5.11 | -     | -     |
|            |                    |                | Mid         | 3.70                        | 1.59 | -1.79 | -     | -7.61 | -3.79 |
|            |                    |                | High        | 2.77                        | 1.36 | -1.47 | -4.75 | -     | -     |
|            | 5795               | 159            | Low         | 2.91                        | 1.04 | -1.93 | -5.10 | -     | -     |
|            |                    |                | Mid         | 3.42                        | 0.62 | -1.78 | -     | -8.20 | -4.51 |
|            |                    |                | High        | 2.44                        | 0.83 | -1.87 | -5.58 | -     | -     |

# Limit : UNII 1 / UNII 2A / UNII 2C : 5 dBm / MHz / UNII 3 : 24 dBm / 500 kHz

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OTC-TRF-RF-001(0)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

#### 10.5.4 Test data for Staddle Channel\_Antenna 0

| BW   | Frequency<br>[MHz] | Channel No. | Tone | RU<br>Index | Peak Power Spectral Density<br>(dBm) |        |
|------|--------------------|-------------|------|-------------|--------------------------------------|--------|
|      |                    |             |      |             | UNII 2C                              | UNII 3 |
| HE40 | 5710               | 142         | 26T  | Low         | -1.33                                | -43.04 |
|      |                    |             |      | Mid         | -1.89                                | -49.16 |
|      |                    |             |      | High        | -20.86                               | -4.84  |
|      |                    |             | 52T  | Low         | -1.88                                | -41.92 |
|      |                    |             |      | Mid         | -2.20                                | -47.18 |
|      |                    |             |      | High        | -5.54                                | -5.09  |
|      |                    |             | 106T | Low         | -1.63                                | -40.72 |
|      |                    |             |      | Mid         | -1.82                                | -44.50 |
|      |                    |             |      | High        | -2.79                                | -5.35  |
|      |                    |             | 242T | Low         | -4.87                                | -42.04 |
|      |                    |             |      | High        | -5.79                                | -8.92  |
|      |                    |             | 484T | Mid         | -8.23                                | -11.81 |
|      |                    |             | SU   | -           | -5.70                                | -9.40  |

Remark. 1: Peak Power Spectral Density = Measured Value +Duty Factor

# Limit : UNII 2C : 8 dBm / MHz / UNII 3 : 27 dBm / 500 kHz

### 10.5.5 Test data for Staddle Channel\_Antenna 1

| BW   | Frequency<br>[MHz] | Channel No. | Tone | RU<br>Index | Peak Power Spectral Density<br>(dBm) |        |
|------|--------------------|-------------|------|-------------|--------------------------------------|--------|
|      |                    |             |      |             | UNII 2C                              | UNII 3 |
| HE40 | 5710               | 142         | 26T  | Low         | 0.12                                 | -41.94 |
|      |                    |             |      | Mid         | -0.20                                | -45.52 |
|      |                    |             |      | High        | -21.34                               | -2.30  |
|      |                    |             | 52T  | Low         | -0.48                                | -39.78 |
|      |                    |             |      | Mid         | -0.63                                | -45.52 |
|      |                    |             |      | High        | -2.47                                | -3.12  |
|      |                    |             | 106T | Low         | -0.60                                | -39.56 |
|      |                    |             |      | Mid         | -0.57                                | -42.10 |
|      |                    |             |      | High        | -0.63                                | -3.72  |
|      |                    |             | 242T | Low         | -4.06                                | -40.36 |
|      |                    |             |      | High        | -3.76                                | -7.06  |
|      |                    |             | 484T | Mid         | -6.82                                | -9.85  |
|      |                    |             | SU   | -           | -6.01                                | -8.92  |

Remark. 1: Peak Power Spectral Density = Measured Value +Duty Factor

# Limit : UNII 2C : 8 dBm / MHz / UNII 3 : 27 dBm / 500 kHz

### 10.5.6 Test data for Staddle Channel\_Multiple Transmit

| BW   | Frequency<br>[MHz] | Channel No. | Tone | RU<br>Index | Peak Power Spectrul Density<br>(dBm) |        |
|------|--------------------|-------------|------|-------------|--------------------------------------|--------|
|      |                    |             |      |             | UNII 2C                              | UNII 3 |
| HE40 | 5710               | 142         | 26T  | Low         | 2.47                                 | -39.44 |
|      |                    |             |      | Mid         | 2.05                                 | -43.96 |
|      |                    |             |      | High        | -18.08                               | -0.37  |
|      |                    |             | 52T  | Low         | 1.89                                 | -37.71 |
|      |                    |             |      | Mid         | 1.67                                 | -43.26 |
|      |                    |             |      | High        | -0.73                                | -0.98  |
|      |                    |             | 106T | Low         | 1.93                                 | -37.09 |
|      |                    |             |      | Mid         | 1.86                                 | -40.12 |
|      |                    |             |      | High        | 1.43                                 | -1.45  |
|      |                    |             | 242T | Low         | -1.44                                | -38.11 |
|      |                    |             |      | High        | -1.65                                | -4.88  |
|      |                    |             | 484T | Mid         | -4.46                                | -7.71  |
|      |                    |             | SU   | -           | -2.84                                | -6.14  |

# Limit : UNII 2C : 5 dBm / MHz / UNII 3 : 24 dBm / 500 kHz

## 10.6 Test data for 802.11 ax(HE80) WLAN Mode

### 10.6.1 Test data for Antenna 0

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

| HE80       | Freq.<br>[MHz] | Channel<br>No. | RU<br>Index | Peak Power Spectral Density |       |       |        |        |        |        |
|------------|----------------|----------------|-------------|-----------------------------|-------|-------|--------|--------|--------|--------|
|            |                |                |             | (dBm)                       |       |       |        |        |        |        |
|            |                |                |             | 26 T                        | 52 T  | 106 T | 242 T  | 484 T  | 996 T  | SU     |
| UNII<br>1  | 5210           | 42             | Low         | -0.25                       | -1.27 | -3.99 | -7.30  | -9.92  | -      | -      |
|            |                |                | Mid         | -1.36                       | -0.85 | -3.67 | -6.90  | -      | -12.48 | -8.44  |
|            |                |                | High        | 0.41                        | -0.18 | -3.15 | -6.49  | -9.58  | -      | -      |
| UNII<br>2A | 5290           | 58             | Low         | 0.32                        | -1.02 | -3.64 | -6.68  | -9.64  | -      | -      |
|            |                |                | Mid         | -1.58                       | -0.62 | -2.91 | -6.83  | -      | -13.02 | -10.52 |
|            |                |                | High        | 0.18                        | -0.59 | -3.14 | -6.61  | -9.46  | -      | -      |
| UNII<br>2C | 5530           | 106            | Low         | -0.45                       | -1.64 | -4.45 | -7.84  | -10.50 | -      | -      |
|            |                |                | Mid         | -1.61                       | -1.50 | -3.98 | -7.20  | -      | -12.98 | -10.81 |
|            |                |                | High        | 0.19                        | -0.97 | -3.77 | -7.38  | -10.30 | -      | -      |
| UNII<br>3  | 5775           | 155            | Low         | -1.61                       | -4.48 | -7.48 | -10.42 | -12.84 | -      | -      |
|            |                |                | Mid         | -1.97                       | -4.00 | -6.67 | -9.92  | -      | -16.18 | -11.93 |
|            |                |                | High        | -1.75                       | -5.43 | -7.33 | -11.26 | -13.02 | -      | -      |

Remark. 1: Peak Power Spectral Density = Measured Value +Duty Factor

# Limit : UNII 1 / UNII 2A / UNII 2C : 8 dBm / MHz / UNII 3 : 27 dBm / 500 kHz

## 10.6.2 Test data for Antenna 1

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

| HE80       | Freq.<br>[MHz] | Channel<br>No. | RU<br>Index | Peak Power Spectral Density<br>(dBm) |       |       |        |        |        |        |
|------------|----------------|----------------|-------------|--------------------------------------|-------|-------|--------|--------|--------|--------|
|            |                |                |             | 26 T                                 | 52 T  | 106 T | 242 T  | 484 T  | 996 T  | SU     |
| UNII<br>1  | 5210           | 42             | Low         | -0.22                                | -1.26 | -4.25 | -7.69  | -10.12 | -      | -      |
|            |                |                | Mid         | -2.09                                | -1.12 | -3.97 | -7.26  | -      | -13.07 | -9.07  |
|            |                |                | High        | 0.11                                 | -0.98 | -3.75 | -7.04  | -9.74  | -      | -      |
| UNII<br>2A | 5290           | 58             | Low         | 0.57                                 | -0.17 | -3.04 | -6.67  | -9.55  | -      | -      |
|            |                |                | Mid         | -0.76                                | -0.04 | -2.86 | -6.13  | -      | -12.19 | -11.25 |
|            |                |                | High        | 0.90                                 | -0.06 | -2.77 | -6.14  | -9.06  | -      | -      |
| UNII<br>2C | 5530           | 106            | Low         | -0.42                                | -1.68 | -4.14 | -7.76  | -10.60 | -      | -      |
|            |                |                | Mid         | -1.83                                | -1.51 | -3.87 | -6.92  | -      | -13.16 | -11.23 |
|            |                |                | High        | 0.32                                 | -1.23 | -3.58 | -7.21  | -10.13 | -      | -      |
| UNII<br>3  | 5775           | 155            | Low         | -0.83                                | -4.38 | -7.04 | -10.70 | -13.75 | -      | -      |
|            |                |                | Mid         | -2.86                                | -5.43 | -7.73 | -11.29 | -      | -16.89 | -12.55 |
|            |                |                | High        | -1.81                                | -5.03 | -7.71 | -11.43 | -14.20 | -      | -      |

Remark. 1: Peak Power Spectral Density = Measured Value +Duty Factor

# Limit : UNII 1 / UNII 2A / UNII 2C : 8 dBm / MHz / UNII 3 : 27 dBm / 500 kHz

### 10.6.3 Test data for Multiple Transmit

-. Operating condition : Highest Output Power Transmitting Mode

-. Test Result : Pass

| HE80       | Freq.<br>[MHz] | Channel<br>No. | RU<br>Index | Peak Power Spectral Density<br>(dBm) |       |       |       |        |        |       |
|------------|----------------|----------------|-------------|--------------------------------------|-------|-------|-------|--------|--------|-------|
|            |                |                |             | 26 T                                 | 52 T  | 106 T | 242 T | 484 T  | 996 T  | SU    |
| UNII<br>1  | 5210           | 42             | Low         | 2.77                                 | 1.75  | -1.11 | -4.48 | -7.01  | -      | -     |
|            |                |                | Mid         | 1.30                                 | 2.03  | -0.80 | -4.06 | -      | -9.75  | -5.73 |
|            |                |                | High        | 3.27                                 | 2.45  | -0.43 | -3.74 | -6.65  | -      | -     |
| UNII<br>2A | 5290           | 58             | Low         | 3.46                                 | 2.44  | -0.32 | -3.66 | -6.58  | -      | -     |
|            |                |                | Mid         | 1.86                                 | 2.69  | 0.13  | -3.45 | -      | -9.57  | -7.86 |
|            |                |                | High        | 3.56                                 | 2.70  | 0.06  | -3.36 | -6.24  | -      | -     |
| UNII<br>2C | 5530           | 106            | Low         | 2.57                                 | 1.35  | -1.28 | -4.79 | -7.54  | -      | -     |
|            |                |                | Mid         | 1.29                                 | 1.51  | -0.91 | -4.05 | -      | -10.06 | -8.00 |
|            |                |                | High        | 3.26                                 | 1.91  | -0.66 | -4.28 | -7.20  | -      | -     |
| UNII<br>3  | 5775           | 155            | Low         | 1.81                                 | -1.42 | -4.24 | -7.54 | -10.26 | -      | -     |
|            |                |                | Mid         | 0.62                                 | -1.64 | -4.15 | -7.54 | -      | -13.51 | -9.22 |
|            |                |                | High        | 1.23                                 | -2.21 | -4.50 | -8.33 | -10.56 | -      | -     |

# Limit : UNII 1 / UNII 2A / UNII 2C : 5 dBm / MHz / UNII 3 : 24 dBm / 500 kHz

#### 10.6.4 Test data for Staddle Channel\_Antenna 0

| BW   | Frequency<br>[MHz] | Channel No. | Tone | RU<br>Index | Peak Power Spectrul Density<br>(dBm) |        |
|------|--------------------|-------------|------|-------------|--------------------------------------|--------|
|      |                    |             |      |             | UNII 2C                              | UNII 3 |
| HE80 | 5690               | 138         | 26T  | Low         | -1.75                                | -35.66 |
|      |                    |             |      | Mid         | -2.96                                | -50.47 |
|      |                    |             |      | High        | -23.92                               | -4.84  |
|      |                    |             | 52T  | Low         | -1.70                                | -35.42 |
|      |                    |             |      | Mid         | -1.43                                | -48.70 |
|      |                    |             |      | High        | -5.56                                | -5.09  |
|      |                    |             | 106T | Low         | -4.51                                | -37.65 |
|      |                    |             |      | Mid         | -4.14                                | -49.35 |
|      |                    |             |      | High        | -5.18                                | -8.07  |
|      |                    |             | 242T | Low         | -7.46                                | -39.30 |
|      |                    |             |      | Mid         | -7.69                                | -49.06 |
|      |                    |             |      | High        | -8.51                                | -11.78 |
|      |                    |             | 484T | Low         | -10.71                               | -41.53 |
|      |                    |             |      | High        | -11.12                               | -14.21 |
|      |                    |             | 996T | Mid         | -13.70                               | -18.13 |
|      |                    |             | SU   | -           | -11.84                               | -16.06 |

Remark. 1: Peak Power Spectrul Density = Measured Value +Duty Factor

# Limit : UNII 2C : 8 dBm / MHz / UNII 3 : 27 dBm / 500 kHz

### 10.6.5 Test data for Staddle Channel\_Antenna 1

| BW   | Frequency<br>[MHz] | Channel No. | Tone | RU<br>Index | Peak Power Spectrul Density<br>(dBm) |        |
|------|--------------------|-------------|------|-------------|--------------------------------------|--------|
|      |                    |             |      |             | UNII 2C                              | UNII 3 |
| HE80 | 5690               | 138         | 26T  | Low         | -0.17                                | -34.48 |
|      |                    |             |      | Mid         | -1.63                                | -48.05 |
|      |                    |             |      | High        | -23.99                               | -2.98  |
|      |                    |             | 52T  | Low         | -0.47                                | -32.95 |
|      |                    |             |      | Mid         | -0.69                                | -46.49 |
|      |                    |             |      | High        | -3.74                                | -3.06  |
|      |                    |             | 106T | Low         | -3.20                                | -33.69 |
|      |                    |             |      | Mid         | -3.20                                | -45.93 |
|      |                    |             |      | High        | -3.48                                | -5.83  |
|      |                    |             | 242T | Low         | -6.54                                | -38.45 |
|      |                    |             |      | Mid         | -6.66                                | -44.21 |
|      |                    |             |      | High        | -6.98                                | -9.88  |
|      |                    |             | 484T | Low         | -9.65                                | -39.98 |
|      |                    |             |      | High        | -9.56                                | -12.60 |
|      |                    |             | 996T | Mid         | -12.77                               | -16.36 |
|      |                    |             | SU   | -           | -12.37                               | -15.61 |

Remark. 1: Peak Power Spectrul Density = Measured Value +Duty Factor

# Limit : UNII 2C : 8 dBm / MHz / UNII 3 : 27 dBm / 500 kHz

### 10.6.6 Test data for Staddle Channel\_Multiple Transmit

| BW   | Frequency<br>[MHz] | Channel No. | Tone | RU<br>Index | Peak Power Spectrul Density<br>(dBm) |        |
|------|--------------------|-------------|------|-------------|--------------------------------------|--------|
|      |                    |             |      |             | UNII 2C                              | UNII 3 |
| HE80 | 5690               | 138         | 26T  | Low         | 2.12                                 | -32.02 |
|      |                    |             |      | Mid         | 0.76                                 | -46.08 |
|      |                    |             |      | High        | -20.95                               | -0.80  |
|      |                    |             | 52T  | Low         | 1.97                                 | -31.00 |
|      |                    |             |      | Mid         | 1.97                                 | -44.44 |
|      |                    |             |      | High        | -1.54                                | -0.95  |
|      |                    |             | 106T | Low         | -0.79                                | -32.22 |
|      |                    |             |      | Mid         | -0.63                                | -44.30 |
|      |                    |             |      | High        | -1.24                                | -3.79  |
|      |                    |             | 242T | Low         | -3.96                                | -35.84 |
|      |                    |             |      | Mid         | -4.13                                | -42.98 |
|      |                    |             |      | High        | -4.67                                | -7.71  |
|      |                    |             | 484T | Low         | -7.14                                | -37.67 |
|      |                    |             |      | High        | -7.26                                | -10.32 |
|      |                    |             | 996T | Mid         | -10.20                               | -14.14 |
|      |                    |             | SU   | -           | -9.09                                | -12.82 |

# Limit : UNII 2C : 5 dBm / MHz / UNII 3 : 24 dBm / 500 kHz

## 11. FREQUENCY STABILITY WITH TEMPERATURE VARIATION

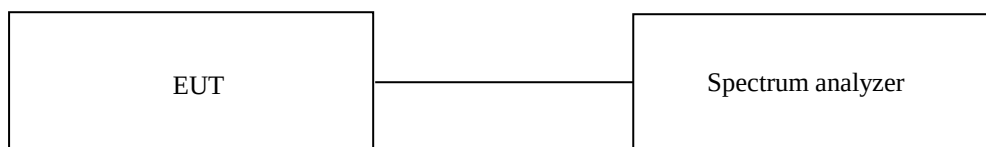
### 11.1 Operating environment

Temperature : 23 °C

Relative humidity : 45 % R.H.

### 11.2 Test set-up

Turn EUT off and set chamber temperature to -20 °C and then allow sufficient time (approximately 20 min to 30 min after chamber reach the assigned temperature) for EUT to stabilize. Turn on the EUT and measure the EUT operating frequency and then turn off the EUT after the measurement. The temperature in the chamber was raised 10 °C step from -20 °C to +50 °C. Repeat above method for frequency measurements every 10 °C step and then record all measured frequencies on each temperature step.



### 11.3 Test Date

December 05, 2021 ~ March 08, 2022

#### 11.4 Test Data for U-NII-1

-. Result : Pass

| Temperature (°C) | Carrier Freq. (Hz) | Measured Freq. (Hz) | Frequency Error (Hz) |
|------------------|--------------------|---------------------|----------------------|
| -20              | 5 180 000 000      | 5 180 001 366       | 1 366                |
| -10              |                    | 5 180 002 752       | 2 752                |
| 0                |                    | 5 180 006 969       | 6 969                |
| 10               |                    | 5 180 009 927       | 9 927                |
| 20               |                    | 5 180 010 933       | 10 933               |
| 30               |                    | 5 180 012 673       | 12 673               |
| 40               |                    | 5 180 017 111       | 17 111               |
| 50               |                    | 5 180 019 341       | 19 341               |
| -20              | 5 220 000 000      | 5 220 003 508       | 3 508                |
| -10              |                    | 5 220 006 914       | 6 914                |
| 0                |                    | 5 220 008 135       | 8 135                |
| 10               |                    | 5 220 010 881       | 10 881               |
| 20               |                    | 5 220 015 505       | 15 505               |
| 30               |                    | 5 220 019 907       | 19 907               |
| 40               |                    | 5 220 021 742       | 21 742               |
| 50               |                    | 5 220 026 243       | 26 243               |
| -20              | 5 240 000 000      | 5 240 002 662       | 2 662                |
| -10              |                    | 5 240 006 225       | 6 225                |
| 0                |                    | 5 240 008 915       | 8 915                |
| 10               |                    | 5 240 011 501       | 11 501               |
| 20               |                    | 5 240 013 357       | 13 357               |
| 30               |                    | 5 240 017 331       | 17 331               |
| 40               |                    | 5 240 019 989       | 19 989               |
| 50               |                    | 5 240 021 198       | 21 198               |

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### 11.5 Test Data for U-NII-2A

-. Result : Pass

| Temperature (°C) | Carrier Freq. (Hz) | Measured Freq. (Hz) | Frequency Error (Hz) |
|------------------|--------------------|---------------------|----------------------|
| -20              | 5 260 000 000      | 5 260 004 142       | 4 142                |
| -10              |                    | 5 260 008 306       | 8 306                |
| 0                |                    | 5 260 011 979       | 11 979               |
| 10               |                    | 5 260 013 970       | 13 970               |
| 20               |                    | 5 260 017 331       | 17 331               |
| 30               |                    | 5 260 019 863       | 19 863               |
| 40               |                    | 5 260 024 392       | 24 392               |
| 50               |                    | 5 260 028 032       | 28 032               |
| -20              | 5 300 000 000      | 5 300 002 548       | 2 548                |
| -10              |                    | 5 300 004 891       | 4 891                |
| 0                |                    | 5 300 006 250       | 6 250                |
| 10               |                    | 5 300 009 176       | 9 176                |
| 20               |                    | 5 300 013 695       | 13 695               |
| 30               |                    | 5 300 015 963       | 15 963               |
| 40               |                    | 5 300 018 037       | 18 037               |
| 50               |                    | 5 300 021 944       | 21 944               |
| -20              | 5 320 000 000      | 5 320 002 864       | 2 864                |
| -10              |                    | 5 320 005 075       | 5 075                |
| 0                |                    | 5 320 006 360       | 6 360                |
| 10               |                    | 5 320 008 458       | 8 458                |
| 20               |                    | 5 320 011 248       | 11 248               |
| 30               |                    | 5 320 012 251       | 12 251               |
| 40               |                    | 5 320 014 989       | 14 989               |
| 50               |                    | 5 320 017 785       | 17 785               |

## 11.6 Test Data for U-NII-2C

-. Result : Pass

| Temperature (°C) | Carrier Freq. (Hz) | Measured Freq. (Hz) | Frequency Error (Hz) |
|------------------|--------------------|---------------------|----------------------|
| -20              | 5 500 000 000      | 5 500 001 900       | 1 900                |
| -10              |                    | 5 500 005 477       | 5 477                |
| 0                |                    | 5 500 006 625       | 6 625                |
| 10               |                    | 5 500 008 268       | 8 268                |
| 20               |                    | 5 500 012 701       | 12 701               |
| 30               |                    | 5 500 017 150       | 17 150               |
| 40               |                    | 5 500 020 754       | 20 754               |
| 50               |                    | 5 500 024 227       | 24 227               |
| -20              | 5 580 000 000      | 5 580 002 167       | 2 167                |
| -10              |                    | 5 580 006 420       | 6 420                |
| 0                |                    | 5 580 009 124       | 9 124                |
| 10               |                    | 5 580 011 549       | 11 549               |
| 20               |                    | 5 580 014 078       | 14 078               |
| 30               |                    | 5 580 017 415       | 17 415               |
| 40               |                    | 5 580 018 867       | 18 867               |
| 50               |                    | 5 580 023 601       | 23 601               |
| -20              | 5 700 000 000      | 5 700 002 292       | 2 292                |
| -10              |                    | 5 700 004 389       | 4 389                |
| 0                |                    | 5 700 006 306       | 6 306                |
| 10               |                    | 5 700 007 484       | 7 484                |
| 20               |                    | 5 700 012 376       | 12 376               |
| 30               |                    | 5 700 016 704       | 16 704               |
| 40               |                    | 5 700 018 955       | 18 955               |
| 50               |                    | 5 700 021 122       | 21 122               |

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OTC-TRF-RF-001(0)

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### 11.7 Test Data for U-NII-3

-. Result : Pass

| Temperature (°C) | Carrier Freq. (Hz) | Measured Freq. (Hz) | Frequency Error (Hz) |
|------------------|--------------------|---------------------|----------------------|
| -20              | 5 745 000 000      | 5 745 003 196       | 3 196                |
| -10              |                    | 5 745 005 661       | 5 661                |
| 0                |                    | 5 745 010 003       | 10 003               |
| 10               |                    | 5 745 013 626       | 13 626               |
| 20               |                    | 5 745 018 313       | 18 313               |
| 30               |                    | 5 745 020 270       | 20 270               |
| 40               |                    | 5 745 021 942       | 21 942               |
| 50               |                    | 5 745 025 142       | 25 142               |
| -20              | 5 785 000 000      | 5 785 003 181       | 3 181                |
| -10              |                    | 5 785 007 104       | 7 104                |
| 0                |                    | 5 785 008 408       | 8 408                |
| 10               |                    | 5 785 011 217       | 11 217               |
| 20               |                    | 5 785 014 709       | 14 709               |
| 30               |                    | 5 785 016 741       | 16 741               |
| 40               |                    | 5 785 021 571       | 21 571               |
| 50               |                    | 5 785 026 072       | 26 072               |
| -20              | 5 825 000 000      | 5 825 004 189       | 4 189                |
| -10              |                    | 5 825 006 490       | 6 490                |
| 0                |                    | 5 825 011 447       | 11 447               |
| 10               |                    | 5 825 013 897       | 13 897               |
| 20               |                    | 5 825 017 840       | 17 840               |
| 30               |                    | 5 825 020 785       | 20 785               |
| 40               |                    | 5 825 023 505       | 23 505               |
| 50               |                    | 5 825 027 155       | 27 155               |

## 12. FREQUENCY STABILITY WITH VOLTAGE VARIATION

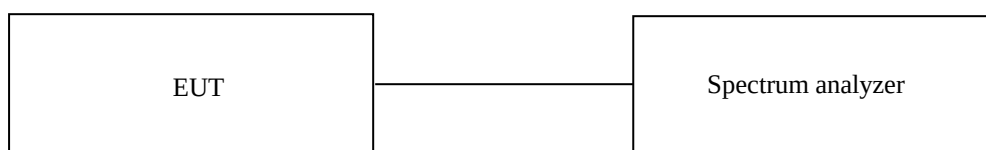
### 12.1 Operating environment

Temperature : 23 °C

Relative humidity : 45 % R.H.

### 12.2 Test set-up

An external DC power supply was connected to the input of the EUT. The voltage of EUT set to 115 % of the nominal value and then was reduced to 85 % of nominal voltage. The output frequency was recorded at each step.



### 12.3 Test Date

December 05, 2021 ~ March 08, 2022

#### 12.4 Test Data for U-NII-1

-. Result : Pass

| Voltage (VDC) | Carrier Freq. (Hz) | Measured Freq. (Hz) | Frequency Error (Hz) |
|---------------|--------------------|---------------------|----------------------|
| 3.30          | 5 180 000 000      | 5 180 018 812       | 18 812               |
| 2.97          |                    | 5 180 018 684       | 18 684               |
| 3.63          |                    | 5 180 019 008       | 19 008               |
| 3.30          | 5 220 000 000      | 5 220 014 007       | 14 007               |
| 2.97          |                    | 5 220 013 876       | 13 876               |
| 3.63          |                    | 5 220 014 157       | 14 157               |
| 3.30          | 5 240 000 000      | 5 240 019 240       | 19 240               |
| 2.97          |                    | 5 240 019 126       | 19 126               |
| 3.63          |                    | 5 240 019 425       | 19 425               |

#### 12.5 Test Data for U-NII-2A

-. Result : Pass

| Voltage (VDC) | Carrier Freq. (Hz) | Measured Freq. (Hz) | Frequency Error (Hz) |
|---------------|--------------------|---------------------|----------------------|
| 3.30          | 5 180 000 000      | 5 260 019 103       | 19 103               |
| 2.97          |                    | 5 260 018 978       | 18 978               |
| 3.63          |                    | 5 260 019 298       | 19 298               |
| 3.30          | 5 220 000 000      | 5 300 017 208       | 17 208               |
| 2.97          |                    | 5 300 017 081       | 17 081               |
| 3.63          |                    | 5 300 017 394       | 17 394               |
| 3.30          | 5 240 000 000      | 5 320 018 918       | 18 918               |
| 2.97          |                    | 5 320 018 814       | 18 814               |
| 3.63          |                    | 5 320 019 074       | 19 074               |

## 12.6 Test Data for U-NII-2C

-. Result : Pass

| Voltage (VDC) | Carrier Freq. (Hz) | Measured Freq. (Hz) | Frequency Error (Hz) |
|---------------|--------------------|---------------------|----------------------|
| 3.30          | 5 500 000 000      | 5 500 015 812       | 15 812               |
| 2.97          |                    | 5 500 015 707       | 15 707               |
| 3.63          |                    | 5 500 015 954       | 15 954               |
| 3.30          | 5 580 000 000      | 5 580 014 367       | 14 367               |
| 2.97          |                    | 5 580 014 262       | 14 262               |
| 3.63          |                    | 5 580 014 537       | 14 537               |
| 3.30          | 5 700 000 000      | 5 700 018 512       | 18 512               |
| 2.97          |                    | 5 700 018 372       | 18 372               |
| 3.63          |                    | 5 700 018 695       | 18 695               |

## 12.7 Test Data for U-NII-3

-. Result : Pass

| Voltage (VDC) | Carrier Freq. (Hz) | Measured Freq. (Hz) | Frequency Error (Hz) |
|---------------|--------------------|---------------------|----------------------|
| 3.30          | 5 745 000 000      | 5 745 019 027       | 19 027               |
| 2.97          |                    | 5 745 018 897       | 18 897               |
| 3.63          |                    | 5 745 019 194       | 19 194               |
| 3.30          | 5 785 000 000      | 5 785 016 134       | 16 134               |
| 2.97          |                    | 5 785 016 008       | 16 008               |
| 3.63          |                    | 5 785 016 304       | 16 304               |
| 3.30          | 5 825 000 000      | 5 825 014 106       | 14 106               |
| 2.97          |                    | 5 825 013 983       | 13 983               |
| 3.63          |                    | 5 825 014 289       | 14 289               |

## 13. RADIATED SPURIOUS EMISSIONS

### 13.1 Operating environment

Temperature : 23 °C

Relative humidity : 45 % R.H.

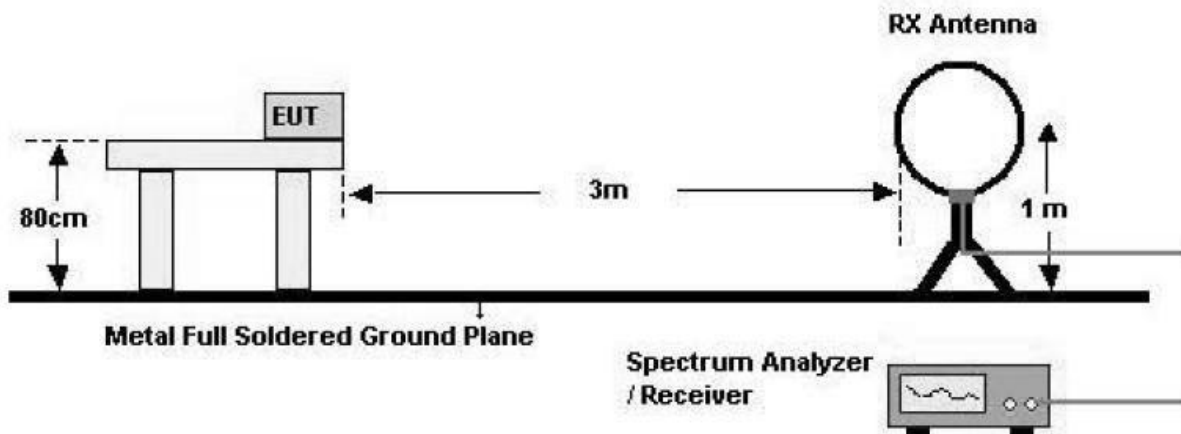
### 13.2 Test set-up for conducted measurement

The radiated emissions measurements were on the 3 m semi anechoic chamber. The EUT and other support equipment were placed on a non-conductive turntable above the ground plane. The interconnecting cables from outside test site were inserted into ferrite clamps at the point where the cables reach the turntable.

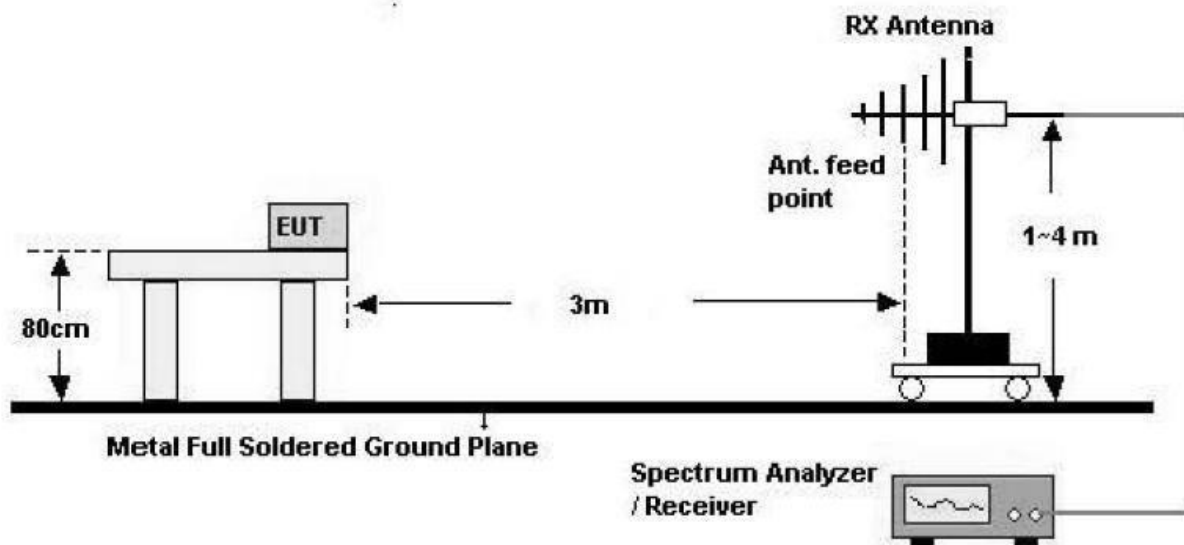
The frequency spectrum from 30 MHz to 40 GHz was scanned and maximum emission levels at each frequency recorded. The system was rotated 360°, and the antenna was varied in the height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for horizontal and vertical polarization of the receiving antenna.

#### - Test Configuration

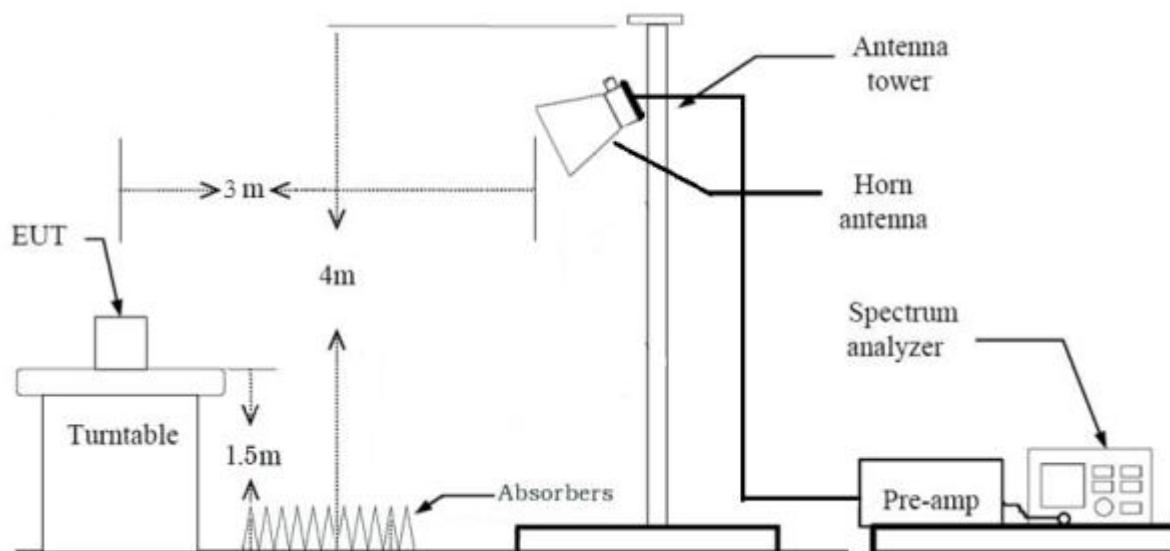
##### 1. Below 30 MHz



## 2. 30 MHz - 1 GHz



## 3. Above 1 GHz



## 13.3 Test Date

December 05, 2021 ~ March 08, 2022

### 13.4 Test data for Below 30 MHz

- Resolution bandwidth : 200 Hz (from 9 kHz to 0.15 MHz), 9 kHz (from 0.15 MHz to 30 MHz)
- Frequency range : 9 kHz ~ 30 MHz
- Measurement distance : 3 m
- Operating mode : Transmitting mode

| Frequency<br>(MHz)                                                             | Reading<br>(dBμV) | Ant. Pol.<br>(H/V) | Ant.<br>Height (m) | Angle<br>(°) | Ant. Factor<br>(dB/m) | Cable<br>Loss | Emission<br>Level(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) |
|--------------------------------------------------------------------------------|-------------------|--------------------|--------------------|--------------|-----------------------|---------------|---------------------------|--------------------|----------------|
| Emission from the EUT more than 20 dB below the limit in each frequency range. |                   |                    |                    |              |                       |               |                           |                    |                |