

## Test Report for FCC

FCC ID : 2A2JFZENITHZ5

|                                                                                                                                                                                                                                                                                                               |                                                                                                |                                                                            |                   |                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------|----------------|
| Report Number                                                                                                                                                                                                                                                                                                 |                                                                                                | ESTRFC2108-004                                                             |                   |                |
| Applicant                                                                                                                                                                                                                                                                                                     | Company name                                                                                   | EZDS Co., Ltd.                                                             |                   |                |
|                                                                                                                                                                                                                                                                                                               | Address                                                                                        | Suite 1405, A Tower, 11 Beobwon-ro 11-gil, Songpa-gu<br>Seoul, South Korea |                   |                |
|                                                                                                                                                                                                                                                                                                               | Telephone                                                                                      | +82-70-7733-7774                                                           |                   |                |
|                                                                                                                                                                                                                                                                                                               | Contact person                                                                                 | Jungho CHO                                                                 |                   |                |
| Product                                                                                                                                                                                                                                                                                                       | Product name                                                                                   | Automotive Diagnostic Scan tool                                            |                   |                |
|                                                                                                                                                                                                                                                                                                               | Model No.                                                                                      | ZENITH Z5                                                                  | Manufacturer      | EZDS Co., Ltd. |
|                                                                                                                                                                                                                                                                                                               | Serial No.                                                                                     | None                                                                       | Country of origin | KOREA          |
| Test date                                                                                                                                                                                                                                                                                                     | 2021-08-13 ~ 2021-08-27                                                                        |                                                                            | Date of issue     | 30-Aug-21      |
| Testing location                                                                                                                                                                                                                                                                                              | 347-69, Jungbu-daero 147beon-gil, Majang-myeon, Icheon-si,<br>Gyeonggi-do 467-811, R. O. Korea |                                                                            |                   |                |
| Standard                                                                                                                                                                                                                                                                                                      | FCC PART 15 Subpart E , ANSI C 63.10 , KDB 789033                                              |                                                                            |                   |                |
| Measurement facility registration number                                                                                                                                                                                                                                                                      |                                                                                                | 659627                                                                     |                   |                |
| Tested by                                                                                                                                                                                                                                                                                                     | Senior Engineer H.K. Lee                                                                       |                                                                            | (Signature)       |                |
| Reviewed by                                                                                                                                                                                                                                                                                                   | Engineering Manager I.K. Hong                                                                  |                                                                            | (Signature)       |                |
| Abbreviation                                                                                                                                                                                                                                                                                                  | OK, Pass = Passed, Fail = Failed, N/A = not applicable                                         |                                                                            |                   |                |
| <p>* Note</p> <ul style="list-style-type: none"> <li>- This test report is not permitted to copy partly without our permission</li> <li>- This test result is dependent on only equipment to be used</li> <li>- This test result based on a single evaluation of one sample of the above mentioned</li> </ul> |                                                                                                |                                                                            |                   |                |



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Appendix 1. Special diagram

Appendix 2. Antenna Requirement

## 1. Laboratory Information

### 1.1 General

This EUT (Equipment Under Test) has been shown to be capable of compliance with the applicable technical standards and is tested in accordance with the measurement procedures as indicated in this report.

ESTECH Lab attests to accuracy of test data. All measurement reported herein were performed by ESTECH Co., Ltd.

ESTECH Lab assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

### 1.2 Test Lab.

Corporation Name : ESTECH Co., Ltd.

Head Office : Suite 1015 World Meridian II, 123 Gasan Digital 2-ro, Geumcheon-gu, Seoul 153-759, R. O. Korea

EMC/Telecom/Safety Test Lab : 347-69, Jungbu-daero 147beon-gil, Majang-myeon, Icheon-si,  
Gyeonggi-do 467-811, R. O. Korea

### 1.3 Official Qualification(s)

MSIP : Granted Accreditation from Ministry of Information & Communication for EMC, Safety and Telecommunication

KOLAS : Accredited Lab By Korea Laboratory Accreditation Schema base on CENELEC requirements

FCC : Conformity Assessment Body(CAB) with registration number 659627 under APEC TEL MRA between the RRA and the FCC

VCCI : Granted Accreditation from Voluntary Control Council for Interference from ITE

## 2.1 Description of EUT

|                     |                                                                                                                                                                                                 |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product             | Automotive Diagnostic Scan tool                                                                                                                                                                 |
| Model Name          | ZENITH Z5                                                                                                                                                                                       |
| Power supply rating | DC 3.8 V                                                                                                                                                                                        |
| Modulation type     | OFDM                                                                                                                                                                                            |
| Transfer Rate       | 802.11a : 6 ~ 54 Mbps,<br>802.11n(HT20) : MCS 0 ~ MCS 7, 802.11ac(VHT20) : MCS 0 ~ MCS 8,<br>802.11n(HT40) : MCS 0 ~ MCS 7, 802.11ac(VHT40) : MCS 0 ~ MCS 9,<br>802.11ac(VHT80) : MCS 0 ~ MCS 9 |
| Output Power        | 5 180 ~ 5 240 MHz : 14.13 dBm                                                                                                                                                                   |
|                     | 5 260 ~ 5 320 MHz : 14.20 dBm                                                                                                                                                                   |
|                     | 5 500 ~ 5 700 MHz : 13.87 dBm                                                                                                                                                                   |
|                     | 5 745 ~ 5 825 MHz : 14.08 dBm                                                                                                                                                                   |
| Antenna Type        | Internal antenna                                                                                                                                                                                |

## 2.2 Test channel

### a. Channel 802.11a/802.11n HT20/802.11ac HT20

| Ch. | Frequency | Ch. | Frequency |
|-----|-----------|-----|-----------|
| 36  | 5 180 MHz | 100 | 5 500 MHz |
| 40  | 5 200 MHz | 104 | 5 520 MHz |
| ~   | ~         | ~   | ~         |
| 64  | 5 320 MHz | 140 | 5 700 MHz |
|     |           | 149 | 5 745 MHz |
|     |           | 153 | 5 765 MHz |
|     |           | ~   | ~         |
|     |           | 165 | 5 825 MHz |

### b. Channel 802.11n HT40/802.11ac HT40

| Ch. | Frequency | Ch. | Frequency |
|-----|-----------|-----|-----------|
| 38  | 5 190 MHz | 102 | 5 510 MHz |
| 40  | 5 200 MHz | 110 | 5 550 MHz |
| ~   | ~         | ~   | ~         |
| 62  | 5 310 MHz | 134 | 5 670 MHz |
|     |           | 151 | 5 755 MHz |
|     |           | 159 | 5 795 MHz |

### c. Channel 802.11ac HT80

| Ch. | Frequency | Ch. | Frequency |
|-----|-----------|-----|-----------|
| 42  | 5 210 MHz | 106 | 5 530 MHz |
| 58  | 5 290 MHz | 122 | 5 610 MHz |
|     |           | 155 | 5 775 MHz |



## 2.3 Duty Cycle

802.11a : Duty cycle =  $1.044/1.238=0.843$ , Duty factor :  $10*\log(1/0.843)=0.74$

802.11n (HT20) : Duty cycle =  $1.039/1.233=0.842$ , Duty factor :  $10*\log(1/0.842)=0.743$

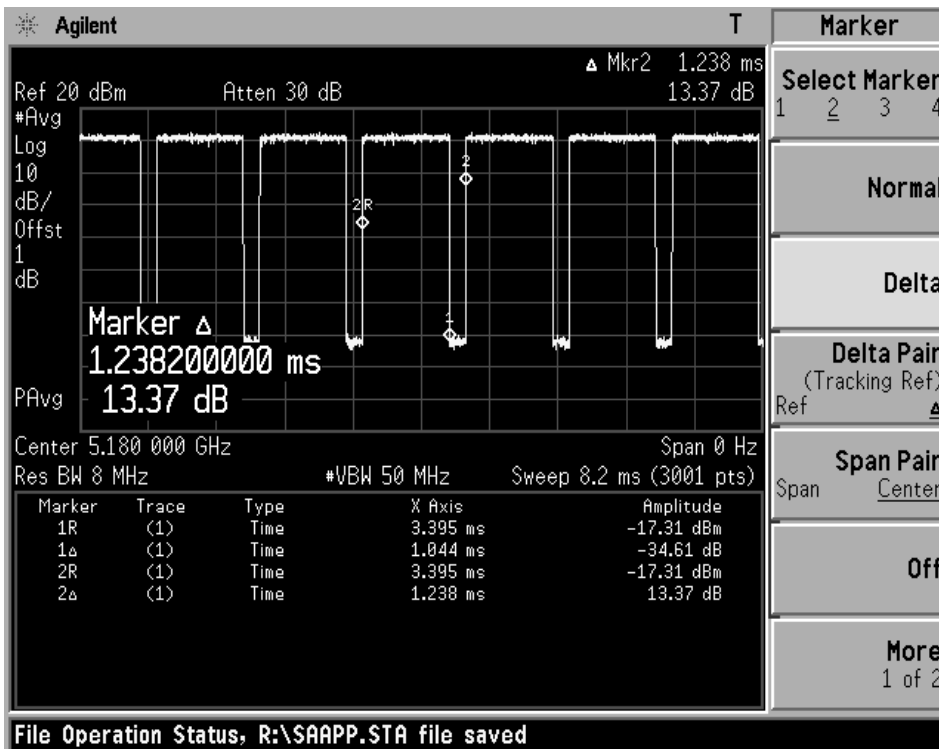
802.11ac (VHT20) : Duty cycle =  $0.979/1.173=0.835$ , Duty factor :  $10*\log(1/0.835)=0.781$

802.11n (HT40) : Duty cycle =  $0.489/0.685=0.713$ , Duty factor :  $10*\log(1/0.713)=1.466$

802.11ac (VHT40) : Duty cycle =  $0.494/0.690=0.715$ , Duty factor :  $10*\log(1/0.715)=1.455$

802.11ac (VHT80) : Duty cycle =  $0.978/1.175=0.832$ , Duty factor :  $10*\log(1/0.832)=0.796$

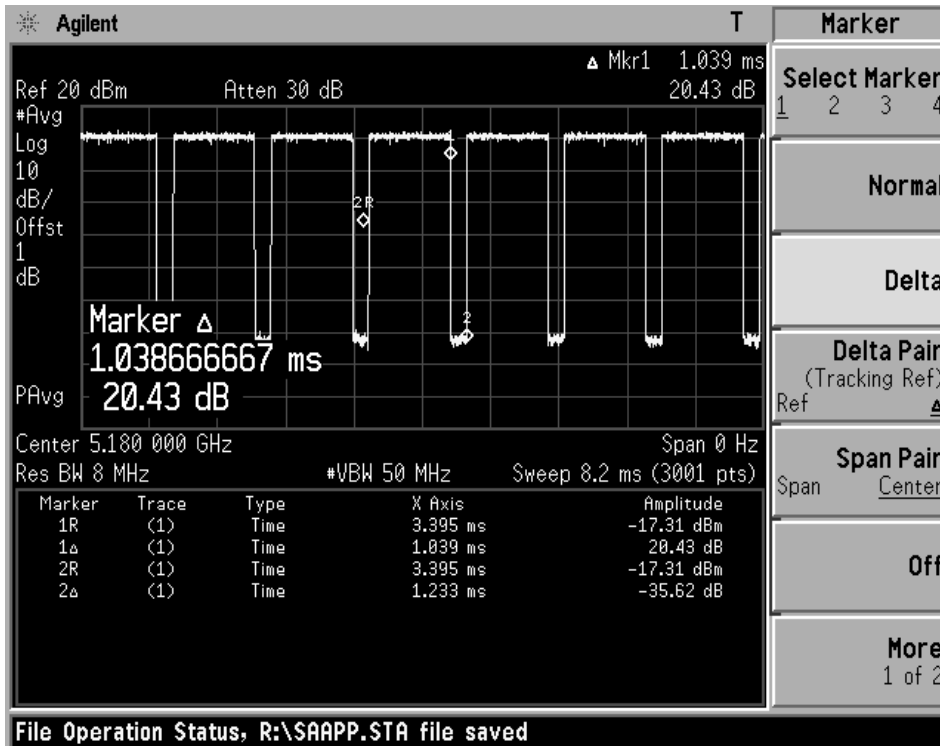
802.11a



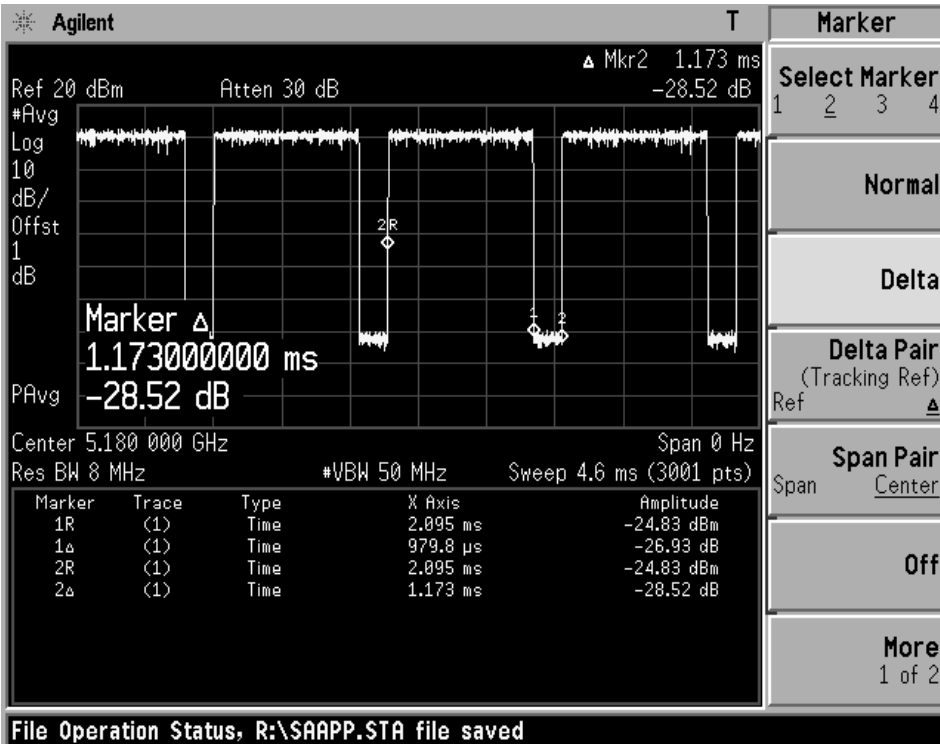


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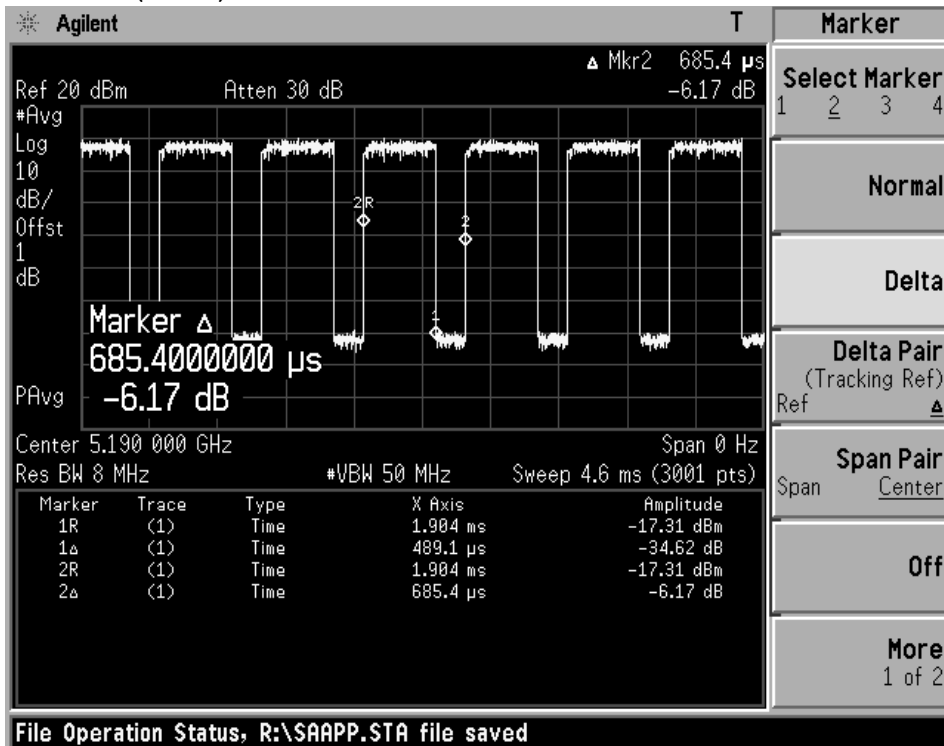
802.11n (HT20)



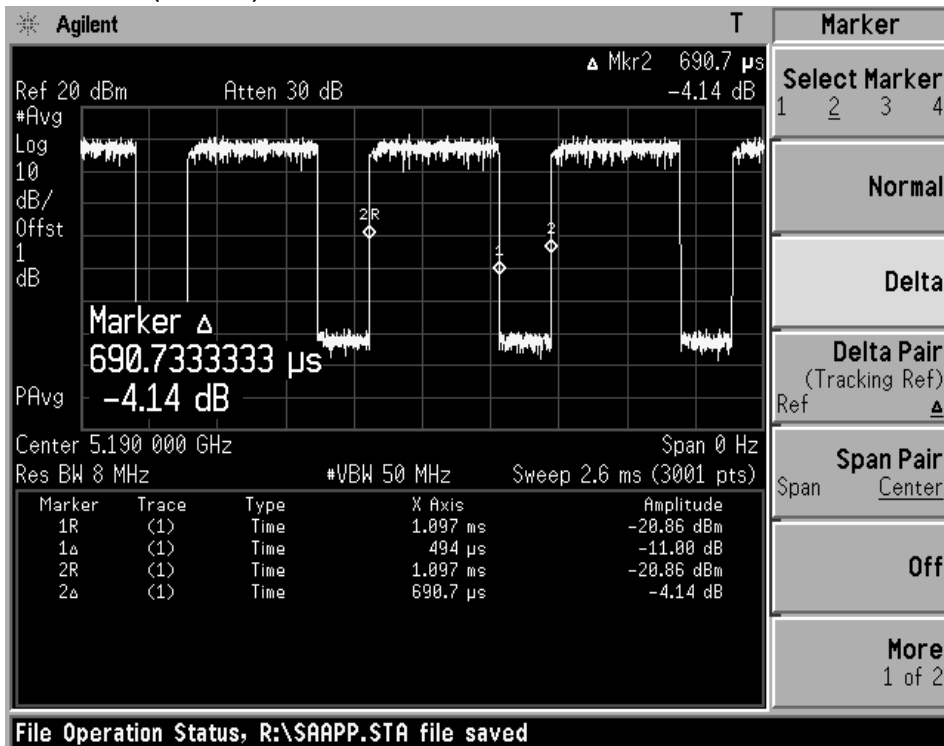
802.11ac (VHT20)



802.11n (HT40)



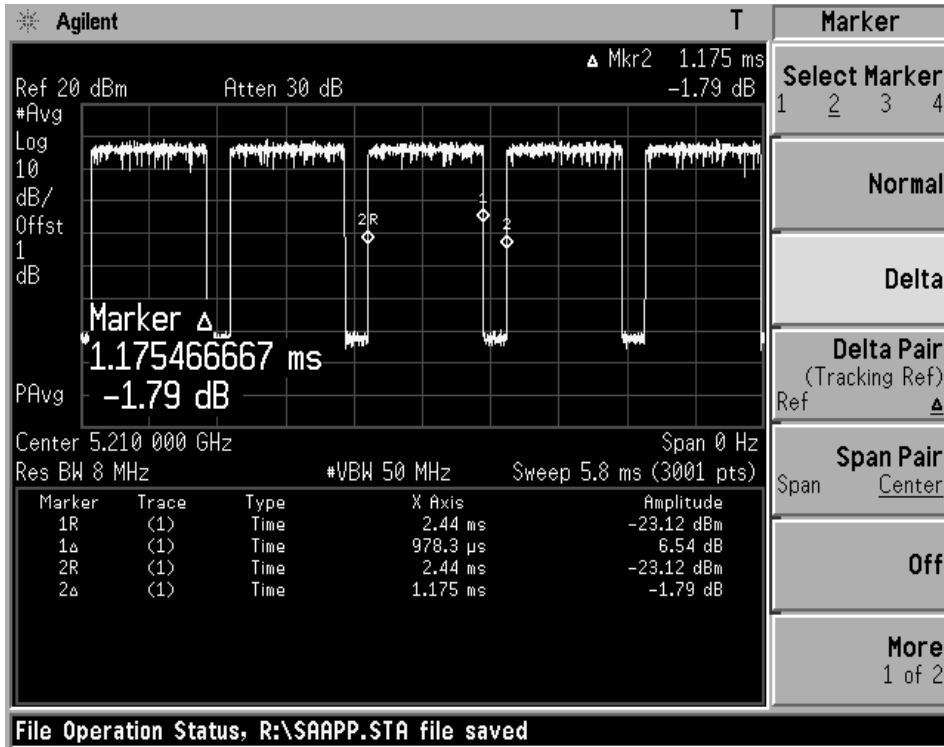
802.11ac (VHT40)





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802.11ac (VHT80)



## 2.4 Uncertainty

| Test items         | Measurement uncertainty  |
|--------------------|--------------------------|
|                    | 30 MHz ~ 1 GHz : 4.60 dB |
|                    | Above 1 GHz : 4.88 dB    |
| Conducted Emission | 9 kHz ~ 30 MHz : 1.86 dB |

## 2.5 Antenna gain

| Band     | Antenna gain (dBi) |
|----------|--------------------|
| U-NII 1  | 1.249              |
| U-NII 2A | 0.245              |
| U-NII 2C | 2.641              |
| U-NII 3  | 1.597              |

### 3. Test Standards

#### Test Standard : FCC PART 15 Subpart E (15.407)

This Standard sets out the regulations under which an intentional, unintentional, or incidental radiator may be operated without an individual license. It also contains the technical specifications, administrative requirements and other conditions relating to the marketing of Part 15 devices.

#### Test Method : ANSI C 63.10 & KDB789033

This standard sets forth uniform methods of measurement of radio-frequency (RF) signals and noise emitted from both unintentional and intentional emitters of RF energy in the frequency range 9 kHz to 40 GHz. Methods for the measurement of radiated and AC power-line conducted radio noise are covered and may be applied to any such equipment unless otherwise specified by individual equipment requirements. These methods cover measurement of certain devices that deliberately radiate energy, such as intentional emitters, but does not cover licensed transmitters. This standard is not intended for certification/approval of avionic equipment or for industrial, scientific, and medical (ISM) equipment. These methods apply to the measurement of individual units or systems comprised of multiple units.

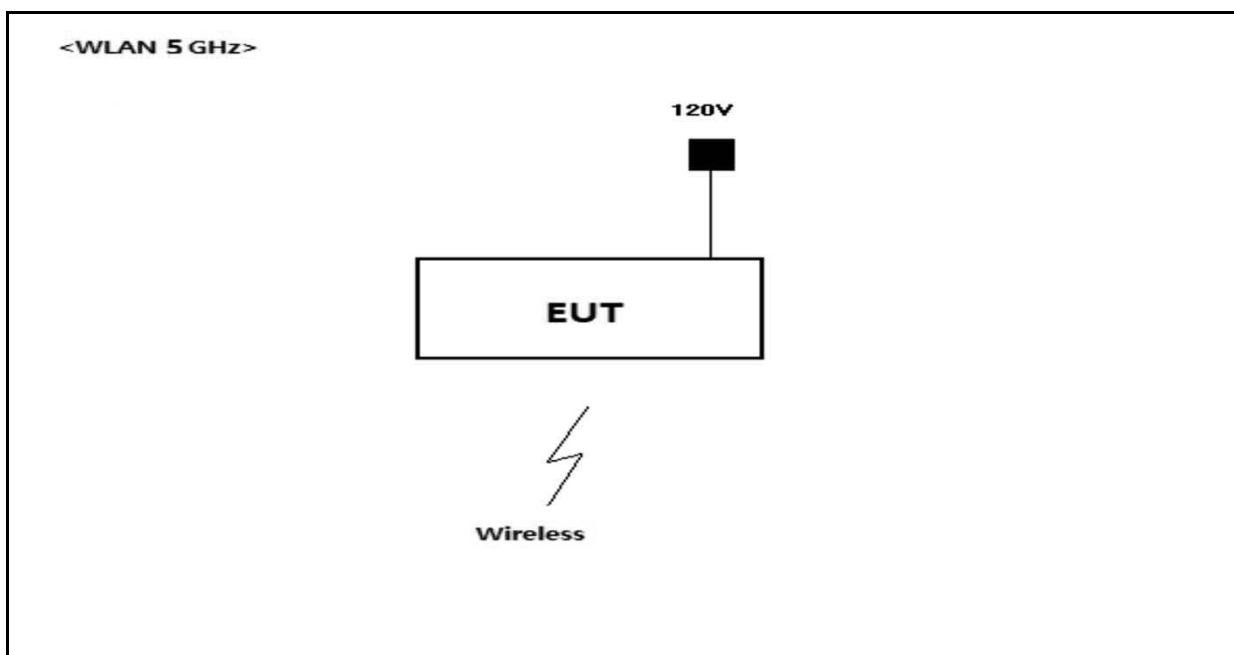
#### Summary of Test Results

| Applied Standard : 47 CFR Part 15 |                                |             |                                |
|-----------------------------------|--------------------------------|-------------|--------------------------------|
| Standard                          | Test Type                      | Test Result | Remark                         |
| 15.207                            | AC Power Conducted Emission    | Pass        | Meet the requirement of limit. |
| 15.407(a)                         | 26 dB Bandwidth                | –           | Reference only                 |
| 15.407(e)                         | 6 dB Bandwidth                 | Pass        | U-NII 3 Band only              |
| 15.407(a)                         | maximum conducted output power | Pass        | Meet the requirement of limit. |
| 15.407(b) & 15.205 & 15.209       | Spurious Emission              | Pass        | Meet the requirement of limit. |
| 15.407(a)                         | Maximum power spectral density | Pass        | Meet the requirement of limit. |
| 15.203                            | Antenna Requirement            | Pass        | Internal antenna               |

## 4. EUT Operation

- The EUT was in the following operation mode during all testing
  - \* Wireless LAN 5 GHz operation check
  - \* Transmit mode were measured each channels(802.11a, 802.11n HT20, 802.11n HT40, 802.11ac VHT20, 802.11acVHT40, 802.11ac VHT80)

### 4.1 Configuration and Peripherals



## 4.2 EUT and Support equipment

| Equipment Name                  | Model Name     | S/N            | Manufacturer                                        | Remark (FCC ID) |
|---------------------------------|----------------|----------------|-----------------------------------------------------|-----------------|
| Automotive Diagnostic Scan tool | ZENITH Z5      | NONE           | EZDS Co., Ltd.                                      | EUT             |
| Adapter                         | SK05T-1200320Z | 21041901000022 | Shenzhen Simsukian Electronics Technology Co., Ltd. |                 |
|                                 |                |                |                                                     |                 |
|                                 |                |                |                                                     |                 |
|                                 |                |                |                                                     |                 |
|                                 |                |                |                                                     |                 |
|                                 |                |                |                                                     |                 |
|                                 |                |                |                                                     |                 |

## 4.3 Cable Connecting

| Start Equipment                 |          | End Equipment |          | Cable Standard |            | Remark |
|---------------------------------|----------|---------------|----------|----------------|------------|--------|
| Name                            | I/O port | Name          | I/O port | Length         | Shielded   |        |
| Automotive Diagnostic Scan tool | Power    | Adapter       | –        | 2              | Unshielded |        |
|                                 |          |               |          |                |            |        |
|                                 |          |               |          |                |            |        |
|                                 |          |               |          |                |            |        |
|                                 |          |               |          |                |            |        |
|                                 |          |               |          |                |            |        |
|                                 |          |               |          |                |            |        |
|                                 |          |               |          |                |            |        |

## 5. Emission Bandwidth ( 26 dB Bandwidth )

### 5.1 Test procedure

Acordding to 789033 D02 Meas Guidance

### 5.2 Test instruments and measurement setup

- a) Set RBW = approximately 1% of the emission bandwidth
- b) Set the VBW > RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%

#### 26dB Bandwidth Test Instruments

| Description       | Model  | Serial Number | Cal. Due Date |
|-------------------|--------|---------------|---------------|
| Spectrum Analyzer | E4440A | US42041291    | 2021-12-01    |
| Signal Analyzer   | FSV40  | 100939        | 2021-12-01    |

### 5.3 Measurement results

#### MODE – 802.11a

| BAND     | Channel Frequency (MHz) | Bandwidth at 26dB below(MHz) | Channel | PASS/FAIL |
|----------|-------------------------|------------------------------|---------|-----------|
| U-NII 1  | 5 180                   | 21.36                        | 36      | –         |
|          | 5 220                   | 21.10                        | 40      | –         |
|          | 5 240                   | 20.35                        | 48      | –         |
| U-NII 2A | 5 260                   | 21.17                        | 52      | –         |
|          | 5 300                   | 20.35                        | 60      | –         |
|          | 5 320                   | 21.18                        | 64      | –         |
| U-NII 2C | 5 500                   | 20.95                        | 100     | –         |
|          | 5 580                   | 21.64                        | 116     | –         |
|          | 5 700                   | 21.22                        | 144     | –         |

**MODE – 802.11n (HT20)**

| BAND     | Channel Frequency (MHz) | Bandwidth at 26dB below(MHz) | Channel | PASS/FAIL |
|----------|-------------------------|------------------------------|---------|-----------|
| U-NII 1  | 5 180                   | 21.86                        | 36      | –         |
|          | 5 220                   | 21.59                        | 40      | –         |
|          | 5 240                   | 21.83                        | 48      | –         |
| U-NII 2A | 5 260                   | 21.59                        | 52      | –         |
|          | 5 300                   | 22.11                        | 60      | –         |
|          | 5 320                   | 21.76                        | 64      | –         |
| U-NII 2C | 5 500                   | 21.96                        | 100     | –         |
|          | 5 580                   | 22.43                        | 116     | –         |
|          | 5 700                   | 21.68                        | 144     | –         |

**MODE – 802.11ac (VHT20)**

| BAND     | Channel Frequency (MHz) | Bandwidth at 26dB below(MHz) | Channel | PASS/FAIL |
|----------|-------------------------|------------------------------|---------|-----------|
| U-NII 1  | 5 180                   | 21.45                        | 36      | –         |
|          | 5 220                   | 21.49                        | 40      | –         |
|          | 5 240                   | 21.20                        | 48      | –         |
| U-NII 2A | 5 260                   | 21.62                        | 52      | –         |
|          | 5 300                   | 21.39                        | 60      | –         |
|          | 5 320                   | 21.72                        | 64      | –         |
| U-NII 2C | 5 500                   | 21.42                        | 100     | –         |
|          | 5 580                   | 21.46                        | 116     | –         |
|          | 5 700                   | 21.52                        | 144     | –         |

**MODE – 802.11n (HT40)**

| BAND     | Channel Frequency (MHz) | Bandwidth at 26dB below(MHz) | Channel | PASS/FAIL |
|----------|-------------------------|------------------------------|---------|-----------|
| U-NII 1  | 5 190                   | 48.90                        | 38      | –         |
|          | 5 230                   | 48.91                        | 46      | –         |
| U-NII 2A | 5 270                   | 48.89                        | 54      | –         |
|          | 5 310                   | 48.92                        | 62      | –         |
| U-NII 2C | 5 510                   | 48.88                        | 102     | –         |
|          | 5 550                   | 48.88                        | 110     | –         |
|          | 5 670                   | 49.00                        | 142     | –         |

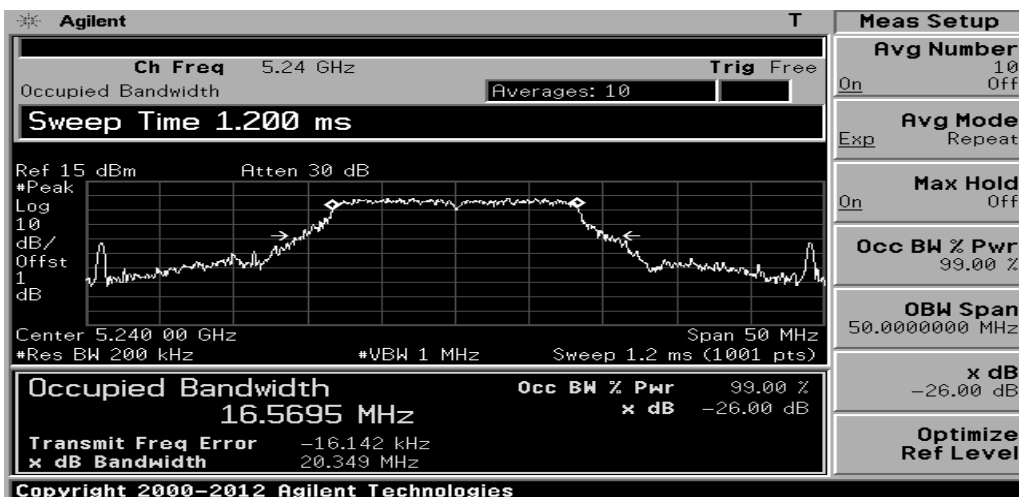
#### MODE – 802.11ac (VHT40)

| BAND     | Channel Frequency (MHz) | Bandwidth at 26dB below(MHz) | Channel | PASS/FAIL |
|----------|-------------------------|------------------------------|---------|-----------|
| U-NII 1  | 5 190                   | 48.93                        | 38      | –         |
|          | 5 230                   | 48.99                        | 46      | –         |
| U-NII 2A | 5 270                   | 48.93                        | 54      | –         |
|          | 5 310                   | 48.89                        | 62      | –         |
| U-NII 2C | 5 510                   | 48.92                        | 102     | –         |
|          | 5 550                   | 48.88                        | 110     | –         |
|          | 5 670                   | 48.97                        | 142     | –         |

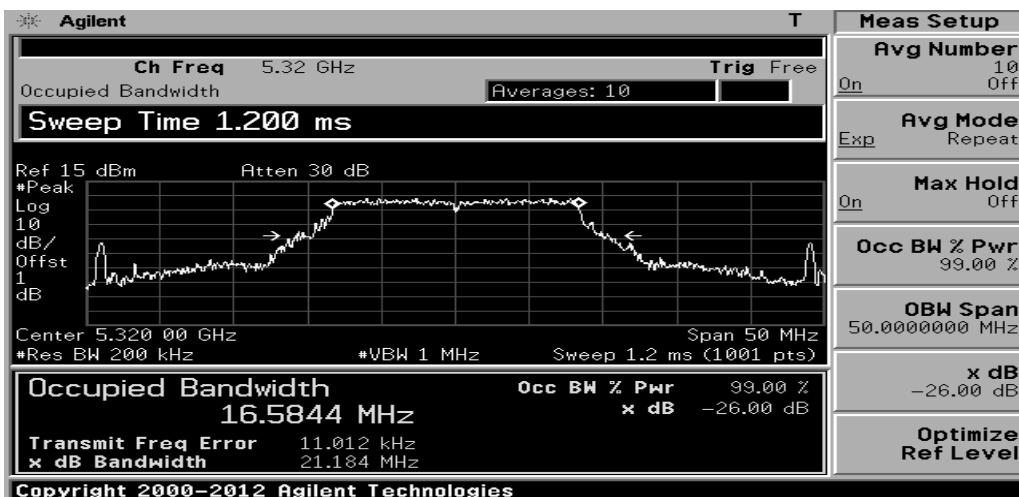
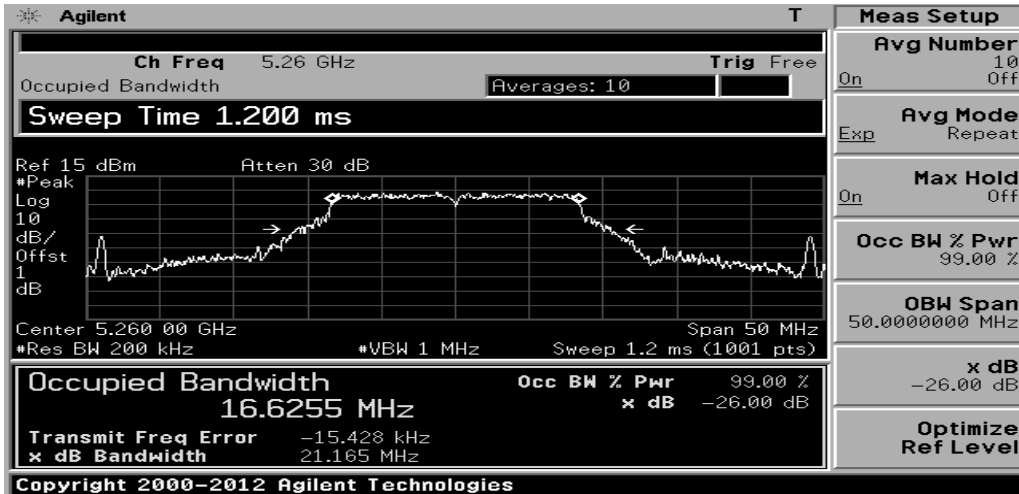
#### MODE – 802.11ac (VHT80)

| BAND     | Channel Frequency (MHz) | Bandwidth at 26dB below(MHz) | Channel | PASS/FAIL |
|----------|-------------------------|------------------------------|---------|-----------|
| U-NII 1  | 5 210                   | 82.25                        | 42      | –         |
| U-NII 2A | 5 290                   | 83.12                        | 58      | –         |
| U-NII 2C | 5 530                   | 83.14                        | 106     | –         |
|          | 5 610                   | 82.88                        | 122     | –         |

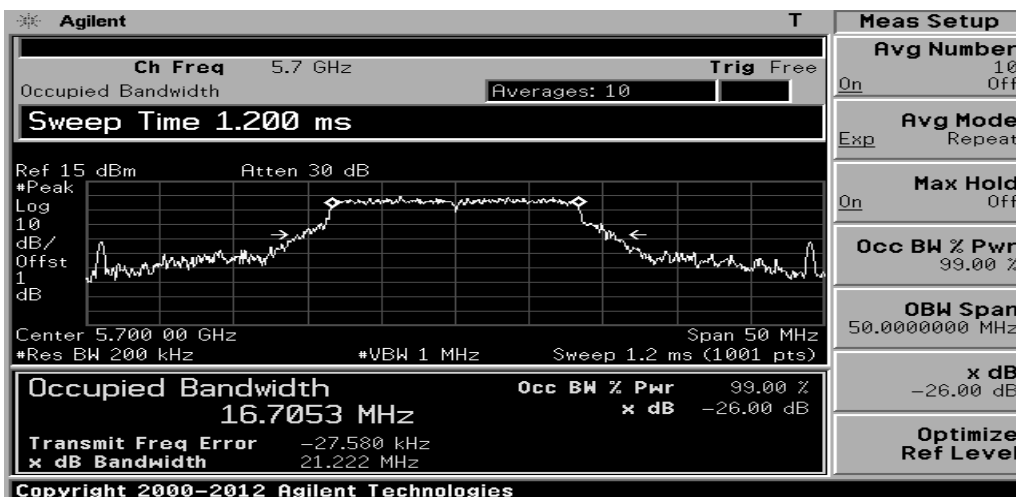
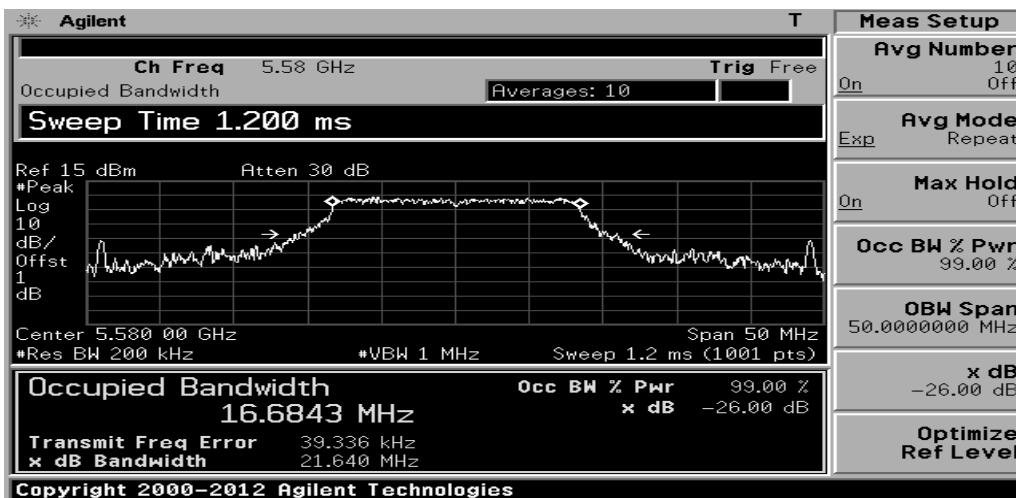
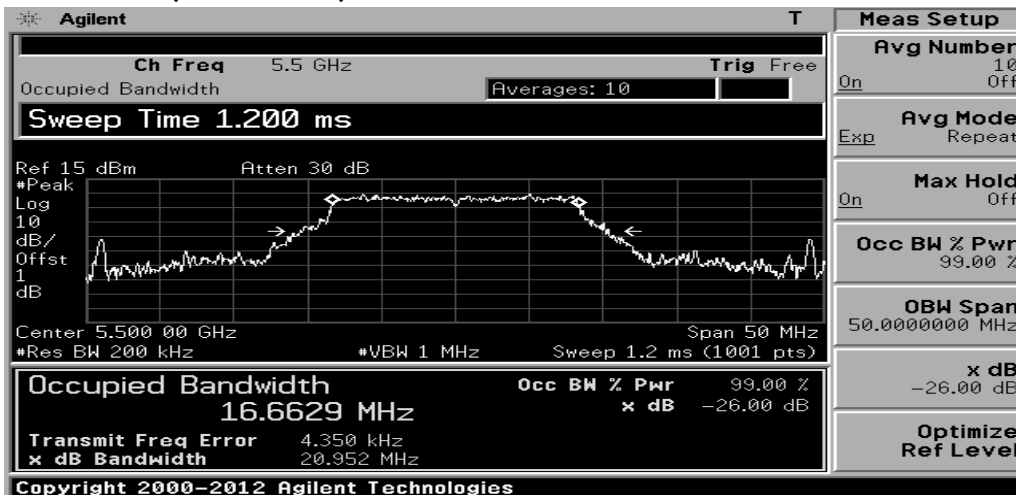
## 802.11a (U-NII 1)



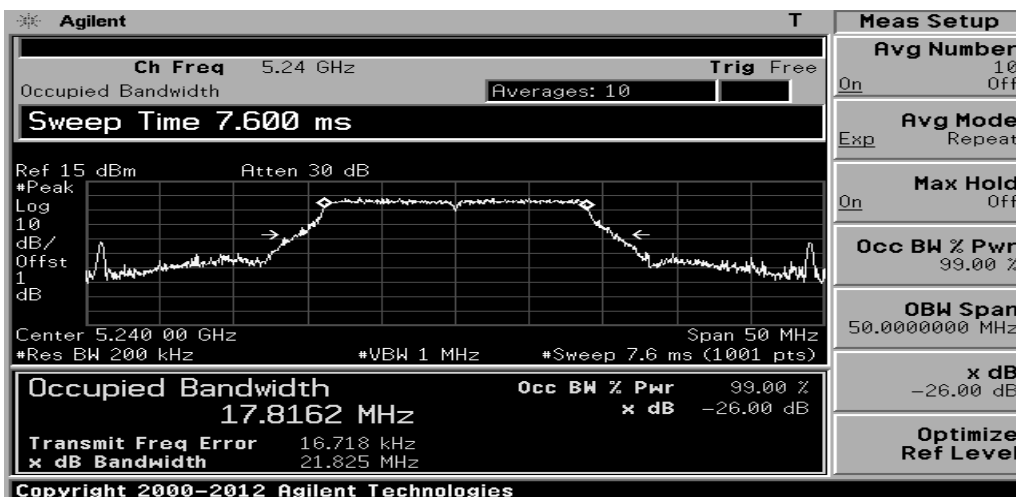
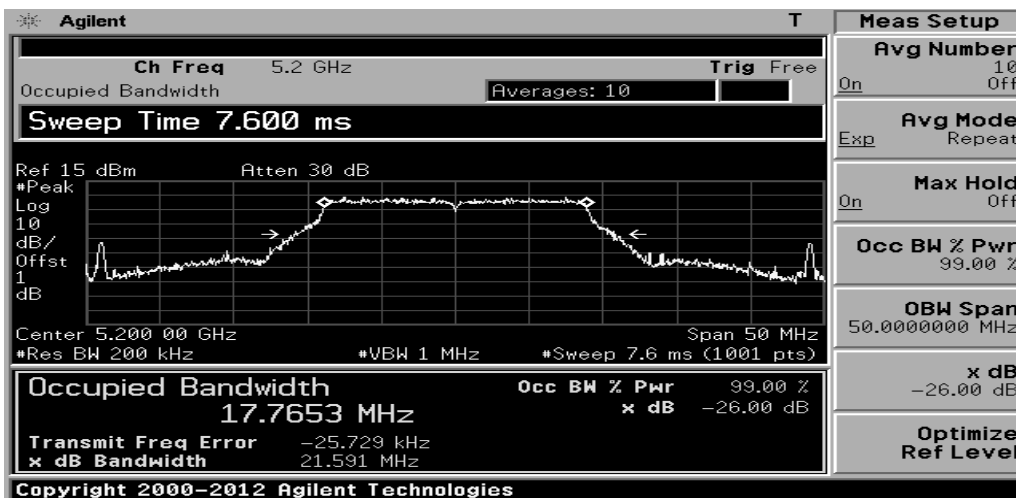
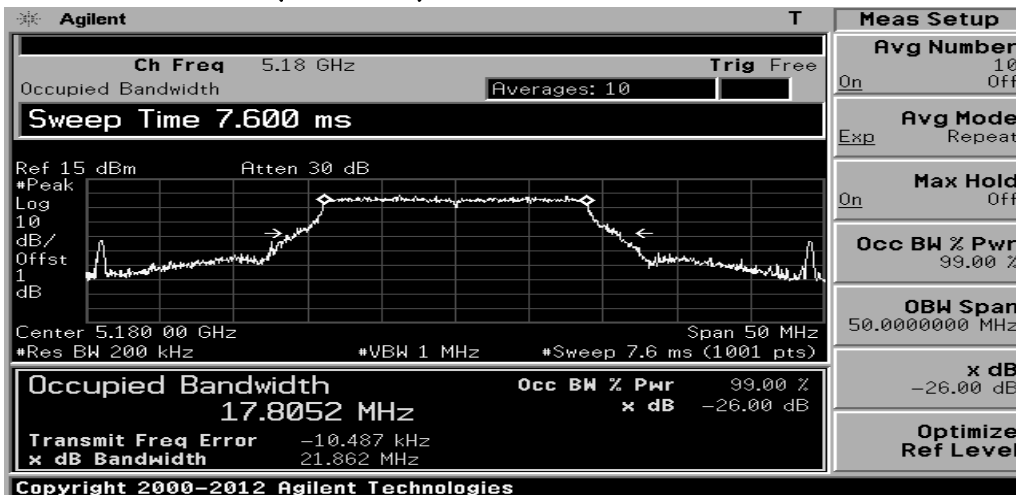
## 802.11a (U-NII 2A)



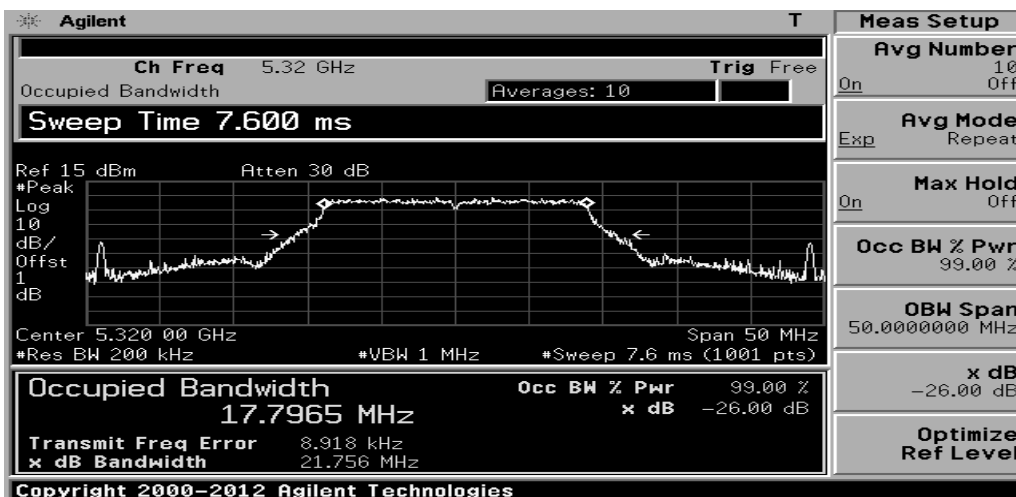
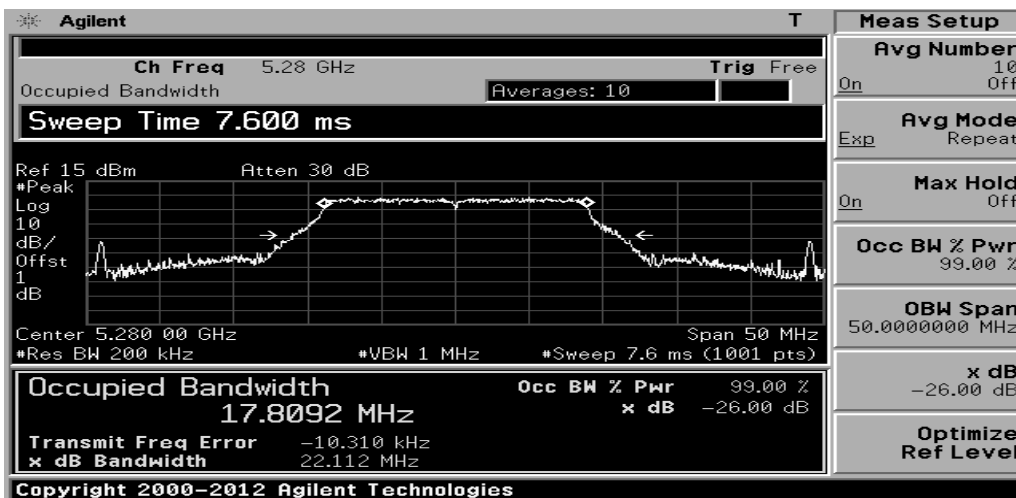
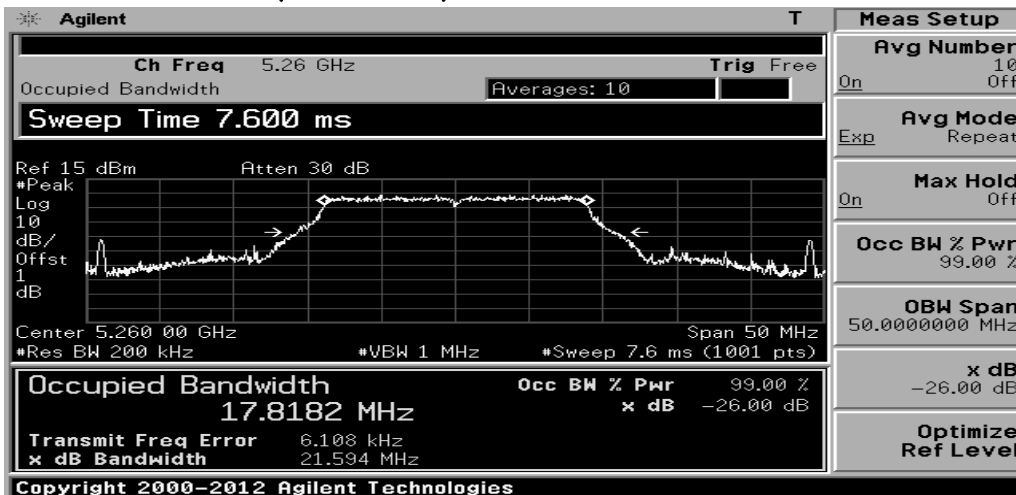
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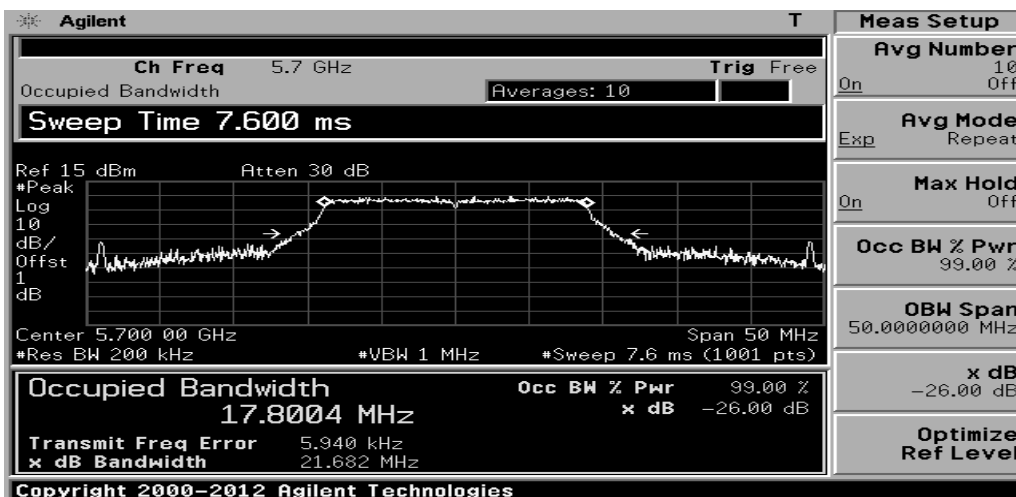
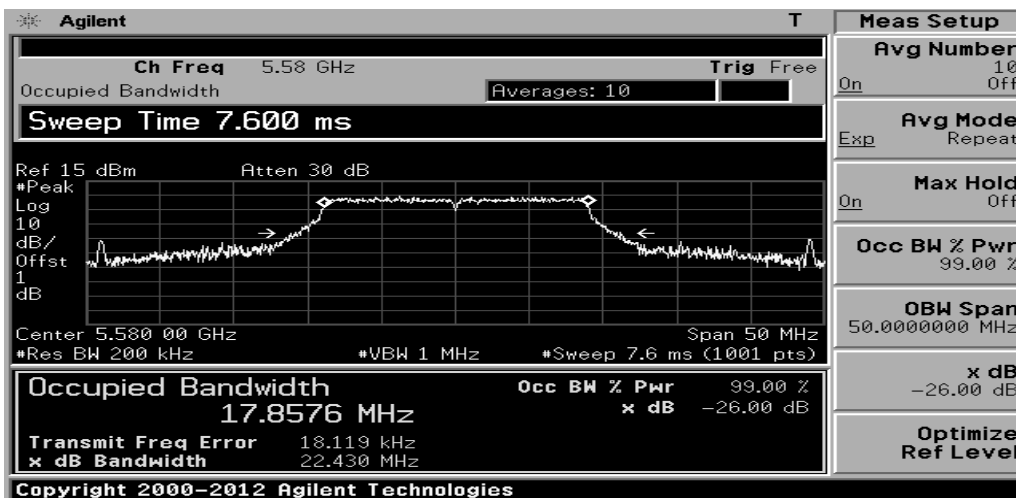
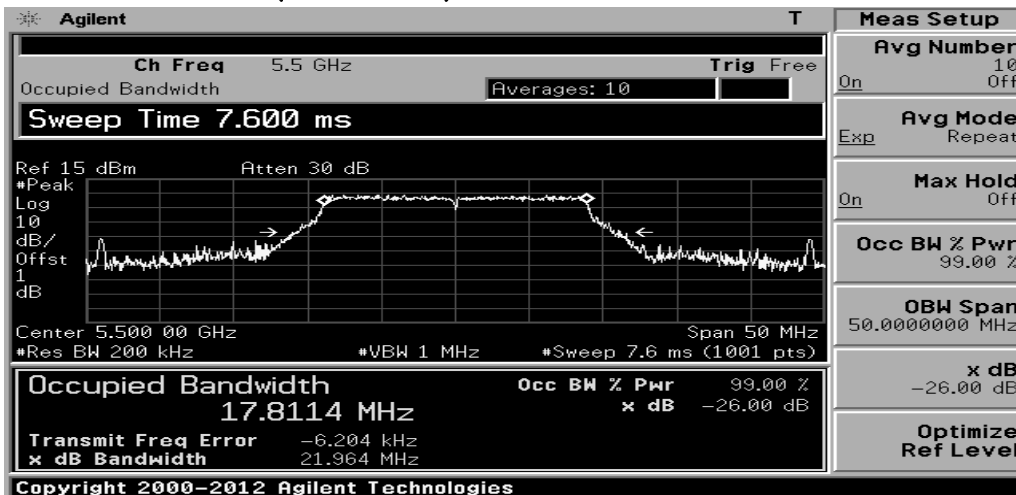
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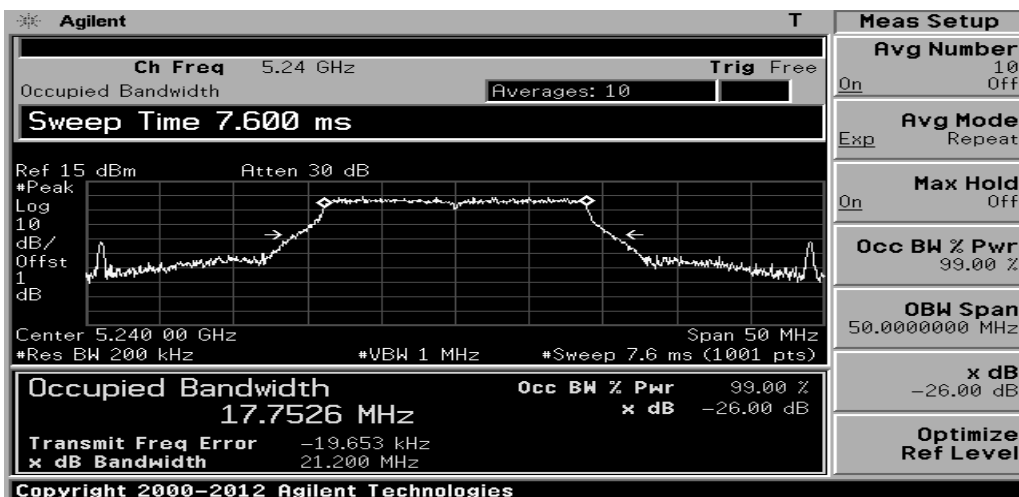
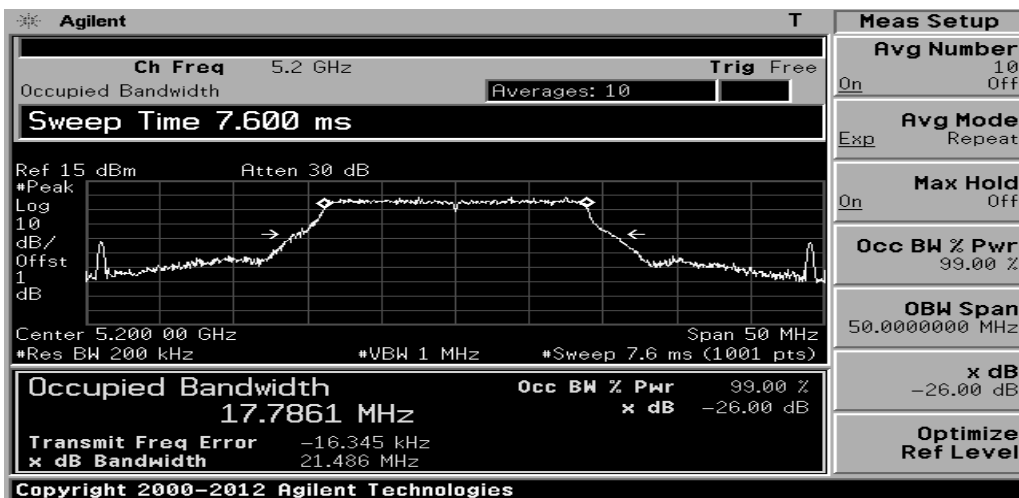
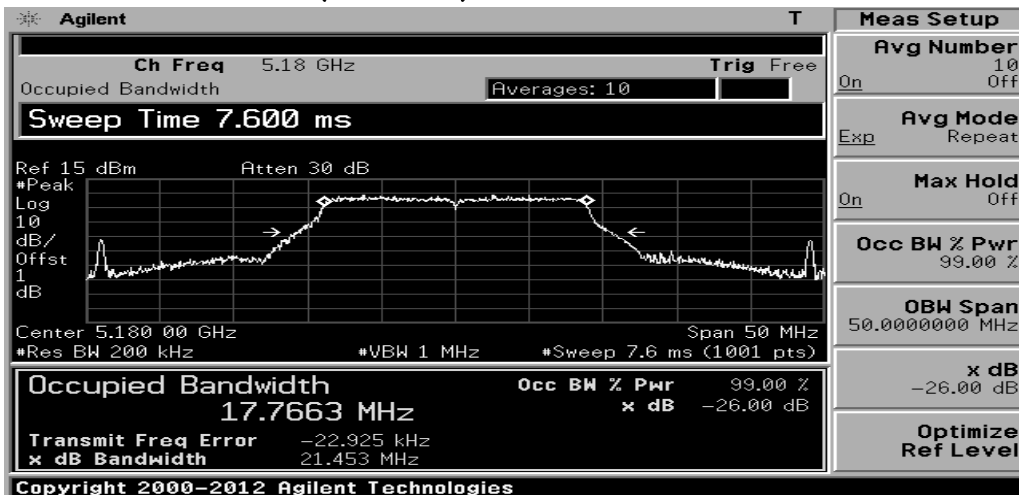
## 802.11n HT20 (U-NII 2A)



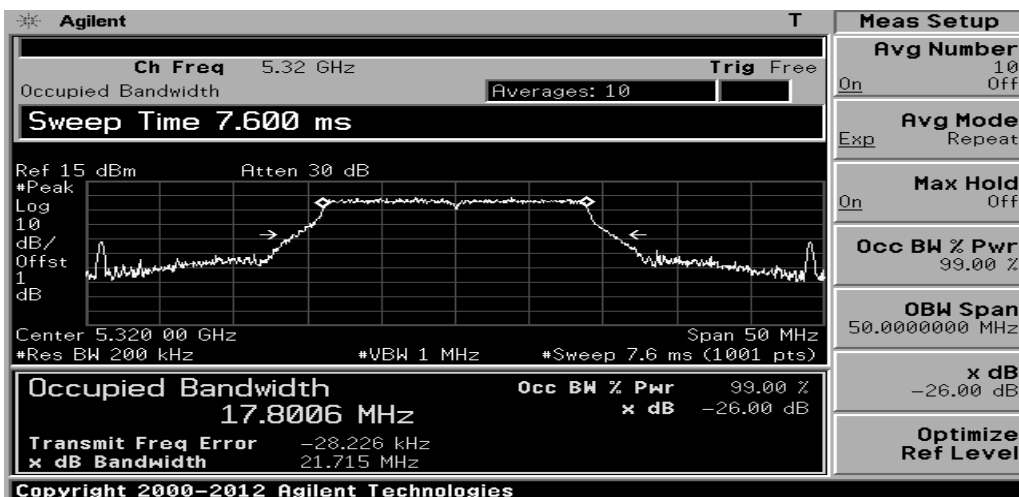
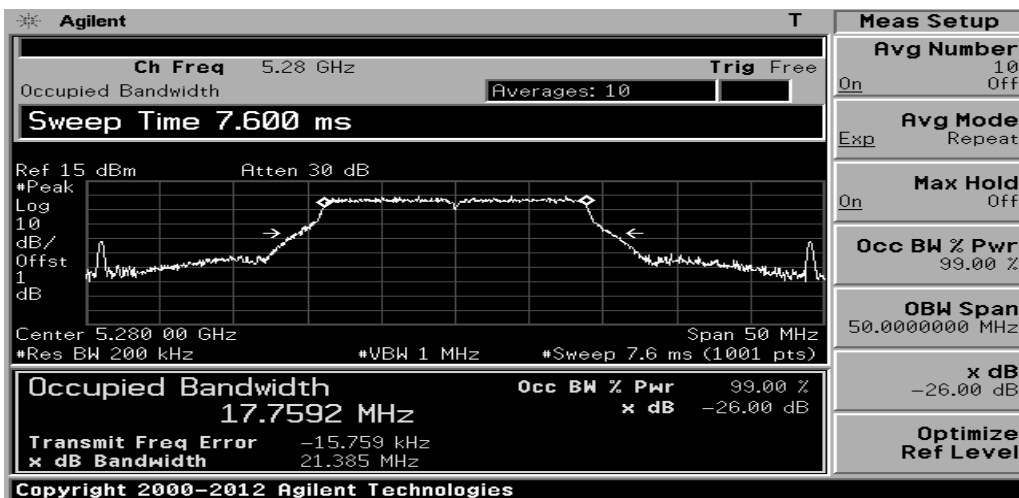
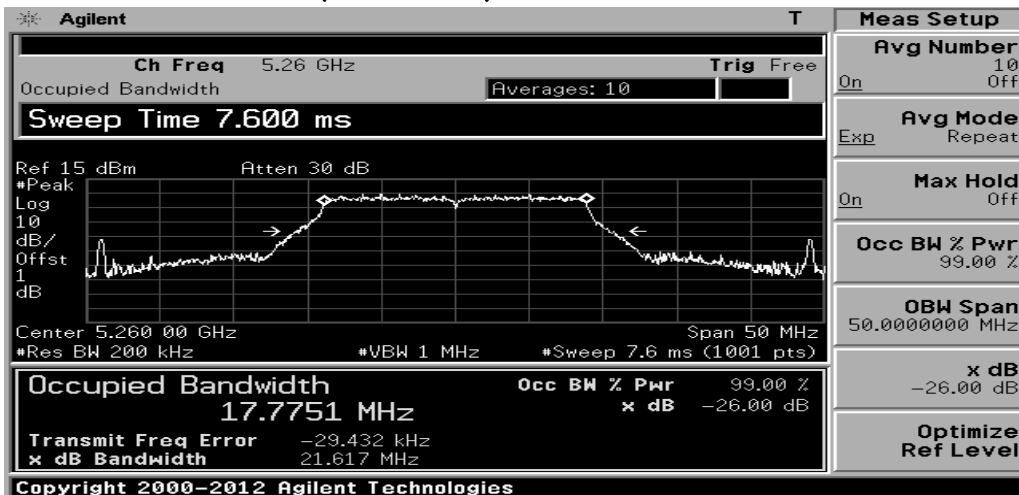
## 802.11n HT20 (U-NII 2C)



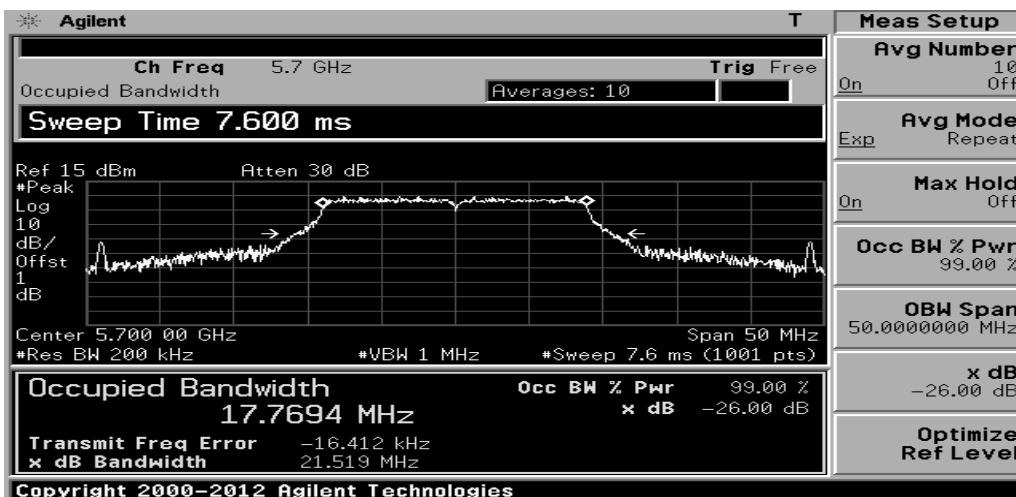
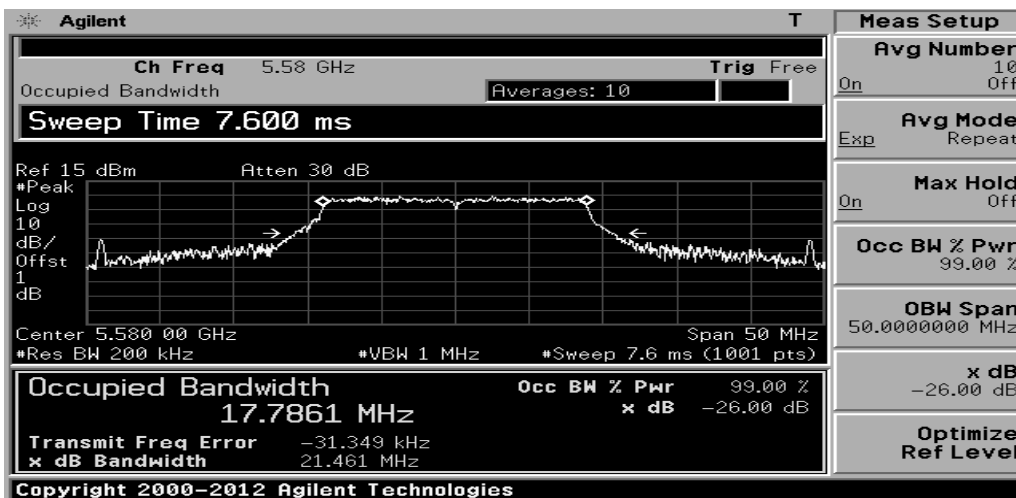
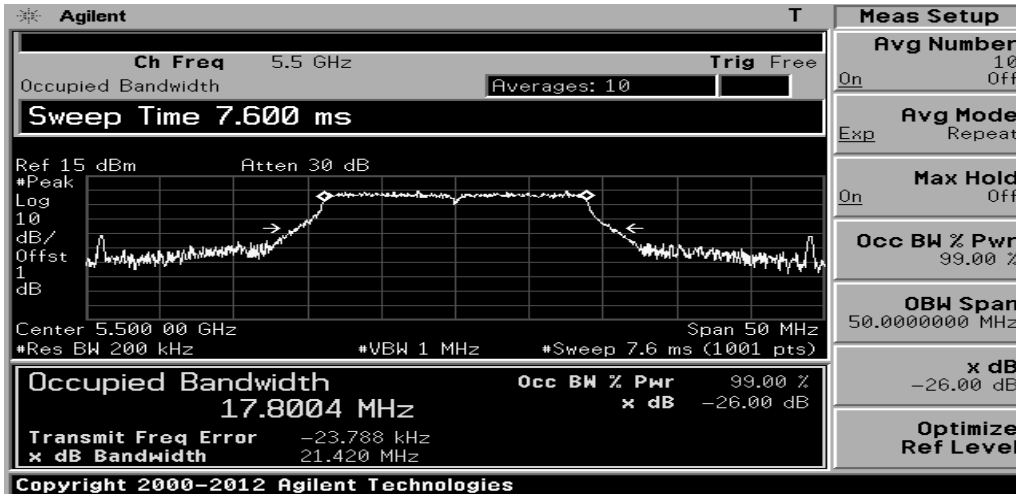
## 802.11ac VHT20 (U-NII 1)



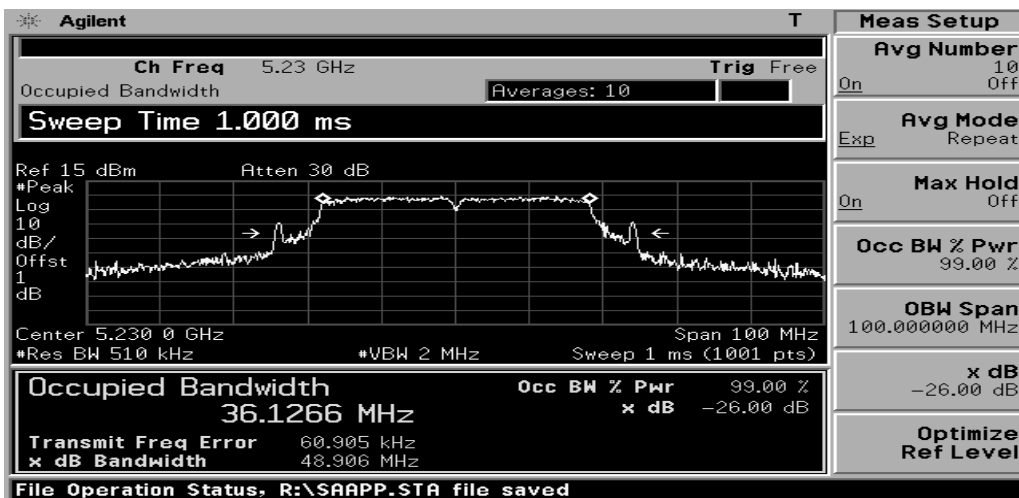
## 802.11ac VHT20 (U-NII 2A)



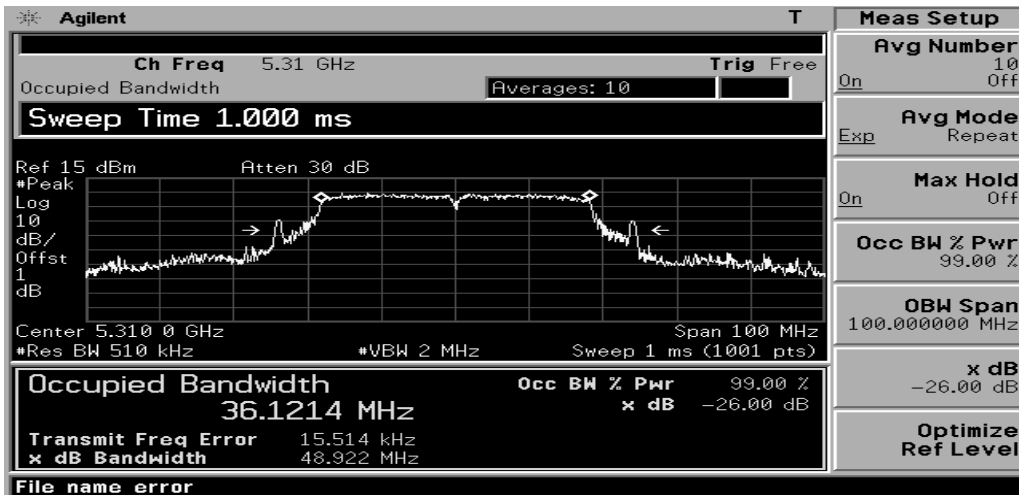
## 802.11ac VHT20 (U-NII 2C)



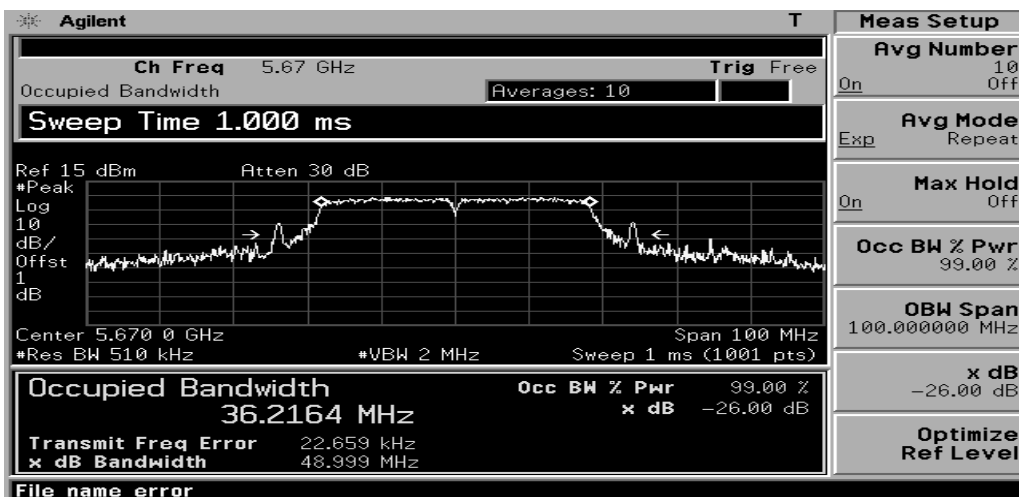
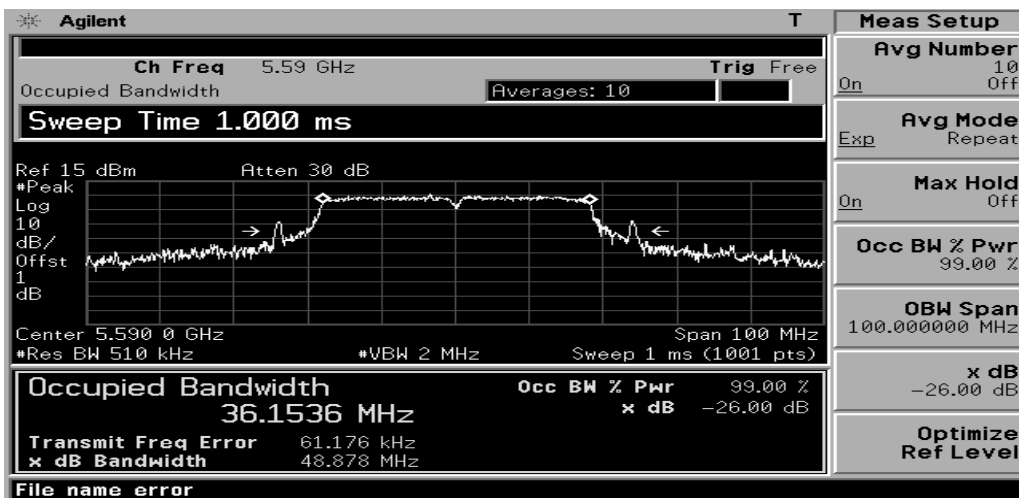
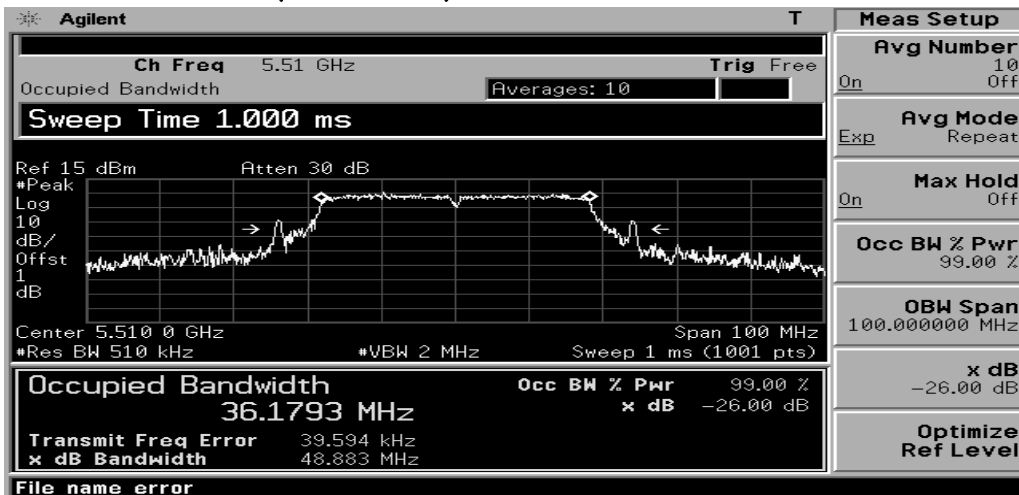
## 802.11n HT40 (U-NII 1)



## 802.11n HT40 (U-NII 2A)



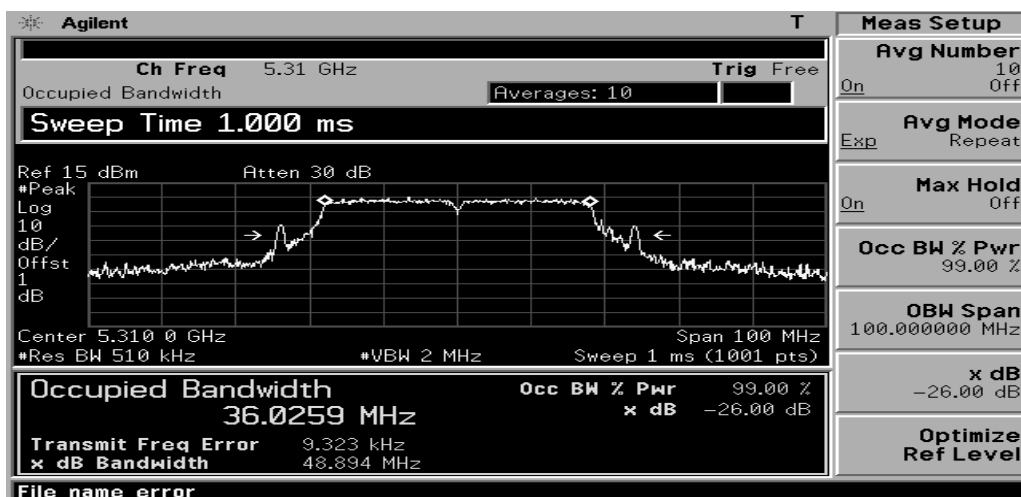
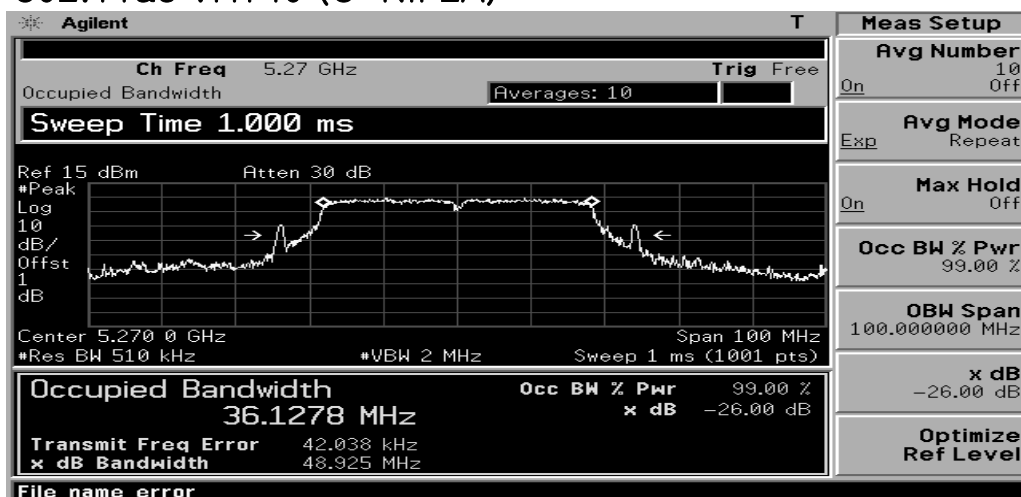
## 802.11n HT40 (U-NII 2C)



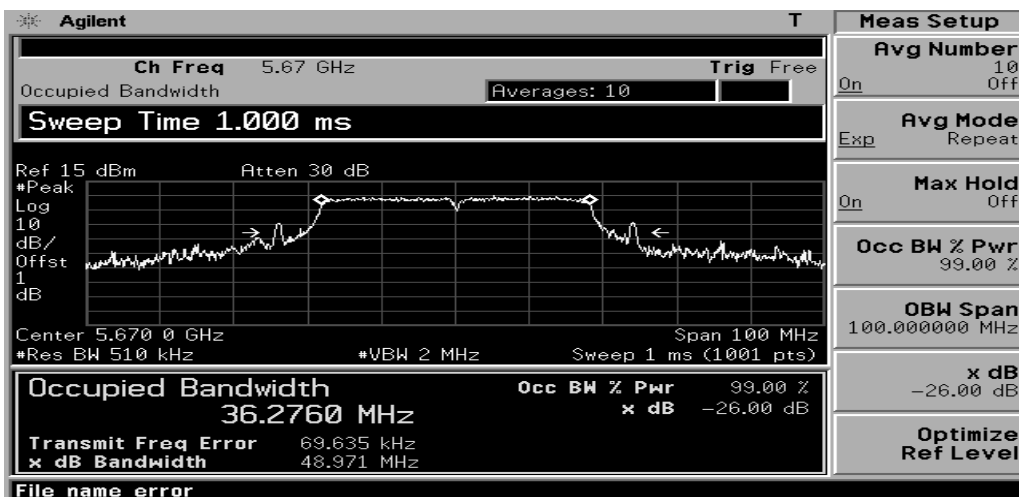
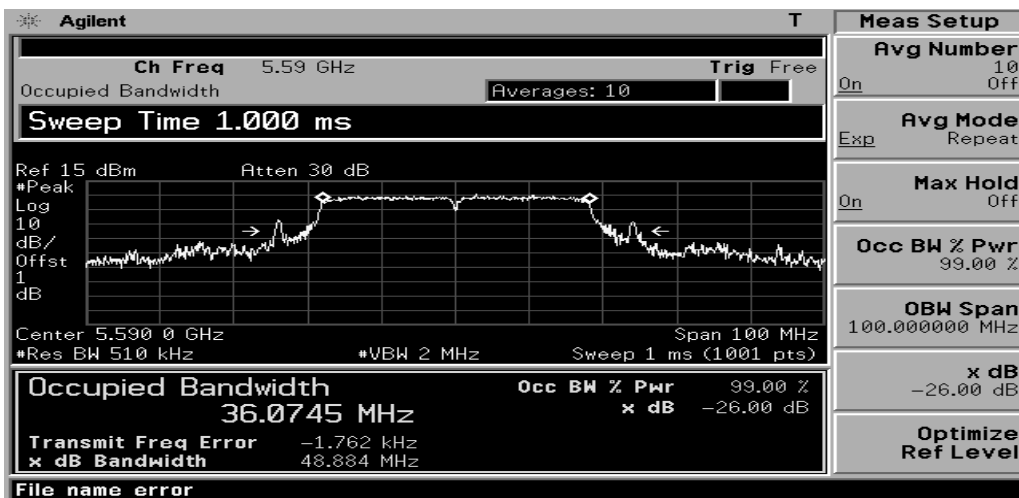
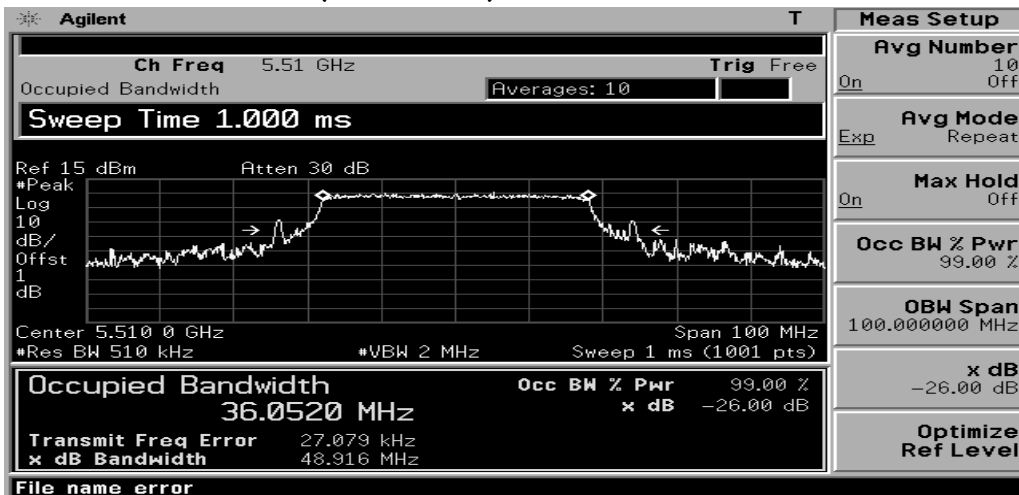
## 802.11ac VHT40 (U-NII 1)



## 802.11ac VHT40 (U-NII 2A)



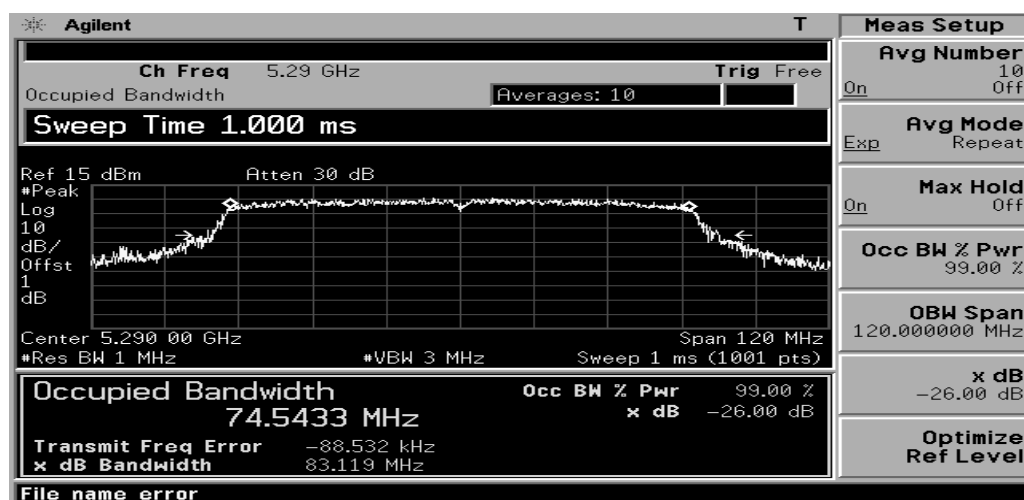
## 802.11ac VHT40 (U-NII 2C)



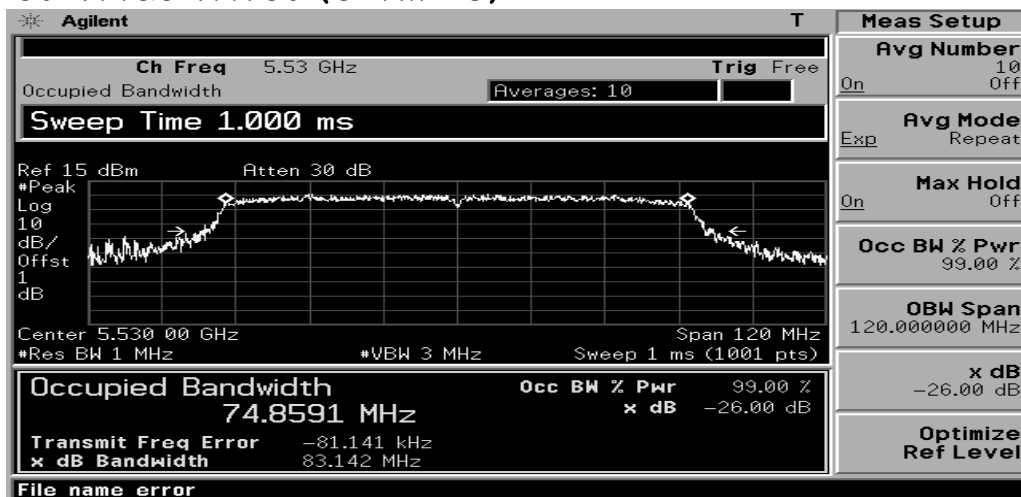
## 802.11ac VHT80 (U-NII 1)



## 802.11ac VHT80 (U-NII 2A)



## 802.11ac VHT80 (U-NII 2C)



## 6. Minimum Emission Bandwidth ( 6 dB Bandwidth )

### 6.1 Test procedure

Acordding to 789033 D02 Meas Guidance

### 6.2 Test instruments and measurement setup

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW)  $\geq 3 * \text{RBW}$ .
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

#### 6dB Bandwidth Test Instruments

| Description       | Model  | Serial Number | Cal. Due Date |
|-------------------|--------|---------------|---------------|
| Spectrum Analyzer | E4440A | US42041291    | 2021-12-01    |
| Gignal Analyzer   | FSV40  | 100939        | 2021-12-01    |

### 6.3 Measurement results

#### MODE – 802.11a

| BAND    | Channel Frequency (MHz) | Bandwidth at 6dB below(MHz) | Limit (MHz) | PASS/FAIL |
|---------|-------------------------|-----------------------------|-------------|-----------|
| U-NII 3 | 5 745                   | 16.34                       | 0.50        | PASS      |
|         | 5 785                   | 16.57                       | 0.50        | PASS      |
|         | 5 825                   | 16.38                       | 0.50        | PASS      |

#### MODE – 802.11n (HT20)

| BAND    | Channel Frequency (MHz) | Bandwidth at 26dB below(MHz) | Limit (MHz) | PASS/FAIL |
|---------|-------------------------|------------------------------|-------------|-----------|
| U-NII 3 | 5 745                   | 17.54                        | 0.50        | PASS      |
|         | 5 785                   | 17.77                        | 0.50        | PASS      |
|         | 5 825                   | 17.60                        | 0.50        | PASS      |



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MODE – 802.11n (HT40)

| BAND    | Channel Frequency (MHz) | Bandwidth at 26dB below(MHz) | Limit (MHz) | PASS/FAIL |
|---------|-------------------------|------------------------------|-------------|-----------|
| U-NII 3 | 5 755                   | 35.04                        | 0.50        | PASS      |
|         | 5 795                   | 35.13                        | 0.50        | PASS      |

MODE – 802.11ac (VHT20)

| BAND    | Channel Frequency (MHz) | Bandwidth at 26dB below(MHz) | Limit (MHz) | PASS/FAIL |
|---------|-------------------------|------------------------------|-------------|-----------|
| U-NII 3 | 5 745                   | 17.61                        | 0.50        | PASS      |
|         | 5 785                   | 17.64                        | 0.50        | PASS      |
|         | 5 825                   | 17.57                        | 0.50        | PASS      |

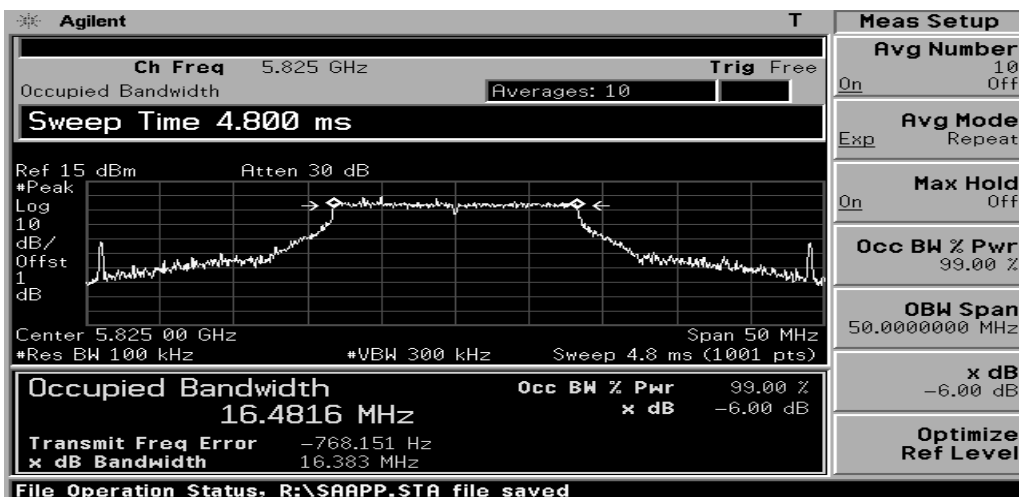
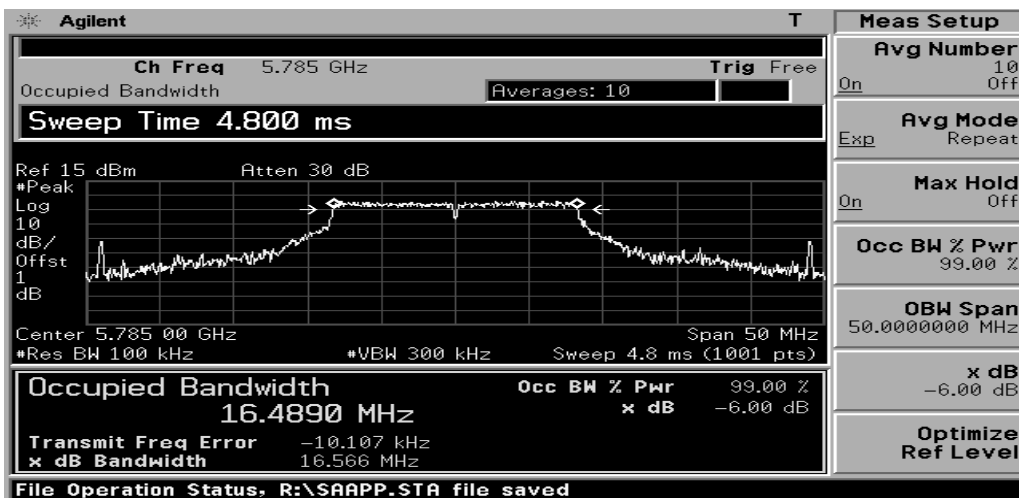
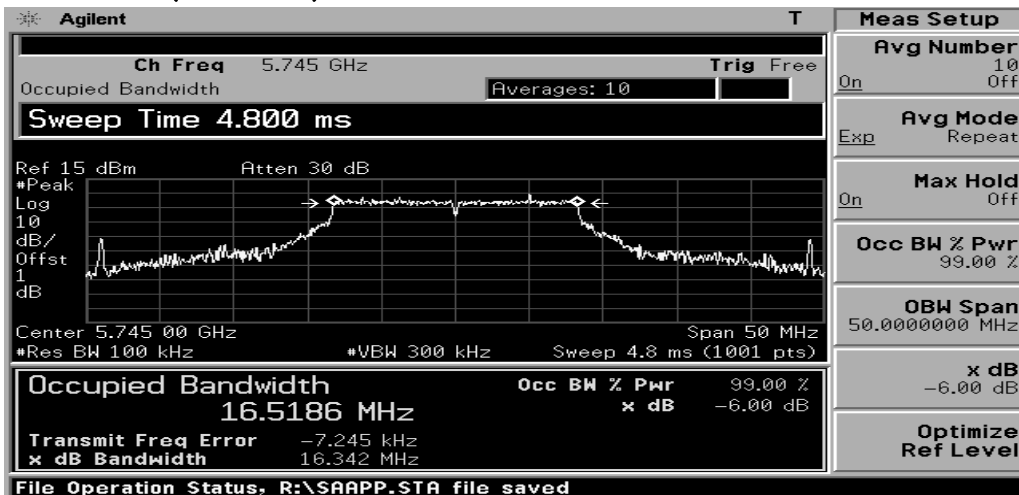
MODE – 802.11ac (VHT40)

| BAND    | Channel Frequency (MHz) | Bandwidth at 26dB below(MHz) | Limit (MHz) | PASS/FAIL |
|---------|-------------------------|------------------------------|-------------|-----------|
| U-NII 3 | 5 755                   | 35.37                        | 0.50        | PASS      |
|         | 5 795                   | 34.54                        | 0.50        | PASS      |

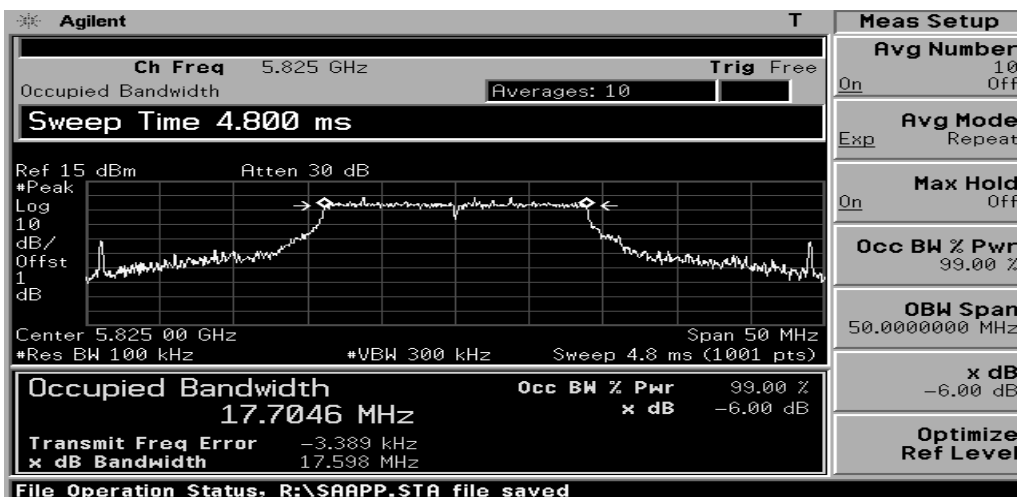
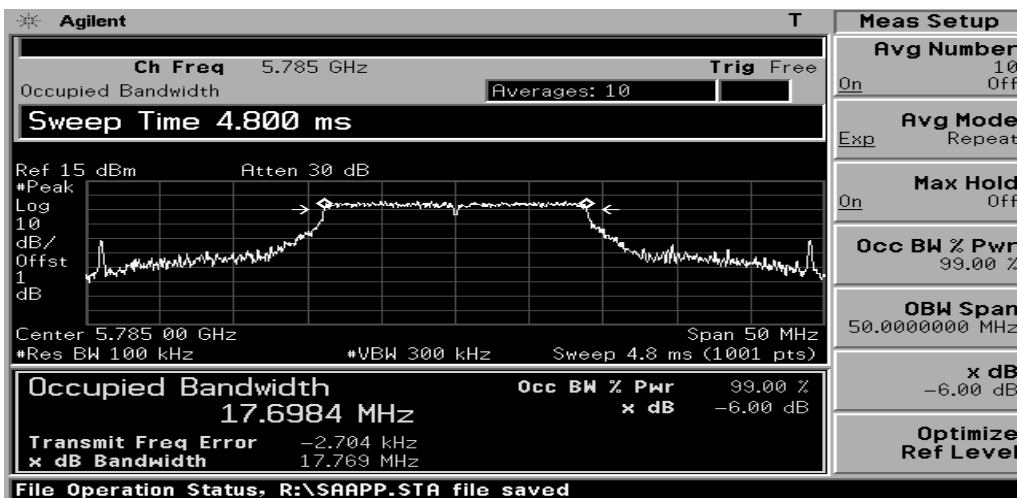
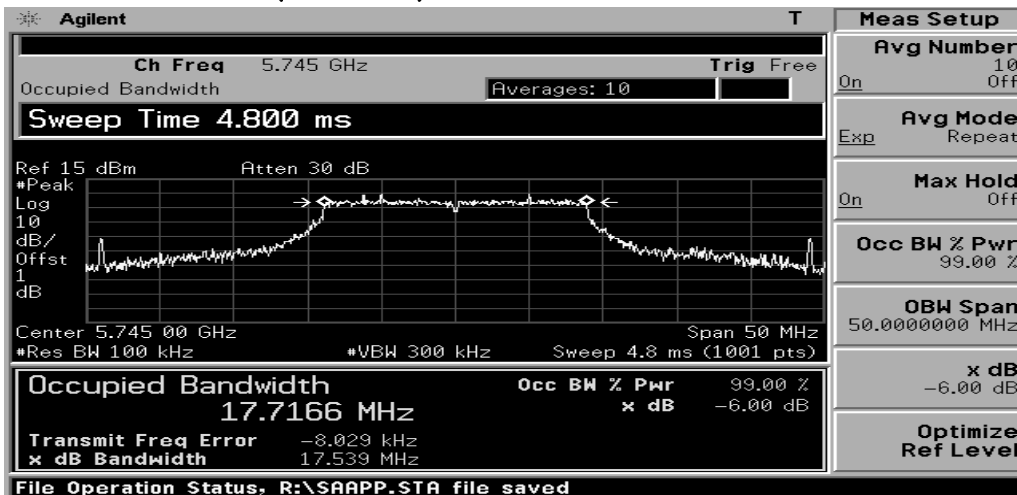
MODE – 802.11ac (VHT80)

| BAND    | Channel Frequency (MHz) | Bandwidth at 26dB below(MHz) | Limit (MHz) | PASS/FAIL |
|---------|-------------------------|------------------------------|-------------|-----------|
| U-NII 3 | 5 775                   | 67.57                        | 0.50        | PASS      |

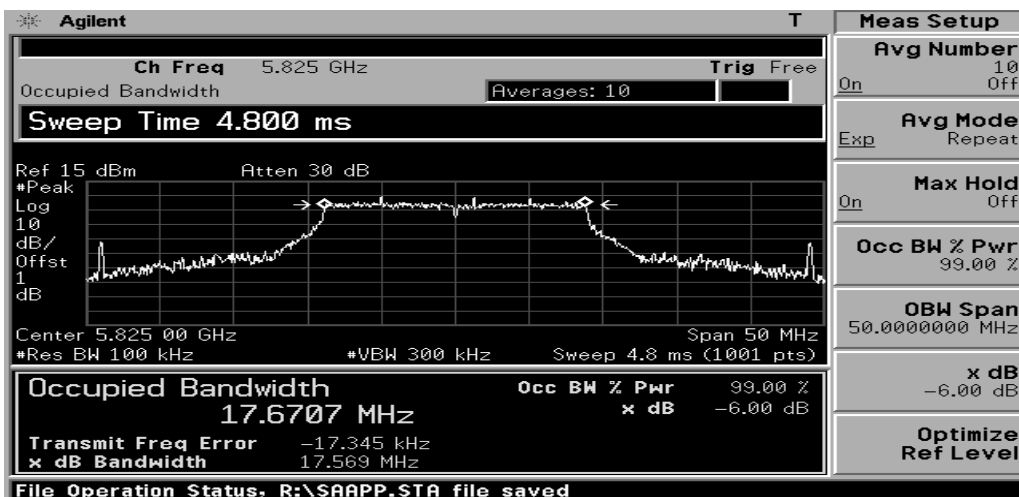
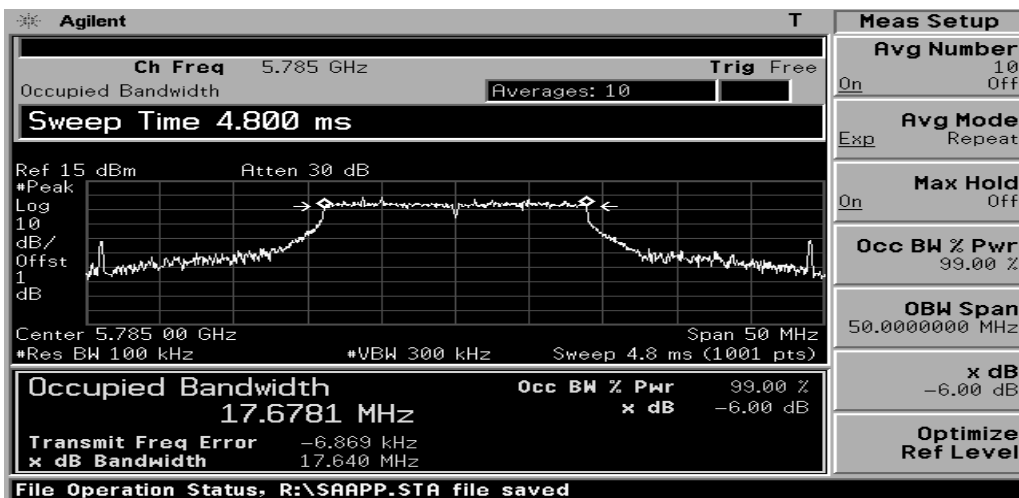
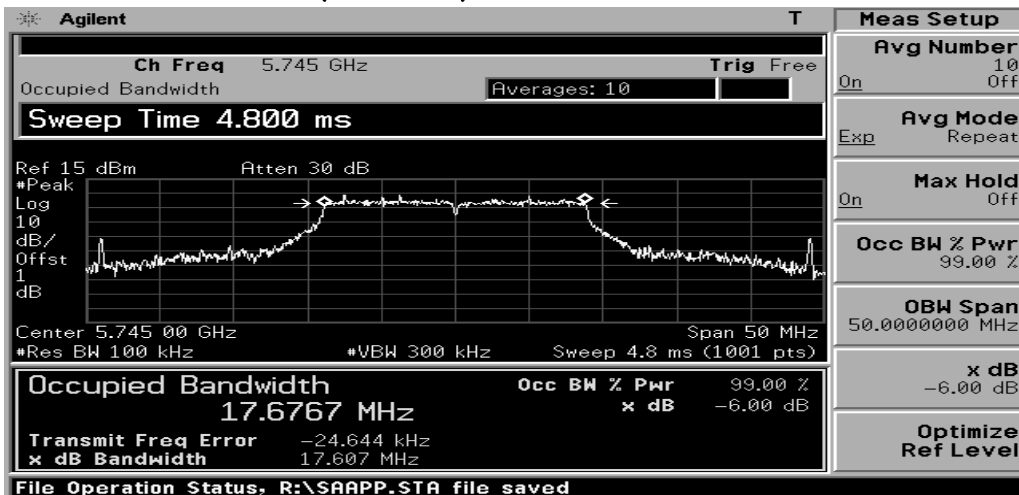
## 802.11a (U-NII 3)



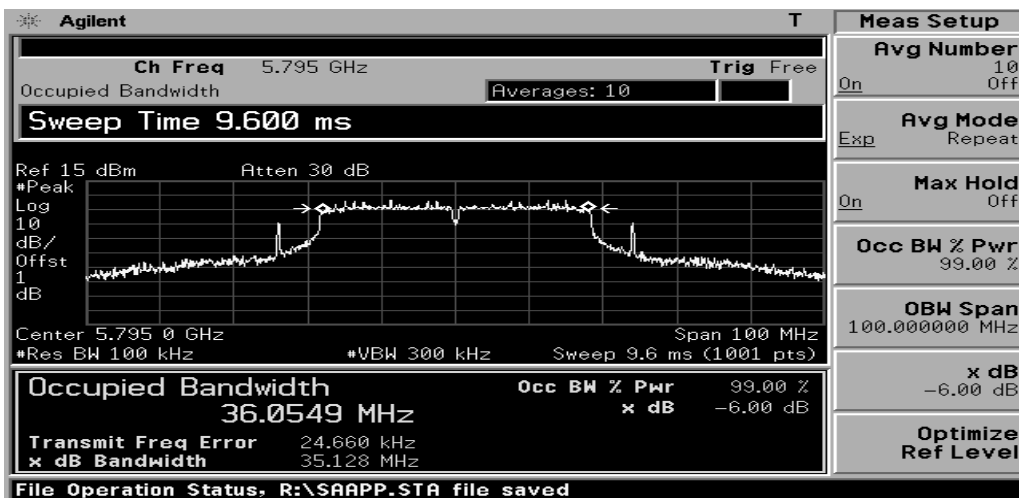
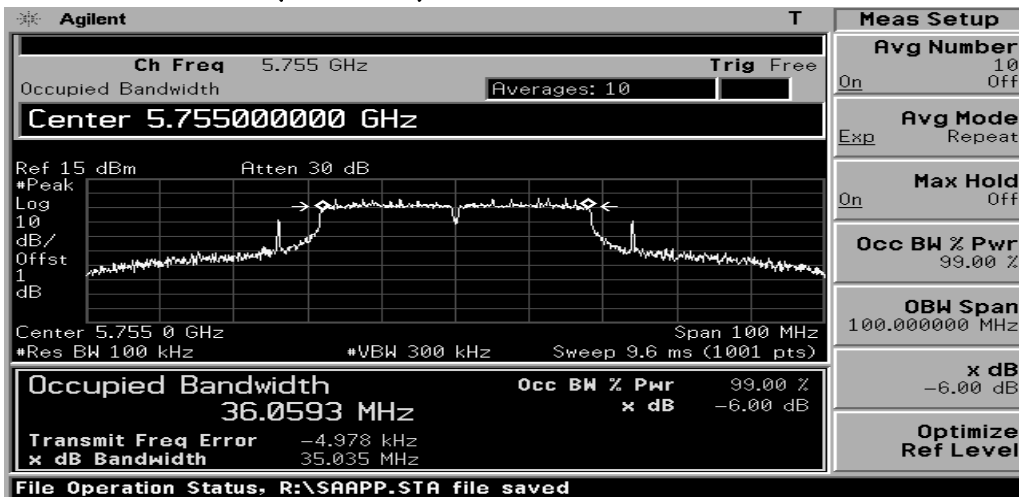
## 802.11n HT20 (U-NII 3)



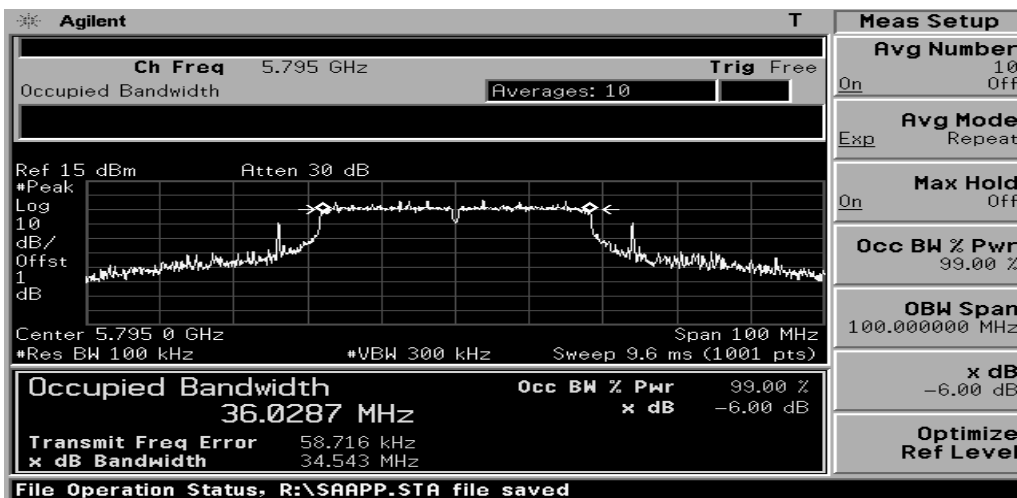
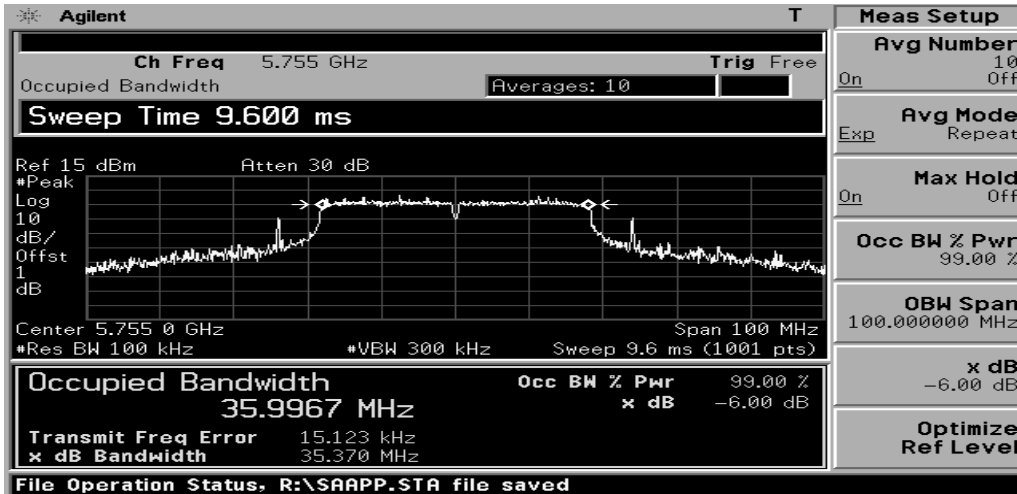
## 802.11ac VHT20 (U-NII 3)



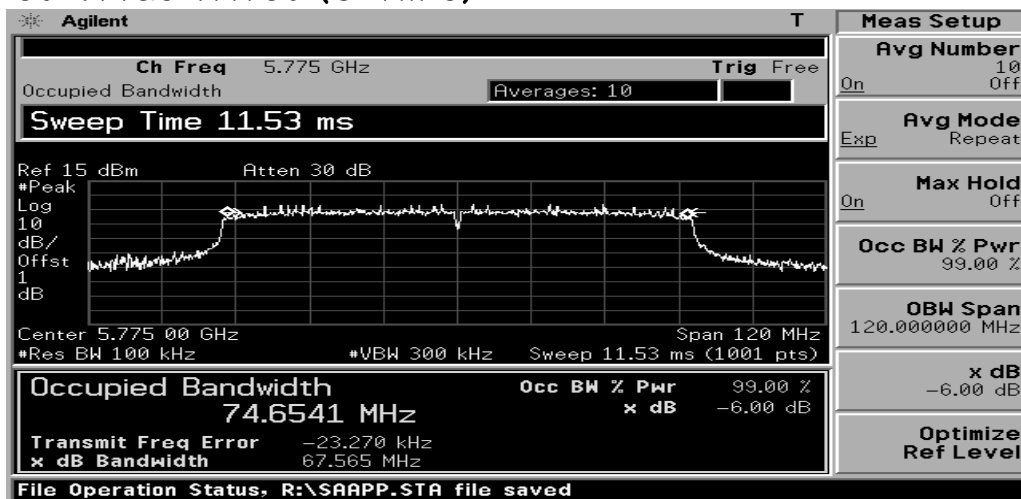
## 802.11n HT40 (U-NII 3)



## 802.11ac VHT40 (U-NII 3)



## 802.11ac VHT80 (U-NII 3)



## 7. Maximum Conducted Output Power

### 7.1 Test procedure

Acordding to 789033 D02 Meas Guidance

### 7.2 Test instruments and measurement setup

a) Method PM (Measurement using an RF average power meter):

(i) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the following conditions are satisfied:

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The EUT is configured to transmit continuously or to transmit with a constant duty cycle.

At all times when the EUT is transmitting, it must be transmitting at its maximum power control level.

The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.

(ii) If the transmitter does not transmit continuously, measure the duty cycle,  $x$ , of the transmitter output signal as described in II.B.

(iii) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.

(iv) Adjust the measurement in dBm by adding  $10 \log (1/x)$  where  $x$  is the duty cycle (e.g.,  $10 \log (1/0.25)$  if the duty cycle is 25%)

b) Method PM-G (Measurement using a gated RF average power meter):

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

| Operation Band | EUT Category |                                   | Limit                                                                                                                        |
|----------------|--------------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| U-NN 1         |              | Outdoor Access Point              | 1 Watt (30 dBm)<br>(Max. e.i.r.p $\leq$ 125 mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon) |
|                |              | Fixed point-to-point Access Point | 1 Watt (30 dBm)                                                                                                              |
|                |              | Indoor Access Point               | 1 Watt (30 dBm)                                                                                                              |
|                | √            | Mobile and Portable client device | 250mW (24 dBm)                                                                                                               |
| U-NII 2A       | √            |                                   | 250mW (24 dBm) or $11 \text{ dBm} + 10 \log B^*$                                                                             |
| U-NII 2C       | √            |                                   | 250mW (24 dBm) or $11 \text{ dBm} + 10 \log B^*$                                                                             |
| U-NII 3        | √            |                                   | 1 Watt (30 dBm)                                                                                                              |

### Output Power Test Instruments

| Description  | Model  | Serial Number | Cal. Due Date |
|--------------|--------|---------------|---------------|
| Power Meter  | N1912A | MY45100570    | 2021-12-02    |
| Power Sensor | N1921A | MY45240427    | 2021-12-01    |

## 7.3 Measurement results

### MODE – 802.11a

| MODE     | Channel frequency (MHz) | Conducted Power Output(dBm) | Limit (dBm) | PASS/FAIL |
|----------|-------------------------|-----------------------------|-------------|-----------|
| U-NII 1  | 5 180                   | 13.67                       | 24.00       | PASS      |
|          | 5 200                   | 13.92                       | 24.00       | PASS      |
|          | 5 240                   | 14.13                       | 24.00       | PASS      |
| U-NII 2A | 5 260                   | 14.12                       | 24.00       | PASS      |
|          | 5 280                   | 14.18                       | 24.00       | PASS      |
|          | 5 320                   | 14.20                       | 24.00       | PASS      |
| U-NII 2C | 5 500                   | 13.87                       | 24.00       | PASS      |
|          | 5 580                   | 13.85                       | 24.00       | PASS      |
|          | 5 700                   | 13.86                       | 24.00       | PASS      |
| U-NII 3  | 5 745                   | 14.08                       | 30.00       | PASS      |
|          | 5 785                   | 13.95                       | 30.00       | PASS      |
|          | 5 825                   | 13.91                       | 30.00       | PASS      |

### MODE – 802.11n HT20

| MODE     | Channel frequency (MHz) | Conducted Power Output(dBm) | Limit (dBm) | PASS/FAIL |
|----------|-------------------------|-----------------------------|-------------|-----------|
| U-NII 1  | 5 180                   | 12.98                       | 24.00       | PASS      |
|          | 5 200                   | 12.80                       | 24.00       | PASS      |
|          | 5 240                   | 12.90                       | 24.00       | PASS      |
| U-NII 2A | 5 260                   | 12.89                       | 24.00       | PASS      |
|          | 5 280                   | 12.86                       | 24.00       | PASS      |
|          | 5 320                   | 12.93                       | 24.00       | PASS      |
| U-NII 2C | 5 500                   | 11.88                       | 24.00       | PASS      |
|          | 5 580                   | 11.89                       | 24.00       | PASS      |
|          | 5 700                   | 11.92                       | 24.00       | PASS      |
| U-NII 3  | 5 745                   | 11.90                       | 30.00       | PASS      |
|          | 5 785                   | 11.85                       | 30.00       | PASS      |
|          | 5 825                   | 11.84                       | 30.00       | PASS      |

**MODE – 802.11ac VHT20**

| MODE     | Channel frequency (MHz) | Conducted Power Output(dBm) | Limit (dBm) | PASS/FAIL |
|----------|-------------------------|-----------------------------|-------------|-----------|
| U-NII 1  | 5 180                   | 11.98                       | 24.00       | PASS      |
|          | 5 200                   | 11.92                       | 24.00       | PASS      |
|          | 5 240                   | 11.90                       | 24.00       | PASS      |
| U-NII 2A | 5 260                   | 11.87                       | 24.00       | PASS      |
|          | 5 280                   | 11.86                       | 24.00       | PASS      |
|          | 5 320                   | 11.82                       | 24.00       | PASS      |
| U-NII 2C | 5 500                   | 11.92                       | 24.00       | PASS      |
|          | 5 580                   | 11.95                       | 24.00       | PASS      |
|          | 5 700                   | 11.92                       | 24.00       | PASS      |
| U-NII 3  | 5 745                   | 11.98                       | 30.00       | PASS      |
|          | 5 785                   | 11.92                       | 30.00       | PASS      |
|          | 5 825                   | 11.91                       | 30.00       | PASS      |

**MODE – 802.11n HT40**

| MODE     | Channel frequency (MHz) | Conducted Power Output(dBm) | Limit (dBm) | PASS/FAIL |
|----------|-------------------------|-----------------------------|-------------|-----------|
| U-NII 1  | 5 190                   | 11.90                       | 24.00       | PASS      |
|          | 5 230                   | 11.89                       | 24.00       | PASS      |
| U-NII 2A | 5 270                   | 11.87                       | 24.00       | PASS      |
|          | 5 310                   | 11.93                       | 24.00       | PASS      |
| U-NII 2C | 5 510                   | 11.95                       | 24.00       | PASS      |
|          | 5 590                   | 11.97                       | 24.00       | PASS      |
|          | 5 670                   | 11.89                       | 24.00       | PASS      |
| U-NII 3  | 5 755                   | 11.92                       | 30.00       | PASS      |
|          | 5 795                   | 11.90                       | 30.00       | PASS      |

**MODE – 802.11ac VHT40**

| MODE     | Channel frequency (MHz) | Conducted Power Output(dBm) | Limit (dBm) | PASS/FAIL |
|----------|-------------------------|-----------------------------|-------------|-----------|
| U-NII 1  | 5 190                   | 11.88                       | 24.00       | PASS      |
|          | 5 230                   | 11.98                       | 24.00       | PASS      |
| U-NII 2A | 5 270                   | 11.92                       | 24.00       | PASS      |
|          | 5 310                   | 11.91                       | 24.00       | PASS      |
| U-NII 2C | 5 510                   | 11.83                       | 24.00       | PASS      |
|          | 5 590                   | 11.84                       | 24.00       | PASS      |
|          | 5 670                   | 11.88                       | 24.00       | PASS      |
| U-NII 3  | 5 755                   | 11.87                       | 24.00       | PASS      |
|          | 5 795                   | 11.93                       | 24.00       | PASS      |

MODE – 802.11ac VHT80

| MODE     | Channel requency (MHz) | Conducted Power Output(dBm) | Limt (dBm) | PASS/FAIL |
|----------|------------------------|-----------------------------|------------|-----------|
| U-NII 1  | 5 210                  | 11.92                       | 24.00      | PASS      |
| U-NII 2A | 5 290                  | 11.97                       | 24.00      | PASS      |
| U-NII 2C | 5 530                  | 11.89                       | 24.00      | PASS      |
|          | 5 610                  | 11.91                       | 24.00      | PASS      |
| U-NII 3  | 5 775                  | 11.90                       | 24.00      | PASS      |

## 8. Maximum power spectral density

### 8.1 Test procedure

Acordding to 789033 D02 Meas Guidance

### 9.2 Test instruments and measurement setup

#### F. Maximum Power Spectral Density (PSD)

The rules requires “maximum power spectral density” measurements where the intent is to measure the maximum value of the time average of the power spectral density measured during a period of continuous transmission. Refer to III.A for additional guidance for devices that use channel aggregation.

1. Create an average power spectrum for the EUT operating mode being tested by following the instructions in II.E.2. for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the appropriate test method (SA-1, SA-2, SA-3, or alternatives to each) and apply it up to, but not including, the step labeled, “Compute power...” (This procedure is required even if the maximum conducted output power measurement was performed using a power meter, method PM.)
2. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
3. Make the following adjustments to the peak value of the spectrum, if applicable:
  - a) If Method SA-2 or SA-2 Alternative was used, add  $10 \log (1/x)$ , where  $x$  is the duty cycle, to the peak of the spectrum.
  - b) If Method SA-3 Alternative was used and the linear mode was used in II.E.2.g)(viii), add 1 dB to the final result to compensate for the difference between linear averaging and power averaging.
4. The result is the Maximum PSD over 1 MHz reference bandwidth.
5. For devices operating in the bands 5.15–5.25 GHz, 5.25–5.35 GHz, and 5.47–5.725 GHz, the preceding procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in Section 15.407(a)(5). For devices operating in the band 5.725–5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth ( $< 1$  MHz, or  $< 500$  kHz) and integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures apply:
  - a) Set  $RBW \geq 1/T$ , where  $T$  is defined in II.B.I.a).
  - b) Set  $VBW \geq 3$  RBW.
  - c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add  $10 \log (500 \text{ kHz}/RBW)$  to the measured result, whereas  $RBW (< 500 \text{ kHz})$  is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
  - d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add  $10 \log (1\text{MHz}/RBW)$  to the measured result, whereas  $RBW (< 1 \text{ MHz})$  is the reduced resolution bandwidth of spectrum analyzer set during measurement.
  - e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 100 kHz for the II.F.5.c) and II.F.5.d), since  $RBW=100 \text{ kHz}$  is available on nearly all spectrum analyzers.

| Operation Band | EUT Category |                                   | Limit          |
|----------------|--------------|-----------------------------------|----------------|
| U-NN 1         |              | Outdoor Access Point              | 17 dBm/ MHz    |
|                |              | Fixed point-to-point Access Point |                |
|                |              | Indoor Access Point               |                |
|                | √            | Mobile and Portable client device | 11 dBm/ MHz    |
| U-NII 2A       | √            |                                   | 11 dBm/ MHz    |
| U-NII 2C       | √            |                                   | 11 dBm/ MHz    |
| U-NII 3        | √            |                                   | 30 dBm/500 kHz |

### Output Power Test Instruments

| Description       | Model  | Serial Number | Cal. Due Date |
|-------------------|--------|---------------|---------------|
| Spectrum Analyzer | E4440A | US42041291    | 2021-12-01    |
| Signal Analyzer   | FSV40  | 100939        | 2021-12-01    |

## 8.3 Measurement results

### MODE – 802.11a

| MODE     | Channel frequency (MHz) | PSD w/o Factor (dBm/ MHz) | Factor | Total PSD (dBm/ MHz) | Limit (dBm/ MHz) | PASS/FAIL |
|----------|-------------------------|---------------------------|--------|----------------------|------------------|-----------|
| U-NII 1  | 5 180                   | 2.10                      | 0.74   | 2.84                 | 17.00            | PASS      |
|          | 5 200                   | 1.24                      | 0.74   | 1.98                 | 17.00            | PASS      |
|          | 5 240                   | 2.78                      | 0.74   | 3.52                 | 17.00            | PASS      |
| U-NII 2A | 5 260                   | 3.42                      | 0.74   | 4.16                 | 11.00            | PASS      |
|          | 5 280                   | 2.54                      | 0.74   | 3.28                 | 11.00            | PASS      |
|          | 5 320                   | 2.26                      | 0.74   | 3.00                 | 11.00            | PASS      |
| U-NII 2C | 5 500                   | 3.51                      | 0.74   | 4.25                 | 11.00            | PASS      |
|          | 5 580                   | 3.51                      | 0.74   | 4.25                 | 11.00            | PASS      |
|          | 5 700                   | 4.68                      | 0.74   | 5.42                 | 11.00            | PASS      |
| U-NII 3  | 5 745                   | 3.70                      | 0.74   | 4.44                 | 33.01            | PASS      |
|          | 5 785                   | 3.69                      | 0.74   | 4.43                 | 33.01            | PASS      |
|          | 5 825                   | 3.56                      | 0.74   | 4.30                 | 33.01            | PASS      |

### MODE – 802.11n HT20

| MODE     | Channel frequency (MHz) | PSD w/o Factor (dBm/ MHz) | Factor | Total PSD (dBm/ MHz) | Limit (dBm) | PASS/FAIL |
|----------|-------------------------|---------------------------|--------|----------------------|-------------|-----------|
| U-NII 1  | 5 180                   | 1.96                      | 0.74   | 2.70                 | 17.00       | PASS      |
|          | 5 200                   | 1.90                      | 0.74   | 2.65                 | 17.00       | PASS      |
|          | 5 240                   | 2.14                      | 0.74   | 2.88                 | 17.00       | PASS      |
| U-NII 2A | 5 260                   | 2.22                      | 0.74   | 2.96                 | 11.00       | PASS      |
|          | 5 280                   | 2.95                      | 0.74   | 3.69                 | 11.00       | PASS      |
|          | 5 320                   | 1.60                      | 0.74   | 2.34                 | 11.00       | PASS      |
| U-NII 2C | 5 500                   | 3.24                      | 0.74   | 3.98                 | 11.00       | PASS      |
|          | 5 580                   | 3.04                      | 0.74   | 3.78                 | 11.00       | PASS      |
|          | 5 700                   | 3.58                      | 0.74   | 4.33                 | 11.00       | PASS      |
| U-NII 3  | 5 745                   | 3.65                      | 0.74   | 4.39                 | 33.01       | PASS      |
|          | 5 785                   | 3.26                      | 0.74   | 4.01                 | 33.01       | PASS      |
|          | 5 825                   | 3.51                      | 0.74   | 4.25                 | 33.01       | PASS      |

**MODE – 802.11ac VHT20**

| MODE     | Channel frequency (MHz) | PSD w/o Factor (dBm/ MHz) | Factor | Total PSD (dBm/ MHz) | Limit (dBm) | PASS/FAIL |
|----------|-------------------------|---------------------------|--------|----------------------|-------------|-----------|
| U-NII 1  | 5 180                   | 2.95                      | 0.78   | 3.73                 | 17.00       | PASS      |
|          | 5 200                   | 2.64                      | 0.78   | 3.43                 | 17.00       | PASS      |
|          | 5 240                   | 3.06                      | 0.78   | 3.84                 | 17.00       | PASS      |
| U-NII 2A | 5 260                   | 3.18                      | 0.78   | 3.96                 | 11.00       | PASS      |
|          | 5 280                   | 3.24                      | 0.78   | 4.02                 | 11.00       | PASS      |
|          | 5 320                   | 2.95                      | 0.78   | 3.73                 | 11.00       | PASS      |
| U-NII 2C | 5 500                   | 3.56                      | 0.78   | 4.34                 | 11.00       | PASS      |
|          | 5 580                   | 3.68                      | 0.78   | 4.46                 | 11.00       | PASS      |
|          | 5 700                   | 3.75                      | 0.78   | 4.53                 | 11.00       | PASS      |
| U-NII 3  | 5 745                   | 3.64                      | 0.78   | 4.42                 | 33.01       | PASS      |
|          | 5 785                   | 3.75                      | 0.78   | 4.53                 | 33.01       | PASS      |
|          | 5 825                   | 3.79                      | 0.78   | 4.57                 | 33.01       | PASS      |

**MODE – 802.11n HT40**

| MODE     | Channel frequency (MHz) | PSD w/o Factor (dBm/ MHz) | Factor | Total PSD (dBm/ MHz) | Limit (dBm) | PASS/FAIL |
|----------|-------------------------|---------------------------|--------|----------------------|-------------|-----------|
| U-NII 1  | 5 190                   | -0.09                     | 1.47   | 1.38                 | 17.00       | PASS      |
|          | 5 230                   | -0.34                     | 1.47   | 1.13                 | 17.00       | PASS      |
| U-NII 2A | 5 270                   | -0.11                     | 1.47   | 1.36                 | 11.00       | PASS      |
|          | 5 310                   | -0.39                     | 1.47   | 1.08                 | 11.00       | PASS      |
| U-NII 2C | 5 510                   | 0.04                      | 1.47   | 1.51                 | 11.00       | PASS      |
|          | 5 590                   | -0.41                     | 1.47   | 1.06                 | 11.00       | PASS      |
|          | 5 670                   | -0.85                     | 1.47   | 0.61                 | 11.00       | PASS      |
| U-NII 3  | 5 755                   | 0.18                      | 1.47   | 1.65                 | 33.01       | PASS      |
|          | 5 795                   | 0.56                      | 1.47   | 2.03                 | 33.01       | PASS      |

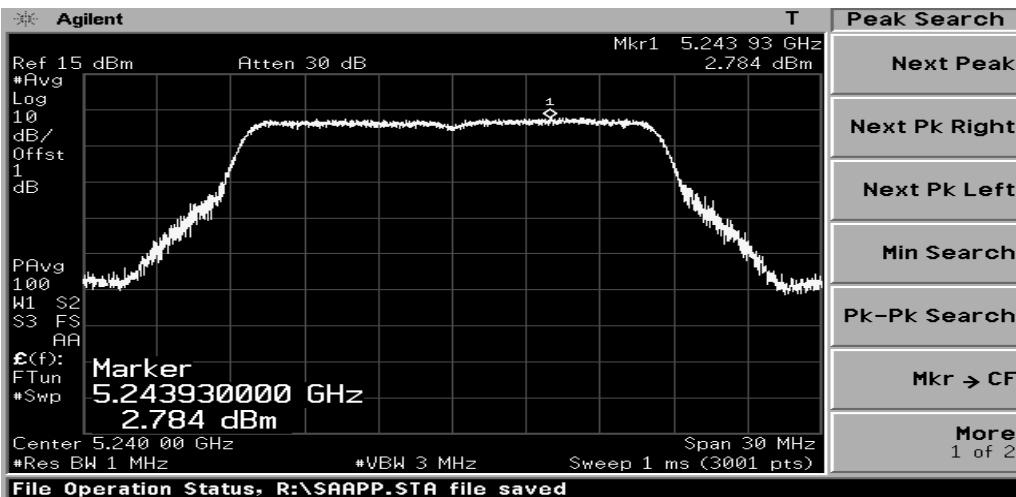
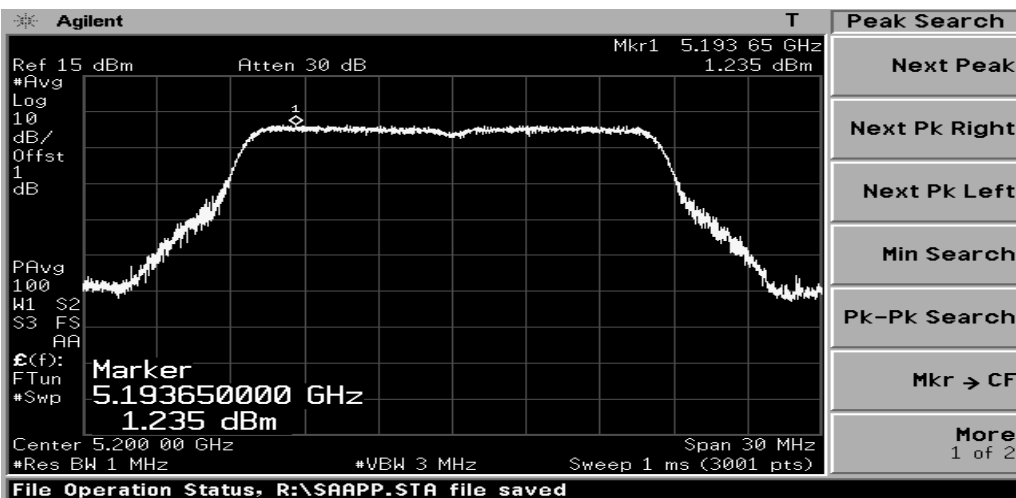
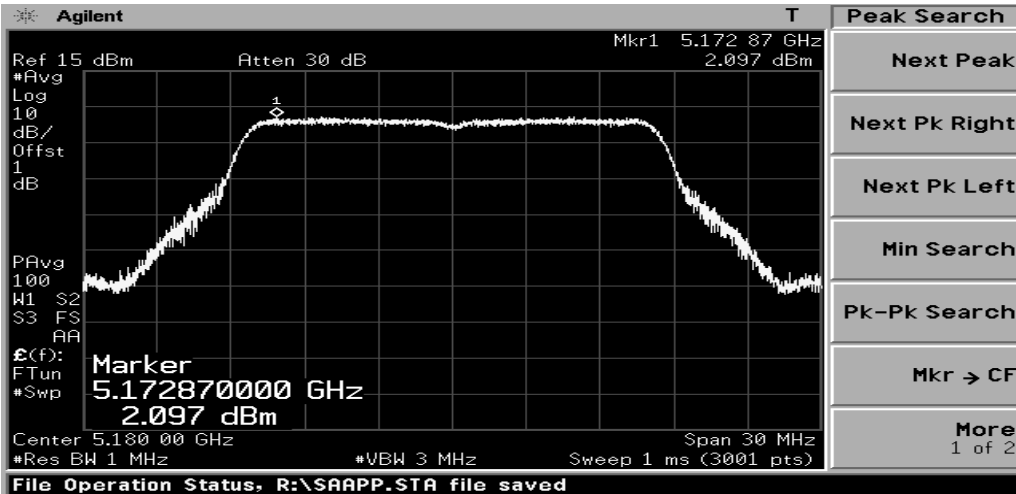
**MODE – 802.11ac VHT40**

| MODE     | Channel frequency (MHz) | PSD w/o Factor (dBm/ MHz) | Factor | Total PSD (dBm/ MHz) | Limit (dBm) | PASS/FAIL |
|----------|-------------------------|---------------------------|--------|----------------------|-------------|-----------|
| U-NII 1  | 5 190                   | -0.55                     | 1.46   | 0.90                 | 17.00       | PASS      |
|          | 5 230                   | -0.09                     | 1.46   | 1.37                 | 17.00       | PASS      |
| U-NII 2A | 5 270                   | -0.42                     | 1.46   | 1.03                 | 11.00       | PASS      |
|          | 5 310                   | -0.34                     | 1.46   | 1.12                 | 11.00       | PASS      |
| U-NII 2C | 5 510                   | 0.52                      | 1.46   | 1.97                 | 11.00       | PASS      |
|          | 5 590                   | -0.55                     | 1.46   | 0.91                 | 11.00       | PASS      |
|          | 5 670                   | -0.85                     | 1.46   | 0.60                 | 11.00       | PASS      |
| U-NII 3  | 5 755                   | 0.49                      | 1.46   | 1.95                 | 33.01       | PASS      |
|          | 5 795                   | 0.18                      | 1.46   | 1.64                 | 33.01       | PASS      |

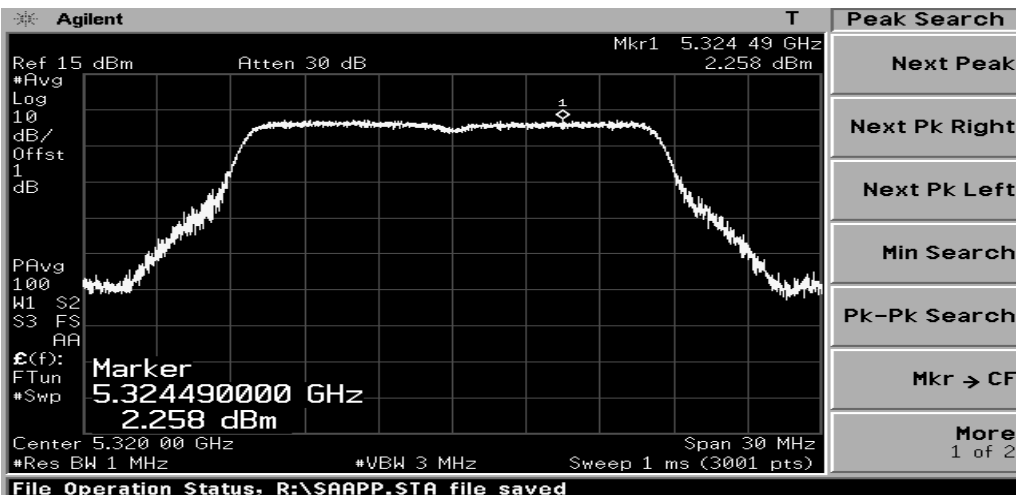
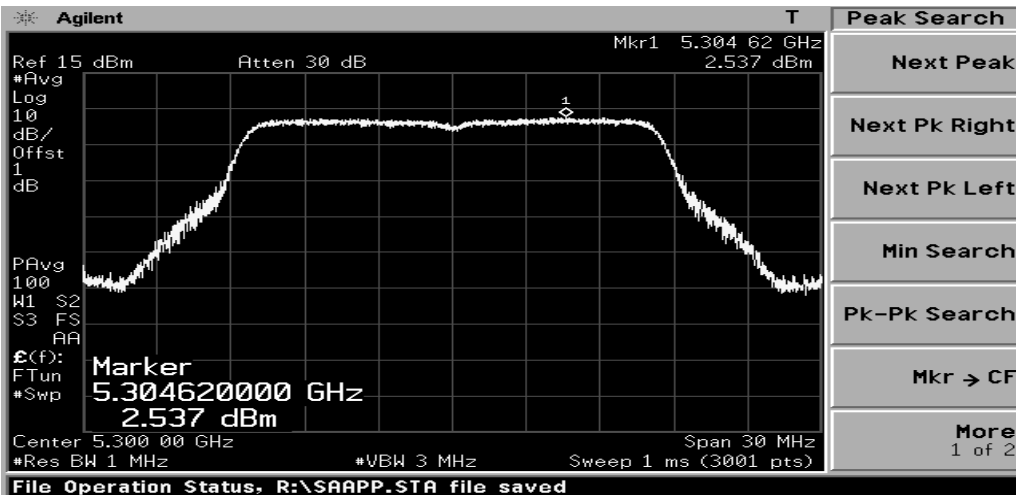
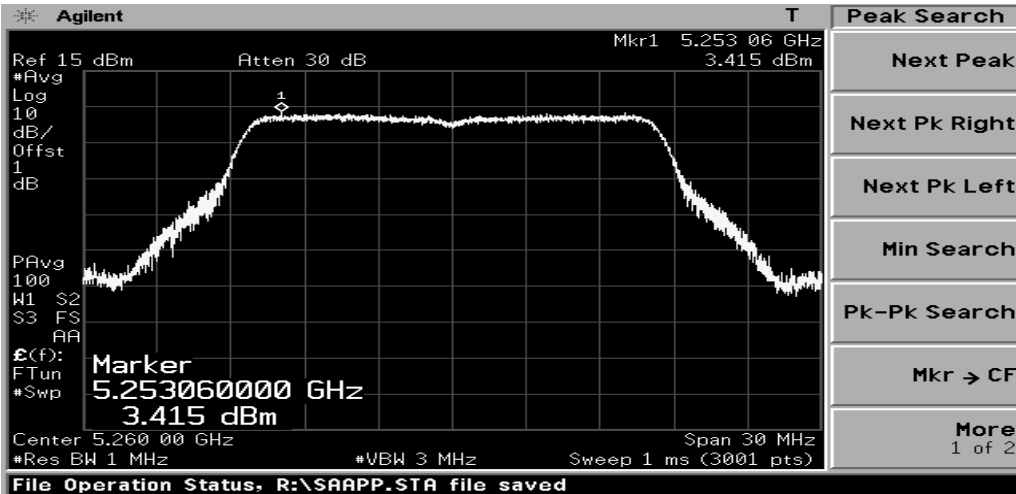
**MODE – 802.11ac VHT80**

| MODE     | Channel requencey (MHz) | PSD w/o Factor (dBm/ MHz) | Factor | Total PSD (dBm/ MHz) | Limt (dBm) | PASS/FAIL |
|----------|-------------------------|---------------------------|--------|----------------------|------------|-----------|
| U-NII 1  | 5 210                   | –4.65                     | 0.8    | –3.86                | 17.00      | PASS      |
| U-NII 2A | 5 290                   | –3.17                     | 0.8    | –2.38                | 11.00      | PASS      |
| U-NII 2C | 5 530                   | –3.98                     | 0.8    | –3.19                | 11.00      | PASS      |
|          | 5 610                   | –5.57                     | 0.8    | –4.77                | 11.00      | PASS      |
| U-NII 3  | 5 775                   | –5.61                     | 0.8    | –4.81                | 33.01      | PASS      |

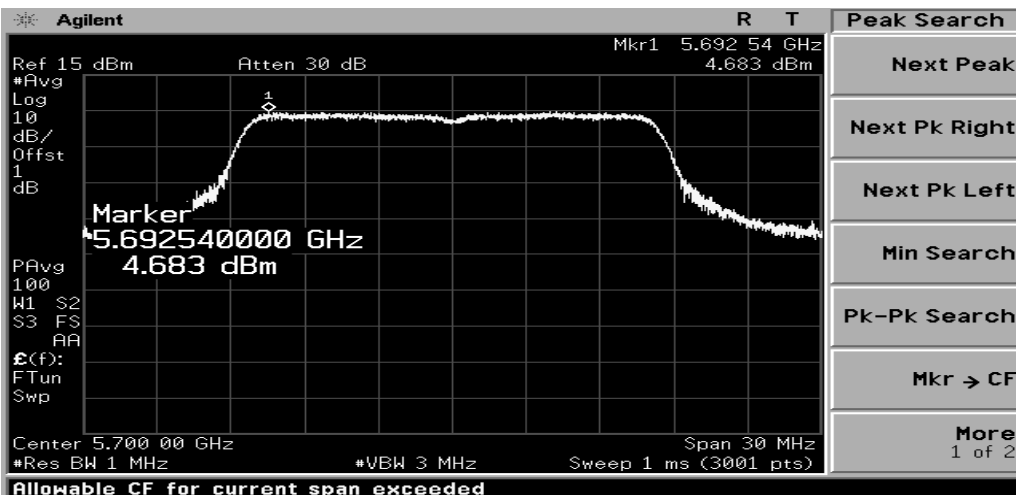
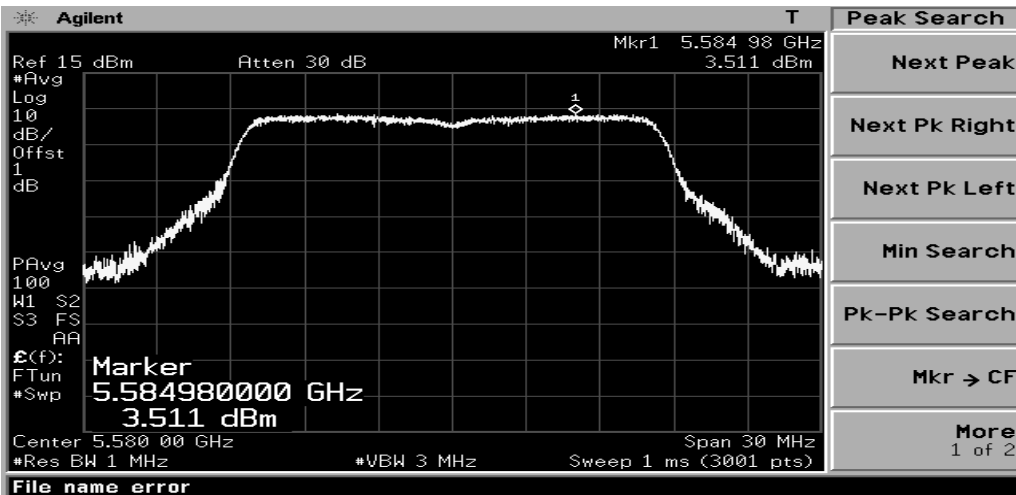
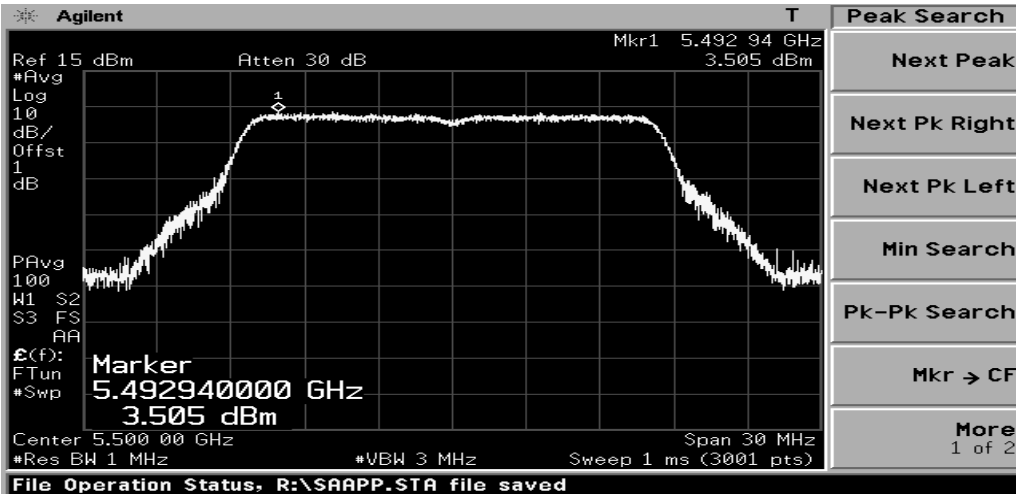
## 802.11a (U-NII 1)



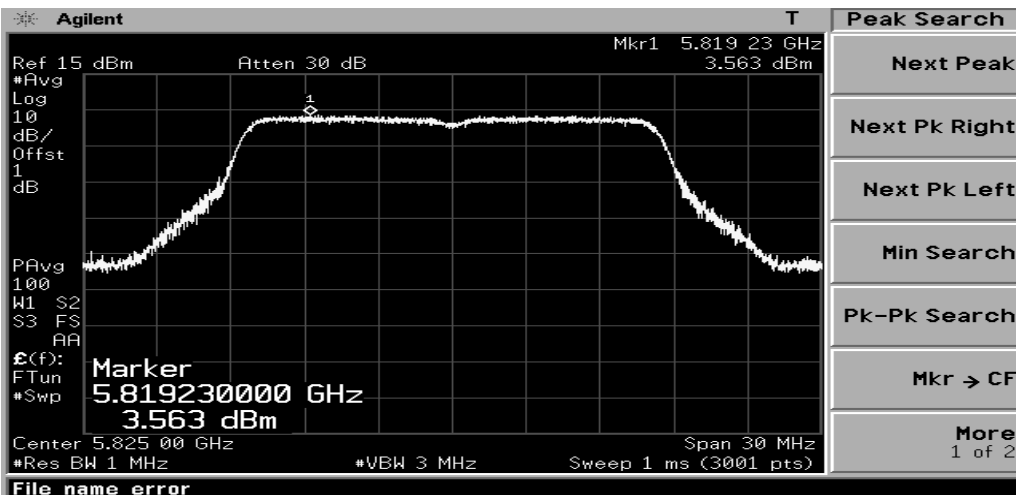
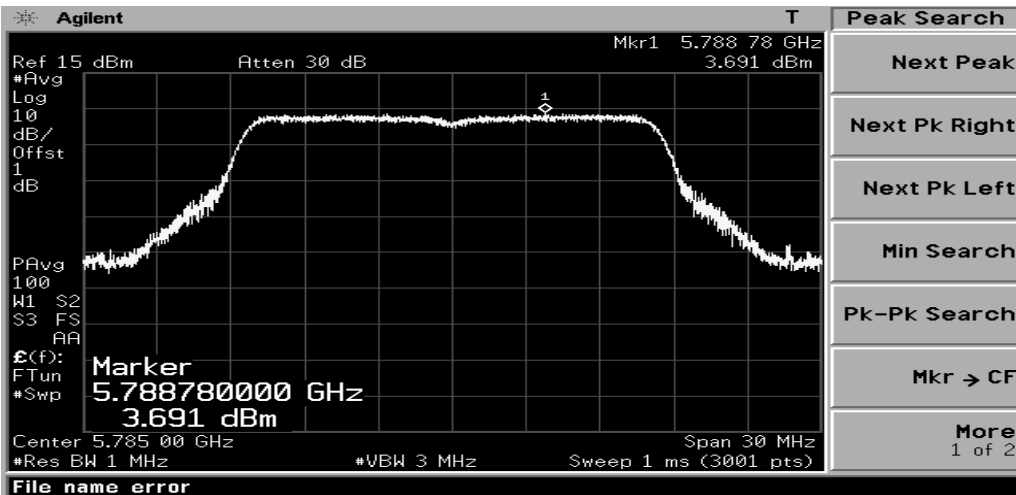
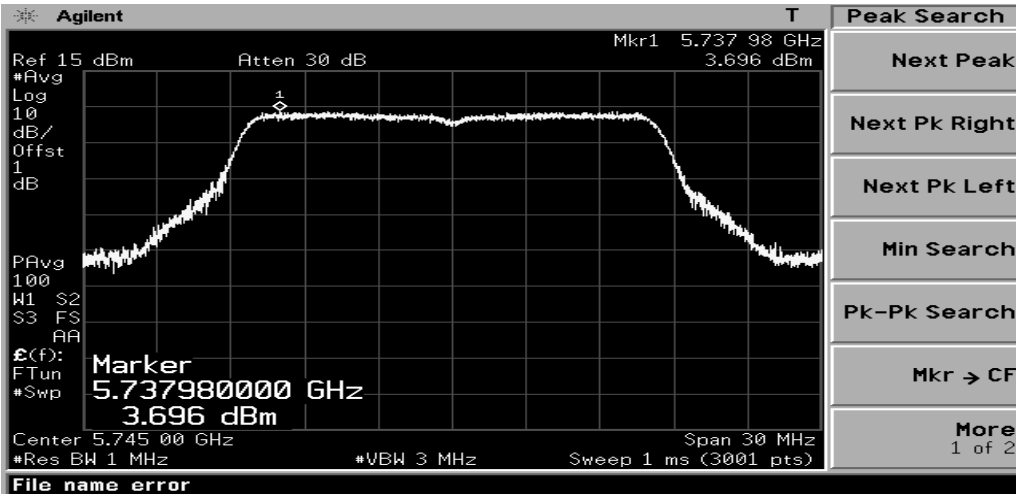
## 802.11a (U-NII 2A)



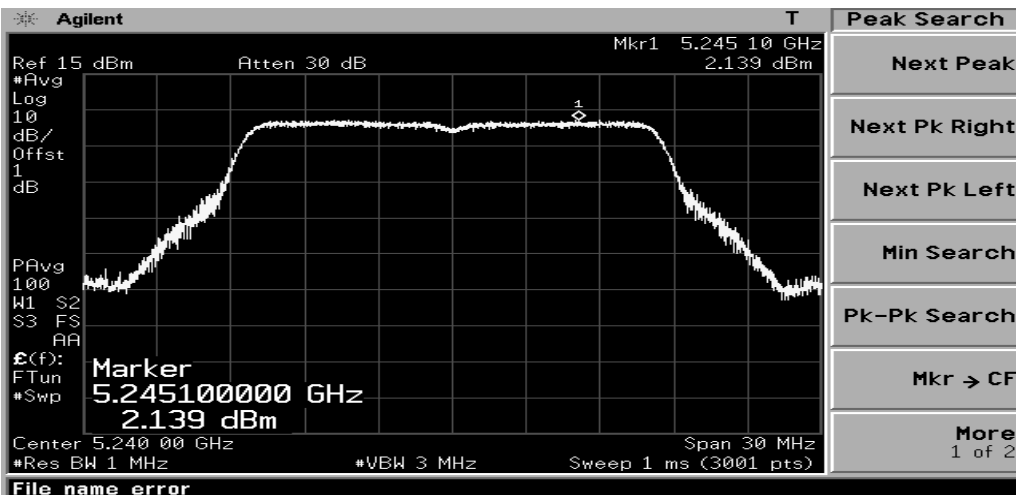
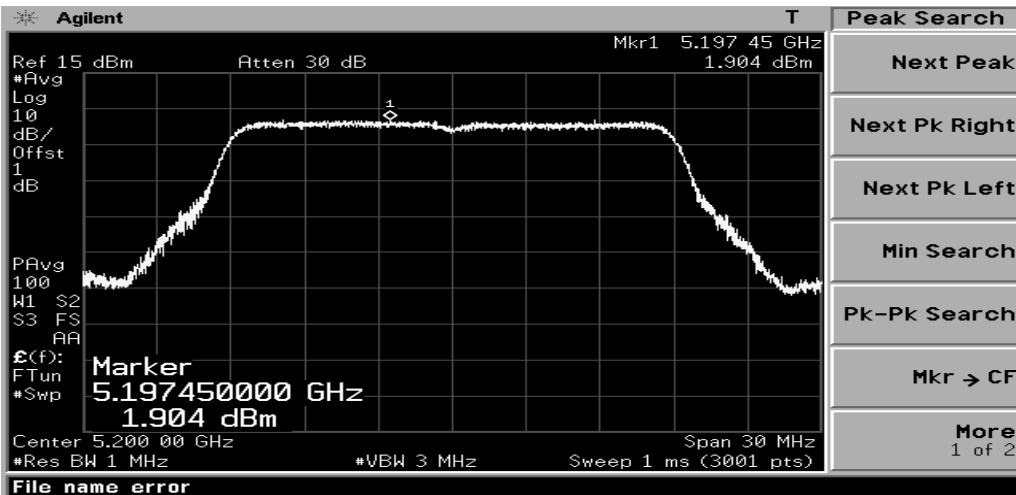
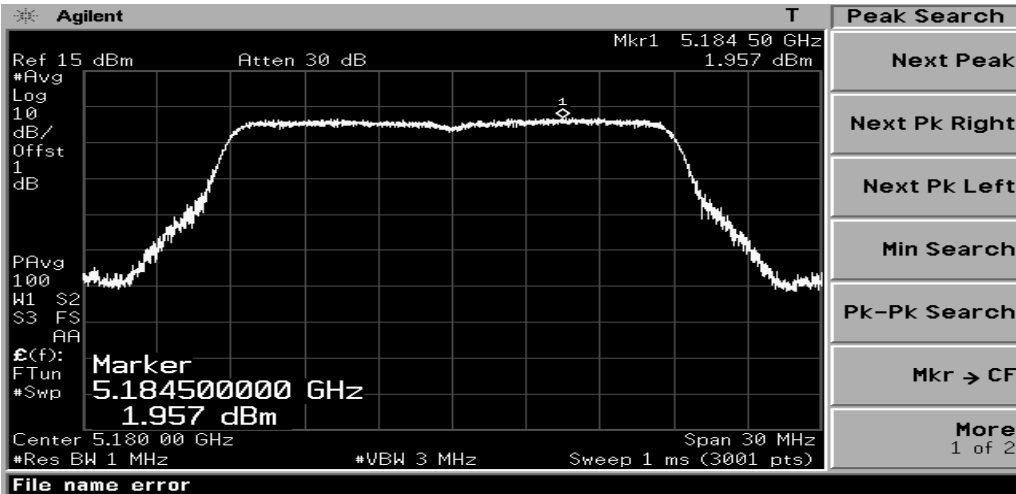
## 802.11a (U-NII 2C)



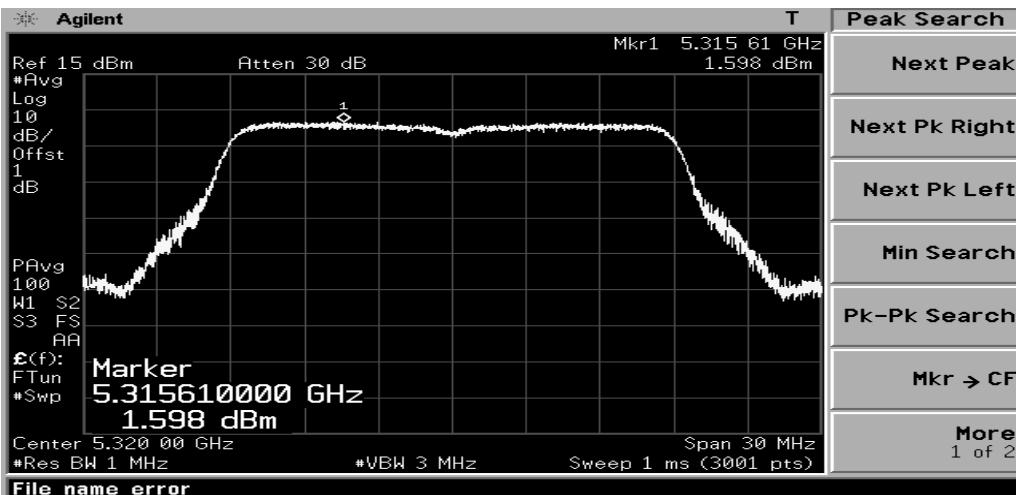
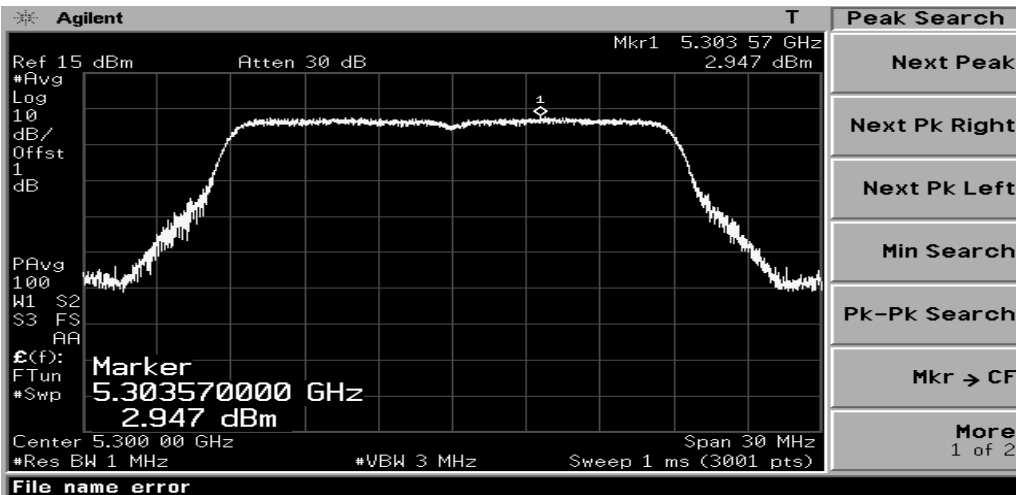
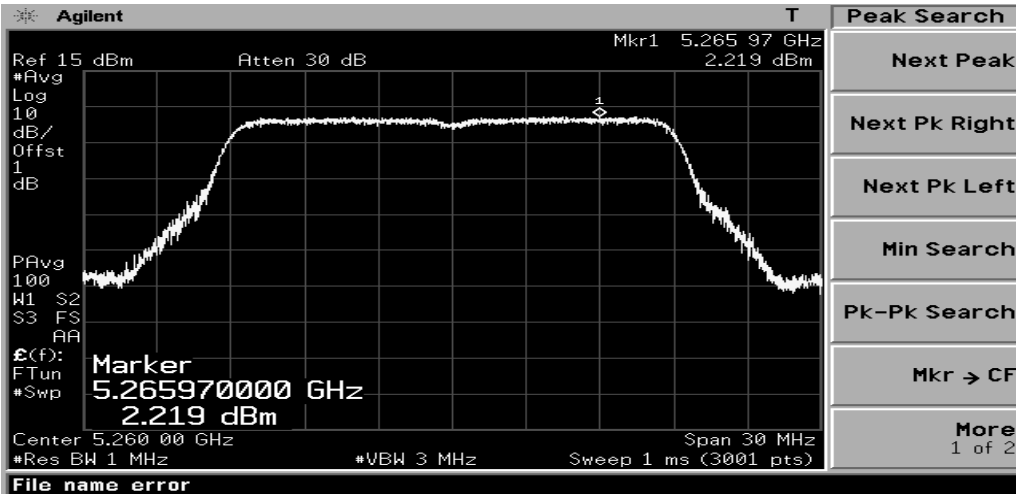
## 802.11a (U-NII 3)



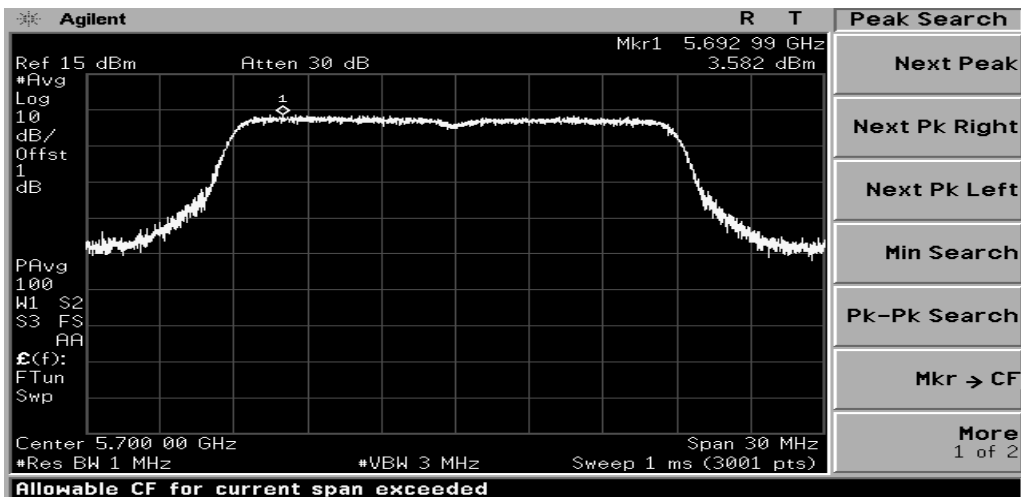
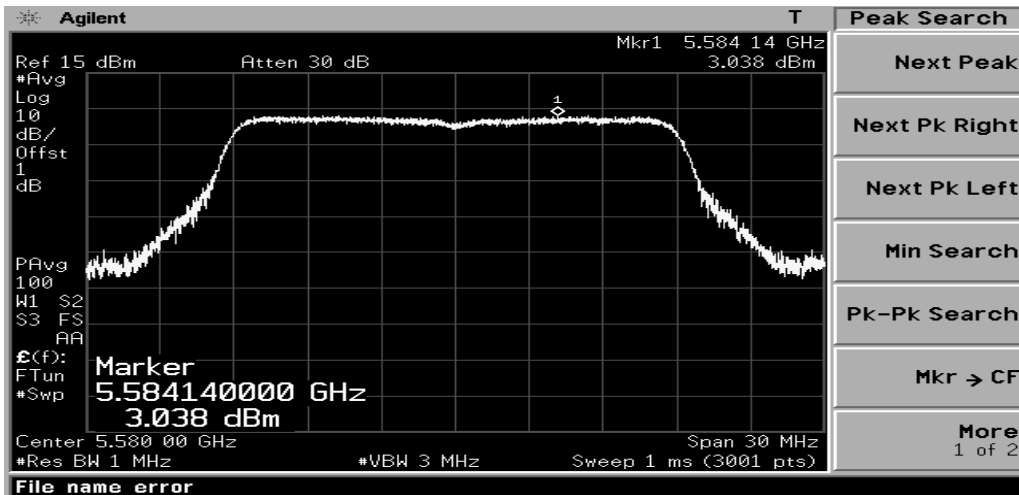
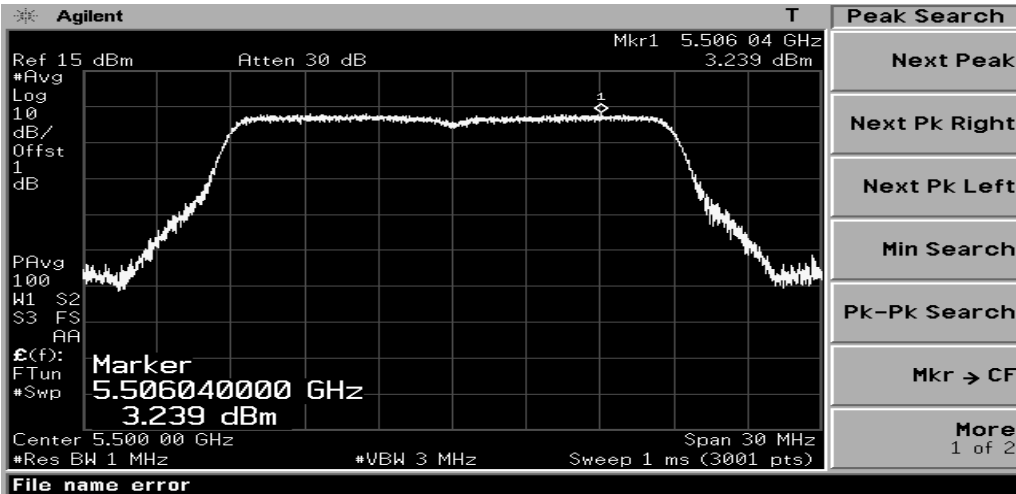
## 802.11n HT20 (U-NII 1)



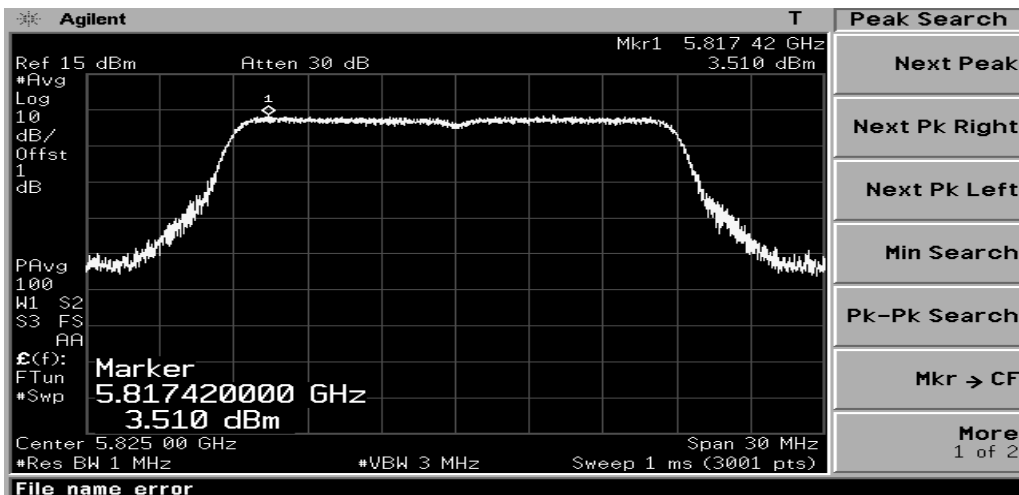
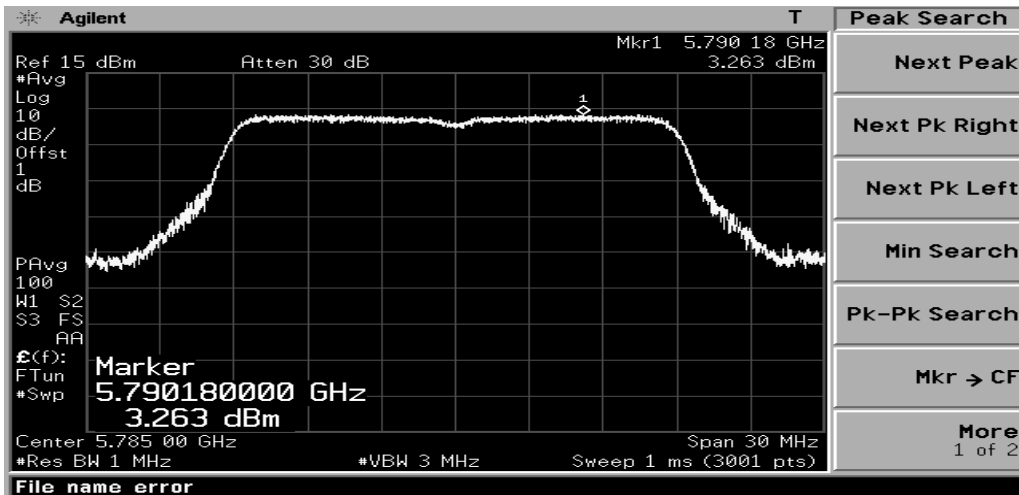
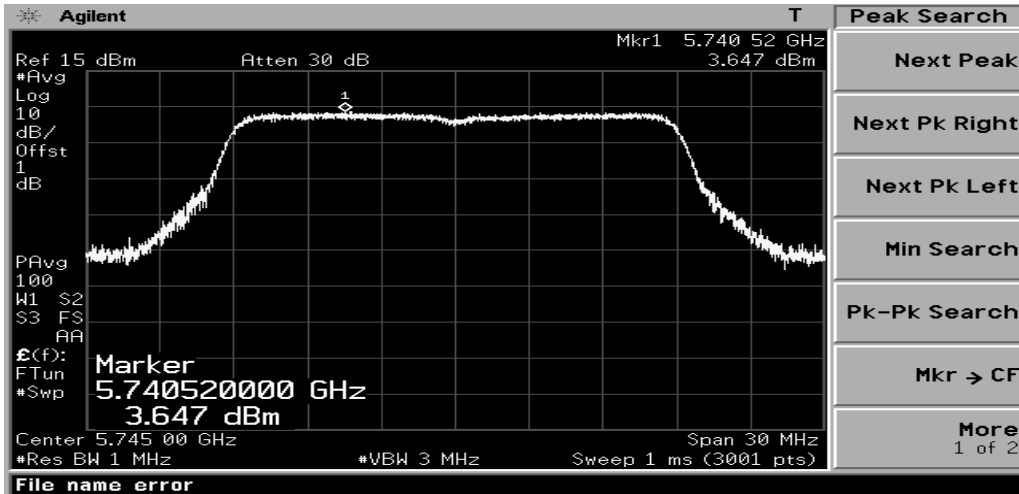
## 802.11n HT20 (U-NII 2A)



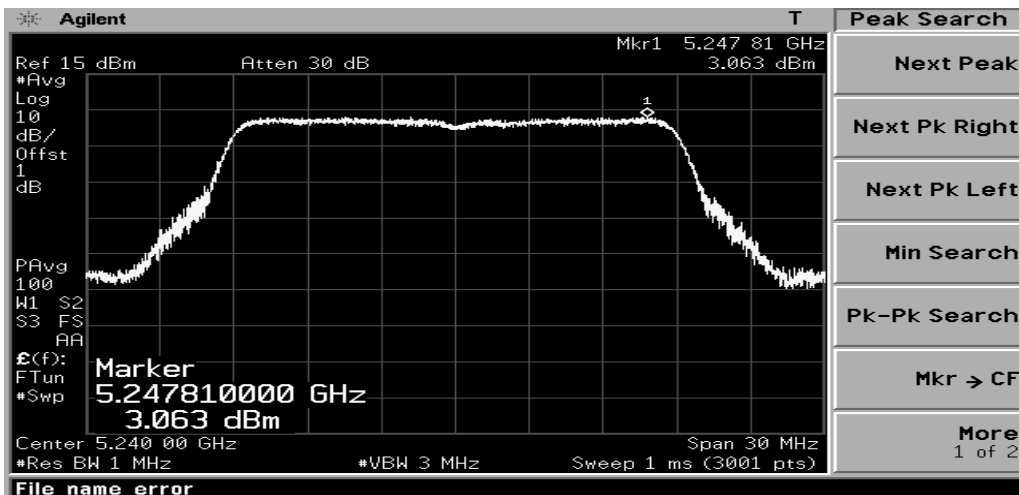
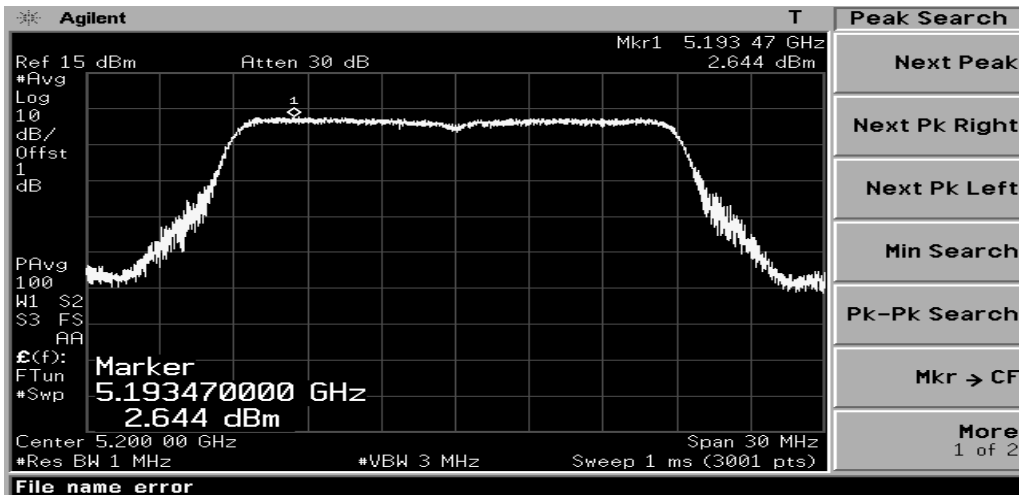
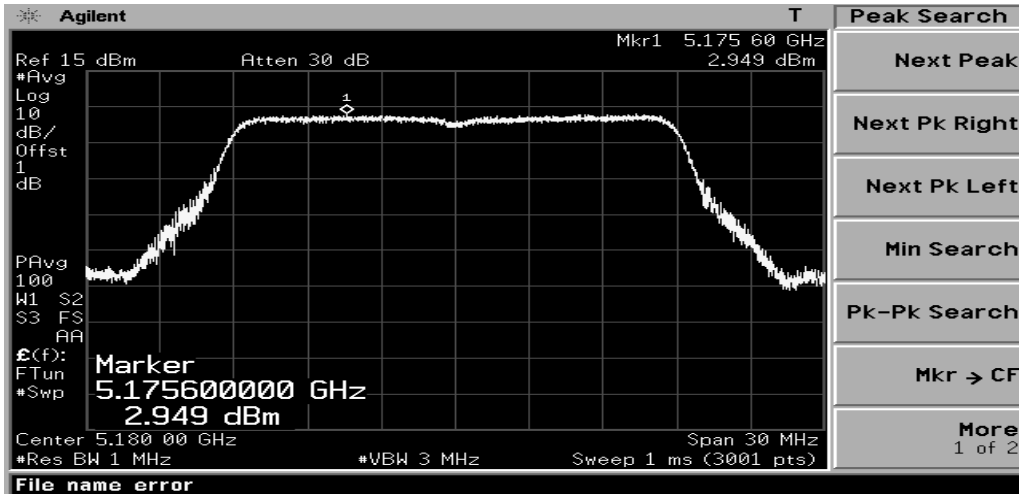
## 802.11n HT20 (U-NII 2C)



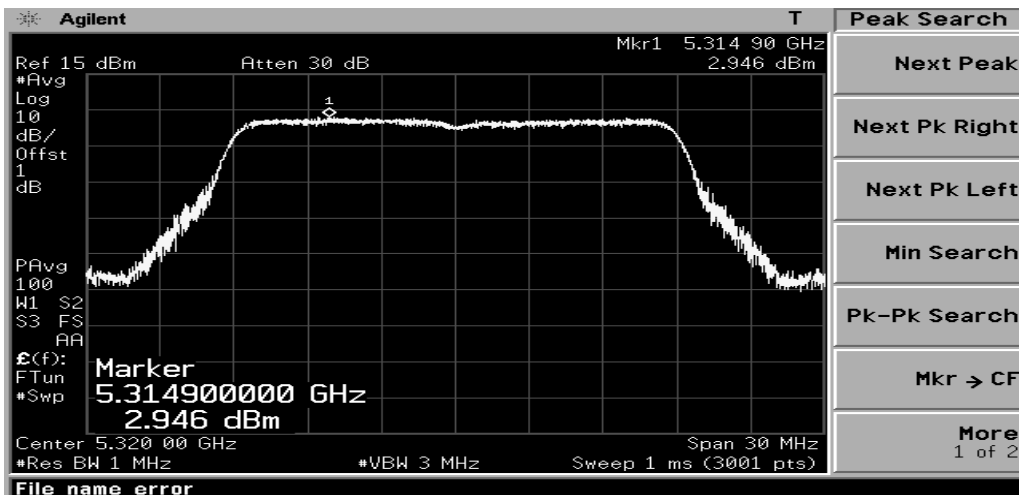
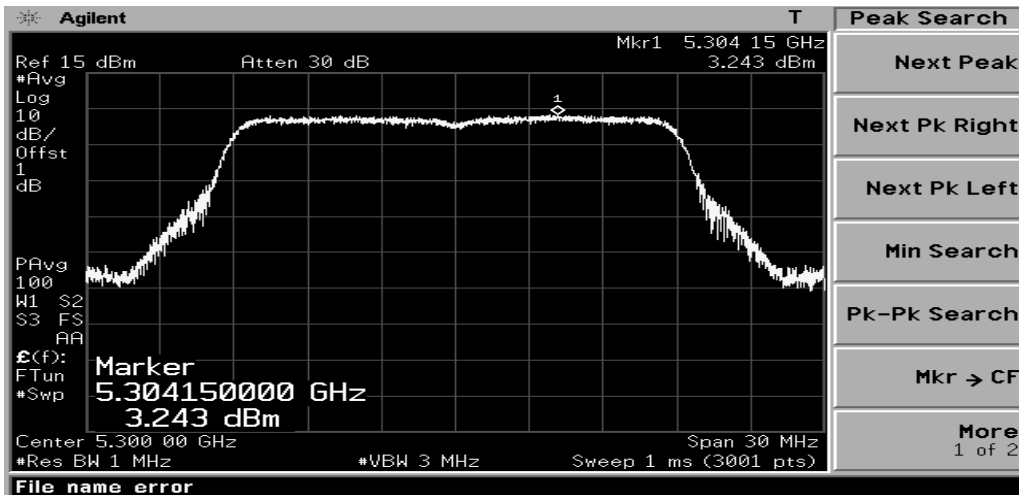
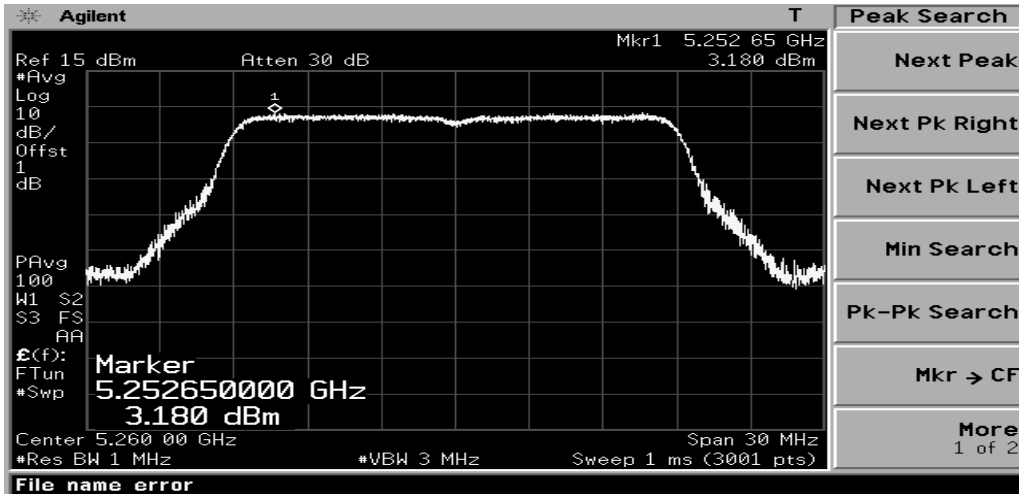
## 802.11n HT20 (U-NII 3)



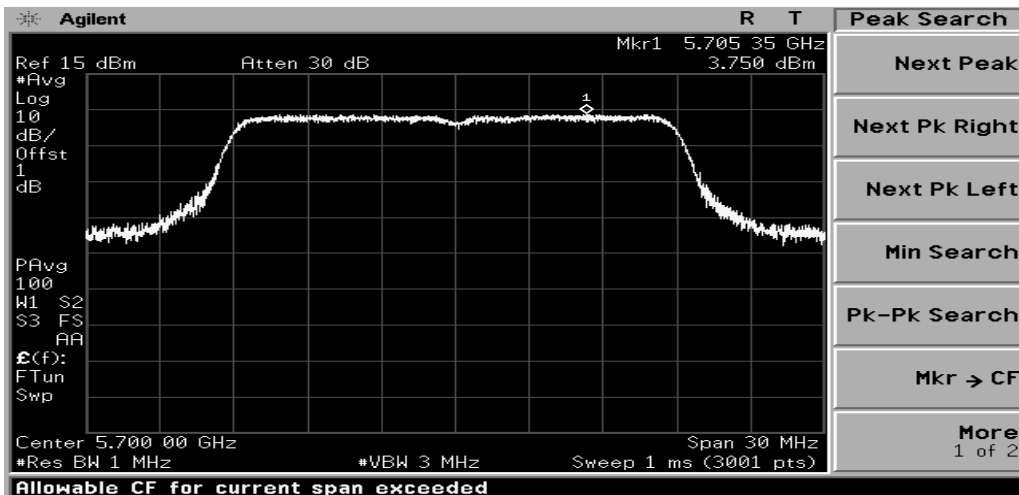
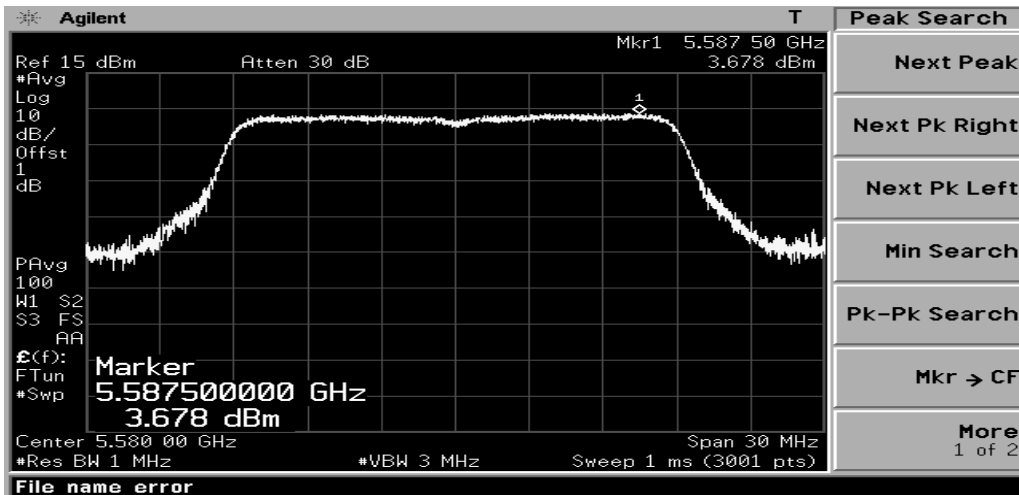
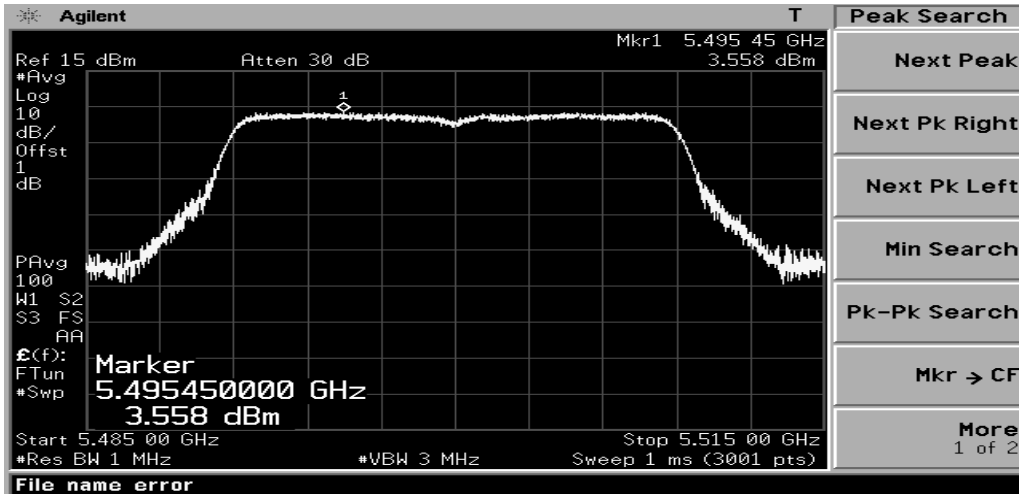
## 802.11ac VHT20 (U-NII 1)



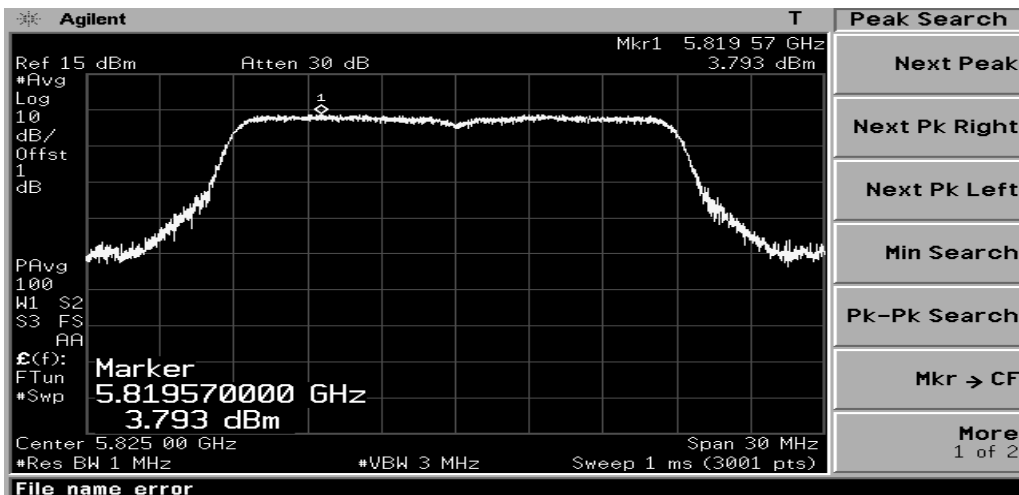
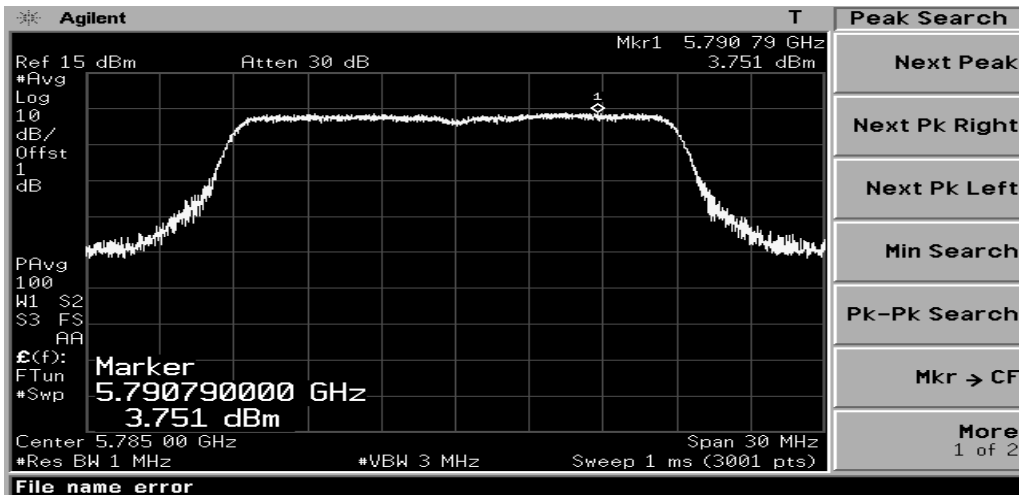
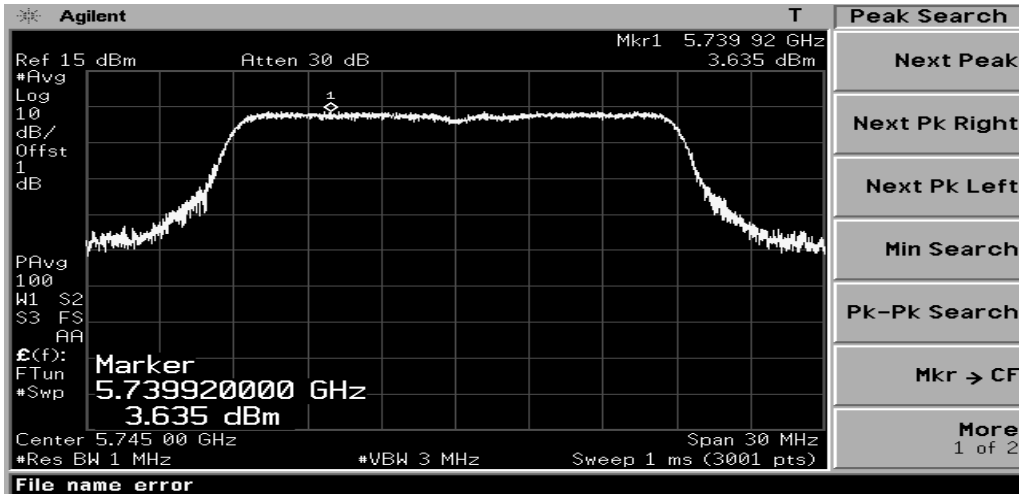
## 802.11ac VHT20 (U-NII 2A)



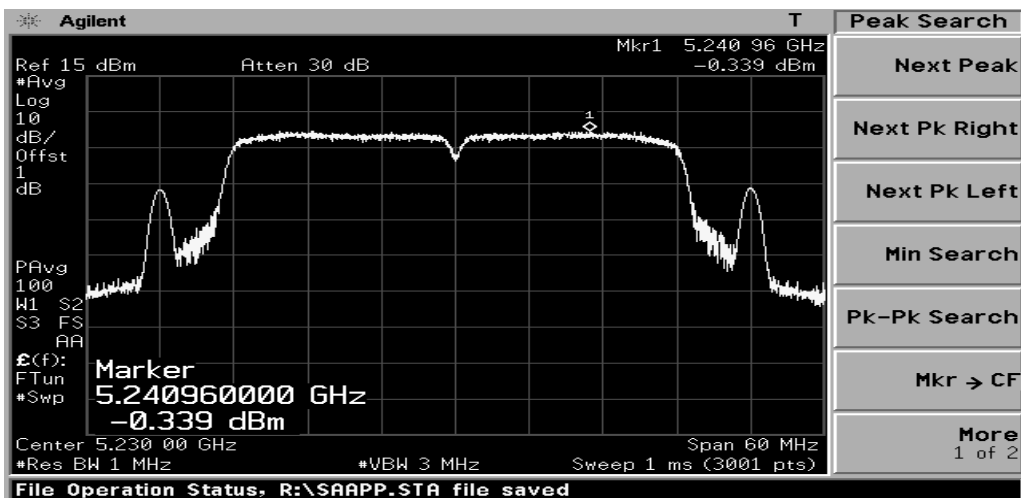
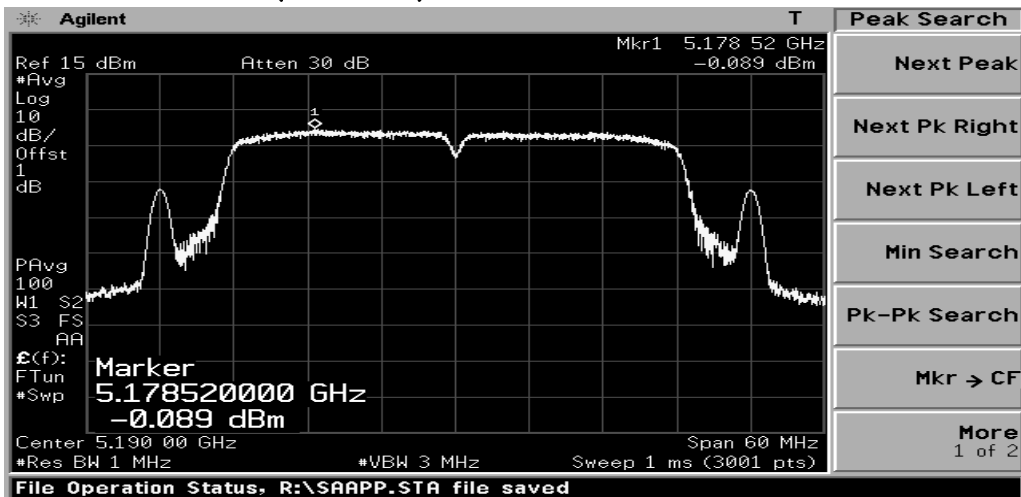
## 802.11ac VHT20 (U-NII 2C)



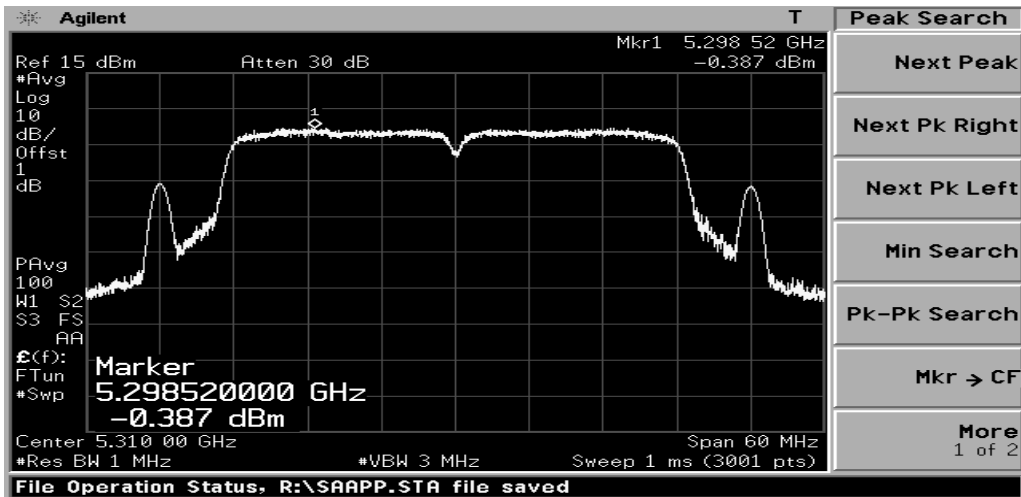
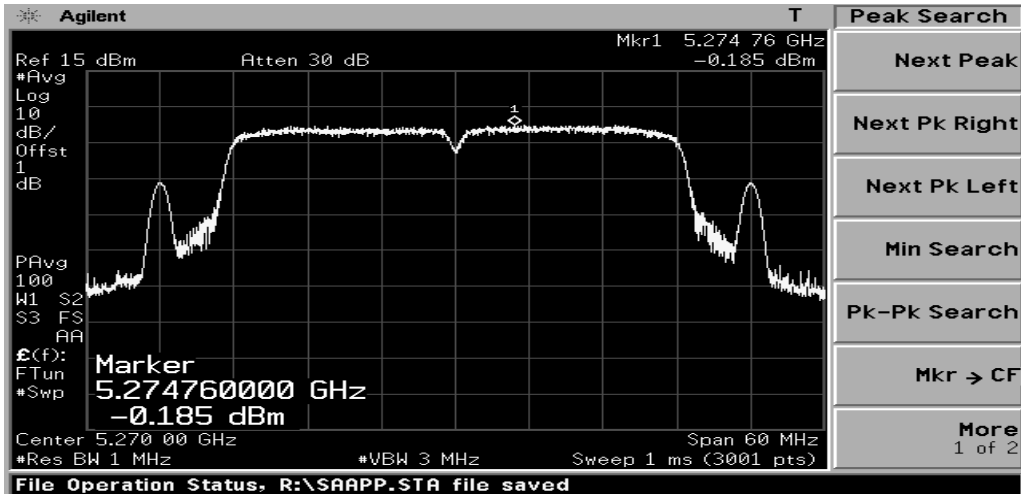
## 802.11ac VHT20 (U-NII 3)



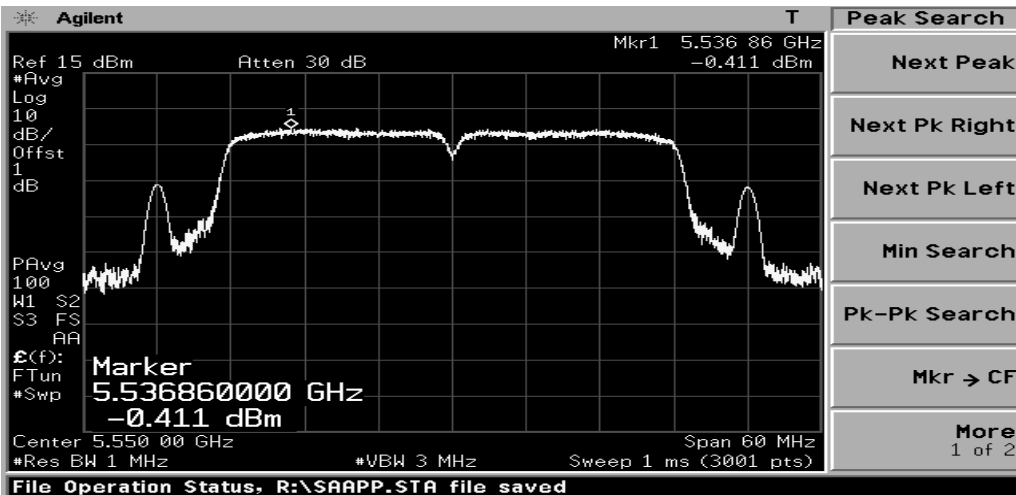
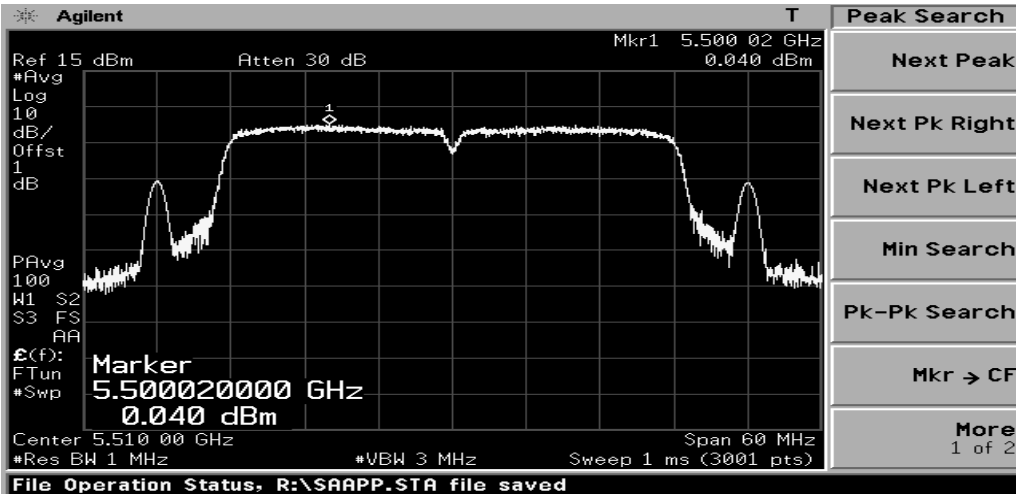
## 802.11n HT40 (U-NII 1)



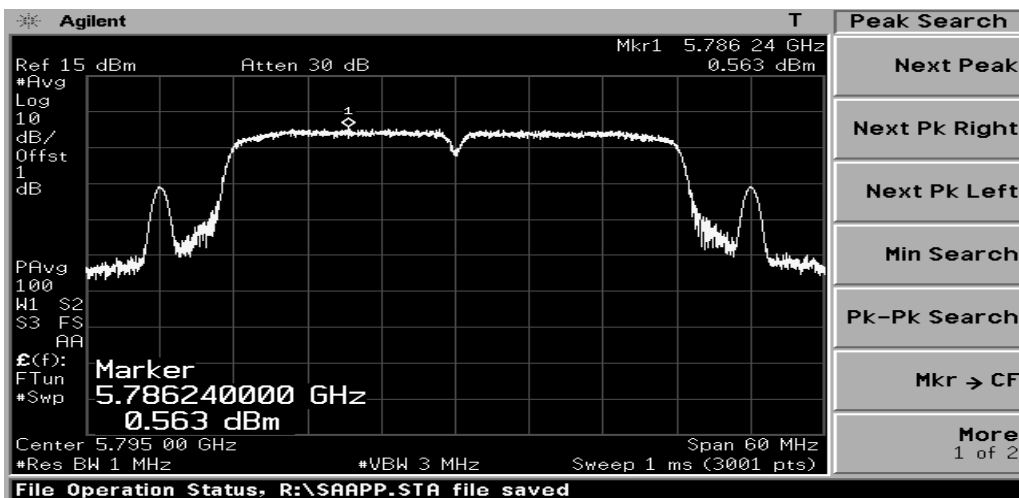
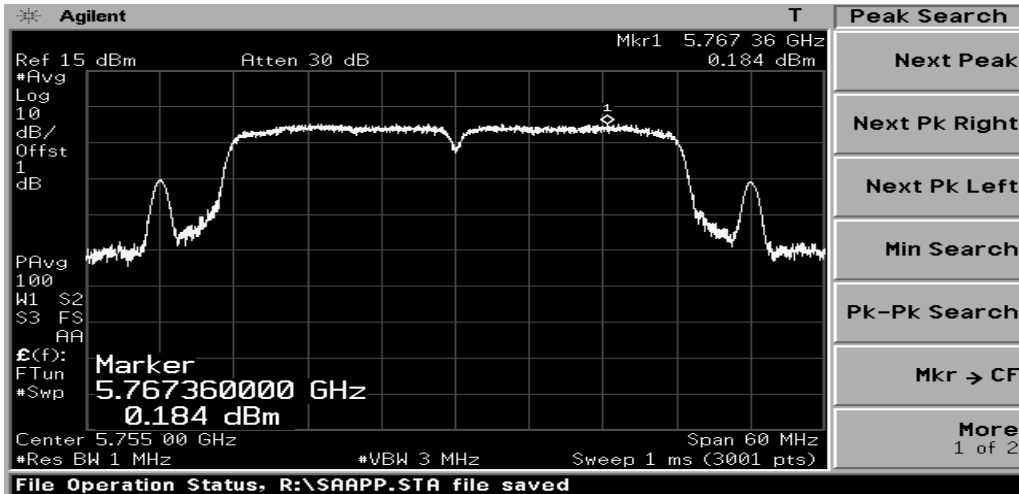
## 802.11n HT40 (U-NII 2A)



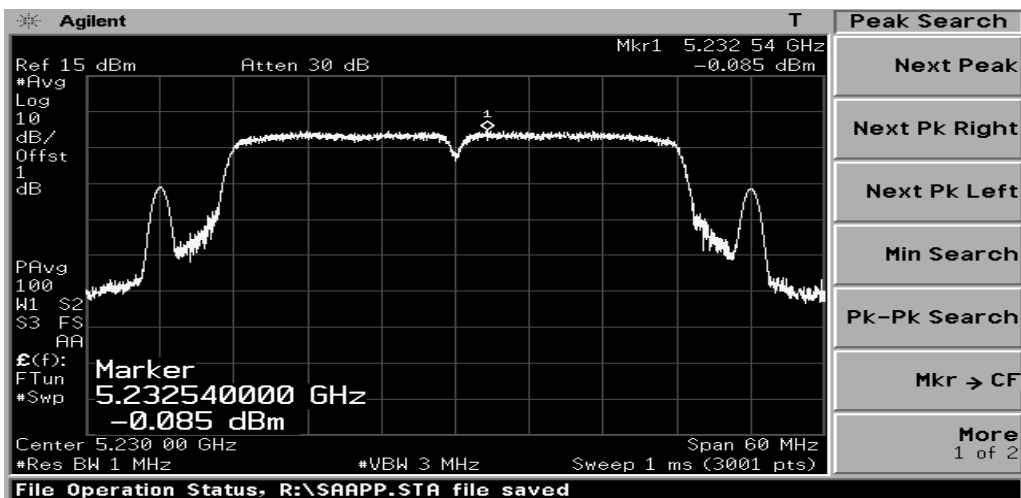
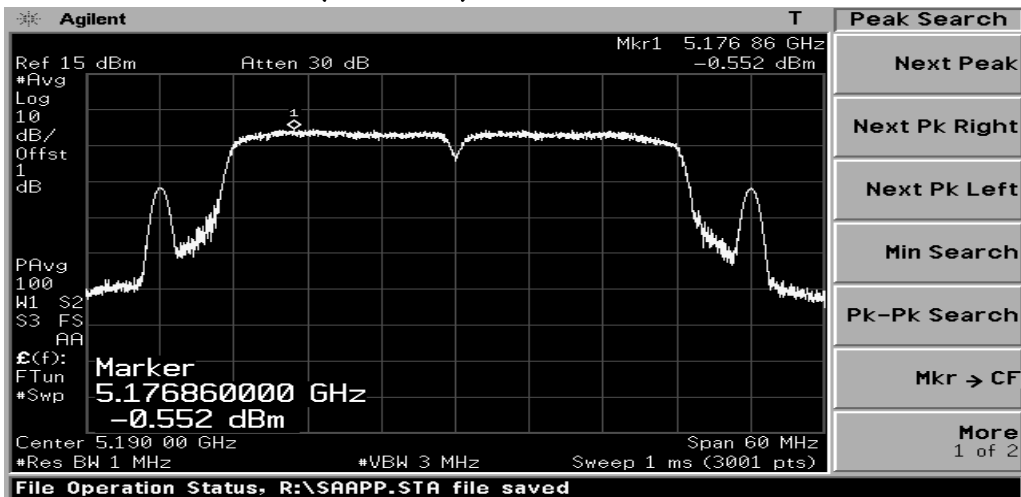
## 802.11n HT40 (U-NII 2C)



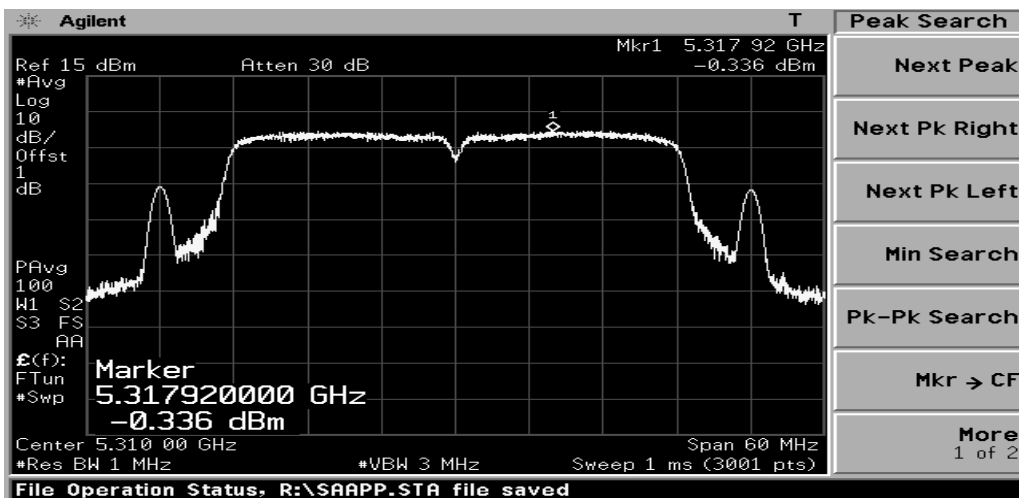
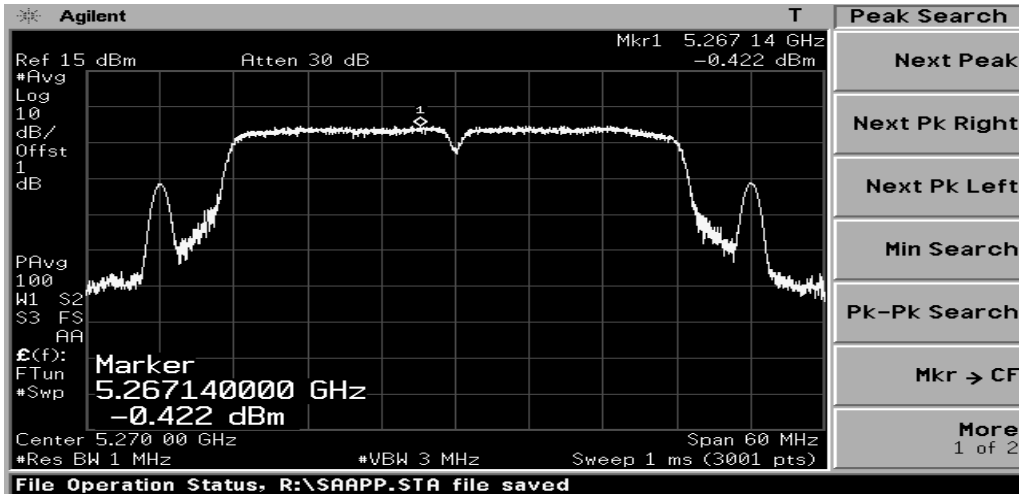
## 802.11n HT40 (U-NII 3)



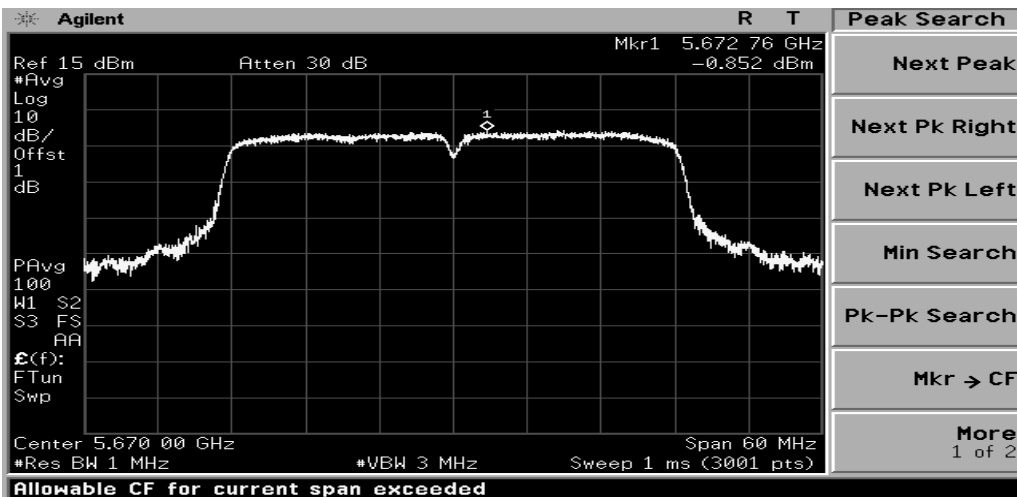
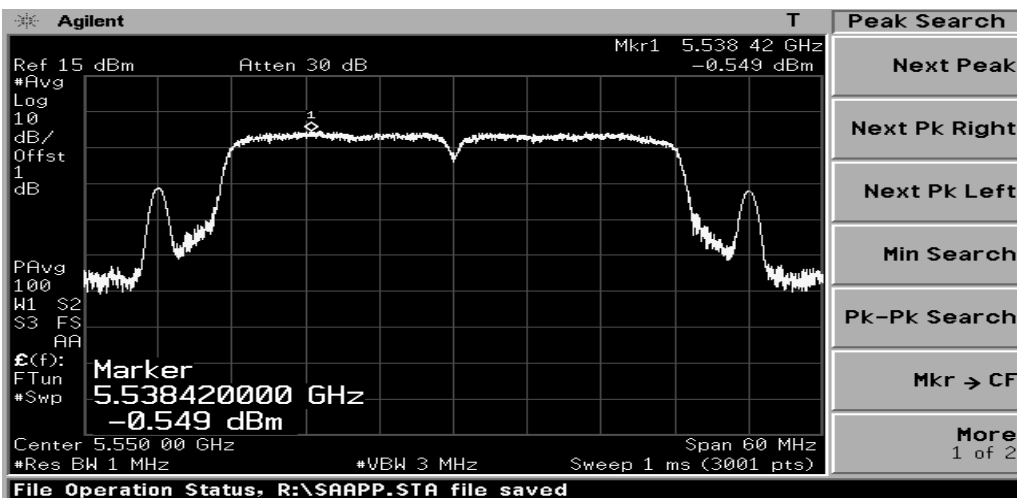
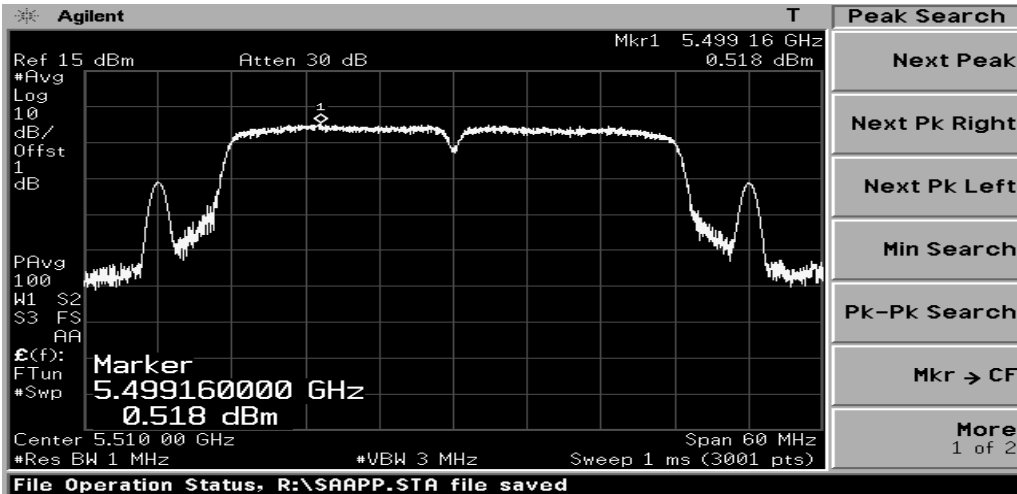
## 802.11ac VHT40 (U-NII 1)



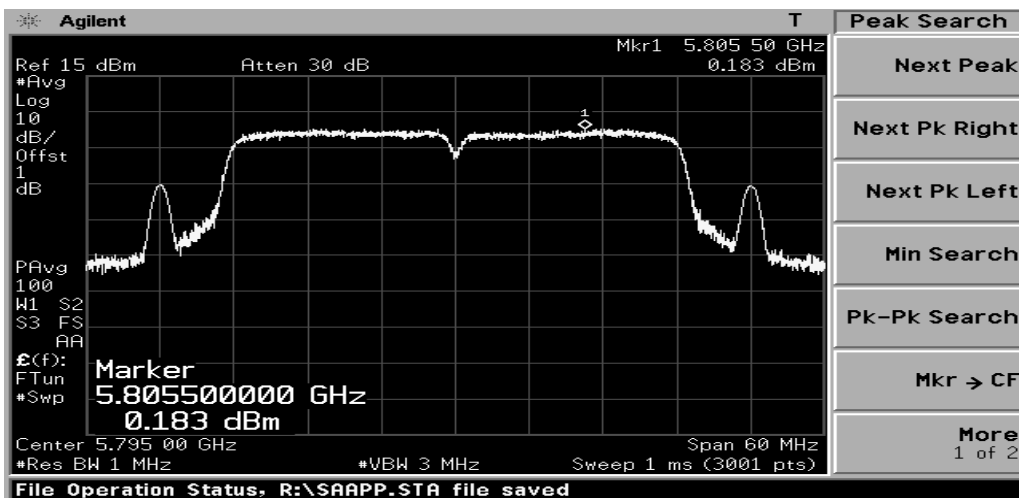
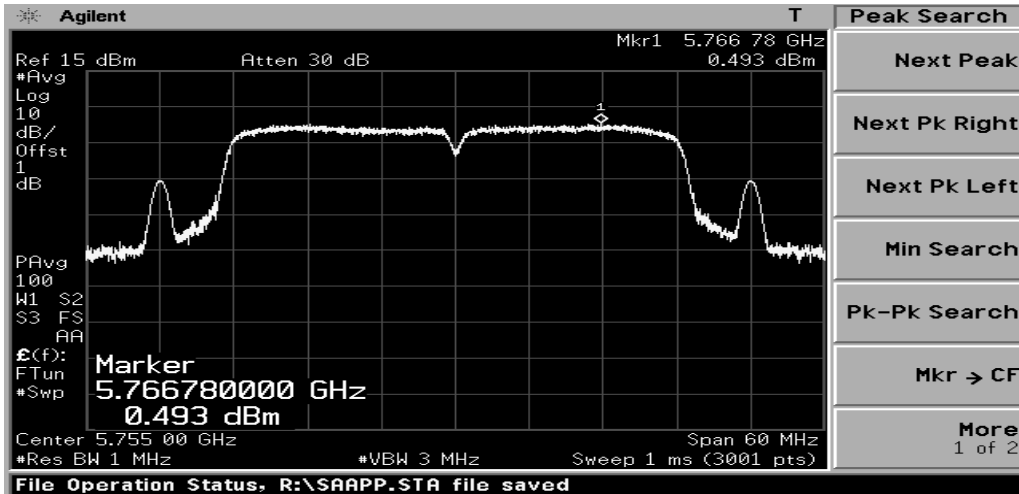
## 802.11ac VHT40 (U-NII 2A)



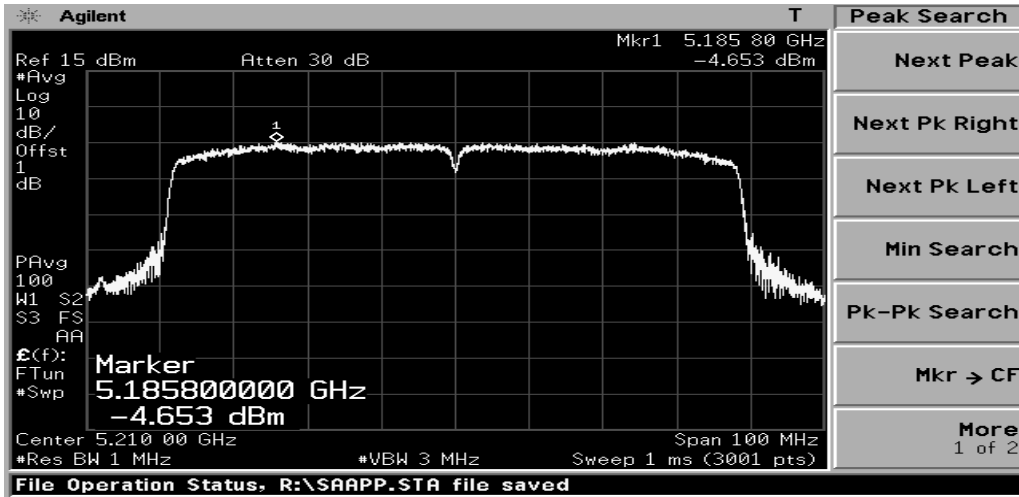
## 802.11ac VHT40 (U-NII 2C)



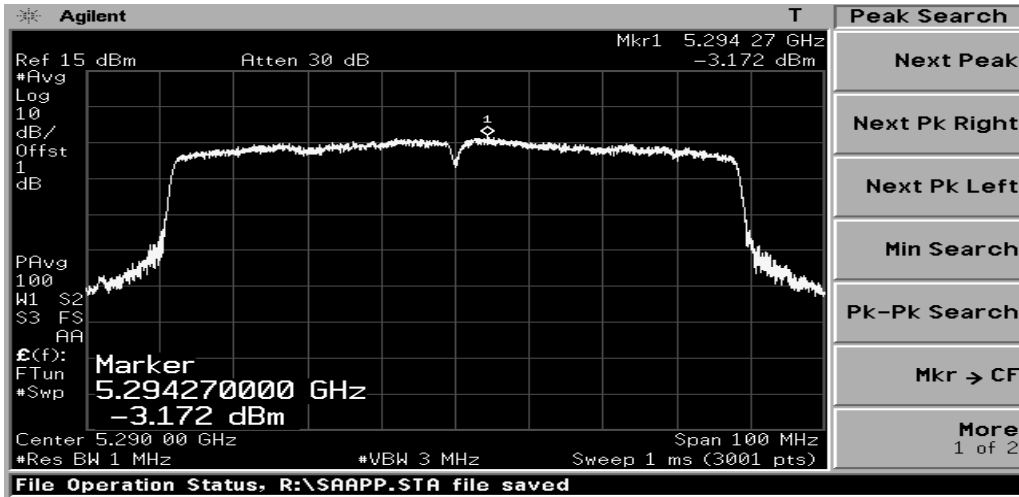
## 802.11ac VHT40 (U-NII 3)



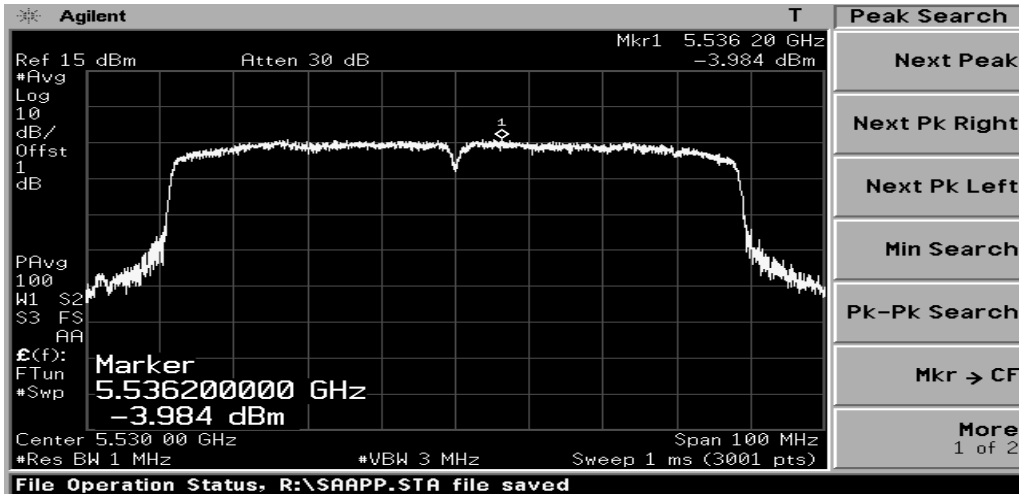
## 802.11ac VHT80 (U-NII 1)



## 802.11ac VHT80 (U-NII 2A)



## 802.11ac VHT80 (U-NII 2C)



## 802.11ac VHT80 (U-NII 3)



## 9. Spurious Emission, Band Edge and Restricted bands

Above 30 MHz Electric Field strength was measured in accordance with FCC PART 15.205, 15.209 . The test setup was made according to ANSI C 63.10 Semi-anechoic chamber, which allows a 3 m distance measurement. The EUT was placed in the center of styrofoam. turntable. The height of this table was 0.8 m. The measurement was conducted with both horizontal and vertical antenna polarization. The turntable has fully rotated. For further description of the configuration refer to the picture of the test setup.

### 9.1 Measurement equipments

| Equipment Name                         | Type       | Manufacturer      | Serial No.             | Next Calibration date |
|----------------------------------------|------------|-------------------|------------------------|-----------------------|
| TEST Receiver                          | ESC17      | ROHDE & SCHWARZ   | 100916                 | 19-Jul-22             |
| TEST Receiver                          | ESW        | ROHDE & SCHWARZ   | 101554                 | 6-Jul-19              |
| Logbicon Antenna                       | VULB 9168  | SCHWARZBECK       | 193                    | 14-Jan-22             |
| Turn Table                             | DT3000-2t  | Innco System GmbH | N/A                    | -                     |
| Antenna Mast                           | MA4000-EP  | Innco System GmbH | N/A                    | -                     |
| PREAMPLIFIER                           | 8449B      | AGILENT           | 3008A00581             | 20-Jul-22             |
| Horn Antenna                           | BBHA9120D  | SCHWARZBECK       | 469                    | 24-Dec-21             |
| Test Receiver                          | ESPI7      | ROHDE & SCHWARZ   | 100393                 | 1-Dec-21              |
| Spectrum Analyzer                      | R3273      | ADVANTEST         | 121200664              | 10-Oct-18             |
| Turn Table                             | DT1500-S   | Innco System GmbH | N/A                    | -                     |
| Antenna Mast                           | MA4000-EP  | Innco System GmbH | N/A                    | -                     |
| Horn Antenna                           | BBHA 9170  | SCHWARZBECK       | 752                    | 15-Oct-21             |
| AMPLIFIER                              | TK-PA1840H | TESTEK            | N/A                    | 28-Sep-18             |
| Pyramidal Horn Antenna                 | 3160-09-01 | EST-L INDGREN     | 102642                 | 25-Aug-18             |
| Antenna Master & Turn table controller | C02000-P   | Innco System GmbH | CO2000/642 /28051111/L | -                     |

### 9.2 Environmental Condition

**Below 1 GHz –Test Place : 10 m Semi-anechoic chamber**

#### WLAN Mode

Temperature (°C) : 21.4 °C

Humidity (% R.H.) : 55.7 % R.H.

**Above 1 GHz–Test Place : 3 m Semi-anechoic chamber**

#### WLAN 802.11 b,g,n20 Mode

Temperature (°C) : 22.1 °C

Humidity (% R.H.) : 53.5 % R.H.

## 9.3 Measurement Instrument setting for Radiated Emission

### 9.3.1 Frequency range below 1 GHz

Detector : Quasi-Peak

### 9.3.2 Frequency range above 1 GHz

- a. RBW : 1 MHz , VBW : 3 MHz
- b. Trace mode = max hold
- c. Detector : Peak
- d. Sweep time = auto

- a. Set analyzer center frequency to the frequency associated with the emission
- b. RBW : 1 MHz , VBW : 3 MHz
- c. Detector : RMS
- d. Sweep time = auto

\* Note

| Band           | Duty cycle(%) | Ton (ms) | Ton + Toff (ms) | DCF=10*log(1/Duty) (dB) |
|----------------|---------------|----------|-----------------|-------------------------|
| 802.11a        | 84.30         | 1.044    | 1.238           | 0.740                   |
| 802.11n HT20   | 84.20         | 1.039    | 1.233           | 0.743                   |
| 802.11n HT40   | 83.50         | 0.979    | 1.173           | 1.466                   |
| 802.11ac VHT20 | 71.30         | 0.489    | 0.685           | 0.781                   |
| 802.11ac VHT40 | 71.50         | 0.494    | 0.690           | 1.455                   |
| 802.11ac VHT80 | 83.20         | 0.987    | 1.175           | 0.796                   |

\* This was not applied of duty cycle factor for average value because of measured with the EUT transmitting continuously more than 98 % duty cycle at its maximum power control level.

## 9.4 Test Data

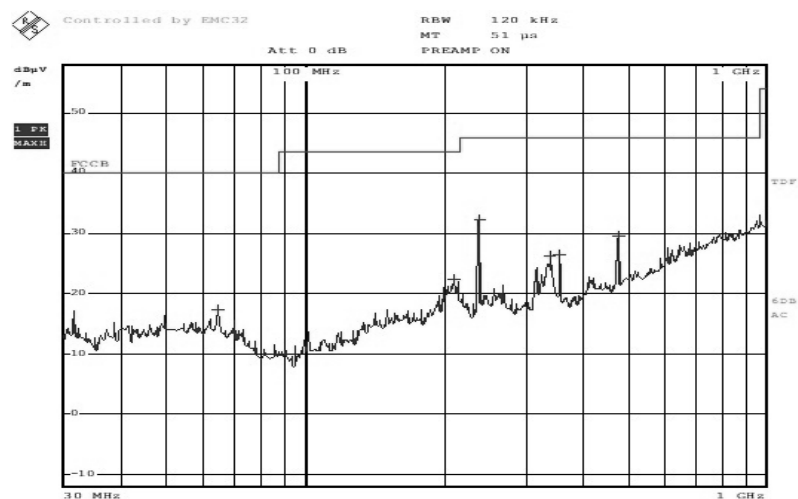
Test Date : 13-Aug-21

Measurement Distance : 3 m

| Frequency<br>(MHz) | Reading<br>(dB $\mu$ V)                                                                                                                                                                                                                                                                                                                                                                                              | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Result Value            |                          |                |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|-------------------------|--------------------------|----------------|
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) | Limit<br>(dB $\mu$ V/m) | Result<br>(dB $\mu$ V/m) | Margin<br>(dB) |
| 199.00             | 15.87                                                                                                                                                                                                                                                                                                                                                                                                                | V                 | 1.0           | 10.10              | 2.15          | 43.50                   | 28.13                    | 15.37          |
| 207.90             | 10.32                                                                                                                                                                                                                                                                                                                                                                                                                | H                 | 1.5           | 10.30              | 2.21          | 43.50                   | 22.83                    | 20.67          |
| 239.00             | 18.95                                                                                                                                                                                                                                                                                                                                                                                                                | H                 | 1.4           | 11.41              | 2.39          | 46.00                   | 32.74                    | 13.26          |
| 476.20             | 13.85                                                                                                                                                                                                                                                                                                                                                                                                                | H                 | 1.3           | 17.34              | 3.43          | 46.00                   | 34.63                    | 11.37          |
| 477.80             | 8.15                                                                                                                                                                                                                                                                                                                                                                                                                 | V                 | 1.8           | 17.37              | 3.44          | 46.00                   | 28.96                    | 17.04          |
| 944.10             | 4.02                                                                                                                                                                                                                                                                                                                                                                                                                 | H                 | 1.0           | 23.94              | 5.07          | 46.00                   | 33.04                    | 12.96          |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |               |                    |               |                         |                          |                |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |               |                    |               |                         |                          |                |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |               |                    |               |                         |                          |                |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |               |                    |               |                         |                          |                |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |               |                    |               |                         |                          |                |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |               |                    |               |                         |                          |                |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |               |                    |               |                         |                          |                |
| Remark             | <p>H : Horizontal, V : Vertical</p> <p>*Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position)</p> <p>*CL = Cable Loss(In case of below 1 000 MHz)</p> <p>*Result Value = Reading + Ant Factor + Cable loss</p> <p>*The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection at frequency below 1 GHz.</p> |                   |               |                    |               |                         |                          |                |

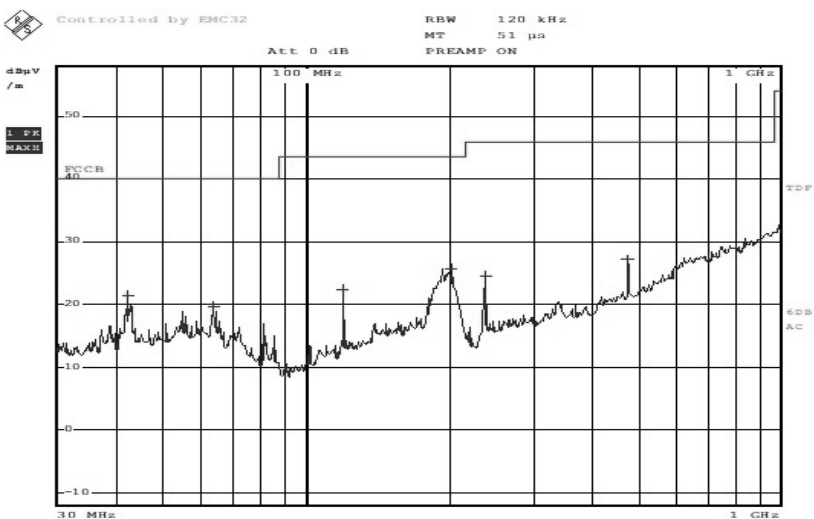
## 9.5 Restricted Band Edges

Polarity:Horizontal



ESTR-21-00231

Polarity:Vertical

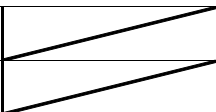


ESTR-21-00231

## 9.4-2 Test Data (802.11a 5180)

Test Date : 14-Aug-21

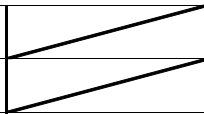
Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dB $\mu V$ )                                                                               | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value             |                           |                |
|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|--------------------------|---------------------------|----------------|
|                               |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dB $\mu V$ /m) | Result<br>(dB $\mu V$ /m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
| 5150.00                       | 45.29                                                                                                  | H                 | 1.8           | 31.55              | -26.64        |  | 74.00                    | 50.20                     | 23.80          |
| 5150.00                       | 45.43                                                                                                  | V                 | 1.5           | 31.55              | -26.64        |                                                                                    | 74.00                    | 50.34                     | 23.66          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
| 5150.00                       | 34.62                                                                                                  | H                 | 1.8           | 31.55              | -26.64        | 0.74                                                                               | 54.00                    | 40.27                     | 13.73          |
| 5150.00                       | 33.43                                                                                                  | V                 | 1.5           | 31.55              | -26.64        | 0.74                                                                               | 54.00                    | 39.08                     | 14.92          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 a – CH 36(5 180 MHz)                               |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                          |                           |                |

## Test Data (802.11a 5240)

Test Date : 14-Aug-21

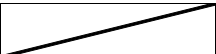
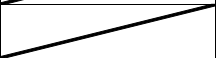
Measurement Distance : 3 m

| Frequency<br>(MHz)           | Reading<br>(dB $\mu$ V)                                                                                | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value            |                          |                |
|------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|-------------------------|--------------------------|----------------|
|                              |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dB $\mu$ V/m) | Result<br>(dB $\mu$ V/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz  VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5350.00                      | 44.42                                                                                                  | H                 | 1.7           | 31.63              | -26.63        |  | 74.00                   | 49.42                    | 24.58          |
| 5350.00                      | 43.91                                                                                                  | V                 | 1.6           | 31.63              | -26.63        |                                                                                    | 74.00                   | 48.91                    | 25.09          |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| AV(RBW: 1 MHz  VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5350.00                      | 33.76                                                                                                  | H                 | 1.7           | 31.63              | -26.63        | 0.74                                                                               | 54.00                   | 39.50                    | 14.50          |
| 5350.00                      | 33.79                                                                                                  | V                 | 1.6           | 31.63              | -26.63        | 0.74                                                                               | 54.00                   | 39.53                    | 14.47          |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| Remark                       | H : Horizontal,   V : Vertical   TEST MODE : 802.11 a – CH 48(5 240 MHz)                               |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                         |                          |                |

## Test Data (802.11a 5260)

Test Date : 14-Aug-21

Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dB $\mu V$ )                                                                               | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value                                                                       |                           |                |
|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------|----------------|
|                               |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dB $\mu V$ /m)                                                           | Result<br>(dB $\mu V$ /m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                           |                |
| 5150.00                       | 43.66                                                                                                  | H                 | 1.5           | 31.55              | -26.64        |  | 74.00                                                                              | 48.57                     | 25.43          |
| 5150.00                       | 44.85                                                                                                  | V                 | 1.5           | 31.55              | -26.64        |                                                                                    |  | 74.00                     | 49.76          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                           |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                           |                |
| 5150.00                       | 33.22                                                                                                  | H                 | 1.5           | 31.55              | -26.64        | 0.74                                                                               | 54.00                                                                              | 38.87                     | 15.13          |
| 5150.00                       | 33.20                                                                                                  | V                 | 1.5           | 31.55              | -26.64        | 0.74                                                                               | 54.00                                                                              | 38.85                     | 15.15          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                           |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 a – CH 52(5 260 MHz)                               |                   |               |                    |               |                                                                                    |                                                                                    |                           |                |
|                               | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                                                                                    |                           |                |
|                               | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                                                                                    |                           |                |
|                               | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                                                                                    |                           |                |

## Test Data (802.11a 5320)

Test Date : 14-Aug-21

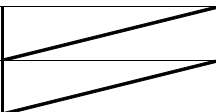
Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dBμV)                                                                                      | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB) | Result Value      |                    |                |
|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------|-------------------|--------------------|----------------|
|                               |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                              | Limit<br>(dBμV/m) | Result<br>(dBμV/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
| 5350.00                       | 46.03                                                                                                  | H                 | 1.5           | 31.63              | -26.63        |                              | 74.00             | 51.03              | 22.97          |
| 5350.00                       | 44.35                                                                                                  | V                 | 1.5           | 31.63              | -26.63        |                              |                   | 74.00              | 49.35          |
|                               |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
| 5350.00                       | 33.70                                                                                                  | H                 | 1.5           | 31.63              | -26.63        | 0.74                         | 54.00             | 39.44              | 14.56          |
| 5350.00                       | 33.63                                                                                                  | V                 | 1.5           | 31.63              | -26.63        | 0.74                         | 54.00             | 39.37              | 14.63          |
|                               |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 a – CH 64(5 320 MHz)                               |                   |               |                    |               |                              |                   |                    |                |
|                               | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                              |                   |                    |                |
|                               | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                              |                   |                    |                |
|                               | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |

## Test Data (802.11a 5500)

Test Date : 14-Aug-21

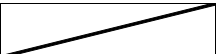
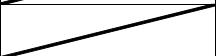
Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dBμV)                                                                                      | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value      |                    |                |
|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|-------------------|--------------------|----------------|
|                               |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dBμV/m) | Result<br>(dBμV/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
| 5150.00                       | 46.32                                                                                                  | H                 | 1.5           | 31.55              | -26.64        |  | 74.00             | 51.23              | 22.77          |
| 5150.00                       | 51.77                                                                                                  | V                 | 1.5           | 31.55              | -26.64        |                                                                                    | 74.00             | 56.68              | 17.32          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
| 5150.00                       | 33.56                                                                                                  | H                 | 1.5           | 31.55              | -26.64        | 0.74                                                                               | 54.00             | 39.21              | 14.79          |
| 5150.00                       | 33.71                                                                                                  | V                 | 1.5           | 31.55              | -26.64        | 0.74                                                                               | 54.00             | 39.36              | 14.64          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 a – CH 100(5 500 MHz)                              |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |

## Test Data (802.11a 5700)

Test Date : 14-Aug-21

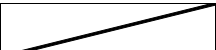
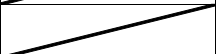
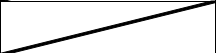
Measurement Distance : 3 m

| Frequency<br>(MHz)             | Reading<br>(dB $\mu$ V)                                                                                | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value                                                                       |                          |                |
|--------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------|----------------|
|                                |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dB $\mu$ V/m)                                                            | Result<br>(dB $\mu$ V/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz    VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
| 5725.00                        | 50.63                                                                                                  | H                 | 1.5           | 31.77              | -26.77        |  | 74.00                                                                              | 55.64                    | 18.36          |
| 5725.00                        | 49.52                                                                                                  | V                 | 1.5           | 31.77              | -26.77        |                                                                                    |  | 74.00                    | 54.53          |
|                                |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                                |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                                |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                                |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                                |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                                |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
| AV(RBW: 1 MHz    VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
| 5725.00                        | 33.97                                                                                                  | H                 | 1.5           | 31.77              | -26.77        | 0.74                                                                               | 54.00                                                                              | 39.72                    | 14.28          |
| 5725.00                        | 38.34                                                                                                  | V                 | 1.5           | 31.77              | -26.77        | 0.74                                                                               | 54.00                                                                              | 44.09                    | 9.91           |
|                                |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                                |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                                |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                                |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                                |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                                |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
| Remark                         | H : Horizontal,    V : Vertical    TEST MODE : 802.11 a – CH 140(5 700 MHz)                            |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                                | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                                | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                                | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |

## Test Data(802.11n HT20 5180)

Test Date : 15-Aug-21

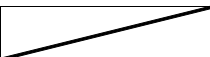
Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dB $\mu$ V)                                                                                | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value            |                          |                |
|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|-------------------------|--------------------------|----------------|
|                               |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dB $\mu$ V/m) | Result<br>(dB $\mu$ V/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5124.00                       | 49.13                                                                                                  | H                 | 1.5           | 31.54              | -26.64        |  | 74.00                   | 54.03                    | 19.97          |
| 5127.00                       | 46.15                                                                                                  | V                 | 1.6           | 31.54              | -26.64        |  | 74.00                   | 51.05                    | 22.95          |
| 5150.00                       | 43.95                                                                                                  | H                 | 1.5           | 31.55              | -26.64        |  | 74.00                   | 48.86                    | 25.14          |
| 5150.00                       | 44.65                                                                                                  | V                 | 1.6           | 31.55              | -26.64        |  | 74.00                   | 49.56                    | 24.44          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5127.00                       | 34.56                                                                                                  | V                 | 1.6           | 31.54              | -26.64        | 0.74                                                                               | 54.00                   | 40.21                    | 13.79          |
| 5150.00                       | 33.34                                                                                                  | H                 | 1.6           | 31.55              | -26.64        | 0.74                                                                               | 54.00                   | 39.00                    | 15.00          |
| 5150.00                       | 33.48                                                                                                  | V                 | 1.6           | 31.55              | -26.64        | 0.74                                                                               | 54.00                   | 39.14                    | 14.86          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 HT20 – CH 36(5 180 MHz)                            |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                         |                          |                |

## Test Data(802.11n HT20 5240)

Test Date : 15-Aug-21

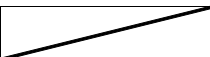
Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dB $\mu$ V)                                                                                                                                                                                                                                 | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value            |                          |                |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|-------------------------|--------------------------|----------------|
|                               |                                                                                                                                                                                                                                                         |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dB $\mu$ V/m) | Result<br>(dB $\mu$ V/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5350.00                       | 44.74                                                                                                                                                                                                                                                   | H                 | 1.6           | 31.63              | -26.63        |  | 74.00                   | 49.74                    | 24.26          |
| 5350.00                       | 44.80                                                                                                                                                                                                                                                   | V                 | 1.7           | 31.63              | -26.63        |                                                                                    | 74.00                   | 49.80                    | 24.20          |
|                               |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                         |                          |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5350.00                       | 32.49                                                                                                                                                                                                                                                   | H                 | 1.6           | 31.63              | -26.63        | 0.74                                                                               | 54.00                   | 38.23                    | 15.77          |
| 5350.00                       | 32.39                                                                                                                                                                                                                                                   | V                 | 1.7           | 31.63              | -26.63        | 0.74                                                                               | 54.00                   | 38.13                    | 15.87          |
|                               |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                         |                          |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 n HT20- CH 48(5 240 MHz)                                                                                                                                                                            |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *The TX signal wasn't detected from 3th harmonics.<br>*Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position)<br>*Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain + Duty Cycle Correction |                   |               |                    |               |                                                                                    |                         |                          |                |

## Test Data(802.11n HT20 5320)

Test Date : 15-Aug-21

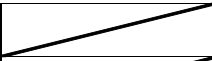
Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dB $\mu$ V)                                                                                | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value            |                          |                |
|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|-------------------------|--------------------------|----------------|
|                               |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dB $\mu$ V/m) | Result<br>(dB $\mu$ V/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5350.00                       | 45.05                                                                                                  | H                 | 1.6           | 31.63              | -26.63        |  | 74.00                   | 50.05                    | 23.95          |
| 5350.00                       | 45.05                                                                                                  | V                 | 1.5           | 31.63              | -26.63        |                                                                                    | 74.00                   | 50.05                    | 23.95          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5350.00                       | 33.67                                                                                                  | H                 | 1.6           | 31.63              | -26.63        | 0.74                                                                               | 54.00                   | 39.41                    | 14.59          |
| 5350.00                       | 33.74                                                                                                  | V                 | 1.6           | 31.63              | -26.63        | 0.74                                                                               | 54.00                   | 39.48                    | 14.52          |
| 5372.00                       | 34.37                                                                                                  | V                 | 1.6           | 31.64              | -26.63        | 0.74                                                                               | 54.00                   | 40.12                    | 13.88          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 n HT20- CH 64(5 320 MHz)                           |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                         |                          |                |

## Test Data(802.11n HT20 5500)

Test Date : 15-Aug-21

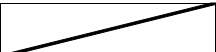
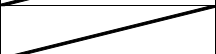
Measurement Distance : 3 m

| Frequency<br>(MHz)           | Reading<br>(dB $\mu$ V)                                                                                | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value            |                          |                |
|------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|-------------------------|--------------------------|----------------|
|                              |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dB $\mu$ V/m) | Result<br>(dB $\mu$ V/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz  VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5470.00                      | 44.31                                                                                                  | H                 | 1.6           | 31.67              | -26.69        |  | 74.00                   | 49.29                    | 24.71          |
| 5470.00                      | 44.24                                                                                                  | V                 | 1.5           | 31.67              | -26.69        |                                                                                    | 74.00                   | 49.22                    | 24.78          |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| AV(RBW: 1 MHz  VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5470.00                      | 33.34                                                                                                  | H                 | 1.6           | 31.67              | -26.69        | 0.74                                                                               | 54.00                   | 39.06                    | 14.94          |
| 5470.00                      | 33.28                                                                                                  | V                 | 1.6           | 31.67              | -26.69        | 0.74                                                                               | 54.00                   | 39.00                    | 15.00          |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| Remark                       | H : Horizontal,   V : Vertical   TEST MODE : 802.11 n HT20- CH 100(5 500 MHz)                          |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              | *Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                         |                          |                |

## Test Data(802.11n HT20 5700)

Test Date : 15-Aug-21

Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dB $\mu$ V)                                                                                | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value                                                                       |                          |                |
|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------|----------------|
|                               |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dB $\mu$ V/m)                                                            | Result<br>(dB $\mu$ V/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
| 5725.00                       | 48.59                                                                                                  | H                 | 1.6           | 31.77              | -26.77        |  | 74.00                                                                              | 53.60                    | 20.40          |
| 5725.00                       | 52.29                                                                                                  | V                 | 1.7           | 31.77              | -26.77        |                                                                                    |  | 74.00                    | 57.30          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
| 5725.00                       | 36.92                                                                                                  | H                 | 1.6           | 31.77              | -26.77        | 0.74                                                                               | 54.00                                                                              | 42.67                    | 11.33          |
| 5725.00                       | 38.91                                                                                                  | V                 | 1.7           | 31.77              | -26.77        | 0.74                                                                               | 54.00                                                                              | 44.66                    | 9.34           |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 n HT20- CH 140(5 700 MHz)                          |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                               | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                               | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |
|                               | *Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                                                                                    |                          |                |

## Test Data(802.11n HT40 5190)

Test Date : 15-Aug-21

Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dB $\mu V$ )                                                                               | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB) | Result Value             |                           |                |
|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------|--------------------------|---------------------------|----------------|
|                               |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                              | Limit<br>(dB $\mu V$ /m) | Result<br>(dB $\mu V$ /m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                              |                          |                           |                |
| 5117.00                       | 47.53                                                                                                  | V                 | 1.5           | 31.54              | -26.64        | <div></div>                  | 74.00                    | 52.43                     | 21.57          |
| 5150.00                       | 44.87                                                                                                  | H                 | 1.6           | 31.55              | -26.64        | <div></div>                  | 74.00                    | 49.78                     | 24.22          |
| 5150.00                       | 44.25                                                                                                  | V                 | 1.5           | 31.55              | -26.64        | <div></div>                  | 74.00                    | 49.16                     | 24.84          |
|                               |                                                                                                        |                   |               |                    |               |                              |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                          |                           |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                              |                          |                           |                |
| 5117.00                       | 34.92                                                                                                  | V                 | 1.5           | 31.54              | -26.64        | 1.47                         | 54.00                    | 41.28                     | 12.72          |
| 5150.00                       | 33.28                                                                                                  | H                 | 1.7           | 31.55              | -26.64        | 1.47                         | 54.00                    | 39.66                     | 14.34          |
| 5150.00                       | 33.32                                                                                                  | V                 | 1.5           | 31.55              | -26.64        | 1.47                         | 54.00                    | 39.70                     | 14.30          |
|                               |                                                                                                        |                   |               |                    |               |                              |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                          |                           |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 n40 – CH 38(5 190 MHz)                             |                   |               |                    |               |                              |                          |                           |                |
|                               | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                              |                          |                           |                |
|                               | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                              |                          |                           |                |
|                               | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                              |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                          |                           |                |

# Test Data(802.11n HT40 5230)

Test Date : 15-Aug-21

Measurement Distance : 3 m

| Frequency<br>(MHz)           | Reading<br>(dBμV)                                                                                      | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB) | Result Value      |                    |                |
|------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------|-------------------|--------------------|----------------|
|                              |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                              | Limit<br>(dBμV/m) | Result<br>(dBμV/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz  VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
| 5350.00                      | 43.87                                                                                                  | H                 | 1.7           | 31.63              | -26.63        |                              | 74.00             | 48.87              | 25.13          |
| 5350.00                      | 44.63                                                                                                  | V                 | 1.6           | 31.63              | -26.63        |                              | 74.00             | 49.63              | 24.37          |
| 5739.00                      | 47.21                                                                                                  | V                 | 1.6           | 31.78              | -26.76        |                              | 74.00             | 52.23              | 21.77          |
|                              |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
| AV(RBW: 1 MHz  VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
| 5350.00                      | 33.72                                                                                                  | H                 | 1.7           | 31.63              | -26.63        | 1.47                         | 54.00             | 40.18              | 13.82          |
| 5350.00                      | 33.76                                                                                                  | V                 | 1.6           | 31.63              | -26.63        | 1.47                         | 54.00             | 40.22              | 13.78          |
|                              |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
| Remark                       | H : Horizontal,    V : Vertical    TEST MODE : 802.11 n40 – CH 46(5 230 MHz)                           |                   |               |                    |               |                              |                   |                    |                |
|                              | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                              |                   |                    |                |
|                              | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                              |                   |                    |                |
|                              | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                              |                   |                    |                |

## Test Data(802.11n HT40 5270)

Test Date : 15-Aug-21

Measurement Distance : 3 m

| Frequency<br>(MHz)           | Reading<br>(dBμV)                                                                                                                                                                                                                                       | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB) | Result Value      |                    |                |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------|-------------------|--------------------|----------------|
|                              |                                                                                                                                                                                                                                                         |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                              | Limit<br>(dBμV/m) | Result<br>(dBμV/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz  VBW: 3 MHz) |                                                                                                                                                                                                                                                         |                   |               |                    |               |                              |                   |                    |                |
| 5150.00                      | 43.71                                                                                                                                                                                                                                                   | V                 | 1.5           | 31.55              | -26.64        |                              | 74.00             | 48.62              | 25.38          |
| 5150.00                      | 44.25                                                                                                                                                                                                                                                   | H                 | 1.6           | 31.55              | -26.64        |                              |                   | 74.00              | 49.16          |
|                              |                                                                                                                                                                                                                                                         |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                                                                                                                                                                         |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                                                                                                                                                                         |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                                                                                                                                                                         |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                                                                                                                                                                         |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                                                                                                                                                                         |                   |               |                    |               |                              |                   |                    |                |
| AV(RBW: 1 MHz  VBW: 3 MHz)   |                                                                                                                                                                                                                                                         |                   |               |                    |               |                              |                   |                    |                |
| 5150.00                      | 33.09                                                                                                                                                                                                                                                   | H                 | 1.7           | 31.55              | -26.64        | 1.47                         | 54.00             | 39.47              | 14.53          |
| 5150.00                      | 33.15                                                                                                                                                                                                                                                   | V                 | 1.5           | 31.55              | -26.64        | 1.47                         | 54.00             | 39.53              | 14.47          |
|                              |                                                                                                                                                                                                                                                         |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                                                                                                                                                                         |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                                                                                                                                                                         |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                                                                                                                                                                         |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                                                                                                                                                                         |                   |               |                    |               |                              |                   |                    |                |
|                              |                                                                                                                                                                                                                                                         |                   |               |                    |               |                              |                   |                    |                |
| Remark                       | H : Horizontal,    V : Vertical    TEST MODE : 802.11 n40 – CH 54(5 270 MHz)                                                                                                                                                                            |                   |               |                    |               |                              |                   |                    |                |
|                              | *The TX signal wasn't detected from 3th harmonics.<br>*Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position)<br>*Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction |                   |               |                    |               |                              |                   |                    |                |

## Test Data(802.11n HT40 5310)

Test Date : 15-Aug-21

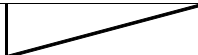
Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dB $\mu$ V)                                                                                | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB) | Result Value            |                          |                |
|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------|-------------------------|--------------------------|----------------|
|                               |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                              | Limit<br>(dB $\mu$ V/m) | Result<br>(dB $\mu$ V/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| 5350.00                       | 45.75                                                                                                  | H                 | 1.6           | 31.63              | -26.63        |                              | 74.00                   | 50.75                    | 23.25          |
| 5350.00                       | 45.27                                                                                                  | V                 | 1.6           | 31.63              | -26.63        |                              | 74.00                   | 50.27                    | 23.73          |
| 5382.00                       | 46.62                                                                                                  | H                 | 1.6           | 31.64              | -26.63        |                              | 74.00                   | 51.63                    | 22.37          |
| 5382.00                       | 48.27                                                                                                  | V                 | 1.6           | 31.64              | -26.63        |                              | 74.00                   | 53.28                    | 20.72          |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| 5350.00                       | 34.04                                                                                                  | H                 | 1.6           | 31.63              | -26.63        | 1.47                         | 54.00                   | 40.50                    | 13.50          |
| 5350.00                       | 34.12                                                                                                  | V                 | 1.6           | 31.63              | -26.63        | 1.47                         | 54.00                   | 40.58                    | 13.42          |
| 5382.00                       | 35.25                                                                                                  | H                 | 1.6           | 31.64              | -26.63        | 1.47                         | 54.00                   | 41.72                    | 12.28          |
| 5382.00                       | 36.18                                                                                                  | V                 | 1.6           | 31.64              | -26.63        | 1.47                         | 54.00                   | 42.65                    | 11.35          |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 n40 – CH 62(5 310 MHz)                             |                   |               |                    |               |                              |                         |                          |                |
|                               | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                              |                         |                          |                |
|                               | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                              |                         |                          |                |
|                               | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |

## Test Data(802.11n HT40 5510)

Test Date : 15-Aug-21

Measurement Distance : 3 m

| Frequency<br>(MHz)             | Reading<br>(dBμV)                                                                                                                                                                                                                                       | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value      |                    |                |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|-------------------|--------------------|----------------|
|                                |                                                                                                                                                                                                                                                         |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dBμV/m) | Result<br>(dBμV/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz    VBW: 3 MHz) |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                   |                    |                |
| 5470.00                        | 44.82                                                                                                                                                                                                                                                   | H                 | 1.7           | 31.67              | -26.69        |  | 74.00             | 49.80              | 24.20          |
| 5470.00                        | 45.57                                                                                                                                                                                                                                                   | V                 | 1.6           | 31.67              | -26.69        |  | 74.00             | 50.55              | 23.45          |
|                                |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                   |                    |                |
|                                |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                   |                    |                |
|                                |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                   |                    |                |
|                                |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                   |                    |                |
|                                |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                   |                    |                |
|                                |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                   |                    |                |
| AV(RBW: 1 MHz    VBW: 3 MHz)   |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                   |                    |                |
| 5470.00                        | 33.48                                                                                                                                                                                                                                                   | H                 | 1.7           | 31.67              | -26.69        | 1.47                                                                               | 54.00             | 39.93              | 14.07          |
| 5470.00                        | 33.53                                                                                                                                                                                                                                                   | V                 | 1.6           | 31.67              | -26.69        | 1.47                                                                               | 54.00             | 39.98              | 14.02          |
|                                |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                   |                    |                |
|                                |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                   |                    |                |
|                                |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                   |                    |                |
|                                |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                   |                    |                |
|                                |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                   |                    |                |
|                                |                                                                                                                                                                                                                                                         |                   |               |                    |               |                                                                                    |                   |                    |                |
| Remark                         | H : Horizontal,    V : Vertical    TEST MODE : 802.11 n40 – CH 102(5 510 MHz)                                                                                                                                                                           |                   |               |                    |               |                                                                                    |                   |                    |                |
|                                | *The TX signal wasn't detected from 3th harmonics.<br>*Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position)<br>*Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction |                   |               |                    |               |                                                                                    |                   |                    |                |

## Test Data(802.11n HT40 5670)

Test Date : 15-Aug-21

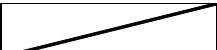
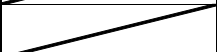
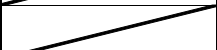
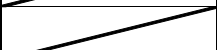
Measurement Distance : 3 m

| Frequency<br>(MHz)           | Reading<br>(dB $\mu$ V)                                                                                | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB) | Result Value            |                          |                |
|------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------|-------------------------|--------------------------|----------------|
|                              |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                              | Limit<br>(dB $\mu$ V/m) | Result<br>(dB $\mu$ V/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz  VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| 5725.00                      | 44.63                                                                                                  | H                 | 1.7           | 31.77              | -26.77        |                              | 74.00                   | 49.64                    | 24.36          |
| 5725.00                      | 45.44                                                                                                  | V                 | 1.6           | 31.77              | -26.77        |                              | 74.00                   | 50.45                    | 23.55          |
| 5742.00                      | 48.21                                                                                                  | H                 | 1.7           | 31.78              | -26.76        |                              | 74.00                   | 53.23                    | 20.77          |
| 5742.00                      | 48.50                                                                                                  | V                 | 1.6           | 31.78              | -26.76        |                              | 74.00                   | 53.52                    | 20.48          |
|                              |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| AV(RBW: 1 MHz  VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| 5725.00                      | 33.72                                                                                                  | H                 | 1.7           | 31.77              | -26.77        | 1.47                         | 54.00                   | 40.19                    | 13.81          |
| 5725.00                      | 33.75                                                                                                  | V                 | 1.6           | 31.77              | -26.77        | 1.47                         | 54.00                   | 40.22                    | 13.78          |
| 5742.00                      | 35.35                                                                                                  | H                 | 1.7           | 31.78              | -26.76        | 1.47                         | 54.00                   | 41.84                    | 12.16          |
| 5742.00                      | 36.04                                                                                                  | V                 | 1.6           | 31.78              | -26.76        | 1.47                         | 54.00                   | 42.53                    | 11.47          |
|                              |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| Remark                       | H : Horizontal,    V : Vertical    TEST MODE : 802.11 n40 – CH 134(5 670 MHz)                          |                   |               |                    |               |                              |                         |                          |                |
|                              | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                              |                         |                          |                |
|                              | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                              |                         |                          |                |
|                              | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                              |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |

## Test Data(802.11ac VHT20 5180)

Test Date : 16-Aug-21

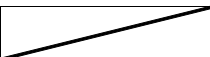
Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dB $\mu$ V)                                                                                | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value            |                          |                |
|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|-------------------------|--------------------------|----------------|
|                               |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dB $\mu$ V/m) | Result<br>(dB $\mu$ V/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5124.00                       | 45.17                                                                                                  | H                 | 1.5           | 31.54              | -26.64        |  | 74.00                   | 50.07                    | 23.93          |
| 4990.00                       | 47.42                                                                                                  | V                 | 1.6           | 31.46              | -26.66        |  | 74.00                   | 52.22                    | 21.78          |
| 5150.00                       | 44.86                                                                                                  | H                 | 1.5           | 31.55              | -26.64        |  | 74.00                   | 49.77                    | 24.23          |
| 5150.00                       | 45.71                                                                                                  | V                 | 1.6           | 31.55              | -26.64        |  | 74.00                   | 50.62                    | 23.38          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5128.00                       | 34.07                                                                                                  | H                 | 1.6           | 31.54              | -26.64        | 1.47                                                                               | 54.00                   | 40.44                    | 13.56          |
| 5128.00                       | 34.37                                                                                                  | V                 | 1.6           | 31.54              | -26.64        | 1.47                                                                               | 54.00                   | 40.74                    | 13.26          |
| 5150.00                       | 33.35                                                                                                  | H                 | 1.6           | 31.55              | -26.64        | 1.47                                                                               | 54.00                   | 39.73                    | 14.27          |
| 5150.00                       | 33.36                                                                                                  | V                 | 1.6           | 31.55              | -26.64        | 1.47                                                                               | 54.00                   | 39.74                    | 14.26          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 VHT20 – CH 36(5 180 MHz)                           |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                         |                          |                |

## Test Data(802.11ac VHT20 5240)

Test Date : 16-Aug-21

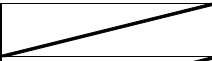
Measurement Distance : 3 m

| Frequency<br>(MHz)           | Reading<br>(dB $\mu V$ )                                                                               | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value             |                           |                |
|------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|--------------------------|---------------------------|----------------|
|                              |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dB $\mu V$ /m) | Result<br>(dB $\mu V$ /m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz  VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
| 5350.00                      | 44.96                                                                                                  | H                 | 1.6           | 31.63              | -26.63        |  | 74.00                    | 49.96                     | 24.04          |
| 5350.00                      | 44.47                                                                                                  | V                 | 1.7           | 31.63              | -26.63        |                                                                                    | 74.00                    | 49.47                     | 24.53          |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
| AV(RBW: 1 MHz  VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
| 5350.00                      | 33.68                                                                                                  | H                 | 1.6           | 31.63              | -26.63        | 0.78                                                                               | 54.00                    | 39.46                     | 14.54          |
| 5350.00                      | 33.75                                                                                                  | V                 | 1.7           | 31.63              | -26.63        | 0.78                                                                               | 54.00                    | 39.53                     | 14.47          |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
| Remark                       | H : Horizontal,    V : Vertical    TEST MODE : 802.11 ac VHT20- CH 48(5 240 MHz)                       |                   |               |                    |               |                                                                                    |                          |                           |                |
|                              | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                          |                           |                |
|                              | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                          |                           |                |
|                              | *Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                          |                           |                |

## Test Data(802.11ac VHT20 5320)

Test Date : 16-Aug-21

Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dBμV)                                                                                      | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value      |                    |                |
|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|-------------------|--------------------|----------------|
|                               |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dBμV/m) | Result<br>(dBμV/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
| 5350.00                       | 45.83                                                                                                  | H                 | 1.6           | 31.63              | -26.63        |  | 74.00             | 50.83              | 23.17          |
| 5350.00                       | 44.35                                                                                                  | V                 | 1.5           | 31.63              | -26.63        |                                                                                    | 74.00             | 49.35              | 24.65          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
| 5350.00                       | 33.74                                                                                                  | H                 | 1.6           | 31.63              | -26.63        | 0.78                                                                               | 54.00             | 39.52              | 14.48          |
| 5350.00                       | 33.80                                                                                                  | V                 | 1.6           | 31.63              | -26.63        | 0.78                                                                               | 54.00             | 39.58              | 14.42          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 ac VHT20- CH 64(5 320 MHz)                         |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                   |                    |                |
|                               | *Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                   |                    |                |

## Test Data(802.11ac VHT20 5500)

Test Date : 16-Aug-21

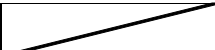
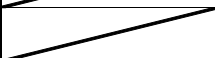
Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dBμV)                                                                                                                                                                                                                                                                                                                                                             | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB) | Result Value      |                    |                |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------|-------------------|--------------------|----------------|
|                               |                                                                                                                                                                                                                                                                                                                                                                               |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                              | Limit<br>(dBμV/m) | Result<br>(dBμV/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                                                                                                                                                                                                                                                                                               |                   |               |                    |               |                              |                   |                    |                |
| 5470.00                       | 43.94                                                                                                                                                                                                                                                                                                                                                                         | H                 | 1.6           | 31.67              | -26.69        |                              | 74.00             | 48.92              | 25.08          |
| 5470.00                       | 44.89                                                                                                                                                                                                                                                                                                                                                                         | V                 | 1.5           | 31.67              | -26.69        |                              | 74.00             | 49.87              | 24.13          |
|                               |                                                                                                                                                                                                                                                                                                                                                                               |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                                                                                                                                                                                                                                                                                               |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                                                                                                                                                                                                                                                                                               |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                                                                                                                                                                                                                                                                                               |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                                                                                                                                                                                                                                                                                               |                   |               |                    |               |                              |                   |                    |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                                                                                                                                                                                                                                                                                               |                   |               |                    |               |                              |                   |                    |                |
| 5470.00                       | 33.44                                                                                                                                                                                                                                                                                                                                                                         | H                 | 1.6           | 31.67              | -26.69        | 0.78                         | 54.00             | 39.20              | 14.80          |
| 5470.00                       | 33.45                                                                                                                                                                                                                                                                                                                                                                         | V                 | 1.6           | 31.67              | -26.69        | 0.78                         | 54.00             | 39.21              | 14.79          |
|                               |                                                                                                                                                                                                                                                                                                                                                                               |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                                                                                                                                                                                                                                                                                               |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                                                                                                                                                                                                                                                                                               |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                                                                                                                                                                                                                                                                                               |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                                                                                                                                                                                                                                                                                               |                   |               |                    |               |                              |                   |                    |                |
|                               |                                                                                                                                                                                                                                                                                                                                                                               |                   |               |                    |               |                              |                   |                    |                |
| Remark                        | <div>H : Horizontal,   V : Vertical   TEST MODE : 802.11 ac VHT20- CH 100(5 500 MHz)</div> <div>*The TX signal wasn't detected from 3th harmonics.</div> <div>*Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position)</div> <div>*Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain + Duty Cycle Correction</div> |                   |               |                    |               |                              |                   |                    |                |

## Test Data(802.11ac VHT20 5700)

Test Date : 16-Aug-21

Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dBμV)                                                                                      | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value                                                                       |                    |                |
|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------|----------------|
|                               |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dBμV/m)                                                                  | Result<br>(dBμV/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                    |                |
| 5725.00                       | 50.11                                                                                                  | H                 | 1.6           | 31.77              | -26.77        |  | 74.00                                                                              | 55.12              | 18.88          |
| 5725.00                       | 49.53                                                                                                  | V                 | 1.7           | 31.77              | -26.77        |                                                                                    |  | 74.00              | 54.54          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                    |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                    |                |
| 5725.00                       | 36.65                                                                                                  | H                 | 1.6           | 31.77              | -26.77        | 0.78                                                                               | 54.00                                                                              | 42.44              | 11.56          |
| 5725.00                       | 37.35                                                                                                  | V                 | 1.7           | 31.77              | -26.77        | 0.78                                                                               | 54.00                                                                              | 43.14              | 10.86          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                    |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                                                                                    |                    |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 ac VHT20- CH 140(5 700 MHz)                        |                   |               |                    |               |                                                                                    |                                                                                    |                    |                |
|                               | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                                                                                    |                    |                |
|                               | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                                                                                    |                    |                |
|                               | *Total = Reading Value + Antenna Factor + Cable Loss - Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                                                                                    |                    |                |

## Test Data(802.11n HT40 5190)

Test Date : 17-Aug-21

Measurement Distance : 3 m

| Frequency<br>(MHz)             | Reading<br>(dBμV)                                                                                      | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB) | Result Value      |                    |                |
|--------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------|-------------------|--------------------|----------------|
|                                |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                              | Limit<br>(dBμV/m) | Result<br>(dBμV/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz    VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
| 5117.00                        | 47.53                                                                                                  | V                 | 1.5           | 31.54              | -26.64        |                              | 74.00             | 52.43              | 21.57          |
| 5150.00                        | 44.87                                                                                                  | H                 | 1.6           | 31.55              | -26.64        |                              | 74.00             | 49.78              | 24.22          |
| 5150.00                        | 44.25                                                                                                  | V                 | 1.5           | 31.55              | -26.64        |                              | 74.00             | 49.16              | 24.84          |
|                                |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                                |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                                |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                                |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                                |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
| AV(RBW: 1 MHz    VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
| 5117.00                        | 34.92                                                                                                  | V                 | 1.5           | 31.54              | -26.64        | 1.46                         | 54.00             | 41.27              | 12.73          |
| 5150.00                        | 33.28                                                                                                  | H                 | 1.7           | 31.55              | -26.64        | 1.46                         | 54.00             | 39.65              | 14.35          |
| 5150.00                        | 33.32                                                                                                  | V                 | 1.5           | 31.55              | -26.64        | 1.46                         | 54.00             | 39.69              | 14.31          |
|                                |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                                |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                                |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                                |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
|                                |                                                                                                        |                   |               |                    |               |                              |                   |                    |                |
| Remark                         | H : Horizontal,    V : Vertical    TEST MODE : 802.11 n40 – CH 38(5 190 MHz)                           |                   |               |                    |               |                              |                   |                    |                |
|                                | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                              |                   |                    |                |
|                                | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                              |                   |                    |                |
|                                | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                              |                   |                    |                |

## Test Data(802.11n HT40 5230)

Test Date : 17-Aug-21

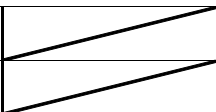
Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dB $\mu$ V)                                                                                | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB) | Result Value            |                          |                |
|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------|-------------------------|--------------------------|----------------|
|                               |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                              | Limit<br>(dB $\mu$ V/m) | Result<br>(dB $\mu$ V/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| 5350.00                       | 43.87                                                                                                  | H                 | 1.7           | 31.63              | -26.63        |                              | 74.00                   | 48.87                    | 25.13          |
| 5350.00                       | 44.63                                                                                                  | V                 | 1.6           | 31.63              | -26.63        |                              | 74.00                   | 49.63                    | 24.37          |
| 5739.00                       | 47.21                                                                                                  | V                 | 1.6           | 31.78              | -26.76        |                              | 74.00                   | 52.23                    | 21.77          |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| 5350.00                       | 33.72                                                                                                  | H                 | 1.7           | 31.63              | -26.63        | 1.46                         | 54.00                   | 40.17                    | 13.83          |
| 5350.00                       | 33.76                                                                                                  | V                 | 1.6           | 31.63              | -26.63        | 1.46                         | 54.00                   | 40.21                    | 13.79          |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 n40 – CH 46(5 230 MHz)                             |                   |               |                    |               |                              |                         |                          |                |
|                               | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                              |                         |                          |                |
|                               | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                              |                         |                          |                |
|                               | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |

## Test Data(802.11n HT40 5270)

Test Date : 17-Aug-21

Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dB $\mu V$ )                                                                               | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value             |                           |                |
|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|--------------------------|---------------------------|----------------|
|                               |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dB $\mu V$ /m) | Result<br>(dB $\mu V$ /m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
| 5150.00                       | 43.71                                                                                                  | V                 | 1.5           | 31.55              | -26.64        |  | 74.00                    | 48.62                     | 25.38          |
| 5150.00                       | 44.25                                                                                                  | H                 | 1.6           | 31.55              | -26.64        |                                                                                    | 74.00                    | 49.16                     | 24.84          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
| 5150.00                       | 33.09                                                                                                  | H                 | 1.7           | 31.55              | -26.64        | 1.46                                                                               | 54.00                    | 39.46                     | 14.54          |
| 5150.00                       | 33.15                                                                                                  | V                 | 1.5           | 31.55              | -26.64        | 1.46                                                                               | 54.00                    | 39.52                     | 14.48          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                          |                           |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 n40 – CH 54(5 270 MHz)                             |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                          |                           |                |
|                               | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                          |                           |                |

# Test Data(802.11n HT40 5310)

Test Date : 17-Aug-21

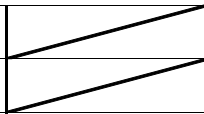
Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dB $\mu$ V)                                                                                | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB) | Result Value            |                          |                |
|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------|-------------------------|--------------------------|----------------|
|                               |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                              | Limit<br>(dB $\mu$ V/m) | Result<br>(dB $\mu$ V/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| 5350.00                       | 45.75                                                                                                  | H                 | 1.6           | 31.63              | -26.63        |                              | 74.00                   | 50.75                    | 23.25          |
| 5350.00                       | 45.27                                                                                                  | V                 | 1.6           | 31.63              | -26.63        |                              | 74.00                   | 50.27                    | 23.73          |
| 5382.00                       | 46.62                                                                                                  | H                 | 1.6           | 31.64              | -26.63        |                              | 74.00                   | 51.63                    | 22.37          |
| 5382.00                       | 48.27                                                                                                  | V                 | 1.6           | 31.64              | -26.63        |                              | 74.00                   | 53.28                    | 20.72          |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| 5350.00                       | 34.04                                                                                                  | H                 | 1.6           | 31.63              | -26.63        | 1.46                         | 54.00                   | 40.49                    | 13.51          |
| 5350.00                       | 34.12                                                                                                  | V                 | 1.6           | 31.63              | -26.63        | 1.46                         | 54.00                   | 40.57                    | 13.43          |
| 5382.00                       | 35.25                                                                                                  | H                 | 1.6           | 31.64              | -26.63        | 1.46                         | 54.00                   | 41.71                    | 12.29          |
| 5382.00                       | 36.18                                                                                                  | V                 | 1.6           | 31.64              | -26.63        | 1.46                         | 54.00                   | 42.64                    | 11.36          |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 n40 – CH 62(5 310 MHz)                             |                   |               |                    |               |                              |                         |                          |                |
|                               | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                              |                         |                          |                |
|                               | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                              |                         |                          |                |
|                               | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                              |                         |                          |                |

## Test Data(802.11n HT40 5510)

Test Date : 17-Aug-21

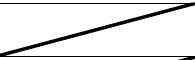
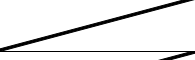
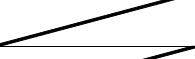
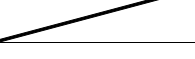
Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dB $\mu$ V)                                                                                | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value            |                          |                |
|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|-------------------------|--------------------------|----------------|
|                               |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dB $\mu$ V/m) | Result<br>(dB $\mu$ V/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5470.00                       | 44.82                                                                                                  | H                 | 1.7           | 31.67              | -26.69        |  | 74.00                   | 49.80                    | 24.20          |
| 5470.00                       | 45.57                                                                                                  | V                 | 1.6           | 31.67              | -26.69        |                                                                                    | 74.00                   | 50.55                    | 23.45          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5470.00                       | 33.48                                                                                                  | H                 | 1.7           | 31.67              | -26.69        | 1.46                                                                               | 54.00                   | 39.92                    | 14.08          |
| 5470.00                       | 33.53                                                                                                  | V                 | 1.6           | 31.67              | -26.69        | 1.46                                                                               | 54.00                   | 39.97                    | 14.03          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 n40 – CH 102(5 510 MHz)                            |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                         |                          |                |

## Test Data(802.11ac VHT40 5670)

Test Date : 17-Aug-21

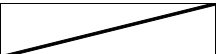
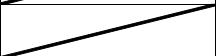
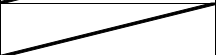
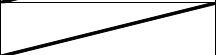
Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dB $\mu$ V)                                                                                | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value            |                          |                |
|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|-------------------------|--------------------------|----------------|
|                               |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dB $\mu$ V/m) | Result<br>(dB $\mu$ V/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5725.00                       | 45.24                                                                                                  | H                 | 1.7           | 31.77              | -26.77        |  | 74.00                   | 50.25                    | 23.75          |
| 5725.00                       | 44.08                                                                                                  | V                 | 1.6           | 31.77              | -26.77        |  | 74.00                   | 49.09                    | 24.91          |
| 5743.00                       | 48.59                                                                                                  | H                 | 1.7           | 31.78              | -26.76        |  | 74.00                   | 53.61                    | 20.39          |
| 5741.00                       | 48.41                                                                                                  | V                 | 1.6           | 31.78              | -26.76        |  | 74.00                   | 53.43                    | 20.57          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5725.00                       | 33.74                                                                                                  | H                 | 1.7           | 31.77              | -26.77        | 1.46                                                                               | 54.00                   | 40.20                    | 13.80          |
| 5725.00                       | 33.75                                                                                                  | V                 | 1.6           | 31.77              | -26.77        | 1.46                                                                               | 54.00                   | 40.21                    | 13.79          |
| 5742.00                       | 34.76                                                                                                  | H                 | 1.7           | 31.78              | -26.76        | 1.46                                                                               | 54.00                   | 41.23                    | 12.77          |
| 5742.00                       | 35.76                                                                                                  | V                 | 1.6           | 31.78              | -26.76        | 1.46                                                                               | 54.00                   | 42.23                    | 11.77          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 ac VHT40 – CH 134(5 670 MHz)                       |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |

## Test Data(802.11ac VHT80 5210)

Test Date : 18-Aug-21

Measurement Distance : 3 m

| Frequency<br>(MHz)           | Reading<br>(dB $\mu$ V)                                                                                | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value            |                          |                |
|------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|-------------------------|--------------------------|----------------|
|                              |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dB $\mu$ V/m) | Result<br>(dB $\mu$ V/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz  VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5138.00                      | 55.14                                                                                                  | H                 | 1.6           | 31.54              | -26.64        |  | 74.00                   | 60.05                    | 13.95          |
| 5138.00                      | 57.18                                                                                                  | V                 | 1.5           | 31.54              | -26.64        |  | 74.00                   | 62.09                    | 11.91          |
| 5150.00                      | 47.33                                                                                                  | H                 | 1.5           | 31.55              | -26.64        |  | 74.00                   | 52.24                    | 21.76          |
| 5150.00                      | 47.53                                                                                                  | V                 | 1.5           | 31.55              | -26.64        |  | 74.00                   | 52.44                    | 21.56          |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| AV(RBW: 1 MHz  VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5138.00                      | 38.48                                                                                                  | H                 | 1.7           | 31.54              | -26.64        | 0.80                                                                               | 54.00                   | 44.18                    | 9.82           |
| 5138.00                      | 38.92                                                                                                  | V                 | 1.5           | 31.54              | -26.64        | 0.80                                                                               | 54.00                   | 44.62                    | 9.38           |
| 5150.00                      | 33.78                                                                                                  | H                 | 1.7           | 31.55              | -26.64        | 0.80                                                                               | 54.00                   | 39.49                    | 14.51          |
| 5150.00                      | 34.00                                                                                                  | V                 | 1.5           | 31.55              | -26.64        | 0.80                                                                               | 54.00                   | 39.71                    | 14.29          |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| Remark                       | H : Horizontal,   V : Vertical   TEST MODE : 802.11 ac VHT80 – CH 42(5 210 MHz)                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |

## Test Data(802.11ac VHT80 5290)

Test Date : 18-Aug-21

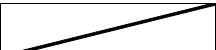
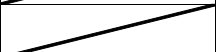
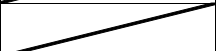
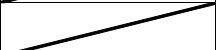
Measurement Distance : 3 m

| Frequency<br>(MHz)           | Reading<br>(dB $\mu$ V)                                                                                | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB) | Result Value            |                          |                |
|------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------|-------------------------|--------------------------|----------------|
|                              |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                              | Limit<br>(dB $\mu$ V/m) | Result<br>(dB $\mu$ V/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz  VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| 5360.00                      | 54.62                                                                                                  | H                 | 1.6           | 31.63              | -26.63        | <div></div>                  | 74.00                   | 59.62                    | 14.38          |
| 5361.00                      | 56.90                                                                                                  | V                 | 1.5           | 31.63              | -26.63        | <div></div>                  | 74.00                   | 61.90                    | 12.10          |
| 5350.00                      | 46.08                                                                                                  | H                 | 1.5           | 31.63              | -26.63        | <div></div>                  | 74.00                   | 51.08                    | 22.92          |
| 5350.00                      | 47.34                                                                                                  | V                 | 1.5           | 31.63              | -26.63        | <div></div>                  | 74.00                   | 52.34                    | 21.66          |
|                              |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| AV(RBW: 1 MHz  VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| 5350.00                      | 33.97                                                                                                  | H                 | 1.7           | 31.63              | -26.63        | 0.80                         | 54.00                   | 39.76                    | 14.24          |
| 5350.00                      | 34.19                                                                                                  | V                 | 1.5           | 31.63              | -26.63        | 0.80                         | 54.00                   | 39.98                    | 14.02          |
| 5361.00                      | 38.23                                                                                                  | H                 | 1.6           | 31.63              | -26.63        | 0.80                         | 54.00                   | 44.03                    | 9.97           |
| 5361.00                      | 40.15                                                                                                  | V                 | 1.7           | 31.63              | -26.63        | 0.80                         | 54.00                   | 45.95                    | 8.05           |
|                              |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |
| Remark                       | H : Horizontal,  V : Vertical  TEST MODE : 802.11 ac VHT80 – CH 58(5 290 MHz)                          |                   |               |                    |               |                              |                         |                          |                |
|                              | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                              |                         |                          |                |
|                              | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                              |                         |                          |                |
|                              | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                              |                         |                          |                |
|                              |                                                                                                        |                   |               |                    |               |                              |                         |                          |                |

## Test Data(802.11ac VHT80 5530)

Test Date : 18-Aug-21

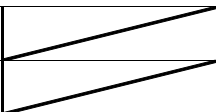
Measurement Distance : 3 m

| Frequency<br>(MHz)            | Reading<br>(dB $\mu$ V)                                                                                | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value            |                          |                |
|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|-------------------------|--------------------------|----------------|
|                               |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dB $\mu$ V/m) | Result<br>(dB $\mu$ V/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz   VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5457.00                       | 54.72                                                                                                  | H                 | 1.5           | 31.67              | -26.68        |  | 74.00                   | 59.71                    | 14.29          |
| 5457.00                       | 57.54                                                                                                  | V                 | 1.5           | 31.67              | -26.68        |  | 74.00                   | 62.53                    | 11.47          |
| 5470.00                       | 44.50                                                                                                  | H                 | 1.5           | 31.67              | -26.69        |  | 74.00                   | 49.48                    | 24.52          |
| 5470.00                       | 45.55                                                                                                  | V                 | 1.5           | 31.67              | -26.69        |  | 74.00                   | 50.53                    | 23.47          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| AV(RBW: 1 MHz   VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| 5457.00                       | 38.83                                                                                                  | H                 | 1.5           | 31.67              | -26.68        | 0.80                                                                               | 54.00                   | 44.61                    | 9.39           |
| 5457.00                       | 40.08                                                                                                  | V                 | 1.5           | 31.67              | -26.68        | 0.80                                                                               | 54.00                   | 45.86                    | 8.14           |
| 5470.00                       | 33.42                                                                                                  | H                 | 1.6           | 31.67              | -26.69        | 0.80                                                                               | 54.00                   | 39.20                    | 14.80          |
| 5470.00                       | 33.49                                                                                                  | V                 | 1.5           | 31.67              | -26.69        | 0.80                                                                               | 54.00                   | 39.27                    | 14.73          |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |
| Remark                        | H : Horizontal,   V : Vertical   TEST MODE : 802.11 ac VHT80 – CH 106(5 530 MHz)                       |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                         |                          |                |
|                               |                                                                                                        |                   |               |                    |               |                                                                                    |                         |                          |                |

## Test Data(802.11ac VHT80 5610)

Test Date : 18-Aug-21

Measurement Distance : 3 m

| Frequency<br>(MHz)           | Reading<br>(dBμV)                                                                                      | Position<br>(V/H) | Height<br>(m) | Correction Factor  |               | Duty Cycle<br>Correction(dB)                                                       | Result Value      |                    |                |
|------------------------------|--------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------|---------------|------------------------------------------------------------------------------------|-------------------|--------------------|----------------|
|                              |                                                                                                        |                   |               | Ant Factor<br>(dB) | Cable<br>(dB) |                                                                                    | Limit<br>(dBμV/m) | Result<br>(dBμV/m) | Margin<br>(dB) |
| PEAK(RBW: 1 MHz  VBW: 3 MHz) |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
| 5850.00                      | 44.96                                                                                                  | H                 | 1.6           | 31.82              | -26.69        |  | 74.00             | 50.09              | 23.91          |
| 5850.00                      | 44.56                                                                                                  | V                 | 1.5           | 31.82              | -26.69        |                                                                                    | 74.00             | 49.69              | 24.31          |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
| AV(RBW: 1 MHz  VBW: 3 MHz)   |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
| 5850.00                      | 33.92                                                                                                  | H                 | 1.7           | 31.82              | -26.69        | 0.80                                                                               | 54.00             | 39.85              | 14.15          |
| 5850.00                      | 34.00                                                                                                  | V                 | 1.5           | 31.82              | -26.69        | 0.80                                                                               | 54.00             | 39.93              | 14.07          |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |
| Remark                       | H : Horizontal,   V : Vertical   TEST MODE : 802.11 ac VHT80 – CH 122(5 610 MHz)                       |                   |               |                    |               |                                                                                    |                   |                    |                |
|                              | *The TX signal wasn't detected from 3th harmonics.                                                     |                   |               |                    |               |                                                                                    |                   |                    |                |
|                              | *Checked in all 3 axis and the maximum measured data were reported.( Worst data is Z axis of position) |                   |               |                    |               |                                                                                    |                   |                    |                |
|                              | *Total = Reading Value + Antenna Factor + Cable Loss – Amp Gain + Duty Cycle Correction                |                   |               |                    |               |                                                                                    |                   |                    |                |
|                              |                                                                                                        |                   |               |                    |               |                                                                                    |                   |                    |                |

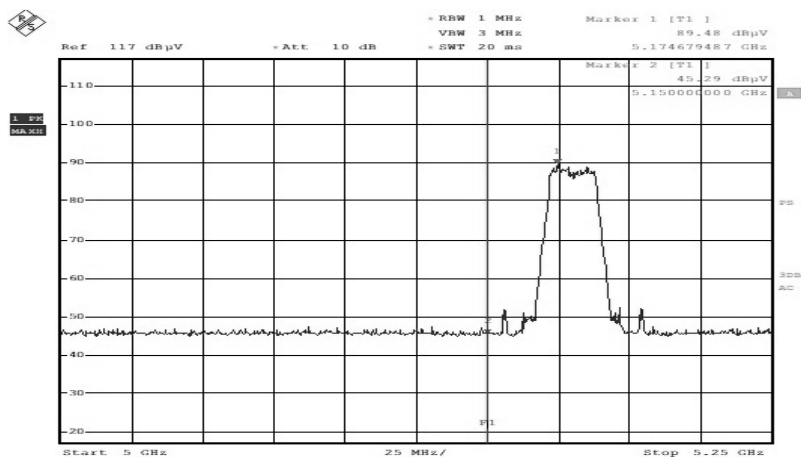
## 9.5-1 Restricted Band Edges

### \*802.11a Mode (was1)

Band Edges(CH 36)

Detector mode:Peak

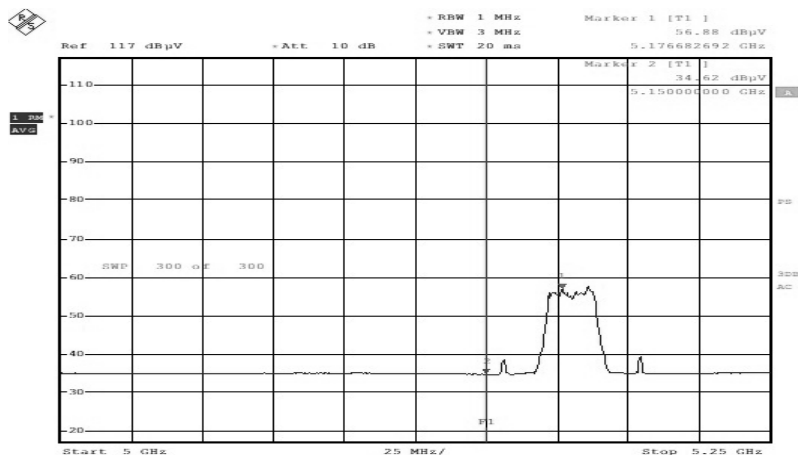
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

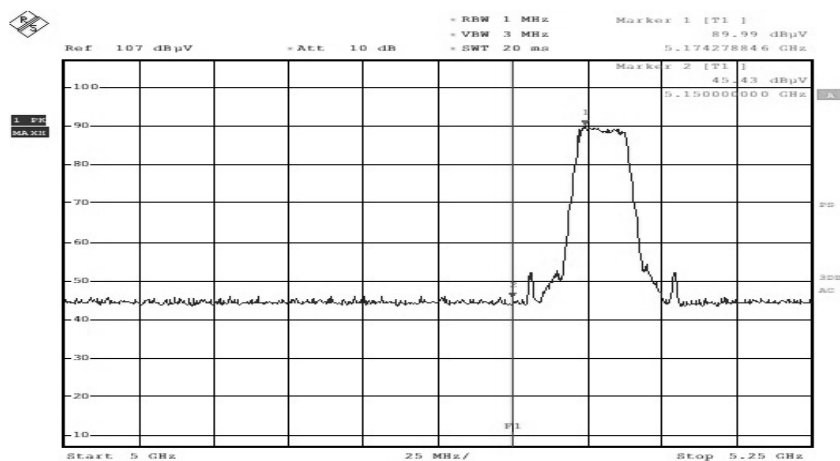


ESTR-21-00231

Band Edges(CH 36)

Detector mode:Peak

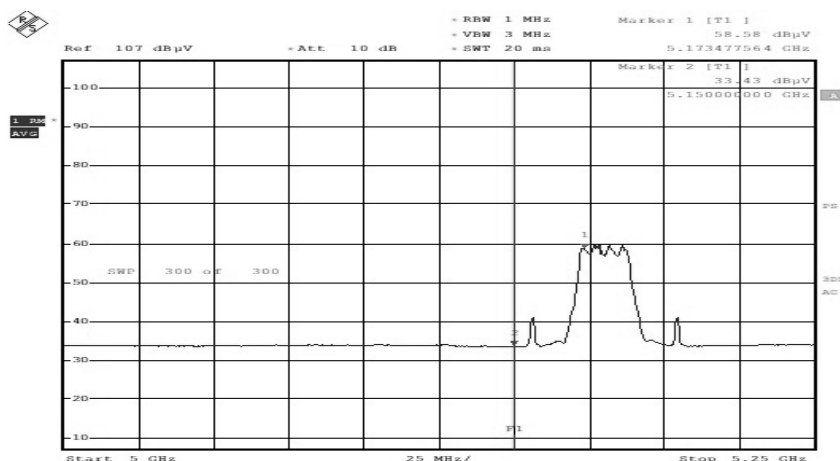
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical

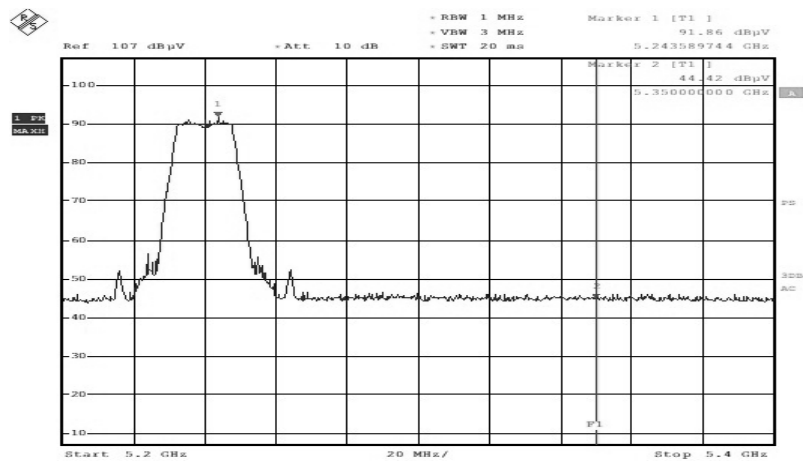


ESTR-21-00231

Band Edges(CH 48)

Detector mode:Peak

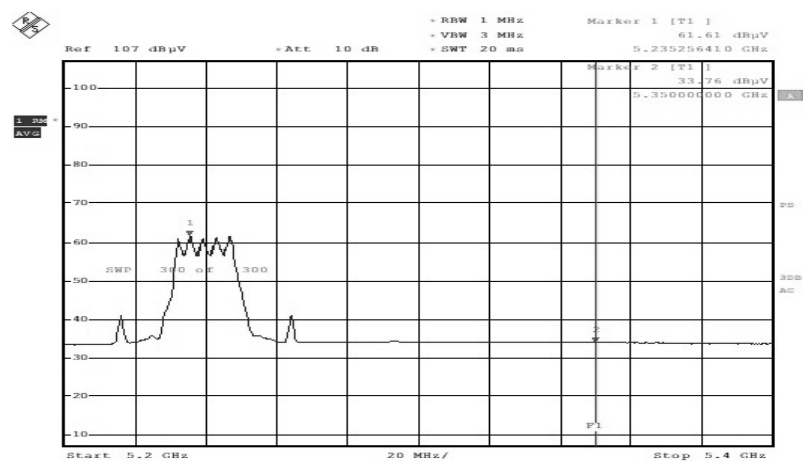
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

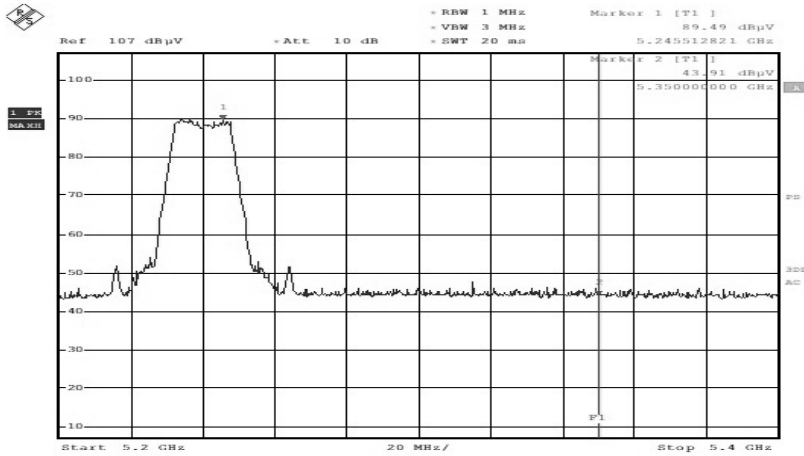


ESTR-21-00231

Band Edges(CH 48)

Detector mode:Peak

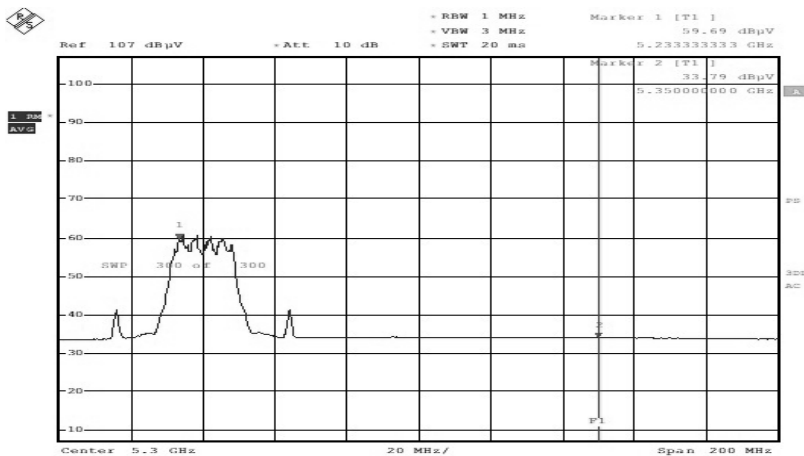
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical



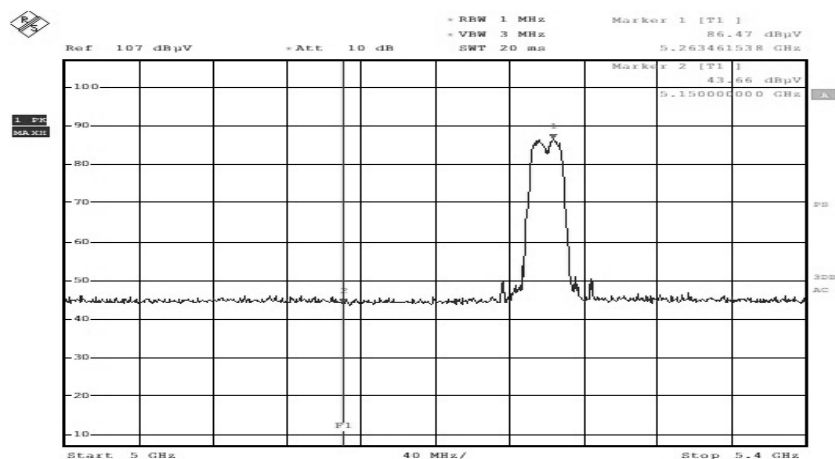
ESTR-21-00231

\*802.11a Mode(was2)

Band Edges(CH Low)

Detector mode:Peak

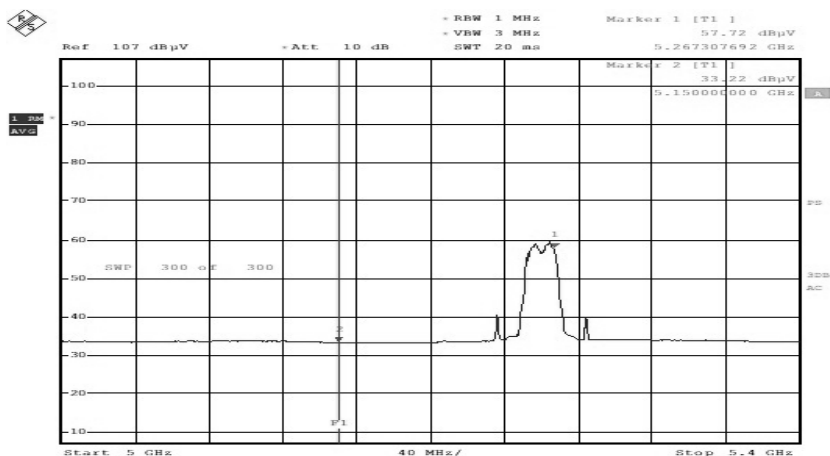
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

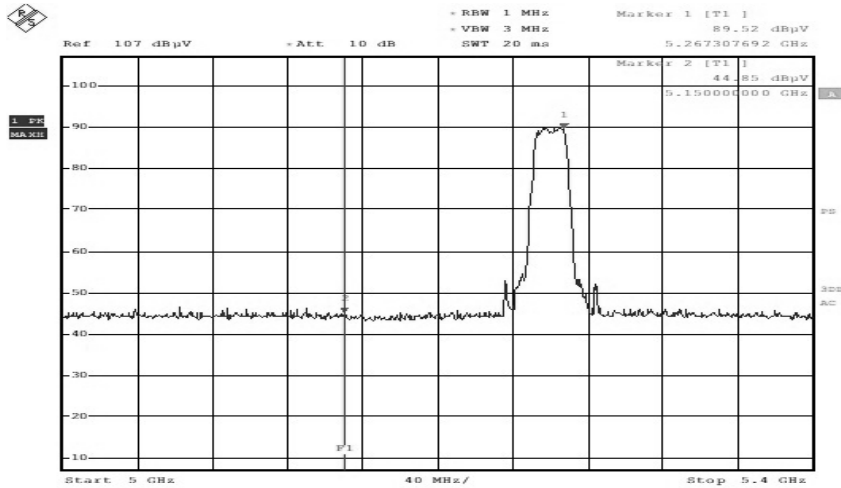


ESTR-21-00231

Band Edges(CH Low)

Detector mode:Peak

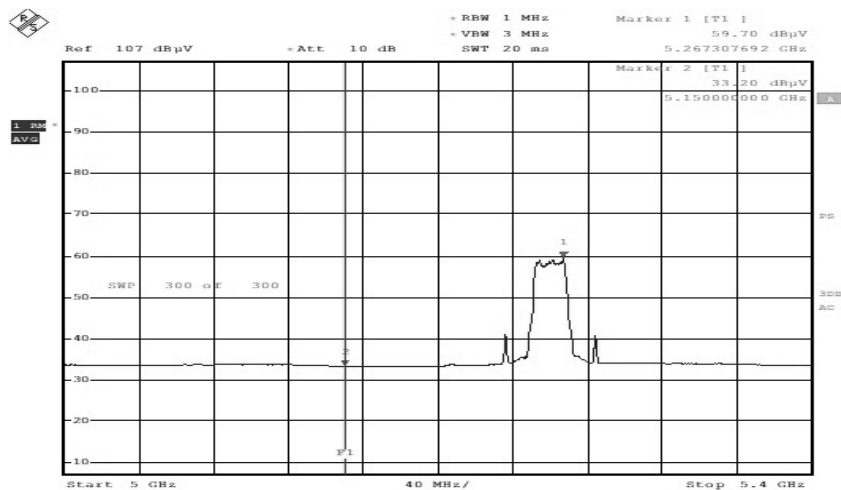
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical

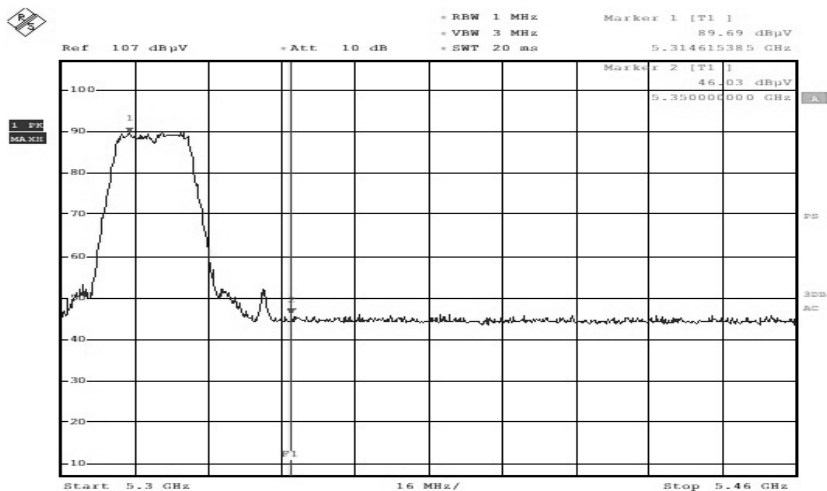


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

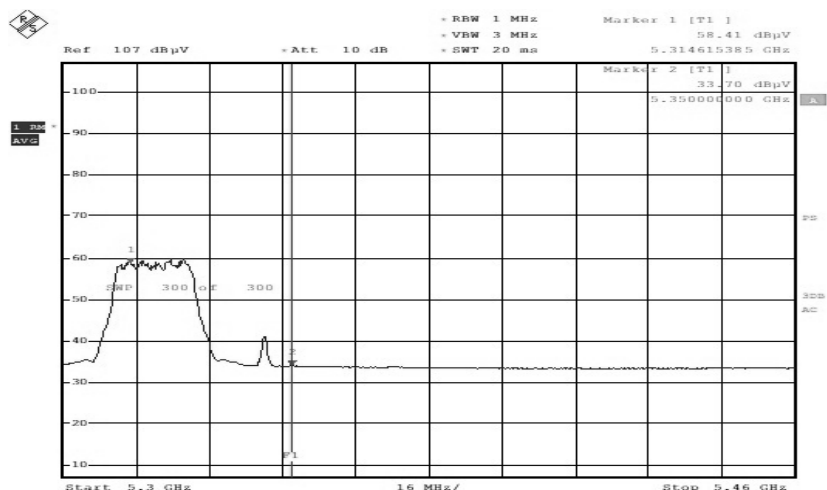
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

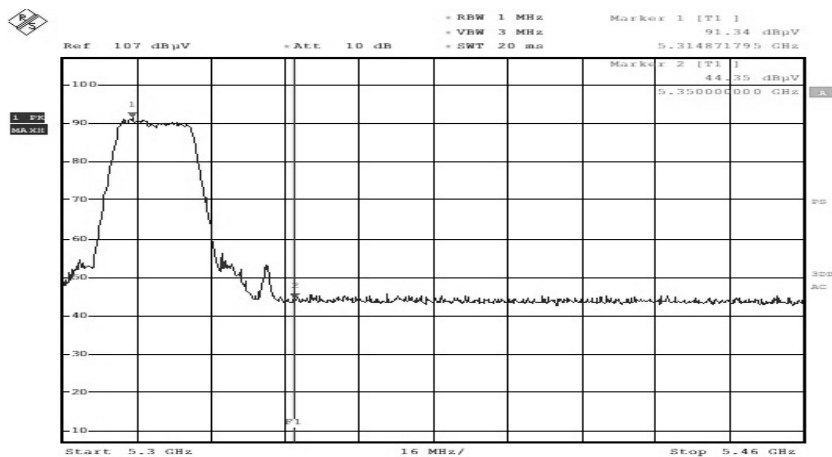


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

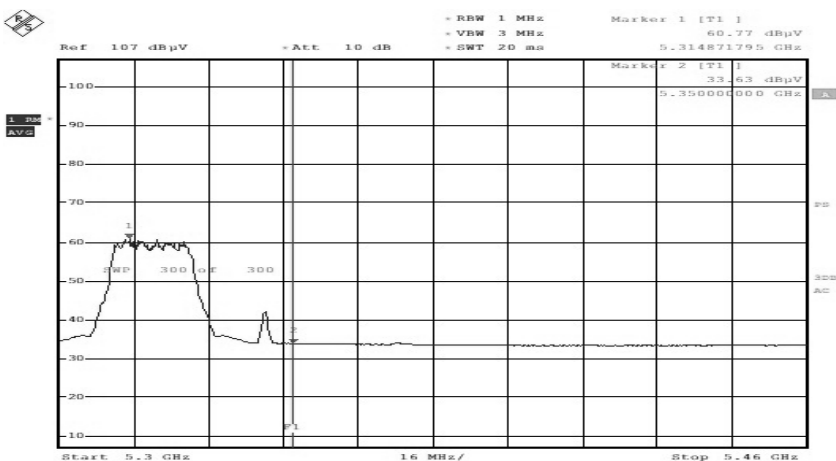
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical



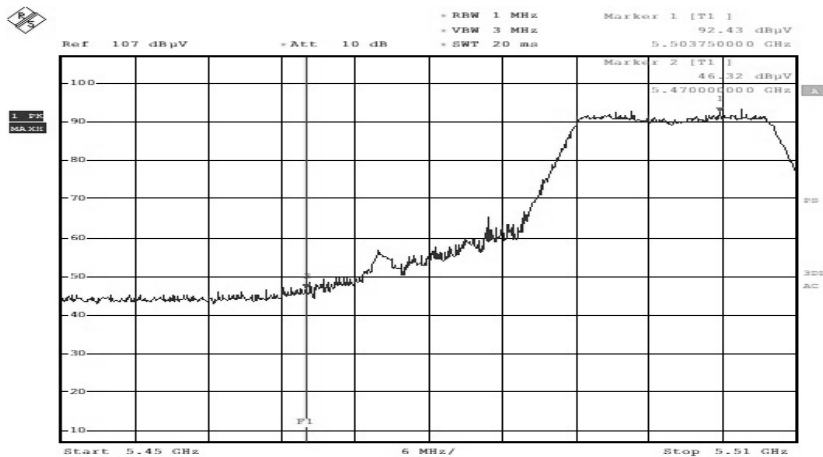
ESTR-21-00231

\*802.11a Mode(was3)

Band Edges(CH Low)

Detector mode:Peak

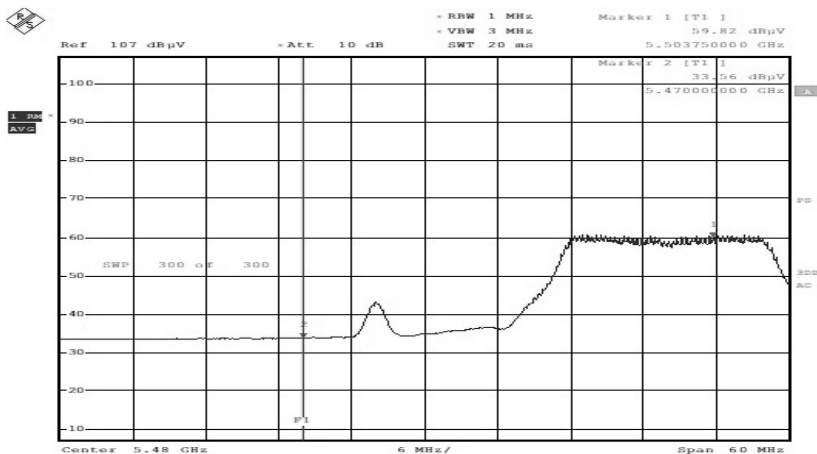
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

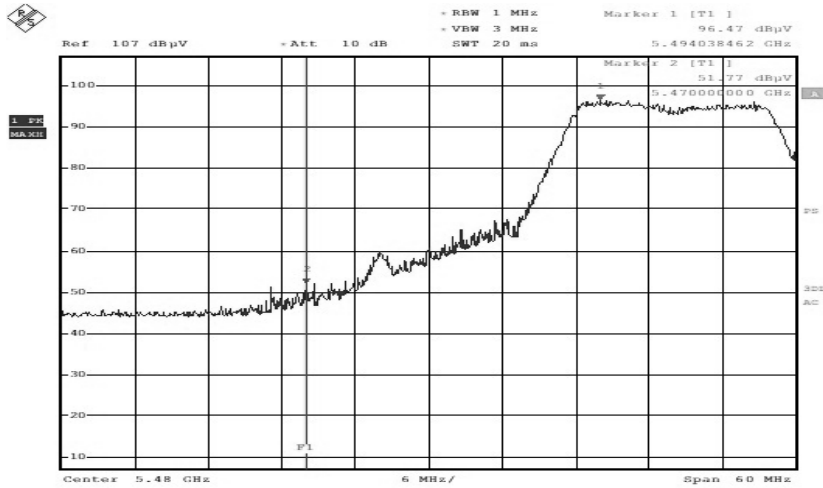


ESTR-21-00231

Band Edges(CH Low)

Detector mode:Peak

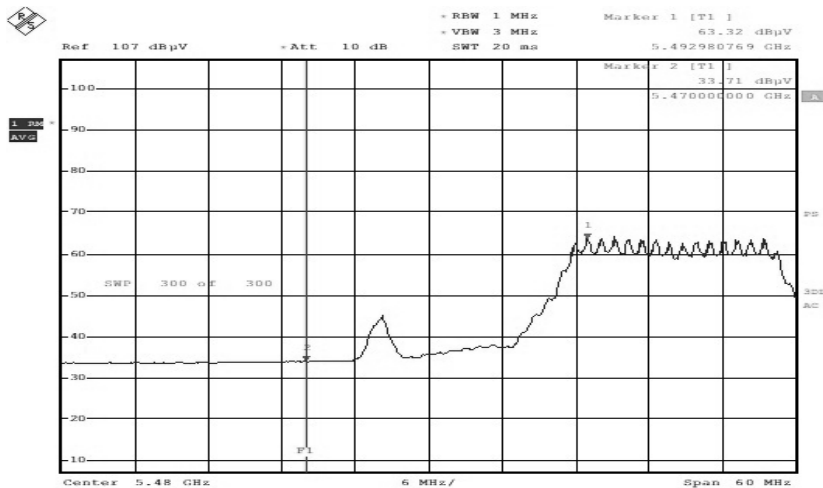
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical

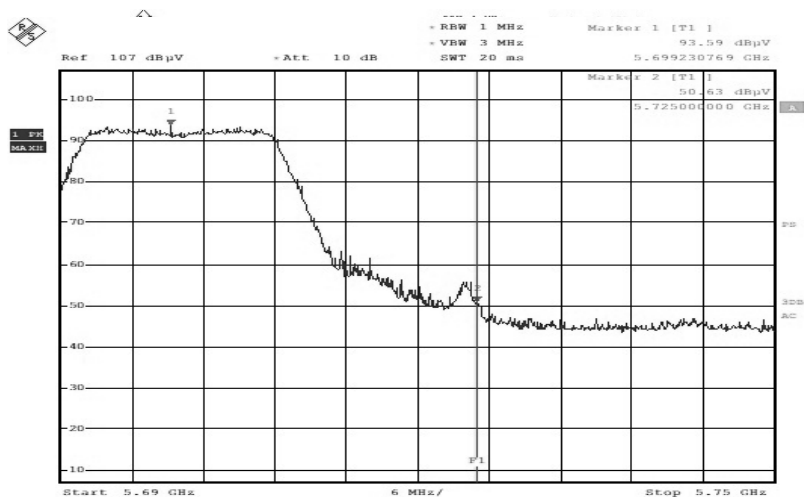


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

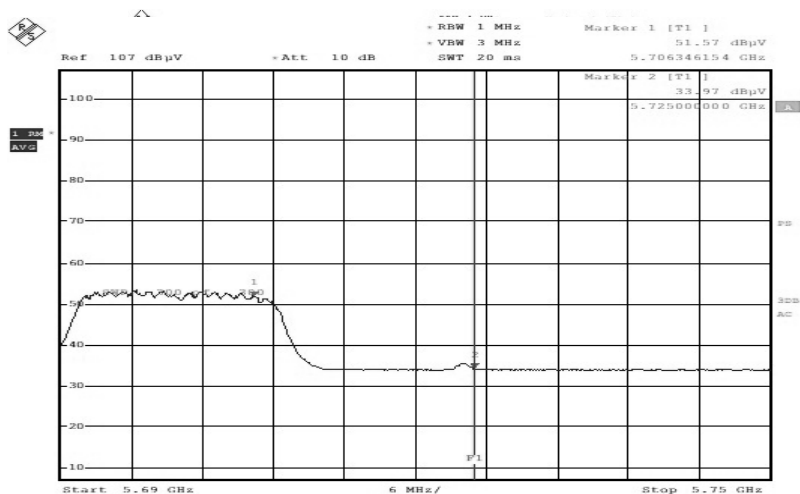
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

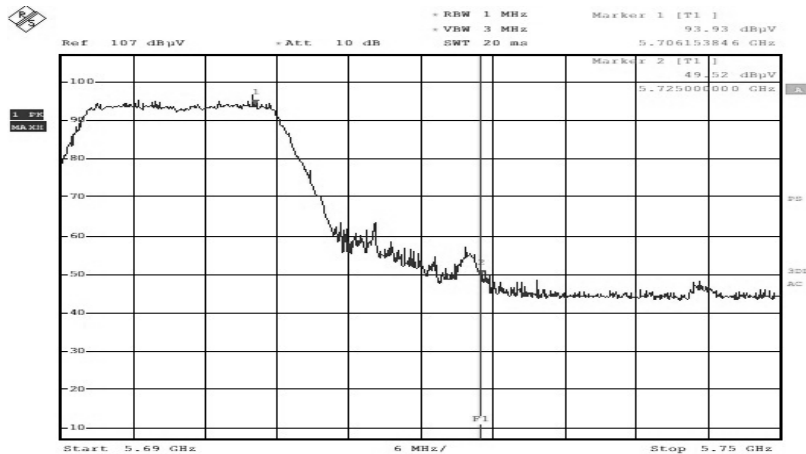


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

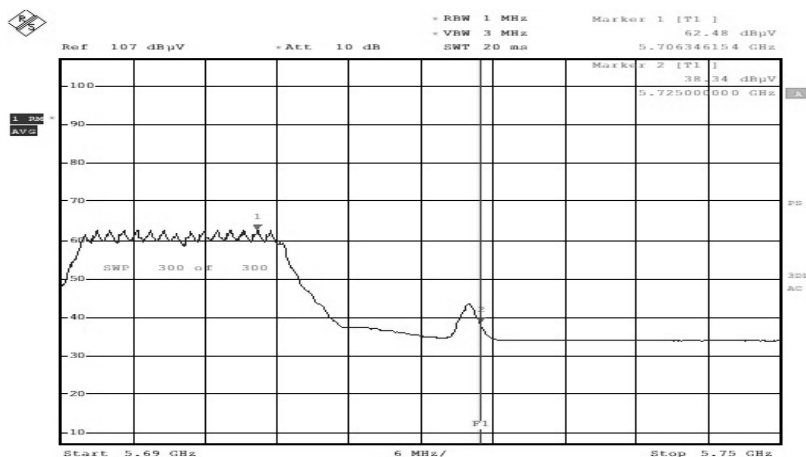
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical



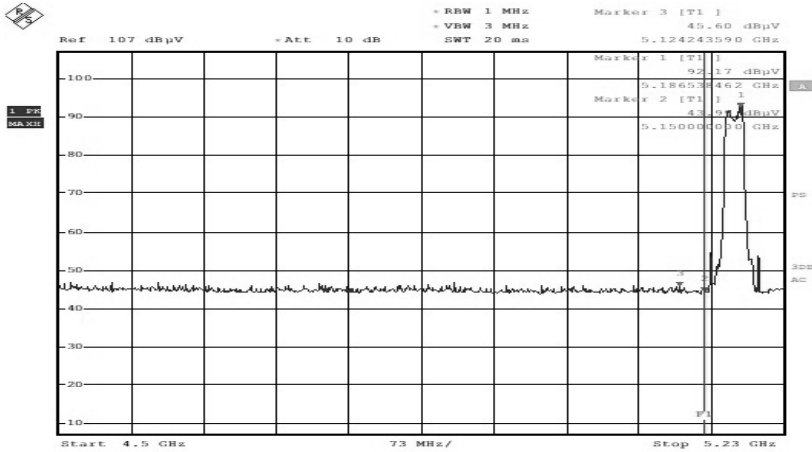
ESTR-21-00231

\*802.11n HT20 Mode(was1)

Band Edges(CH Low)

Detector mode:Peak

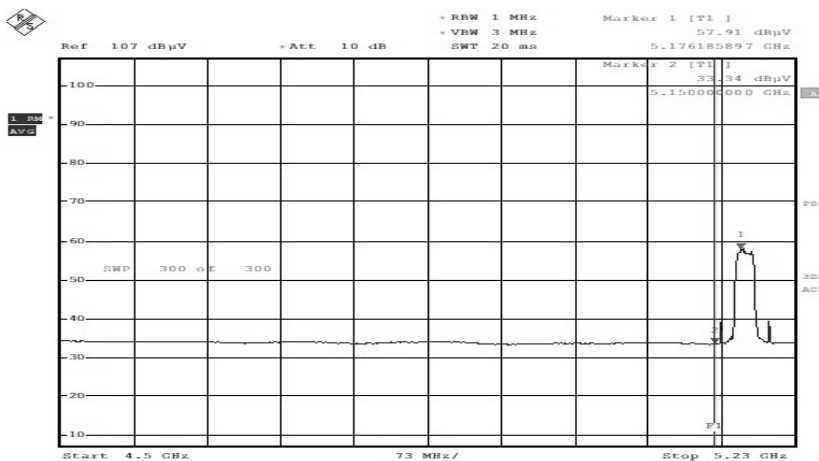
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

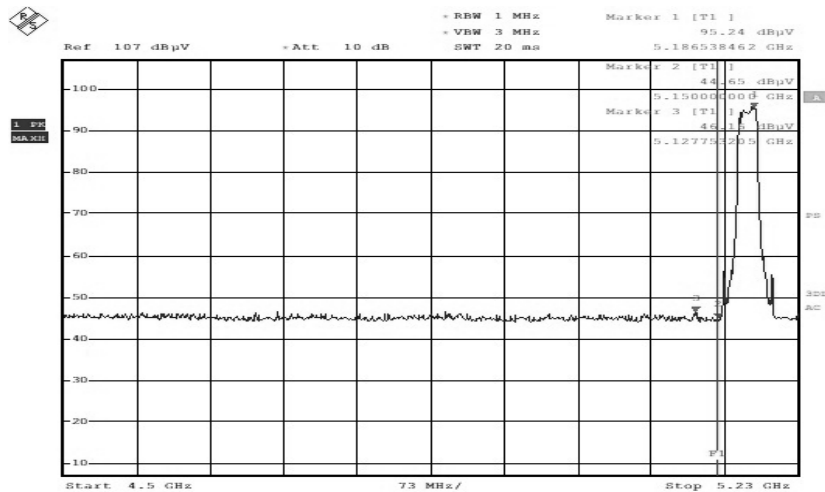


ESTR-21-00231

Band Edges(CH Low)

Detector mode:Peak

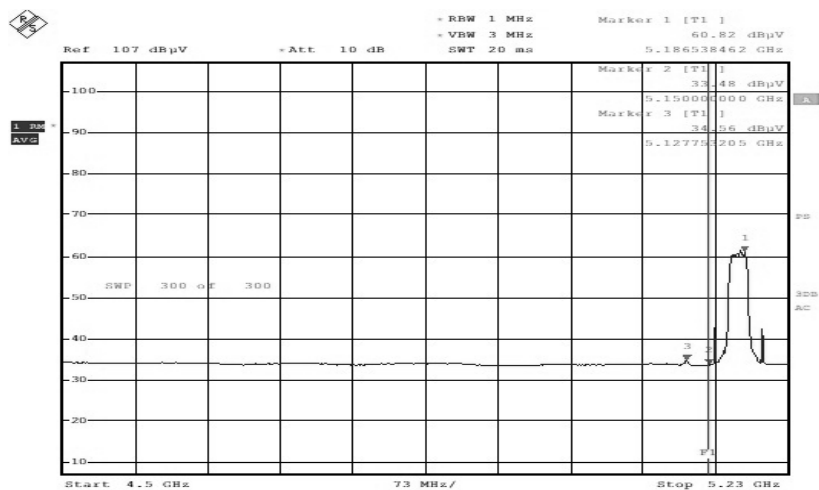
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical

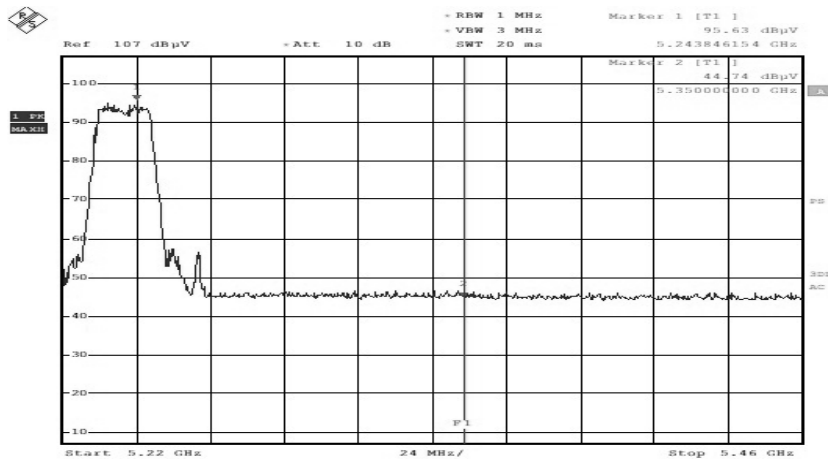


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

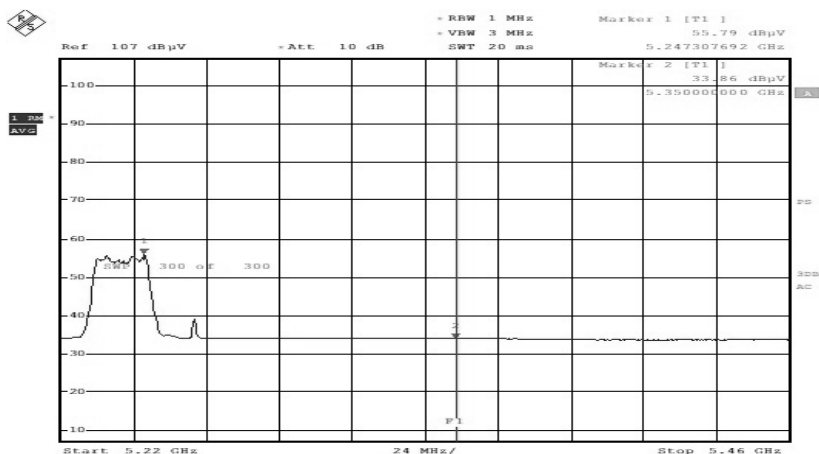
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

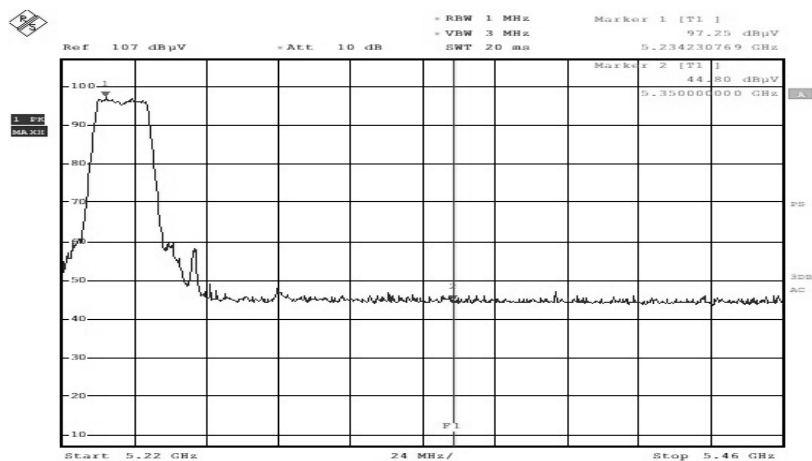


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

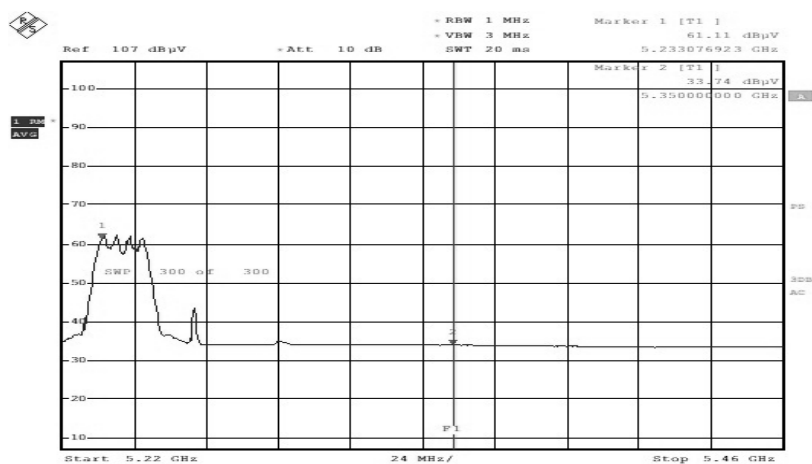
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical



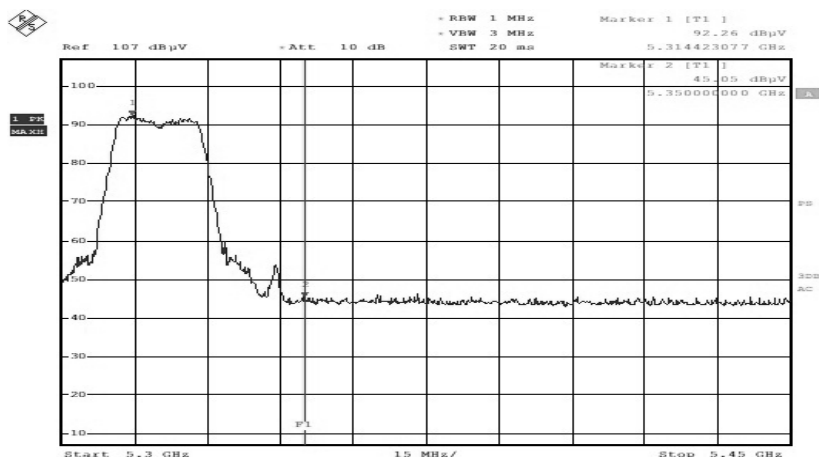
ESTR-21-00231

\*802.11n HT20 Mode(was2)

Band Edges(CH Low)

Detector mode:Peak

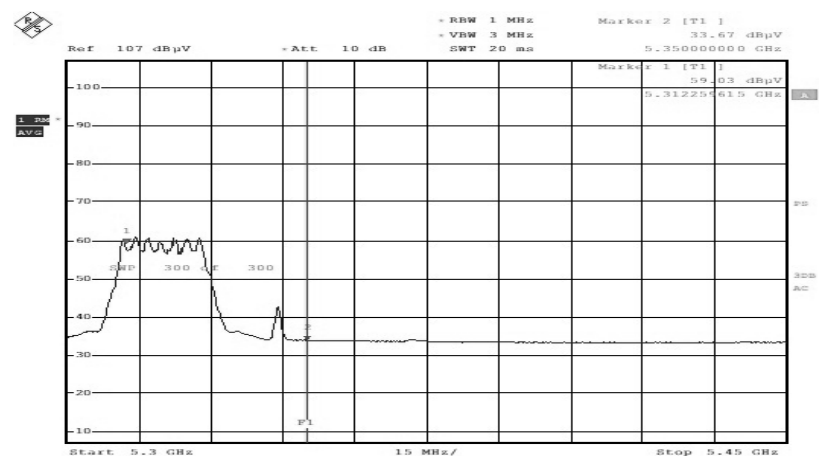
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

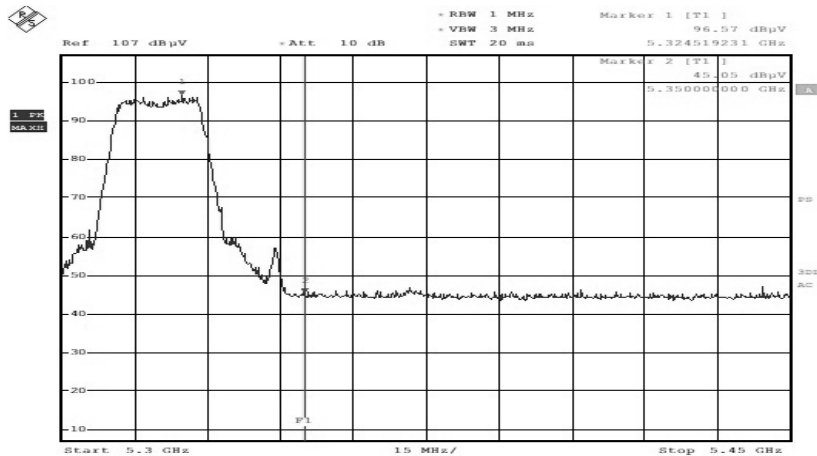


ESTR-21-00231

Band Edges(CH Low)

Detector mode:Peak

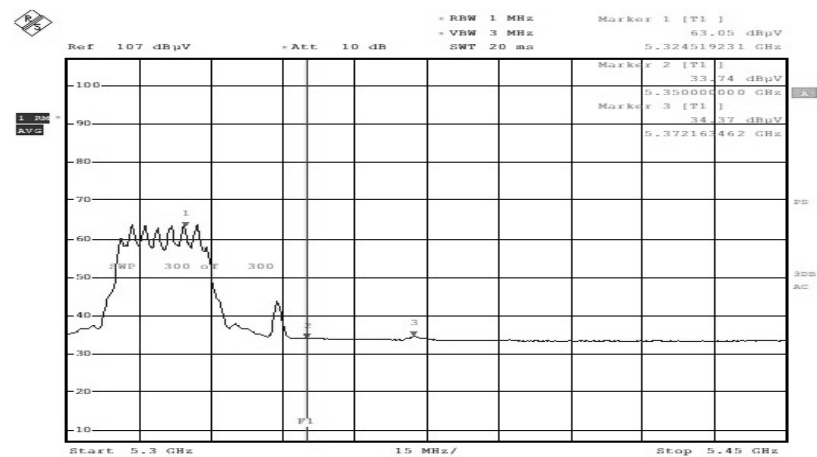
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical

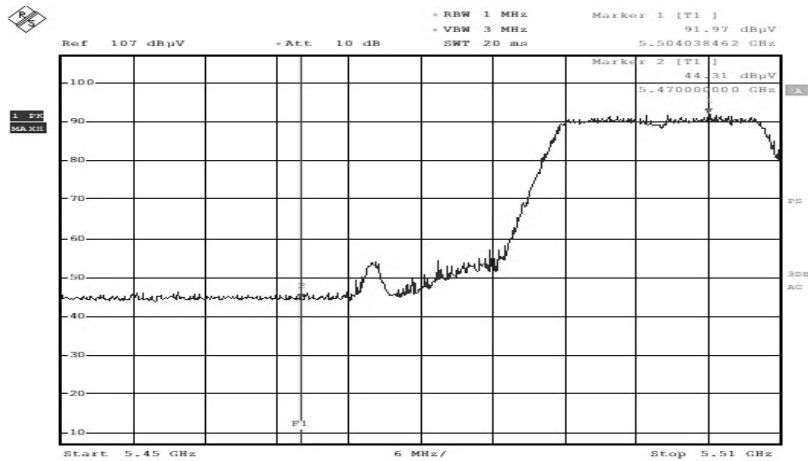


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

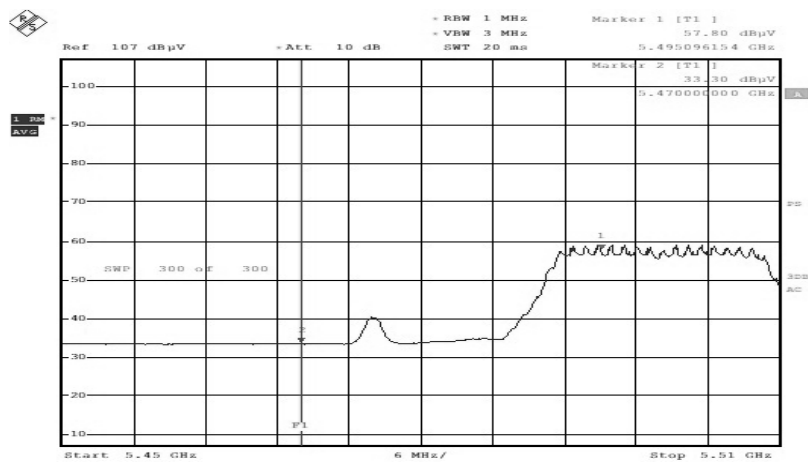
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

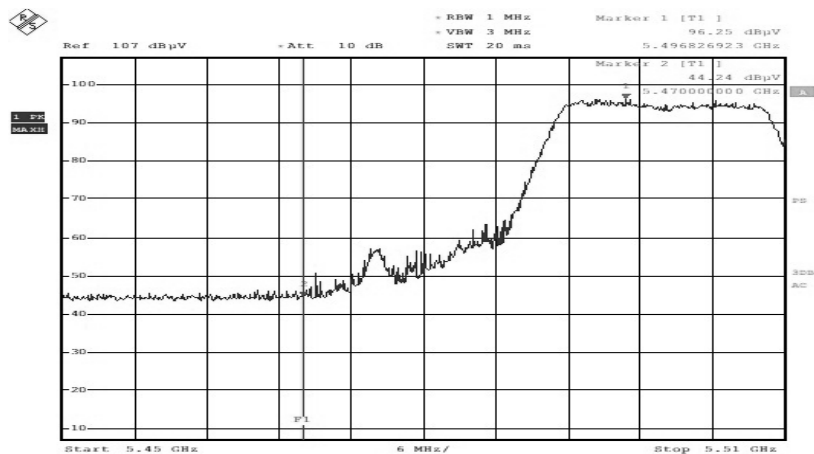


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

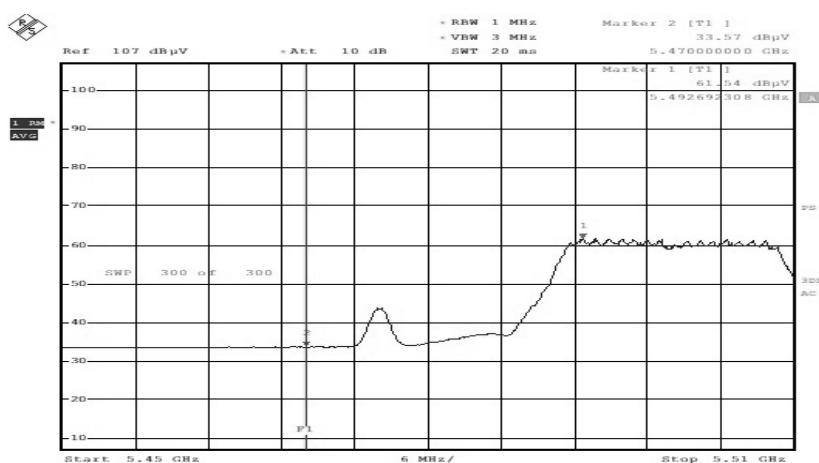
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical

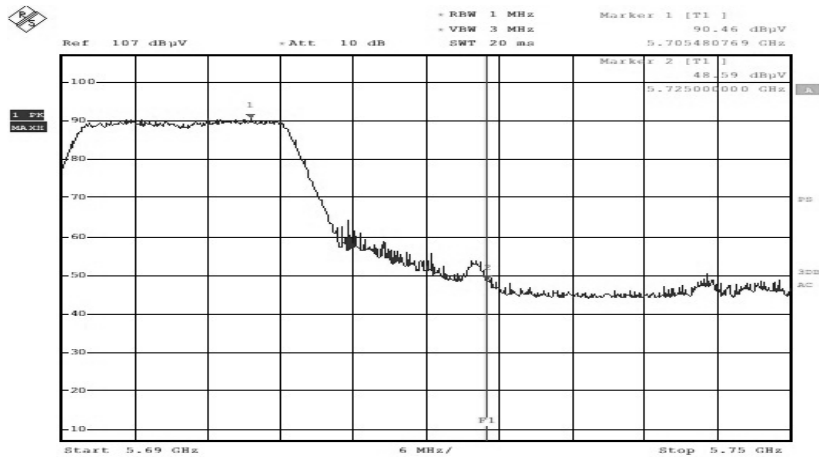


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

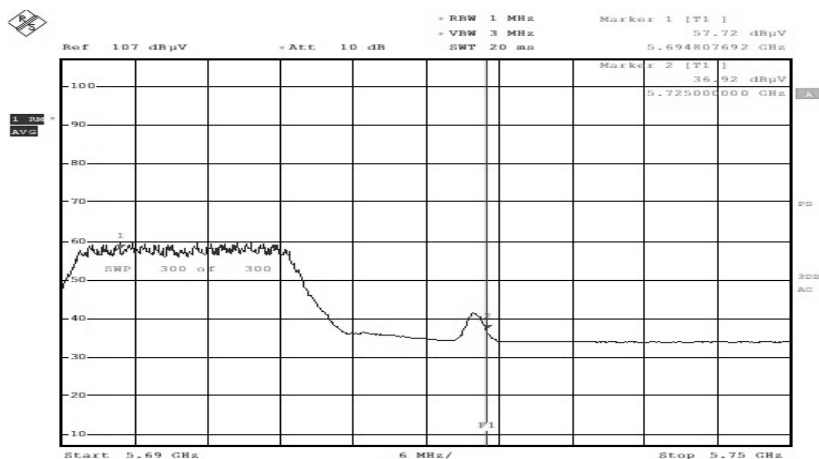
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

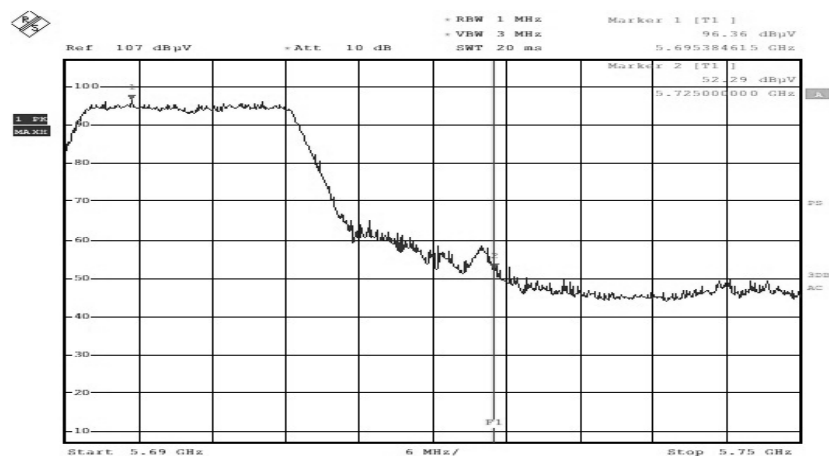


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

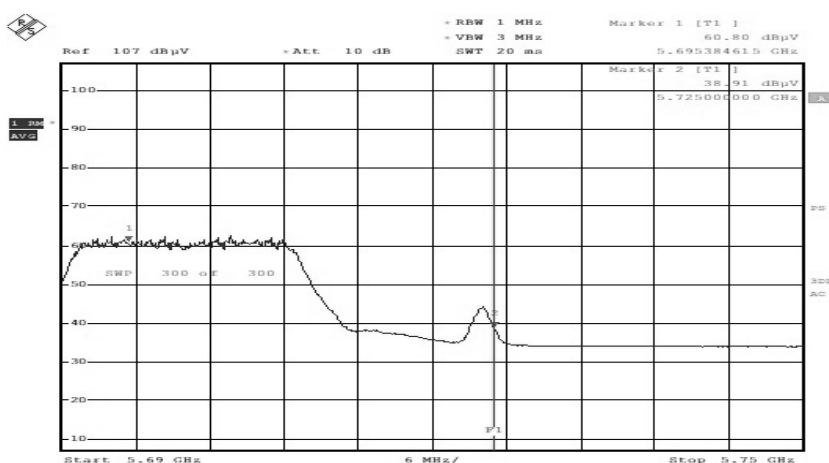
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical



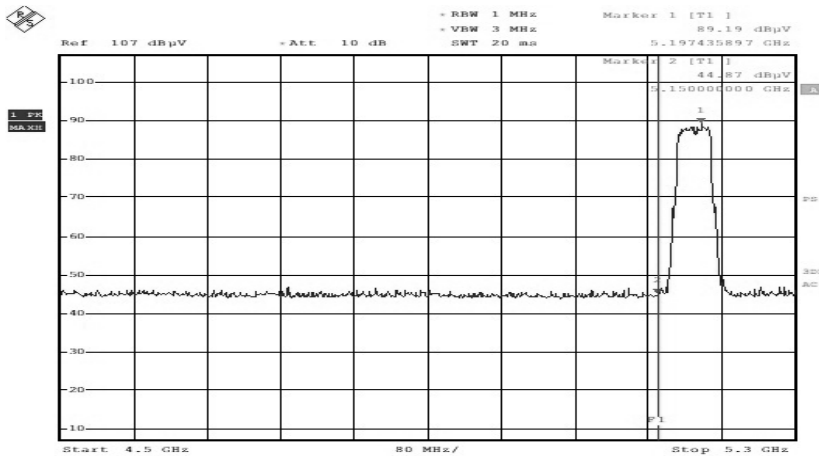
ESTR-21-00231

\*802.11n HT40 Mode(was1)

Band Edges(CH Low)

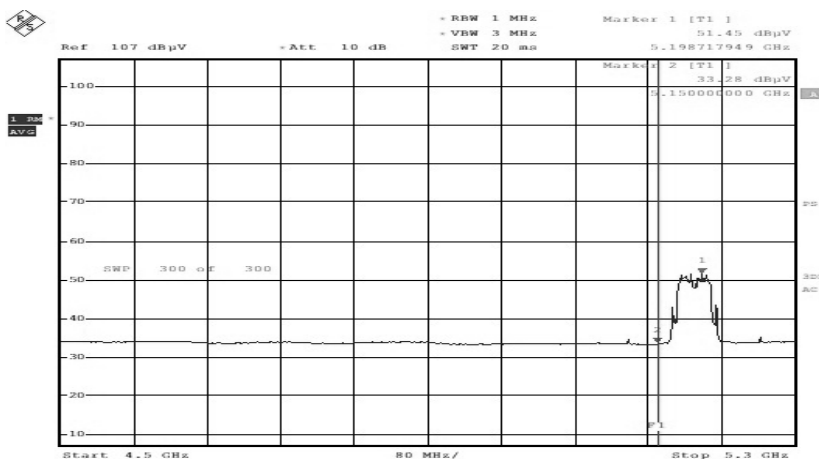
Detector mode:Peak

Polarity:Horizontal



Detector mode:Average

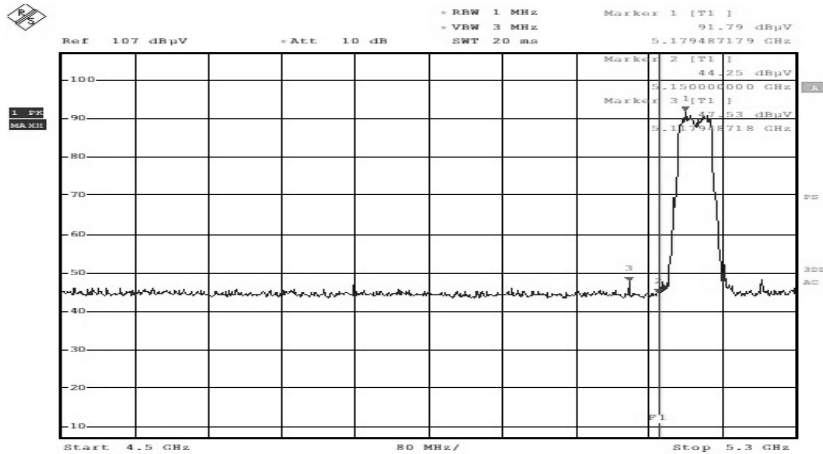
Polarity:Horizontal



Band Edges(CH Low)

Detector mode:Peak

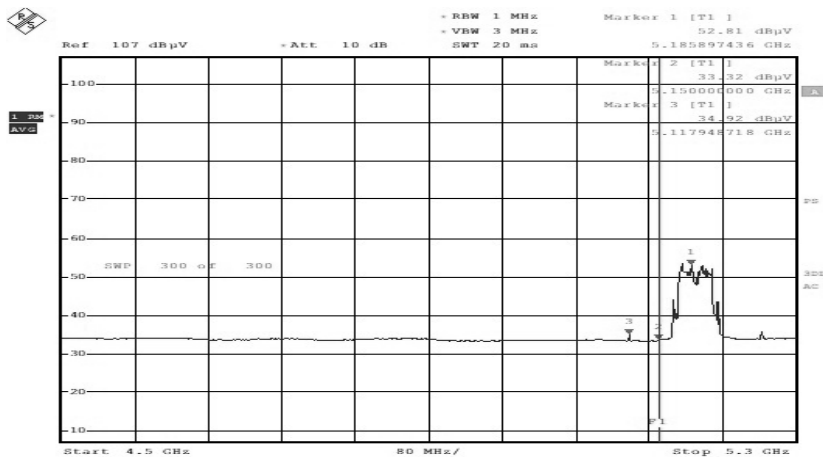
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical

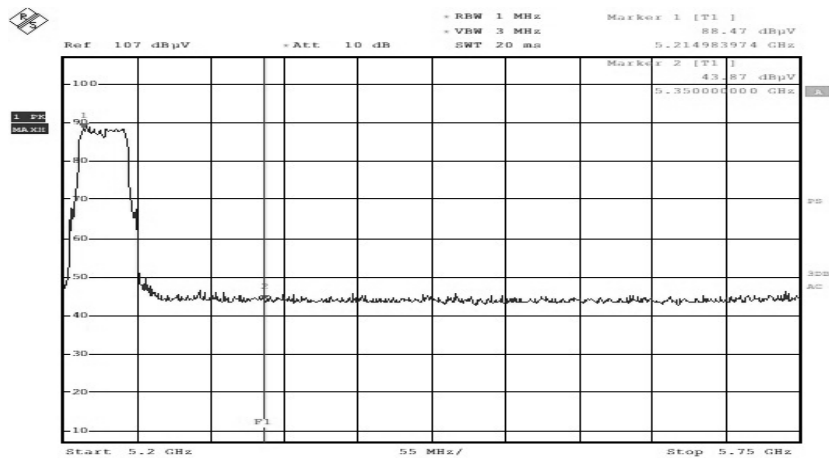


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

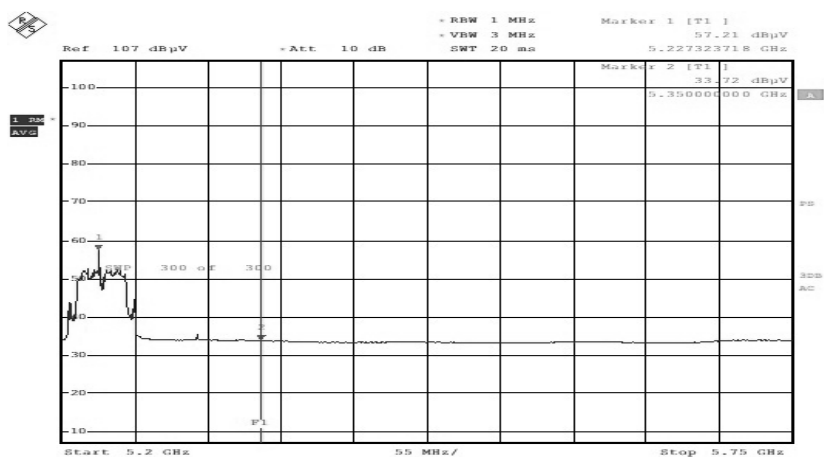
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

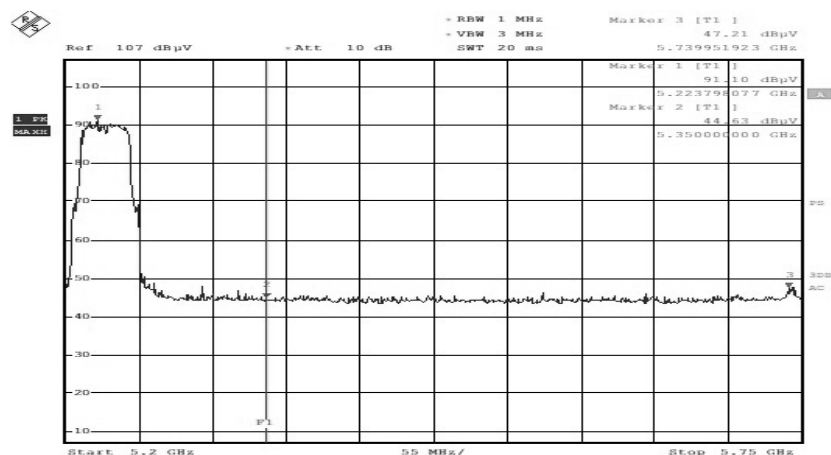


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

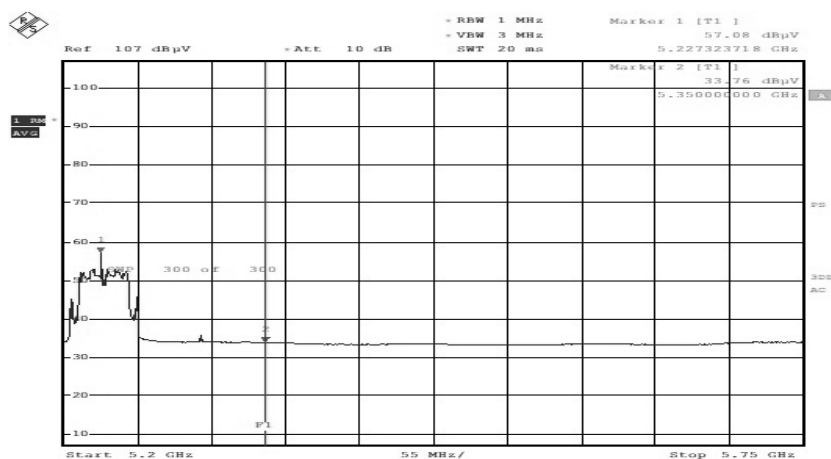
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical



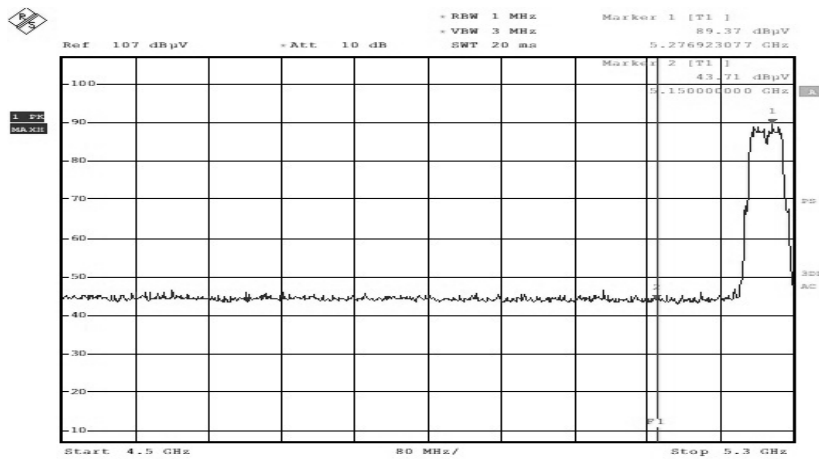
ESTR-21-00231

\*802.11n HT40 Mode(was3)

Band Edges(CH Low)

Detector mode:Peak

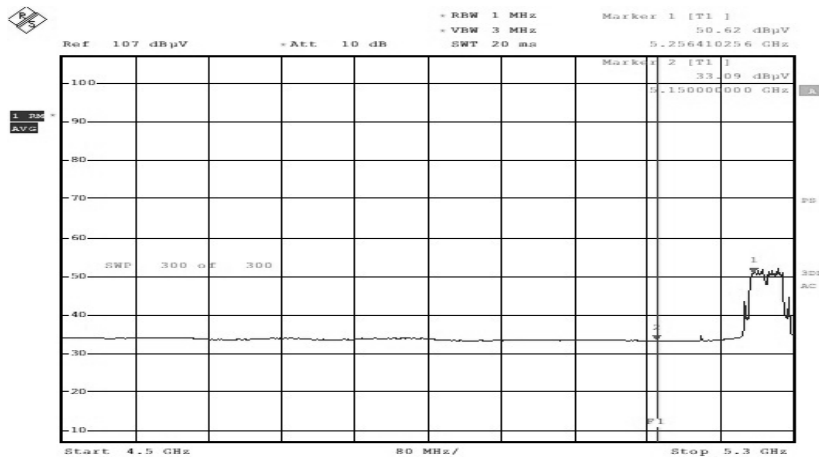
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

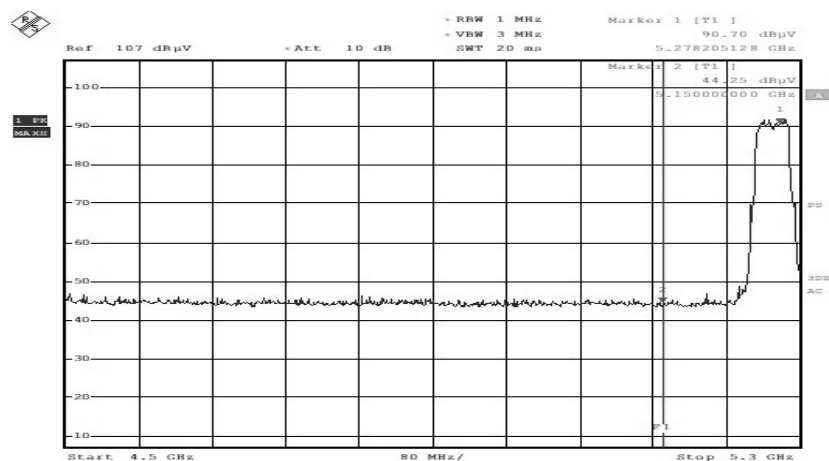


ESTR-21-00231

Band Edges(CH Low)

Detector mode:Peak

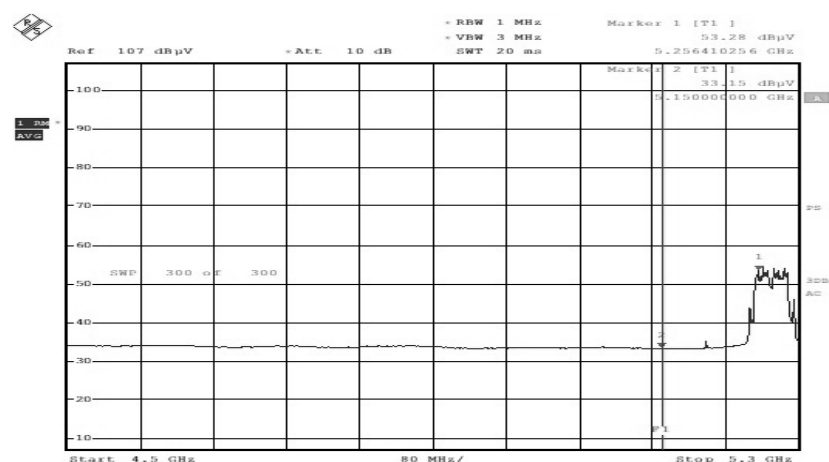
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical

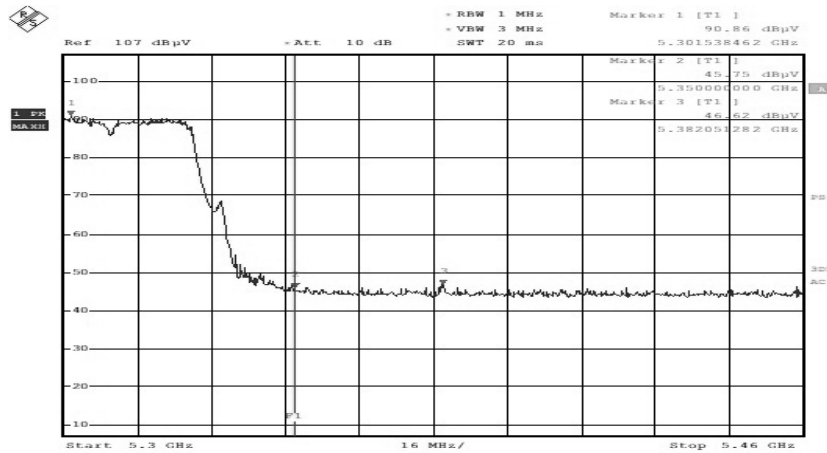


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

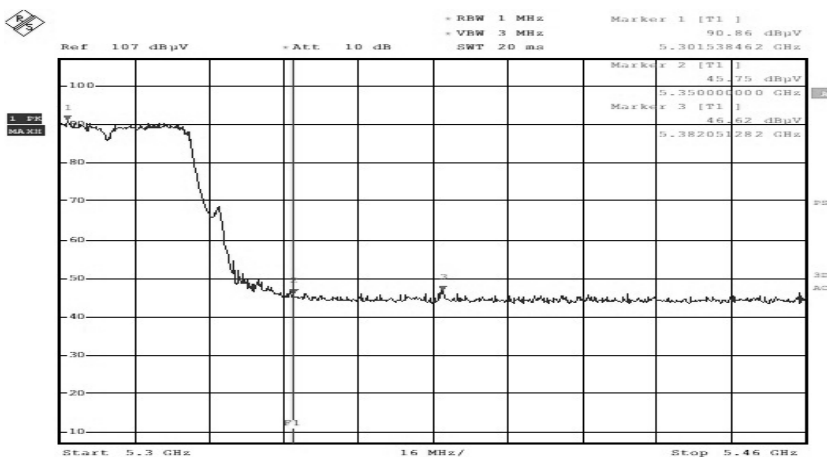
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

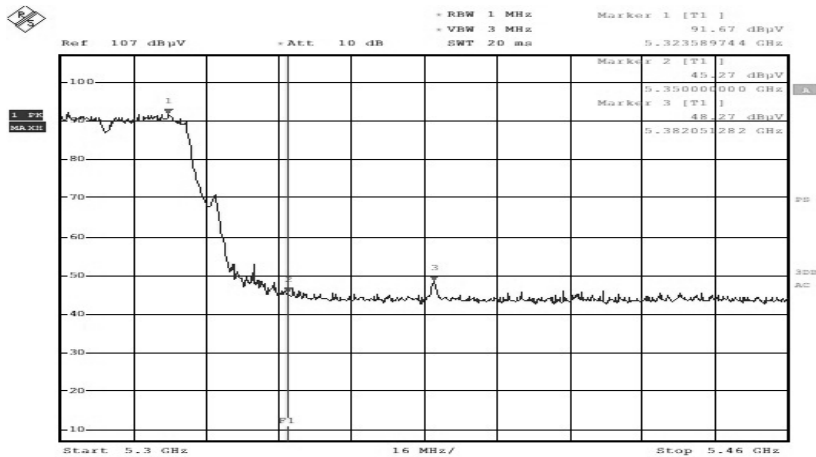


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

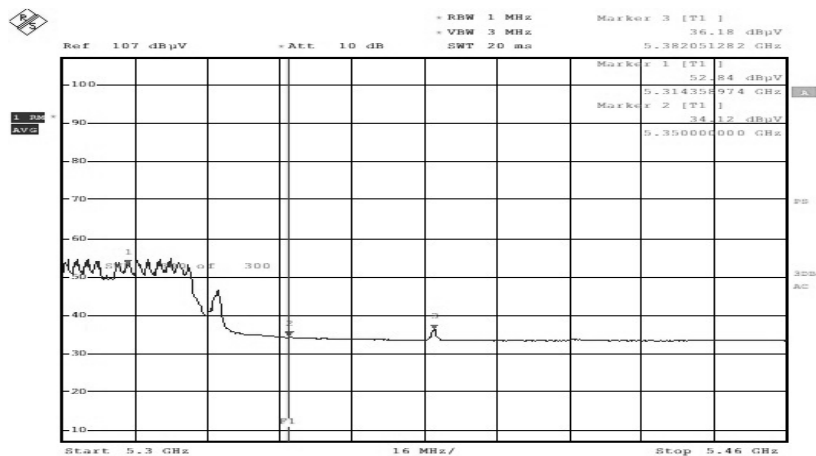
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical



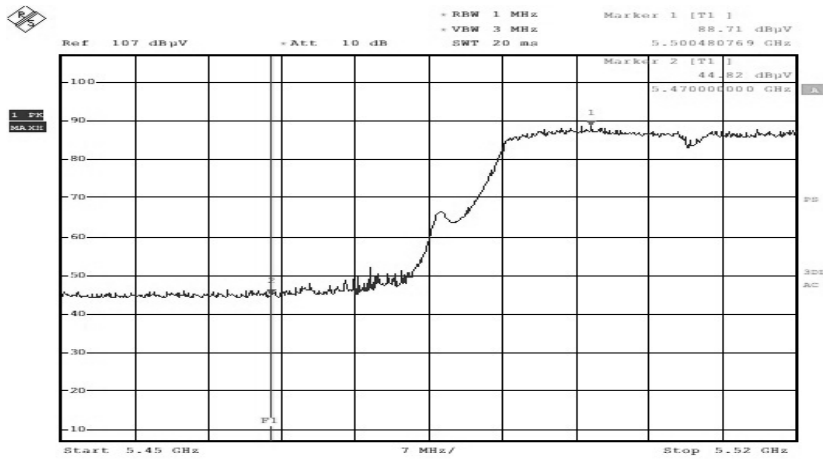
ESTR-21-00231

\*802.11n HT40 Mode(was1)

Band Edges(CH Low)

Detector mode:Peak

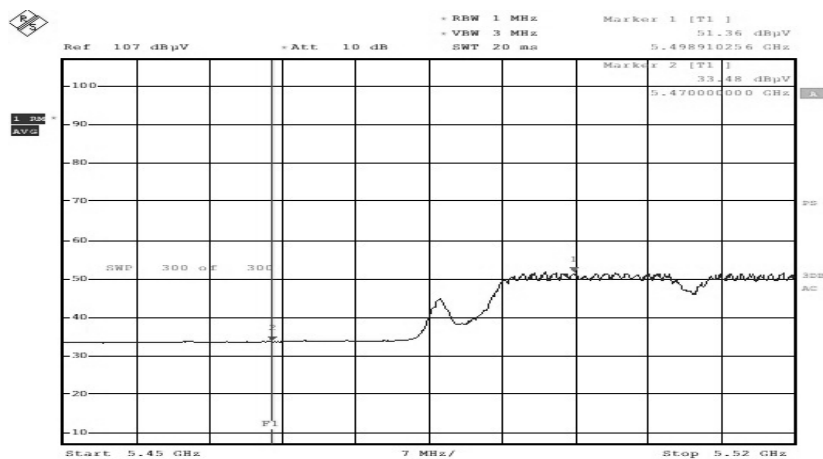
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

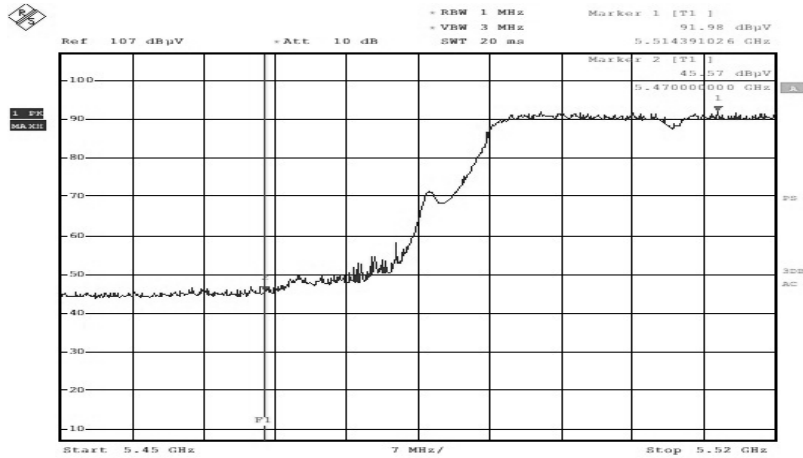


ESTR-21-00231

Band Edges(CH Low)

Detector mode:Peak

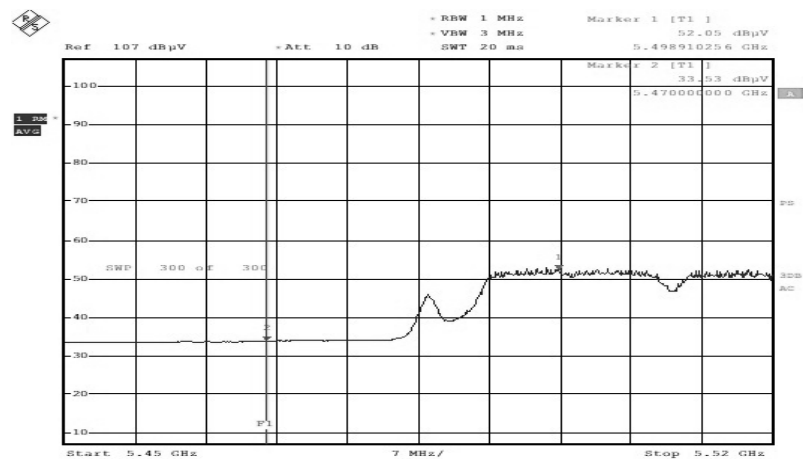
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical

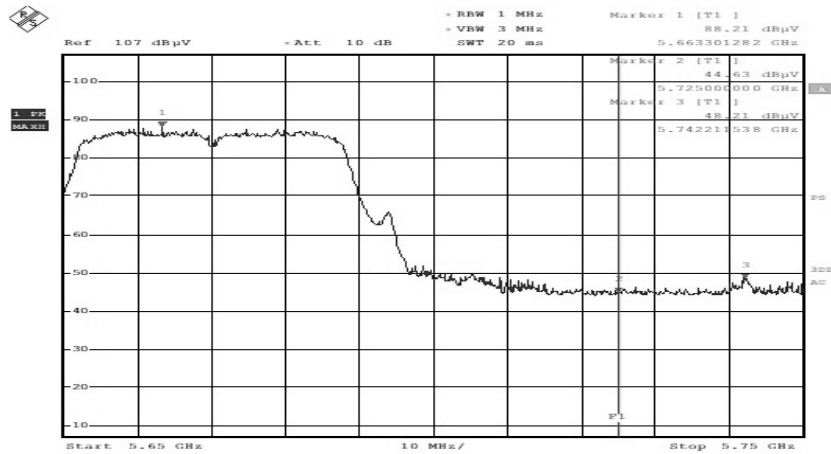


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

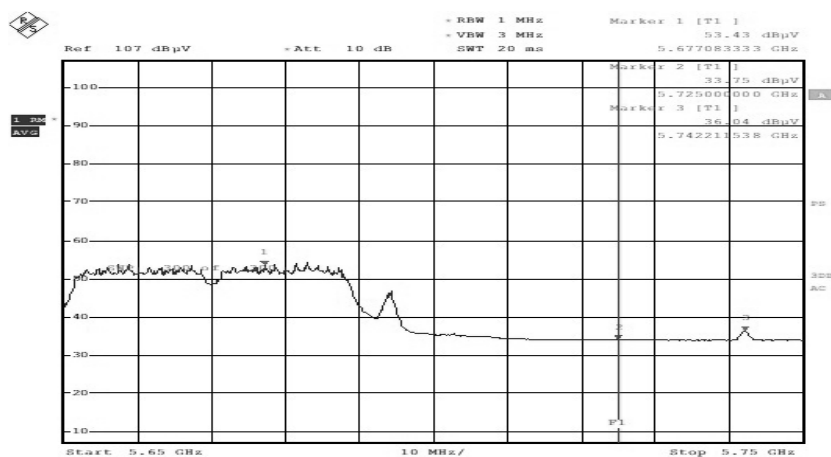
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

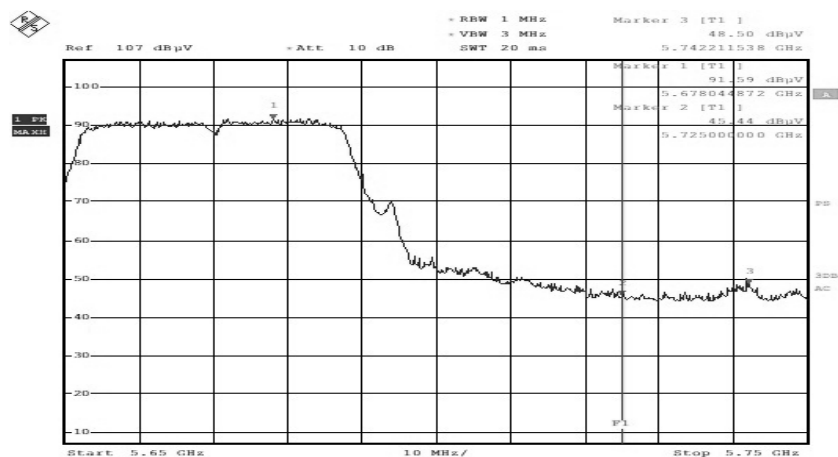


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

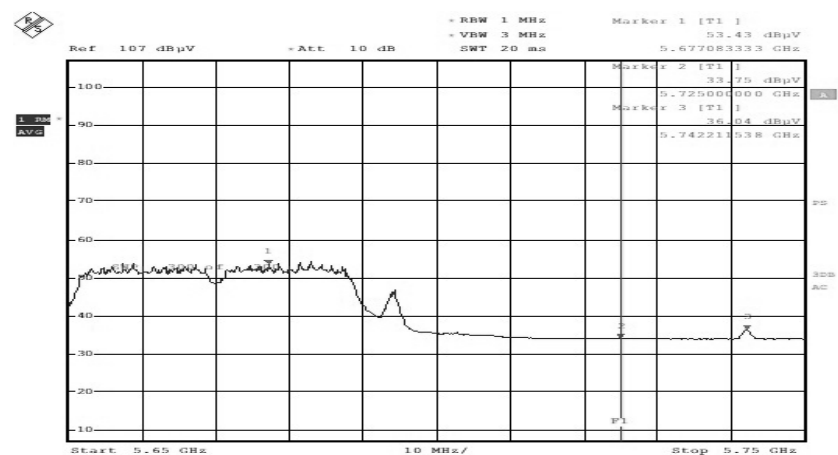
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical



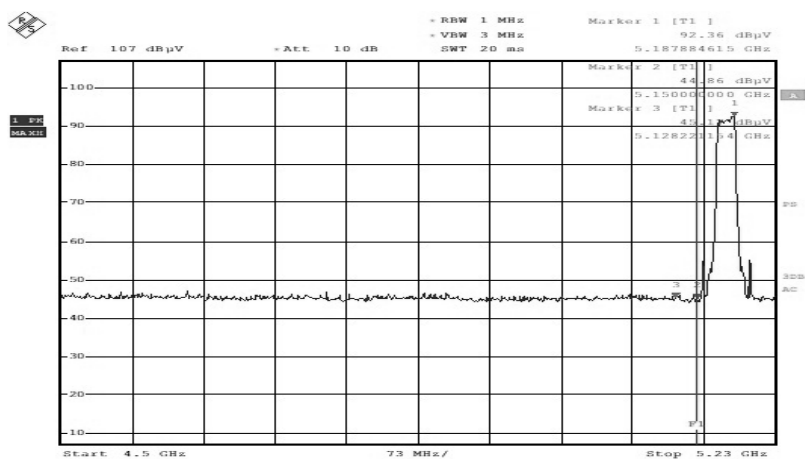
ESTR-21-00231

\*802.11ac HT80 Mode(was1)

Band Edges(CH Low)

Detector mode:Peak

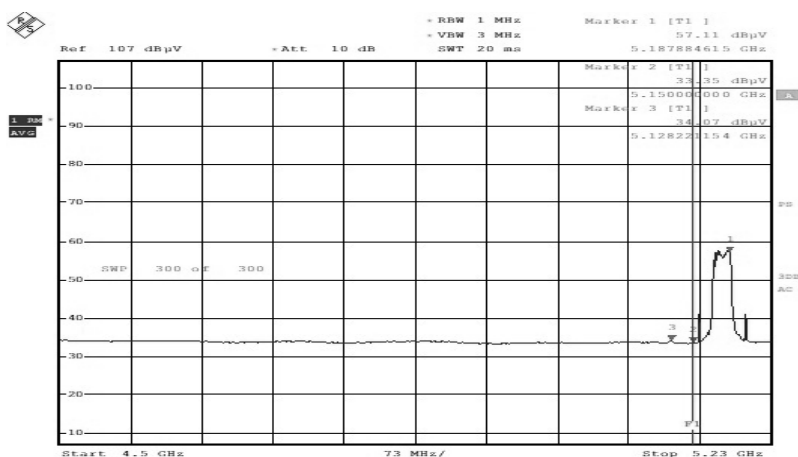
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

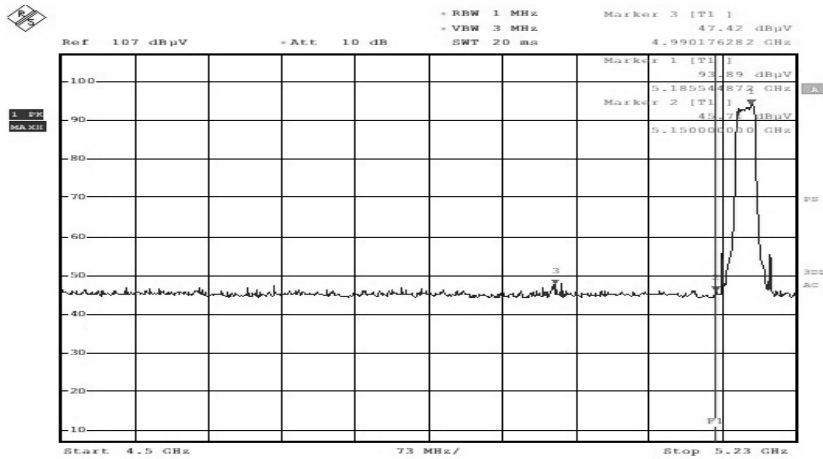


ESTR-21-00231

Band Edges(CH Low)

Detector mode:Peak

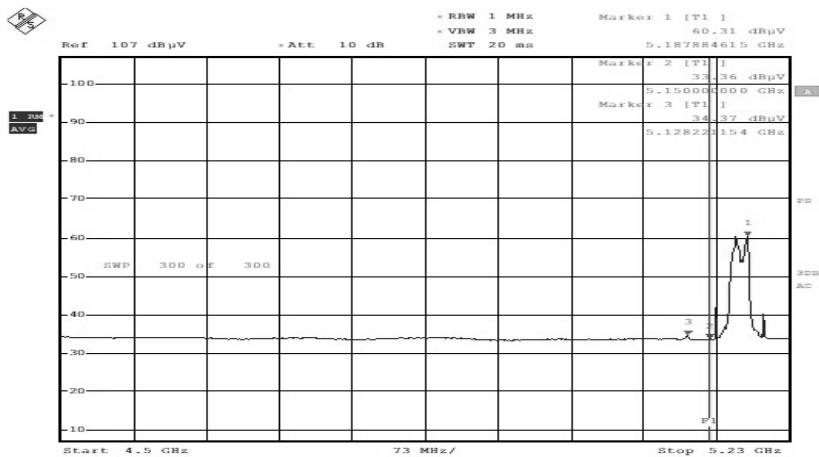
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical

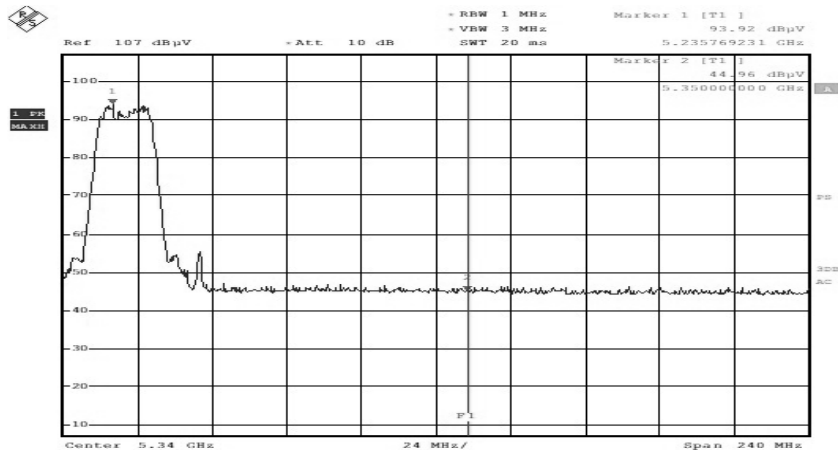


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

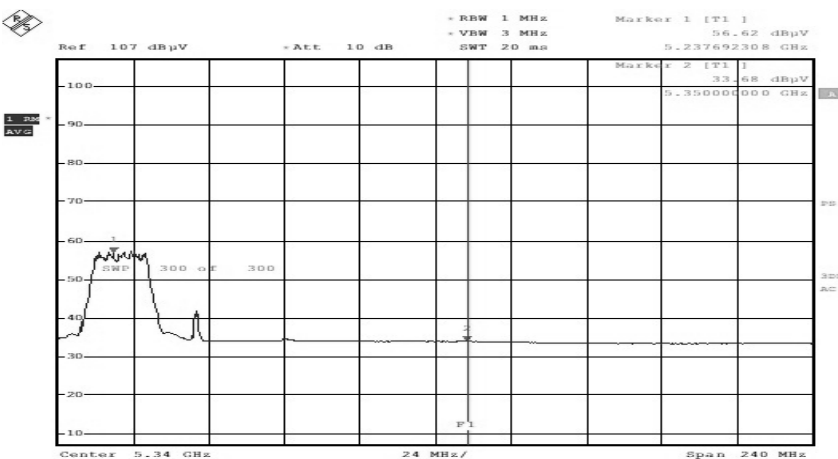
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

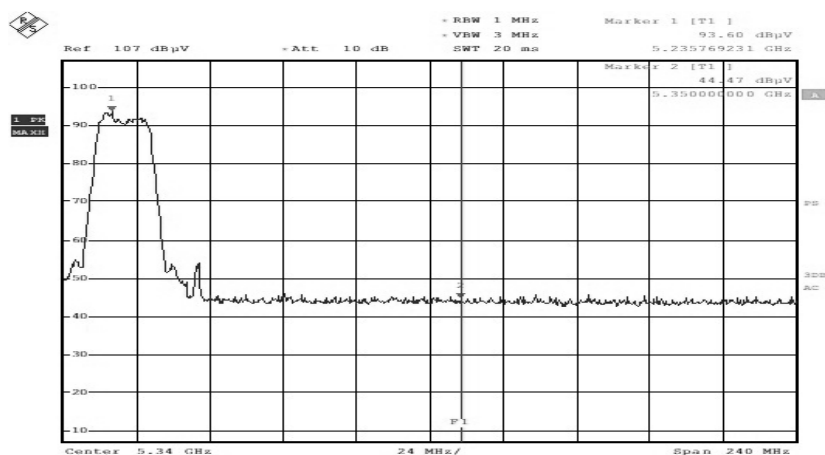


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

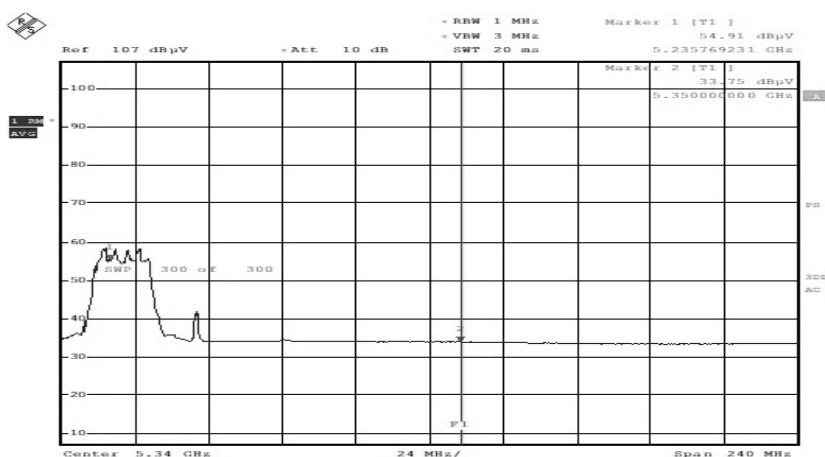
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical



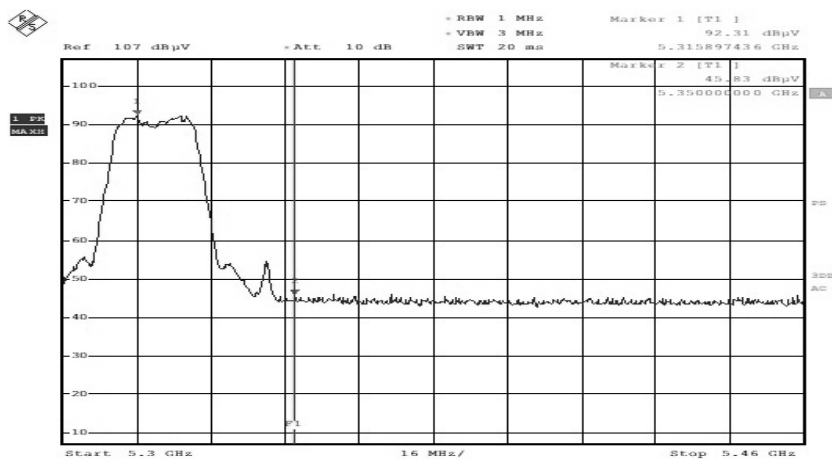
ESTR-21-00231

\*802.11ac HT80 Mode(was3)

Band Edges(CH Low)

Detector mode:Peak

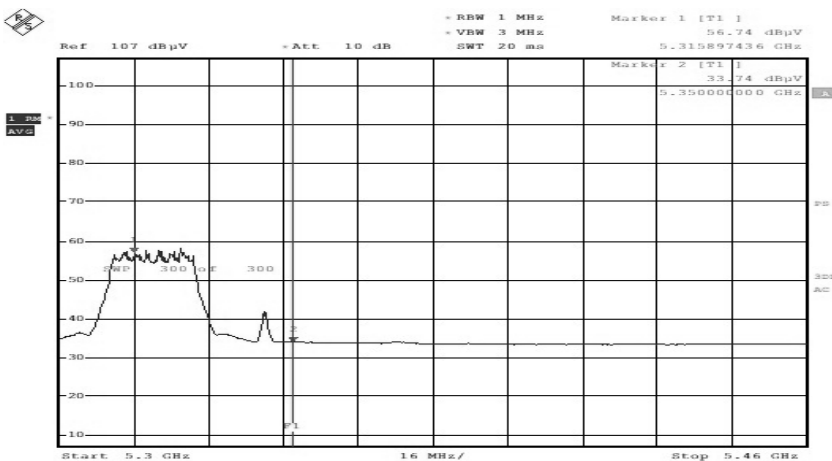
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

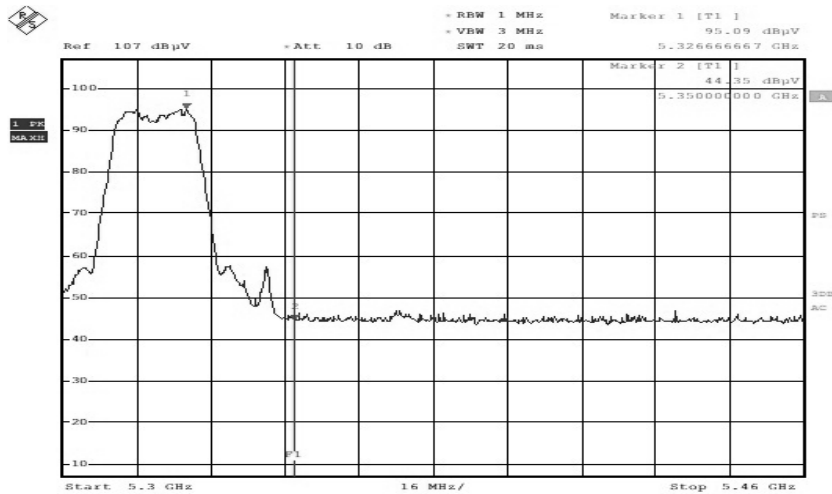


ESTR-21-00231

Band Edges(CH Low)

Detector mode:Peak

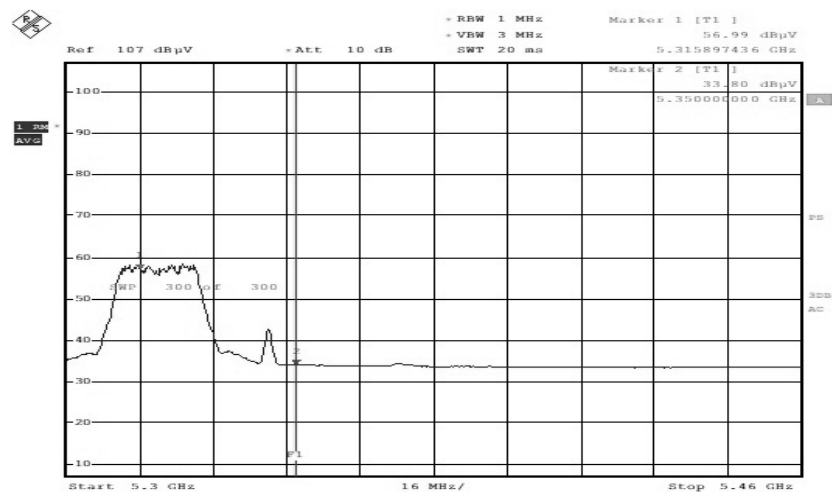
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical

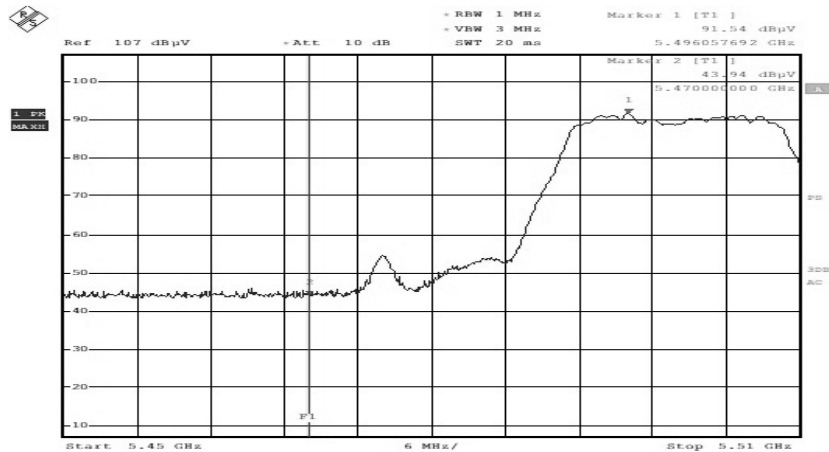


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

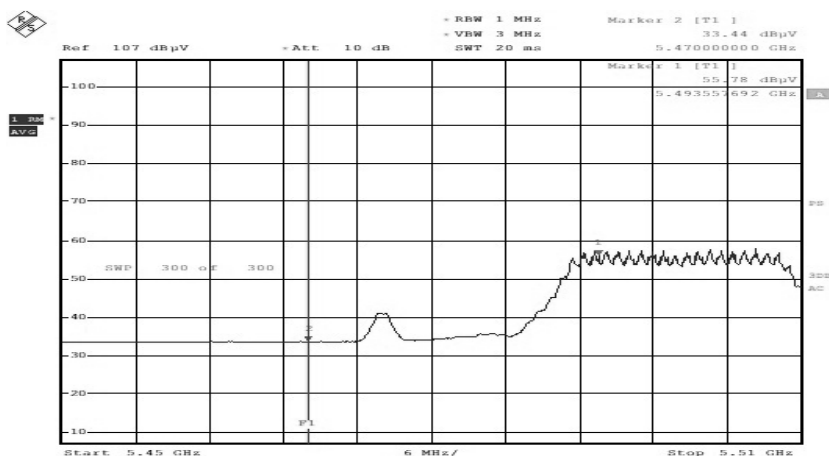
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

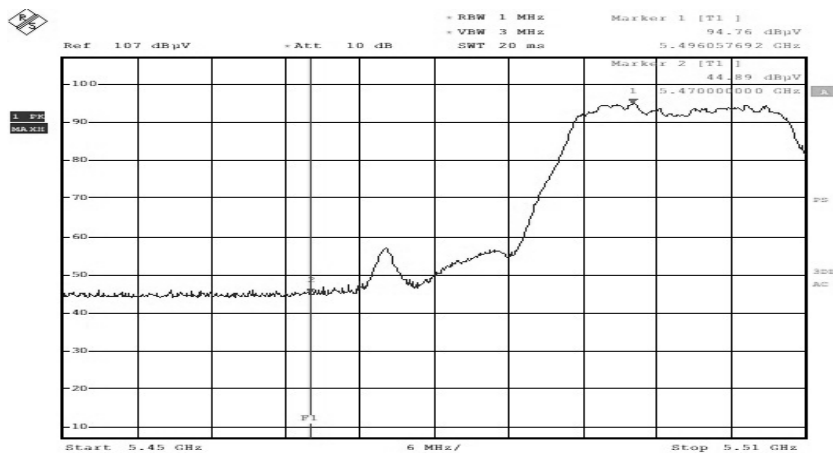


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

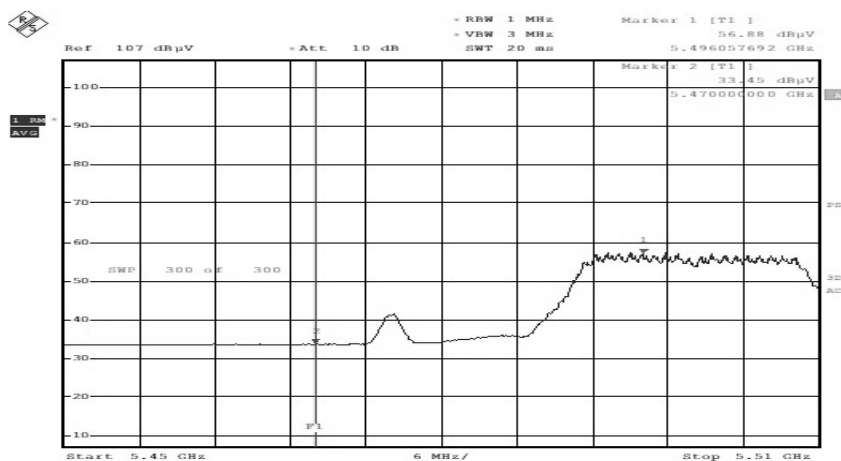
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical

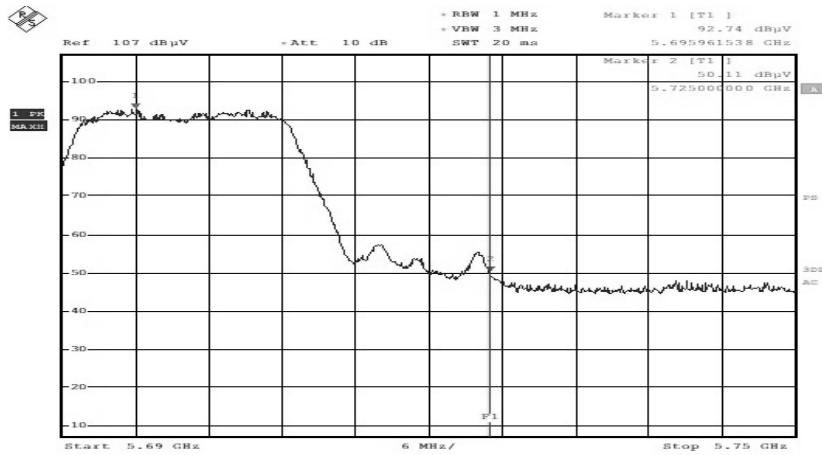


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

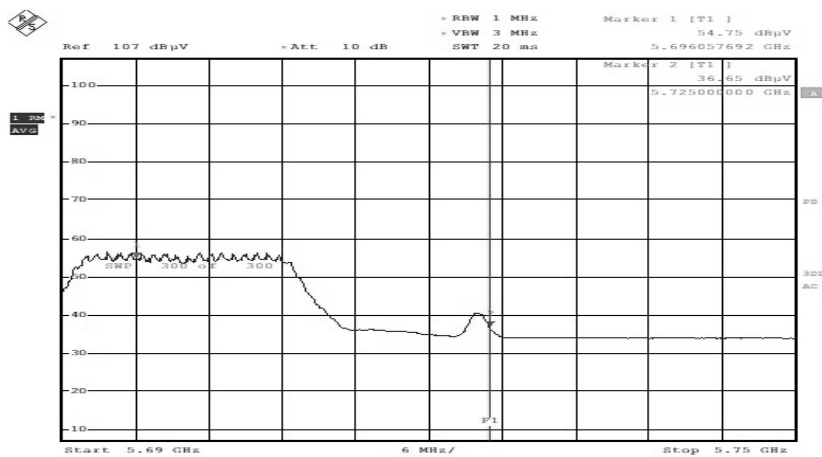
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

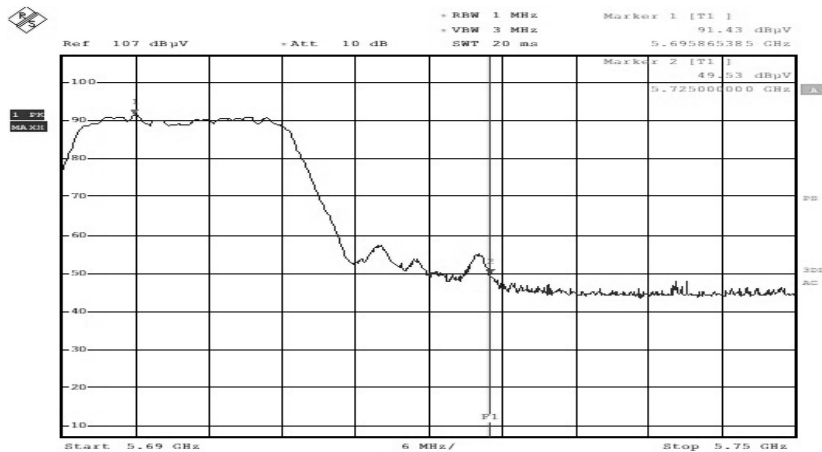


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

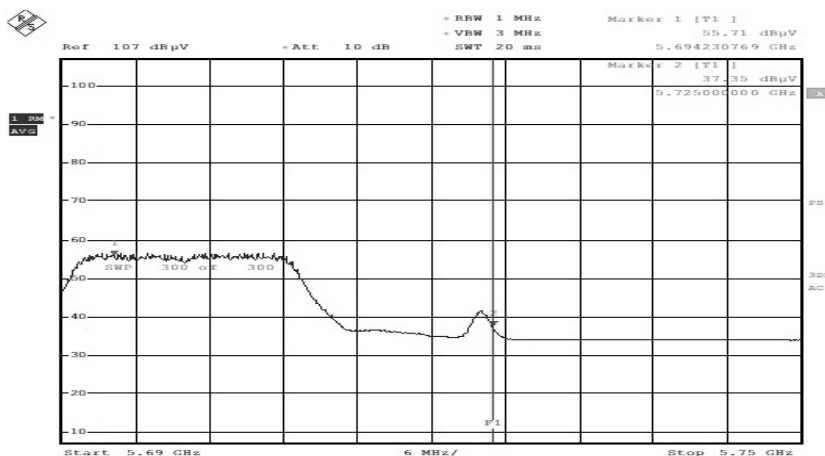
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical



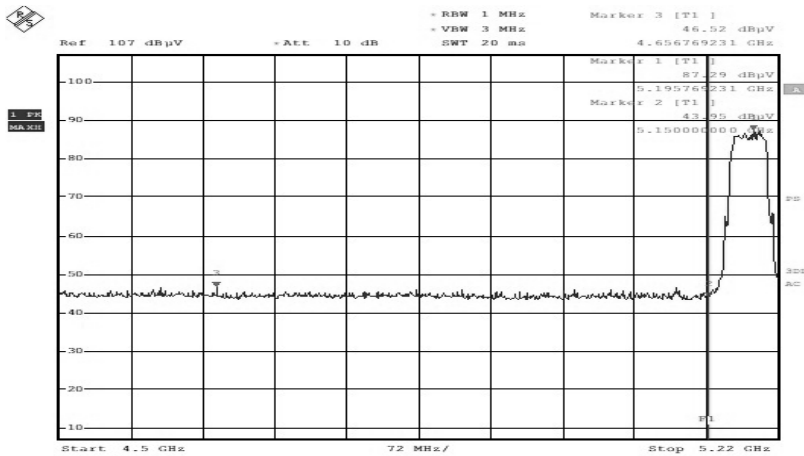
ESTR-21-00231

\*802.11n HT40 Mode(was1)

Band Edges(CH Low)

Detector mode:Peak

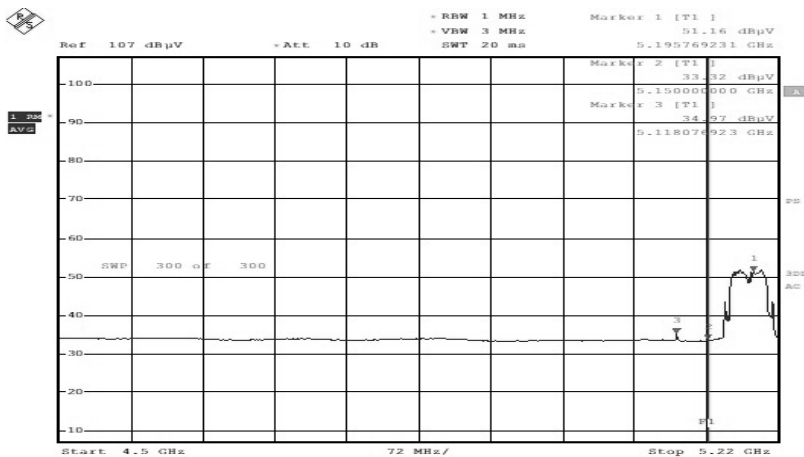
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

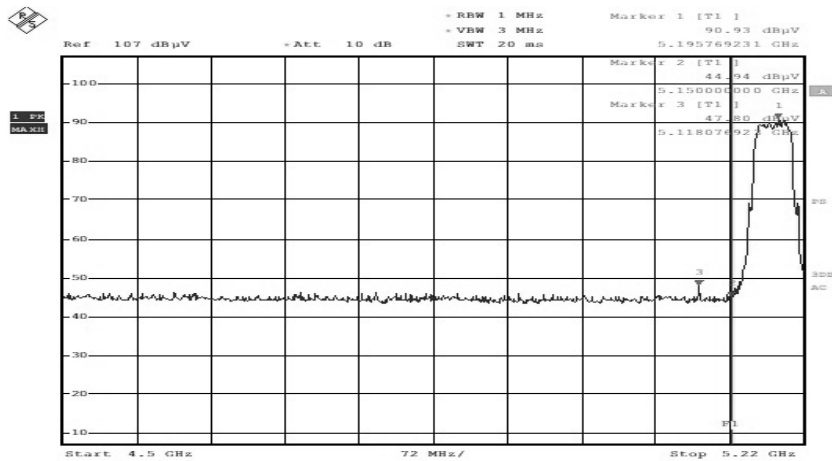


ESTR-21-00231

Band Edges(CH Low)

Detector mode:Peak

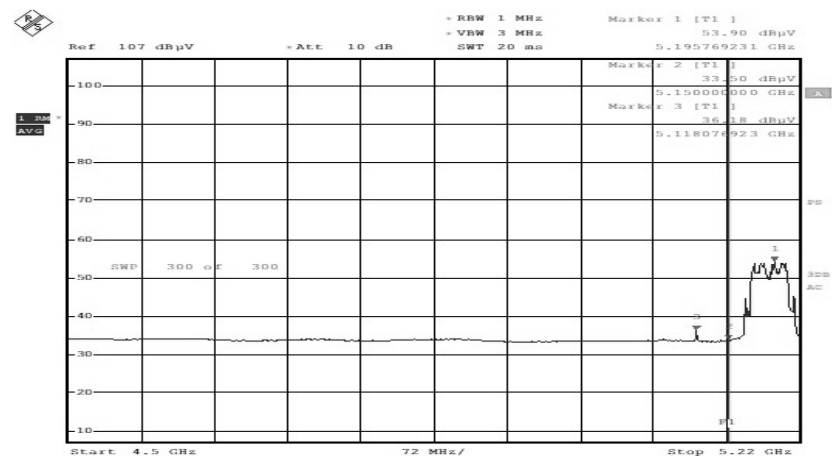
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical

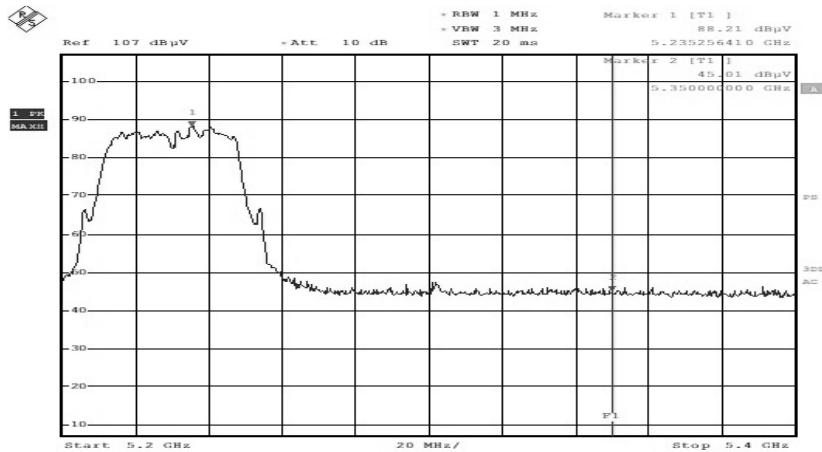


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

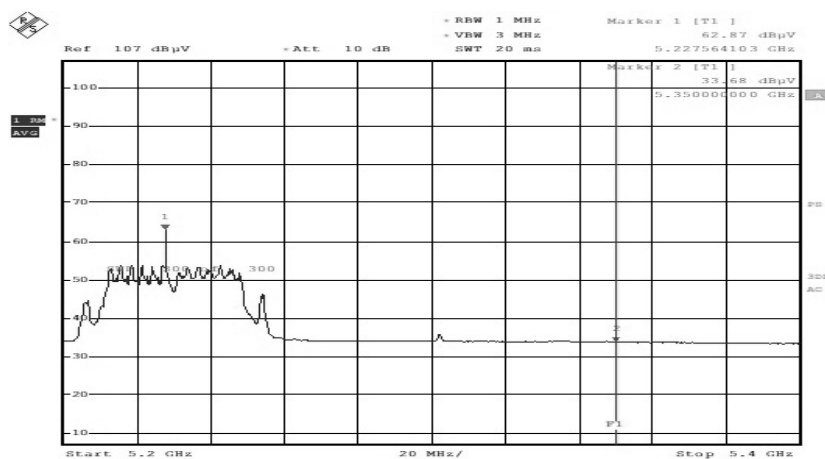
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

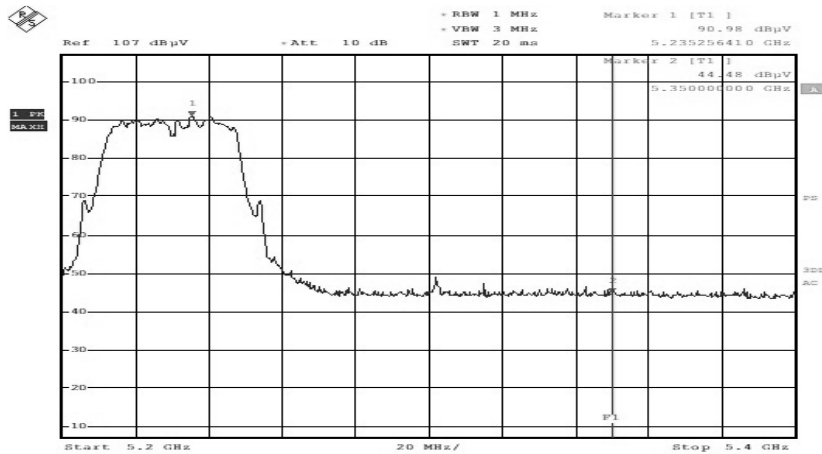


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

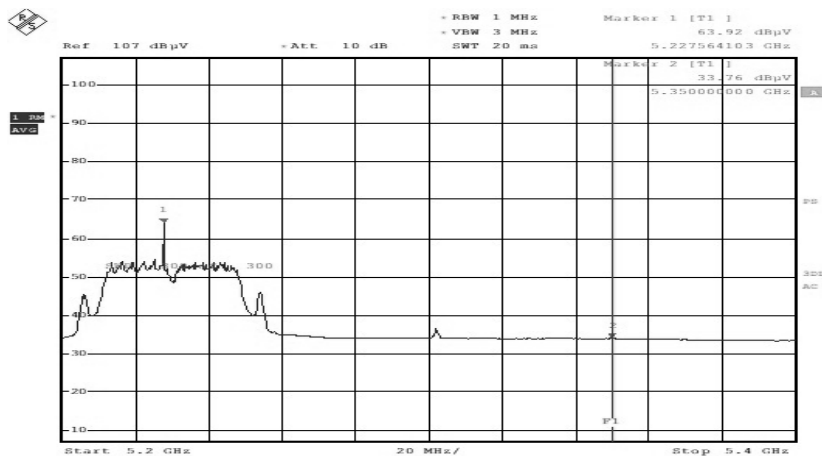
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical

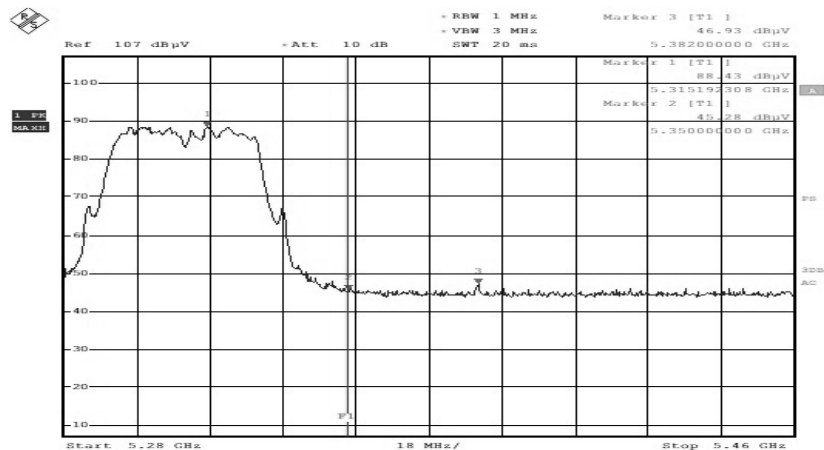


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

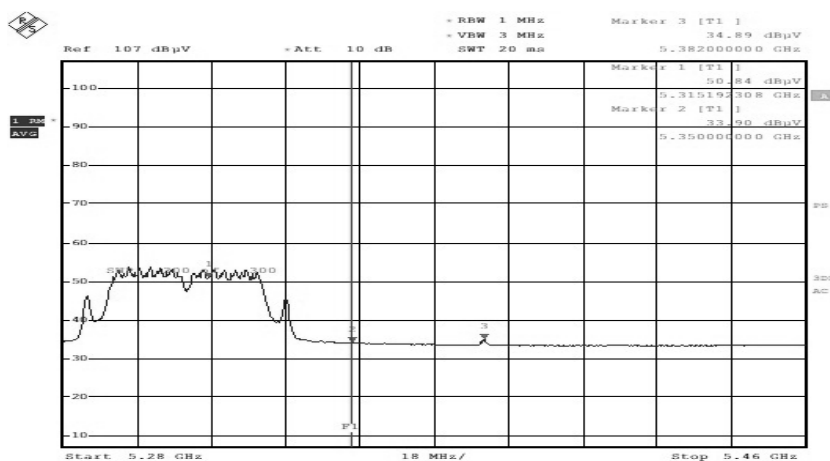
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

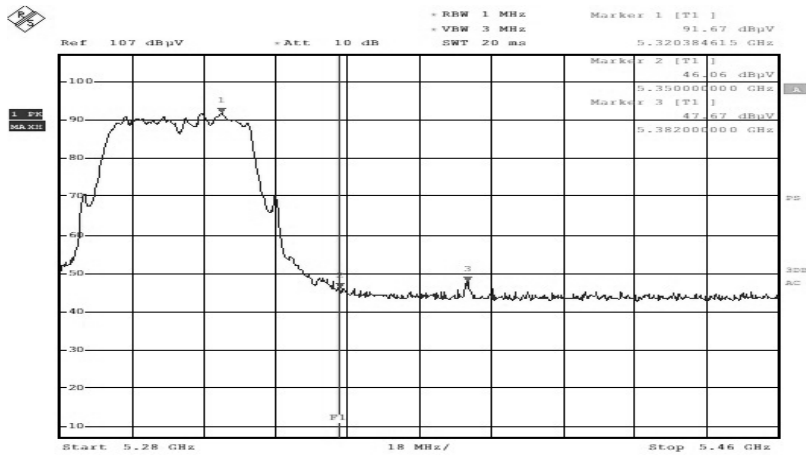


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

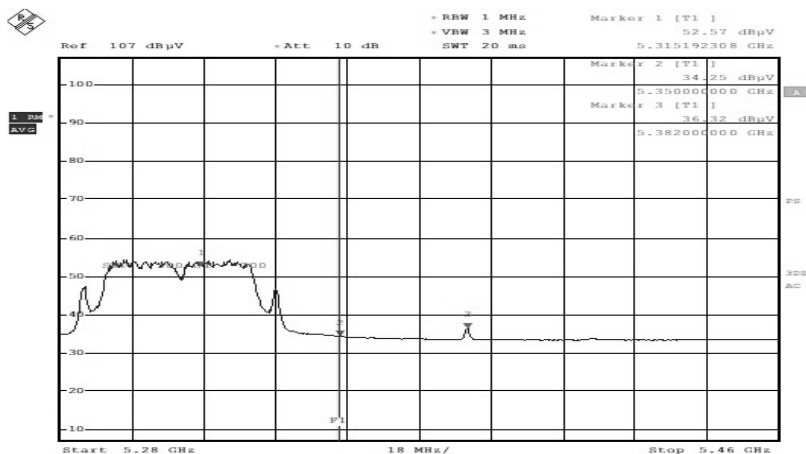
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical

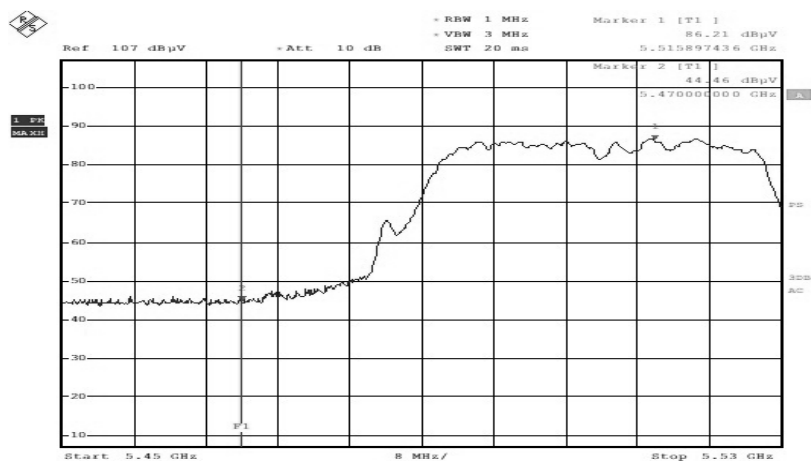


ESTR-21-00231

Band Edges(CH Low)

Detector mode:Peak

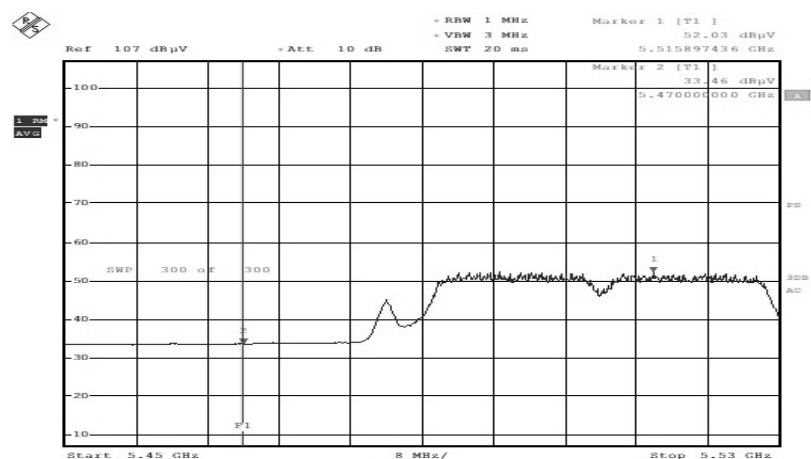
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

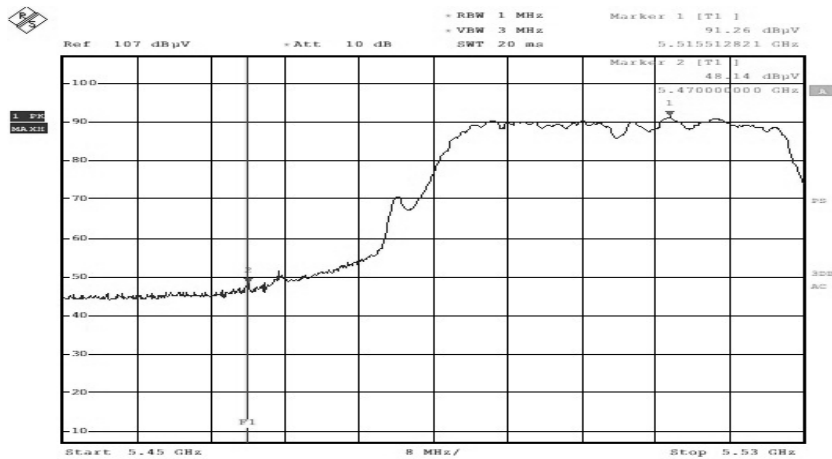


ESTR-21-00231

Band Edges(CH Low)

Detector mode:Peak

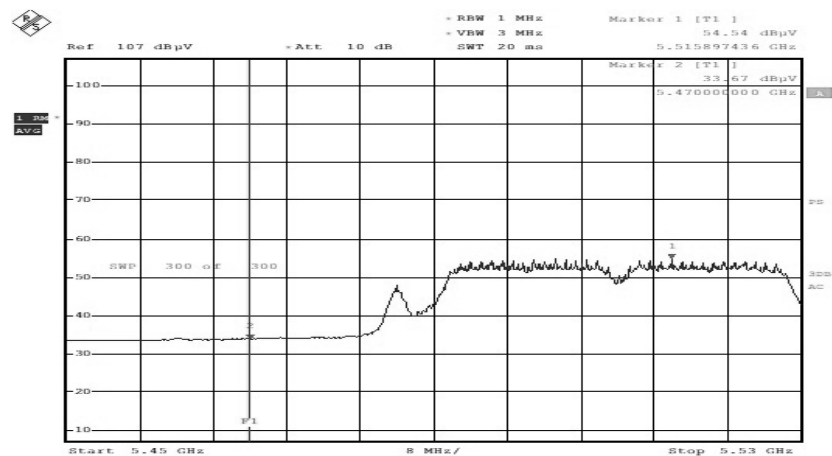
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical

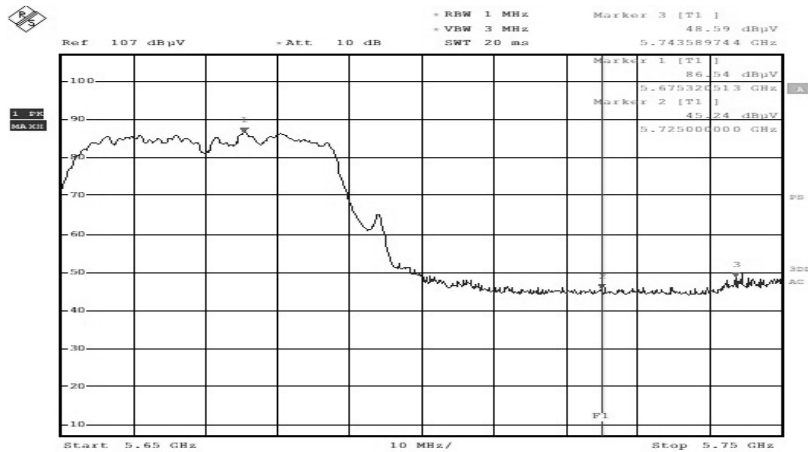


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

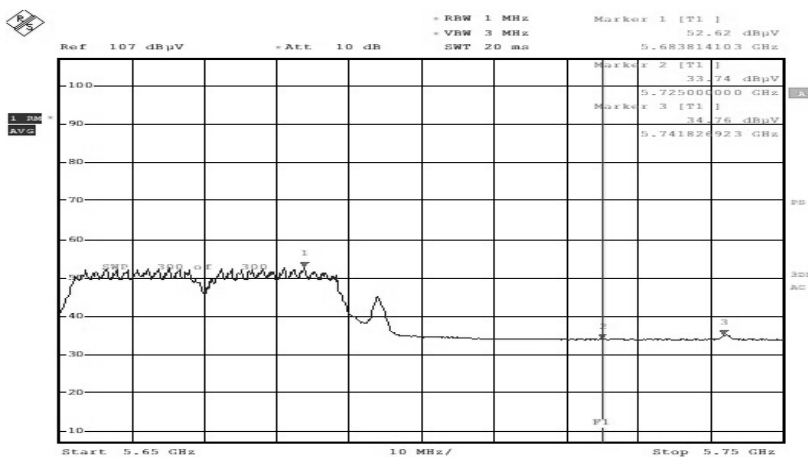
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

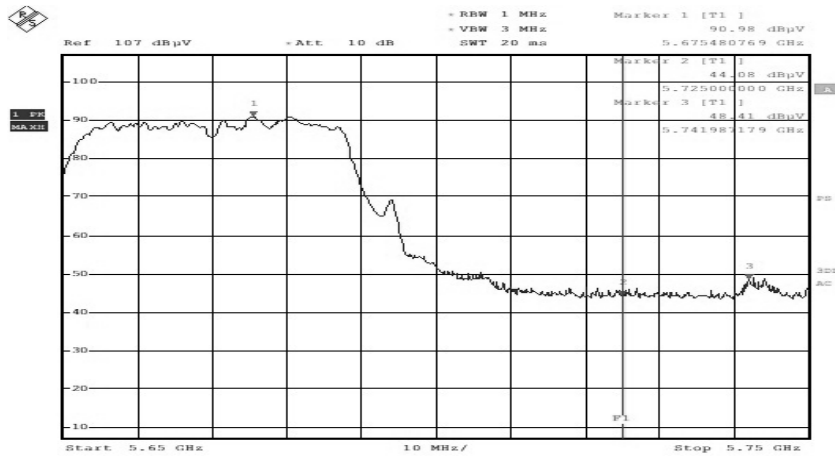


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

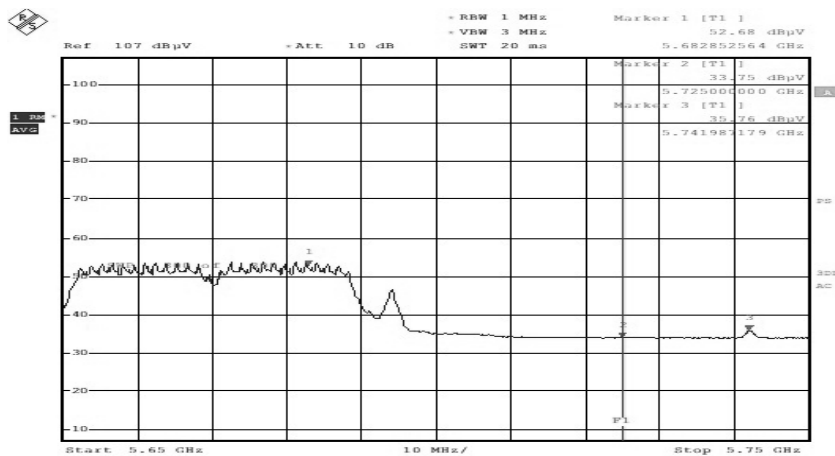
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical



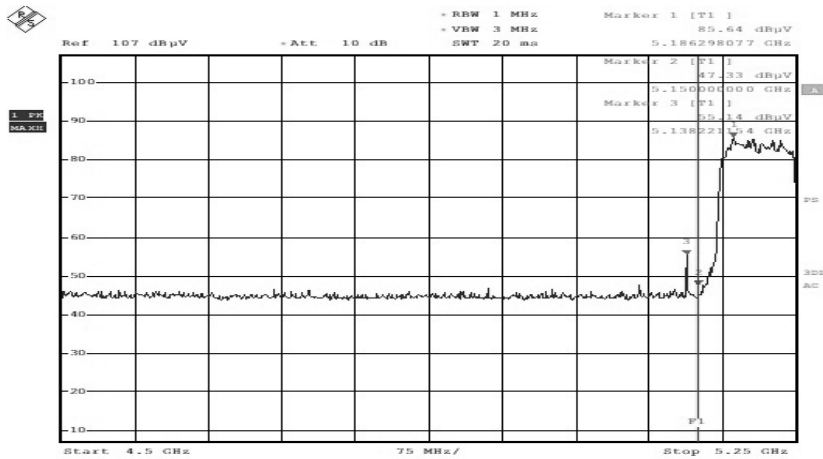
ESTR-21-00231

\*802.11n HT80 Mode(was1)

Band Edges(CH Low)

Detector mode:Peak

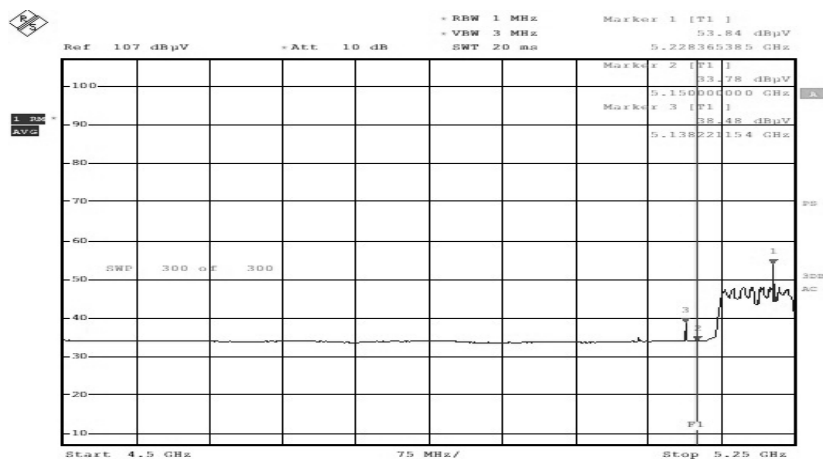
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

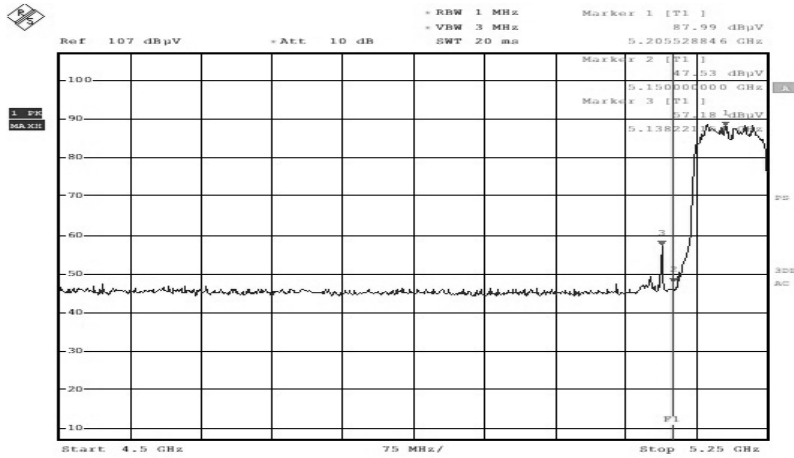


ESTR-21-00231

Band Edges(CH Low)

Detector mode:Peak

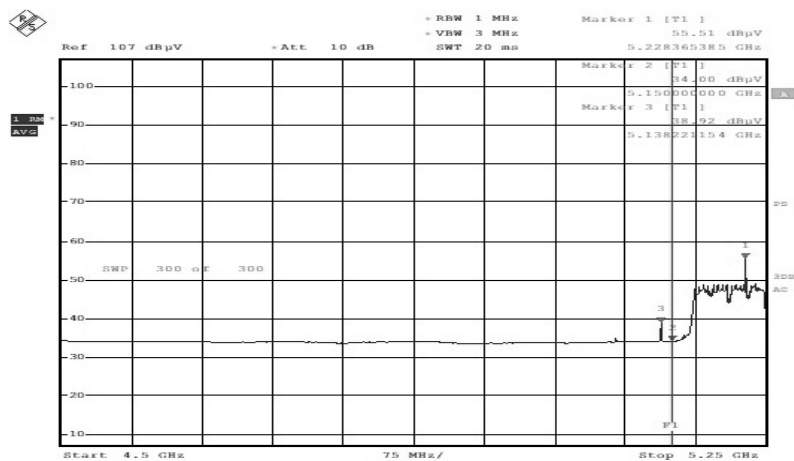
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical

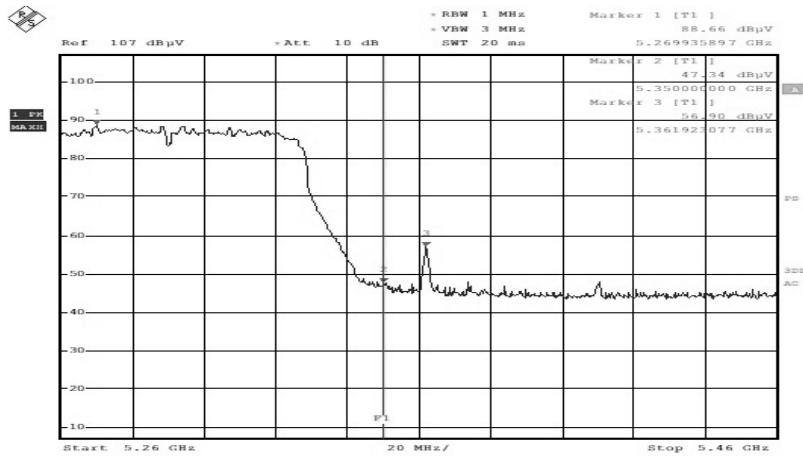


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

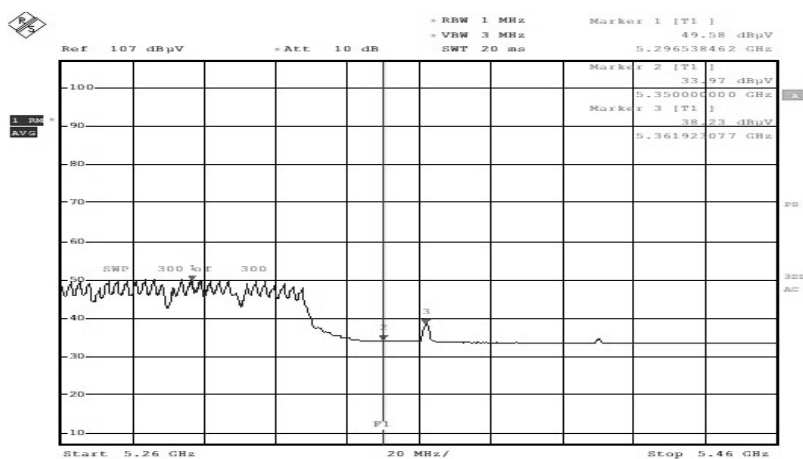
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

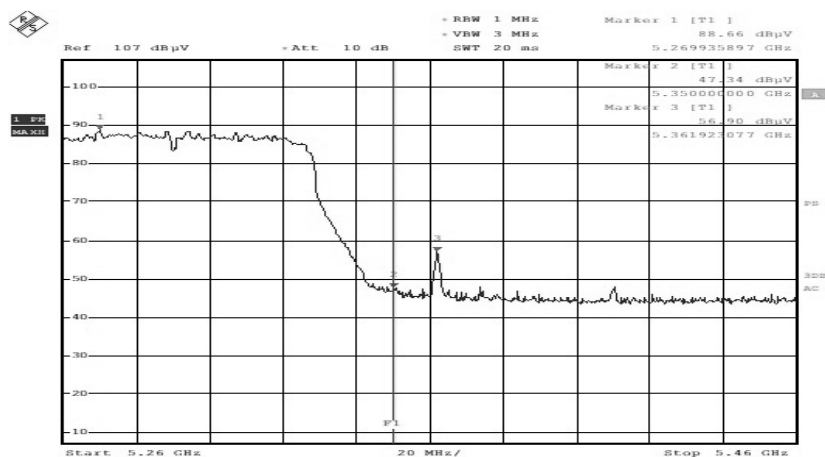


ESTR-21-00231

Band Edges(CH High)

Detector mode:Peak

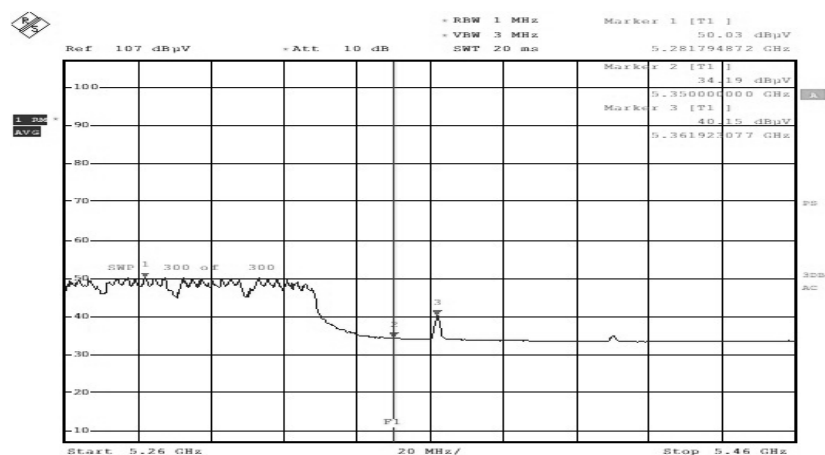
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical

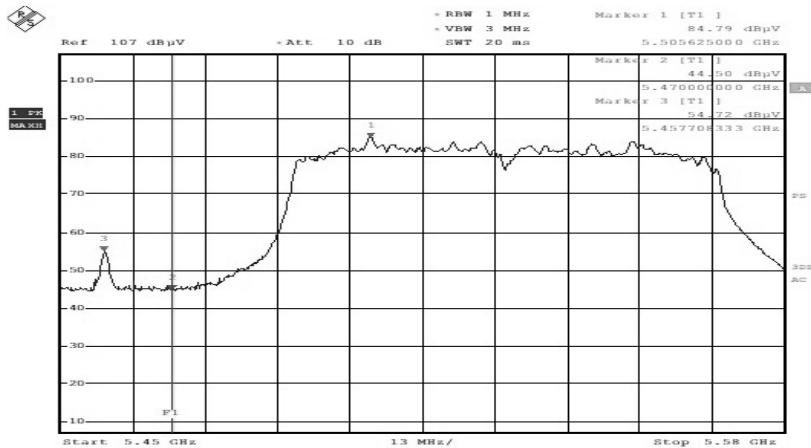


ESTR-21-00231

Band Edges(CH Low)

Detector mode:Peak

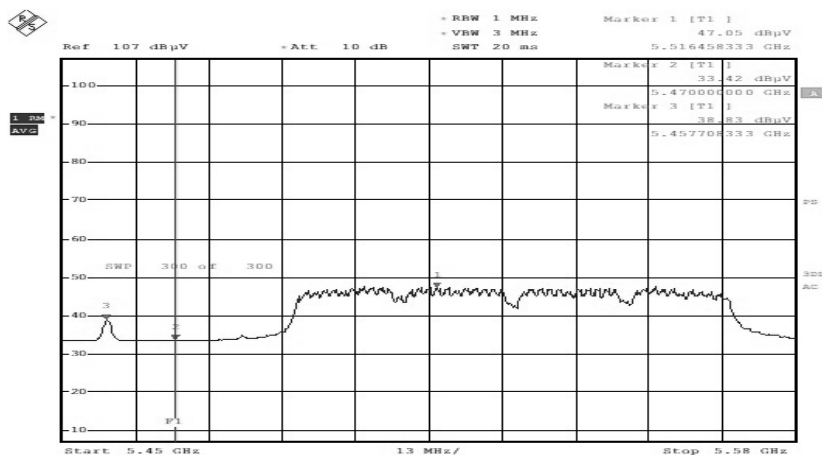
Polarity:Horizontal



ESTR-21-00231

Detector mode:Average

Polarity:Horizontal

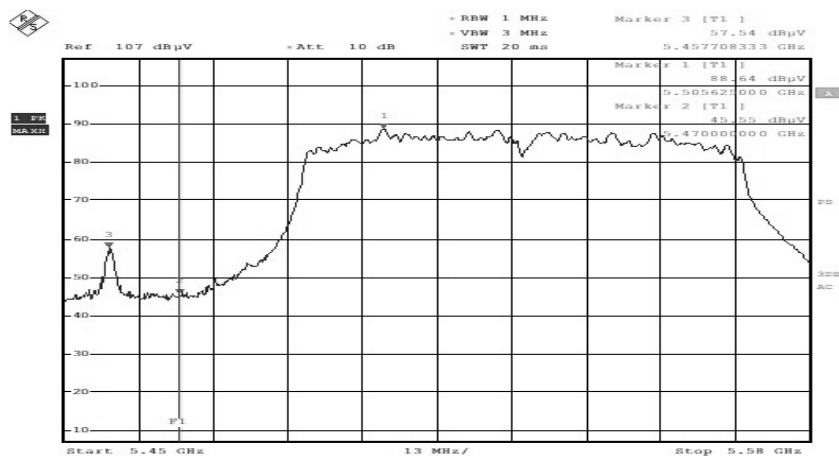


ESTR-21-00231

Band Edges(CH Low)

Detector mode:Peak

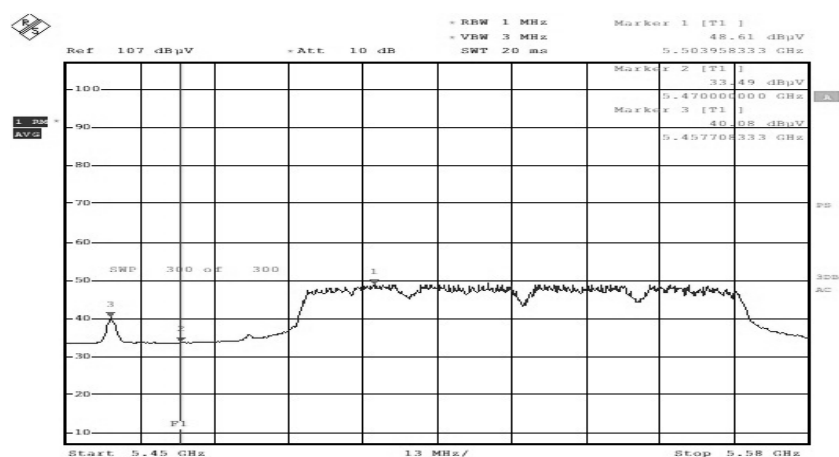
Polarity:Vertical



ESTR-21-00231

Detector mode:Average

Polarity:Vertical



ESTR-21-00231