



RF TEST REPORT

Report No.: SET2015-19282

Product Name: GPON SFU

FCC ID: 2AGHCHBMT04

Model No.: 7279G / 7278G / 7272G

Applicant: Guangdong Hisense Broadband Technology Co.,Ltd

Building 2, No.8, Hisense Road, Tangxia Town, Pengjiang

Address: District, Jiangmen City, Guangdong Provice

Dates of Testing: 11/26/2015 — 12/20/2015

Issued by: CCIC-SET

Lab Location: Building 28/29, East of Shigu, Xili Industrial Zone, Xili Road,

Nanshan District, Shenzhen, Guangdong, China

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CCIC-SET/T (00) Page 1 of 154



Test Report

Product Name: GPON SFU

Brand Name: iPhotonix / Ligent / Hisense

Trade Name: iPhotonix / Ligent / Hisense

Applicant : Guangdong Hisense Broadband Technology Co.,Ltd

Building 2, No.8, Hisense Road, Tangxia Town, Pengjiang Applicant Address....::

District, Jiangmen City, Guangdong Provice

Manufacturer....: Guangdong Hisense Broadband Technology Co.,Ltd

Building 2, No.8, Hisense Road, Tangxia Town, Pengjiang Manufacturer Address::

District, Jiangmen City, Guangdong Provice

47 CFR Part 15 Subpart E § 15.407 Test Standards....::

FCC KDB 789033 D02 General UNII Test Procedures

New Rules v01

ANSI C63.10:2009

Test Result: PASS

Tested by::

2015.12.22

Lu Lei, Test Engineer

Reviewed by....::

2015.12.22

Zhu Qi, Senior Egineer

Approved by::

2015.12.22

Wu Li'an, Manager

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| | | Ch | ange History | |
| | Issue | Date | Reason for change | |
| | 1.0 | 2015-12-22 | First edition | |





1. General Information

1.1. EUT Description

| EUT Type | GPON SFU |
|---------------------------------|---|
| Hardware Version | RGAC7.820.916 |
| Software Version | |
| EUT supports Radios application | WLAN2.4GHz 802.11b/g/n (HT20/HT40) |
| EOT supports Radios application | WLAN5.0GHz 802.11a/n (HT20/40)/ac(VHT20/40/80) |
| | CCK, DQPSK, DBPSK for DSSS |
| Modulation Type | 256QAM, 64QAM,16QAM, QPSK, BPSK for OFDM |
| | 256QAM for OFDM in 11ac mode only |
| | 2.4GHz: |
| | 802.11b: 11/5.5/2/1 Mbps |
| | 802.11g: 54/48/36/24/18/12/9/6 Mbps |
| | 802.11n: up to 300 Mbps |
| Transfer Rate | 5.0GHz: |
| | 802.11a: 54/48/36/24/18/12/9/6 Mbps |
| | • |
| | 1 |
| | |
| | |
| | |
| Frequency Range | |
| | |
| | |
| | |
| | |
| | |
| | CCK, DQPSK, DBPSK for DSSS 256QAM, 64QAM,16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode only 2.4GHz: 802.11b: 11/5.5/2/1 Mbps 802.11g: 54/48/36/24/18/12/9/6 Mbps 802.11n: up to 300 Mbps 5.0GHz: 802.11a: 54/48/36/24/18/12/9/6 Mbps 802.11a: ot 450 Mbps 802.11a: up to 1300Mbps 2.4GHz: 802.11b, 802.11g, 802.11n(20MHz): 2412~2462MHz 802.11b, 802.11g, 802.11n(20MHz): 2412~2462MHz 802.11n(40MHz): 2422~2452MHz 5.0GHz: 5150 ~ 5250MHz 5725 ~ 5850MHz 2.4GHz: 802.11b/g/n-20MHz: 11 802.11n-40MHz: 7 5GHz: 5150 MHz ~ 5250MHz: 4 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 2 for 802.11a (VHT80) 5725 MHz ~ 5850MHz: 5 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 2 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 2 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 1 for 802.11a (VHT80) Linear Vertical Antenna |
| | |
| | |
| Channel Number | |
| | |
| | , |
| | |
| | |
| | |
| Antenna Type | |
| | Antenna(3): 3.14dBi; Antenna(4): 4.58dBi |
| Antenna Gain | Antenna(5): 5.0dBi; |





| Product Type | Refer to note |
|---------------------|---------------------------|
| | 802.11a: 18.12dBm |
| | 802.11n(HT20): 20.64dBm |
| Output Power (May.) | 802.11n(HT40): 20.25dBm |
| Output Power (Max.) | 802.11ac(VHT20): 19.48dBm |
| | 802.11ac(VHT40): 19.66dBm |
| | 802.11ac(VHT80): 20.12dBm |

Note1: The EUT has three models: 7279G/7278G/7272G.Only the model 7279G contains all of the peripheral connector ports, which is recorded in this report.

Note2: The EUT incorporates a MIMO function. Physically, the EUT provides 2 completed transmitters and 2 receivers for 2.4GHz WLAN, provides 3 completed transmitters and 3 receivers for 5GHz WLAN.

| Frequency | Modulation Mode | TX / RX Function | |
|-----------|------------------|-----------------------------------|--|
| | 802.11b | 1TX / 1RX(Only Antenna 1) | |
| 2.4GHz | 802.11g | 1TX / 1RX | |
| 2.4GHZ | 802.11n (HT20) | 1TX / 1RX or 2TX / 2RX | |
| | 802.11n (HT40) | 1TX / 1RX or 2TX / 2RX | |
| | 802.11a | 1TX / 1RX(Only Antenna 3) | |
| | 802.11n (HT20) | 1TX / 1RX or 3TX / 3RX | |
| 5.0GHz | 802.11n (HT40) | 11n (HT40) 1TX / 1RX or 3TX / 3RX | |
| 3.0GHZ | 802.11ac (VHT20) | 1TX / 1RX or 3TX / 3RX | |
| | 802.11ac (VHT40) | 1TX / 1RX or 3TX / 3RX | |
| | 802.11ac (VHT80) | 1TX / 1RX or 3TX / 3RX | |

Operated band in 5150 MHz ~ 5250MHz

4 channels are provided for 802.11a, 802.11n-HT20, and 802.11ac-VHT20

| Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|
| 36 | 5180 MHz | 44 | 5220 MHz |
| 40 | 5200 MHz | 48 | 5240 MHz |

2 channels are provided for 802.11n-HT40 and 802.11ac-VHT40

| Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|
| 38 | 5190 MHz | 46 | 5230 MHz |





1 channel are provided for 802.11ac-VHT80

| Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|
| 42 | 5210 MHz | / | / |

Operated band in 5725 MHz ~ 5850MHz

5 channels are provided for $802.11a,\,802.11n\text{-}HT20$ and 802.11ac-VHT20

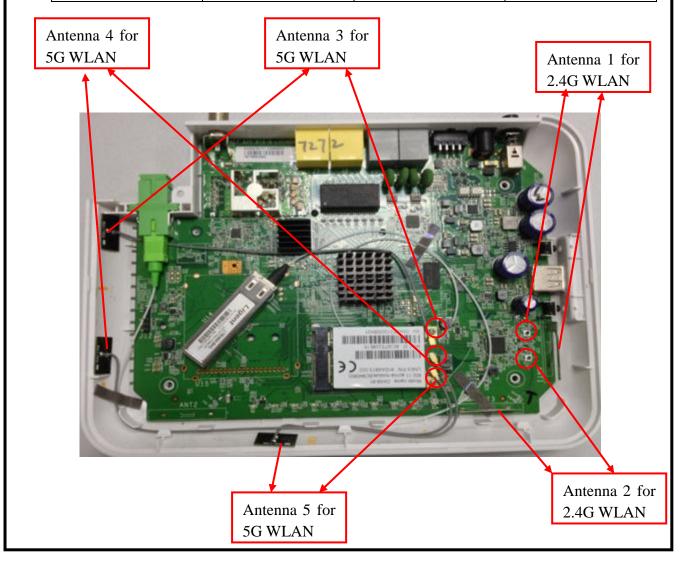
| Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|
| 149 | 5745 MHz | 161 | 5805 MHz |
| 153 | 5765 MHz | 165 | 5825 MHz |
| 157 | 5785 MHz | / | / |

2 channels are provided for 802.11n-HT40 and 802.11ac-VHT40

| Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|
| 151 | 5755 MHz | 159 | 5795 MHz |

1 channel are provided for 802.11ac-VHT80

| Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|
| 155 | 5775 MHz | / | / |







1.2. Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 15 Subpart E for the EUT FCC Certification:

| No. | Identity | Document Title |
|-----|--------------------------------------|--|
| 1 | 47 CFR Part 15 Subpart E § 15.407 | Radio Frequency Devices |
| 2 | ANSI C63.10 2009 | American National Standard for Testing Unlicensed Wireless Devices |

Test detailed items/section required by FCC rules and results are as below:

| No. | FCC Rule | Description | Result |
|-----|------------------|----------------------------------|--------|
| 1 | 15.203 | Antenna Requirement | PASS |
| 2 | 15.407(a) | Peak Output Power | PASS |
| 3 | 15.407(a) | Emission Bandwidth | PASS |
| 3 | 15.407(e) | Emission Bandwidth | |
| 4 | 15.407(a) | Power spectral density (PSD) | PASS |
| 5 | 15.207 | AC Power Line Conducted Emission | PASS |
| - | 15.209 15.407(b) | Radiated Band Edges and Spurious | PASS |
| 6 | 13.209 13.407(0) | Emission | rass |

The tests of Conducted Emission and Radiated Emission were performed according to the method of measurements prescribed in ANSI C63.10 2009.

These RF tests were performed according to the method of measurements prescribed in KDB789033 D02 General UNII Test Procedures New Rules v01.



1.3. Test environment and mode

| Operating Environment | |
|--------------------------------|---|
| Temperature | 24°C |
| Humidity | 57 % RH |
| Atmospheric Pressure | 1010 mbar |
| Test mode: | |
| Continuously transmitting mode | Keeps the EUT in 100% duty cycle transmitting with |
| | modulation in SISO and MIMO mode, duty cycle factor |
| | is not required. |

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

| For Frequency band 5150 ~ 5250 MHz | | | | | | | |
|------------------------------------|-------------------------------|------------------|-------|----------|--|--|--|
| Mode | Modulation scheme / bandwidth | | | | | | |
| Mode | 5180 MHz | 5220 MHz | | 5240 MHz | | | |
| 802.11a | 6 Mbps | 6 Mbps | | 6 Mbps | | | |
| 802.11n/ac – HT20 | MCS 0 | MCS 0 | | MCS 0 | | | |
| Frequency | 5190 MHz | 5190 MHz 5230 MH | | 230 MHz | | | |
| 802.11n/ac – HT40 | MCS 0 MCS (| | MCS 0 | | | | |
| Frequency | 5210 MHz | | | | | | |
| 802.11ac – VHT80 | - · · | | | | | | |

| For Frequency band 5725 ~ 5850 MHz | | | | | | |
|------------------------------------|-------------------------------|----------|---------|----------|--|--|
| Mode | Modulation scheme / bandwidth | | | | | |
| Mode | 5745 MHz | 5785 MHz | | 5825 MHz | | |
| 802.11a | 6 Mbps | 6 Mbps | | 6 Mbps | | |
| 802.11n/ac – HT20 | MCS 0 | MCS 0 | | MCS 0 | | |
| Frequency | 5755 MHz 5795 M | | 795 MHz | | | |
| 802.11n/ac – HT40 | 802.11n/ac – HT40 MCS 0 | | | MCS 0 | | |
| Frequency | 5775 MHz | | | | | |
| 802.11ac – VHT80 | | MC | S 0 | | | |



1.4. Table for Supporting Units

| No. | Equipment | Brand Name | Model Name | Manufacturer | Serial No. | Note |
|-----|-----------|------------|------------|--------------|------------|---------|
| 1 | Notebook | DELL | PP11L | DELL | H5914A03 | FCC DOC |

1.5. Laboratory Facilities

CNAS-Lab Code: L1659

CCIC Southern Electronic Product Testing (Shenzhen) Co., Ltd. CCIC is a third party testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L1659. A 12.8*6.8*6.4 (m) fully anechoic chamber was used for the radiated spurious emissions test.

FCC-Registration No.: 406086

CCIC Southern Electronic Product Testing (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Registration 406086, valid time is until October 28, 2017.

IC-Registration No.: 11185A-1

CCIC Southern Electronic Product Testing (Shenzhen) Co., Ltd. EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 11185A-1 on July. 15, 2013, valid time is until July. 15, 2016.

2. 47 CFR Part 15C Requirements

2.1. Antenna requirement

2.1.1. Applicable Standard

According to FCC 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

And according to FCC 47 CFR Section 15.407(c), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

2.1.2. Antenna Information

Antenna Category: internal antenna

An internal antenna was soldered to the antenna port of EUT via an adaptor cable, can't be removed.

Antenna General Information:

| Antenna | EUT | Ant. Type | Gain(dBi) | 3+4+5 Gain(dBi) |
|---------|----------|-----------------|-----------|----------------------|
| 3 | GPON SFU | Linear Vertical | 3.14 | |
| 4 | GPON SFU | Linear Vertical | 4.58 | 4.31 _{note} |
| 5 | GPON SFU | Linear Vertical | 5.0 | |

Note: According to KDB 662911, all transmit signals are completely uncorrelated with each other. Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + ... + 10^{GN/10})/N_{ANT}] dBi$

2.1.3. Result: comply

The EUT has a permanently and irreplaceable attached antenna. Please refer to the EUT internal photos.



2.2. Peak Output Power

2.2.1. Limit of Peak Output Power

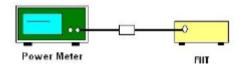
| Band | EUT Category | Limit | |
|----------|-------------------------------------|---|--|
| | | 1 Watt (30 dBm) | |
| | Outdoor Access Point | (Max. e.i.r.p \leq 125mW(21dBm) at | |
| | Outdoor Access Form | any elevation angle above 30 degrees as | |
| U-NII-1 | | measured from the horizon) | |
| | Fixed point-to-point Access device | 1 Watt (30 dBm) | |
| | | 1 Watt (30 dBm) | |
| | ☐ Mobile and portable client device | 250mW (24 dBm) | |
| U-NII-2A | | 250mW (24 dBm) or 11dBm+10logB* | |
| U-NII-2C | | 250mW (24 dBm) or 11dBm+10logB* | |
| U-NII-3 | | 1 Watt (30 dBm) | |

B* is the 26 dB emission bandwidth in megahertz.

2.2.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

2.2.3. Test Setup



2.2.4. Test Procedures

- 1. The testing follows the Measurement Procedure of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.
- 2. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
 - 3. Set to the maximum power setting and enable the EUT transmit continuously.
 - 4. Measure the conducted output power and record the results in the test report.





2.2.5. Test Result

Test results of band U-NII-1 (5150 ~ 5250 MHz)

| st results of band | 0-111-1 (313 | | | | | | |
|--------------------|--------------|----------------|---------------|-------|---------------|--------|--|
| | | | 2.11a mode | 1 | | | |
| Test Frequency | Conduc | (dBm) | Result | | | | |
| (MHz) | Antenna 3 | Antenna 4 | Antenna 5 | | Limit (ubiii) | | |
| 5180 | 18.27 | \ | \ | 3 | 0 | PASS | |
| 5220 | 18.44 | \ | \ | 3 | 0 | PASS | |
| 5240 | 18.52 | \ | \ | 3 | 0 | PASS | |
| | | 802.11 | n-HT20 mode | | | | |
| Test Frequency | Co | onducted Outpo | ut Power (dBn | n) | Limit | Result | |
| (MHz) | Antenna 3 | Antenna 4 | Antenna 5 | Total | (dBm) | Nesun | |
| 5180 | 18.23 | 18.81 | 18.32 | 23.23 | 30 | PASS | |
| 5220 | 18.34 | 18.84 | 18.25 | 23.26 | 30 | PASS | |
| 5240 | 18.51 | 18.90 | 18.22 | 23.32 | 30 | PASS | |
| | | 802.11 | n-HT40 mode | : | | | |
| Test Frequency | Co | onducted Outpo | ut Power (dBn | n) | Limit | Result | |
| (MHz) | Antenna 3 | Antenna 4 | Antenna 5 | Total | (dBm) | Kesuit | |
| 5190 | 18.62 | 18.89 | 18.14 | 23.33 | 30 | PASS | |
| 5230 | 18.59 | 18.91 | 18.24 | 23.36 | 30 | PASS | |
| | | 802.11a | c-VHT20 mod | le | | | |
| Test Frequency | Co | onducted Outpo | ut Power (dBn | n) | Limit | Result | |
| (MHz) | Antenna 3 | Antenna 4 | Antenna 5 | Total | (dBm) | Result | |
| 5180 | 18.38 | 18.72 | 18.20 | 23.21 | 30 | PASS | |
| 5220 | 18.70 | 18.86 | 18.72 | 23.53 | 30 | PASS | |
| 5240 | 18.68 | 18.84 | 18.36 | 23.40 | 30 | PASS | |
| | | 802.11a | c-VHT40 mod | le | | | |
| Test Frequency | Co | onducted Outpo | ut Power (dBn | n) | Limit | Result | |
| (MHz) | Antenna 3 | Antenna 4 | Antenna 5 | Total | (dBm) | Result | |
| 5190 | 18.78 | 18.91 | 18.33 | 23.45 | 30 | PASS | |
| 5230 | 18.86 | 18.97 | 18.48 | 23.54 | 30 | PASS | |
| | | 802.11a | c-VHT80 mod | le | | | |
| Test Frequency | Co | onducted Outpo | ut Power (dBn | n) | Limit | Dagult | |
| (MHz) | Antenna 3 | Antenna 4 | Antenna 5 | Total | (dBm) | Result | |
| 5210 | 18.84 | 18.93 | 18.50 | 23.53 | 30 | PASS | |





Test results of band U-NII-3 (5725 ~ 5850 MHz)

| | | | 802. | 11a mode | | | | |
|----------------|--------------------------------|--------|-------------|------------|-------|-----------|--------|--------|
| Test Frequency | Conducted Output Power (dBm) | | | | | | Limit | |
| (MHz) | Antenna | | | enna 4 | | Antenna 5 | (dBm) | Result |
| 5745 | 18.63 | | | \ | | \ | 30 | PASS |
| 5785 | 18.35 | | | \ | | \ | 30 | PASS |
| 5825 | 18.33 | | | \ | | \ | 30 | PASS |
| | | | 802.11n | -HT20 m | ode | • | | |
| Test Frequency | Co | nducte | d Outpu | ıt Power (| dBn | n) | Limit | |
| (MHz) | Antenna 3 | | enna 4 | Antenna | | Total | (dBm) | Result |
| 5745 | 18.16 | 18 | 3.18 | 18.20 | | 22.95 | 30 | PASS |
| 5785 | 18.30 | 18 | 3.32 | 18.30 | | 23.08 | 30 | PASS |
| 5825 | 18.28 | 18 | 3.43 | 18.18 | , | 23.07 | 30 | PASS |
| | | | 802.11n | -HT40 m | ode | | | |
| Test Frequency | Со | nducte | ed Outpu | ıt Power (| dBn | n) | Limit | D 1 |
| (MHz) | Antenna 3 | Ante | | | a 5 | Total | (dBm) | Result |
| 5755 | 18.18 | 18 | 3.16 | 18.02 | | 22.89 | 30 | PASS |
| 5795 | 18.46 | 18.20 | | 18.11 | | 23.03 | 30 | PASS |
| | | 8 | 02.11ac | -VHT20 r | node | e | | |
| Test Frequency | Со | nducte | ed Outpu | ıt Power (| dBn | n) | Limit | D14 |
| (MHz) | Antenna 3 | Ante | enna 4 | Antenna | a 5 | Total | (dBm) | Result |
| 5745 | 18.58 | 18 | 3.42 | 18.35 | | 23.22 | 30 | PASS |
| 5785 | 18.77 | 18 | 3.46 | 18.05 | | 23.20 | 30 | PASS |
| 5825 | 18.64 | 18 | 3.62 | 18.19 | | 23.26 | 30 | PASS |
| | | 8 | 02.11ac | -VHT40 r | node | e | | |
| Test Frequency | Co | nducte | ed Outpu | ıt Power (| dBn | n) | Limit | Result |
| (MHz) | Antenna 3 | Ante | enna 4 | Antenna | a 5 | Total | (dBm) | Result |
| 5755 | 18.60 | 18 | 3.28 | 18.06 | | 23.09 | 30 | PASS |
| 5795 | 18.69 | 18 | 18.60 18.07 | | 23.23 | 30 | PASS | |
| | | 8 | 02.11ac | -VHT80 r | node | e | | |
| Test Frequency | y Conducted Output Power (dBm) | | | | | Limit | Result | |
| (MHz) | Antenna 3 | Ante | enna 4 | Antenna | a 5 | Total | (dBm) | Kesuit |
| 5775 | 18.80 | 18 | 3.71 | 18.43 | | 23.42 | 30 | PASS |
| | | | | | | | | |

Note: All data rates are testing, but the worse case data rate was record in the report.



2.3. Emission Bandwidth

2.3.1. Limit of Bandwidth

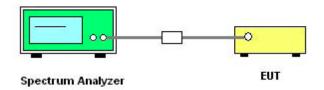
There is no limit bandwidth for bandU-NII-1, U-NII-2-A and U-NII-2-C.

The minimum of 6dB bandwidth measurement is 0.5 MHz for U-NII-3.

2.3.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

2.3.3. Test Setup



2.3.4. Test Procedures

- 1. The testing follows the Measurement Procedure of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.
- 2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
 - 3. Set to the maximum power setting and enable the EUT transmit continuously.
- 4. For 26dB bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) = approximately 1%EBW, VBW>RBW, Detector = Peak, Trace mode = max hold

Span >26 dB bandwidth and Sweep time = auto

- 5. Mark the peak frequency and -26dB (upper and lower) frequency.
- $6. \ For \ 6 \ Bandwidth \ Measurement, \ the \ spectrum \ analyzer's \ resolution \ bandwidth \ (RBW) = 100 kHz$

VBW = 300 kHz, Detector = Peak, Trace mode = max hold

- 7. Mark the peak frequency and -6dB (upper and lower) frequency.
- 8. Measure and record the worst results in the test report.





2.3.5. Test Results Bandwidth

Test results of band U-NII-1 (5150 ~ 5250 MHz)

| | 80 |)2.11a mode | | |
|--|------------|----------------------|-----------|--|
| Test Frequency | | 26dB Bandwidth (MHz) | | |
| (MHz) | Antenna 3 | Antenna 4 | Antenna 5 | |
| 5180 | 20.58 | \ | \ | |
| 5220 | 20.70 | \ | \ | |
| 5240 | 20.58 | \ | \ | |
| | 802.1 | 1n-HT20 mode | | |
| Test Frequency | | 26dB Bandwidth (MHz) | | |
| (MHz) | Antenna 3 | Antenna 4 | Antenna 5 | |
| 5180 | 21.12 | 21.06 | 21.00 | |
| 5220 | 21.06 | 20.94 | 21.00 | |
| 5240 | 21.00 | 21.12 | 21.00 | |
| | 802.1 | 1n-HT40 mode | | |
| Test Frequency | | 26dB Bandwidth (MHz) | | |
| (MHz) | Antenna 3 | Antenna 4 | Antenna 5 | |
| 5190 | 5190 39.84 | | 40.08 | |
| 5230 | 39.84 | 40.08 | 40.08 | |
| | 802.11 | ac-VHT20 mode | | |
| Test Frequency | | 26dB Bandwidth (MHz) | | |
| (MHz) | Antenna 3 | Antenna 4 | Antenna 5 | |
| 5180 | 21.06 | 20.88 | 21.06 | |
| 5220 | 21.12 | 21.00 | 21.12 | |
| 5240 | 21.00 | 20.94 | 20.88 | |
| | 802.11 | ac-VHT40 mode | | |
| Test Frequency | | 26dB Bandwidth (MHz) | | |
| (MHz) | Antenna 3 | Antenna 4 | Antenna 5 | |
| 5190 | 39.96 | 39.96 | 40.20 | |
| 5230 | 39.84 | 39.96 | 40.08 | |
| | 802.11 | ac-VHT80 mode | | |
| Test Frequency | | 26dB Bandwidth (MHz) | | |
| (MHz) | Antenna 3 | Antenna 4 | Antenna 5 | |
| 5210 83.52 83.48 83.52 | | | | |

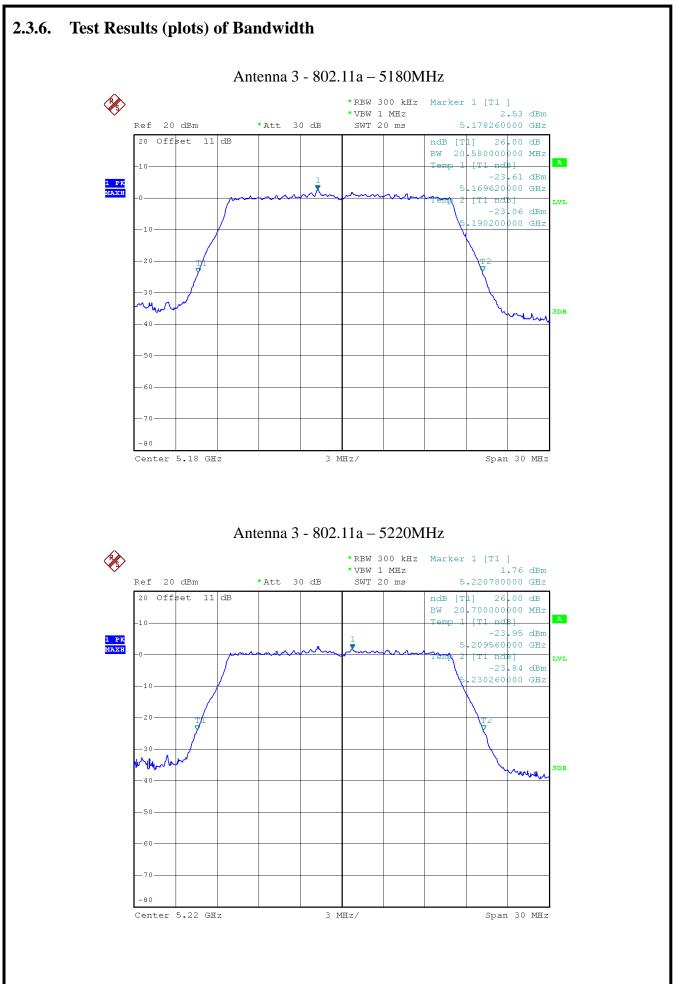




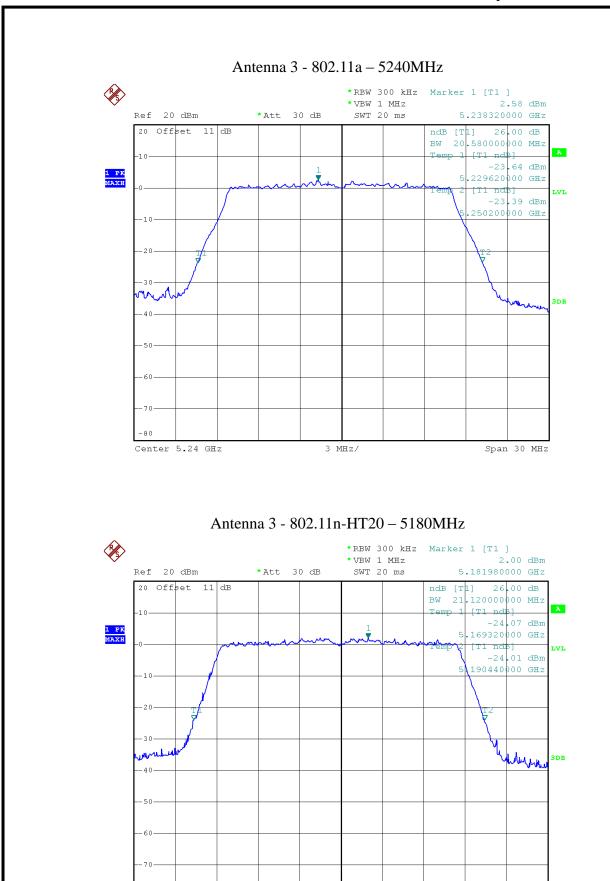
Test results of band U-NII-3 (5725 \sim 5850 MHz)

| | 80 |)2.11a mode | | | | | | |
|-------------------|------------------------------------|---------------------|-----------|--|--|--|--|--|
| Test Frequency | Test Frequency 6dB Bandwidth (MHz) | | | | | | | |
| (MHz) | Antenna 3 | Antenna 4 | Antenna 5 | | | | | |
| 5745 | 16.44 | \ | \ | | | | | |
| 5785 | 16.38 | \ | \ | | | | | |
| 5825 | 16.38 | \ | \ | | | | | |
| 802.11n-HT20 mode | | | | | | | | |
| Test Frequency | | 6dB Bandwidth (MHz) | | | | | | |
| (MHz) | Antenna 3 | Antenna 4 | Antenna 5 | | | | | |
| 5745 | 17.64 | 17.58 | 17.58 | | | | | |
| 5785 | 17.64 | 17.58 | 17.58 | | | | | |
| 5825 | 17.52 | 17.64 | 17.58 | | | | | |
| | 802.1 | 1n-HT40 mode | | | | | | |
| Test Frequency | | 6dB Bandwidth (MHz) | | | | | | |
| (MHz) | Antenna 3 Antenna 4 | | Antenna 5 | | | | | |
| 5755 | 36.48 | 36.36 | 36.24 | | | | | |
| 5795 | 36.08 36.32 | | 36.32 | | | | | |
| | 802.11 | ac-VHT20 mode | | | | | | |
| Test Frequency | | 6dB Bandwidth (MHz) | | | | | | |
| (MHz) | Antenna 3 | Antenna 4 | Antenna 5 | | | | | |
| 5745 | 17.58 | 17.58 | 17.58 | | | | | |
| 5785 | 17.58 | 17.58 | 17.58 | | | | | |
| 5825 | 17.52 | 17.58 | 17.52 | | | | | |
| | 802.11 | ac-VHT40 mode | | | | | | |
| Test Frequency | | 6dB Bandwidth (MHz) | | | | | | |
| (MHz) | Antenna 3 | Antenna 4 | Antenna 5 | | | | | |
| 5755 | 36.36 | 36.00 | 36.36 | | | | | |
| 5795 | 36.20 | 35.96 | 36.08 | | | | | |
| | 802.11 | ac-VHT80 mode | | | | | | |
| Test Frequency | | 6dB Bandwidth (MHz) | | | | | | |
| (MHz) | Antenna 3 | Antenna 4 | Antenna 5 | | | | | |
| 5775 | 76.08 | 76.08 | | | | | | |







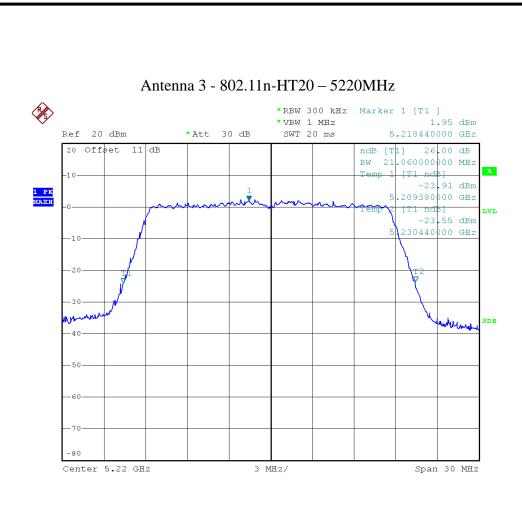


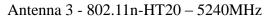
3 MHz/

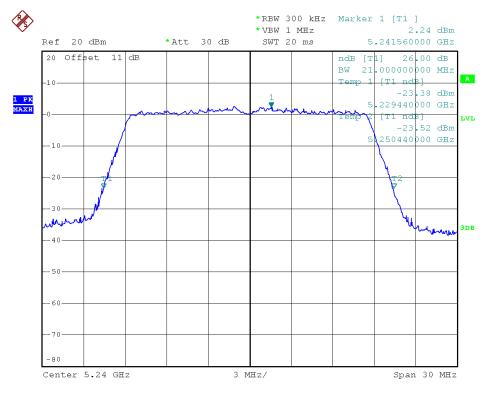
Center 5.18 GHz

Span 30 MHz

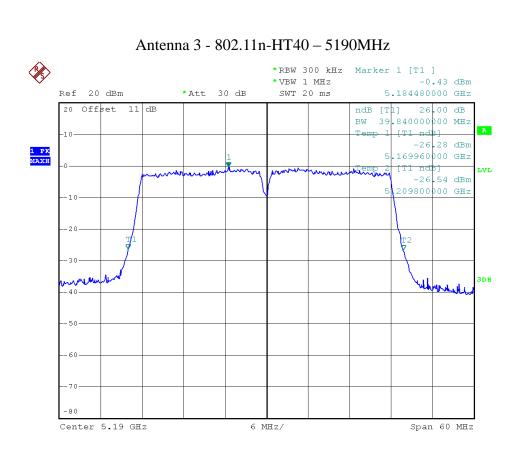


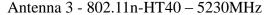


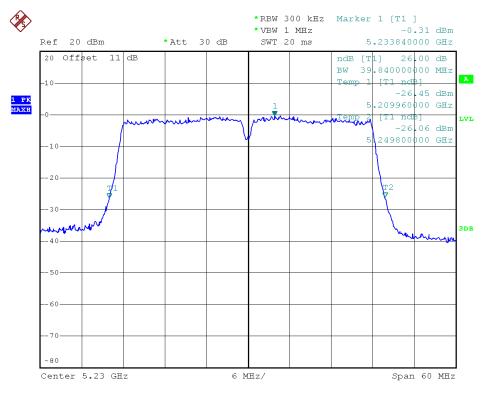




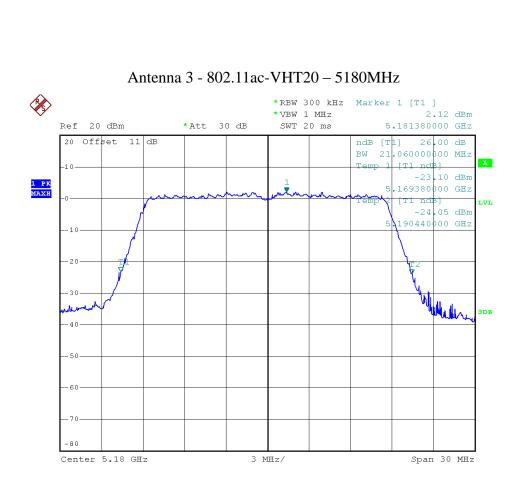


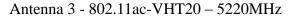


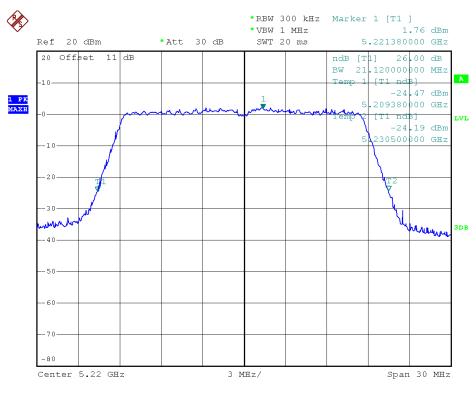




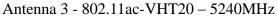


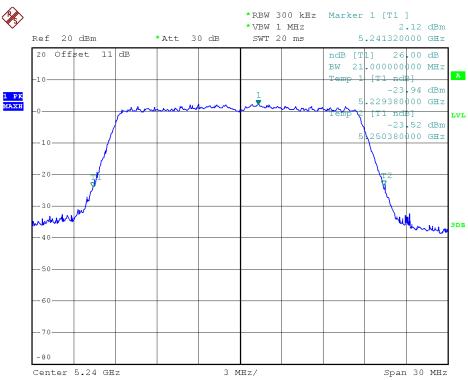




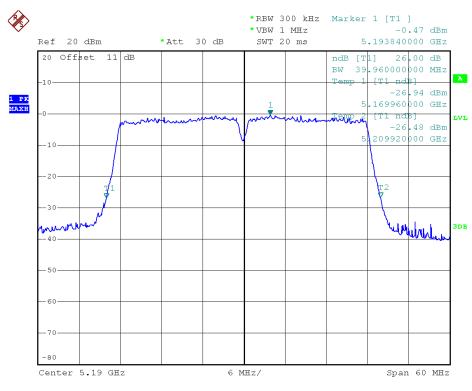




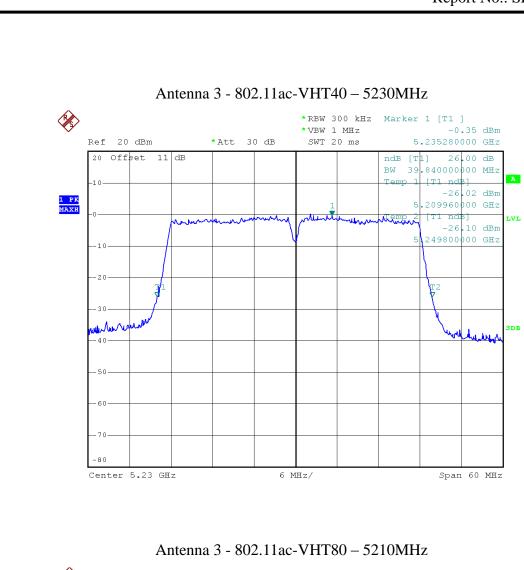


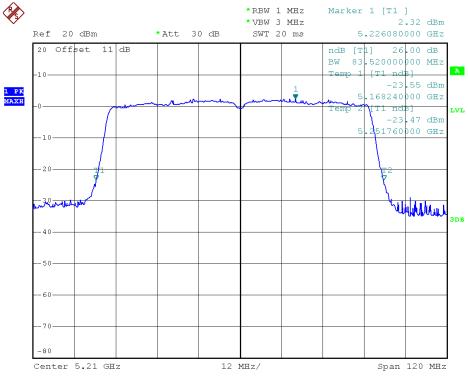


Antenna 3 - 802.11ac-VHT40 - 5190MHz

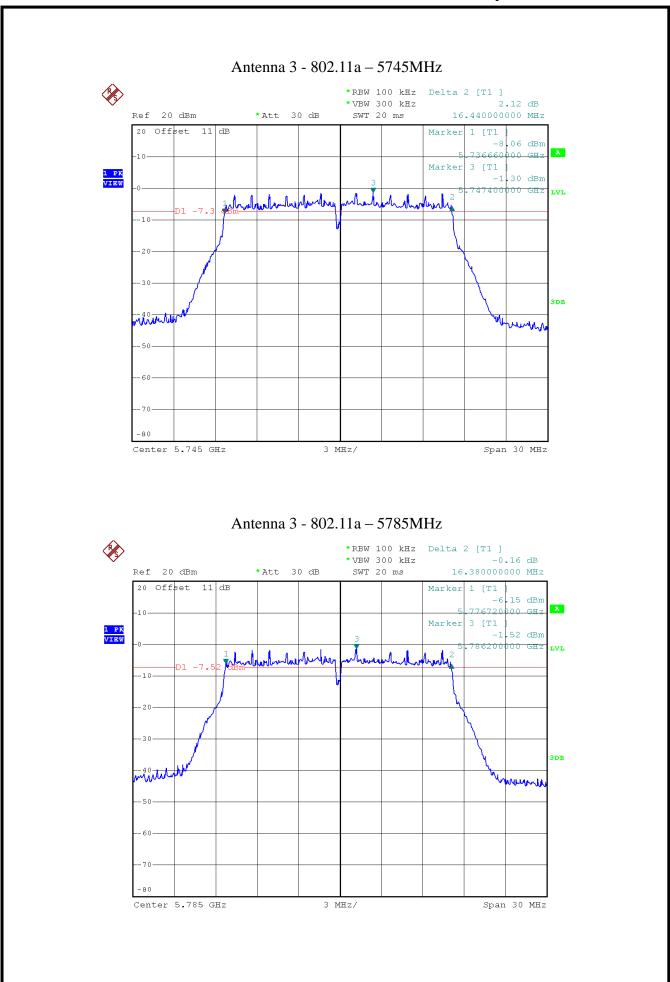




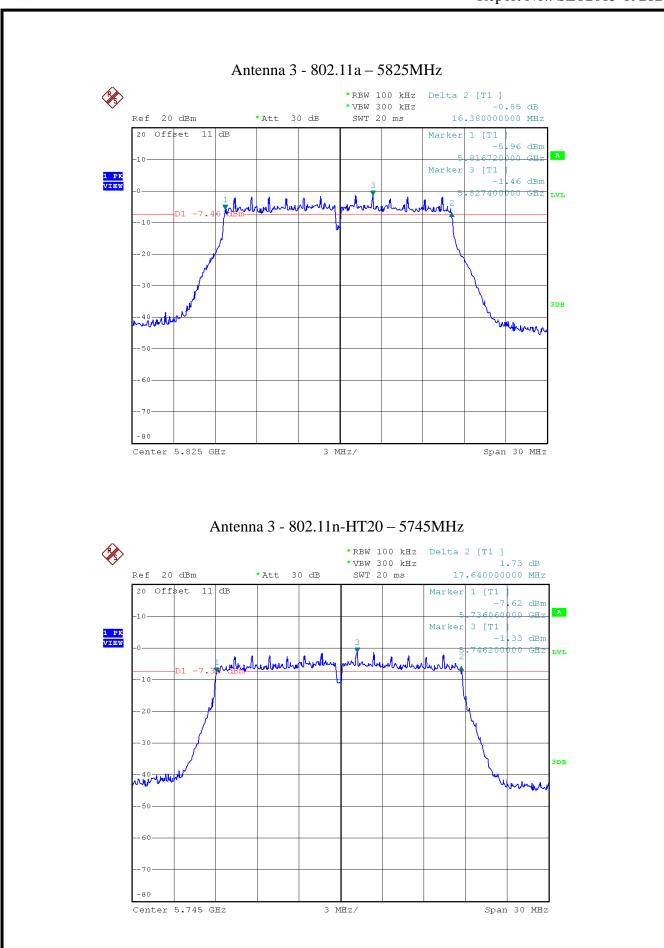




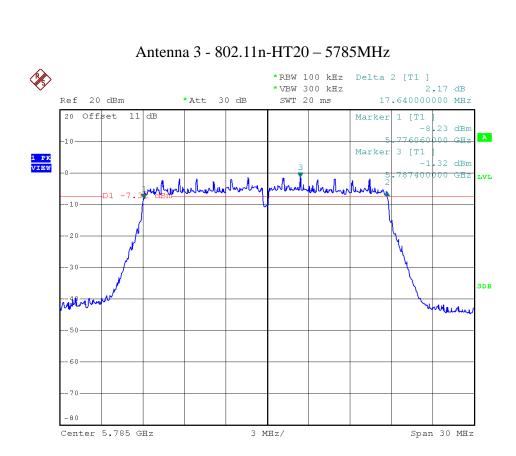




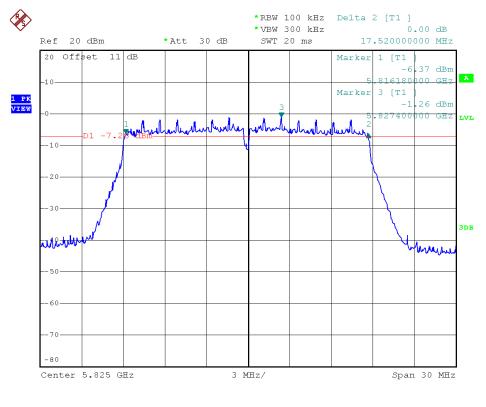




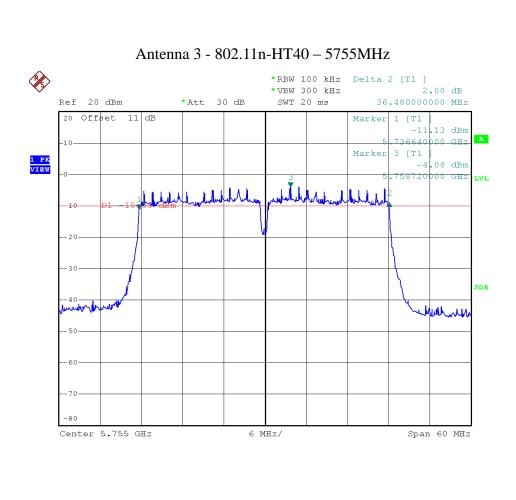




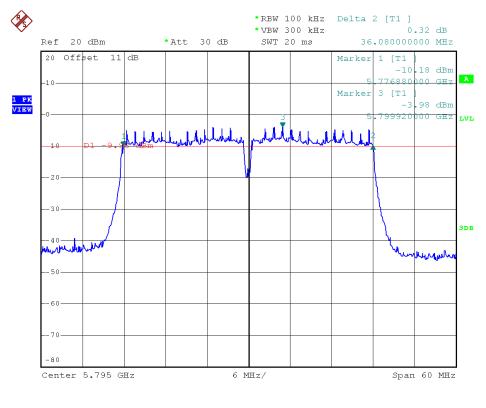




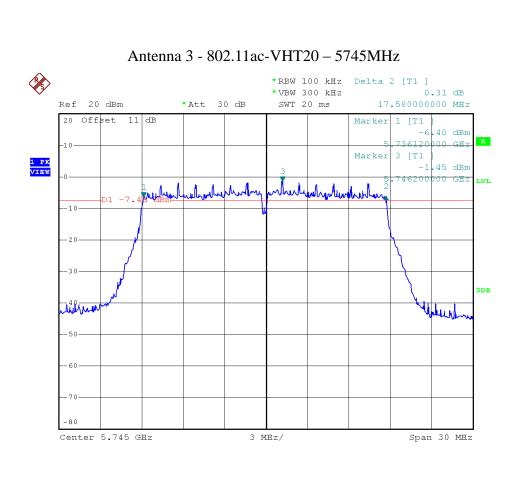


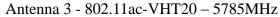


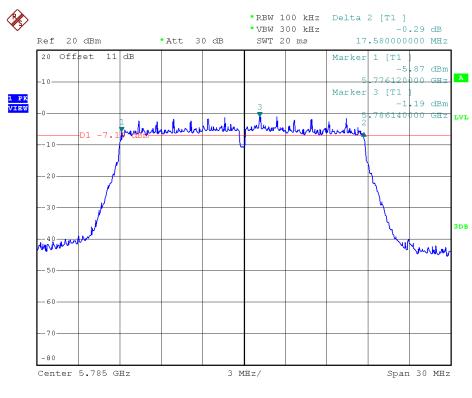




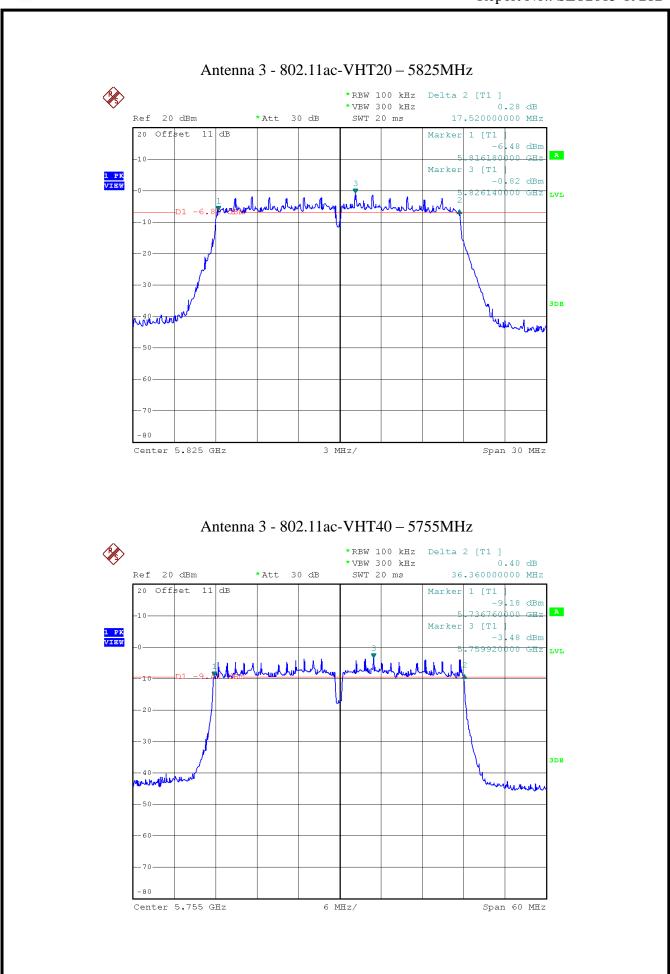




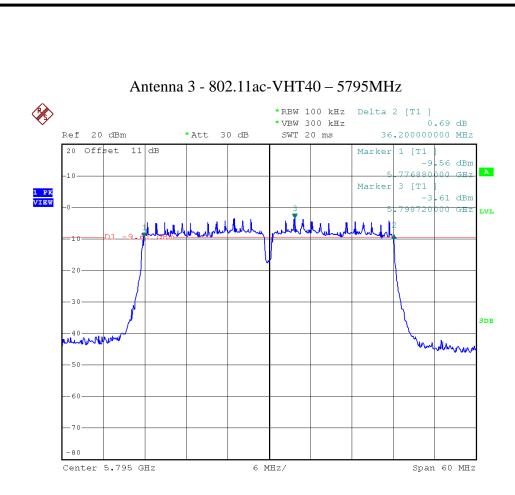


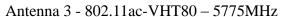


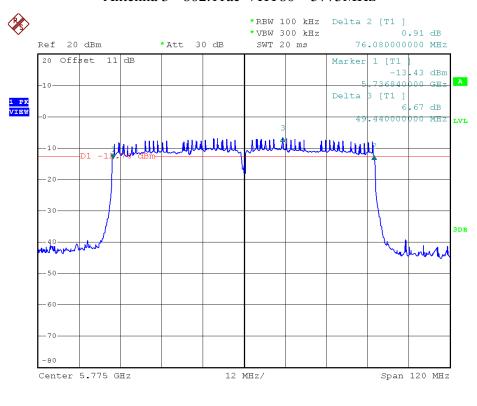




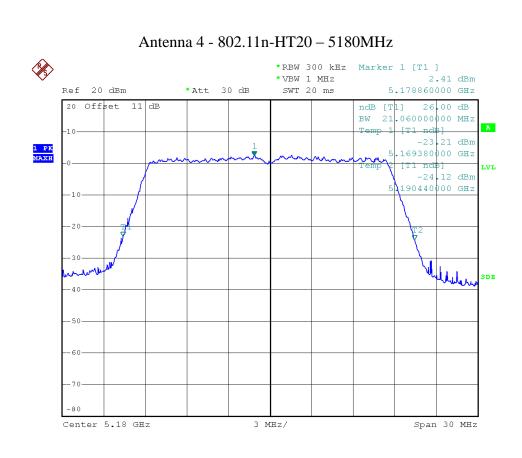




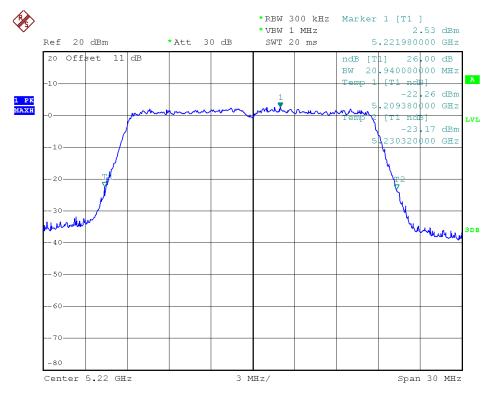




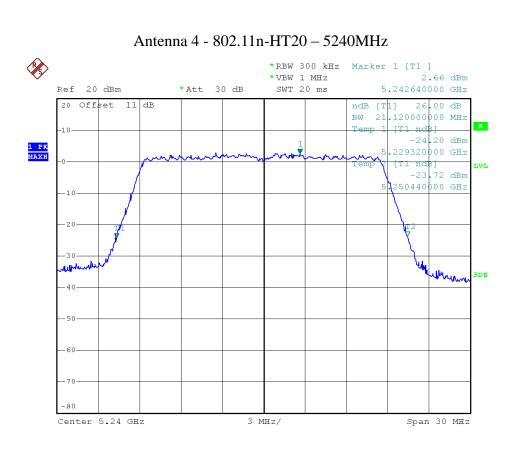


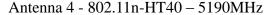


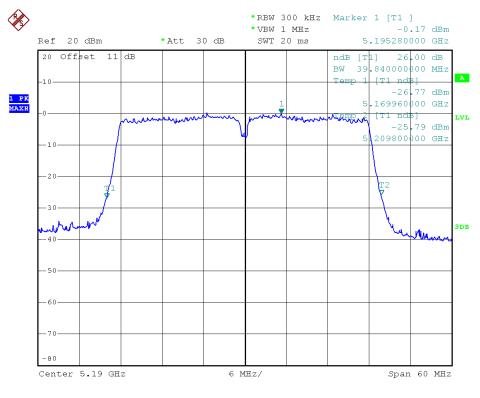




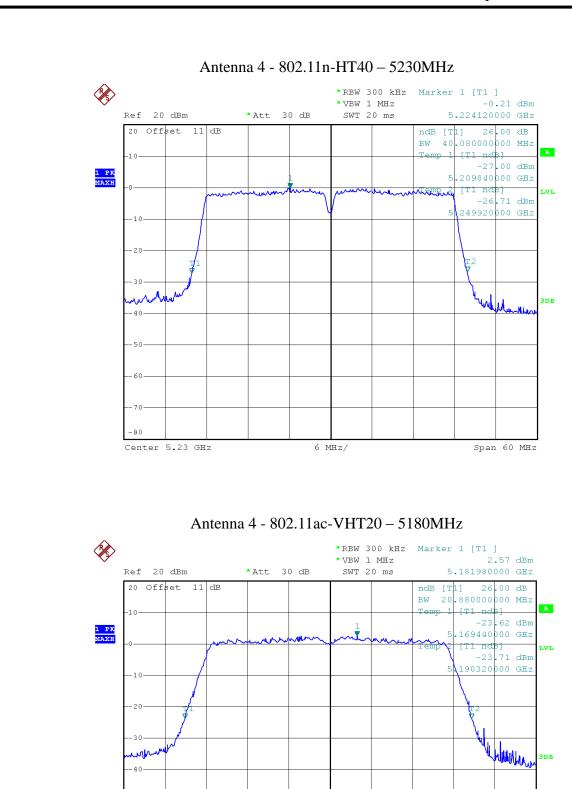










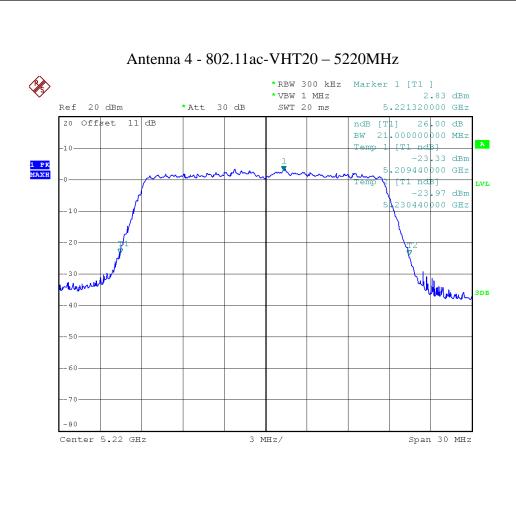


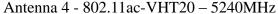
3 MHz/

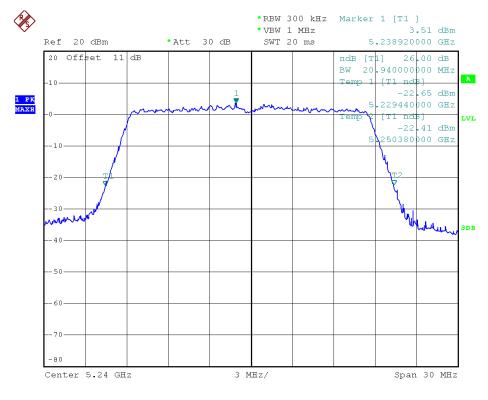
Center 5.18 GHz

Span 30 MHz

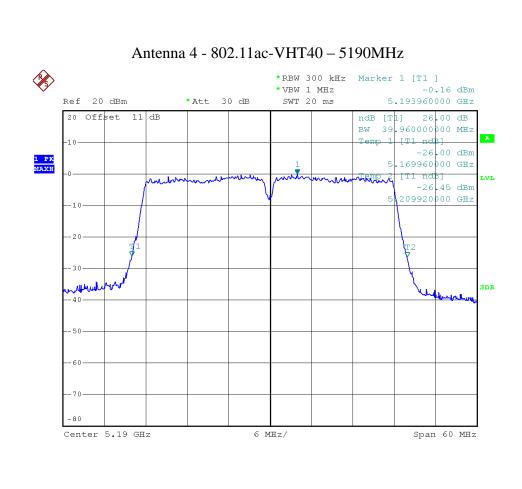


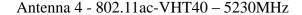


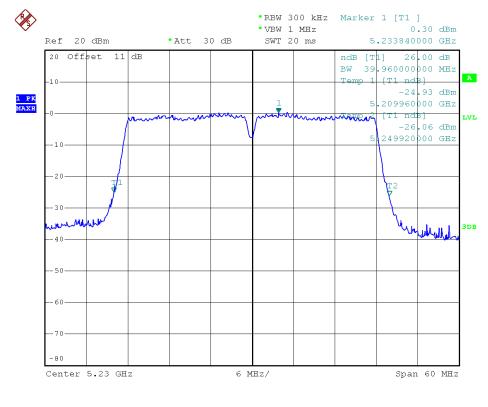




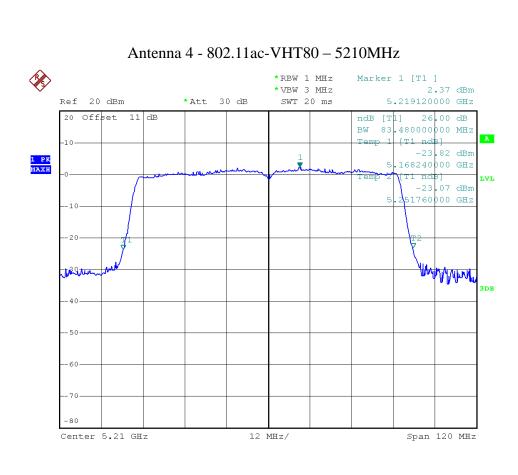




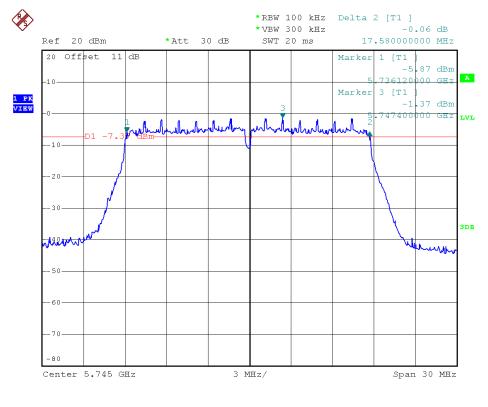




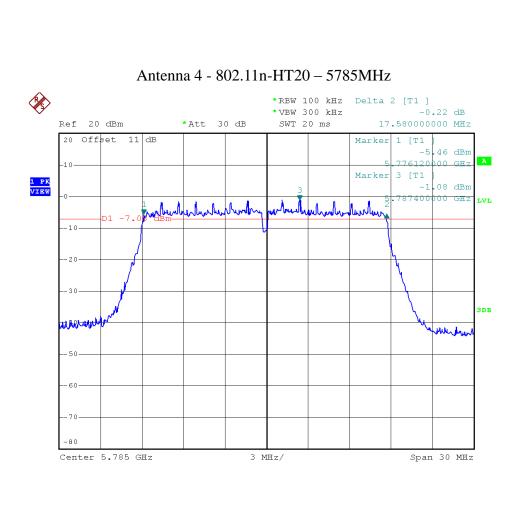


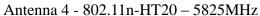


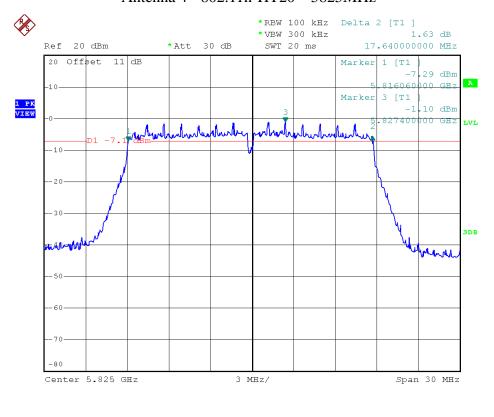




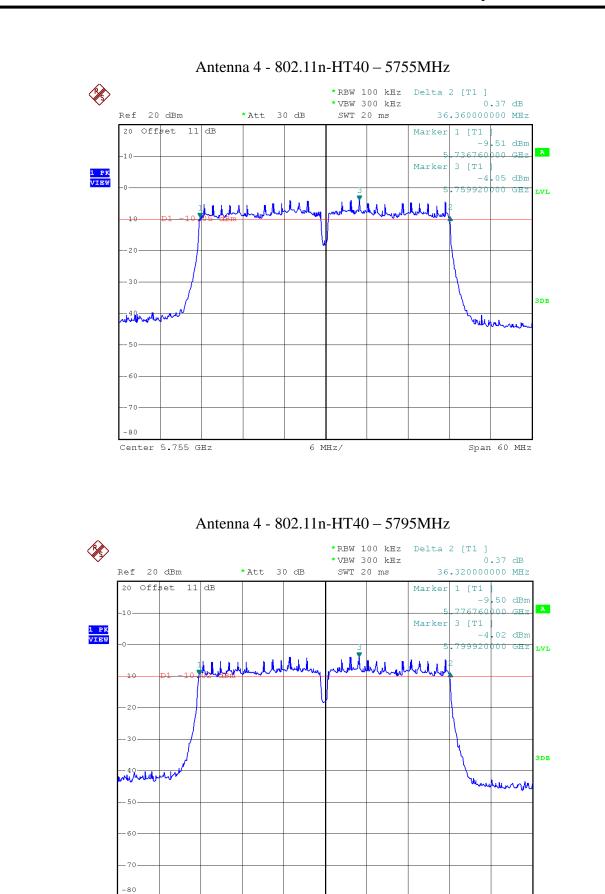










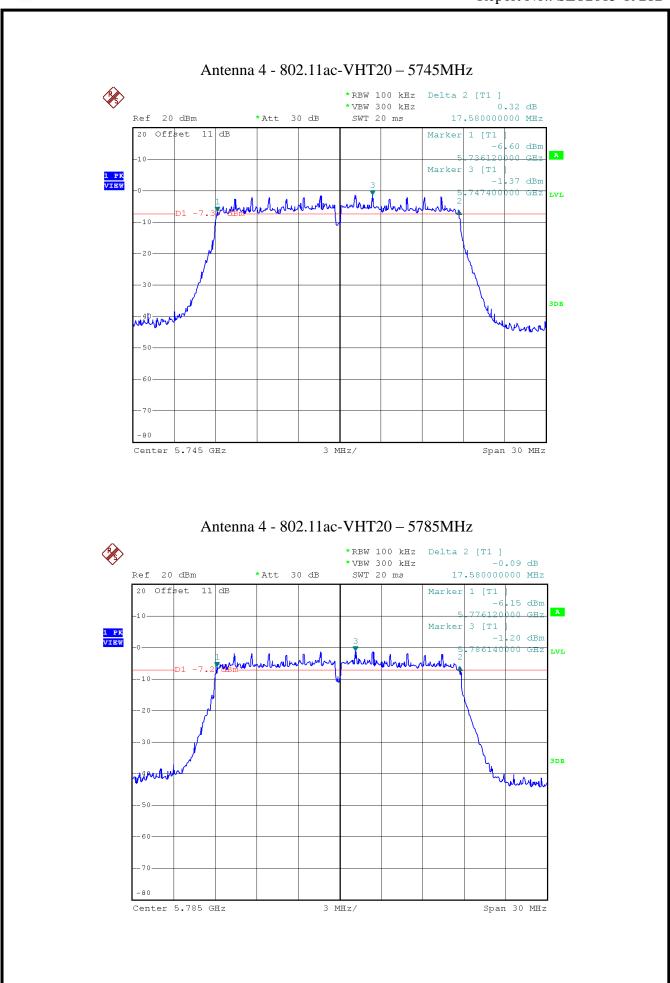


6 MHz/

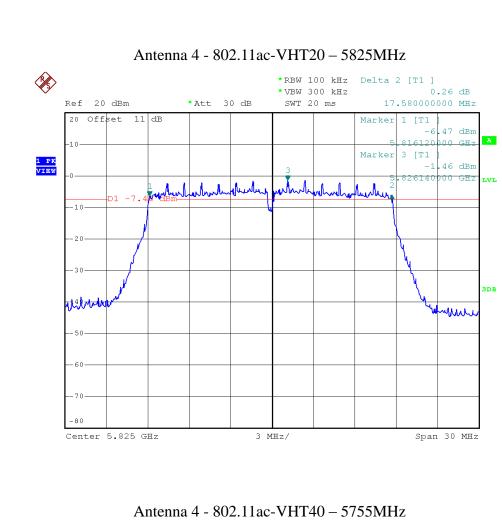
Center 5.795 GHz

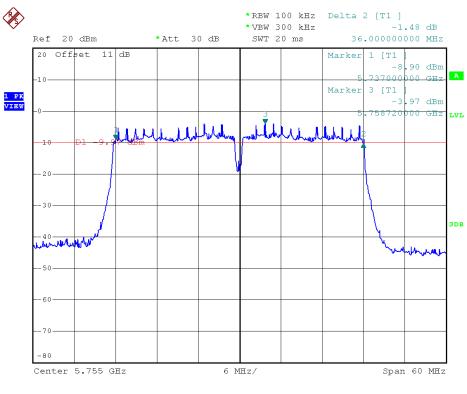
Span 60 MHz



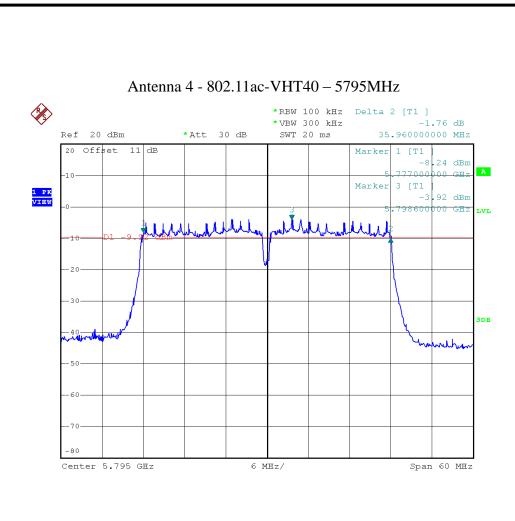


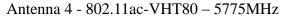


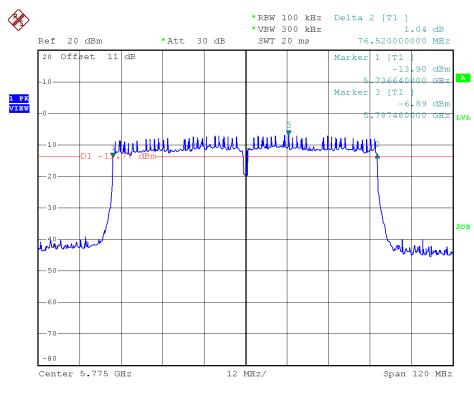




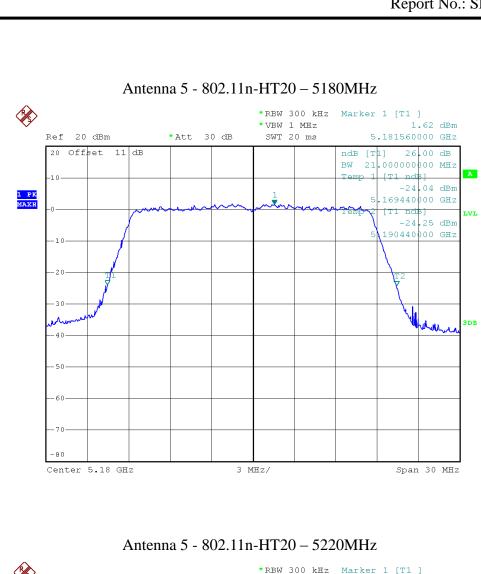


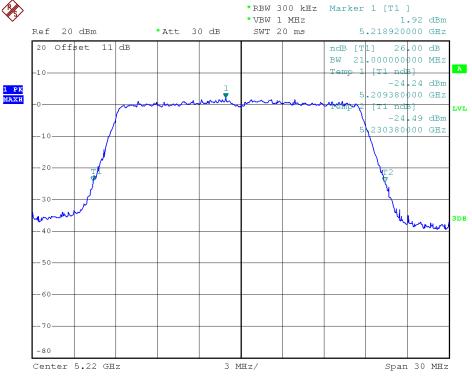




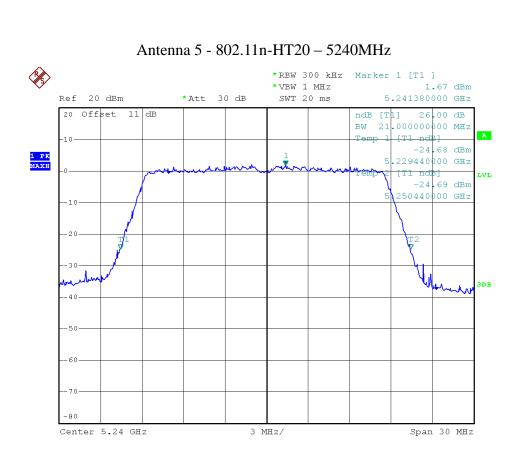


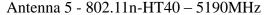


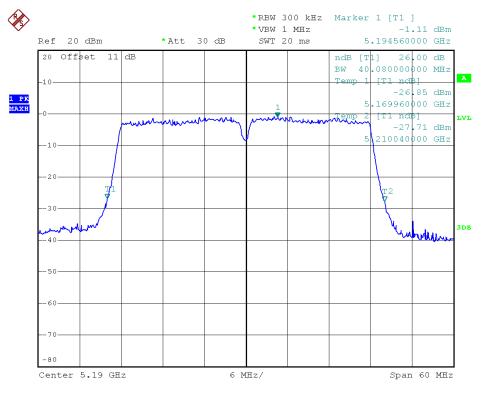




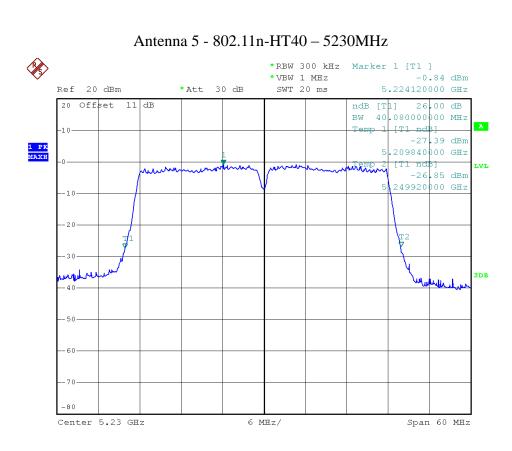


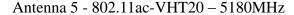


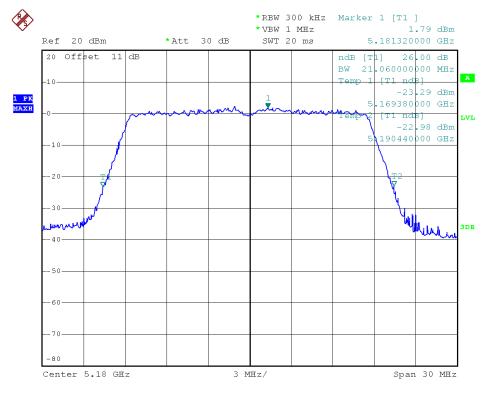




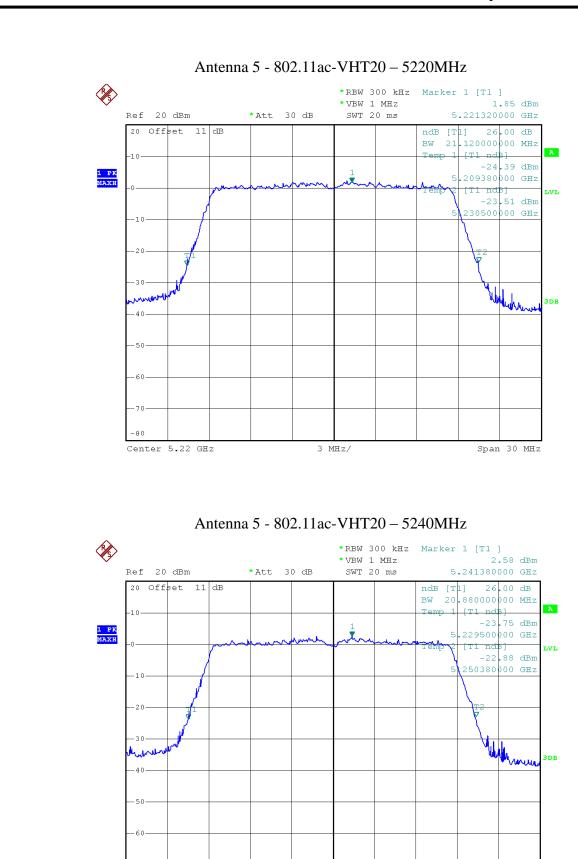










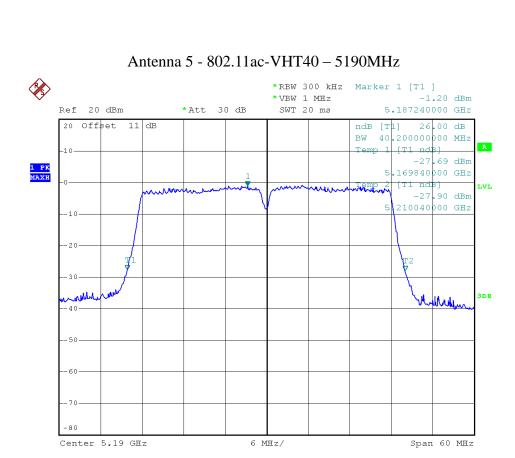


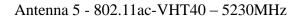
3 MHz/

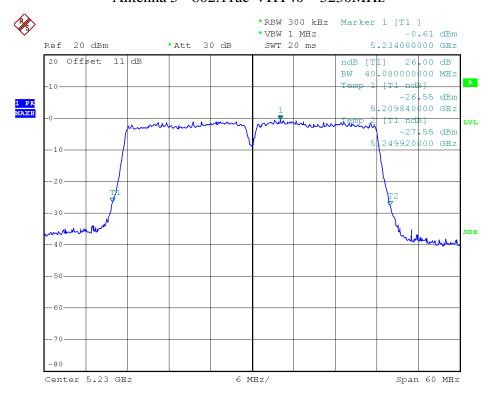
Center 5.24 GHz

Span 30 MHz

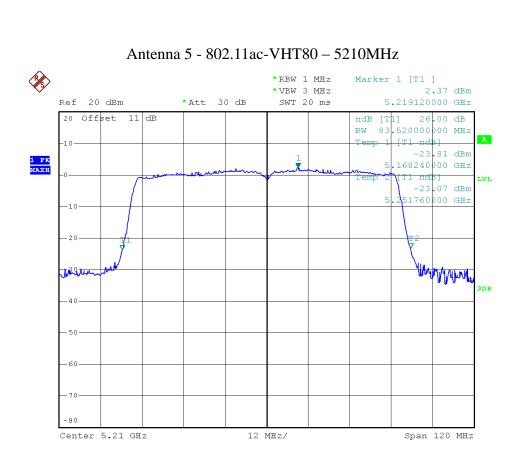




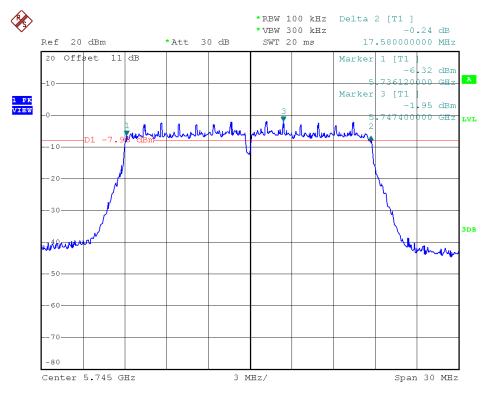




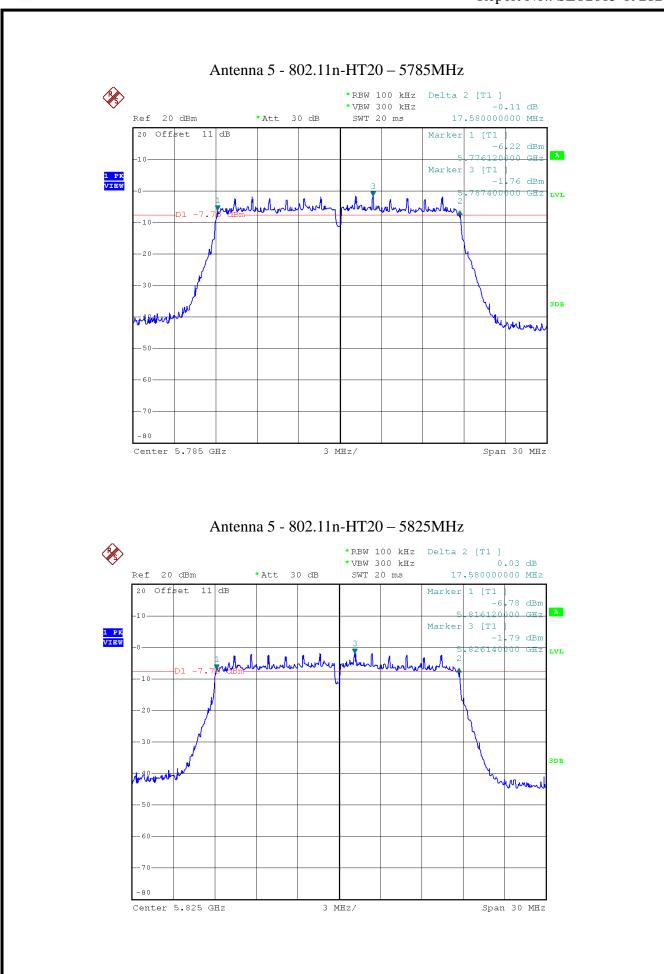




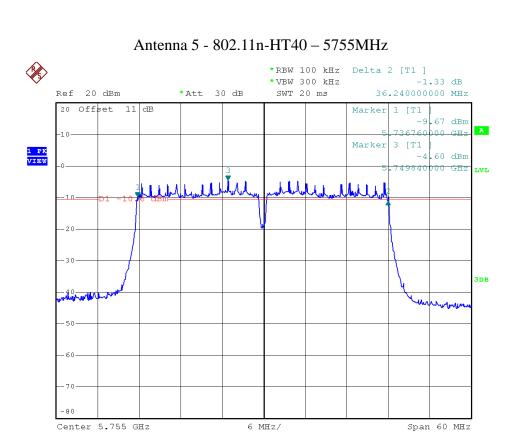


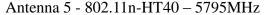


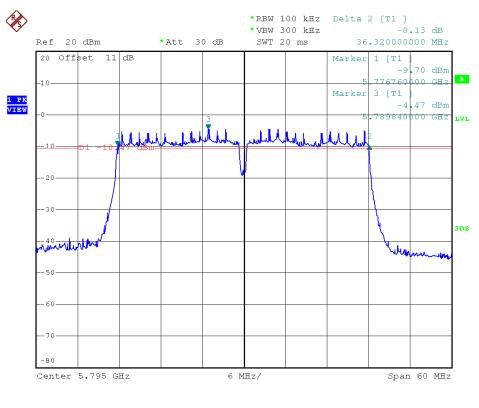




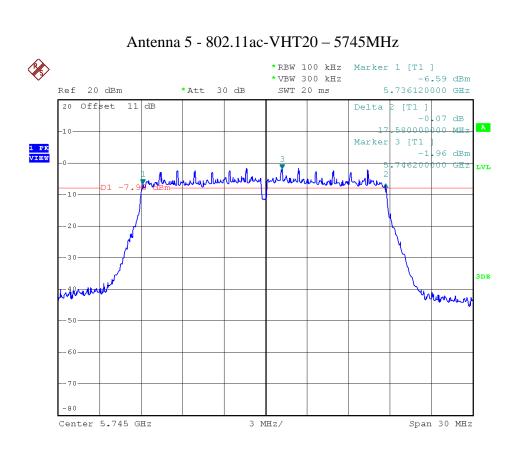


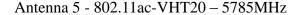


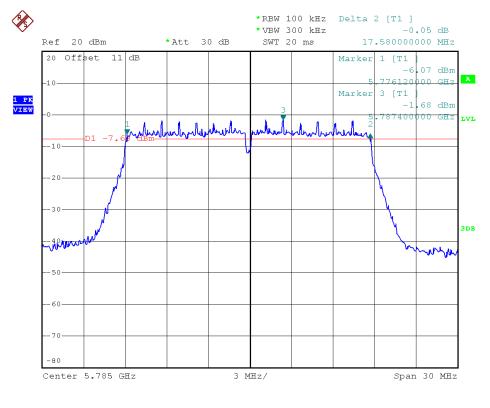




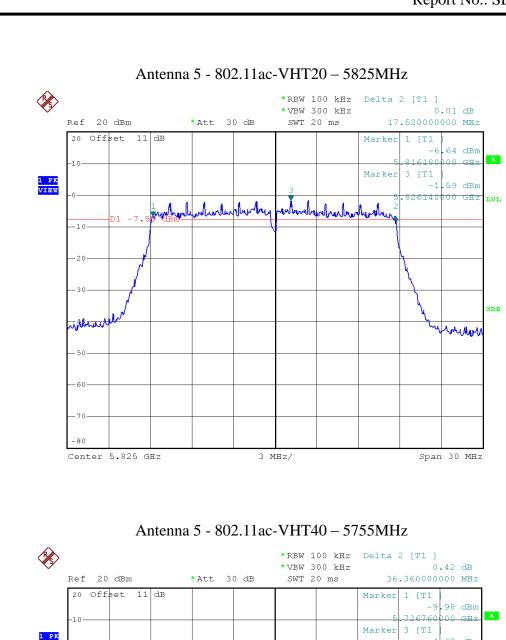


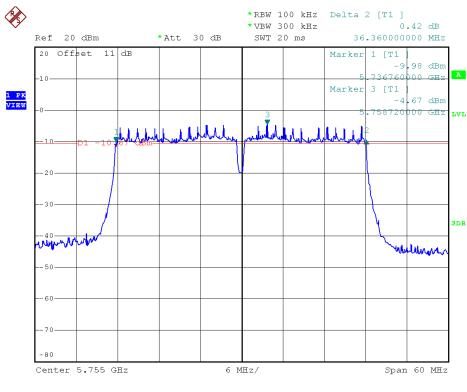




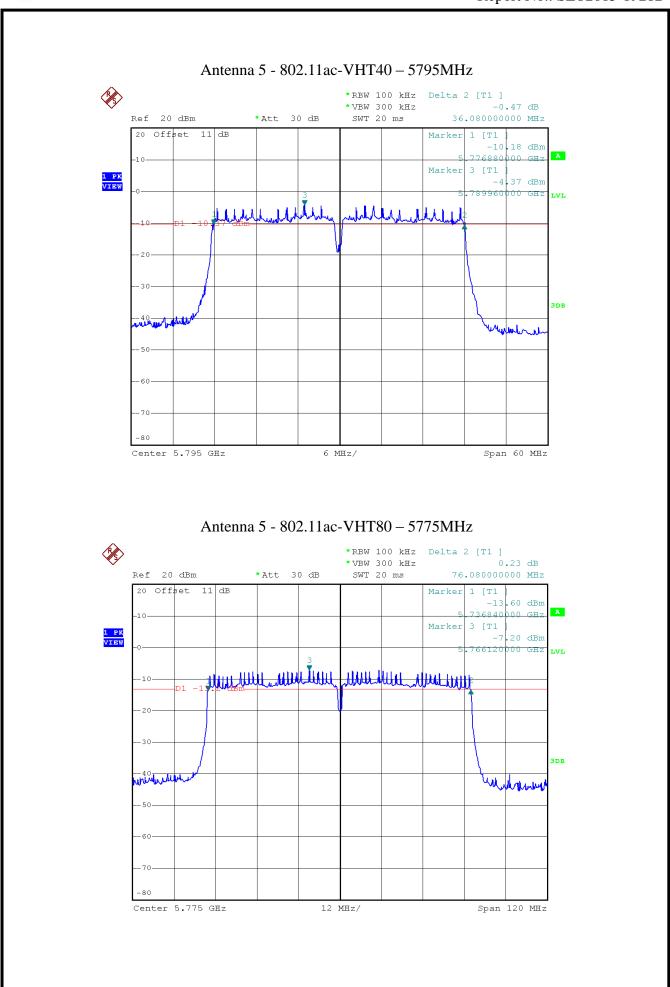














2.4. Power spectral density (PSD)

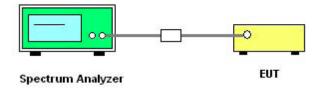
2.4.1. Limit of Power Spectral Density

| Band | EUT Category | Limit | |
|----------|------------------------------------|---------------|--|
| | | 17 dBm/MHz | |
| U-NII-1 | Fixed point-to-point Access device | 1 / UDIII/MHZ | |
| | Mobile and portable client device | 11 dBm/MHz | |
| U-NII-2A | | 11 dBm/MHz | |
| U-NII-2C | | 11 dBm/MHz | |
| U-NII-3 | \boxtimes | 30dBm/500kHz | |

2.4.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

2.4.3. Test Setup



2.4.4. Test Procedures

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.
- 3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to Spectrum.

4. For U-NII-1, U-NII-2A, U-NII-2C Band:

Using method SA-2

Set RBW=1MHz, VBW=3MHz, where span is enough to capture the entire bandwidth, Sweep time = Auto (601 pts), detector = sample, traces 100 sweeps of video averaging. (SA-2 with the omission of procedure x, the integration with 26dB EBW bandwidth)

For U-NII-3 Band:

Set RBW=500 kHz, VBW ≥ 3RBW, where span is enough to capture the entire bandwidth, Sweep time = Auto, detector = sample, traces 100 sweeps of video averaging. (SA-2 with the omission of procedure x, the integration with 26dB EBW bandwidth)

5. User the cursor on spectrum to peak search the highest level of trace



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| 6. Record the max. Reading and add 10 log (1/duty cycle). |
|---|
| 7. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the |
| measured power by a bandwidth correction factor (BWCF) where |
| BWCF = 10log (500 kHz/300 kHz) = 2.22 |
| 8. Repeat above procedures until all default test channel (low, middle, and high) was complete. |
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2.4.5. Test Results of Power spectral density

Measurement Data of Band U-NII-1 (5150~5250MHz)

| | | | 802. | 11a mode |) | | | | |
|-------------------|------------------------------|--------|------------|-----------|-----------|-----------|-----------|----------|--|
| Test Frequency | Power Spectral Density (dBm) | | | | | | Limit | Result | |
| (MHz) | Antenna | 3 | Ante | nna 4 | A | Antenna 5 | (dBm/MHz) | Result | |
| 5180 | 7.54 | | \ | | \ | | 17 | PASS | |
| 5220 | 7.41 | | , | \ | | \ | 17 | PASS | |
| 5240 | 7.58 | | , | \ | | \ | 17 | PASS | |
| 802.11n-HT20 mode | | | | | | | | | |
| Test Frequency | Po | ower S | Spectral I | Density (| dBm |) | Limit | D a sult | |
| (MHz) | Antenna 3 | Ant | enna 4 | Antenn | a 5 | Total | (dBm/MHz) | Result | |
| 5180 | 7.35 | 7 | 7.36 | 6.64 | | 11.90 | 17 | PASS | |
| 5220 | 7.16 | 7 | 7.37 | 6.66 | | 11.85 | 17 | PASS | |
| 5240 | 7.13 | 8 | 3.44 | 6.61 | | 12.24 | 17 | PASS | |
| | | | 802.11n | -HT40 m | ode | | | | |
| Test Frequency | Po | ower S | Spectral I | Density (| dBm |) | Limit | D14 | |
| (MHz) | Antenna 3 | Ant | enna 4 | Antenna | | Total | (dBm/MHz) | Result | |
| 5190 | 4.03 | ۷ | 1.49 | 4.33 | | 9.06 | 17 | PASS | |
| 5230 | 5.28 | 2 | 4.75 3.95 | | | 9.46 | 17 | PASS | |
| | | 8 | 302.11ac | -VHT20 | mod | e | | | |
| Test Frequency | Po | ower S | Spectral I | Density (| dBm |) | Limit | Result | |
| (MHz) | Antenna 3 | Ant | enna 4 | Antenn | a 5 | Total | (dBm/MHz) | | |
| 5180 | 6.69 | 7 | 7.80 | 6.95 | | 11.94 | 17 | PASS | |
| 5220 | 7.25 | 7 | 7.66 | 6.55 | | 11.95 | 17 | PASS | |
| 5240 | 7.60 | 7 | 7.72 | 7.03 | | 12.23 | 17 | PASS | |
| | | 8 | 302.11ac | -VHT40 | mod | e | | | |
| Test Frequency | Po | ower S | Spectral I | Density (| dBm |) | Limit | D a sult | |
| (MHz) | Antenna 3 | Ant | enna 4 | Antenn | a 5 | Total | (dBm/MHz) | Result | |
| 5190 | 4.80 | ۷ | 1.92 | 3.86 | | 9.32 | 17 | PASS | |
| 5230 | 4.47 | 4 | 5.04 | 4.44 | 4.44 9.43 | | 17 | PASS | |
| | | | 802.11n- | VHT80 r | node | 2 | | | |
| Test Frequency | Po | ower S | Spectral I | Density (| lBm |) | Limit | Dogult | |
| (MHz) | Antenna 3 | Ant | enna 4 | Antenn | a 5 | Total | (dBm/MHz) | Result | |
| 5210 | 1.14 | | 1.71 | 1.01 | | 6.07 | 17 | PASS | |





Test results of band U-NII-3 (5725 \sim 5850 MHz)

| | 802.11a mode | | | | | | | |
|----------------------------|---------------|----------------|-----------|--------|--|--|--|--|
| Test Frequency (MHz) | Power Spectra | Limit (dBm/ | Result | | | | | |
| | Ante | | | | | | | |
| | PSD | PSD | 500kHz) | Result | | | | |
| | (dBm/300kHz) | (dBm/500kHz) | JOOKI IZ) | | | | | |
| 5745 | 1.78 | 4.00 | 30 | PASS | | | | |
| 5785 | 1.37 | 3.59 | 30 | PASS | | | | |
| 5825 | 1.52 | 3.74 | 30 | PASS | | | | |

| | 802.11n-HT20 mode | | | | | | | | |
|-----------|------------------------------|------------------|------------------|-----------------------|--------------|---------|--------|--|--|
| | Power Spectral Density (dBm) | | | | | | | | |
| Test | Anter | nna 3 | | Ant | tenna 4 | Limit | | | |
| Frequency | PSD | DCD | I | PSD | DCD | (dBm/ | Result | | |
| (MHz) | (dBm/ | PSD | (c | lBm/ | PSD | 500kHz) | | | |
| | 300kHz) | (dBm/500kHz) | 300 | 0kHz) | (dBm/500kHz) | | | | |
| 5745 | 1.05 | 3.27 | 1 | 1.57 | 3.79 | 30 | PASS | | |
| 5785 | 1.60 | 3.82 | (|).81 | 3.03 | 30 | PASS | | |
| 5825 | 1.00 | 3.22 | 1 | 1.40 | 3.62 | 30 | PASS | | |
| | | 802.11 | n-HT | 20 mode | | | | | |
| | | Power Spectral l | Densi | ty (dBm) | | | | | |
| Test | Ar | ntenna 5 | | | | Limit | | | |
| Frequency | PSD | PSD | | Total (dBm/500kHz) | | (dBm/ | Result | | |
| (MHz) | (dBm/300 | (dBm/500k | U ₂) | | | 500kHz) | | | |
| | kHz) | (ubiii/300k | ΠZ) | | | | | | |
| 5745 | 1.01 | 3.23 | | 8.21 | | 30 | PASS | | |
| 5785 | 0.49 | 2.71 | 2.71 | | 7.98 | 30 | PASS | | |
| 5825 | 0.60 | 2.82 | | | 8.00 | | | | |



| | 802.11n-HT40 mode | | | | | | | | | |
|-----------------|-------------------|----------------|---------------|--------------|------------------|--------|--|--|--|--|
| | |) | | | | | | | | |
| Test | Anto | enna 3 | An | tenna 4 | Limit | | | | | |
| Frequency (MHz) | PSD | PSD | PSD (dBm/300 | PSD | (dBm/ 500kHz) | Result | | | | |
| (WITIZ) | (dBm/300 kHz) | (dBm/500kHz) | kHz) | (dBm/500kHz) | JOORTIZ) | | | | | |
| 5755 | -1.49 | 0.73 | -1.57 | 0.65 | 30 | PASS | | | | |
| 5795 | -1.63 | 0.59 | -1.55 | 0.67 | 30 | PASS | | | | |
| | | 802.11 | n-HT40 mode | | | | | | | |
| | | Power Spectral | Density (dBm) | | | | | | | |
| Test | Anto | enna 5 | | | Limit | | | | | |
| Frequency | PSD | DCD | 7 | Гotal | (dBm/ | Result | | | | |
| (MHz) | (dBm/300 | PSD | (dBm | /500kHz) | 500kHz) | | | | | |
| | kHz) | (dBm/500kHz) | | | | | | | | |
| 5755 | -2.41 | -0.19 | | 5.19 | 30 | PASS | | | | |
| 5795 | -2.24 | -0.02 | | 5.20 | 30 | PASS | | | | |

| 802.11ac-VHT20 mode | | | | | | | | |
|---------------------|-------------------------|---------------------|--------------|-------------------|---------------------|------------------|--------|--|
| | | | | | | | | |
| Test | Antenna 3 Antenna 4 | | | | | Limit | | |
| Frequency (MHz) | PSD (dBm/ 300kHz) | PSD (dBm/500kHz) | (dl | SD Bm/ kHz) | PSD (dBm/500kHz) | (dBm/ 500kHz) | Result | |
| 5745 | 1.02 | 3.24 | 1. | .41 | 3.63 | 30 | PASS | |
| 5785 | 0.64 | 2.86 | 1. | .81 | 4.03 | 30 | PASS | |
| 5825 | 1.06 | 3.28 | 1. | .34 | 3.56 | 30 | PASS | |
| | | 802.11a | c-VHT | 20 mod | e | | | |
| | | Power Spectral l | Density | y (dBm) | | | | |
| Test | A | Intenna 5 | | | | Limit | | |
| Frequency | PSD | PSD | | | Total | (dBm/ | Result | |
| (MHz) | (dBm/300 | | (dBm/500kHz) | | 3m/500kHz) | 500kHz) | | |
| | kHz) | (dDill/300k | 11Z) | | | | | |
| 5745 | 1.03 | 3.25 | | | 8.15 | 30 | PASS | |
| 5785 | 1.28 | 3.50 | | | 8.26 | 30 | PASS | |
| 5825 | 0.75 | 2.97 | | | 8.05 | | | |

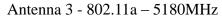


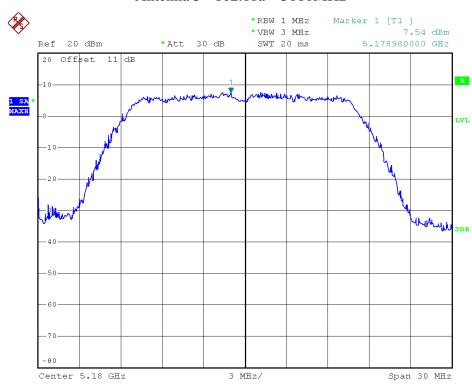
| | 802.11ac-VHT40 mode | | | | | | | | |
|-----------|------------------------------|----------------|---------------|------------------|---------|--------|--|--|--|
| | Power Spectral Density (dBm) | | | | | | | | |
| Test | Anto | enna 3 | Ant | tenna 4 | Limit | | | | |
| Frequency | PSD | DCD | PSD | DCD | (dBm/ | Result | | | |
| (MHz) | (dBm/300 | PSD | (dBm/300 | PSD (dBm/500kHz) | 500kHz) | | | | |
| | kHz) | (dBm/500kHz) | kHz) | (UDIII/300KHZ) | | | | | |
| 5755 | -1.37 | 0.85 | -1.26 | 0.96 | 30 | PASS | | | |
| 5795 | -1.59 | 0.63 | -0.49 | 1.73 | 30 | PASS | | | |
| | | 802.11a | c-VHT40 mod | e | | | | | |
| | | Power Spectral | Density (dBm) | | | | | | |
| Test | Anto | enna 5 | | | Limit | | | | |
| Frequency | PSD | PSD | ٦ | Total | (dBm/ | Result | | | |
| (MHz) | (dBm/300 | (dBm/500kHz) | (dBm | /500kHz) | 500kHz) | | | | |
| | kHz) | (UDIII/300KHZ) | | | | | | | |
| 5755 | -1.85 | 0.37 | 4 | 5.50 | 30 | PASS | | | |
| 5795 | -2.14 | 0.08 | | 5.64 | 30 | PASS | | | |

| | 802.11ac-VHT80 mode | | | | | | | | |
|-----------|---------------------|------------------|---------------|--------------|----------|--------|--|--|--|
| | | | | | | | | | |
| Test | Ante | enna 3 | Ant | enna 4 | Limit | | | | |
| Frequency | PSD | DCD | PSD | DCD | (dBm/500 | Result | | | |
| (MHz) | (dBm/300 | PSD | (dBm/300 | PSD | kHz) | | | | |
| | kHz) | (dBm/500kHz) | kHz) | (dBm/500kHz) | | | | | |
| 5775 | -4.68 | -2.46 | -4.34 | -2.12 | 30 | PASS | | | |
| | | 802.11ac | c-VHT80 mode | e | | | | | |
| | | Power Spectral l | Density (dBm) | | | | | | |
| Test | Anto | enna 5 | | | Limit | | | | |
| Frequency | PSD | PSD | Г | Total | (dBm/500 | Result | | | |
| (MHz) | (dBm/300 | | (dBm/ | /500kHz) | kHz) | | | | |
| | kHz) | (dBm/500kHz) | | | | | | | |
| 5775 | -4.83 | -2.61 | | 2.38 | 30 | PASS | | | |
| | | | | | | | | | |

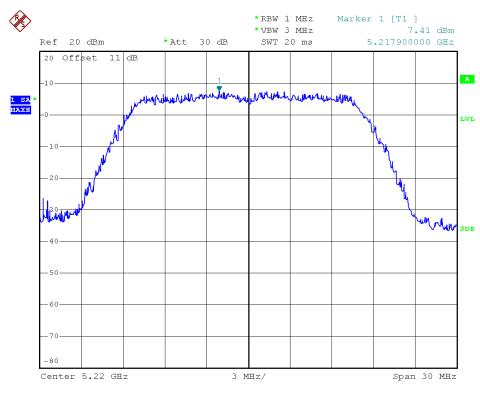


2.4.6. Test Results (plots) of Power spectral density

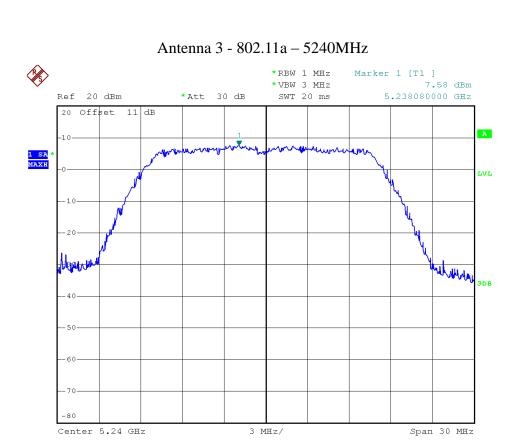




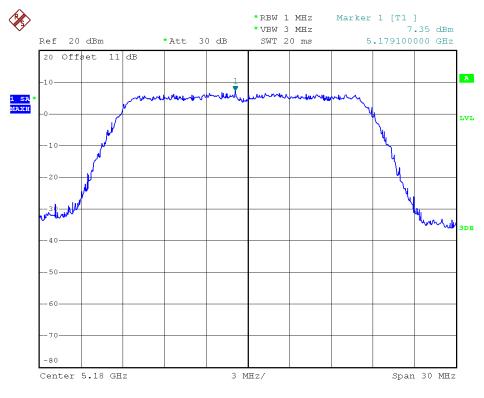
Antenna 3 - 802.11a - 5220MHz





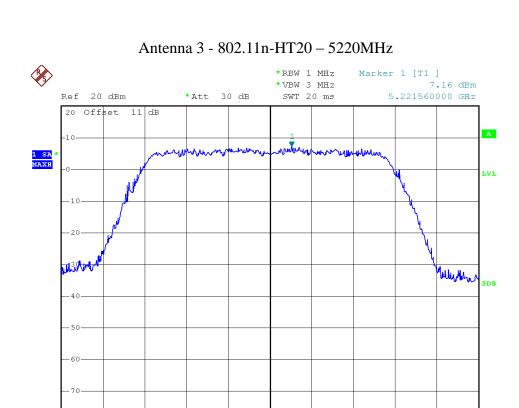






Span 30 MHz

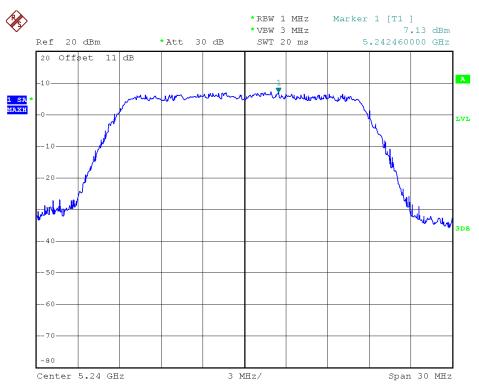




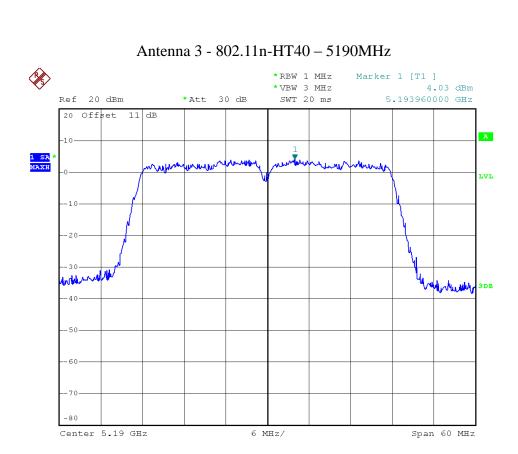


3 MHz/

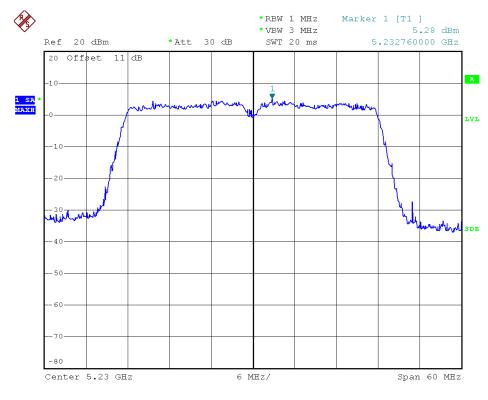
Center 5.22 GHz



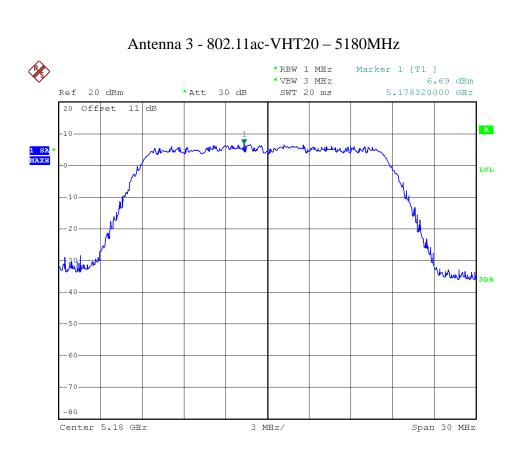


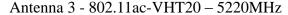


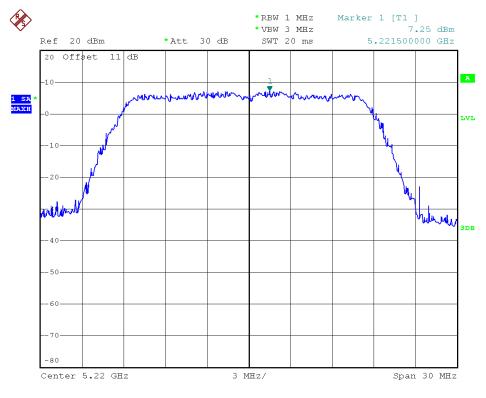




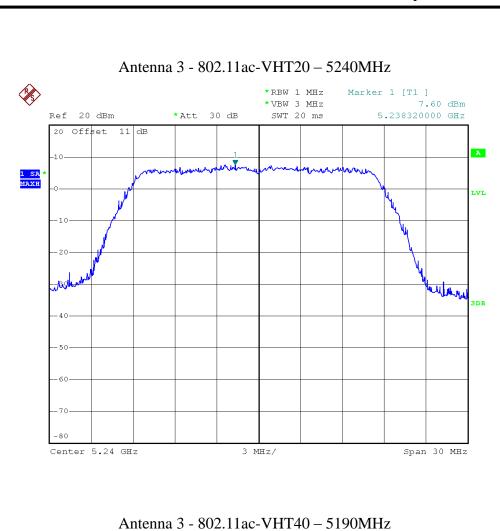


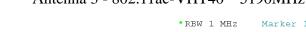


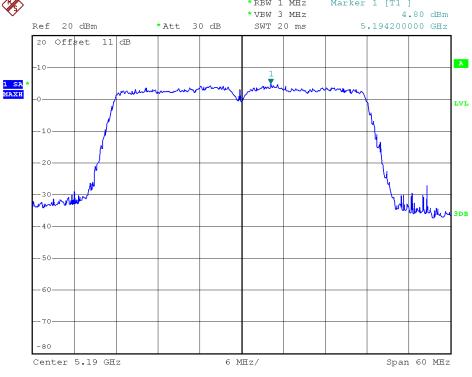




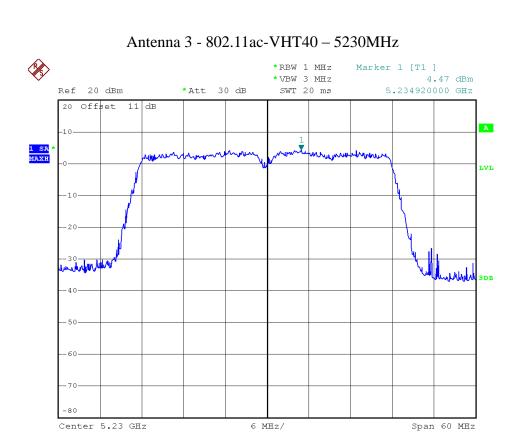




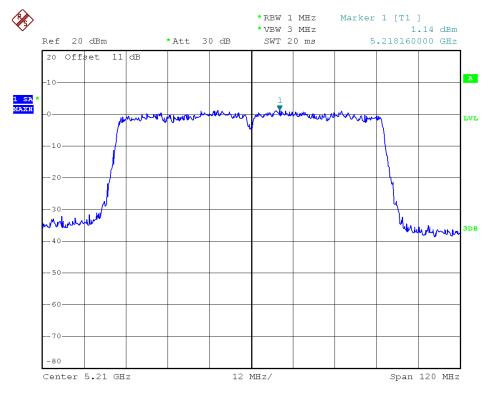






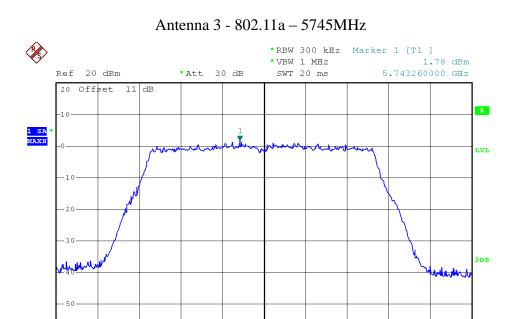


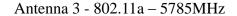




Span 30 MHz

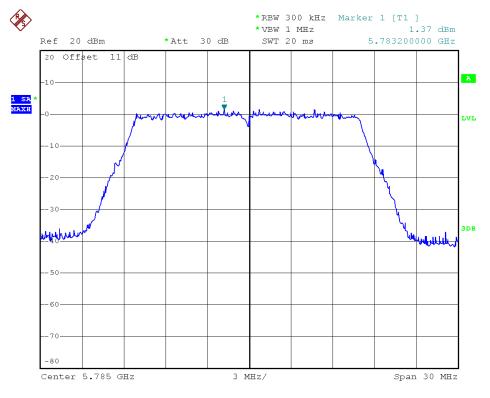






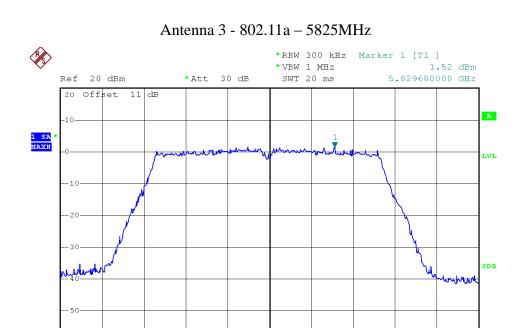
3 MHz/

Center 5.745 GHz



Span 30 MHz

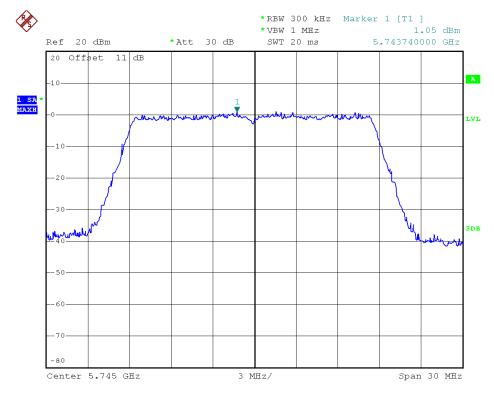




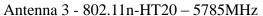
Antenna 3 - 802.11n-HT20 - 5745MHz

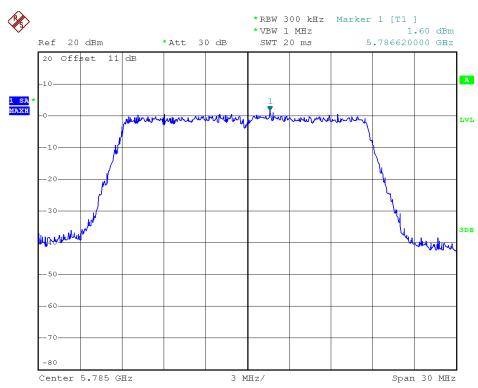
3 MHz/

Center 5.825 GHz

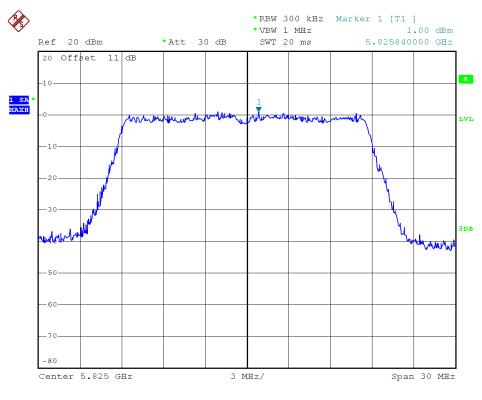




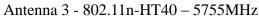


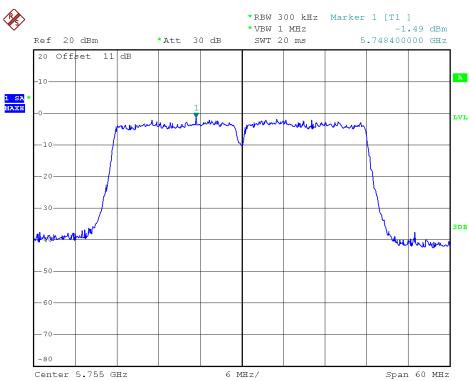


Antenna 3 - 802.11n-HT20 - 5825MHz

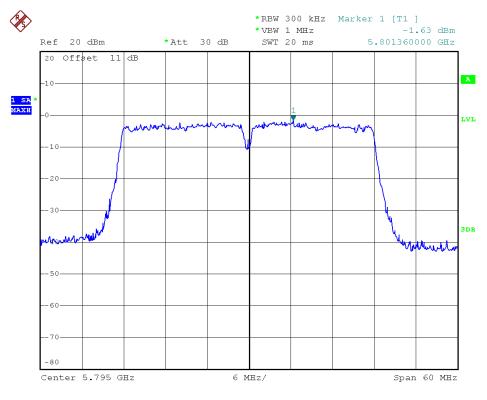




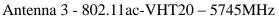


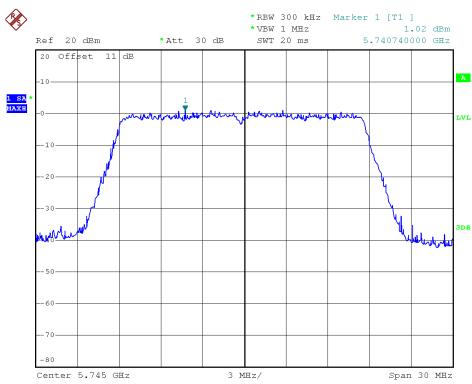


Antenna 3 - 802.11n-HT40 - 5795MHz

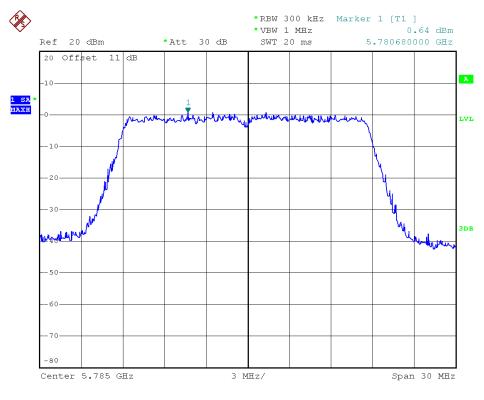






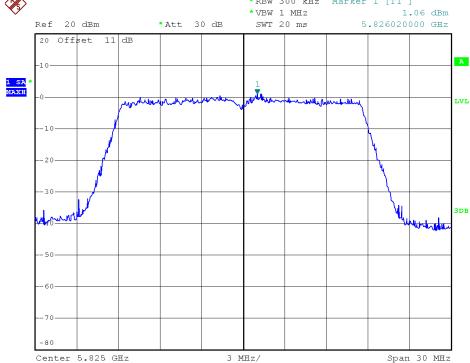


Antenna 3 - 802.11ac-VHT20 - 5785MHz

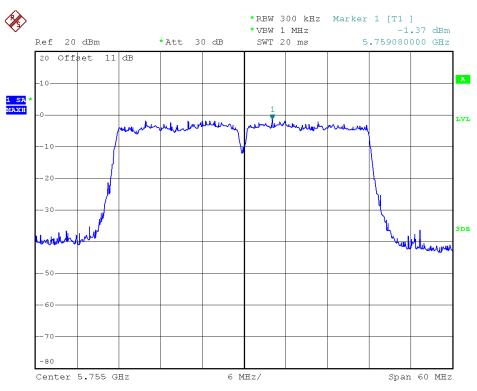






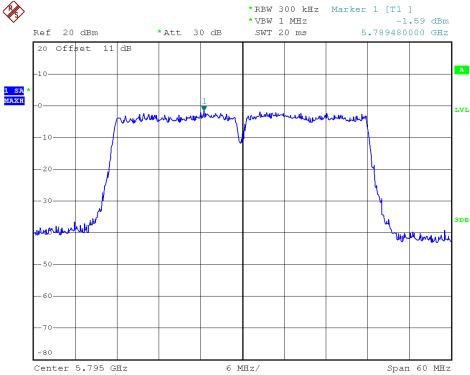


Antenna 3 - 802.11ac-VHT40 - 5755MHz

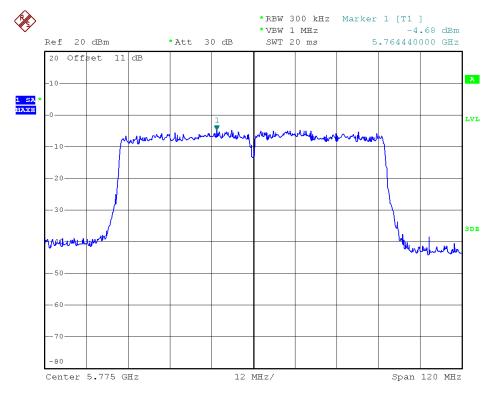




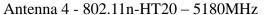


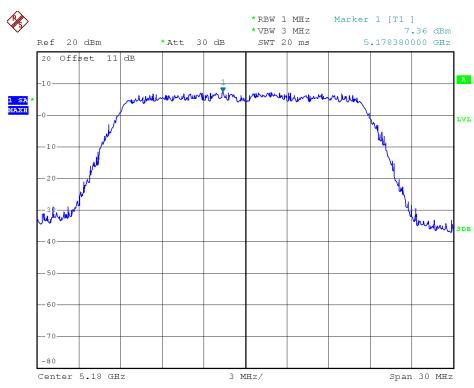


Antenna 3 - 802.11ac-VHT80 - 5775MHz

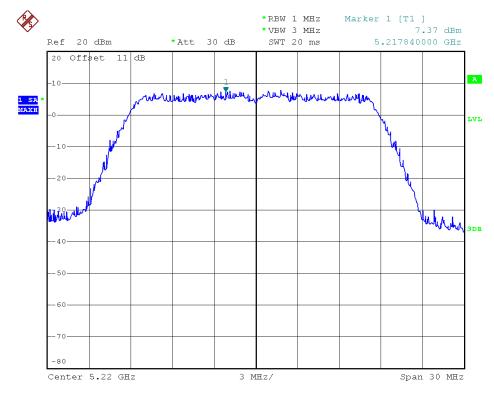




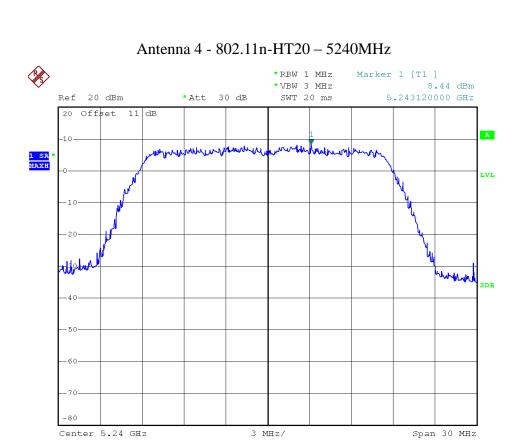




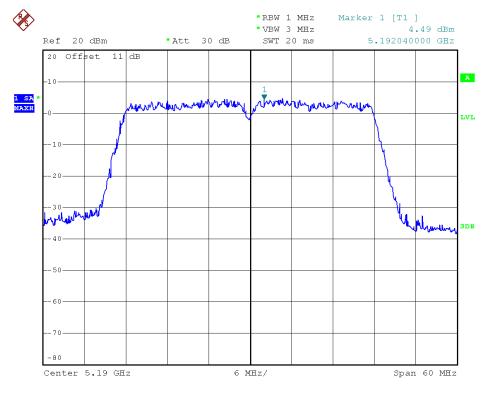
Antenna 4 - 802.11n-HT20 - 5220MHz





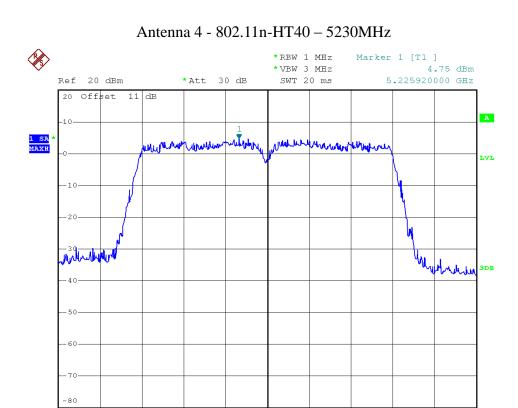


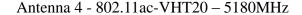




Span 60 MHz

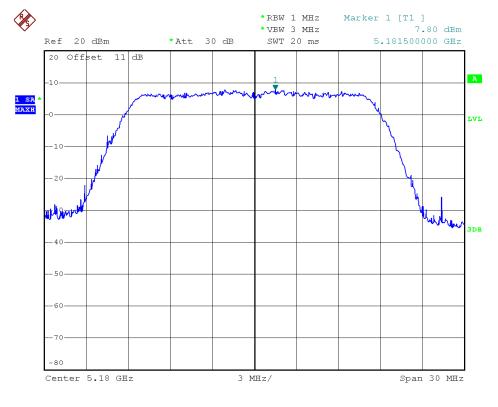




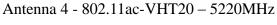


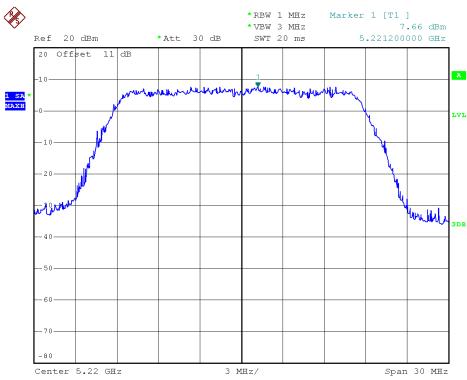
6 MHz/

Center 5.23 GHz

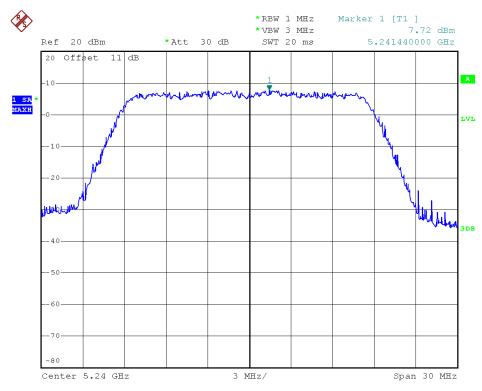




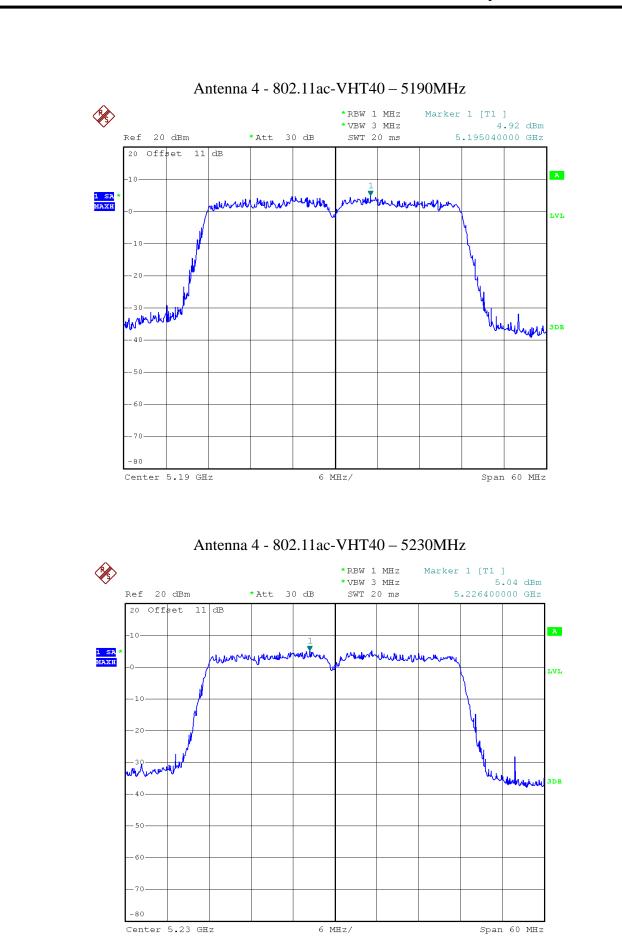




Antenna 4 - 802.11ac-VHT20 - 5240MHz

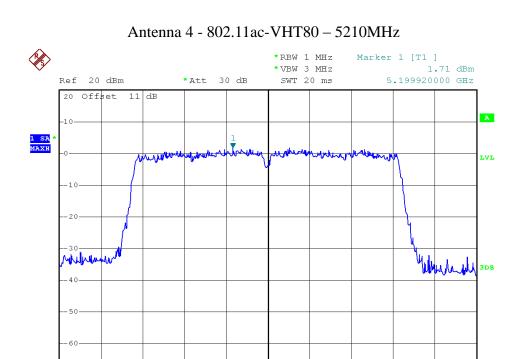


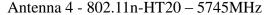




Span 120 MHz

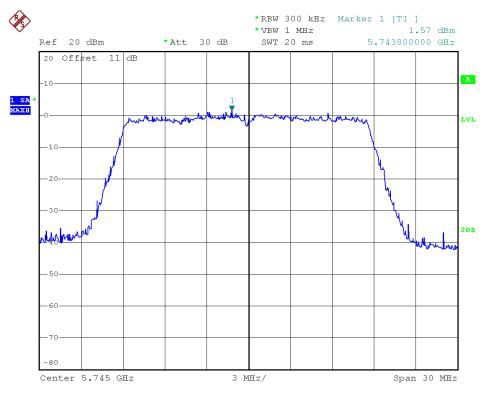




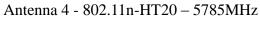


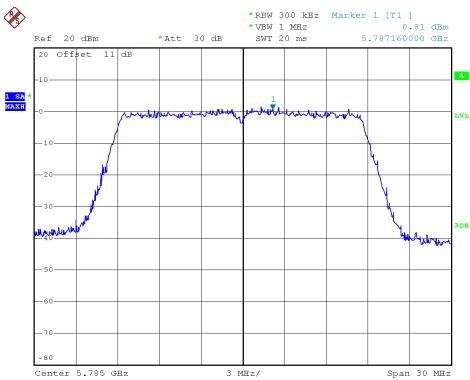
12 MHz/

Center 5.21 GHz

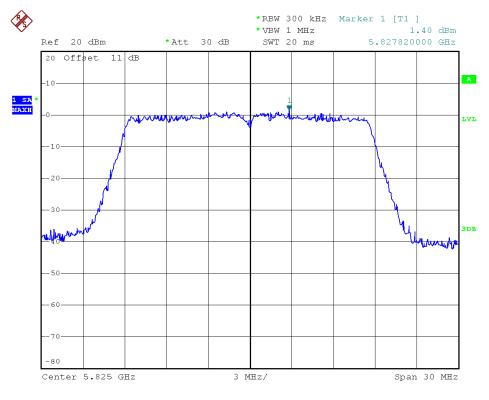




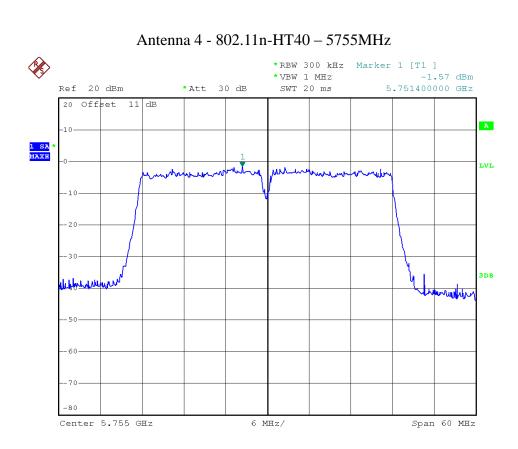




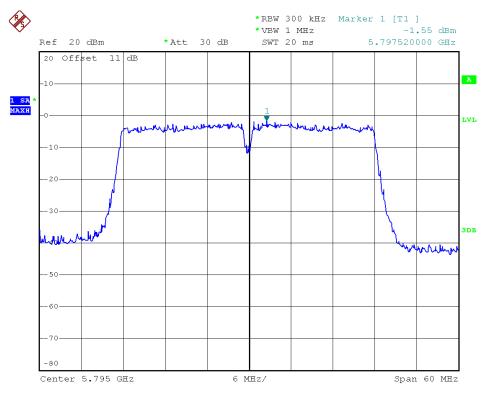
Antenna 4 - 802.11n-HT20 - 5825MHz





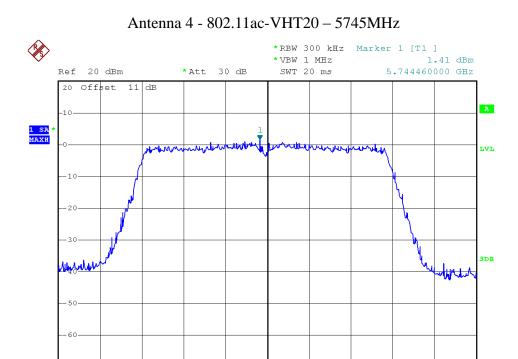


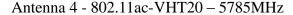




Span 30 MHz

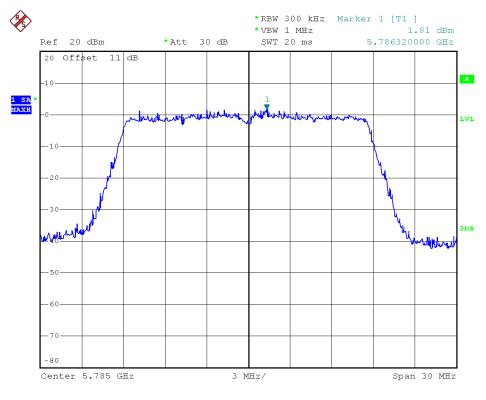




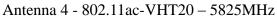


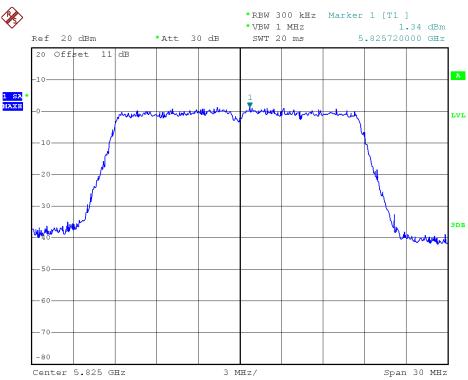
3 MHz/

Center 5.745 GHz

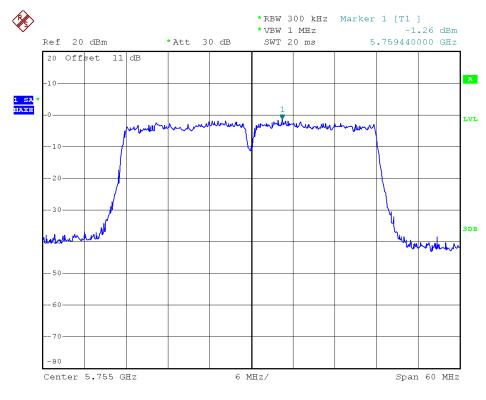






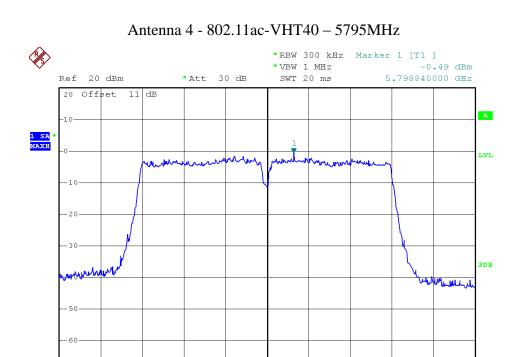


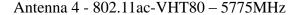
Antenna 4 - 802.11ac-VHT40 - 5755MHz



Span 60 MHz

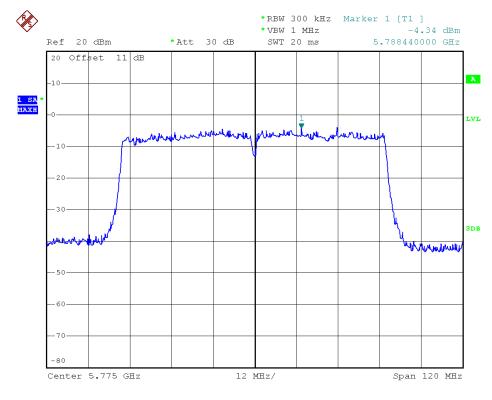






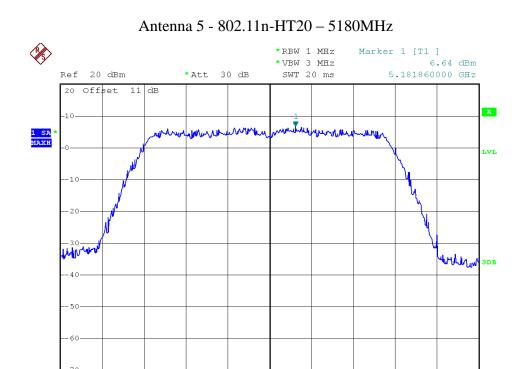
6 MHz/

Center 5.795 GHz



Span 30 MHz

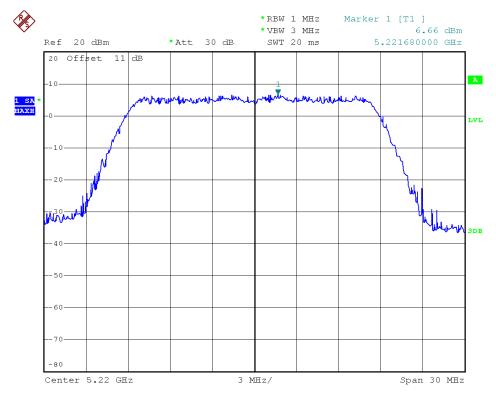




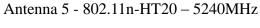


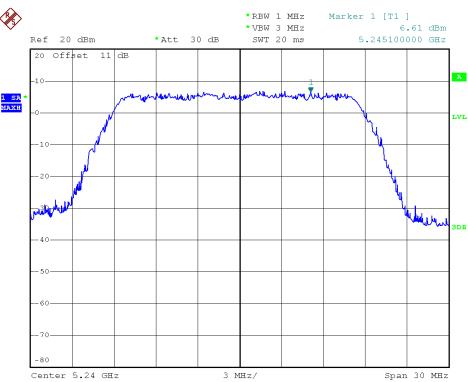
3 MHz/

Center 5.18 GHz

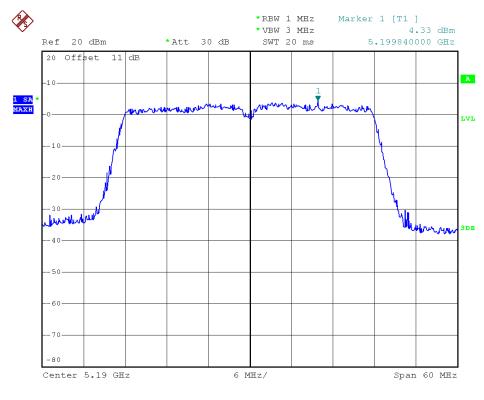




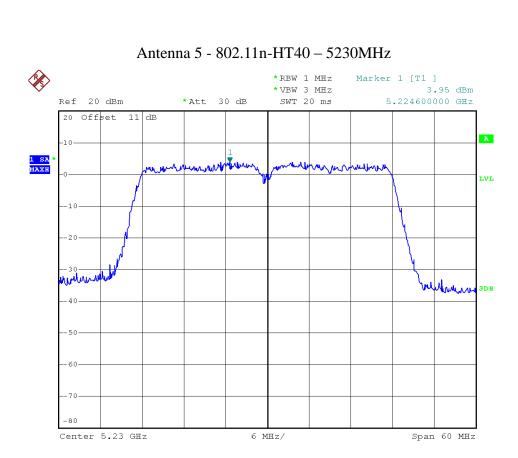


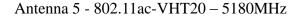


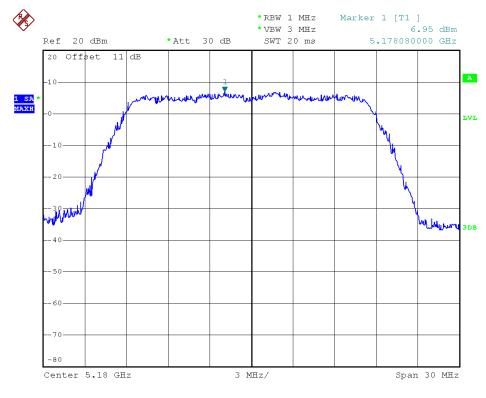
Antenna 5 - 802.11n-HT40 - 5190MHz



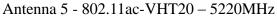


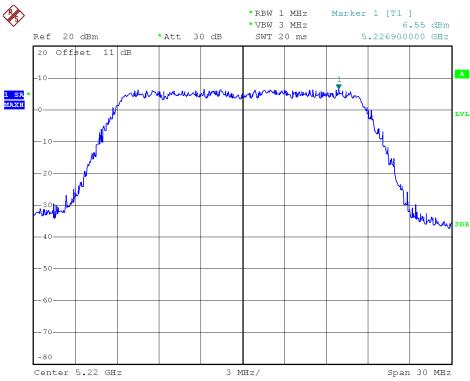




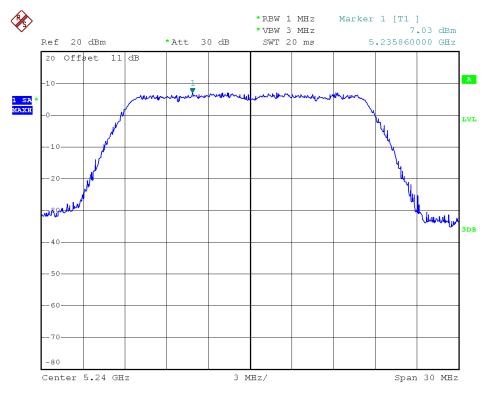




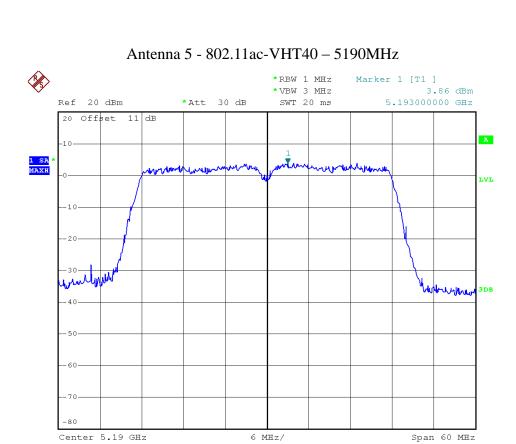


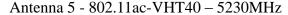


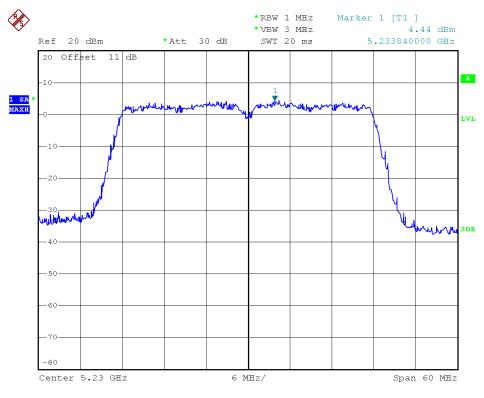
Antenna 5 - 802.11ac-VHT20 - 5240MHz



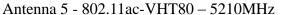


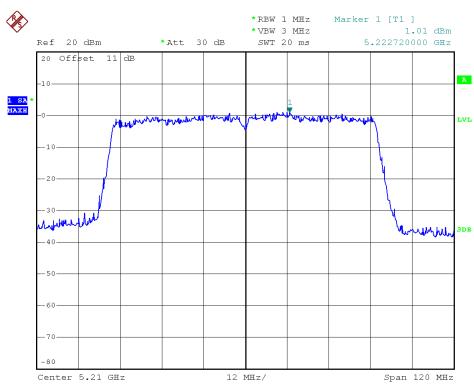




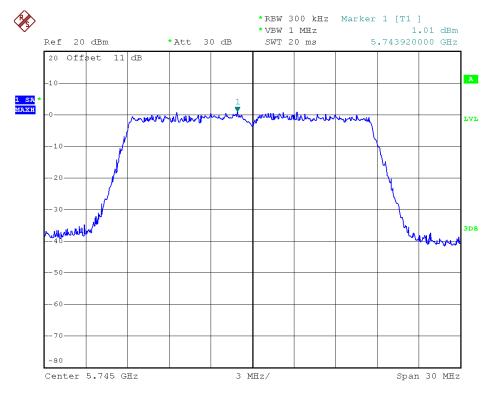




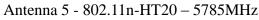


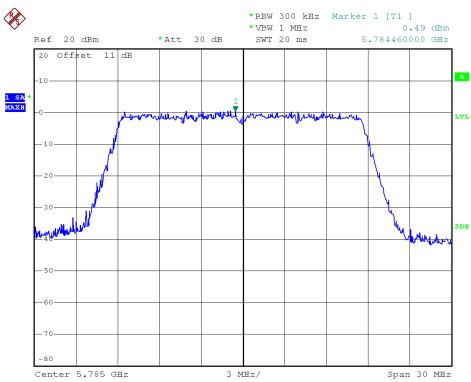


Antenna 5 - 802.11n-HT20 - 5745MHz

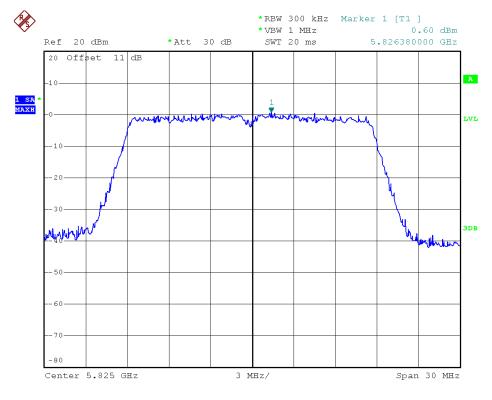






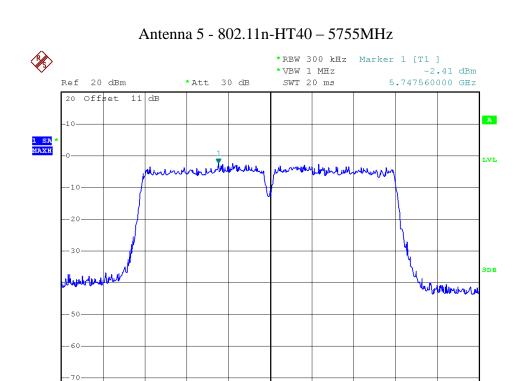


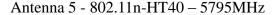
Antenna 5 - 802.11n-HT20 - 5825MHz



Span 60 MHz

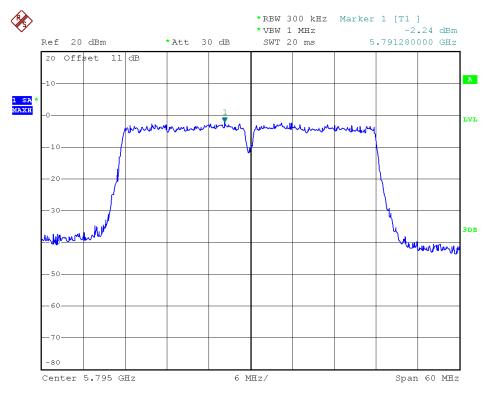




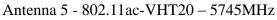


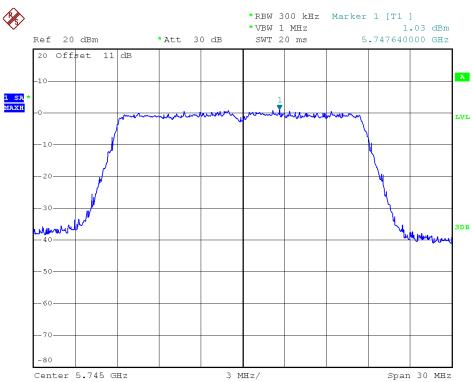
6 MHz/

Center 5.755 GHz

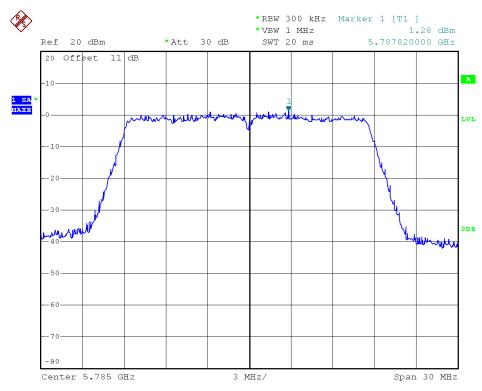




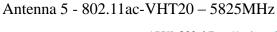


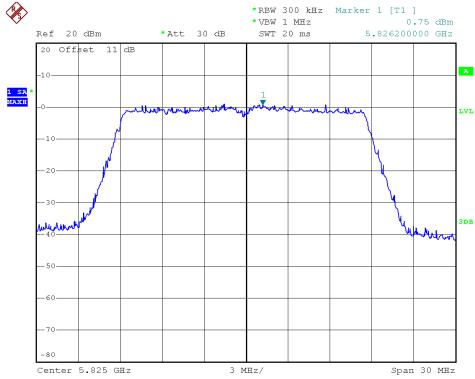


Antenna 5 - 802.11ac-VHT20 - 5785MHz

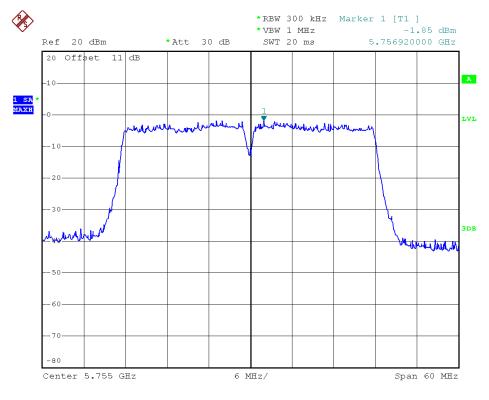




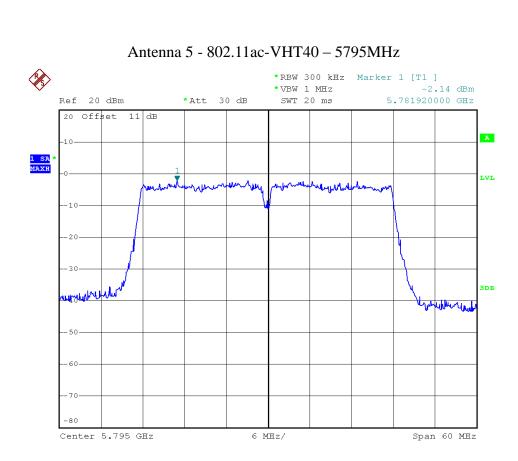


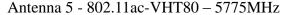


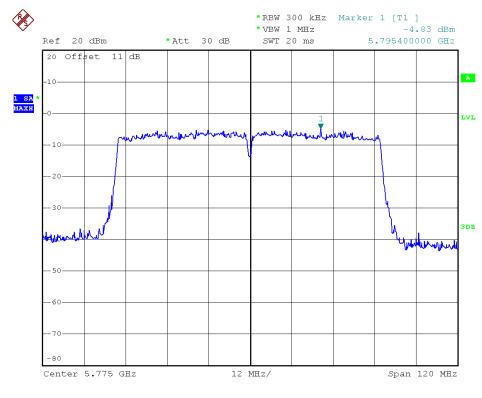
Antenna 5 - 802.11ac-VHT40 - 5755MHz













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2.5. Radiated Band Edge and Spurious Emission

2.5.1. Limit of Radiated Band Edges and Spurious Emission

Radiated emission which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

| Frequency (MHz) | Field Strength (µV/m) | Measurement Distance (m) |
|-----------------|-----------------------|--------------------------|
| 0.009 - 0.490 | 2400/F(kHz) | 300 |
| 0.490 - 1.705 | 24000/F(kHz) | 30 |
| 1.705 - 30.0 | 30 | 30 |
| 30 - 88 | 100 | 3 |
| 88 - 216 | 150 | 3 |
| 216 - 960 | 200 | 3 |
| Above 960 | 500 | 3 |

NOTE:

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

Limits of unwanted emission out of the restricted bands

| Applicable To | Limit | | | | |
|------------------------------|-----------------------------------|-------------------------------|--|--|--|
| 789033 D02 General UNII Test | Field Streng | th at 3m | | | |
| Procedures New Rules v01 | PK:74($dB\mu V/m$) | AV:54 (dBμV/m) | | | |
| Applicable To | EIRP Limit | EQUIVALENT FIELD | | | |
| Applicable 10 | EIRF LIIIIt | STRENGTH AT 3m | | | |
| 15.407(b)-5150~5250MHz | | | | | |
| 15.407(b)-5250~5350MHz | PK: -27(dBm/MHz) | PK:68.2($dB\mu V/m$) | | | |
| 15.407(b)-5470~5725MHz | | | | | |
| 15 407(b) 5725 5950MUz | PK:-27 (dBm/MHz) ^{note1} | PK: $68.2(dB\mu V/m)^{note1}$ | | | |
| 15.407(b)-5725~5850MHz | PK:-17 (dBm/MHz) ^{note2} | PK: $78.2(dB\mu V/m)^{note2}$ | | | |

Note:

1. Beyond 10MHz of the band edge 2. Within 10MHz of the band edge
The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:



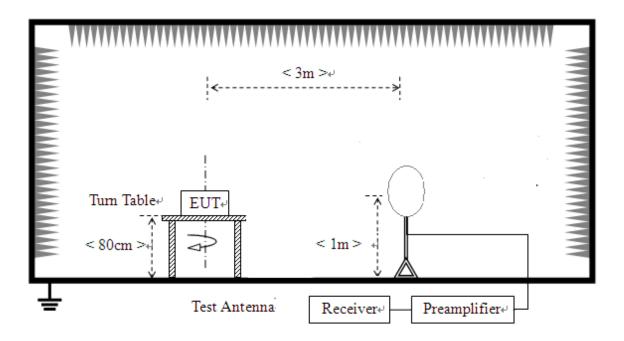
E =
$$\frac{1000000\sqrt{30|P|}}{3}$$
 µV/m, where P is the eirp (Watts).

2.5.2. Measuring Instruments

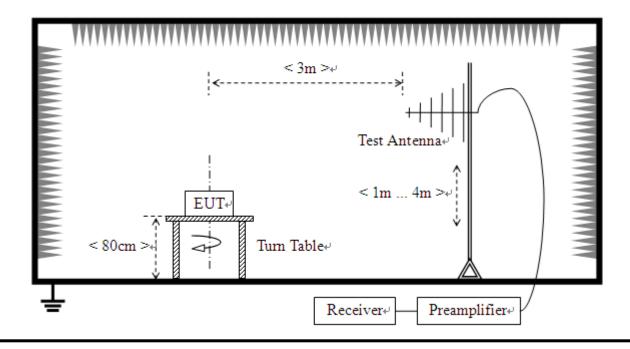
The measuring equipment is listed in the section 3 of this test report.

2.5.3. Test Setup

For radiated emissions from 9 KHz to 30 MHz

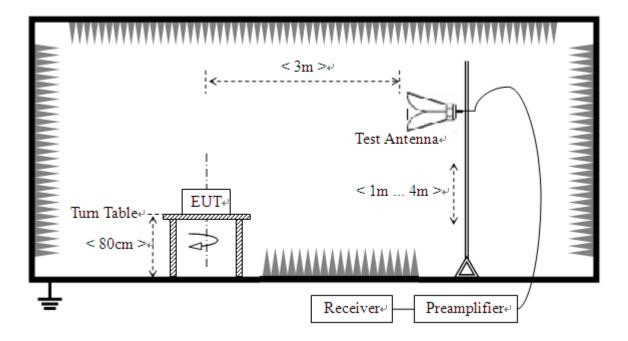


For radiated emissions from 30MHz to 1GHz





For radiated emissions above 1GHz



2.5.4. Test Procedures

- 1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- 3. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- 5. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- 6. The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value





also meets average limit, measurement with the average detector is unnecessary.

Note:

- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
- 2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
- 3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average (Duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor (10 log(1/duty cycle)).
- 4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
- 5. Three models EUT and all modes of operation were tested and found Model No.: 7279G is the worst EUT, the worst case were recorded in this report.



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2.5.5. Test Results of Radiated Band Edge and Spurious Emission

For 9 KHz to 30MHz

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

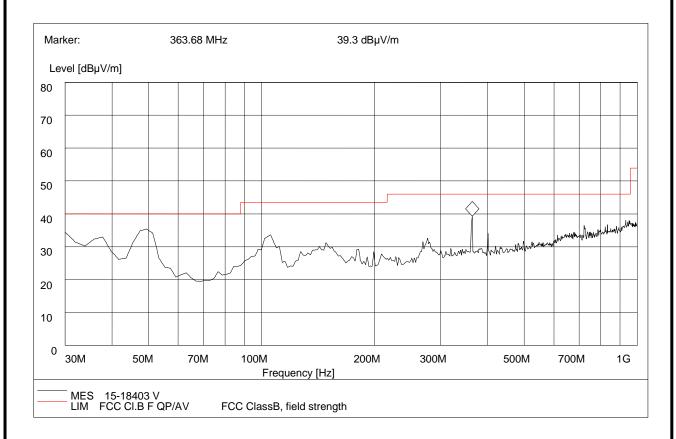
For 30MHz to 1000 MHz

Test mode:

- (1) Adapter (model: RD1202000-C55-29MG) with EUT (model: 7279G) operating frequency: 2437MHz
- (2) Adapter (model: RD1202000-C55-29MG) with EUT (model: 7278G) operating frequency: 2437MHz
- (3) Adapter (model: RD1202000-C55-29MG) with EUT (model: 7272G) operating frequency: 2437MHz
- (4) Adapter (model: YJS024U-1202000U) with EUT (model: 7279G) operating frequency: 2437MHz (5) Adapter (model: YJS024U-1202000U) with EUT (model: 7278G) operating frequency: 2437MHz
- (6) Adapter (model: YJS024U-1202000U) with EUT (model: 7272G) operating frequency: 2437MHz



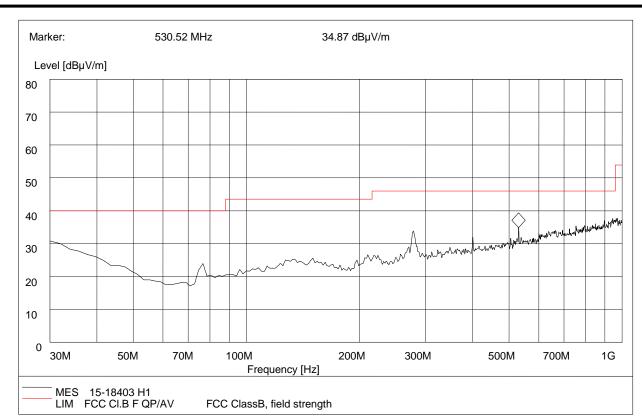
Test Mode 1:



30MHz to 1GHz, Antenna Vertical

| Frequency (MHz) | QuasiPeak (dBµV/m) | Bandwidth (kHz) | Antenna height (cm) | Limit (dBµV/m) | Antenna | Verdict |
|--------------------|-----------------------|--------------------|---------------------------|-------------------|----------|---------|
| 363.68 | 39.3 | 120.000 | 100.0 | 46.00 | Vertical | Pass |



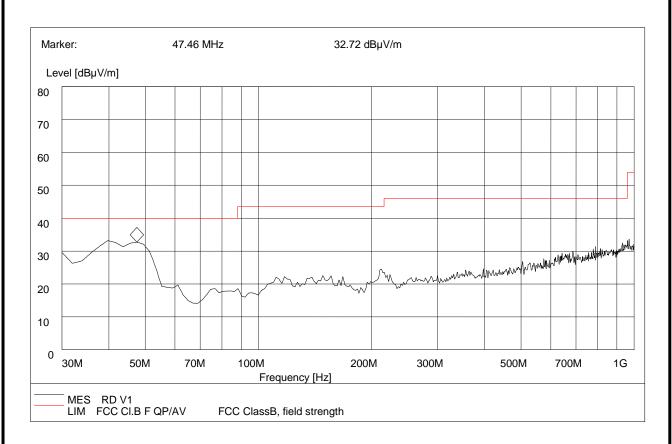


30MHz to 1GHz, Antenna Horizontal

| Frequency (MHz) | QuasiPeak (dBµ V/m) | Bandwidth (kHz) | Antenna height (cm) | Limit (dBµ V/m) | Antenna | Verdict |
|--------------------|------------------------|--------------------|---------------------------|--------------------|------------|---------|
| 530.52 | 34.87 | 120.000 | 100.0 | 46.00 | Horizontal | Pass |



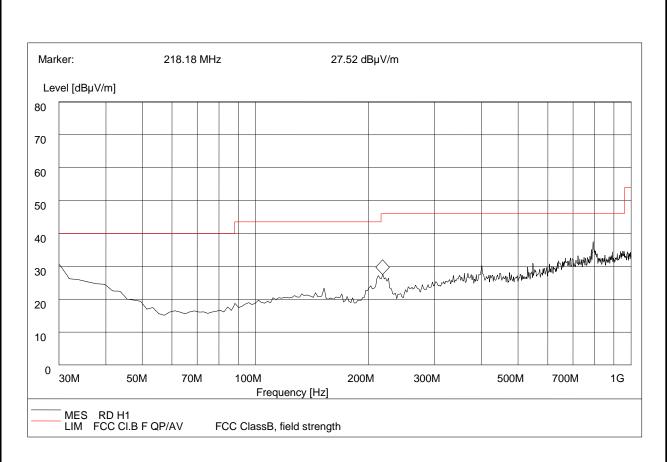
Test Mode 2:



30MHz to 1GHz, Antenna Vertical

| Frequency (MHz) | QuasiPeak (dBµV/m) | Bandwidth (kHz) | Antenna height (cm) | Limit (dBµV/m) | Antenna | Verdict |
|--------------------|-----------------------|--------------------|---------------------------|-------------------|----------|---------|
| 47.46 | 32.72 | 120.000 | 100.0 | 40.00 | Vertical | Pass |



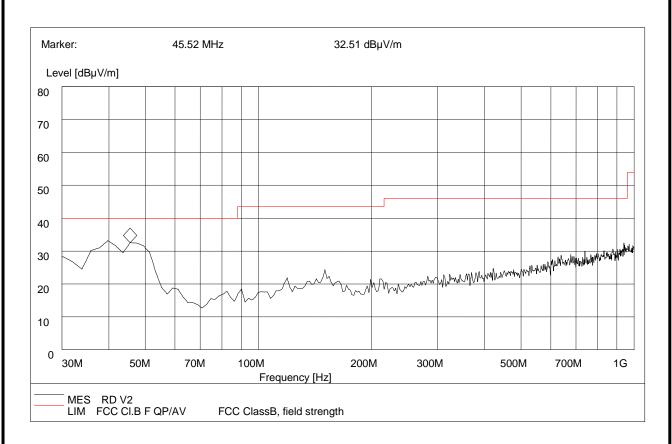


30MHz to 1GHz, Antenna Horizontal

| Frequency (MHz) | QuasiPeak (dΒμ V/m) | Bandwidth (kHz) | Antenna height (cm) | Limit (dBµ V/m) | Antenna | Verdict |
|--------------------|------------------------|--------------------|---------------------------|--------------------|------------|---------|
| 218.18 | 27.52 | 120.000 | 100.0 | 46.00 | Horizontal | Pass |
| 795.56 | 37.15 | 120.000 | 100.0 | 46.0 | Horizontal | Pass |



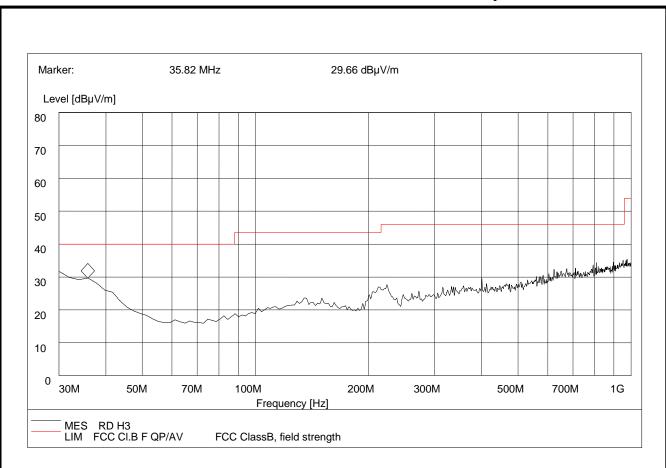
Test Mode 3:



30MHz to 1GHz, Antenna Vertical

| Frequency (MHz) | QuasiPeak (dBµV/m) | Bandwidth (kHz) | Antenna height (cm) | Limit (dBµV/m) | Antenna | Verdict |
|--------------------|-----------------------|--------------------|---------------------------|-------------------|----------|---------|
| 45.52 | 32.51 | 120.000 | 100.0 | 40.00 | Vertical | Pass |



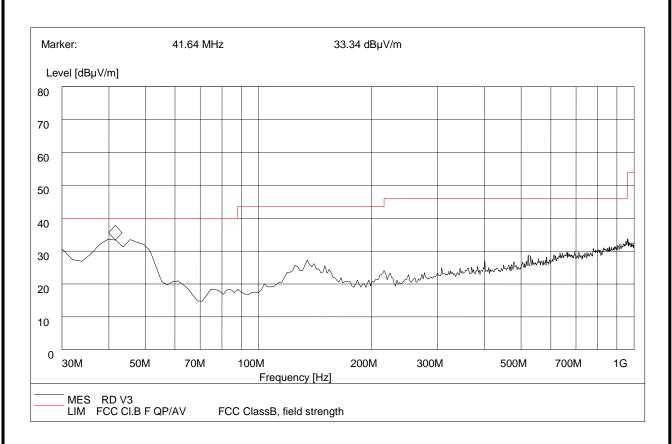


30MHz to 1GHz, Antenna Horizontal

| Frequency (MHz) | QuasiPeak (dBµ V/m) | Bandwidth (kHz) | Antenna height (cm) | Limit (dBµ V/m) | Antenna | Verdict |
|--------------------|------------------------|--------------------|---------------------------|--------------------|------------|---------|
| 35.82 | 29.66 | 120.000 | 100.0 | 40.00 | Horizontal | Pass |



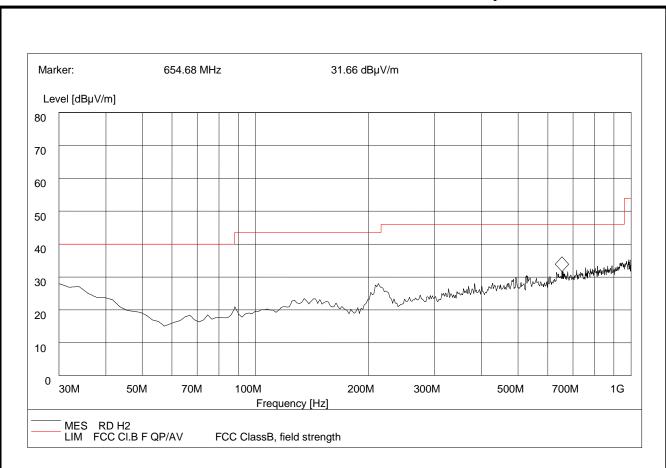
Test Mode 4:



30MHz to 1GHz, Antenna Vertical

| Frequency (MHz) | QuasiPeak (dBµV/m) | Bandwidth (kHz) | Antenna height (cm) | Limit (dBµV/m) | Antenna | Verdict |
|--------------------|-----------------------|--------------------|---------------------------|-------------------|----------|---------|
| 41.64 | 33.34 | 120.000 | 100.0 | 40.00 | Vertical | Pass |



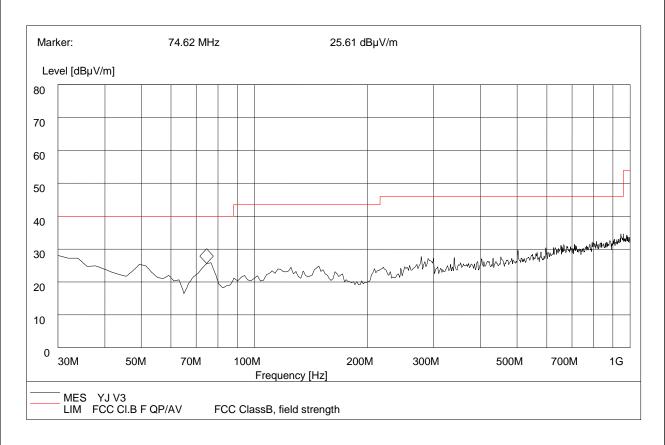


30MHz to 1GHz, Antenna Horizontal

| Frequency (MHz) | QuasiPeak (dBµ V/m) | Bandwidth (kHz) | Antenna height (cm) | Limit (dBµ V/m) | Antenna | Verdict |
|--------------------|------------------------|--------------------|---------------------------|--------------------|------------|---------|
| 654.68 | 31.66 | 120.000 | 100.0 | 46.00 | Horizontal | Pass |



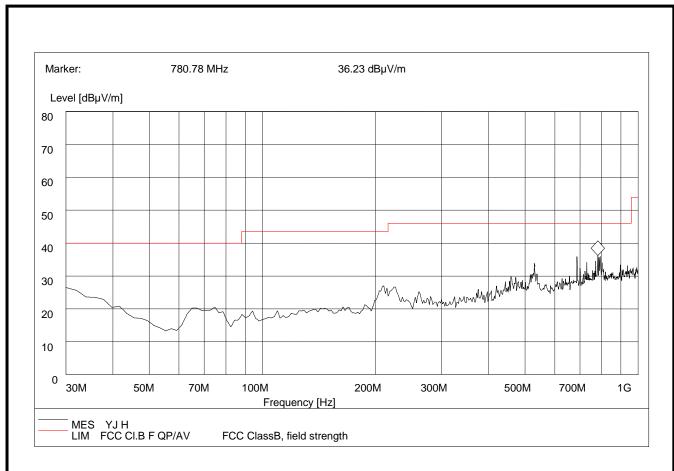
Test Mode 5:



30MHz to 1GHz, Antenna Vertical

| Frequency (MHz) | QuasiPeak (dΒμV/m) | Bandwidth (kHz) | Antenna height (cm) | Limit (dBµV/m) | Antenna | Verdict |
|--------------------|-----------------------|--------------------|---------------------------|-------------------|----------|---------|
| 74.62 | 25.61 | 120.000 | 100.0 | 40.00 | Vertical | Pass |



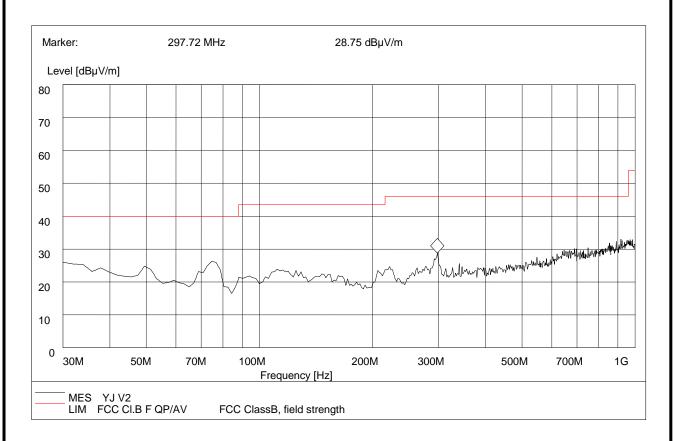


30MHz to 1GHz, Antenna Horizontal

| Frequency (MHz) | QuasiPeak (dBµ V/m) | Bandwidth (kHz) | Antenna height (cm) | Limit (dBµ V/m) | Antenna | Verdict |
|--------------------|------------------------|--------------------|---------------------------|--------------------|------------|---------|
| 780.78 | 36.23 | 120.000 | 100.0 | 46.00 | Horizontal | Pass |



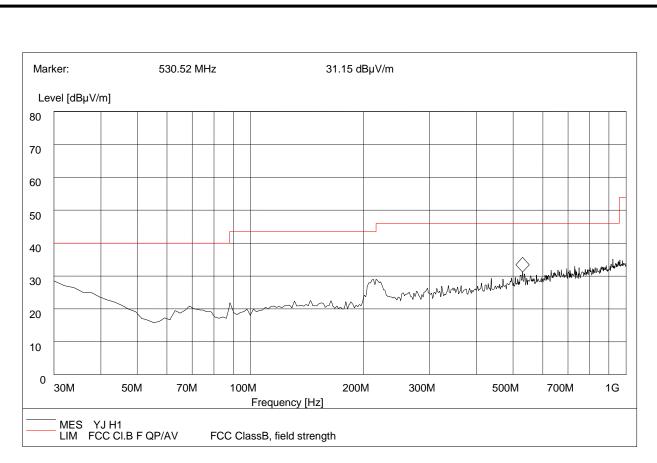
Test Mode 6:



30MHz to 1GHz, Antenna Vertical

| Frequency (MHz) | QuasiPeak (dΒμV/m) | Bandwidth (kHz) | Antenna height (cm) | Limit (dBµV/m) | Antenna | Verdict |
|--------------------|-----------------------|--------------------|---------------------------|-------------------|----------|---------|
| 292.72 | 28.75 | 120.000 | 100.0 | 46.00 | Vertical | Pass |





30MHz to 1GHz, Antenna Horizontal

| Frequency (MHz) | QuasiPeak (dBµ V/m) | Bandwidth (kHz) | Antenna height (cm) | Limit (dBµ V/m) | Antenna | Verdict |
|--------------------|------------------------|--------------------|---------------------------|--------------------|------------|---------|
| 530.52 | 31.15 | 120.000 | 100.0 | 46.00 | Horizontal | Pass |



For 1GHz to 40 GHz

Note: Only provide the worst-case data here (adapter model: RD1202000-C55-29MG with EUT

model: 7279G).

| ANT | TENNA PO | LARIT | Y & T | EST DIST | 'ANCE: I | HORIZON | TALAT 3 M | (802.11a_5 | 180MHz) |
|-----|---------------------|------------------------------|----------|-------------------|-----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emssion Level (dBuV/m) | | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | 5150.00 | 61.40 | PK | 74.00 | -12.60 | 1.08 H | 290 | 59.40 | 2.00 |
| 2 | 5150.00 | 44.80 | AV | 54.00 | -9.20 | 1.08 H | 290 | 42.80 | 2.00 |
| 3 | *5180.00 | 102.60 | PK | / | / | 1.08 H | 290 | 62.60 | 40.00 |
| 4 | *5180.00 | 91.80 | AV | / | / | 1.08 H | 290 | 51.80 | 40.00 |
| 5 | #10360.00 | 61.00 | PK | 74.00 | -13.00 | 1.02 H | 64 | 46.00 | 15.00 |
| 6 | #10360.00 | 48.60 | AV | 54.00 | -5.4 | 1.02 H | 64 | 33.60 | 15.00 |
| Al | NTENNA P | OLARI | TY & | TEST DIS | STANCE | : VERTICA | LAT 3 M | (802.11a_518 | 80MHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| | | | | | | | | | |
| 1 | 5150.00 | 57.90 | PK | 74.00 | -16.10 | 1.00 V | 269 | 55.90 | 2.00 |
| 2 | 5150.00 5150.00 | 57.90 44.80 | PK AV | 74.00 54.00 | -16.10 -9.20 | 1.00 V 1.00 V | 269 269 | 55.90 42.80 | 2.00 |
| | | | | | | | | | |
| 2 | 5150.00 | 44.80 | AV | 54.00 | -9.20 | 1.00 V | 269 | 42.80 | 2.00 |
| 2 | 5150.00 *5180.00 | 44.80 96.70 | AV PK | 54.00 | -9.20 / | 1.00 V 1.00 V | 269 269 | 42.80 56.70 | 2.00 40.00 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| ANI | TENNA PO | LARIT | Y & T | EST DIST | ANCE: I | HORIZON | FALAT 3 M | [(802.11a_5 | 220MHz) |
|-----|-----------------|-------------------------------|-------------------|-------------------|--------------------------|--------------------------|--------------------------|--------------------------------|--------------------------------|
| No. | Frequency (MHz) | Emssion Level (dBuV/m) | | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5220.00 | 101.80 | PK | / | / | 1.02 H | 210 | 61.70 | 40.10 |
| 2 | *5220.00 | 91.00 | AV | / | / | 1.02 H | 210 | 50.90 | 40.10 |
| 3 | #10440.00 | 62.00 | PK | 74.00 | -12.00 | 1.02 H | 69 | 47.00 | 15.00 |
| 4 | #10440.00 | 48.60 | AV | 54.00 | -5.40 | 1.02 H | 69 | 33.60 | 15.00 |
| Aľ | NTENNA P | OLARI' | TY & | TEST DIS | STANCE | : VERTICA | LAT 3 M | (802.11a_522 | 20MHz) |
| No. | Frequency (MHz) | ion el ⁷ /m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | |
| 1 | *5220.00 | 99.60 | PK | / | / | 1.09 V | 112 | 59.50 | 40.10 |
| 2 | *5220.00 | 88.90 | AV | / | / | 1.09 V | 112 | 48.80 | 40.10 |
| 3 | #10440.00 | 61.50 | PK | 74.00 | -12.50 | 1.21 V | 254 | 46.50 | 15.00 |
| 4 | #10440.00 | 48.00 | AV | 54.00 | -6.00 | 1.21 V | 254 | 33.00 | 15.00 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| ANI | TENNA PO | LARIT | Y & T | EST DIST | ANCE: 1 | HORIZON | FALAT 3 M | I (802.11a_5 | 240MHz) |
|-----|-----------------|------------------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emssion Level (dBuV/m) | | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5240.00 | 101.60 | PK | / | / | 1.05 H | 215 | 61.50 | 40.10 |
| 2 | *5240.00 | 91.10 | AV | / | / | 1.05 H | 215 | 51.00 | 40.10 |
| 3 | 5350.00 | 56.40 | PK | 74.00 | -17.60 | 1.05 H | 215 | 54.40 | 2.00 |
| 4 | 5350.00 | 43.90 | AV | 54.00 | -10.10 | 1.05 H | 215 | 41.90 | 2.00 |
| 5 | #10480.00 | 61.10 | PK | 74.00 | -12.90 | 1.45 H | 64 | 46.00 | 15.10 |
| 6 | #10480.00 | 47.60 | AV | 54.00 | -6.40 | 1.45 H | 64 | 32.50 | 15.10 |
| Al | NTENNA P | OLARI | TY & | TEST DIS | STANCE | : VERTICA | LAT 3 M | (802.11a_524 | l0MHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5240.00 | 96.70 | PK | / | / | 1.05 V | 177 | 56.60 | 40.10 |
| 2 | *5240.00 | 89.20 | AV | / | / | 1.05 V | 177 | 49.10 | 40.10 |
| 3 | 5350.00 | 57.20 | PK | 74.00 | -16.80 | 1.05 V | 177 | 55.20 | 2.00 |
| 4 | 5350.00 | 43.80 | AV | 54.00 | -10.20 | 1.05 V | 177 | 41.80 | 2.00 |
| 5 | #10480.00 | 60.60 | PK | 74.00 | -13.40 | 1.45 V | 58 | 45.50 | 15.10 |
| 6 | #10480.00 | 47.60 | AV | 54.00 | -6.40 | 1.45 V | 58 | 32.60 | 15.10 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| ANI | TENNA PO | LARIT | Y & T | EST DIST | ANCE: I | HORIZON | FALAT 3 M | (802.11a_5 | 745MHz) |
|-----|-----------------|----------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | #5714.90 | 63.70 | PK | 74.00 | -10.30 | 1.00 H | 330 | 61.10 | 2.60 |
| 2 | #5714.90 | 46.60 | AV | 54.00 | -7. 40 | 1.00 H | 330 | 44.00 | 2.60 |
| 3 | #5722.90 | 72.30 | PK | 78.20 | -5.9 | 1.00 H | 330 | 69.70 | 2.60 |
| 4 | #5725.00 | 59.80 | PK | 78.20 | -18.4 | 1.00 H | 330 | 57.20 | 2.60 |
| 5 | *5745.00 | 98.60 | PK | / | / | 1.00 H | 330 | 57.60 | 41.00 |
| 6 | *5745.00 | 88.20 | AV | / | / | 1.00 H | 330 | 47.20 | 41.00 |
| 7 | 11490.00 | 61.90 | PK | 74.00 | -12.1 | 1.02 H | 64 | 46.00 | 15.90 |
| 8 | 11490.00 | 49.40 | AV | 54.00 | -4.6 | 1.02 H | 64 | 33.50 | 15.90 |
| Aľ | NTENNA P | OLARI' | TY & | TEST DIS | STANCE | : VERTICA | LAT 3 M | (802.11a_574 | 5MHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | #5714.90 | 62.90 | PK | 74.00 | -11.10 | 1.00 H | 269 | 60.30 | 2.60 |
| 2 | #5714.90 | 45.90 | AV | 54.00 | -8.10 | 1.00 H | 269 | 43.30 | 2.60 |
| 3 | #5722.90 | 71.20 | PK | 78.20 | -7.0 | 1.00 H | 269 | 68.60 | 2.60 |
| 4 | #5725.00 | 59.60 | PK | 78.20 | -18.60 | 1.00 H | 269 | 57.00 | 2.60 |
| 5 | *5745.00 | 97.50 | PK | / | / | 1.00 H | 269 | 56.50 | 41.00 |
| 6 | *5745.00 | 87.30 | AV | / | / | 1.00 H | 269 | 46.30 | 41.00 |
| 7 | 11490.00 | 61.40 | PK | 74.00 | -12.60 | 1.02 H | 64 | 45.50 | 15.90 |
| | | | | 54.00 | | | 64 | _ | |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| ΔΝΊ | TENNA POI | LARIT | V & T | FST DIST | 'ANCE: I | HORIZON | ГАТ АТЗМ | [(802.11a_5 | 785MHz) |
|-----|-----------------|------------------------------|-------|-------------------|-------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emssion Level (dBuV/m) | | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5785.00 | 98.20 | PK | / | / | 1.02 H | 329 | 57.10 | 41.10 |
| 2 | *5785.00 | 87.40 | AV | / | / | 1.02 H | 329 | 46.30 | 41.10 |
| 3 | 11570.00 | 62.10 | PK | 74.00 | -11.90 | 1.02 H | 94 | 46.50 | 15.60 |
| 4 | 11570.00 | 48.20 | AV | 54.00 | -5.80 | 1.02 H | 94 | 32.60 | 15.60 |
| Al | NTENNA P | OLARI | TY & | TEST DIS | STANCE | : VERTICA | LAT 3 M | (802.11a_578 | 85MHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5785.00 | 98.40 | PK | / | / | 1.02 V | 280 | 57.30 | 41.10 |
| 2 | *5785.00 | 88.00 | AV | / | / | 1.02 V | 280 | 46.90 | 41.10 |
| 3 | 11570.00 | 61.20 | PK | 74.00 | -12.80 | 1.02 V | 34 | 45.60 | 15.60 |
| 4 | 11570.00 | 48.10 | AV | 54.00 | -5.90 | 1.02 V | 34 | 32.50 | 15.60 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| ANI | TENNA PO | LARIT | Y & T | EST DIST | ANCE: I | HORIZON | TALAT 3 M | (802.11a_5 | 825MHz) |
|-----|-----------------|------------------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emssion Level (dBuV/m) | | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5825.00 | 98.60 | PK | / | / | 1.05 H | 215 | 57.50 | 41.10 |
| 2 | *5825.00 | 88.40 | AV | / | / | 1.05 H | 215 | 47.30 | 41.10 |
| 3 | #5850.00 | 53.70 | PK | 78.2 | -24.50 | 1.05 H | 215 | 50.70 | 3.00 |
| 4 | #5852.10 | 68.10 | PK | 78.2 | -10.10 | 1.05 H | 215 | 65.10 | 3.00 |
| 5 | #5860.10 | 63.90 | PK | 74.00 | -10.10 | 1.05 H | 215 | 60.90 | 3.00 |
| 6 | #5860.10 | 46.20 | AV | 54.00 | -7.80 | 1.05 H | 215 | 43.20 | 3.00 |
| 7 | 11650.00 | 61.30 | PK | 74.00 | -12.70 | 1.00 H | 84 | 45.70 | 15.60 |
| 8 | 11650.00 | 48.80 | AV | 54.00 | -5.2 | 1.00 H | 84 | 33.20 | 15.60 |
| Aľ | NTENNA P | OLARI | TY & | TEST DIS | STANCE | : VERTICA | LAT 3 M | (802.11a_582 | 25MHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5825.00 | 98.60 | PK | / | / | 1.20 V | 280 | 57.50 | 41.10 |
| 2 | *5825.00 | 88.00 | AV | / | / | 1.20 V | 280 | 46.90 | 41.10 |
| 3 | #5850.00 | 51.60 | PK | 78.20 | -26.60 | 1.20 V | 280 | 48.60 | 3.00 |
| 4 | #5852.10 | 68.40 | PK | 78.20 | -9.80 | 1.20 V | 280 | 65.40 | 3.00 |
| 5 | #5860.10 | 63.50 | PK | 74.00 | -10.50 | 1.20 V | 280 | 60.50 | 3.00 |
| 6 | #5860.10 | 46.40 | AV | 54.00 | -7.60 | 1.20 V | 280 | 43.40 | 3.00 |
| | | | | 5 400 | 10.50 | 1.00 11 | - 1 | 45.00 | 15.60 |
| 7 | 11650.00 | 61.50 | PK | 74.00 | -12.50 | 1.02 V | 64 | 45.90 | 15.60 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| | | | | | | | | 1 | |
|-----|-----------------|----------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| ANT | ENNA POL | ARITY | % TI | EST DISTA | NCE: H | ORIZONT | ALAT 3 M | (802.11n20_ | 5180MHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | rel | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | 5150.00 | 57.60 | PK | 74.00 | -16.40 | 1.08 H | 212 | 55.60 | 2.00 |
| 2 | 5150.00 | 44.10 | AV | 54.00 | -9.90 | 1.08 H | 212 | 42.10 | 2.00 |
| 3 | *5180.00 | 97.30 | PK | / | / | 1.08 H | 212 | 57.30 | 40.00 |
| 4 | *5180.00 | 87.40 | AV | / | / | 1.08 H | 212 | 47.40 | 40.00 |
| 5 | #10360.00 | 62.50 | PK | 74.00 | -11.50 | 1.02 H | 100 | 47.50 | 15.00 |
| 6 | #10360.00 | 49.00 | AV | 54.00 | -5.0 | 1.02 H | 100 | 34.00 | 15.00 |
| AN | TENNA PO | LARIT | Y & 7 | TEST DIST | TANCE: | VERTICAL | LAT3M (| 802.11n20_51 | 180MHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | rel | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | 5150.00 | 57.90 | PK | 74.00 | -16.10 | 1.00 V | 269 | 56.00 | 2.00 |
| 2 | 5150.00 | 44.80 | AV | 54.00 | -9.20 | 1.00 V | 269 | 42.50 | 2.00 |
| 3 | *5180.00 | 96.70 | PK | / | / | 1.00 V | 269 | 54.60 | 40.00 |
| 4 | *5180.00 | 86.20 | AV | / | / | 1.00 V | 269 | 44.30 | 40.00 |
| 5 | #10360.00 | 60.20 | PK | 74.00 | -13.80 | 1.08 V | 94 | 47.20 | 15.00 |
| 6 | #10360.00 | 47.20 | AV | 54.00 | -6.80 | 1.08 V | 94 | 33.80 | 15.00 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| ANT] | ENNA POL | ARITY | & TE | EST DISTA | NCE: H | ORIZONT | ALAT 3 M | (802.11n20_ | 5220MHz) |
|------|-----------------|----------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5220.00 | 95.90 | PK | / | / | 1.02 H | 340 | 55.80 | 40.10 |
| 2 | *5220.00 | 86.60 | AV | / | / | 1.02 H | 340 | 46.50 | 40.10 |
| 3 | #10440.00 | 59.70 | PK | 74.00 | -14.30 | 1.02 H | 62 | 44.70 | 15.00 |
| 4 | #10440.00 | 46.40 | AV | 54.00 | -7.60 | 1.02 H | 62 | 31.40 | 15.00 |
| AN' | TENNA PO | LARIT | Y & 7 | TEST DIST | TANCE: | VERTICAI | LAT 3 M (8 | 802.11n20_52 | 220MHz) |
| No. | Emssion Emssion | | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *2437.00 | 93.80 | PK | / | / | 1.09 V | 112 | 53.70 | 40.10 |
| 2 | *2437.00 | 83.80 | AV | / | / | 1.09 V | 112 | 43.70 | 40.10 |
| 3 | #4874.00 | 60.00 | PK | 74.00 | -14.00 | 1.21 V | 254 | 45.00 | 15.00 |
| 4 | #4874.00 | 46.40 | AV | 54.00 | -7.60 | 1.21 V | 254 | 31.40 | 15.00 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| ANT | ENNA POL | ARITY | & TI | EST DISTA | NCE: H | ORIZONT | ALAT 3 M | (802.11n20_ | 5240MHz) |
|-----|-------------------|------------------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emssion Level (dBuV/m) | | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5240.00 | 94.80 | PK | / | / | 1.05 H | 244 | 54.70 | 40.10 |
| 2 | *5240.00 | 84.90 | AV | / | / | 1.05 H | 244 | 44.80 | 40.10 |
| 3 | 5350.00 | 58.40 | PK | 74.00 | -15.60 | 1.05 H | 244 | 56.40 | 2.00 |
| 4 | 5350.00 | 44.10 | AV | 54.00 | -9.90 | 1.05 H | 244 | 42.10 | 2.00 |
| 5 | #10480.00 | 61.80 | PK | 74.00 | -12.20 | 1.45 H | 236 | 46.70 | 15.10 |
| 6 | #10480.00 | 48.10 | AV | 54.00 | -5.90 | 1.45 H | 236 | 33.00 | 15.10 |
| AN | TENNA PO | LARIT | Y & 7 | TEST DIST | TANCE: | VERTICAL | LAT 3 M (| 802.11n20_52 | 240MHz) |
| No. | Emssion Frequency | | | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5240.00 | 93.10 | PK | / | / | 1.05 V | 280 | 53.00 | 40.10 |
| 2 | *5240.00 | 82.50 | AV | / | / | 1.05 V | 280 | 42.40 | 40.10 |
| 3 | 5350.00 | 58.30 | PK | 74.00 | -15.70 | 1.05 V | 280 | 56.30 | 2.00 |
| 4 | 5350.00 | 44.20 | AV | 54.00 | -9.80 | 1.05 V | 280 | 42.20 | 2.00 |
| 5 | #10480.00 | 62.00 | PK | 74.00 | -12.00 | 1.00 V | 120 | 46.90 | 15.10 |
| 6 | #10480.00 | 48.00 | AV | 54.00 | -6.00 | 1.00 V | 120 | 32.90 | 15.10 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| ANT | ENNA POL | ARITY | & TI | EST DISTA | ANCE: H | ORIZONT | ALAT 3 M | (802.11n20_ | 5745MHz) |
|-----|-----------------|----------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | #5714.90 | 58.20 | PK | 74.00 | -15.80 | 1.00 H | 108 | 55.60 | 2.60 |
| 2 | #5714.90 | 44.70 | AV | 54.00 | -9. 30 | 1.00 H | 108 | 42.10 | 2.60 |
| 3 | #5722.90 | 67.70 | PK | 78.20 | -10.50 | 1.00 H | 108 | 65.10 | 2.60 |
| 4 | #5725.00 | 48.90 | PK | 78.20 | -29.30 | 1.00 H | 108 | 46.30 | 2.60 |
| 5 | *5745.00 | 96.80 | PK | / | / | 1.00 H | 108 | 55.80 | 41.00 |
| 6 | *5745.00 | 85.30 | AV | / | / | 1.00 H | 108 | 44.30 | 41.00 |
| 7 | 11490.00 | 61.90 | PK | 74.00 | -12.10 | 1.02 H | 48 | 46.00 | 15.90 |
| 8 | 11490.00 | 48.50 | AV | 54.00 | -5.50 | 1.02 H | 48 | 32.60 | 15.90 |
| AN' | TENNA PO | LARIT | Y & 7 | TEST DIST | TANCE: | VERTICAL | LAT3M (8 | 302.11n20_57 | 45MHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | #5714.90 | 59.30 | PK | 74.00 | -14.70 | 1.00 H | 278 | 56.70 | 2.60 |
| 2 | #5714.90 | 44.70 | AV | 54.00 | -9.30 | 1.00 H | 278 | 42.10 | 2.60 |
| 3 | #5722.90 | 60.60 | PK | 78.20 | -17.60 | 1.00 H | 278 | 58.00 | 2.60 |
| 4 | #5725.00 | 45.90 | PK | 78.20 | -32.30 | 1.00 H | 278 | 43.30 | 2.60 |
| 5 | *5745.00 | 94.00 | PK | / | / | 1.00 H | 278 | 53.00 | 41.00 |
| 6 | *5745.00 | 82.70 | AV | / | / | 1.00 H | 278 | 41.70 | 41.00 |
| 7 | 11490.00 | 61.10 | PK | 74.00 | -12.90 | 1.02 H | 24 | 45.20 | 15.90 |
| 8 | 11490.00 | 48.10 | AV | 54.00 | -5.90 | 1.02 H | 24 | 32.20 | 15.90 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " \ast ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| ANT | ENNA POL | ARITY | & TI | EST DISTA | ANCE: H | ORIZONT | ALAT 3 M | (802.11n20_ | 5785MHz) |
|-----|---------------------|----------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5785.00 | 93.10 | PK | / | / | 1.02 H | 70 | 52.00 | 41.10 |
| 2 | *5785.00 | 82.80 | AV | / | / | 1.02 H | 70 | 41.70 | 41.10 |
| 3 | 11570.00 | 60.90 | PK | 74.00 | -13.10 | 1.02 H | 94 | 45.30 | 15.60 |
| 4 | 11570.00 | 47.80 | AV | 54.00 | -6.20 | 1.02 H | 94 | 32.20 | 15.60 |
| AN' | TENNA PO | LARIT | Y & 7 | TEST DIST | TANCE: | VERTICAL | LAT3M (| 802.11n20_57 | /85MHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5785.00 | 93.60 | PK | / | / | 1.02 V | 280 | 52.50 | 41.10 |
| 2 | *5785.00 | 82.70 | AV | / | / | 1.02 V | 280 | 41.60 | 41.10 |
| 3 | 3 11570.00 60.90 PK | | | 74.00 | -13.10 | 1.02 V | 34 | 45.30 | 15.60 |
| 4 | 11570.00 | 47.80 | AV | 54.00 | -6.20 | 1.02 V | 34 | 32.20 | 15.60 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| ANT | ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_5825MHz) | | | | | | | | | | | | |
|-----|---|----------------------|-------|-------------------|-------------|--------------------------|----------------------|--------------------------|--------------------------------|--|--|--|--|
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | | | | |
| 1 | *5825.00 | 94.10 | PK | / | / | 1.05 H | 72 | 53.00 | 41.10 | | | | |
| 2 | *5825.00 | 83.70 | AV | / | / | 1.05 H | 72 | 42.60 | 41.10 | | | | |
| 3 | #5850.00 | 44.30 | PK | 78.2 | -33.90 | 1.05 H | 72 | 41.30 | 3.00 | | | | |
| 4 | #5852.10 | 59.00 | PK | 78.2 | -19.20 | 1.05 H | 72 | 56.00 | 3.00 | | | | |
| 5 | #5860.10 | 58.80 | PK | 74.00 | -15.20 | 1.05 H | 72 | 55.80 | 3.00 | | | | |
| 6 | #5860.10 | 44.80 | AV | 54.00 | -9.20 | 1.05 H | 72 | 41.80 | 3.00 | | | | |
| 7 | 11650.00 | 62.80 | PK | 74.00 | -11.20 | 1.00 H | 65 | 47.20 | 15.60 | | | | |
| 8 | 11650.00 | 48.00 | AV | 54.00 | -6.00 | 1.00 H | 65 | 32.40 | 15.60 | | | | |
| AN' | TENNA PO | LARIT | Y & 7 | TEST DIST | TANCE: | VERTICAI | LAT3M (| 802.11n20_58 | 825MHz) | | | | |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | | | | |
| 1 | *5825.00 | 93.80 | PK | / | / | 1.20 V | 280 | 52.70 | 41.10 | | | | |
| 2 | *5825.00 | 83.40 | AV | / | / | 1.20 V | 280 | 42.30 | 41.10 | | | | |
| 3 | #5850.00 | 44.20 | PK | 78.20 | -34.00 | 1.20 V | 280 | 41.20 | 3.00 | | | | |
| 4 | #5852.10 | 58.70 | PK | 78.20 | -19.50 | 1.20 V | 280 | 55.70 | 3.00 | | | | |
| 5 | #5860.10 | 58.50 | PK | 74.00 | -15.50 | 1.20 V | 280 | 55.50 | 3.00 | | | | |
| 6 | #5860.10 | 45.10 | AV | 54.00 | -8.90 | 1.20 V | 280 | 42.10 | 3.00 | | | | |
| 7 | 11650.00 | 60.10 | PK | 74.00 | -13.90 | 1.02 V | 332 | 44.50 | 15.60 | | | | |
| 8 | 11650.00 | 46.90 | AV | 54.00 | -7.10 | 1.02 V | 332 | 31.30 | 15.60 | | | | |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| ANT | ENNA POL | ARITY | % TI | EST DISTA | NCE: H | ORIZONT | ALAT 3 M | (802.11n40_ | 5190MHz) |
|-----|-----------------|----------------------|-----------------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emss Lev (dBuV | rel | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | 5150.00 | 59.00 | PK | 74.00 | -15.00 | 1.00 H | 341 | 57.00 | 2.00 |
| 2 | 5150.00 | 44.60 | AV | 54.00 | -9.40 | 1.00 H | 341 | 42.60 | 2.00 |
| 3 | *5190.00 | 93.60 | PK | / | / | 1.00 H | 341 | 53.60 | 40.00 |
| 4 | *5190.00 | 83.00 | AV | / | / | 1.00 H | 341 | 43.00 | 40.00 |
| 5 | #10380.00 | 61.60 | PK | 74.00 | -12.40 | 1.02 H | 66 | 46.60 | 15.00 |
| 6 | #10380.00 | 47.60 | AV | 54.00 | -6.40 | 1.02 H | 66 | 32.60 | 15.00 |
| AN | TENNA PO | LARIT | Y& 7 | TEST DIST | TANCE: | VERTICAL | LAT3M (| 802.11n40_51 | 190MHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | rel | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | 5150.00 | 56.70 | PK | 74.00 | -17.30 | 1.00 V | 275 | 54.70 | 2.00 |
| 2 | 5150.00 | 43.20 | AV | 54.00 | -10.80 | 1.00 V | 275 | 41.20 | 2.00 |
| 3 | *5190.00 | 90.70 | PK | / | / | 1.00 V | 275 | 50.70 | 40.00 |
| 4 | *5190.00 | 80.30 | AV | / | / | 1.00 V | 275 | 40.30 | 40.00 |
| 5 | #10380.00 | 60.20 | PK | 74.00 | -13.80 | 1.08 V | 35 | 45.20 | 15.00 |
| 6 | #10380.00 | 46.30 | AV | 54.00 | -7.70 | 1.08 V | 35 | 31.30 | 15.00 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| ANT | ENNA POL | ARITY | & TI | EST DISTA | NCE: H | ORIZONT | ALAT 3 M | (802.11n40_ | 5230MHz) |
|-----|-----------------|----------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5230.00 | 93.40 | PK | / | / | 1.00 H | 337 | 53.30 | 40.10 |
| 2 | *5230.00 | 82.60 | AV | / | / | 1.00 H | 337 | 42.50 | 40.10 |
| 3 | 5350.00 | 57.60 | PK | 74.00 | -16.40 | 1.00 H | 337 | 55.60 | 2.00 |
| 4 | 5350.00 | 44.50 | AV | 54.00 | -9.50 | 1.00 H | 337 | 42.50 | 2.00 |
| 5 | #10460.00 | 61.50 | PK | 74.00 | -12.50 | 1.02 H | 84 | 46.50 | 15.00 |
| 6 | #10460.00 | 48.20 | AV | 54.00 | -5.80 | 1.02 H | 84 | 33.20 | 15.00 |
| AN | TENNA PO | LARIT | Y & 7 | TEST DIST | TANCE: | VERTICAL | LAT3M (8 | 802.11n40_52 | 230MHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5230.00 | 100.00 | PK | / | / | 1.00 V | 275 | 59.90 | 40.10 |
| 2 | *5230.00 | 89.30 | AV | / | / | 1.00 V | 275 | 49.20 | 40.10 |
| 3 | 5350.00 | 56.30 | PK | 74.00 | -17.70 | 1.00 V | 275 | 54.30 | 2.00 |
| 4 | 5350.00 | 43.30 | AV | 54.00 | -10.70 | 1.00 V | 275 | 41.30 | 2.00 |
| 5 | #10460.00 | 60.20 | PK | 74.00 | -13.80 | 1.08 V | 35 | 45.20 | 15.00 |
| 6 | #10460.00 | 46.20 | AV | 54.00 | -7.80 | 1.08 V | 35 | 31.20 | 15.00 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| ANT | ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n40_5755MHz) | | | | | | | | | | | | |
|-----|---|----------------------|-------|-------------------|-------------|--------------------------|----------------------|--------------------------|--------------------------------|--|--|--|--|
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | | | | |
| 1 | #5714.90 | 60.10 | PK | 74.00 | -13.90 | 1.05 H | 113 | 57.50 | 2.60 | | | | |
| 2 | #5714.90 | 46.10 | AV | 54.00 | -7.90 | 1.05 H | 113 | 43.50 | 2.60 | | | | |
| 3 | #5722.90 | 64.00 | PK | 78.2 | -14.20 | 1.05 H | 113 | 61.40 | 2.60 | | | | |
| 4 | #5725.90 | 49.50 | PK | 78.2 | -28.70 | 1.05 H | 113 | 46.90 | 2.60 | | | | |
| 5 | *5755.00 | 91.70 | PK | / | / | 1.05 H | 113 | 50.70 | 41.00 | | | | |
| 6 | *5755.00 | 81.40 | AV | / | / | 1.05 H | 113 | 40.40 | 41.00 | | | | |
| 7 | 11510.00 | 61.70 | PK | 74.00 | -12.30 | 1.00 H | 66 | 46.00 | 15.70 | | | | |
| 8 | 11510.00 | 48.30 | AV | 54.00 | -5.70 | 1.00 H | 66 | 32.60 | 15.70 | | | | |
| AN' | TENNA PO | LARIT | Y & 7 | TEST DIST | TANCE: | VERTICAI | LAT3M (| 802.11n40_57 | 755MHz) | | | | |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | | | | |
| 1 | #5714.90 | 59.70 | PK | 74.00 | -14.30 | 1.20 V | 280 | 57.10 | 2.60 | | | | |
| 2 | #5714.90 | 46.00 | AV | 54.00 | -8.00 | 1.20 V | 280 | 43.40 | 2.60 | | | | |
| 3 | #5722.90 | 62.50 | PK | 78.2 | -15.70 | 1.20 V | 280 | 59.90 | 2.60 | | | | |
| 4 | #5725.90 | 45.30 | PK | 78.2 | -32.90 | 1.20 V | 280 | 42.70 | 2.60 | | | | |
| 5 | *5755.00 | 92.20 | PK | / | / | 1.20 V | 280 | 51.20 | 41.00 | | | | |
| 6 | *5755.00 | 81.50 | AV | / | / | 1.20 V | 280 | 40.50 | 41.00 | | | | |
| 7 | 11510.00 | 62.20 | PK | 74.00 | -11.80 | 1.02 V | 36 | 46.50 | 15.70 | | | | |
| 8 | 11510.00 | 48.30 | AV | 54.00 | -5.70 | 1.02 V | 36 | 32.60 | 15.70 | | | | |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| ANT | ENNA POL | ARITY | & TI | EST DISTA | ANCE: H | ORIZONT | ALAT 3 M | (802.11n40_ | 5795MHz) |
|-----|-----------------|----------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5795.00 | 92.10 | PK | / | / | 1.00 H | 114 | 51.00 | 41.10 |
| 2 | *5795.00 | 81.70 | AV | / | / | 1.00 H | 114 | 40.60 | 41.10 |
| 3 | #5850.00 | 47.60 | PK | 78.2 | -30.60 | 1.00 H | 114 | 44.60 | 3.00 |
| 4 | #5852.10 | 59.00 | PK | 78.2 | -19.20 | 1.00 H | 114 | 56.00 | 3.00 |
| 5 | #5860.10 | 59.10 | PK | 74.00 | -14.90 | 1.00 H | 114 | 56.10 | 3.00 |
| 6 | #5860.10 | 45.30 | AV | 54.00 | -8.70 | 1.00 H | 114 | 42.30 | 3.00 |
| 7 | 11590.00 | 62.20 | PK | 74.00 | -11.80 | 1.41 H | 98 | 46.60 | 15.60 |
| 8 | 11590.00 | 48.10 | AV | 54.00 | -5.90 | 1.41 H | 98 | 32.50 | 15.60 |
| AN' | TENNA PO | LARIT | Y & 7 | TEST DIST | TANCE: | VERTICAL | LAT3M (| 802.11n40_57 | 95MHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5795.00 | 91.80 | PK | / | / | 1.20 V | 280 | 50.70 | 41.10 |
| 2 | *5795.00 | 80.90 | AV | / | / | 1.20 V | 280 | 39.80 | 41.10 |
| 3 | #5850.00 | 45.00 | PK | 78.2 | -33.20 | 1.20 V | 280 | 42.00 | 3.00 |
| 4 | #5852.10 | 59.10 | PK | 78.2 | -19.10 | 1.20 V | 280 | 56.10 | 3.00 |
| 5 | #5860.10 | 58.90 | PK | 74.00 | -15.10 | 1.20 V | 280 | 55.90 | 3.00 |
| 6 | #5860.10 | 45.50 | AV | 54.00 | -8.50 | 1.20 V | 280 | 42.50 | 3.00 |
| 7 | 11590.00 | 61.20 | PK | 74.00 | -12.8 | 1.02 V | 154 | 45.60 | 15.60 |
| | | | | | | | | | |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| A | NTENNA PO | LARITY | Y & TI | EST DISTAN | NCE: HO | RIZONTALA | T3M (802.1 | 11ac-VHT20_5 | 180MHz) | | | |
|-----|-----------------|----------------------|--------|-------------------|----------------|--------------------------|----------------------------|--------------------------|--------------------------------|--|--|--|
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | | | |
| 1 | 5150.00 | 57.90 | PK | 74.00 | -16.10 | 1.08 H | 212 | 55.90 | 2.00 | | | |
| 2 | 5150.00 | 44.30 | AV | 54.00 | -9.70 | 1.08 H | 212 | 42.30 | 2.00 | | | |
| 3 | *5180.00 | 98.50 | PK | / | / | 1.08 H | 212 | 58.50 | 40.00 | | | |
| 4 | *5180.00 | 87.70 | AV | / | / | 1.08 H | 212 | 47.70 | 40.00 | | | |
| 5 | #10360.00 | 62.10 | PK | 74.00 | -11.90 | 1.02 H | 100 | 47.10 | 15.00 | | | |
| 6 | #10360.00 | 48.20 | AV | 54.00 | -5.80 | 1.02 H | 100 | 33.20 | 15.00 | | | |
| | ANTENNA I | OLARI | ГҮ & Т | TEST DISTA | ANCE: VI | ERTICALAT | 3 M (802.11 | ac-VHT20_518 | 0MHz) | | | |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | | | |
| 1 | 5150.00 | 58.20 | PK | 74.00 | -15.80 | 1.00 V | 269 | 56.20 | 2.00 | | | |
| 2 | 5150.00 | 44.70 | AV | 54.00 | -9.30 | 1.00 V | 269 | 42.70 | 2.00 | | | |
| 3 | *5180.00 | 97.70 | PK | / | / | 1.00 V | 269 | 57.70 | 40.00 | | | |
| 4 | *5180.00 | 86.30 | AV | / | / | 1.00 V | 269 | 46.30 | 40.00 | | | |
| 5 | #10360.00 | 60.20 | PK | 74.00 | -13.80 | 1.08 V | 94 | 47.20 | 15.00 | | | |
| 6 | #10360.00 | 47.50 | AV | 54.00 | -6.50 | 1.08 V | 94 | 33.50 | 15.00 | | | |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| AN | NTENNA PO | LARITY | & TE | ST DISTAN | CE: HOR | IZONTALA | ГЗМ (802.1 | lac-VHT20_52 | 220MHz) |
|-----|-----------------|----------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5220.00 | 97.20 | PK | / | / | 1.02 H | 340 | 57.10 | 40.10 |
| 2 | *5220.00 | 86.70 | AV | / | / | 1.02 H | 340 | 46.60 | 40.10 |
| 3 | #10440.00 | 59.50 | PK | 74.00 | -14.50 | 1.02 H | 62 | 44.50 | 15.00 |
| 4 | #10440.00 | 46.80 | AV | 54.00 | -7.20 | 1.02 H | 62 | 31.80 | 15.00 |
| A | ANTENNA P | OLARIT | Y & T | EST DISTA | NCE: VE | RTICALAT | 3 M(802.11a | c-VHT20_5220 | OMHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *2437.00 | 96.80 | PK | / | / | 1.09 V | 112 | 56.70 | 40.10 |
| 2 | *2437.00 | 85.80 | AV | / | / | 1.09 V | 112 | 45.70 | 40.10 |
| 3 | #4874.00 | 60.10 | PK | 74.00 | -13.90 | 1.21 V | 254 | 45.10 | 15.00 |
| 4 | #4874.00 | 46.60 | AV | 54.00 | -7.40 | 1.21 V | 254 | 31.60 | 15.00 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| Aľ | NTENNA PO | LARITY | & TE | ST DISTAN | CE: HOR | IZONTALA | ГЗМ (802.1 | 1ac-VHT20_52 | 240MHz) |
|-----|-----------------|----------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5240.00 | 99.80 | PK | / | / | 1.05 H | 244 | 59.70 | 40.10 |
| 2 | *5240.00 | 88.90 | AV | / | / | 1.05 H | 244 | 48.80 | 40.10 |
| 3 | 5350.00 | 58.10 | PK | 74.00 | -15.90 | 1.05 H | 244 | 56.10 | 2.00 |
| 4 | 5350.00 | 46.30 | AV | 54.00 | -7.70 | 1.05 H | 244 | 44.30 | 2.00 |
| 5 | #10480.00 | 61.80 | PK | 74.00 | -12.20 | 1.45 H | 236 | 46.70 | 15.10 |
| 6 | #10480.00 | 48.00 | AV | 54.00 | -6.00 | 1.45 H | 236 | 32.90 | 15.10 |
| A | ANTENNA P | OLARIT | Y & T | EST DISTA | NCE: VE | RTICALAT | 3 M (802.11a | c-VHT20_5240 | 0MHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5240.00 | 98.10 | PK | / | / | 1.05 V | 280 | 58.00 | 40.10 |
| 2 | *5240.00 | 87.50 | AV | / | / | 1.05 V | 280 | 47.40 | 40.10 |
| 3 | 5350.00 | 58.30 | PK | 74.00 | -15.70 | 1.05 V | 280 | 56.30 | 2.00 |
| 4 | 5350.00 | 44.20 | AV | 54.00 | -9.80 | 1.05 V | 280 | 42.20 | 2.00 |
| 5 | #10480.00 | 62.00 | PK | 74.00 | -12.00 | 1.00 V | 120 | 46.90 | 15.10 |
| 6 | #10480.00 | 47.80 | AV | 54.00 | -6.20 | 1.00 V | 120 | 32.70 | 15.10 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT20_5745MHz) | | | | | | | | | | | | |
|--|-----------------|----------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|--|--|--|
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | | | |
| 1 | #5714.90 | 59.20 | PK | 74.00 | -14.80 | 1.00 H | 108 | 56.60 | 2.60 | | | |
| 2 | #5714.90 | 46.70 | AV | 54.00 | -7.30 | 1.00 H | 108 | 44.10 | 2.60 | | | |
| 3 | #5722.90 | 67.70 | PK | 78.20 | -10.50 | 1.00 H | 108 | 65.10 | 2.60 | | | |
| 4 | #5725.00 | 52.90 | PK | 78.20 | -25.30 | 1.00 H | 108 | 50.30 | 2.60 | | | |
| 5 | *5745.00 | 99.80 | PK | / | / | 1.00 H | 108 | 58.80 | 41.00 | | | |
| 6 | *5745.00 | 88.30 | AV | / | / | 1.00 H | 108 | 47.30 | 41.00 | | | |
| 7 | 11490.00 | 61.40 | PK | 74.00 | -12.60 | 1.02 H | 48 | 45.50 | 15.90 | | | |
| 8 | 11490.00 | 48.20 | AV | 54.00 | -5.80 | 1.02 H | 48 | 32.30 | 15.90 | | | |
| A | ANTENNA P | OLARIT | Y & T | EST DISTA | NCE: VE | RTICALAT | 3 M (802.11a | c-VHT20_574 | 5MHz) | | | |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | | | |
| 1 | #5714.90 | 59.30 | PK | 74.00 | -14.70 | 1.00 H | 278 | 56.70 | 2.60 | | | |
| 2 | #5714.90 | 47.70 | AV | 54.00 | -6.30 | 1.00 H | 278 | 45.10 | 2.60 | | | |
| 3 | #5722.90 | 64.60 | PK | 78.20 | -13.60 | 1.00 H | 278 | 62.00 | 2.60 | | | |
| 4 | #5725.00 | 53.90 | PK | 78.20 | -24.30 | 1.00 H | 278 | 51.30 | 2.60 | | | |
| 5 | *5745.00 | 98.00 | PK | / | / | 1.00 H | 278 | 57.00 | 41.00 | | | |
| 6 | *5745.00 | 87.70 | AV | / | / | 1.00 H | 278 | 46.70 | 41.00 | | | |
| 7 | 11490.00 | 61.10 | PK | 74.00 | -12.90 | 1.02 H | 24 | 45.20 | 15.90 | | | |
| 8 | 11490.00 | 48.10 | AV | 54.00 | -5.90 | 1.02 H | 24 | 32.20 | 15.90 | | | |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| AN | NTENNA PO | LARITY | & TE | ST DISTAN | CE: HOR | IZONTALA | ГЗМ (802.1 | lac-VHT20_57 | (85MHz) |
|-----|-----------------|----------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5785.00 | 99.10 | PK | / | / | 1.02 H | 70 | 58.00 | 41.10 |
| 2 | *5785.00 | 88.80 | AV | / | / | 1.02 H | 70 | 47.70 | 41.10 |
| 3 | 11570.00 | 61.90 | PK | 74.00 | -12.10 | 1.02 H | 94 | 46.30 | 15.60 |
| 4 | 11570.00 | 47.60 | AV | 54.00 | -6.40 | 1.02 H | 94 | 32.00 | 15.60 |
| A | ANTENNA P | OLARIT | Y & T | EST DISTA | NCE: VE | RTICALAT | 3 M(802.11a | c-VHT20_5785 | 5MHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5785.00 | 98.60 | PK | / | / | 1.02 V | 280 | 57.50 | 41.10 |
| 2 | *5785.00 | 87.70 | AV | / | / | 1.02 V | 280 | 46.60 | 41.10 |
| 3 | 11570.00 | 60.90 | PK | 74.00 | -13.10 | 1.02 V | 34 | 45.30 | 15.60 |
| 4 | 11570.00 | 47.80 | AV | 54.00 | -6.20 | 1.02 V | 34 | 32.20 | 15.60 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| AN | NTENNA PO | LARITY | & TE | ST DISTAN | CE: HOR | IZONTALA | ГЗМ (802.1 | 1ac-VHT20_58 | 325MHz) |
|-----|-----------------|----------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5825.00 | 99.50 | PK | / | / | 1.05 H | 72 | 58.40 | 41.10 |
| 2 | *5825.00 | 87.60 | AV | / | / | 1.05 H | 72 | 46.50 | 41.10 |
| 3 | #5850.00 | 50.30 | PK | 78.2 | -27.90 | 1.05 H | 72 | 47.30 | 3.00 |
| 4 | #5852.10 | 57.00 | PK | 78.2 | -21.20 | 1.05 H | 72 | 54.00 | 3.00 |
| 5 | #5860.10 | 58.40 | PK | 74.00 | -15.60 | 1.05 H | 72 | 55.40 | 3.00 |
| 6 | #5860.10 | 46.80 | AV | 54.00 | -7.20 | 1.05 H | 72 | 43.80 | 3.00 |
| 7 | 11650.00 | 63.10 | PK | 74.00 | -10.90 | 1.00 H | 65 | 47.50 | 15.60 |
| 8 | 11650.00 | 48.00 | AV | 54.00 | -6.00 | 1.00 H | 65 | 32.40 | 15.60 |
| A | ANTENNA P | OLARIT | Y & T | EST DISTA | NCE: VE | RTICALAT | 3 M(802.11a | c-VHT20_582 | 5MHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5825.00 | 98.80 | PK | / | / | 1.20 V | 280 | 57.70 | 41.10 |
| 2 | *5825.00 | 88.40 | AV | / | / | 1.20 V | 280 | 47.30 | 41.10 |
| 3 | #5850.00 | 51.20 | PK | 78.20 | -27.00 | 1.20 V | 280 | 48.20 | 3.00 |
| 4 | #5852.10 | 58.20 | PK | 78.20 | -20.00 | 1.20 V | 280 | 55.20 | 3.00 |
| 5 | #5860.10 | 58.50 | PK | 74.00 | -15.50 | 1.20 V | 280 | 55.50 | 3.00 |
| 6 | #5860.10 | 45.10 | AV | 54.00 | -8.90 | 1.20 V | 280 | 42.10 | 3.00 |
| 7 | 11650.00 | 60.10 | PK | 74.00 | -13.90 | 1.02 V | 332 | 44.50 | 15.60 |
| | | | | | | | | | 1 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| Al | ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT40_5190MHz) | | | | | | | | | | | | |
|-----|--|----------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|--|--|--|--|
| No. | Frequency (MHz) | Emss Lev (dBuV | rel | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | | | | |
| 1 | 5150.00 | 59.50 | PK | 74.00 | -14.50 | 1.00 H | 341 | 57.50 | 2.00 | | | | |
| 2 | 5150.00 | 44.10 | AV | 54.00 | -9.90 | 1.00 H | 341 | 42.10 | 2.00 | | | | |
| 3 | *5190.00 | 97.60 | PK | / | / | 1.00 H | 341 | 57.60 | 40.00 | | | | |
| 4 | *5190.00 | 88.00 | AV | / | / | 1.00 H | 341 | 48.00 | 40.00 | | | | |
| 5 | #10380.00 | 61.20 | PK | 74.00 | -12.80 | 1.02 H | 66 | 46.20 | 15.00 | | | | |
| 6 | #10380.00 | 47.50 | AV | 54.00 | -6.50 | 1.02 H | 66 | 32.50 | 15.00 | | | | |
| A | ANTENNA P | OLARIT | Y & T | EST DISTA | NCE: VE | RTICALAT | 3 M (802.11a | c-VHT40_519 | OMHz) | | | | |
| No. | Frequency (MHz) | Emss Lev (dBuV | rel | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | | | | |
| 1 | 5150.00 | 58.70 | PK | 74.00 | -15.30 | 1.00 V | 275 | 56.70 | 2.00 | | | | |
| 2 | 5150.00 | 43.80 | AV | 54.00 | -10.20 | 1.00 V | 275 | 41.80 | 2.00 | | | | |
| 3 | *5190.00 | 98.70 | PK | / | / | 1.00 V | 275 | 58.70 | 40.00 | | | | |
| 4 | *5190.00 | 87.30 | AV | / | / | 1.00 V | 275 | 47.30 | 40.00 | | | | |
| 5 | #10380.00 | 60.20 | PK | 74.00 | -13.80 | 1.08 V | 35 | 45.20 | 15.00 | | | | |
| 6 | #10380.00 | 47.30 | AV | 54.00 | -6.70 | 1.08 V | 35 | 32.30 | 15.00 | | | | |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| Al | NTENNA PO | LARITY | & TE | ST DISTAN | CE: HOR | IZONTALA | ГЗМ (802.1 | 1ac-VHT40_52 | 30MHz) |
|-----|-----------------|----------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5230.00 | 97.40 | PK | / | / | 1.00 H | 337 | 57.30 | 40.10 |
| 2 | *5230.00 | 86.60 | AV | / | / | 1.00 H | 337 | 46.50 | 40.10 |
| 3 | 5350.00 | 57.60 | PK | 74.00 | -16.40 | 1.00 H | 337 | 55.60 | 2.00 |
| 4 | 5350.00 | 45.50 | AV | 54.00 | -8.50 | 1.00 H | 337 | 43.50 | 2.00 |
| 5 | #10460.00 | 61.50 | PK | 74.00 | -12.50 | 1.02 H | 84 | 46.50 | 15.00 |
| 6 | #10460.00 | 48.20 | AV | 54.00 | -5.80 | 1.02 H | 84 | 33.20 | 15.00 |
| A | ANTENNA P | OLARIT | Y & T | EST DISTA | NCE: VE | RTICALAT | 3 M (802.11a | c-VHT40_523 | OMHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | rel | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5230.00 | 99.80 | PK | / | / | 1.00 V | 275 | 59.70 | 40.10 |
| 2 | *5230.00 | 87.30 | AV | / | / | 1.00 V | 275 | 47.20 | 40.10 |
| 3 | 5350.00 | 56.30 | PK | 74.00 | -17.70 | 1.00 V | 275 | 54.30 | 2.00 |
| 4 | 5350.00 | 44.30 | AV | 54.00 | -9.70 | 1.00 V | 275 | 42.30 | 2.00 |
| 5 | #10460.00 | 60.20 | PK | 74.00 | -13.80 | 1.08 V | 35 | 45.20 | 15.00 |
| 6 | #10460.00 | 46.20 | AV | 54.00 | -7.80 | 1.08 V | 35 | 31.20 | 15.00 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| AN | NTENNA PO | LARITY | & TE | ST DISTAN | CE: HOR | IZONTALA | ГЗМ (802.1 | lac-VHT40_57 | /55MHz) |
|-----|-----------------|----------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | #5714.90 | 60.30 | PK | 74.00 | -13.70 | 1.05 H | 113 | 57.70 | 2.60 |
| 2 | #5714.90 | 46.00 | AV | 54.00 | -8.00 | 1.05 H | 113 | 43.40 | 2.60 |
| 3 | #5722.90 | 64.30 | PK | 78.2 | -13.90 | 1.05 H | 113 | 61.70 | 2.60 |
| 4 | #5725.90 | 52.50 | PK | 78.2 | -25.70 | 1.05 H | 113 | 49.90 | 2.60 |
| 5 | *5755.00 | 99.70 | PK | / | / | 1.05 H | 113 | 58.70 | 41.00 |
| 6 | *5755.00 | 88.40 | AV | / | / | 1.05 H | 113 | 47.40 | 41.00 |
| 7 | 11510.00 | 61.90 | PK | 74.00 | -12.10 | 1.00 H | 66 | 46.20 | 15.70 |
| 8 | 11510.00 | 48.10 | AV | 54.00 | -5.90 | 1.00 H | 66 | 32.40 | 15.70 |
| A | ANTENNA P | OLARIT | Y & T | EST DISTA | NCE: VE | RTICALAT | 3 M(802.11a | c-VHT40_575 | 5MHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | #5714.90 | 59.70 | PK | 74.00 | -14.30 | 1.20 V | 280 | 57.10 | 2.60 |
| 2 | #5714.90 | 46.50 | AV | 54.00 | -7.50 | 1.20 V | 280 | 43.90 | 2.60 |
| 3 | #5722.90 | 63.50 | PK | 78.2 | -14.70 | 1.20 V | 280 | 60.90 | 2.60 |
| 4 | #5725.90 | 51.30 | PK | 78.2 | -26.90 | 1.20 V | 280 | 48.70 | 2.60 |
| 5 | *5755.00 | 100.20 | PK | / | / | 1.20 V | 280 | 59.20 | 41.00 |
| 6 | *5755.00 | 89.50 | AV | / | / | 1.20 V | 280 | 48.50 | 41.00 |
| 7 | 11510.00 | 62.20 | PK | 74.00 | -11.80 | 1.02 V | 36 | 46.50 | 15.70 |
| | | 48.30 | AV | 54.00 | -5.70 | 1.02 V | 36 | 32.60 | 15.70 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| Aľ | NTENNA PO | LARITY | & TE | ST DISTAN | CE: HOR | IZONTALA | ГЗМ (802.1 | 1ac-VHT40_57 | 95MHz) |
|-----|-----------------|----------------------|-------|-------------------|----------------|--------------------------|----------------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5795.00 | 92.10 | PK | / | / | 1.00 H | 114 | 51.00 | 41.10 |
| 2 | *5795.00 | 81.70 | AV | / | / | 1.00 H | 114 | 40.60 | 41.10 |
| 3 | #5850.00 | 47.60 | PK | 78.2 | -30.60 | 1.00 H | 114 | 44.60 | 3.00 |
| 4 | #5852.10 | 59.00 | PK | 78.2 | -19.20 | 1.00 H | 114 | 56.00 | 3.00 |
| 5 | #5860.10 | 59.10 | PK | 74.00 | -14.90 | 1.00 H | 114 | 56.10 | 3.00 |
| 6 | #5860.10 | 45.30 | AV | 54.00 | -8.70 | 1.00 H | 114 | 42.30 | 3.00 |
| 7 | 11590.00 | 62.20 | PK | 74.00 | -11.80 | 1.41 H | 98 | 46.60 | 15.60 |
| 8 | 11590.00 | 48.10 | AV | 54.00 | -5.90 | 1.41 H | 98 | 32.50 | 15.60 |
| I | ANTENNA P | OLARIT | Y & T | EST DISTA | NCE: VE | RTICALAT | 3 M (802.11a | c-VHT40_579: | 5MHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5795.00 | 91.80 | PK | / | / | 1.20 V | 280 | 50.70 | 41.10 |
| 2 | *5795.00 | 80.90 | AV | / | / | 1.20 V | 280 | 39.80 | 41.10 |
| 3 | #5850.00 | 45.00 | PK | 78.2 | -33.20 | 1.20 V | 280 | 42.00 | 3.00 |
| 4 | #5852.10 | 59.10 | PK | 78.2 | -19.10 | 1.20 V | 280 | 56.10 | 3.00 |
| 5 | #5860.10 | 58.90 | PK | 74.00 | -15.10 | 1.20 V | 280 | 55.90 | 3.00 |
| 6 | #5860.10 | 45.50 | AV | 54.00 | -8.50 | 1.20 V | 280 | 42.50 | 3.00 |
| 7 | 11590.00 | 61.20 | PK | 74.00 | -12.8 | 1.02 V | 154 | 45.60 | 15.60 |
| 8 | 11590.00 | 46.90 | AV | 54.00 | -7.10 | 1.02 V | 154 | 31.30 | 15.60 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| Al | ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT80_5210MHz) | | | | | | | | | | | | |
|-----|--|----------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|--|--|--|--|
| No. | Frequency (MHz) | Emss Lev (dBuV | rel | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | | | | |
| 1 | 5150.00 | 59.60 | PK | 74.00 | -14.40 | 1.00 H | 330 | 57.60 | 2.00 | | | | |
| 2 | 5150.00 | 44.80 | AV | 54.00 | -9.20 | 1.00 H | 330 | 42.80 | 2.00 | | | | |
| 3 | *5210.00 | 96.80 | PK | / | / | 1.00 H | 330 | 56.80 | 40.00 | | | | |
| 4 | *5210.00 | 87.20 | AV | / | / | 1.00 H | 330 | 47.20 | 40.00 | | | | |
| 5 | #10420.00 | 61.10 | PK | 74.00 | -12.90 | 1.02 H | 80 | 46.10 | 15.00 | | | | |
| 6 | #10420.00 | 47.10 | AV | 54.00 | -6.90 | 1.02 H | 80 | 32.10 | 15.00 | | | | |
| I | ANTENNA P | OLARIT | Y & T | EST DISTA | NCE: VE | RTICALAT | 3 M (802.11a | c-VHT80_5210 | OMHz) | | | | |
| No. | Frequency (MHz) | Emss Lev (dBuV | rel | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) | | | | |
| 1 | 5150.00 | 60.40 | PK | 74.00 | -13.60 | 1.00 V | 275 | 58.40 | 2.00 | | | | |
| 2 | 5150.00 | 45.20 | AV | 54.00 | -8.80 | 1.00 V | 275 | 43.20 | 2.00 | | | | |
| 3 | *5210.00 | 96.70 | PK | / | / | 1.00 V | 275 | 56.70 | 40.00 | | | | |
| 4 | *5210.00 | 85.50 | AV | / | / | 1.00 V | 275 | 45.50 | 40.00 | | | | |
| 5 | #10420.00 | 61.60 | PK | 74.00 | -13.40 | 1.08 V | 35 | 45.60 | 15.00 | | | | |
| 6 | #10420.00 | 48.80 | AV | 54.00 | -7.20 | 1.08 V | 35 | 31.80 | 15.00 | | | | |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



| Aľ | NTENNA PO | LARITY | & TE | ST DISTAN | CE: HOR | IZONTALA | ГЗМ (802.1 | lac-VHT80_57 | 75MHz) |
|-----|-----------------|----------------------|-------|-------------------|----------------|--------------------------|----------------------|--------------------------|--------------------------------|
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5775.00 | 92.50 | PK | / | / | 1.00 H | 114 | 51.40 | 41.10 |
| 2 | *5775.00 | 83.40 | AV | / | / | 1.00 H | 114 | 42.30 | 41.10 |
| 3 | #5850.00 | 50.50 | PK | 78.2 | -26.70 | 1.00 H | 114 | 47.50 | 3.00 |
| 4 | #5852.10 | 61.70 | PK | 78.2 | -16.50 | 1.00 H | 114 | 58.70 | 3.00 |
| 5 | #5860.10 | 59.50 | PK | 74.00 | -14.50 | 1.00 H | 114 | 56.50 | 3.00 |
| 6 | #5860.10 | 45.80 | AV | 54.00 | -8.20 | 1.00 H | 114 | 42.80 | 3.00 |
| 7 | 11550.00 | 61.80 | PK | 74.00 | -12.20 | 1.41 H | 98 | 46.20 | 15.60 |
| 8 | 11550.00 | 46.80 | AV | 54.00 | -7.20 | 1.41 H | 98 | 31.20 | 15.60 |
| A | ANTENNA P | OLARIT | Y & T | EST DISTA | NCE: VE | RTICALAT | 3 M(802.11a | c-VHT80_577 | 5MHz) |
| No. | Frequency (MHz) | Emss Lev (dBuV | el | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV/m) | Correction Factor (dB/m) |
| 1 | *5775.00 | 93.20 | PK | / | / | 1.00 H | 114 | 52.10 | 41.10 |
| 2 | *5775.00 | 84.20 | AV | / | / | 1.00 H | 114 | 43.10 | 41.10 |
| 3 | #5850.00 | 51.60 | PK | 78.2 | -26.60 | 1.00 H | 114 | 48.60 | 3.00 |
| 4 | #5852.10 | 59.40 | PK | 78.2 | -18.80 | 1.00 H | 114 | 56.40 | 3.00 |
| 5 | #5860.10 | 59.10 | PK | 74.00 | -14.90 | 1.00 H | 114 | 56.10 | 3.00 |
| 6 | #5860.10 | 45.30 | AV | 54.00 | -8.70 | 1.00 H | 114 | 42.30 | 3.00 |
| 7 | 11550.00 | 62.20 | PK | 74.00 | -11.80 | 1.41 H | 98 | 46.60 | 15.60 |
| 8 | 11550.00 | 47.60 | AV | 54.00 | -7.40 | 1.41 H | 98 | 32.00 | 15.60 |

- 1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission Level Limit value
- 5. " * ": Fundamental frequency.
- 6. " # ": The radiated frequency is out of the restricted band.



2.6. Conducted Emission

2.6.1. Limit of Conducted Emission

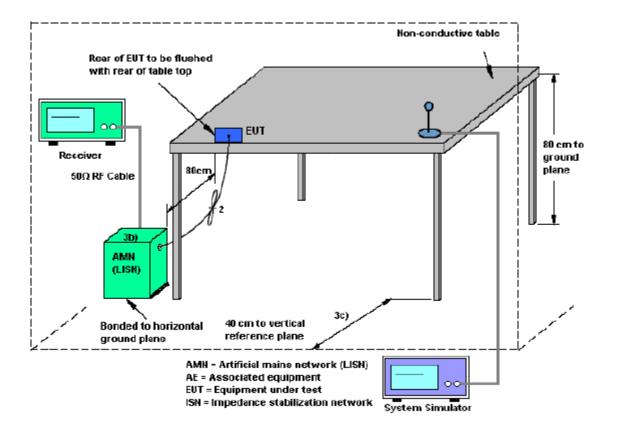
For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

| Eraguanay ranga (MHz) | Conducted Limit (dBµV) | | | | |
|-----------------------|------------------------|----------|--|--|--|
| Frequency range (MHz) | Quai-peak | Average | | | |
| 0.15 - 0.50 | 66 to 56 | 56 to 46 | | | |
| 0.50 - 5 | 56 | 46 | | | |
| 5 - 30 | 60 | 50 | | | |

2.6.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

2.6.3. Test Setup







2.6.4. Test Procedures

- 1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- 2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- 3. All the support units are connecting to the other LISN.
- 4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- 5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- 6. Both sides of AC line were checked for maximum conducted interference.
- 7. The frequency range from 150 kHz to 30 MHz was searched.
- 8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

2.6.5. Test Results of Conducted Emission

The EUT configuration of the emission tests is WLAN Link + USB Cable (Charging from Adapter).

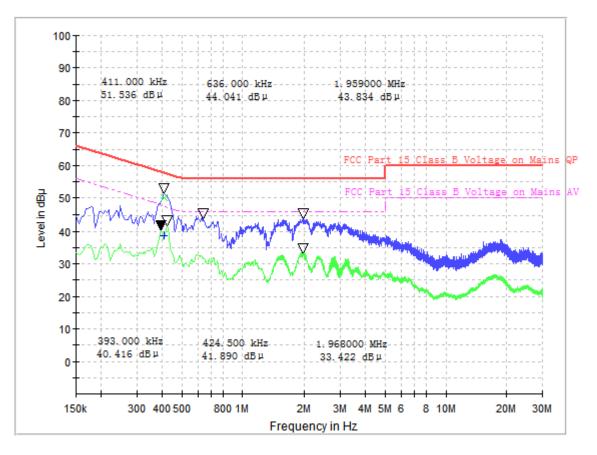
Test mode:

- (1) Adapter (model: RD1202000-C55-29MG) with EUT (model: 7279G) operating frequency: 2437MHz
- (2) Adapter (model: RD1202000-C55-29MG) with EUT (model: 7278G) operating frequency: 2437MHz
- (3) Adapter (model: RD1202000-C55-29MG) with EUT (model: 7272G) operating frequency: 2437MHz
- (4) Adapter (model: YJS024U-1202000U) with EUT (model: 7279G) operating frequency: 2437MHz
- (5) Adapter (model: YJS024U-1202000U) with EUT (model: 7278G) operating frequency: 2437MHz
- (6) Adapter (model: YJS024U-1202000U) with EUT (model: 7272G) operating frequency: 2437MHz



Test Mode 1

FCC Part 15 Class B Voltage Test

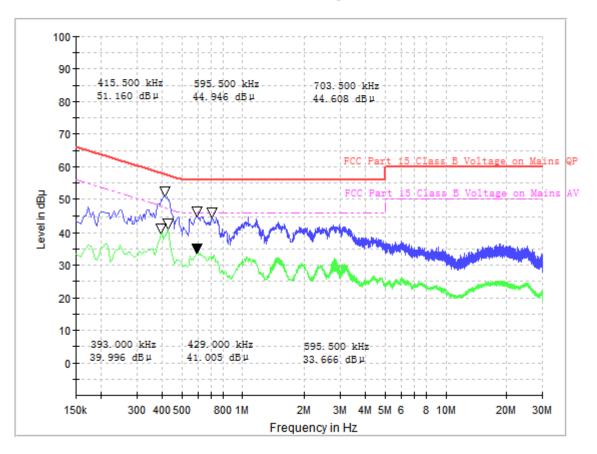


L Phase

| | Conducted Disturbance at Mains Terminals | | | | | | | | | | |
|-----------------|--|--------------------------------|--------------------|---------------|--------------------------------|--|--|--|--|--|--|
| L Test Data | | | | | | | | | | | |
| | QP AV | | | | | | | | | | |
| Frequency (MHz) | Limits (dBµV) | Measurement Value (dBμV) | Frequency (MHz) | Limits (dBµV) | Measurement Value (dBμV) | | | | | | |
| 0.411 | 57.6 | 51.536 | 0.393 | 48.0 | 40.416 | | | | | | |
| 0.636 | 56.0 | 44.041 | 0.425 | 47.3 | 41.890 | | | | | | |
| 1.959 | 56.0 | 43.834 | 1.968 | 46.0 | 33.422 | | | | | | |







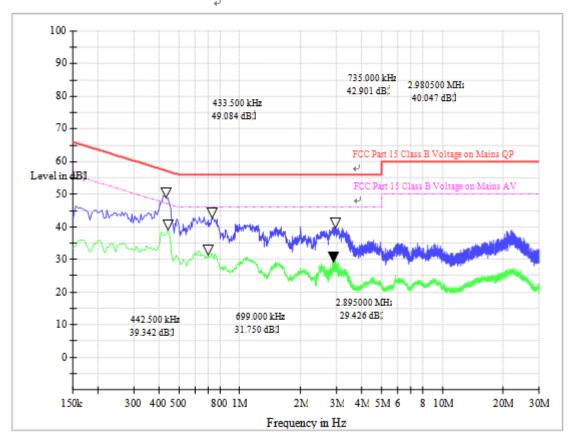
N Phase

| | Conducted Disturbance at Mains Terminals | | | | | | | | | | | |
|-----------------|--|--------------------------|-----------------|---------------|--------------------------------|--|--|--|--|--|--|--|
| | N Test Data | | | | | | | | | | | |
| | QP AV | | | | | | | | | | | |
| Frequency (MHz) | Limits (dBµV) | Measurement Value (dBµV) | Frequency (MHz) | Limits (dBµV) | Measurement Value (dBμV) | | | | | | | |
| 0.416 | 57.5 | 51.160 | 0.393 | 48.0 | 39.996 | | | | | | | |
| 0.596 | 56.0 | 44.946 | 0.429 | 47.3 | 41.005 | | | | | | | |
| 0.704 | 56.0 | 44.608 | 0.596 | 46.0 | 33.666 | | | | | | | |



Test Mode 2

FCC Part 15 Class B Voltage Test

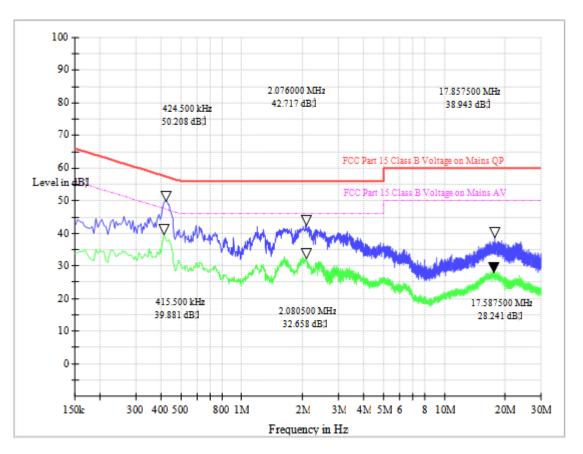


L Phase

| | Conducted Disturbance at Mains Terminals | | | | | | | | | | |
|-----------------|--|--------------------------------|--------------------|---------------|--------------------------------|--|--|--|--|--|--|
| L Test Data | | | | | | | | | | | |
| | QP AV | | | | | | | | | | |
| Frequency (MHz) | Limits (dBµV) | Measurement Value (dBμV) | Frequency (MHz) | Limits (dBµV) | Measurement Value (dBμV) | | | | | | |
| 0.434 | 57.2 | 49.084 | 0.443 | 47.0 | 39.342 | | | | | | |
| 0.735 | 56.0 | 42.901 | 0.699 | 46.0 | 31.750 | | | | | | |
| 2.981 | 56.0 | 40.047 | 2.895 | 46.0 | 29.426 | | | | | | |





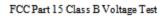


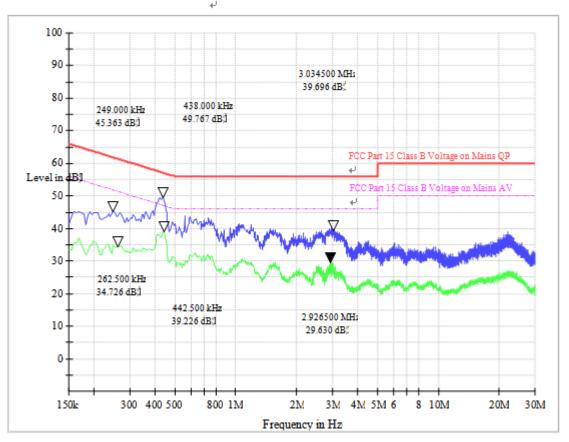
N Phase

| | Conducted Disturbance at Mains Terminals | | | | | | | | | | |
|-----------------|--|--------------------------------|--------------------|---------------|--------------------------------|--|--|--|--|--|--|
| N Test Data | | | | | | | | | | | |
| | QP AV | | | | | | | | | | |
| Frequency (MHz) | Limits (dBµV) | Measurement Value (dBμV) | Frequency (MHz) | Limits (dBµV) | Measurement Value (dBμV) | | | | | | |
| 0.425 | 57.3 | 50.208 | 0.416 | 47.5 | 39.881 | | | | | | |
| 2.076 | 56.0 | 42.717 | 2.081 | 46.0 | 32.658 | | | | | | |
| 17.858 | 60.0 | 38.943 | 17.588 | 50.0 | 28.241 | | | | | | |



Test Mode 3



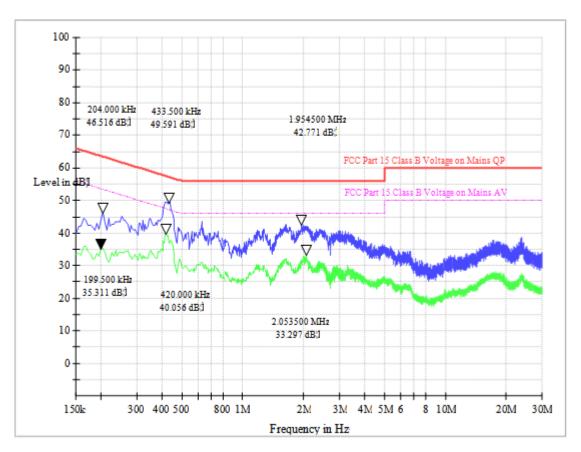


L Phase

| | Conducted Disturbance at Mains Terminals | | | | | | |
|--------------------|--|--------|-------|---------------|--------------------------------|--|--|
| L Test Data | | | | | | | |
| | QP AV | | | | | | |
| Frequency (MHz) | - Value | | | Limits (dBµV) | Measurement Value (dBμV) | | |
| 0.249 | 61.8 | 45.363 | 0.263 | 51.3 | 34.726 | | |
| 0.438 | 57.1 | 49.767 | 0.443 | 47.0 | 39.226 | | |
| 3.035 | 56.0 | 39.696 | 2.927 | 46.0 | 29.630 | | |







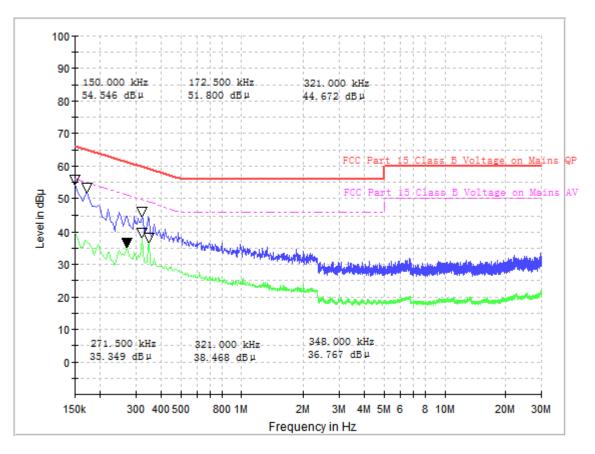
N Phase

| Conducted Disturbance at Mains Terminals | | | | | | | | |
|--|-------------|--------|-------|---------------|--------------------------------|--|--|--|
| | N Test Data | | | | | | | |
| | QP AV | | | | | | | |
| Frequency (MHz) | Value | | | Limits (dBµV) | Measurement Value (dBμV) | | | |
| 0.204 | 63.4 | 46.516 | 0.200 | 53.6 | 35.311 | | | |
| 0.434 | 57.2 | 49.591 | 0.420 | 47.4 | 40.056 | | | |
| 1.955 | 56.0 | 42.771 | 2.054 | 46.0 | 33.297 | | | |



Test Mode 4

FCC Part 15 Class B Voltage Test

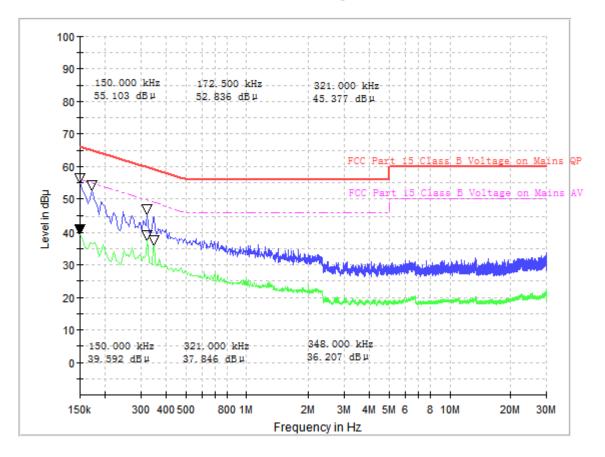


L Phase

| Conducted Disturbance at Mains Terminals | | | | | | | | |
|--|------------------|--------------------|---------------|--------------------------------|--------|--|--|--|
| | L Test Data | | | | | | | |
| | QP AV | | | | | | | |
| Frequency (MHz) | Limits (dBµV) | Frequency (MHz) | Limits (dBµV) | Measurement Value (dBμV) | | | | |
| 0.150 | 66.0 | 54.546 | 0.272 | 51.1 | 35.349 | | | |
| 0.173 | 64.8 | 51.800 | 0.321 | 49.7 | 38.468 | | | |
| 0.321 | 59.7 | 44.672 | 0.348 | 49.0 | 36.767 | | | |





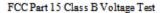


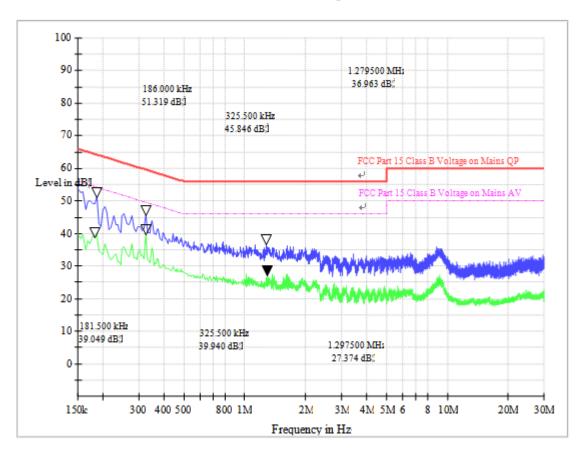
N Phase

| Conducted Disturbance at Mains Terminals | | | | | | | |
|--|-------|--------|-----------------|------------------|--------------------------------|--|--|
| N Test Data | | | | | | | |
| | QP AV | | | | | | |
| $\begin{array}{c c} Frequency & Limits \\ (MHz) & (dB\mu V) & Value \\ \hline & (dB\mu V) & (dB\mu V) \end{array}$ | | | Frequency (MHz) | Limits (dBµV) | Measurement Value (dBμV) | | |
| 0.150 | 66.0 | 55.103 | 0.150 | 56.0 | 39.592 | | |
| 0.173 | 64.8 | 52.836 | 0.321 | 49.7 | 37.846 | | |
| 0.321 | 59.7 | 45.377 | 0.348 | 49.0 | 36.207 | | |



Test Mode 5

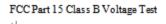


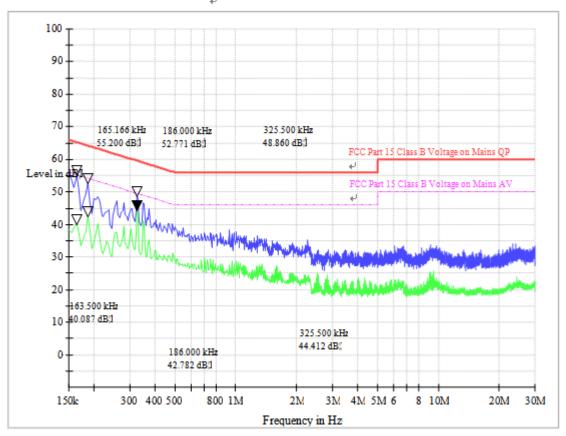


L Phase

| Conducted Disturbance at Mains Terminals | | | | | | | | |
|--|------------------|--------------------|---------------|--------------------------------|--------|--|--|--|
| | L Test Data | | | | | | | |
| | QP AV | | | | | | | |
| Frequency (MHz) | Limits (dBµV) | Frequency (MHz) | Limits (dBµV) | Measurement Value (dBμV) | | | | |
| 0.186 | 64.2 | 51.319 | 0.182 | 54.4 | 39.049 | | | |
| 0.326 | 59.6 | 45.846 | 0.326 | 49.6 | 39.940 | | | |
| 1.280 | 56.0 | 36.963 | 1.298 | 46.0 | 27.374 | | | |





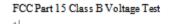


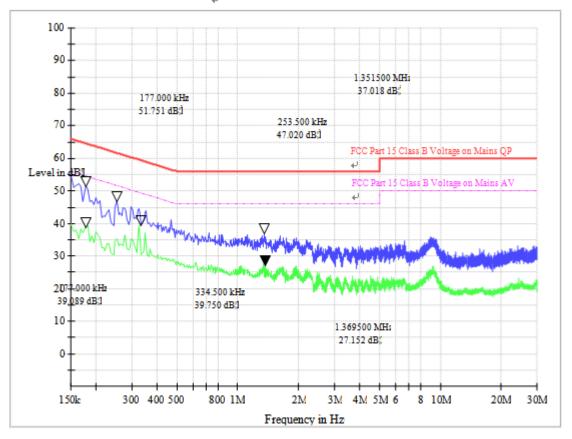
N Phase

| Conducted Disturbance at Mains Terminals | | | | | | | | |
|--|-------------|--------|-------|---------------|--------------------------------|--|--|--|
| | N Test Data | | | | | | | |
| | QP AV | | | | | | | |
| Frequency (MHz) | - Value | | | Limits (dBµV) | Measurement Value (dBμV) | | | |
| 0.165 | 65.2 | 55.200 | 0.164 | 55.3 | 40.087 | | | |
| 0.186 | 64.2 | 52.771 | 0.186 | 54.2 | 42.782 | | | |
| 0.326 | 59.6 | 48.860 | 0.326 | 46.0 | 44.412 | | | |



Test Mode 6



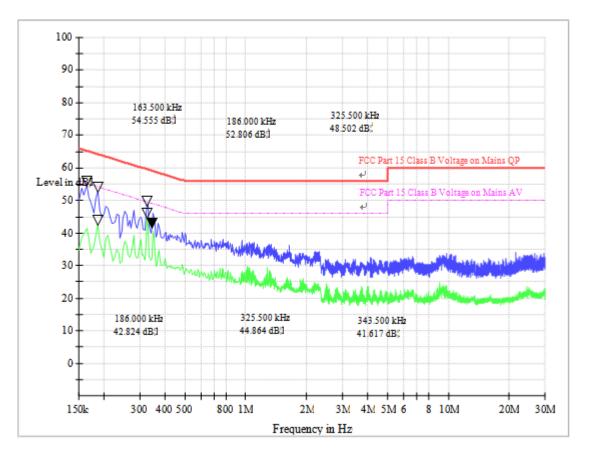


L Phase

| Conducted Disturbance at Mains Terminals | | | | | | | |
|---|-------|--------|--------------------|---------------|--------------------------------|--|--|
| L Test Data | | | | | | | |
| | QP AV | | | | | | |
| $ \begin{array}{c c} Frequency \\ (MHz) \end{array} \begin{array}{c} Limits \\ (dB\mu V) \end{array} \begin{array}{c} Measurement \\ Value \\ (dB\mu V) \end{array} $ | | | Frequency (MHz) | Limits (dBµV) | Measurement Value (dBµV) | | |
| 0.177 | 64.6 | 51.751 | 0.177 | 54.6 | 39.089 | | |
| 0.254 | 61.6 | 47.020 | 0.335 | 49.3 | 39.750 | | |
| 1.352 | 56.0 | 37.018 | 1.370 | 46.0 | 27.152 | | |







N Phase

| | Conducted Disturbance at Mains Terminals | | | | | | | |
|-----------------|--|--------|-------|---------------|--------------------------------|--|--|--|
| | N Test Data | | | | | | | |
| | QP AV | | | | | | | |
| Frequency (MHz) | Value | | | Limits (dBµV) | Measurement Value (dBμV) | | | |
| 0.164 | 65.3 | 54.555 | 0.186 | 54.2 | 42.824 | | | |
| 0.186 | 64.2 | 52.806 | 0.326 | 49.6 | 44.864 | | | |
| 0.326 | 59.6 | 48.502 | 0.344 | 49.1 | 41.617 | | | |





3. List of measuring equipment

| Description | Manufacturer | Model | Serial No. | Test Date | Due Date | Remark |
|--|-------------------|-----------------------------|---------------|------------|------------|-----------|
| EMI Test Receiver | R&S | ESIB26 | A0304218 | 2015.06.02 | 2016.06.01 | Radiation |
| Full-Anechoic Chamber | Albatross | 12.8m*6.8m* 6.4m | A0412372 | 2015.01.05 | 2016.01.04 | Radiation |
| Loop Antenna | Schwarz beck | HFH2-Z2 | 100047 | 2015.06.02 | 2016.06.01 | Radiation |
| Bilog Antenna | Schwarzbeck | VULB 9163 | 9163-274 | 2015.06.02 | 2016.06.01 | Radiation |
| Double ridge horn antenna | R&S | HF906 | 100150 | 2015.06.02 | 2016.06.01 | Radiation |
| Ultra-wideban d antenna | R&S | HL562 | 100089 | 2015.06.02 | 2016.06.01 | Radiation |
| Test Antenna – Horn (18-26.5GHz) | ETS | 3160-09 | A0902607 | 2015.06.02 | 2016.06.01 | Radiation |
| Amplifier 20M~3GHz | R&S | PAP-0203H | 22018 | 2015.06.02 | 2016.06.01 | Radiation |
| Ampilier 1G~18GHz | R&S | MITEQ AFS42-00101 800 | 25-S-42 | 2015.06.02 | 2016.06.01 | Radiation |
| Ampilier 18G~40GHz | R&S | JS42-180026 00-28-5A | 12111.0980.00 | 2015.06.02 | 2016.06.01 | Radiation |
| Spectrum Analyzer | R&S | FSP40 | 1164.4391.40 | 2015.07.07 | 2016.07.06 | Conducted |
| Power Meter | R&S | NRVS | 1020.1809.02 | 2015.06.02 | 2016.06.01 | Conducted |
| Power Sensor | R&S | NRV-Z4 | 823.3618.03 | 2015.06.02 | 2016.06.01 | Conducted |
| LISN | ROHDE&SC HWARZ | ESH2-Z5 | A0304221 | 2015.06.02 | 2016.06.01 | Conducted |
| Test Receiver | R&S | ESCS30 | A0304260 | 2015.06.02 | 2016.06.01 | Conducted |
| Cable | SUNHNER | SUCOFLEX 100 | / | 2015.06.02 | 2016.06.01 | Radiation |
| Cable | SUNHNER | SUCOFLEX 104 | / | 2015.06.02 | 2016.06.01 | Radiation |

** END OF REPORT **