# FCC / IC Radio Test Report

| | | |
|---|---|---|
| **Applicant**<br>**Manufacturer** | : | **Qualcomm Atheros, Inc.**<br>**1700 Technology Drive, San Jose, CA95110** |
| **Equipment** | : | **Dual Band 2x2 MIMO 802.11ac/abgn WLAN plus BT** |
| **Brand Name** | : | **Qualcomm Atheros** |
| **Model No.** | : | **QCWB342** |
| **FCC ID** | : | **PPD-QCWB342** |
| **IC ID** | : | **4104A-QCWB342** |
| **Standard** | : | **47 CFR FCC Part 15.247**<br>**RSS-210 Issue 8** |
| **Operating Band** | : | **5725 MHz – 5850 MHz** |

**The product sample received on Feb. 20, 2013 and completely tested on May 18, 2013. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2009 and shown compliance with the applicable technical standards.**

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

**Reviewed by:**

Wayne Hsu

Testing Laboratory
1190

# Table of Contents

# Summary of Test Result

| Conformance Test Specifications | | | | | |
|---|---|---|---|---|---|
| **Report Clause** | **Ref. Std. Clause** | **Description** | **Typical Data** | **Limit** | **Result** |
| 1.1.3 | 15.203 | Antenna Requirement | Antenna connector mechanism complied | According to FCC 15.203 | Complied |
| 3.1 | 15.247(a) / RSS-210 A8.2 | 6dB Bandwidth | 11a : 16.54 MHz<br>HT20: 17.76 MHz<br>HT40: 35.68 MHz<br>VHT20: 17.70 MHz<br>VHT40: 36.28 MHz<br>VHT80: 69.04 MHz | ≥500kHz | Complied |
| | | 99% Bandwidth | 11a : 17.18 MHz<br>HT20: 18.05 MHz<br>HT40: 37.02 MHz<br>VHT20: 18.30 MHz<br>VHT40: 36.98 MHz<br>VHT80: 76.04 MHz | | |
| 3.2 | 15.247(b) / RSS-210 A8.4 | RF Output Power (Maximum Peak Conducted Output Power) | 11a : 23.25 MHz<br>HT20: 22.18 dBm<br>HT40: 21.19 dBm<br>VHT20: 22.16 dBm<br>VHT40: 21.27 dBm<br>VHT80: 20.22 dBm | ≦30 dBm | Complied |
| 3.3 | 15.247(d) / RSS-210 A8.2 | Power Spectral Density | 11a : -10.40 MHz<br>HT20: -8.98 dBm/100kHz<br>HT40: -12.52 dBm/100kHz<br>VHT20: -9.14 dBm/100kHz<br>VHT40: -12.02 dBm/100kHz<br>VHT80: -18.04 dBm/100kHz | ≦8 dBm/3kHz | Complied |
| 3.4 | 15.247(c) / RSS-210 A8.5 | Emission in Non-Restricted Frequency Bands | Non-Restricted | Non-Restricted Bands: > 20 dBc | Complied |
| 3.5 | 15.247(c) / RSS-210 A8.5 | Emission in Restricted Frequency Bands | Restricted Bands<br>10442.000 MHz<br>-32.27 dBm - PK<br>-42.79 dBm - AV | Restricted Bands: According to FCC 15.209 / RSS-Gen 6.1 | Complied |
| 3.6 | 15.207 / RSS-Gen 7.2.4 | AC Power-line Conducted Emissions | 17.110 MHz<br>36.91 dBuV - AV<br>42.70 dBuV - QP | According to FCC 15.207 / RSS-Gen 7.2.4 | Complied |

# Revision History

| Report No. | Version | Description | Issued Date |
|---|---|---|---|
| FR322814AI | Rev. 02 | Initial issue of report | Jul. 15, 2013 |
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# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information (WLAN)

| RF General Information | | | | | | |
|---|---|---|---|---|---|---|
| **Frequency Range (MHz)** | **IEEE Std. 802.11** | **Ch. Freq. (MHz)** | **Channel Number** | **Transmit Chains ($N_{TX}$)** | **RF Output Power (dBm)** | **Co-location** |
| 5725~5850 | a | 5745,5765, 5785, 5805, 5825 | 5 | 2 | 23.25 | N/A |
| | n(HT20) | 5745,5765, 5785, 5805, 5825 | 5 | 2 | 22.18 | N/A |
| | n(HT40) | 5755, 5795 | 2 | 2 | 21.19 | N/A |
| | ac(VHT20) | 5745,5765, 5785, 5805, 5825 | 5 | 2 | 22.16 | N/A |
| | ac(VHT40) | 5755, 5795 | 2 | 2 | 21.27 | N/A |
| | ac(VHT80) | 5775 | 1 | 2 | 20.22 | N/A |
| Note 1: RF output power specifies these are Maximum Peak Conducted Output Power.<br>Note 2: 802.11a/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.<br>Note 3: 802.11ac uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.<br>Note 4: Co-location, Co-location is generally defined as simultaneously transmitting (co-transmitting) antennas within 20 cm of each other. (i.e., EUT has simultaneously co-transmitting that operating 2.4GHz and 5GHz.) | | | | | | |

### 1.1.2 WLAN/ BT coexistence mode

- 1X1 WLAN + BT: WLAN/BT concurrent at different antenna port and 18MHz separation between WLAN and BT fundamental.
- 2X2 WLAN + BT: 5GHz 802.11a/an (or 11ac) transmit concurrent with BT. - 2.4GHz WLAN + BT is timely shared coexistence.

### 1.1.3 Antenna Information

| Antenna Category | |
|---|---|
| ☒ | External antenna (dedicated antennas) |
| | ☒ RF connector provided |
| | ☒ Unique antenna connector. (e.g., MMCX, U.FL, IPX, and RP-SMA, RP-N type…) |
| | ☐ Standard antenna connector. (e.g., SMA, N, BNC, and TNC type…) |

| Antenna General Information | | | |
|---|---|---|---|
| **No.** | **Ant. Type** | **Frequency Band** | **Maximum Gain (dBi)** |
| 1 | PIFA | 5725~5850 MHz | 4.76 |

| Frequency Band | | | | | | |
|---|---|---|---|---|---|---|
| **Directional Gain (DG) Result** | | | | | | |
| **Transmit Chains No.** | 1 | | 2 | | | |
| **Maximum $G_{ANT}$ (dBi)** | 4.76 | | 4.76 | | | |
| **Modulation Mode** | **$N_{TX}$** | **$N_{SS}$ (Min.)** | **Array Gain (dB)** | **Power DG (dBi) Note[4]** | **Array Gain (dB)** | **PSD DG (dBi) Note[5]** |
| 11a,6-54Mbps | 2 | 1 | 0 | 4.76 | 3.01 | 7.77 |
| HT20,M0-15 | 2 | 1 | 0 | 4.76 | 3.01 | 7.77 |
| HT40,M0-M15 | 2 | 1 | 0 | 4.76 | 3.01 | 7.77 |
| VHT20,M10-18 | 2 | 1 | 0 | 4.76 | 3.01 | 7.77 |
| VHT40,M0-19 | 2 | 1 | 0 | 4.76 | 3.01 | 7.77 |
| VHT80,M0-19 | 2 | 1 | 0 | 4.76 | 3.01 | 7.77 |

Note 1: For all transmitter outputs with equal antenna gains, directional gain is to be computed as follows:
Any transmit signals are correlated, Directional Gain = $G_{ANT} + 10 \log(N_{TX})$
All transmit signals are completely uncorrelated, Directional Gain = $G_{ANT}$
Note 2: For all transmitter outputs with unequal antenna gains, directional gain is to be computed as follows:
Any transmit signals are correlated, Directional Gain =$10 \log[(10^{G1/20} + \ldots + 10^{GN/20})^2 / N_{TX}]$
All transmit signals are completely uncorrelated, Directional Gain = $10 \log[(10^{G1/10} + \ldots + 10^{GN/10})/N_{TX}]$
Note 3: For Spatial Multiplexing, Directional Gain (DG) = $G_{ANT} + 10 \log(N_{TX}/N_{SS})$,
where Nss = the number of independent spatial streams data.
Note 4: For CDD transmissions, directional gain is calculated as power measurements:
Directional Gain (DG) = $G_{ANT}$ + Array Gain, where Array Gain is as follows:
Array Gain = 0 dB (i.e., no array gain) for $N_{TX} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any $N_{TX}$;
Note 5: For power spectral density (PSD) measurements on all devices,
Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

### 1.1.4 Test Signal Duty Cycle

| Operated Mode for Worst Duty Cycle | |
|---|---|
| ☐ Operated normally mode for worst duty cycle | |
| ☒ Operated test mode for worst duty cycle | |
| **Test Signal Duty Cycle (x)** | **Power Duty Factor [dB] – (10 log 1/x)** |
| ☒ 98.56% - IEEE 802.11a | 2.06 |
| ☒ 98.45% - IEEE 802.11n (HT20) | 1.91 |
| ☒ 96.97% - IEEE 802.11n (HT40) | 0.96 |
| ☒ 98.26% - IEEE 802.11ac (VHT20) | 1.92 |
| ☒ 98.58% - IEEE 802.11ac (VHT40) | 0.97 |
| ☒ 94.12% - IEEE 802.11ac (VHT80) | 0.48 |

### 1.1.5 EUT Operational Condition

| | | | |
|---|---|---|---|
| **Supply Voltage** | ☐ AC mains | ☒ DC | |
| **Type of DC Source** | ☐ Internal DC supply | ☒ Host | ☐ Battery |

## 1.2 Support Equipment

| Support Equipment - Conducted Emissions | | | | |
|---|---|---|---|---|
| **No.** | **Equipment** | **Brand Name** | **Model Name** | **Serial No.** |
| 1 | Notebook | DELL | VOSTR3450 | DoC |
| 2 | (USB) Mouse | Microsoft | 1113 | DoC |
| 3 | (USB) Printer | EPSON | C61 | DoC |
| 4 | Bluetooth Earphone | SONY | HBH-PV702 | -- |
| 5 | Test Fixture | -- | -- | -- |
| 6 | Wireless AP (Remote Workstation) | D-LINK | DNS-G120 | DoC |

| Support Equipment - Radiated Emissions | | | | |
|---|---|---|---|---|
| **No.** | **Equipment** | **Brand Name** | **Model Name** | **Serial No.** |
| 1 | Notebook | DELL | E5520 | DoC |
| 2 | Test Fixture | -- | -- | -- |
| 3 | 50Ω Terminal | -- | -- | -- |

## 1.3 Testing Applied Standards

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

- 47 CFR FCC Part 15 Subpart C 15.247
- IC RSS-210 Issue 8
- RSS-Gen Issue 3
- ANSI C63.10-2009
- FCC KDB 558074
- FCC KDB 644545 D01
- FCC KDB 644545 D02
- FCC KDB 662911
- FCC KDB 412172

## 1.4 Testing Location Information

| Testing Location | | | | | |
|---|---|---|---|---|---|
| ☒ | HWA YA | ADD : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.<br>TEL : 886-3-327-3456 FAX : 886-3-327-0973 | | | |
| **Test Condition** | | **Test Site No.** | **Test Engineer** | **Test Environment** | **Test Date** |
| AC Conduction | | CO04-HY | Zeus | 19.8°C / 61% | May 17, 2013 |
| RF Conducted | | TH01-HY | Ian | 24.7°C / 64% | Apr. 18, 2013~ May 02, 2013 |
| Radiated Emission | | 03CH02-HY | Hsiao | 23.9°C / 64% | Apr. 26, 2013~ May 18, 2013 |

## 1.5 Measurement Uncertainty

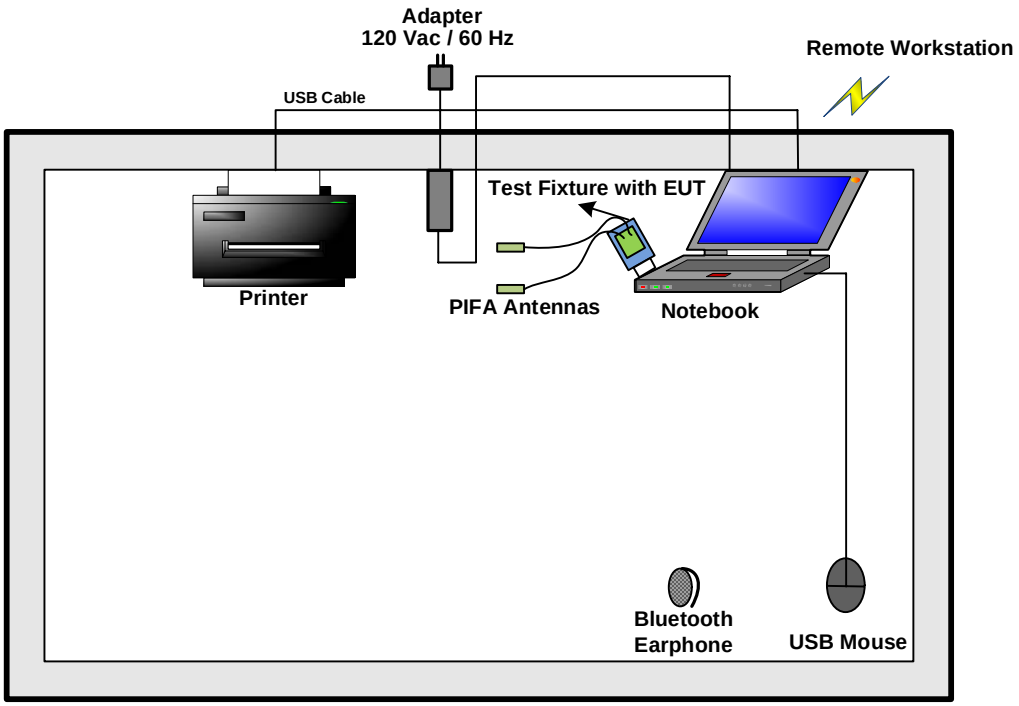
ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

| Measurement Uncertainty | | | |
|---|---|---|---|
| **Test Item** | | **Uncertainty** | **Limit** |
| AC power-line conducted emissions | | ±2.26 dB | N/A |
| Emission bandwidth, 6dB bandwidth | | ±1.42 % | N/A |
| RF output power, conducted | | ±0.63 dB | N/A |
| Power density, conducted | | ±0.81 dB | N/A |
| Unwanted emissions, conducted | 30 – 1000 MHz | ±0.51 dB | N/A |
| | 1 – 18 GHz | ±0.67 dB | N/A |
| | 18 – 40 GHz | ±0.83 dB | N/A |
| | 40 – 200 GHz | N/A | N/A |
| All emissions, radiated | 30 – 1000 MHz | ±2.56 dB | N/A |
| | 1 – 18 GHz | ±3.59 dB | N/A |
| | 18 – 40 GHz | ±3.82 dB | N/A |
| | 40 – 200 GHz | N/A | N/A |
| Temperature | | ±0.8 °C | N/A |
| Humidity | | ±3 % | N/A |
| DC and low frequency voltages | | ±3 % | N/A |
| Time | | ±1.42 % | N/A |
| Duty Cycle | | ±1.42 % | N/A |

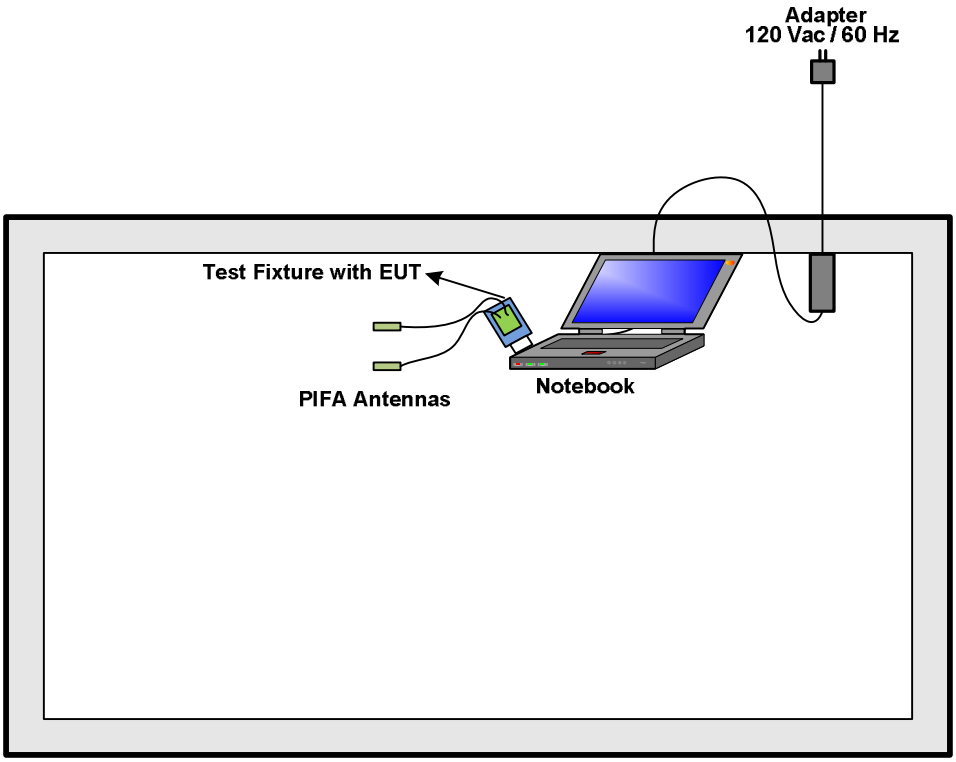
# 2 Test Configuration of EUT

## 2.1 Test Setup Diagram

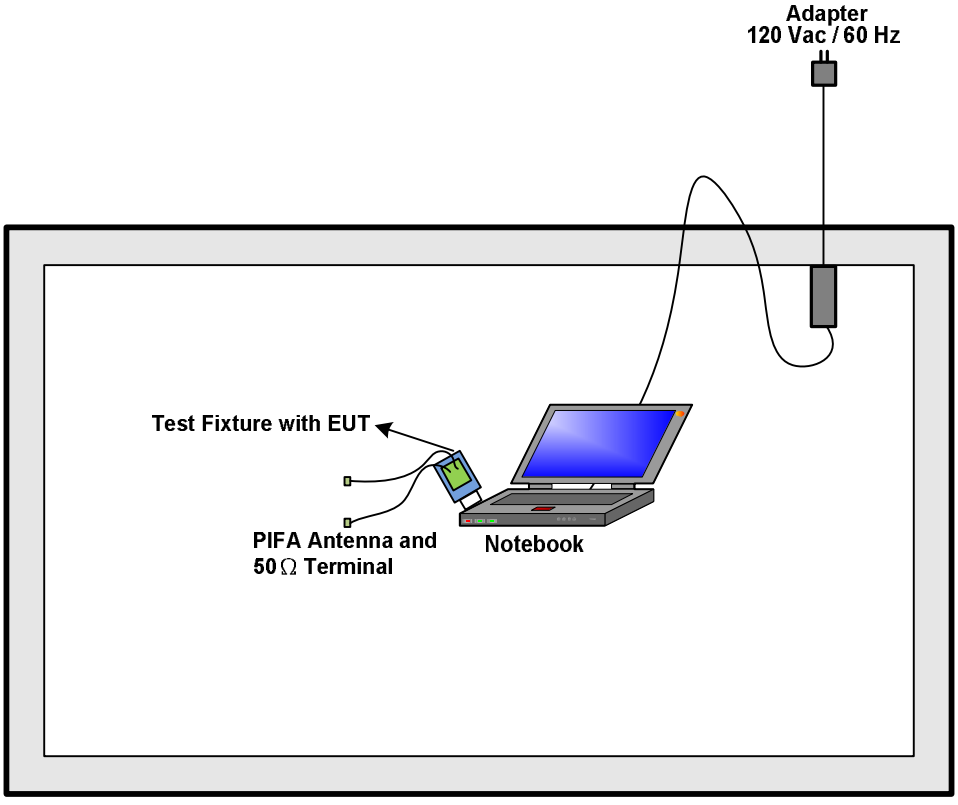
**Test Setup Diagram – AC Line Conducted Emission Test**



## Test Setup Diagram - Radiated Test (Below 1GHz)




## Test Setup Diagram - Radiated Test (Above 1GHz)



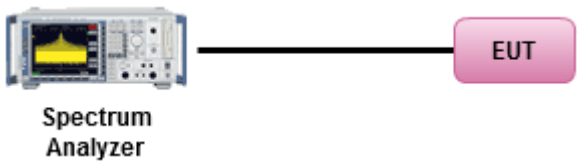
# 3 Transmitter Test Result

## 3.1 6dB Bandwidth

### 3.1.1 Test Procedures

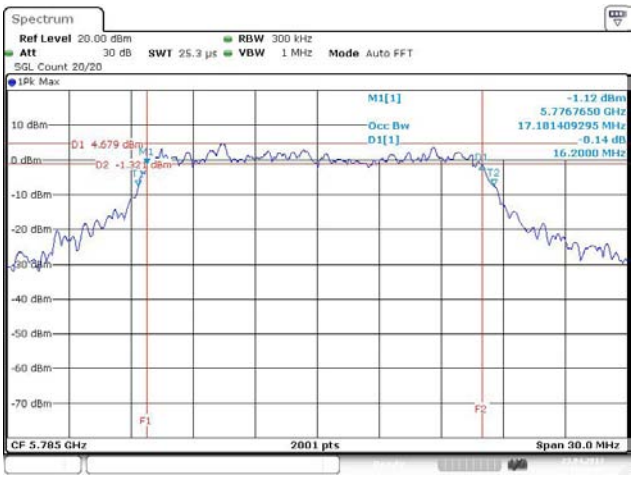
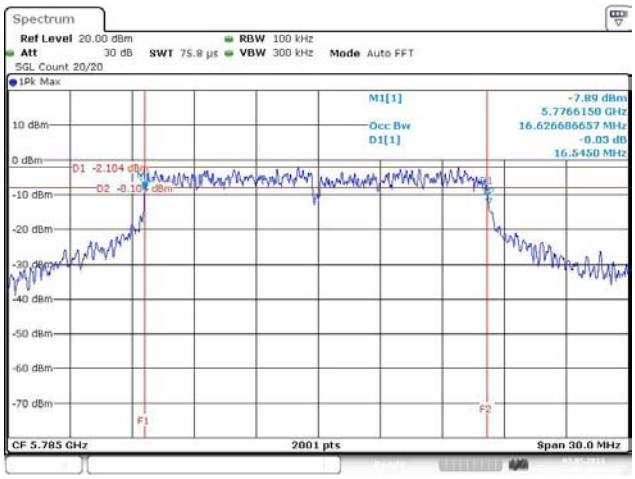
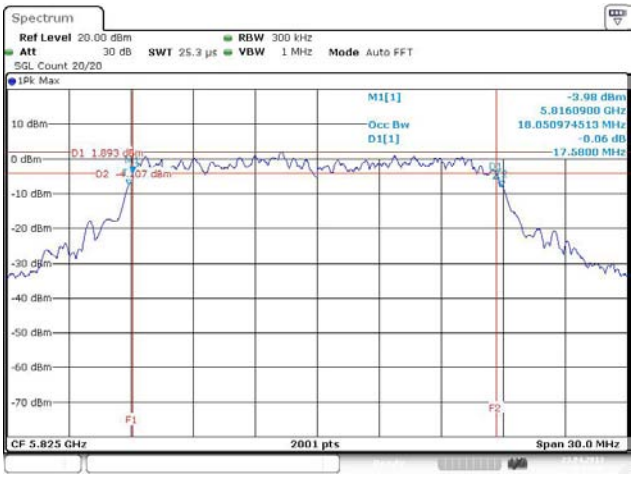
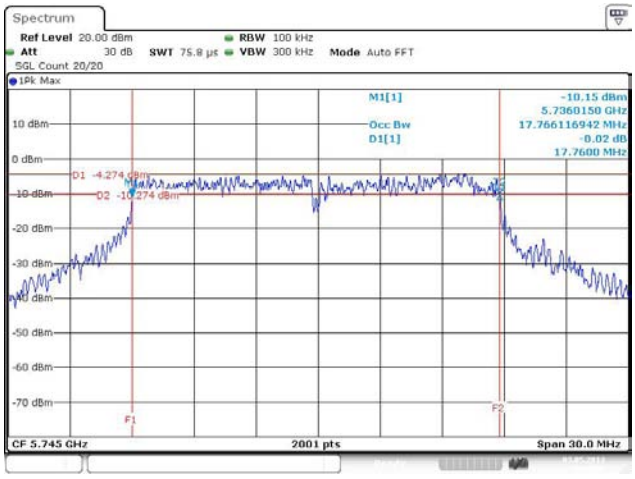
| Test Method | | | |
|---|---|---|---|
| ☒ | For the emission bandwidth shall be measured using one of the options below: | | |
| | ☒ | Refer as FCC KDB 558074, clause 8.1 Option 1 for 6 dB bandwidth measurement. | |
| | ☒ | Refer as RSS-210 A8.2 for 6 dB bandwidth and RSS-Gen section 4.6.1 for 99% dB bandwidth measurement. | |
| | ☐ | Refer as FCC KDB 558074, clause 8.2 Option 2 for 6 dB bandwidth measurement. | |
| | ☐ | Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing. | |
| ☒ | For conducted measurement. | | |
| | ☐ | The EUT supports single transmit chain and measurements performed on this transmit chain. | |
| | ☐ | The EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case. | |
| | ☒ | The EUT supports multiple transmit chains using options given below: | |
| | | ☐ | Option 1: Multiple transmit chains measurements need to be performed on one of the active transmit chains (antenna outputs). All measurement had be performed on transmit chains 1. |
| | | ☒ | Option 2: Multiple transmit chains measurements need to be performed on each transmit chains individually (antenna outputs). All measurement had be performed on all transmit chains. |

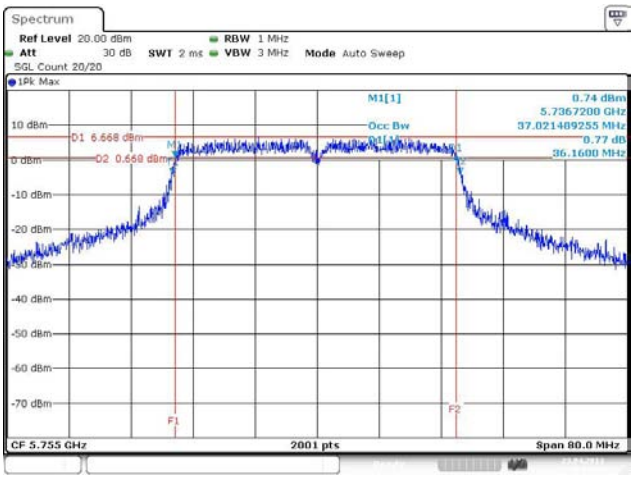
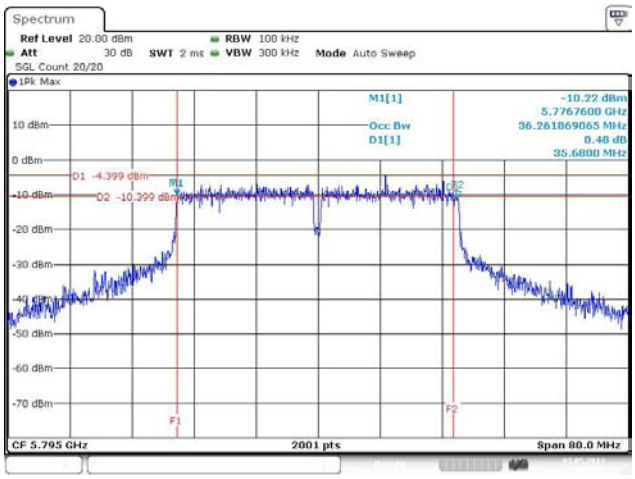
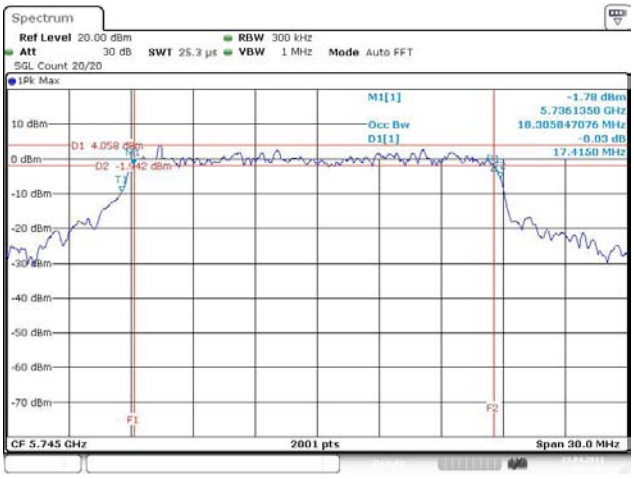
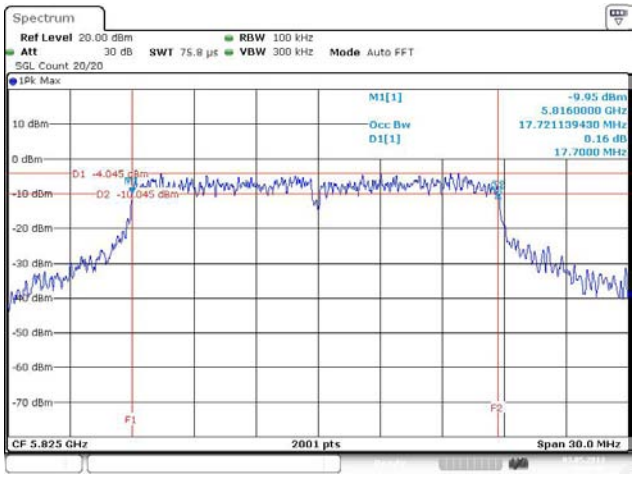
### 3.1.2 Test Setup

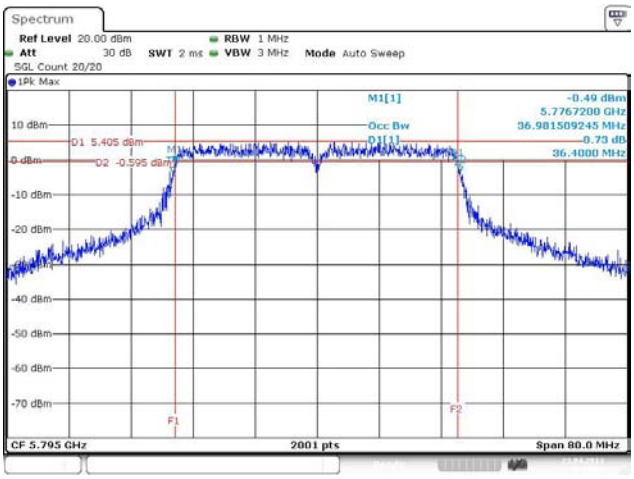
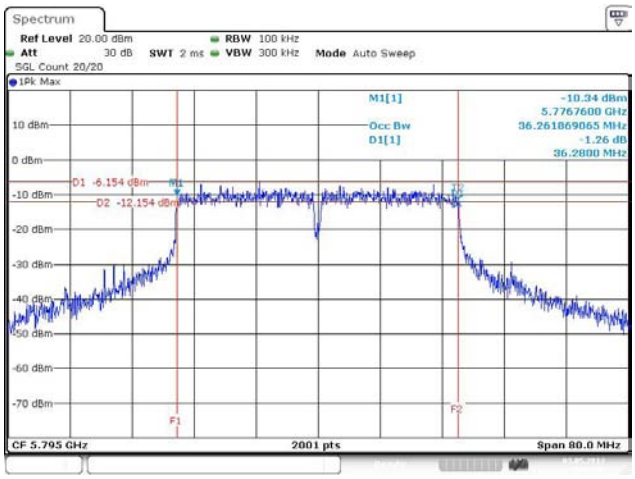
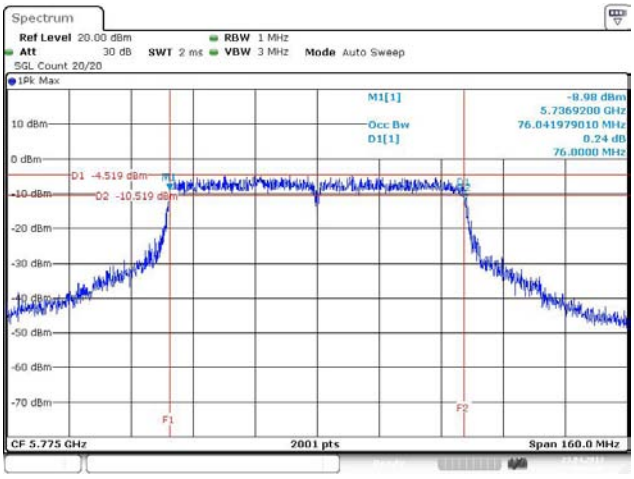
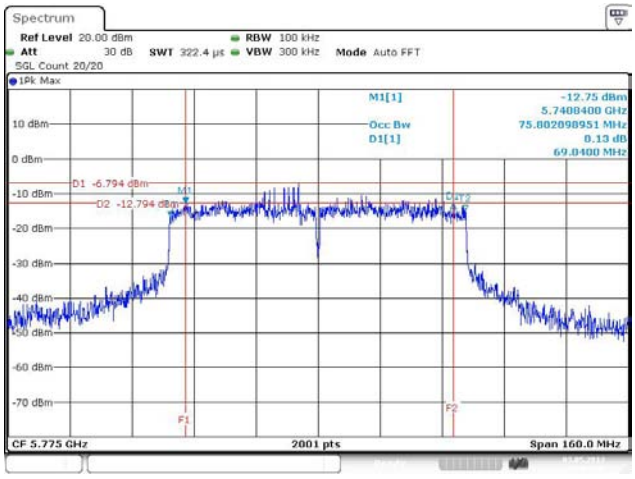
| RF Output Power (Spectrum Analyzer) |
|---|
|   |

### 3.1.3 Test Result of Emission Bandwidth

| Emission Bandwidth Result | | | | | | |
|---|---|---|---|---|---|---|
| Condition | | | Emission Bandwidth (MHz) | | | |
| Modulation Mode | $N_{TX}$ | Freq. (MHz) | 99% Bandwidth | | 6dB Bandwidth | |
| | | | Chain 0 | Chain 1 | Chain 0 | Chain 1 |
| 11a_6Mbps | 2 | 5745 | 16.67 | 17.06 | 16.45 | 16.41 |
| 11a_6Mbps | 2 | 5785 | 17.18 | 17.06 | 16.54 | 16.44 |
| 11a_6Mbps | 2 | 5825 | 16.73 | 16.88 | 16.47 | 16.44 |
| HT-20_MCS0 | 2 | 5745 | 17.99 | 18.03 | 17.67 | 17.76 |
| HT-20_MCS0 | 2 | 5785 | 17.82 | 17.81 | 17.61 | 17.40 |
| HT-20_MCS0 | 2 | 5825 | 18.05 | 18.03 | 17.67 | 17.68 |
| HT-40_MCS0 | 2 | 5755 | 36.94 | 37.02 | 35.44 | 35.16 |
| HT-40_MCS0 | 2 | 5795 | 36.78 | 37.02 | 35.68 | 35.48 |
| VHT-20_MCS0 | 2 | 5745 | 17.73 | 18.30 | 17.67 | 17.62 |
| VHT-20_MCS0 | 2 | 5785 | 17.73 | 17.88 | 17.68 | 17.65 |
| VHT-20_MCS0 | 2 | 5825 | 17.78 | 18.05 | 17.70 | 17.68 |
| VHT-40_MCS0 | 2 | 5755 | 36.94 | 36.86 | 35.12 | 35.48 |
| VHT-40_MCS0 | 2 | 5795 | 36.94 | 36.98 | 36.28 | 36.04 |
| VHT-80_MCS0 | 2 | 5775 | 76.04 | 76.04 | 69.04 | 68.80 |
| Limit | | | N/A | | ≥500 kHz | |
| Result | | | Complied | | | |
| Note 1: $N_{TX}$ = Number of Transmit Chains | | | | | | |

| Worst Emission Bandwidth Plots | |
|---|---|
| **99% bandwidth** | **6dB bandwidth** |
| **11a** | **11a** |
|  <br>Date: 23.APR.2013 11:09:22 |  <br>Date: 3.MAY.2013 02:31:24 |
| **HT20** | **HT20** |
|  <br>Date: 23.APR.2013 14:01:46 |  <br>Date: 3.MAY.2013 02:34:58 |

| Worst Emission Bandwidth Plots | |
|---|---|
| **99% bandwidth** | **6dB bandwidth** |
| **HT40** | **HT40** |
|  |  |
| **VHT20** | **VHT20** |
|  |  |

| Worst Emission Bandwidth Plots | |
|---|---|
| **99% bandwidth** | **6dB bandwidth** |
| **VHT40** | **VHT40** |
|  <br>Date: 23.APR.2013 14:53:15 |  <br>Date: 3.MAY.2013 02:55:40 |
| **VHT80** | **VHT80** |
|  <br>Date: 23.APR.2013 15:04:49 |  <br>Date: 3.MAY.2013 03:03:38 |

## 3.2 RF Output Power

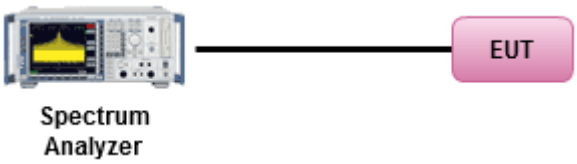
### 3.2.1 Test Procedures

| Test Method | |
|---|---|
| ☒ | Maximum Peak Conducted Output Power |
| | ☐ Refer as FCC KDB 558074, clause 9.1.1 Option 1 (RBW ≥ EBW method). |
| | ☒ Refer as FCC KDB 558074, clause 9.1.2 Option 2 (integrated band power method). |
| | ☐ Refer as FCC KDB 558074, clause 9.1.3 Option 2 (peak power meter for VBW ≥ DTS BW) |
| ☒ | Maximum Conducted Output Power |
| | [duty cycle ≥ 98% or external video / power trigger] |
| | ☐ Refer as FCC KDB 558074, clause 9.2.2.2 Method AVGSA-1 (spectral trace averaging). |
| | ☐ Refer as FCC KDB 558074, clause 9.2.2.3 Method AVGSA-1 Alt. (slow sweep speed) |
| | duty cycle < 98% and average over on/off periods with duty factor |
| | ☒ Refer as FCC KDB 558074, clause 9.2.2.4 Method AVGSA-2 (spectral trace averaging). |
| | ☐ Refer as FCC KDB 558074, clause 9.2.2.5 Method AVGSA-2 Alt. (slow sweep speed) |
| | RF power meter and average over on/off periods with duty factor or gated trigger |
| | ☐ Refer as FCC KDB 558074, clause 9.2.3 Method AVGPM (using an RF average power meter). |
| ☒ | For conducted measurement. |
| | ☐ The EUT supports single transmit chain and measurements performed on this transmit chain. |
| | ☐ The EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case. |
| | ☒ The EUT supports multiple transmit chains using options given below:<br>Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them. |
| | ☒ If multiple transmit chains, EIRP calculation could be following as methods:<br>$P_{total} = P_1 + P_2 + \ldots + P_n$<br>(calculated in linear unit [mW] and transfer to log unit [dBm])<br>$EIRP_{total} = P_{total} + DG$ |

| Test Method for DTS 5.8 GHz & U-NII 5.8 GHz | |
|---|---|
| ☒ | Refer FCC KDB 644545 D02 C) In-band measurements for operations above 5.725 GHz. Products that are capable of transmitting U-NII 4 band (5.725-5.825 GHz) or in the DTS 5.8 GHz band (5.725-5.850 GHz) or both. If conducted power in the 5.725-5.850 GHz range (i.e., the upper U-NII band extended to match the upper frequency of the corresponding 15.247 band) satisfies the conducted power limits applicable to the 5.725-5.825 GHz (U-NII 4) band, then the conducted power limits of the U-NII bands and the 5.8 GHz 15.247 band will be judged to have been satisfied. |
| ☒ | Maximum Conducted Output Power |
| | [duty cycle ≥ 98% or external video / power trigger] |
| | ☐ Refer as FCC KDB 558074, clause E Method SA-1 (spectral trace averaging). |
| | ☐ Refer as FCC KDB 558074, clause E Method SA-1 Alt. (RMS detection with slow sweep speed) |
| | duty cycle < 98% and average over on/off periods with duty factor |
| | ☒ Refer as FCC KDB 558074, clause E Method SA-2 (spectral trace averaging). |
| | ☐ Refer as FCC KDB 558074, clause E Method SA-2 Alt. (RMS detection with slow sweep speed) |
| | Wideband RF power meter and average over on/off periods with duty factor |
| | ☐ Refer as FCC KDB 558074, clause E Method PM (using an RF average power meter). |

### 3.2.2 Test Setup

**RF Output Power (Power Meter)**



### 3.2.3 Test Result of Maximum Peak Conducted Output Power

| Maximum Peak Conducted Output Power Result | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Condition | | | RF Output Power (dBm) | | | | | | |
| Modulation Mode | $N_{TX}$ | Freq. (MHz) | Chain 0 | Chain 1 | Sum Chain | Power Limit | DG (dBi) | EIRP Power | EIRP Limit |
| 11a_6Mbps | 2 | 5745 | 20.00 | 20.34 | 23.18 | 30 | 4.76 | 27.94 | 36 |
| 11a_6Mbps | 2 | 5785 | 20.49 | 19.97 | 23.25 | 30 | 4.76 | 28.01 | 36 |
| 11a_6Mbps | 2 | 5825 | 20.12 | 19.89 | 23.02 | 30 | 4.76 | 27.78 | 36 |
| HT-20_MCS0 | 2 | 5745 | 18.81 | 19.22 | 22.03 | 30 | 4.76 | 26.79 | 36 |
| HT-20_MCS0 | 2 | 5785 | 18.97 | 19.37 | 22.18 | 30 | 4.76 | 26.94 | 36 |
| HT-20_MCS0 | 2 | 5825 | 18.70 | 19.00 | 21.86 | 30 | 4.76 | 26.62 | 36 |
| HT-40_MCS0 | 2 | 5755 | 17.91 | 18.35 | 21.15 | 30 | 4.76 | 25.91 | 36 |
| HT-40_MCS0 | 2 | 5795 | 18.19 | 18.16 | 21.19 | 30 | 4.76 | 25.95 | 36 |
| VHT-20_MCS0 | 2 | 5745 | 18.10 | 19.33 | 21.77 | 30 | 4.76 | 26.53 | 36 |
| VHT-20_MCS0 | 2 | 5785 | 18.97 | 18.94 | 21.97 | 30 | 4.76 | 26.73 | 36 |
| VHT-20_MCS0 | 2 | 5825 | 19.00 | 19.29 | 22.16 | 30 | 4.76 | 26.92 | 36 |
| VHT-40_MCS0 | 2 | 5755 | 18.37 | 17.85 | 21.13 | 30 | 4.76 | 25.89 | 36 |
| VHT-40_MCS0 | 2 | 5795 | 18.34 | 18.18 | 21.27 | 30 | 4.76 | 26.03 | 36 |
| VHT-80_MCS0 | 2 | 5775 | 17.45 | 16.95 | 20.22 | 30 | 4.76 | 24.98 | 36 |
| Result | | | Complied | | | | | | |

### 3.2.4 Test Result of Maximum Average Conducted Output Power

| Maximum Average Conducted Output Power | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Condition | | | RF Output Power (dBm) | | | | | | |
| Modulation Mode | $N_{TX}$ | Freq. (MHz) | Chain 0 | Chain 1 | Sum Chain | Power Limit | DG (dBi) | EIRP Power | EIRP Limit |
| 11a_6Mbps | 2 | 5745 | 15.00 | 15.40 | 18.21 | 30 | 4.76 | 22.97 | 36 |
| 11a_6Mbps | 2 | 5785 | 15.39 | 15.04 | 18.23 | 30 | 4.76 | 22.99 | 36 |
| 11a_6Mbps | 2 | 5825 | 15.10 | 15.04 | 18.08 | 30 | 4.76 | 22.84 | 36 |
| HT-20_MCS0 | 2 | 5745 | 13.87 | 14.46 | 17.19 | 30 | 4.76 | 21.95 | 36 |
| HT-20_MCS0 | 2 | 5785 | 14.00 | 14.45 | 17.24 | 30 | 4.76 | 22.00 | 36 |
| HT-20_MCS0 | 2 | 5825 | 13.92 | 14.21 | 17.08 | 30 | 4.76 | 21.84 | 36 |
| HT-40_MCS0 | 2 | 5755 | 12.92 | 13.26 | 16.10 | 30 | 4.76 | 20.86 | 36 |
| HT-40_MCS0 | 2 | 5795 | 13.27 | 13.10 | 16.20 | 30 | 4.76 | 20.96 | 36 |
| VHT-20_MCS0 | 2 | 5745 | 13.21 | 14.74 | 17.05 | 30 | 4.76 | 21.81 | 36 |
| VHT-20_MCS0 | 2 | 5785 | 14.07 | 14.09 | 17.09 | 30 | 4.76 | 21.85 | 36 |
| VHT-20_MCS0 | 2 | 5825 | 13.87 | 14.22 | 17.06 | 30 | 4.76 | 21.82 | 36 |
| VHT-40_MCS0 | 2 | 5755 | 13.35 | 12.76 | 16.08 | 30 | 4.76 | 20.84 | 36 |
| VHT-40_MCS0 | 2 | 5795 | 13.24 | 13.09 | 16.18 | 30 | 4.76 | 20.94 | 36 |
| VHT-80_MCS0 | 2 | 5775 | 10.39 | 11.78 | 14.15 | 30 | 4.76 | 18.91 | 36 |
| Result | | | Complied | | | | | | |

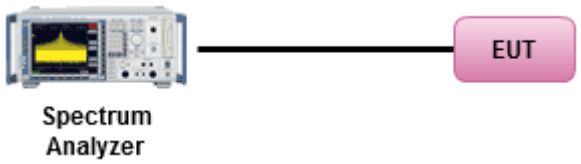
## 3.3 Power Spectral Density

### 3.3.1 Test Procedures

| Test Method | | | |
|---|---|---|---|
| ☒ | Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option). | | |
| | ☒ | Refer as FCC KDB 558074, clause 10.2 Method PKPSD (RBW=3-100kHz;detector=peak).. | |
| | [duty cycle ≥ 98% or external video / power trigger] | | |
| | ☐ | Refer as FCC KDB 558074, clause 10.3 Method AVGPSD-1 (spectral trace averaging). | |
| | ☐ | Refer as FCC KDB 558074, clause 10.4 Method AVGPSD-1 Alt. (slow sweep speed) | |
| | duty cycle < 98% and average over on/off periods with duty factor | | |
| | ☒ | Refer as FCC KDB 558074, clause 10.5 Method AVGPSD-2 (spectral trace averaging). | |
| | ☐ | Refer as FCC KDB 558074, clause 10.6 Method AVGPSD-2 Alt. (slow sweep speed) | |
| ☒ | For conducted measurement. | | |
| | ☐ | The EUT supports single transmit chain and measurements performed on this transmit chain. | |
| | ☐ | The EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case. | |
| | ☒ | The EUT supports multiple transmit chains using options given below: | |
| | | ☒ | Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the $N_{TX}$ output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace. |
| | | ☐ | Option 2: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit. |

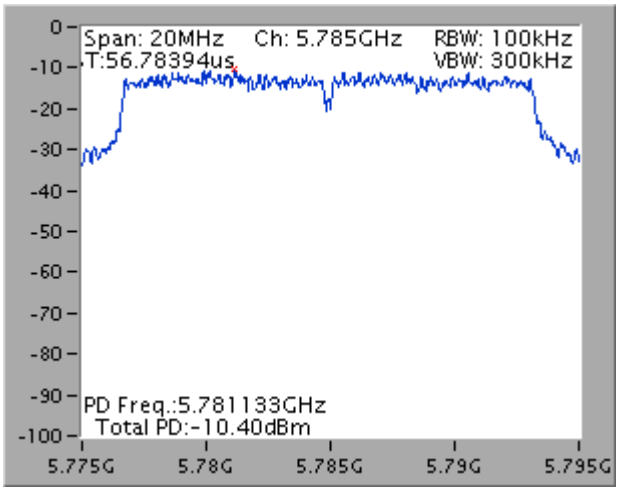
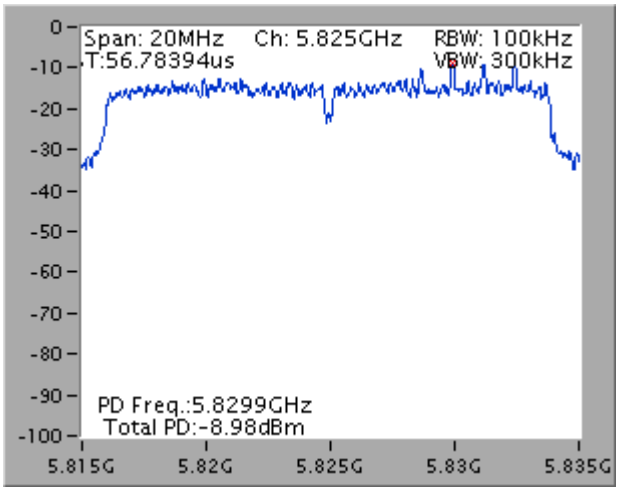
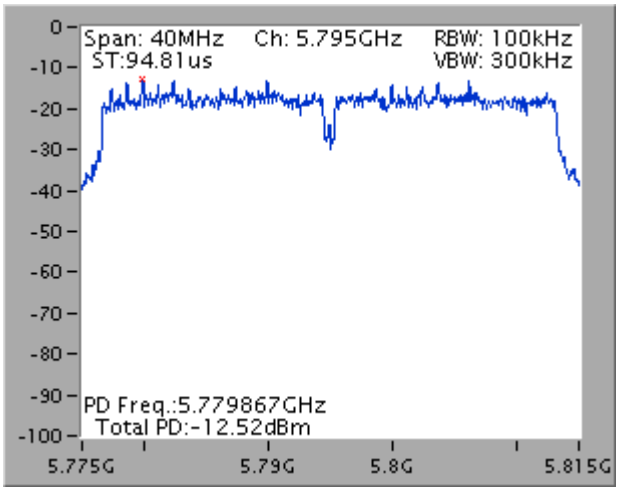
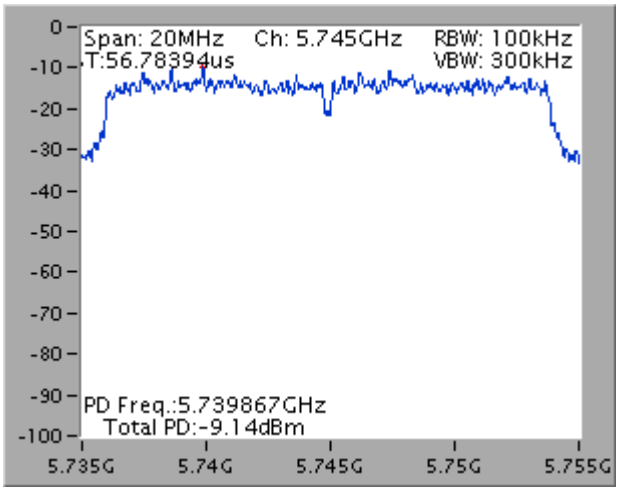
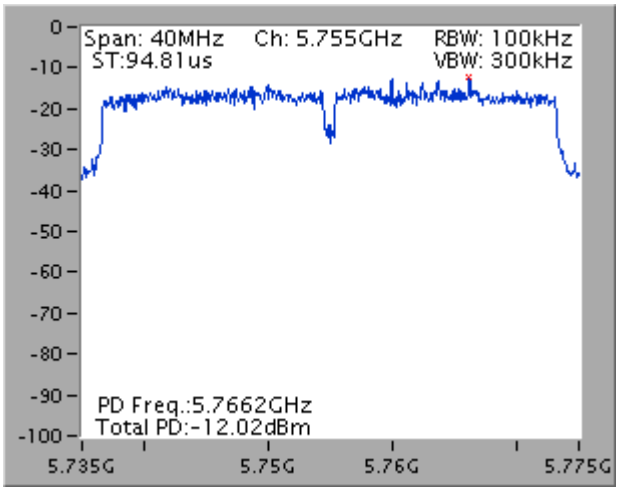
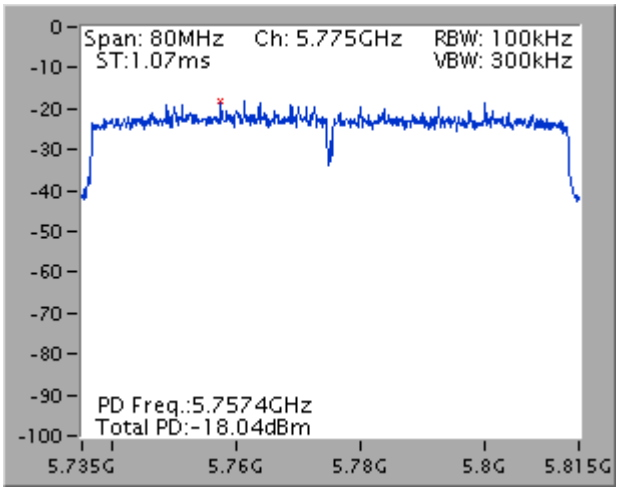
| Test Method for DTS 5.8 GHz & U-NII 5.8 GHz | |
|---|---|
| ☒ | Refer FCC KDB 644545 D02 C) In-band measurements for operations above 5.725 GHz. Products that are capable of transmitting U-NII 4 band (5.725-5.825 GHz) or in the DTS 5.8 GHz band (5.725-5.850 GHz) or both. If maximum PSD in the 5.725-5.850 GHz range (i.e., the upper U-NII band extended to match the upper frequency of the corresponding 15.247 band) satisfies the PSD limits applicable to the 5.725-5.825 GHz (U-NII 4) band, then the PSD limits of the U-NII 4 band and the 5.8 GHz 15.247 band will be judged to have been satisfied. |
| ☒ | Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options: |
| | ☐ Refer as FCC KDB 789033, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth |
| | [duty cycle ≥ 98% or external video / power trigger] |
| | ☐ Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging). |
| | ☐ Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed) |
| | duty cycle < 98% and average over on/off periods with duty factor |
| | ☐ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging). |
| | ☐ Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed) |

### 3.3.2 Test Setup

| Power Spectral Density |
|---|
|   Spectrum Analyzer |

### 3.3.3 DTS-Power Spectral Density

| DTS-Power Spectral Density Result | | | | |
|---|---|---|---|---|
| Condition | | | Power Spectral Density | |
| Modulation Mode | $N_{TX}$ | Freq. (MHz) | Sum Chain dBm/100kHz | Power Limit dBm/3kHz |
| 11a_6Mbps | 2 | 5745 | -10.80 | 8 |
| 11a_6Mbps | 2 | 5785 | -10.40 | 8 |
| 11a_6Mbps | 2 | 5825 | -11.20 | 8 |
| HT-20_MCS0 | 2 | 5745 | -12.17 | 8 |
| HT-20_MCS0 | 2 | 5785 | -12.07 | 8 |
| HT-20_MCS0 | 2 | 5825 | -8.98 | 8 |
| HT-40_MCS0 | 2 | 5755 | -12.69 | 8 |
| HT-40_MCS0 | 2 | 5795 | -12.52 | 8 |
| VHT-20_MCS0 | 2 | 5745 | -9.14 | 8 |
| VHT-20_MCS0 | 2 | 5785 | -10.18 | 8 |
| VHT-20_MCS0 | 2 | 5825 | -12.41 | 8 |
| VHT-40_MCS0 | 2 | 5755 | -12.02 | 8 |
| VHT-40_MCS0 | 2 | 5795 | -12.52 | 8 |
| VHT-80_MCS0 | 2 | 5775 | -18.04 | 8 |
| Result | | | Complied | |
| Note 1: PSD = sum each transmit chains by bin-to-bin PSD | | | | |

| DTS-Worst Power Spectral Density Plots | |
|---|---|
| **11a [Sum All Chains]** | **HT20 [Sum All Chains]** |
|  |  |
| **HT40 [Sum All Chains]** | **VHT20 [Sum All Chains]** |
|  |  |
| **VHT40 [Sum All Chains]** | **VHT80 [Sum All Chains]** |
|  |  |

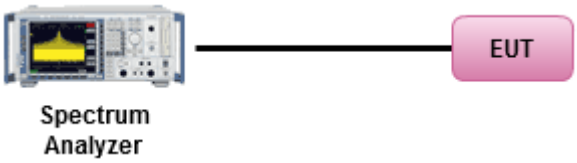
## 3.4 Emission in Non-Restricted Frequency Bands

### 3.4.1 Test Procedures

| Test Method | | |
|---|---|---|
| ☒ | The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor]. | |
| ☒ | Refer as ANSI C63.10, clause 6.9.2.2 bandedge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band. | |
| ☒ | For the transmitter unwanted emissions shall be measured using following options below: | |
| | ☒ | Refer as FCC KDB 558074, clause 11 for unwanted emissions into non-restricted bands. |
| ☒ | For the transmitter bandedge emissions shall be measured using following options below: | |
| | ☐ | Refer as FCC KDB 558074, clause 13.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz). |
| | ☒ | Refer as ANSI C63.10, clause 6.9.2 for band-edge testing. |
| | ☐ | Refer as ANSI C63.10, clause 6.9.3 for marker-delta method for band-edge measurements. |
| ☒ | For conducted measurement, refer as FCC KDB 558074, clause 12.2.2. | |
| | ☒ | For conducted unwanted emissions into non-restricted bands (relative emission limits).<br>Devices with multiple transmit chains:<br>Refer as FCC KDB 662911, when testing out-of-band and spurious emissions against relative emission limits, tests may be performed on each output individually without summing or adding 10 log(N) if the measurements are made relative to the in-band emissions on the individual outputs. |
| | ☐ | For conducted unwanted emissions into restricted bands (absolute emission limits).<br>Devices with multiple transmit chains using options given below:<br>(1) Measure and sum the spectra across the outputs or<br>(2) Measure and add 10 log(N) dB |
| | ☒ | For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred. |

| Test Method for DTS 5.8 GHz & U-NII 5.8 GHz | | | |
|---|---|---|---|
| ☒ | Refer FCC KDB 644545 D02 D) Out-of-band and spurious emissions measurements for operations above 5.725 GHz. Products that are capable of transmitting U-NII 4 band (5.725-5.825 GHz) or in the DTS 5.8 GHz band (5.725-5.850 GHz) or both. Perform out-of-band (restricted and non-restricted band) tests using U-NII procedures and applying the U-NII limits as if the upper U-NII band was extended to 5.850 GHz and the -27 dBm/MHz peak EIRP limit applies<br>1) All restricted band emission limits must be satisfied based on U-NII measurement procedures.<br>2) All non-restricted-band out-of-band and spurious emission limits specified in 15.407(b) must be satisfied except that, when operating anywhere in the frequency range from 5.725-5.850 GHz, out-of-band emissions requirements are not applied at frequencies from 5.825-5.850 GHz, and the -27 dBm/MHz peak out-of-band EIRP limit shall be applied in non-restricted bands above 5.850 GHz. | | |
| ☒ | For the transmitter unwanted emissions shall be measured using following options below: | | |
| | ☒ | Refer as FCC KDB 558074, clause H)2) for unwanted emissions into non-restricted bands. | |
| | ☐ | Refer as FCC KDB 558074, clause H)1) for unwanted emissions into restricted bands. | |
| | | ☐ | Refer as FCC KDB 558074, H)6) Method AD (Trace Averaging). |
| | | ☐ | Refer as FCC KDB 558074, H)6) Method VB (Reduced VBW). |
| | | ☐ | Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time. |
| | | ☐ | Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions. |
| | | ☐ | Refer as FCC KDB 558074, clause H)5) measurement procedure peak limit. |
| | | ☐ | Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit. |

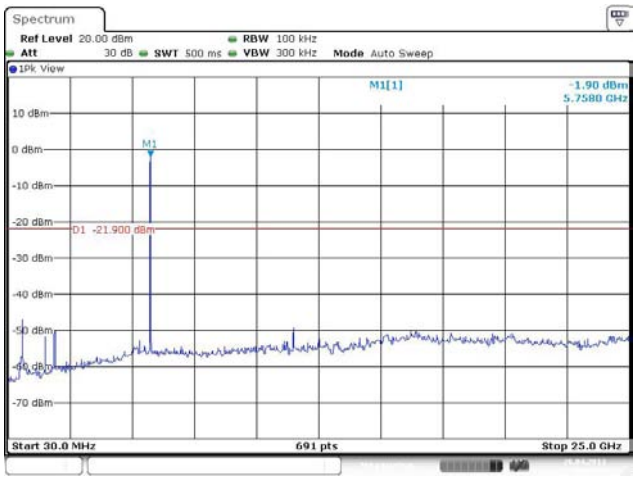
### 3.4.2 Test Setup

| Emission in non-restricted frequency bands (with Antenna Gain) |
|---|
|  |

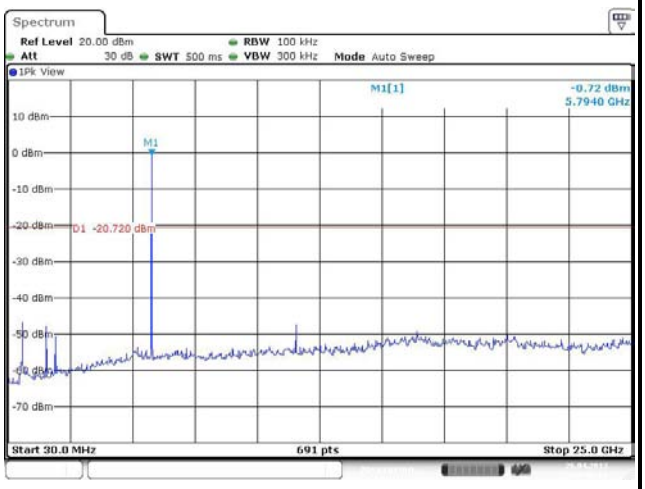
### 3.4.3 Test Result of Emission in Non-Restricted Frequency Bands

| Modulation | 11a_6Mbps | NTX | 2 |
|---|---|---|---|

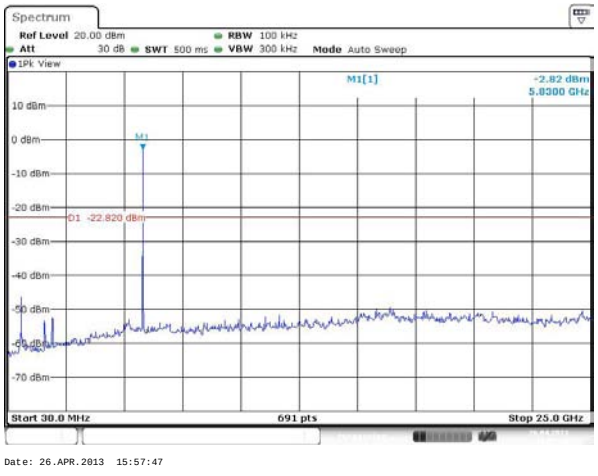
**5745 MHz**




**5785 MHz**

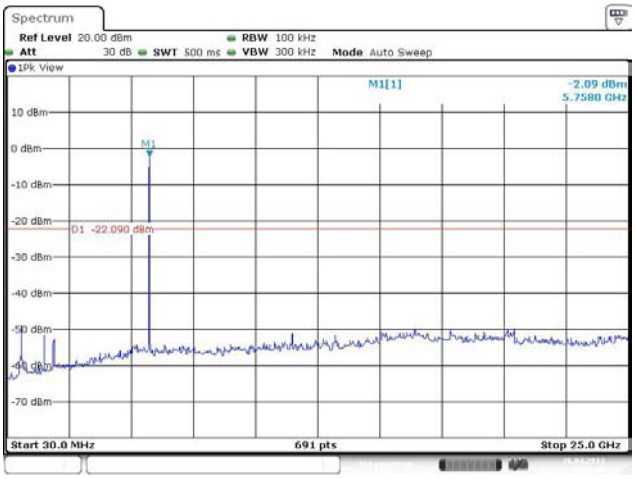



**5825 MHz**



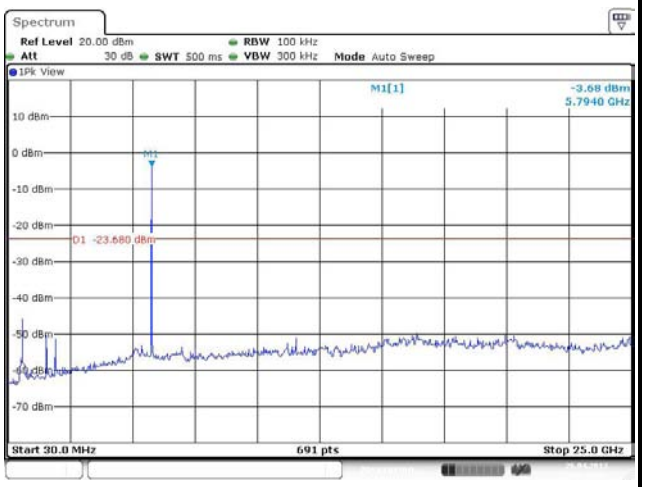
| Modulation | HT-20_MCS0 | NTX | 2 |
|---|---|---|---|

**5745 MHz**



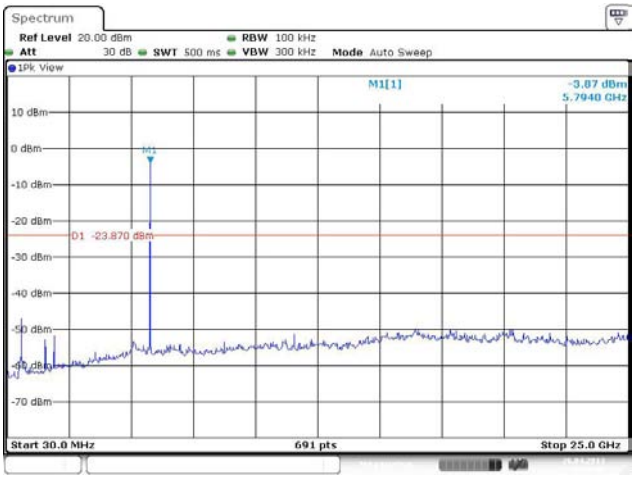

Date: 26.APR.2013 15:59:08

**5785 MHz**

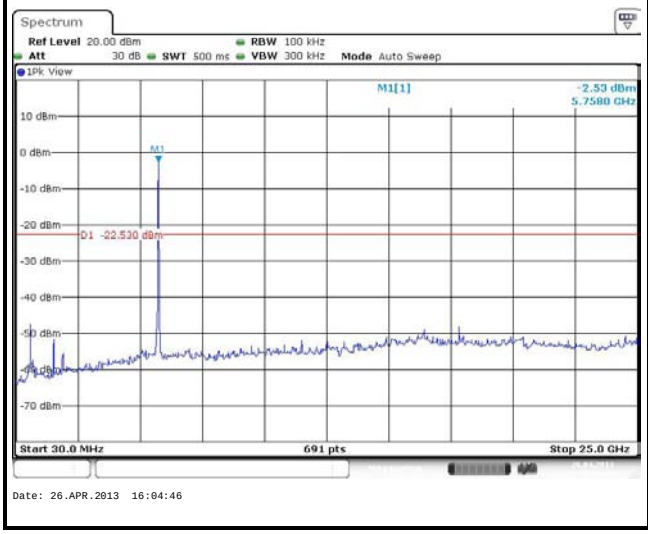
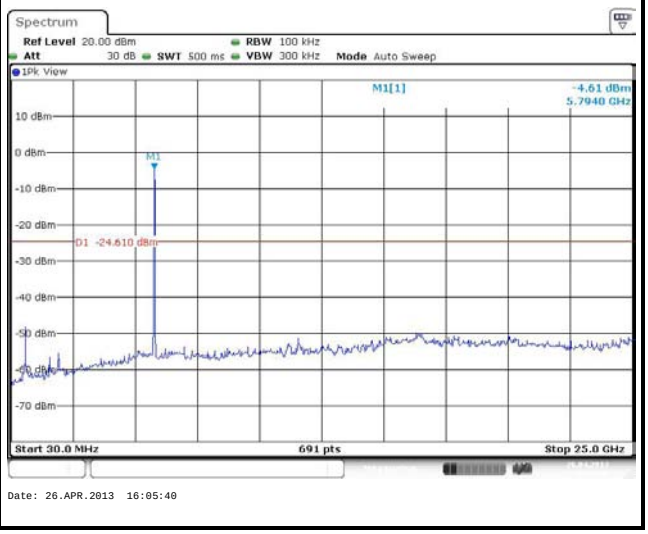



Date: 26.APR.2013 16:12:38

**5825 MHz**

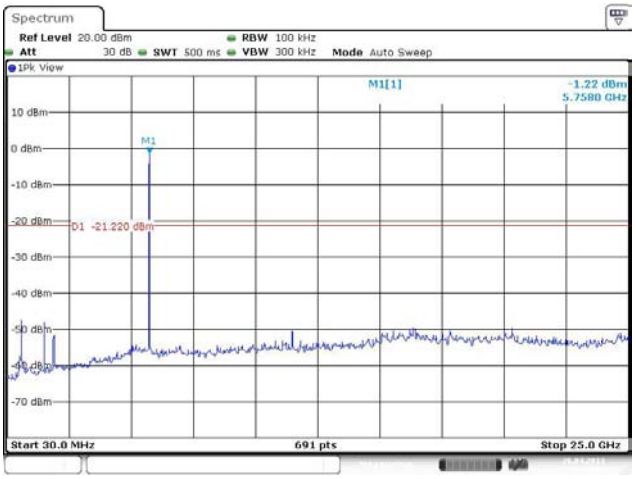



Date: 26.APR.2013 16:00:08

| Modulation | HT-40_MCS0 | NTX | 2 |
|---|---|---|---|
| 5755 MHz | | 5795 MHz | |
|  | |  | |

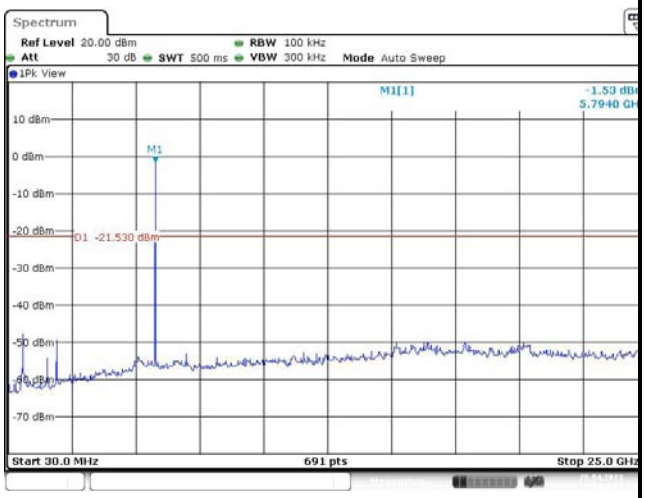
| Modulation | VHT-20_MCS0 | NTX | 2 |
|---|---|---|---|

**5745 MHz**



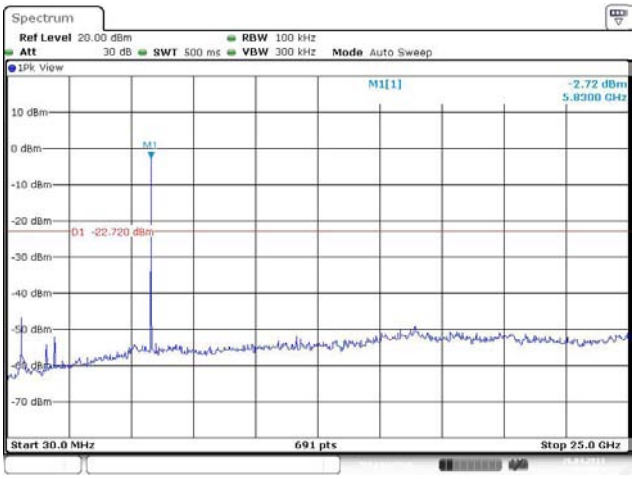

Date: 26.APR.2013 16:01:24

**5785 MHz**



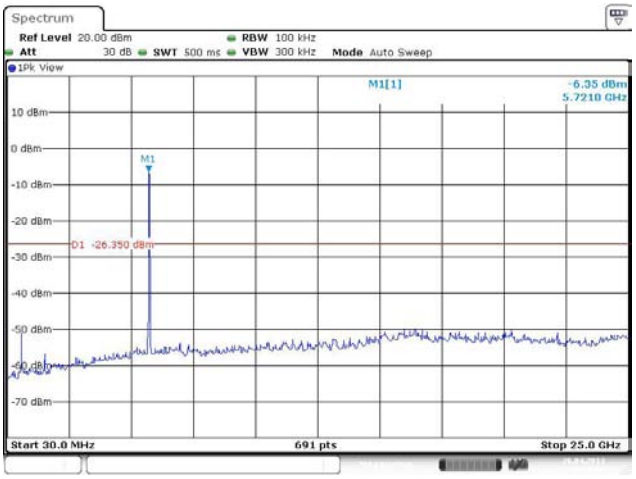

Date: 26.APR.2013 16:02:22

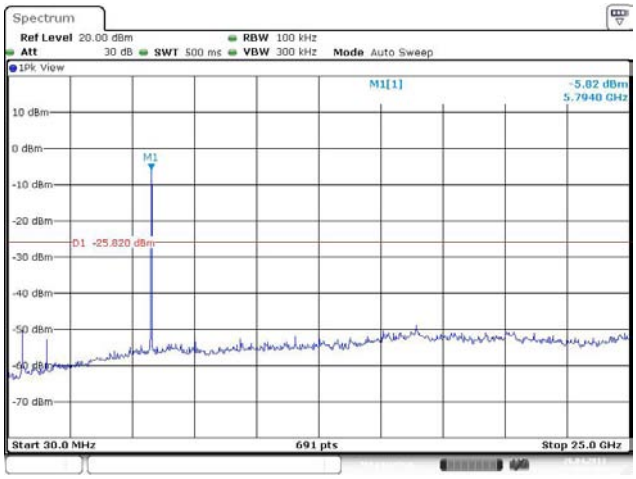
**5825 MHz**



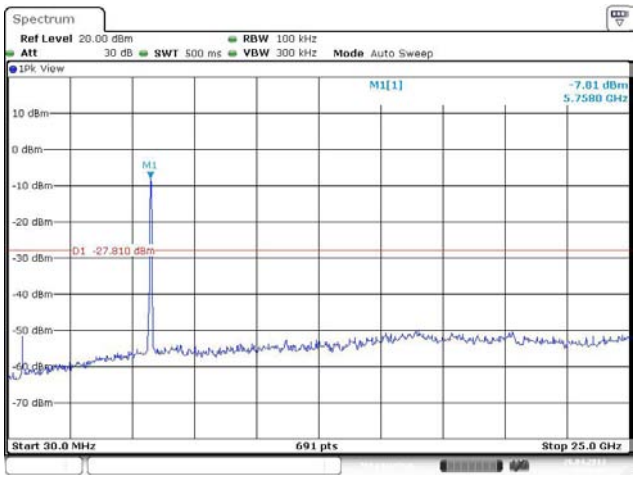

Date: 26.APR.2013 16:03:15

| Modulation | VHT-40_MCS0 | NTX | 2 |
|---|---|---|---|
| 5755 MHz | | 5795 MHz | |




| Modulation | VHT-80_MCS0 | NTX | 2 |
|---|---|---|---|
| 5775 MHz | | | |



## 3.5 Emissions in Restricted Frequency Bands

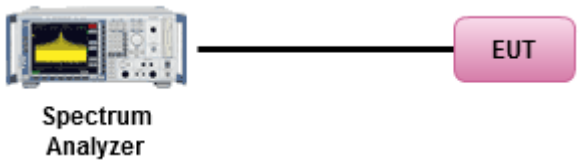
### 3.5.1 Test Procedures

| Test Method | | |
|---|---|---|
| ☒ | Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements). | |
| | ☒ | Measurements in the frequency range 10 GHz - 18GHz are typically made at a closer distance 1m, because the instrumentation noise floor is typically close to the radiated emission limit. |
| | ☒ | Measurements in the frequency range above 18 GHz - 25GHz are typically made at a closer distance 0.5m, because the instrumentation noise floor is typically close to the radiated emission limit. |
| ☒ | The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor]. | |
| ☒ | For the transmitter unwanted emissions shall be measured using following options below: | |
| | ☒ | Refer as FCC KDB 558074, clause 11 for unwanted emissions into non-restricted bands. |
| | ☒ | Refer as FCC KDB 558074, clause 12 for unwanted emissions into restricted bands. |
| | | ☐ Refer as FCC KDB 558074, clause 12.2.5.1 Option 1 (trace averaging for duty cycle ≥98%) |
| | | ☐ Refer as FCC KDB 558074, clause 12.2.5.2 Option 2 (trace averaging + duty factor). |
| | | ☒ Refer as FCC KDB 558074, clause 12.2.5.3 Option 3 (Reduced VBW≥1/T). |
| | | ☐ Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time. |
| | | ☐ Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions. |
| | | ☒ Refer as FCC KDB 558074, clause 11.3 and 12.2.4 measurement procedure peak limit. |
| | | ☒ Refer as FCC KDB 558074, clause 12.2.3 measurement procedure Quasi-Peak limit. |
| ☒ | For radiated measurement, refer as FCC KDB 558074, clause 12.2.7. | |
| | ☒ | Refer as ANSI C63.10, clause 6.4 for radiated emissions from below 30 MHz. |
| | ☒ | Refer as ANSI C63.10, clause 6.5 for radiated emissions from 30 MHz to 1000 MHz. |
| | ☒ | Refer as ANSI C63.10, clause 6.6 for radiated emissions from above 1 GHz. |
| ☒ | For conducted and cabinet radiation measurement, refer as FCC KDB 558074, clause 12.2.2. | |
| | ☐ | For conducted unwanted emissions into non-restricted bands (relative emission limits).<br>Devices with multiple transmit chains:<br>Refer as FCC KDB 662911, when testing out-of-band and spurious emissions against relative emission limits, tests may be performed on each output individually without summing or adding 10 log(N) if the measurements are made relative to the in-band emissions on the individual outputs. |
| | ☒ | For conducted unwanted emissions into restricted bands (absolute emission limits).<br>Devices with multiple transmit chains using options given below:<br>(1) Measure and sum the spectra across the outputs or<br>(2) Measure and add 10 log(N) dB |
| | ☒ | For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred. |

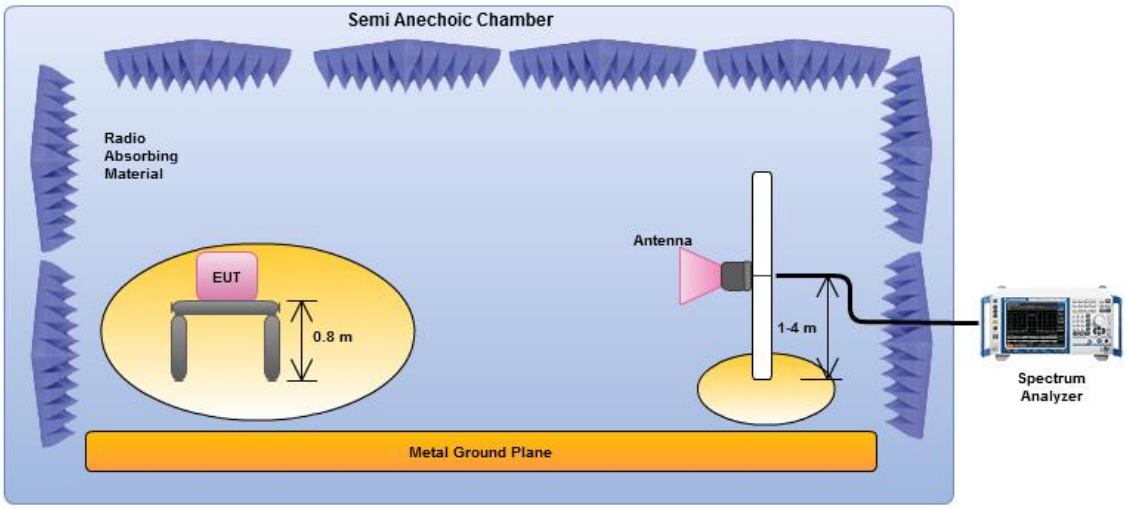
| Test Method for DTS 5.8 GHz & U-NII 5.8 GHz | | | |
|---|---|---|---|
| ☒ | Refer FCC KDB 644545 D02 D) Out-of-band and spurious emissions measurements for operations above 5.725 GHz. Products that are capable of transmitting U-NII 4 band (5.725-5.825 GHz) or in the DTS 5.8 GHz band (5.725-5.850 GHz) or both. Perform out-of-band (restricted and non-restricted band) tests using U-NII procedures and applying the U-NII limits as if the upper U-NII band was extended to 5.850 GHz and the -27 dBm/MHz peak EIRP limit applies<br>1) All restricted band emission limits must be satisfied based on U-NII measurement procedures.<br>2) All non-restricted-band out-of-band and spurious emission limits specified in 15.407(b) must be satisfied except that, when operating anywhere in the frequency range from 5.725-5.850 GHz, out-of-band emissions requirements are not applied at frequencies from 5.825-5.850 GHz, and the -27 dBm/MHz peak out-of-band EIRP limit shall be applied in non-restricted bands above 5.850 GHz. | | |
| ☒ | For the transmitter unwanted emissions shall be measured using following options below: | | |
| | ☒ | Refer as FCC KDB 558074, clause H)2) for unwanted emissions into non-restricted bands. | |
| | ☒ | Refer as FCC KDB 558074, clause H)1) for unwanted emissions into restricted bands. | |
| | | ☐ | Refer as FCC KDB 558074, H)6) Method AD (Trace Averaging). |
| | | ☐ | Refer as FCC KDB 558074, H)6) Method VB (Reduced VBW). |
| | | ☒ | Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time. |
| | | ☐ | Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions. |
| | | ☒ | Refer as FCC KDB 558074, clause H)5) measurement procedure peak limit. |
| | | ☐ | Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit. |

### 3.5.2 Test Setup

**Transmitter Conducted Emissions in restricted frequency bands (with Antenna Gain)**




**Transmitter Radiated Emissions in restricted frequency bands**



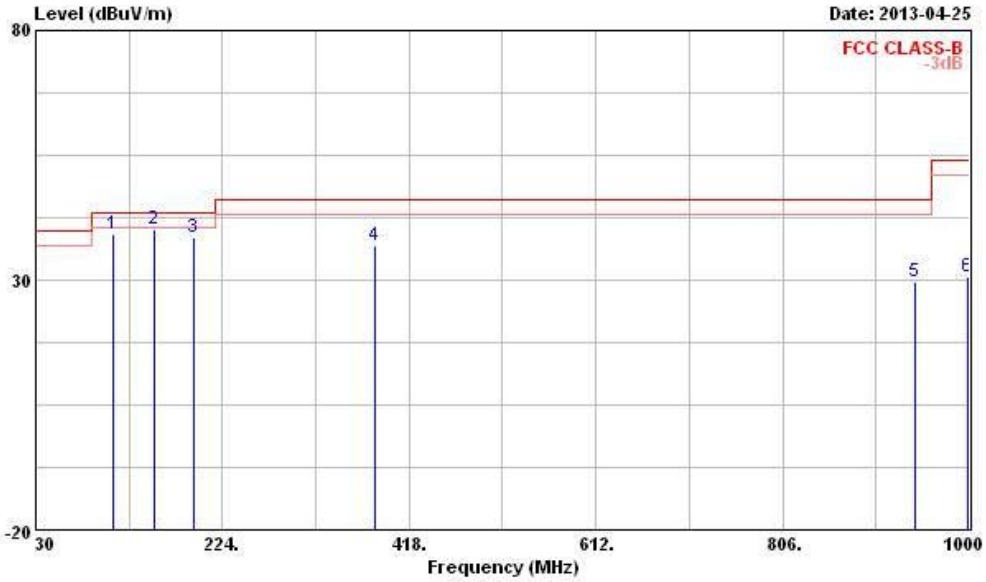

Magnetic field tests shall be performed in the frequency range of 9 kHz to 30 MHz using a calibrated loop antenna. Electric field tests shall be performed in the frequency range of 30 MHz to 1000 MHz using a calibrated bi-log antenna and the frequency range of 1 GHz to 40 GHz using a calibrated horn antenna.

### 3.5.3 Emission in Restricted Frequency Bands- (Below 30MHz)

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

### 3.5.4 Emission in Restricted Frequency Bands- (Below 1GHz)

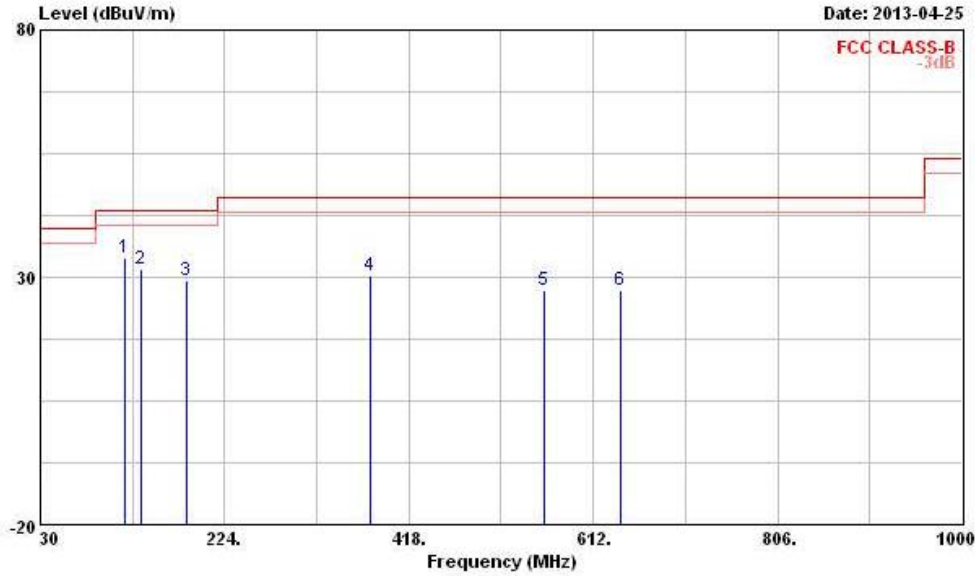
| Operating Mode | 11a_6Mbps | Polarization | H |
|---|---|---|---|
| Operating Frequency | 5785 MHz | Configuration | With PIFA Ant. |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 @ | 110.510 | 39.34 | -4.16 | 43.50 | 53.26 | 12.46 | 1.48 | 27.86 | Peak | --- | --- |
| 2 @ | 153.190 | 40.18 | -3.32 | 43.50 | 55.42 | 10.70 | 1.75 | 27.69 | Peak | --- | --- |
| 3 @ | 194.900 | 38.40 | -5.10 | 43.50 | 52.89 | 10.99 | 2.04 | 27.52 | Peak | --- | --- |
| 4 | 382.110 | 36.97 | -9.03 | 46.00 | 46.89 | 14.98 | 2.92 | 27.82 | Peak | --- | --- |
| 5 | 943.740 | 29.69 | -16.31 | 46.00 | 31.37 | 21.11 | 4.79 | 27.58 | Peak | --- | --- |
| 6 | 998.060 | 30.67 | -23.33 | 54.00 | 30.60 | 22.45 | 4.96 | 27.34 | Peak | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

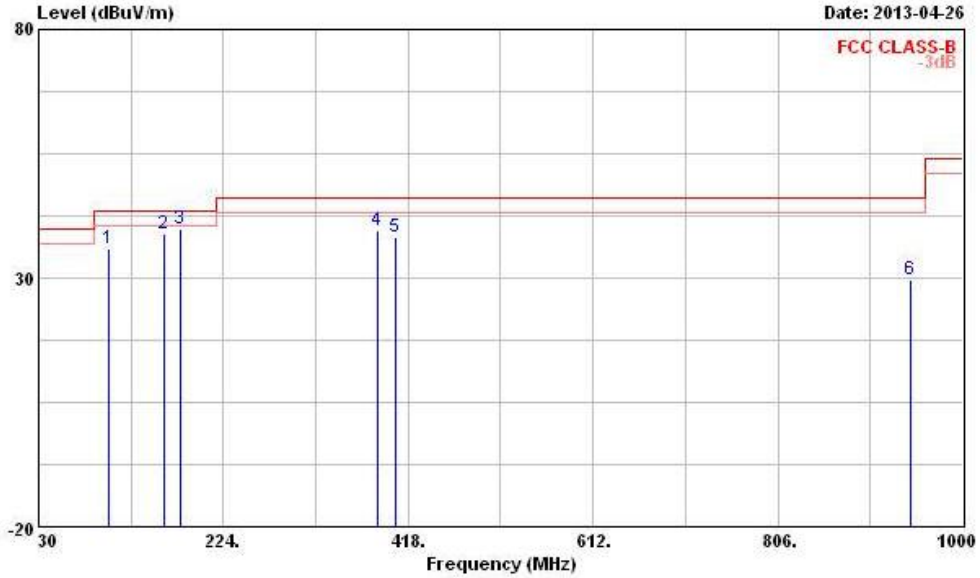
| Operating Mode | 11a_6Mbps | Polarization | V |
|---|---|---|---|
| Operating Frequency | 5785 MHz | Configuration | With PIFA Ant. |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 118.270 | 33.97 | -9.53 | 43.50 | 46.88 | 13.38 | 1.54 | 27.83 | Peak | --- | --- |
| 2 | 136.700 | 31.77 | -11.73 | 43.50 | 45.58 | 12.26 | 1.68 | 27.75 | Peak | --- | --- |
| 3 | 184.230 | 29.45 | -14.05 | 43.50 | 44.84 | 10.19 | 1.98 | 27.56 | Peak | --- | --- |
| 4 | 377.260 | 30.40 | -15.60 | 46.00 | 40.37 | 14.90 | 2.91 | 27.78 | Peak | --- | --- |
| 5 | 559.620 | 27.40 | -18.60 | 46.00 | 33.36 | 19.00 | 3.57 | 28.53 | Peak | --- | --- |
| 6 | 641.100 | 27.40 | -18.60 | 46.00 | 32.41 | 19.63 | 3.87 | 28.51 | Peak | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

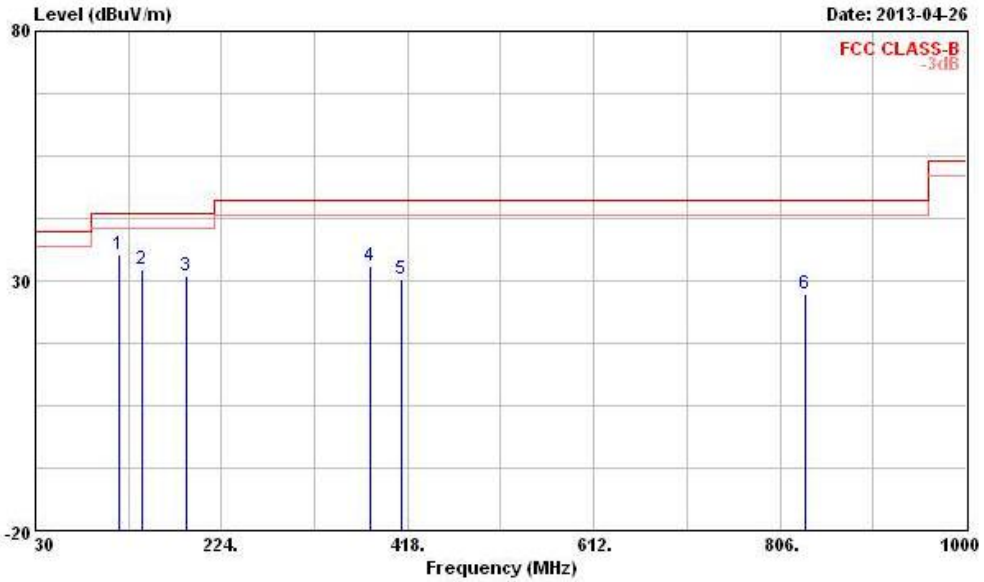
| Operating Mode | HT-20_MCS0 | Polarization | H |
|---|---|---|---|
| Operating Frequency | 5785 MHz | Configuration | With PIFA Ant. |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 102.750 | 36.06 | -7.44 | 43.50 | 51.00 | 11.53 | 1.42 | 27.89 | Peak | --- | --- |
| 2 @ | 160.950 | 38.86 | -4.64 | 43.50 | 54.22 | 10.51 | 1.79 | 27.66 | Peak | --- | --- |
| 3 @ | 179.380 | 39.85 | -3.65 | 43.50 | 55.58 | 9.90 | 1.95 | 27.58 | Peak | --- | --- |
| 4 | 385.990 | 39.44 | -6.56 | 46.00 | 49.30 | 15.04 | 2.94 | 27.84 | Peak | --- | --- |
| 5 | 404.420 | 38.31 | -7.69 | 46.00 | 47.93 | 15.35 | 3.00 | 27.97 | Peak | --- | --- |
| 6 | 944.710 | 29.76 | -16.24 | 46.00 | 31.40 | 21.13 | 4.80 | 27.57 | Peak | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

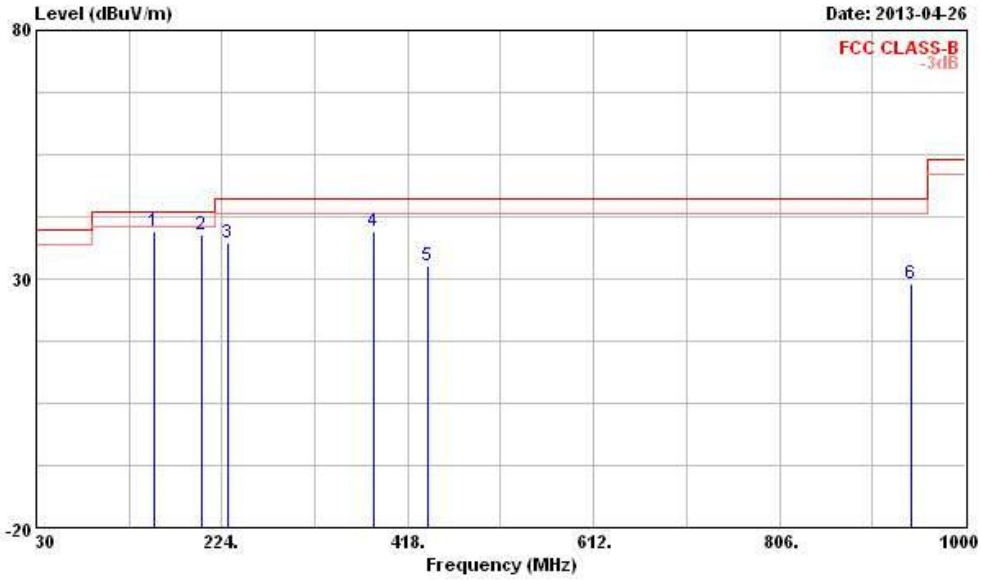
| Operating Mode | HT-20_MCS0 | Polarization | V |
|---|---|---|---|
| Operating Frequency | 5785 MHz | Configuration | With PIFA Ant. |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 117.300 | 35.15 | -8.35 | 43.50 | 48.18 | 13.27 | 1.53 | 27.83 | Peak | --- | --- |
| 2 | 141.550 | 32.16 | -11.34 | 43.50 | 46.40 | 11.78 | 1.71 | 27.73 | Peak | --- | --- |
| 3 | 187.140 | 30.88 | -12.62 | 43.50 | 46.03 | 10.41 | 1.99 | 27.55 | Peak | --- | --- |
| 4 | 378.230 | 33.01 | -12.99 | 46.00 | 42.97 | 14.92 | 2.91 | 27.79 | Peak | --- | --- |
| 5 | 412.180 | 30.19 | -15.81 | 46.00 | 39.66 | 15.51 | 3.03 | 28.01 | Peak | --- | --- |
| 6 | 832.190 | 27.37 | -18.63 | 46.00 | 30.69 | 20.19 | 4.48 | 27.99 | Peak | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

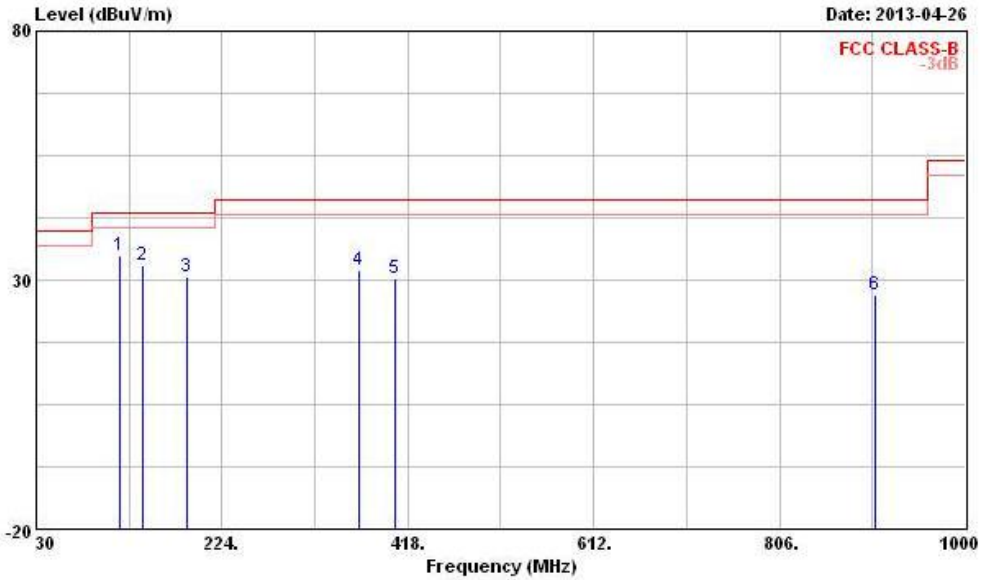
| Operating Mode | HT-40_MCS0 | Polarization | H |
|---|---|---|---|
| Operating Frequency | 5755MHz | Configuration | With PIFA Ant. |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 @ | 153.190 | 39.61 | -3.89 | 43.50 | 54.85 | 10.70 | 1.75 | 27.69 | Peak | --- | --- |
| 2 @ | 203.630 | 38.85 | -4.65 | 43.50 | 52.76 | 11.48 | 2.10 | 27.49 | Peak | --- | --- |
| 3 | 229.820 | 37.28 | -8.72 | 46.00 | 50.10 | 12.33 | 2.26 | 27.41 | Peak | --- | --- |
| 4 | 382.110 | 39.67 | -6.33 | 46.00 | 49.59 | 14.98 | 2.92 | 27.82 | Peak | --- | --- |
| 5 | 439.340 | 32.68 | -13.32 | 46.00 | 41.65 | 16.06 | 3.13 | 28.16 | Peak | --- | --- |
| 6 | 943.740 | 28.93 | -17.07 | 46.00 | 30.61 | 21.11 | 4.79 | 27.58 | Peak | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

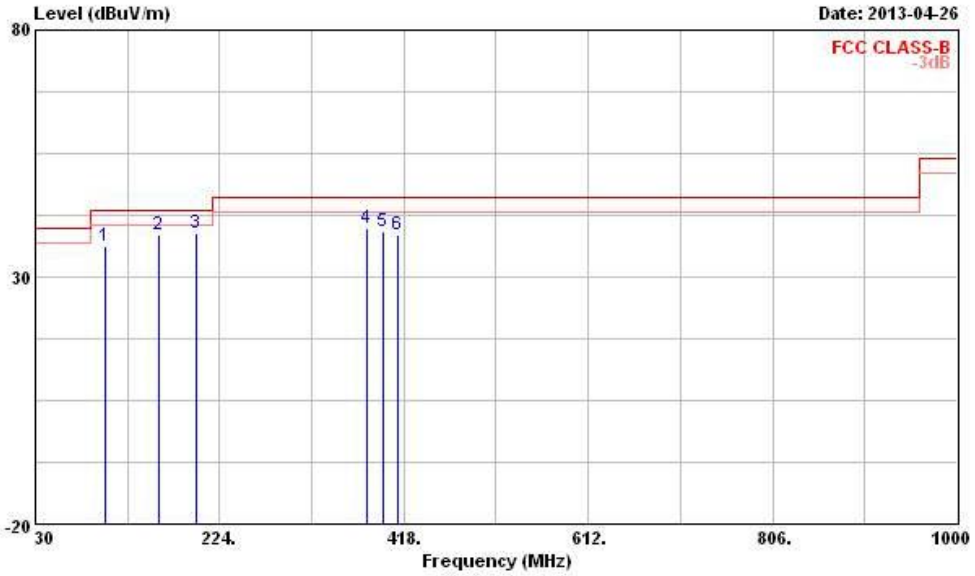
| Operating Mode | HT-40_MCS0 | Polarization | V |
|---|---|---|---|
| Operating Frequency | 5755MHz | Configuration | With PIFA Ant. |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 117.300 | 35.07 | -8.43 | 43.50 | 48.10 | 13.27 | 1.53 | 27.83 | Peak | --- | --- |
| 2 | 141.550 | 32.93 | -10.57 | 43.50 | 47.17 | 11.78 | 1.71 | 27.73 | Peak | --- | --- |
| 3 | 187.140 | 30.76 | -12.74 | 43.50 | 45.91 | 10.41 | 1.99 | 27.55 | Peak | --- | --- |
| 4 | 366.590 | 31.82 | -14.18 | 46.00 | 41.91 | 14.74 | 2.87 | 27.70 | Peak | --- | --- |
| 5 | 405.390 | 30.19 | -15.81 | 46.00 | 39.80 | 15.37 | 3.00 | 27.98 | Peak | --- | --- |
| 6 | 905.910 | 26.99 | -19.01 | 46.00 | 29.92 | 20.17 | 4.64 | 27.74 | Peak | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

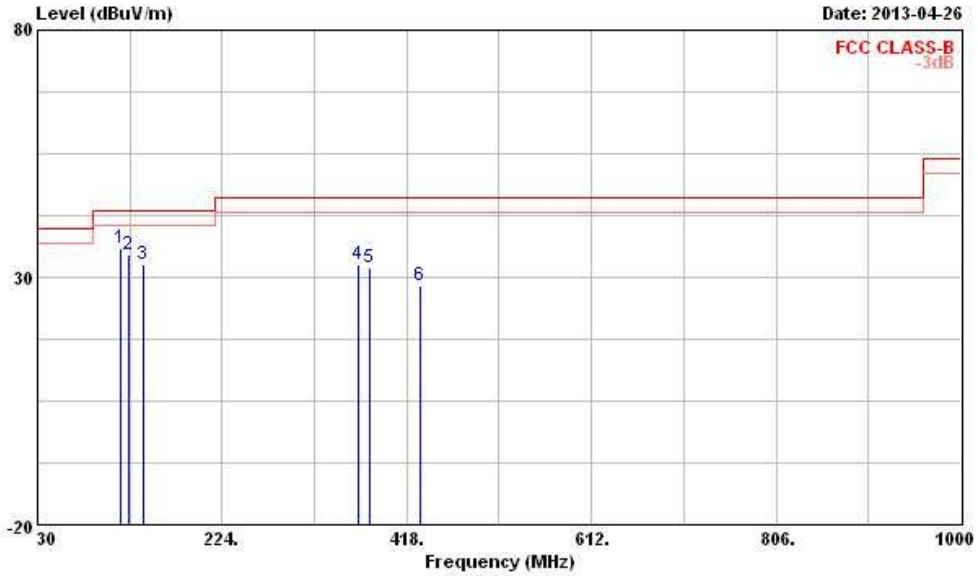
| Operating Mode | VHT-20_MCS0 | Polarization | H |
|---|---|---|---|
| Operating Frequency | 5785 MHz | Configuration | With PIFA Ant. |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 102.750 | 36.26 | -7.24 | 43.50 | 51.20 | 11.53 | 1.42 | 27.89 | Peak | --- | --- |
| 2 @ | 159.980 | 38.49 | -5.01 | 43.50 | 53.82 | 10.55 | 1.78 | 27.66 | Peak | --- | --- |
| 3 @ | 198.780 | 38.80 | -4.70 | 43.50 | 52.97 | 11.28 | 2.06 | 27.51 | Peak | --- | --- |
| 4 | 378.230 | 39.87 | -6.13 | 46.00 | 49.83 | 14.92 | 2.91 | 27.79 | Peak | --- | --- |
| 5 | 396.660 | 39.10 | -6.90 | 46.00 | 48.84 | 15.21 | 2.97 | 27.92 | Peak | --- | --- |
| 6 | 412.180 | 38.41 | -7.59 | 46.00 | 47.88 | 15.51 | 3.03 | 28.01 | Peak | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

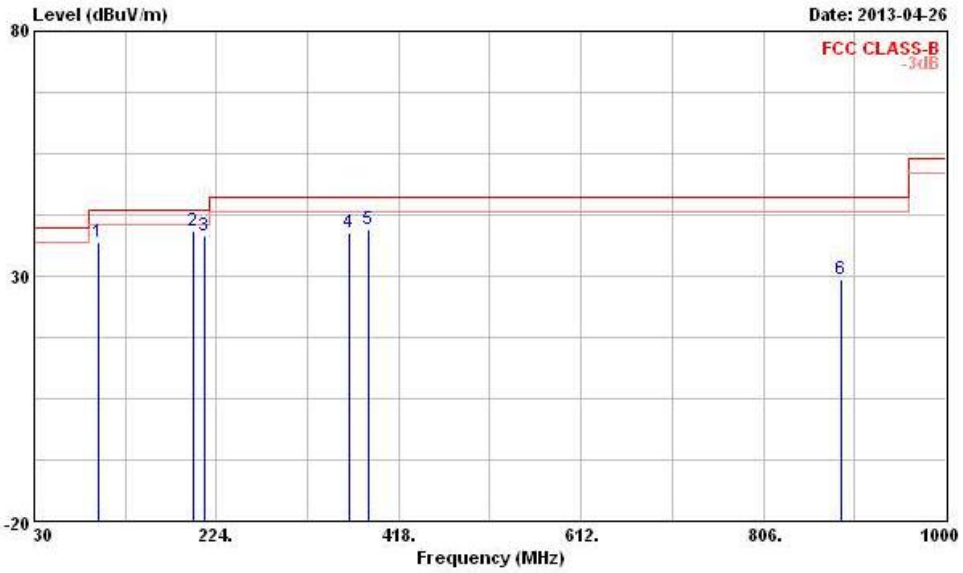
| Operating Mode | VHT-20_MCS0 | Polarization | V |
|---|---|---|---|
| Operating Frequency | 5785 MHz | Configuration | With PIFA Ant. |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 117.300 | 35.76 | -7.74 | 43.50 | 48.79 | 13.27 | 1.53 | 27.83 | Peak | --- | --- |
| 2 | 125.060 | 34.70 | -8.80 | 43.50 | 47.73 | 13.18 | 1.59 | 27.80 | Peak | --- | --- |
| 3 | 141.550 | 32.64 | -10.86 | 43.50 | 46.88 | 11.78 | 1.71 | 27.73 | Peak | --- | --- |
| 4 | 366.590 | 32.55 | -13.45 | 46.00 | 42.64 | 14.74 | 2.87 | 27.70 | Peak | --- | --- |
| 5 | 378.230 | 32.08 | -13.92 | 46.00 | 42.04 | 14.92 | 2.91 | 27.79 | Peak | --- | --- |
| 6 | 431.580 | 28.23 | -17.77 | 46.00 | 37.35 | 15.90 | 3.10 | 28.12 | Peak | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

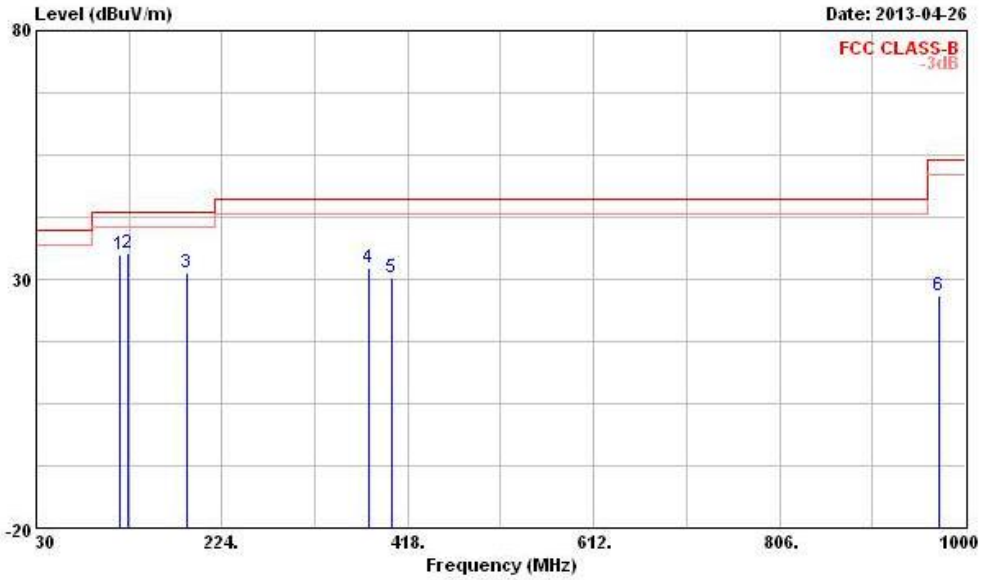
| Operating Mode | VHT-40_MCS0 | Polarization | H |
|---|---|---|---|
| Operating Frequency | 5755 MHz | Configuration | With PIFA Ant. |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 98.870 | 36.78 | -6.72 | 43.50 | 52.28 | 11.01 | 1.39 | 27.90 | Peak | --- | --- |
| 2 @ | 198.780 | 39.17 | -4.33 | 43.50 | 53.34 | 11.28 | 2.06 | 27.51 | Peak | --- | --- |
| 3 @ | 211.390 | 38.07 | -5.43 | 43.50 | 51.67 | 11.73 | 2.14 | 27.47 | Peak | --- | --- |
| 4 | 365.620 | 38.98 | -7.02 | 46.00 | 49.08 | 14.72 | 2.87 | 27.69 | Peak | --- | --- |
| 5 | 385.990 | 39.64 | -6.36 | 46.00 | 49.50 | 15.04 | 2.94 | 27.84 | Peak | --- | --- |
| 6 | 889.420 | 29.29 | -16.71 | 46.00 | 32.45 | 20.05 | 4.59 | 27.80 | Peak | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

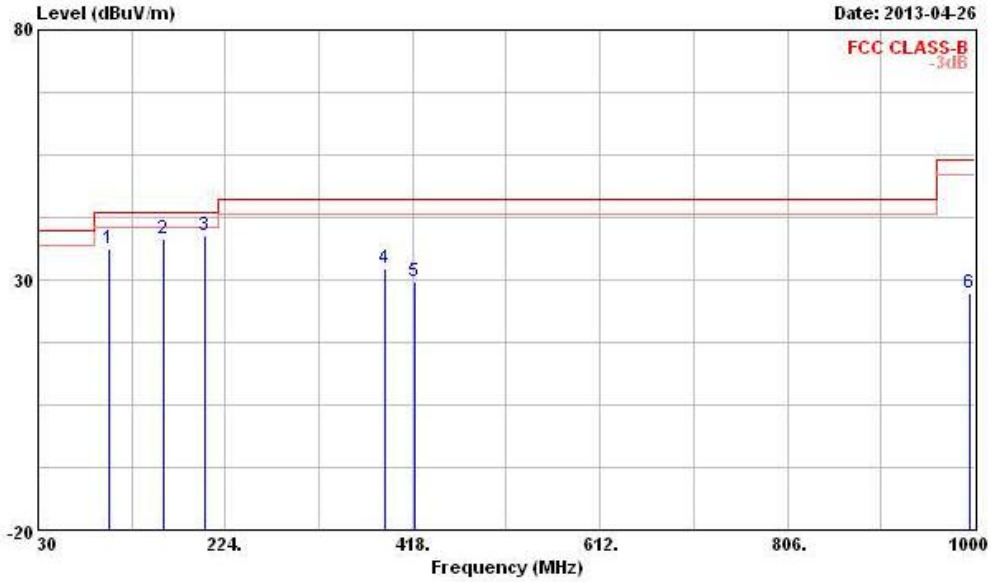
| Operating Mode | VHT-40_MCS0 | Polarization | V |
|---|---|---|---|
| Operating Frequency | 5775 MHz | Configuration | With PIFA Ant. |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 117.300 | 34.90 | -8.60 | 43.50 | 47.93 | 13.27 | 1.53 | 27.83 | Peak | --- | --- |
| 2 | 125.060 | 35.27 | -8.23 | 43.50 | 48.30 | 13.18 | 1.59 | 27.80 | Peak | --- | --- |
| 3 | 187.140 | 31.22 | -12.28 | 43.50 | 46.37 | 10.41 | 1.99 | 27.55 | Peak | --- | --- |
| 4 | 377.260 | 32.30 | -13.70 | 46.00 | 42.27 | 14.90 | 2.91 | 27.78 | Peak | --- | --- |
| 5 | 400.540 | 30.27 | -15.73 | 46.00 | 39.97 | 15.27 | 2.98 | 27.95 | Peak | --- | --- |
| 6 | 971.870 | 26.75 | -27.25 | 54.00 | 27.52 | 21.80 | 4.88 | 27.45 | Peak | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

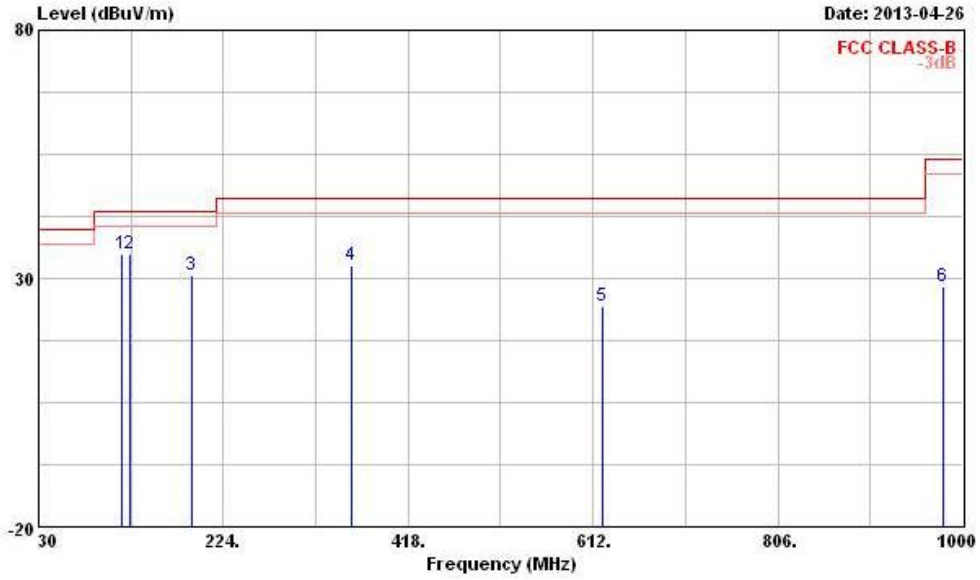
| Operating Mode | VHT-80_MCS0 | Polarization | H |
|---|---|---|---|
| Operating Frequency | 5775 MHz | Configuration | With PIFA Ant. |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 102.750 | 36.19 | -7.31 | 43.50 | 51.13 | 11.53 | 1.42 | 27.89 | Peak | --- | --- |
| 2 @ | 159.980 | 38.12 | -5.38 | 43.50 | 53.45 | 10.55 | 1.78 | 27.66 | Peak | --- | --- |
| 3 @ | 203.630 | 38.79 | -4.71 | 43.50 | 52.70 | 11.48 | 2.10 | 27.49 | Peak | --- | --- |
| 4 | 388.900 | 32.43 | -13.57 | 46.00 | 42.26 | 15.09 | 2.94 | 27.86 | Peak | --- | --- |
| 5 | 419.940 | 29.57 | -16.43 | 46.00 | 38.90 | 15.66 | 3.06 | 28.05 | Peak | --- | --- |
| 6 | 995.150 | 27.50 | -26.50 | 54.00 | 27.52 | 22.38 | 4.95 | 27.35 | Peak | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

| Operating Mode | VHT-80_MCS0 | Polarization | V |
|---|---|---|---|
| Operating Frequency | 5775 MHz | Configuration | With PIFA Ant. |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 117.300 | 35.08 | -8.42 | 43.50 | 48.11 | 13.27 | 1.53 | 27.83 | Peak | --- | --- |
| 2 | 125.060 | 34.77 | -8.73 | 43.50 | 47.80 | 13.18 | 1.59 | 27.80 | Peak | --- | --- |
| 3 | 191.020 | 30.78 | -12.72 | 43.50 | 45.60 | 10.70 | 2.02 | 27.54 | Peak | --- | --- |
| 4 | 358.830 | 32.79 | -13.21 | 46.00 | 42.97 | 14.61 | 2.85 | 27.64 | Peak | --- | --- |
| 5 | 622.670 | 24.41 | -21.59 | 46.00 | 29.27 | 19.88 | 3.79 | 28.53 | Peak | --- | --- |
| 6 | 979.630 | 28.28 | -25.72 | 54.00 | 28.80 | 22.00 | 4.90 | 27.42 | Peak | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

### 3.5.5 Emission in Restricted Frequency Bands- (Above 1GHz)

Antenna-ports conducted measurements are used as an alternative to radiated measurements for demonstrating compliance in the restricted frequency bands; in the meanwhile, an additional radiated test with 50ohm terminator for cabinet spurious emission is also performed.

**Modulation: 11a_6Mbps; Test Frequency: 5745 MHz; number of TX Chain: 2**

| Transmitter Conducted Emissions Result in Restricted Bands | | | | | | |
|---|---|---|---|---|---|---|
| **Frequency (MHz)** | **Chain 0 Test Level (dBm)** | **Chain 1 Test Level (dBm)** | **DG (dBi)** | **EIRP Level (dBm)** | **Limit (dBm)** | **Level Type** |
| 10435.80 | -44.08 | -42.36 | 7.77 | -32.37 | -21.2 | Peak |
| 10466.90 | -53.69 | -53.69 | 7.77 | -42.92 | -41.2 | Average |

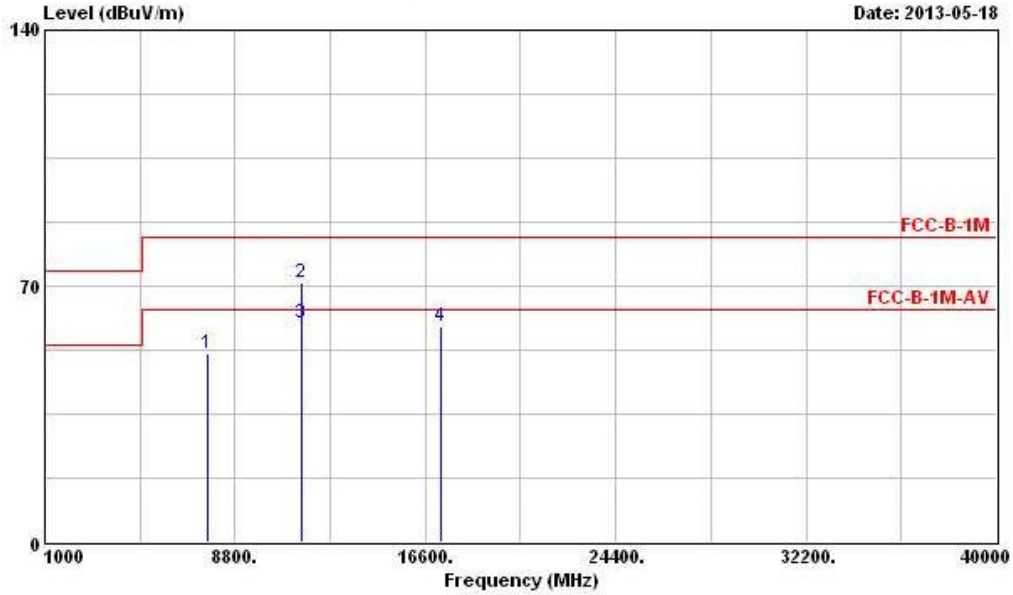
**Modulation: 11a_6Mbps; Test Frequency: 5785 MHz; number of TX Chain: 2**

| Transmitter Conducted Unwanted Emissions Result in Restricted Bands | | | | | | |
|---|---|---|---|---|---|---|
| **Frequency (MHz)** | **Chain 0 Test Level (dBm)** | **Chain 1 Test Level (dBm)** | **DG (dBi)** | **EIRP Level (dBm)** | **Limit (dBm)** | **Level Type** |
| 10318.20 | -41.57 | -44.53 | 7.77 | -32.03 | -21.2 | Peak |
| 10423.30 | -53.72 | -53.72 | 7.77 | -42.95 | -41.2 | Average |

**Modulation: 11a_6Mbps; Test Frequency: 5825 MHz; number of TX Chain: 2**

| Transmitter Conducted Unwanted Emissions Result in Restricted Bands | | | | | | |
|---|---|---|---|---|---|---|
| **Frequency (MHz)** | **Chain 0 Test Level (dBm)** | **Chain 1 Test Level (dBm)** | **DG (dBi)** | **EIRP Level (dBm)** | **Limit (dBm)** | **Level Type** |
| 10397.30 | -44.35 | -41.87 | 7.77 | -32.17 | -21.2 | Peak |
| 10434.70 | -53.37 | -53.88 | 7.77 | -42.85 | -41.2 | Average |

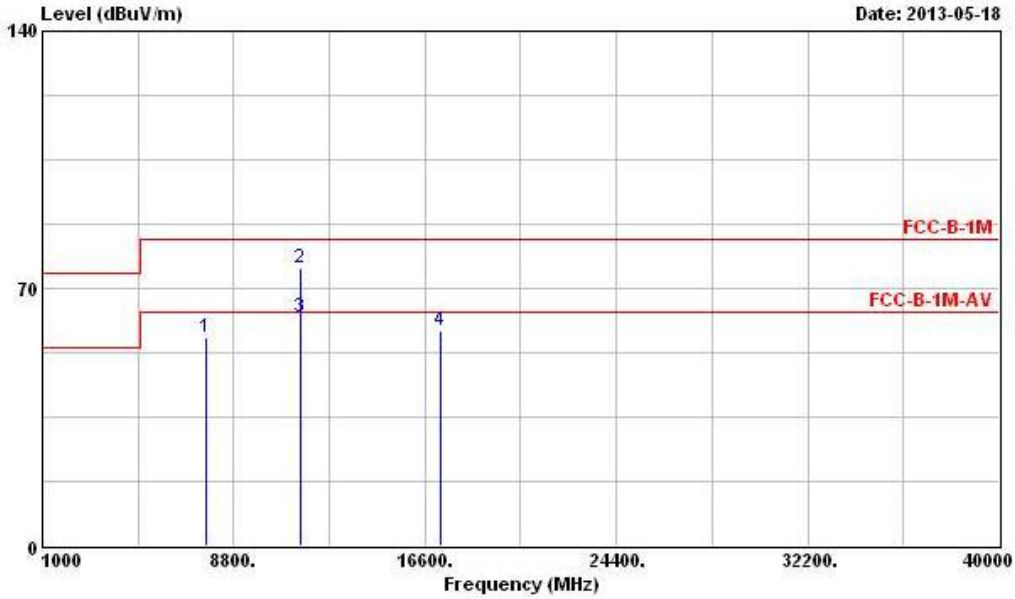
| Operating Mode | 11a_6Mbps | Polarization | H |
|---|---|---|---|
| Operating Frequency | 5745 MHz | Configuration | With 50Ω Terminated |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 7656.000 | 51.41 | -12.13 | 63.54 | 45.45 | 35.30 | 5.92 | 35.26 | PK | --- | --- |
| 2 | 11490.000 | 71.13 | -12.41 | 83.54 | 61.07 | 38.29 | 6.60 | 34.83 | Peak | --- | --- |
| 3 | @11490.000 | 59.98 | -3.56 | 63.54 | 49.92 | 38.29 | 6.60 | 34.83 | Average | --- | --- |
| 4 | 17235.000 | 58.77 | -4.77 | 63.54 | 43.45 | 40.95 | 8.44 | 34.07 | PK | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

| Operating Mode | 11a_6Mbps | Polarization | V |
|---|---|---|---|
| Operating Frequency | 5745 MHz | Configuration | With 50Ω Terminated |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 7656.000 | 56.61 | -6.93 | 63.54 | 50.65 | 35.30 | 5.92 | 35.26 | PK | --- | --- |
| 2 | 11490.000 | 75.70 | -7.84 | 83.54 | 65.64 | 38.29 | 6.60 | 34.83 | Peak | --- | --- |
| 3 | @11490.000 | 62.36 | -1.18 | 63.54 | 52.30 | 38.29 | 6.60 | 34.83 | Average | --- | --- |
| 4 | 17235.000 | 58.39 | -5.15 | 63.54 | 43.07 | 40.95 | 8.44 | 34.07 | PK | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

**Modulation: HT-20_MCS0; Test Frequency: 5745 MHz; number of TX Chain: 2**

| Transmitter Conducted Unwanted Emissions Result in Restricted Bands | | | | | | |
|---|---|---|---|---|---|---|
| **Modulation** | HT-20_MCS0 | **Test Frequency** | 5745 MHz | | **NTX** | 2 |
| **Frequency (MHz)** | **Chain 0 Test Level (dBm)** | **Chain 1 Test Level (dBm)** | **DG (dBi)** | **EIRP Level (dBm)** | **Limit (dBm)** | **Level Type** |
| 10444.60 | -41.82 | -44.25 | 7.77 | -32.10 | -21.2 | Peak |
| 10434.60 | -53.62 | -53.88 | 7.77 | -42.98 | -41.2 | Average |

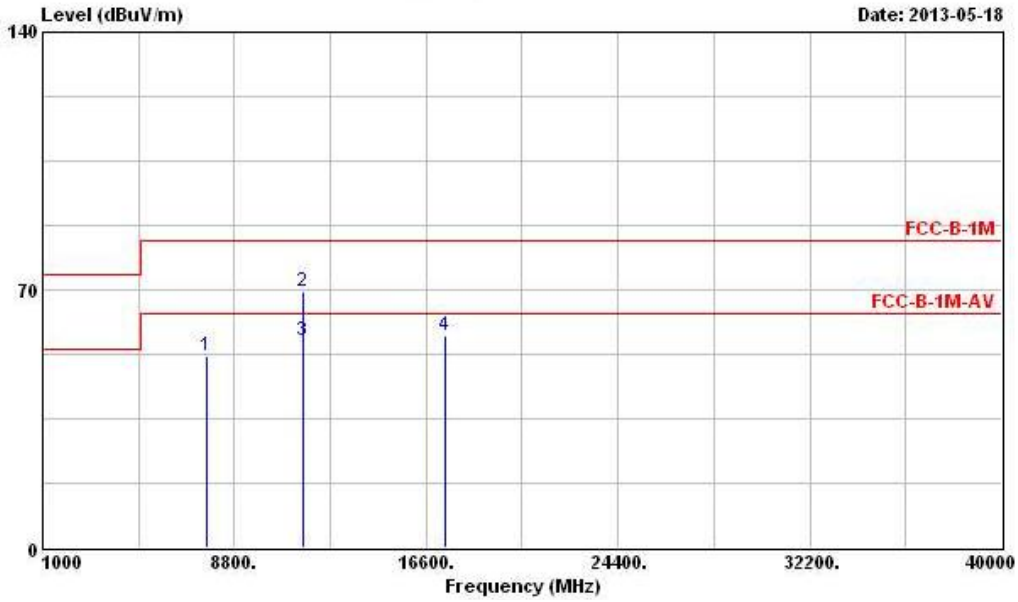
**Modulation: HT-20_MCS0; Test Frequency: 5785 MHz; number of TX Chain: 2**

| Transmitter Conducted Unwanted Emissions Result in Restricted Bands | | | | | | |
|---|---|---|---|---|---|---|
| **Modulation** | HT-20_MCS0 | **Test Frequency** | 5785 MHz | | **NTX** | 2 |
| **Frequency (MHz)** | **Chain 0 Test Level (dBm)** | **Chain 1 Test Level (dBm)** | **DG (dBi)** | **EIRP Level (dBm)** | **Limit (dBm)** | **Level Type** |
| 10490.30 | -43.75 | -42.32 | 7.77 | -32.21 | -21.2 | Peak |
| 10461.50 | -53.98 | -53.45 | 7.77 | -42.94 | -41.2 | Average |

**Modulation: HT-20_MCS0; Test Frequency: 5825 MHz; number of TX Chain: 2**

| Transmitter Conducted Unwanted Emissions Result in Restricted Bands | | | | | | |
|---|---|---|---|---|---|---|
| **Frequency (MHz)** | **Chain 0 Test Level (dBm)** | **Chain 1 Test Level (dBm)** | **DG (dBi)** | **EIRP Level (dBm)** | **Limit (dBm)** | **Level Type** |
| 10429.20 | -43.27 | -43.20 | 7.77 | -32.46 | -21.2 | Peak |
| 10439.00 | -53.84 | -53.58 | 7.77 | -42.94 | -41.2 | Average |

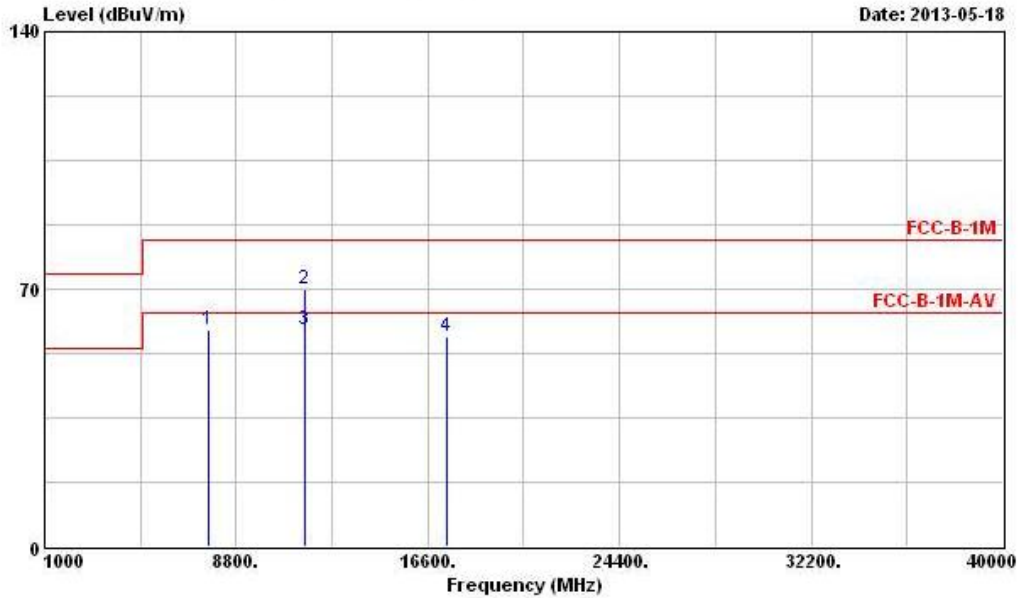
| Operating Mode | HT-20_MCS0 | Polarization | H |
|---|---|---|---|
| Operating Frequency | 5785 MHz | Configuration | With 50Ω Terminated |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 7704.000 | 52.22 | -11.32 | 63.54 | 46.21 | 35.30 | 5.98 | 35.27 | PK | --- | --- |
| 2 | 11570.000 | 69.32 | -14.22 | 83.54 | 59.28 | 38.36 | 6.55 | 34.87 | Peak | --- | --- |
| 3 | 11570.000 | 56.27 | -7.27 | 63.54 | 46.23 | 38.36 | 6.55 | 34.87 | Average | --- | --- |
| 4 | 17355.000 | 57.35 | -6.19 | 63.54 | 42.07 | 40.97 | 8.38 | 34.07 | PK | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

| Operating Mode | HT-20_MCS0 | Polarization | V |
|---|---|---|---|
| Operating Frequency | 5785 MHz | Configuration | With 50Ω Terminated |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 7704.000 | 58.82 | -4.72 | 63.54 | 52.81 | 35.30 | 5.98 | 35.27 | PK | --- | --- |
| 2 | 11570.000 | 70.07 | -13.47 | 83.54 | 60.03 | 38.36 | 6.55 | 34.87 | Peak | --- | --- |
| 3 | 11570.000 | 59.01 | -4.53 | 63.54 | 48.97 | 38.36 | 6.55 | 34.87 | Average | --- | --- |
| 4 | 17355.000 | 57.07 | -6.47 | 63.54 | 41.79 | 40.97 | 8.38 | 34.07 | PK | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

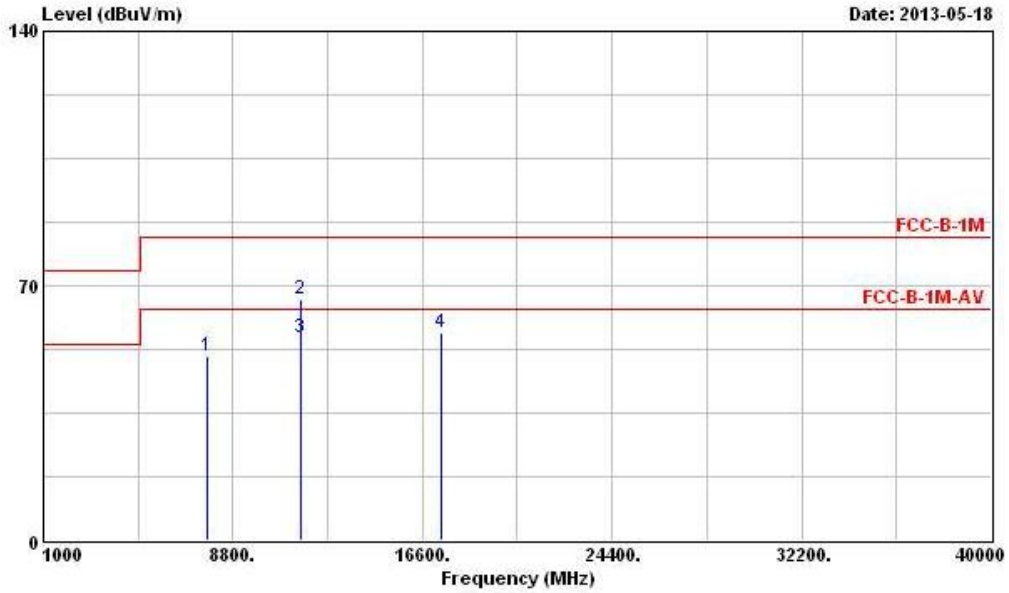
**Modulation: HT-40_MCS0; Test Frequency: 5755 MHz; number of TX Chain: 2**

| Transmitter Conducted Unwanted Emissions Result in Restricted Bands | | | | | | |
|---|---|---|---|---|---|---|
| **Modulation** | HT-40_MCS0 | **Test Frequency** | 5755 MHz | | **NTX** | 2 |
| **Frequency (MHz)** | **Chain 0 Test Level (dBm)** | **Chain 1 Test Level (dBm)** | **DG (dBi)** | **EIRP Level (dBm)** | **Limit (dBm)** | **Level Type** |
| 10445.70 | -42.83 | -42.90 | 7.77 | -32.09 | -21.2 | Peak |
| 10450.70 | -53.48 | -53.74 | 7.77 | -42.84 | -41.2 | Average |

**Modulation: HT-40_MCS0; Test Frequency: 5795 MHz; number of TX Chain: 2**

| Transmitter Conducted Unwanted Emissions Result in Restricted Bands | | | | | | |
|---|---|---|---|---|---|---|
| **Frequency (MHz)** | **Chain 0 Test Level (dBm)** | **Chain 1 Test Level (dBm)** | **DG (dBi)** | **EIRP Level (dBm)** | **Limit (dBm)** | **Level Type** |
| 10452.30 | -43.95 | -42.43 | 7.77 | -32.35 | -21.2 | Peak |
| 10468.00 | -53.43 | -53.96 | 7.77 | -42.92 | -41.2 | Average |

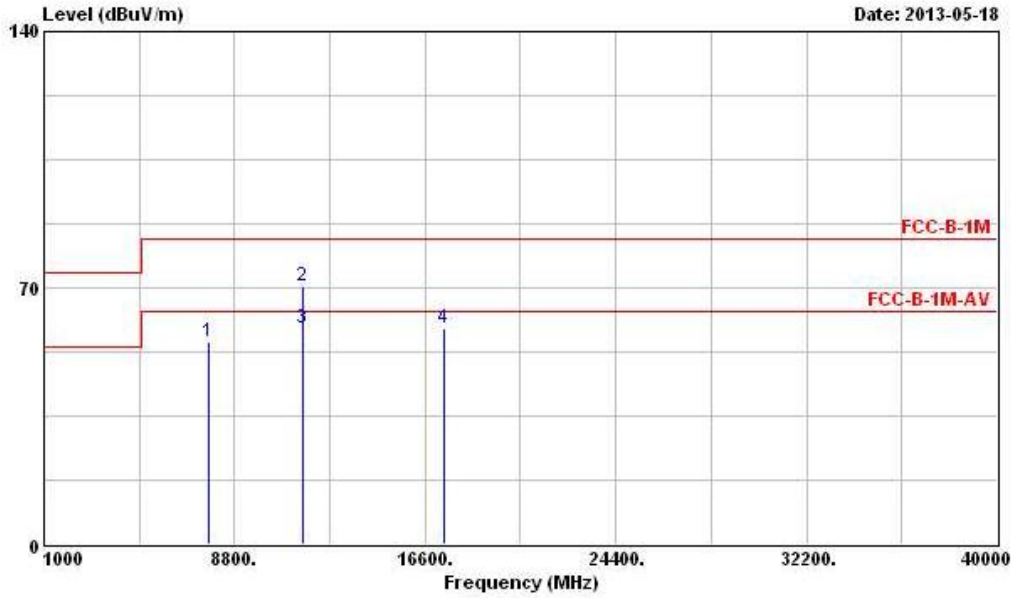
| Operating Mode | HT-40_MCS0 | Polarization | H |
|---|---|---|---|
| Operating Frequency | 5795 MHz | Configuration | With 50Ω Terminated |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 7716.000 | 50.78 | -12.76 | 63.54 | 44.77 | 35.30 | 5.98 | 35.27 | PK | --- | --- |
| 2 | 11590.000 | 66.28 | -17.26 | 83.54 | 56.25 | 38.37 | 6.53 | 34.87 | Peak | --- | --- |
| 3 | 11590.000 | 55.83 | -7.71 | 63.54 | 45.80 | 38.37 | 6.53 | 34.87 | Average | --- | --- |
| 4 | 17385.000 | 57.02 | -6.52 | 63.54 | 41.75 | 40.98 | 8.36 | 34.07 | PK | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

| Operating Mode | HT-40_MCS0 | Polarization | V |
|---|---|---|---|
| Operating Frequency | 5795 MHz | Configuration | With 50Ω Terminated |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 7716.000 | 55.25 | -8.29 | 63.54 | 49.24 | 35.30 | 5.98 | 35.27 | Average | --- | --- |
| 2 | 11590.000 | 70.26 | -13.28 | 83.54 | 60.23 | 38.37 | 6.53 | 34.87 | Peak | --- | --- |
| 3 | 11590.000 | 58.85 | -4.69 | 63.54 | 48.82 | 38.37 | 6.53 | 34.87 | Average | --- | --- |
| 4 | 17385.000 | 58.98 | -4.56 | 63.54 | 43.71 | 40.98 | 8.36 | 34.07 | Average | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

**Modulation: VHT-20_MCS0; Test Frequency: 5745 MHz; number of TX Chain: 2**

| Transmitter Conducted Unwanted Emissions Result in Restricted Bands | | | | | | |
|---|---|---|---|---|---|---|
| **Modulation** | VHT-20_MCS0 | **Test Frequency** | 5745 MHz | | **NTX** | 2 |
| **Frequency (MHz)** | **Chain 0 Test Level (dBm)** | **Chain 1 Test Level (dBm)** | **DG (dBi)** | **EIRP Level (dBm)** | **Limit (dBm)** | **Level Type** |
| 10475.40 | -44.04 | -42.79 | 7.77 | -32.60 | -21.2 | Peak |
| 10449.60 | -53.75 | -53.49 | 7.77 | -42.85 | -41.2 | Average |

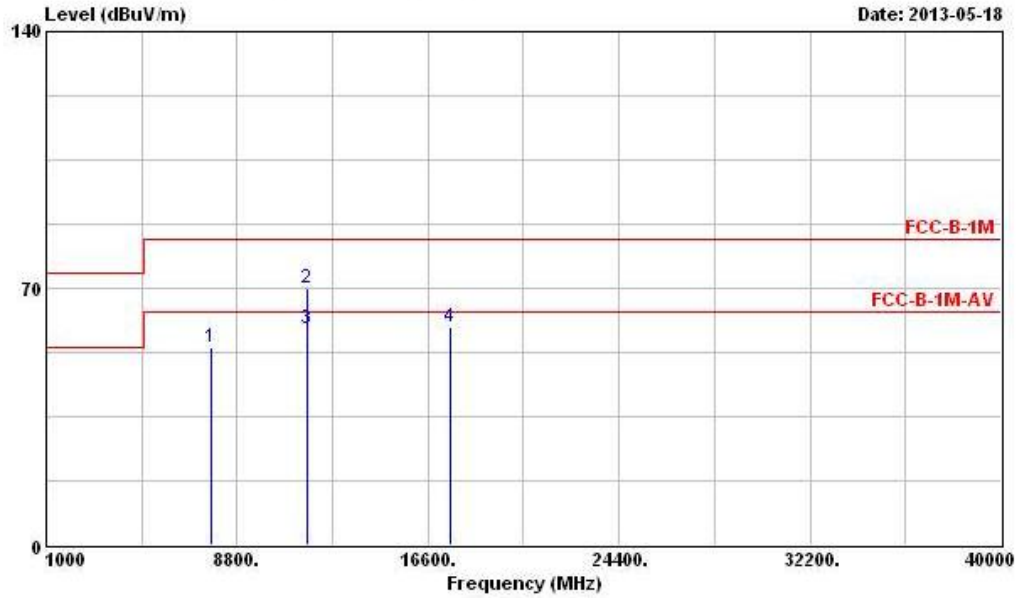
**Modulation: VHT-20_MCS0; Test Frequency: 5785 MHz; number of TX Chain: 2**

| Transmitter Conducted Unwanted Emissions Result in Restricted Bands | | | | | | |
|---|---|---|---|---|---|---|
| **Frequency (MHz)** | **Chain 0 Test Level (dBm)** | **Chain 1 Test Level (dBm)** | **DG (dBi)** | **EIRP Level (dBm)** | **Limit (dBm)** | **Level Type** |
| 10414.50 | -41.47 | -45.51 | 7.77 | -32.27 | -21.2 | Peak |
| 10442.00 | -53.56 | -53.56 | 7.77 | -42.79 | -41.2 | Average |

**Modulation: VHT-20_MCS0; Test Frequency: 5825 MHz; number of TX Chain: 2**

| Transmitter Conducted Unwanted Emissions Result in Restricted Bands | | | | | | |
|---|---|---|---|---|---|---|
| **Frequency (MHz)** | **Chain 0 Test Level (dBm)** | **Chain 1 Test Level (dBm)** | **DG (dBi)** | **EIRP Level (dBm)** | **Limit (dBm)** | **Level Type** |
| 10425.50 | -43.31 | -42.66 | 7.77 | -32.20 | -21.2 | Peak |
| 10476.90 | -54.21 | -53.15 | 7.77 | -42.88 | -41.2 | Average |

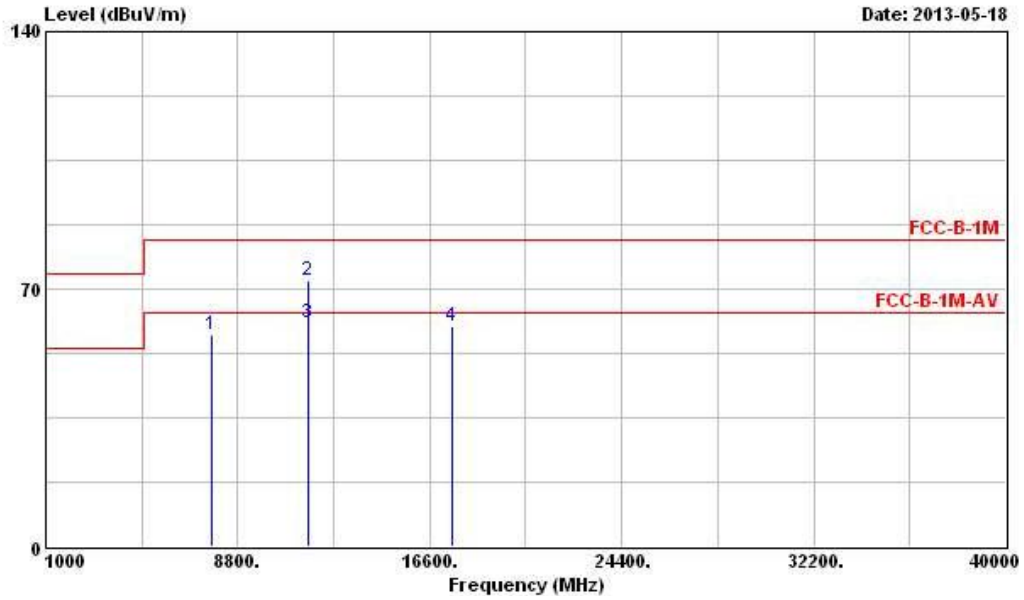
| Operating Mode | VHT-20_MCS0 | Polarization | H |
|---|---|---|---|
| Operating Frequency | 5825 MHz | Configuration | With 50Ω Terminated |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 7752.000 | 53.78 | -9.76 | 63.54 | 47.73 | 35.30 | 6.03 | 35.28 | PK | --- | --- |
| 2 | 11650.000 | 70.23 | -13.31 | 83.54 | 60.22 | 38.41 | 6.51 | 34.91 | Peak | --- | --- |
| 3 | 11650.000 | 58.88 | -4.66 | 63.54 | 48.87 | 38.41 | 6.51 | 34.91 | Average | --- | --- |
| 4 | 17475.000 | 59.42 | -4.12 | 63.54 | 44.19 | 40.99 | 8.32 | 34.08 | PK | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

| Operating Mode | VHT-20_MCS0 | Polarization | V |
|---|---|---|---|
| Operating Frequency | 5825 MHz | Configuration | With 50Ω Terminated |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 7752.000 | 57.68 | -5.86 | 63.54 | 51.63 | 35.30 | 6.03 | 35.28 | PK | --- | --- |
| 2 | 11650.000 | 72.50 | -11.04 | 83.54 | 62.49 | 38.41 | 6.51 | 34.91 | Peak | --- | --- |
| 3 | @11650.000 | 60.75 | -2.79 | 63.54 | 50.74 | 38.41 | 6.51 | 34.91 | Average | --- | --- |
| 4 | @17475.000 | 59.84 | -3.70 | 63.54 | 44.61 | 40.99 | 8.32 | 34.08 | PK | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

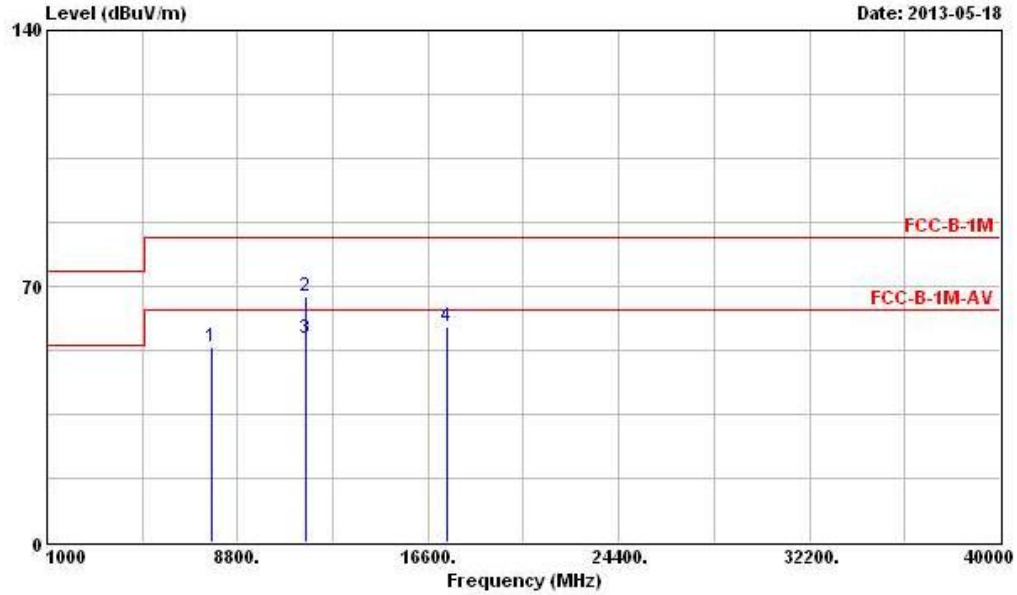
**Modulation: VHT-40_MCS0; Test Frequency: 5755 MHz; number of TX Chain: 2**

| Transmitter Conducted Unwanted Emissions Result in Restricted Bands | | | | | | |
|---|---|---|---|---|---|---|
| **Modulation** | VHT-40_MCS0 | **Test Frequency** | 5755 MHz | | **NTX** | 2 |
| **Frequency (MHz)** | **Chain 0 Test Level (dBm)** | **Chain 1 Test Level (dBm)** | **DG (dBi)** | **EIRP Level (dBm)** | **Limit (dBm)** | **Level Type** |
| 10461.50 | -44.79 | -41.06 | 7.77 | -31.77 | -21.2 | Peak |
| 10452.90 | -53.22 | -53.73 | 7.77 | -42.70 | -41.2 | Average |

**Modulation: VHT-40_MCS0; Test Frequency: 5795 MHz; number of TX Chain: 2**

| Transmitter Conducted Unwanted Emissions Result in Restricted Bands | | | | | | |
|---|---|---|---|---|---|---|
| **Frequency (MHz)** | **Chain 0 Test Level (dBm)** | **Chain 1 Test Level (dBm)** | **DG (dBi)** | **EIRP Level (dBm)** | **Limit (dBm)** | **Level Type** |
| 10327.60 | -41.77 | -44.13 | 7.77 | -32.02 | -21.2 | Peak |
| 10482.70 | -53.65 | -53.65 | 7.77 | -42.88 | -41.2 | Average |

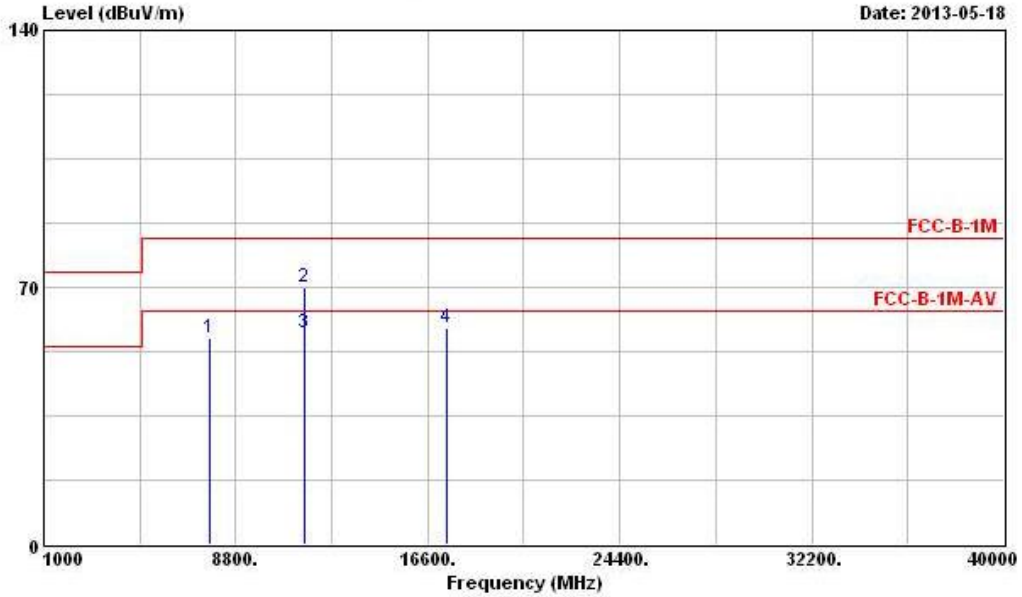
| Operating Mode | VHT-40_MCS0 | Polarization | H |
|---|---|---|---|
| Operating Frequency | 5795 MHz | Configuration | With 50Ω Terminated |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 7716.000 | 53.64 | -9.90 | 63.54 | 47.63 | 35.30 | 5.98 | 35.27 | PK | --- | --- |
| 2 | 11590.000 | 67.45 | -16.09 | 83.54 | 57.42 | 38.37 | 6.53 | 34.87 | Peak | --- | --- |
| 3 | 11590.000 | 55.83 | -7.71 | 63.54 | 45.80 | 38.37 | 6.53 | 34.87 | Average | --- | --- |
| 4 | 17385.000 | 58.80 | -4.74 | 63.54 | 43.53 | 40.98 | 8.36 | 34.07 | PK | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

| Operating Mode | VHT-40_MCS0 | Polarization | V |
|---|---|---|---|
| Operating Frequency | 5795 MHz | Configuration | With 50Ω Terminated |



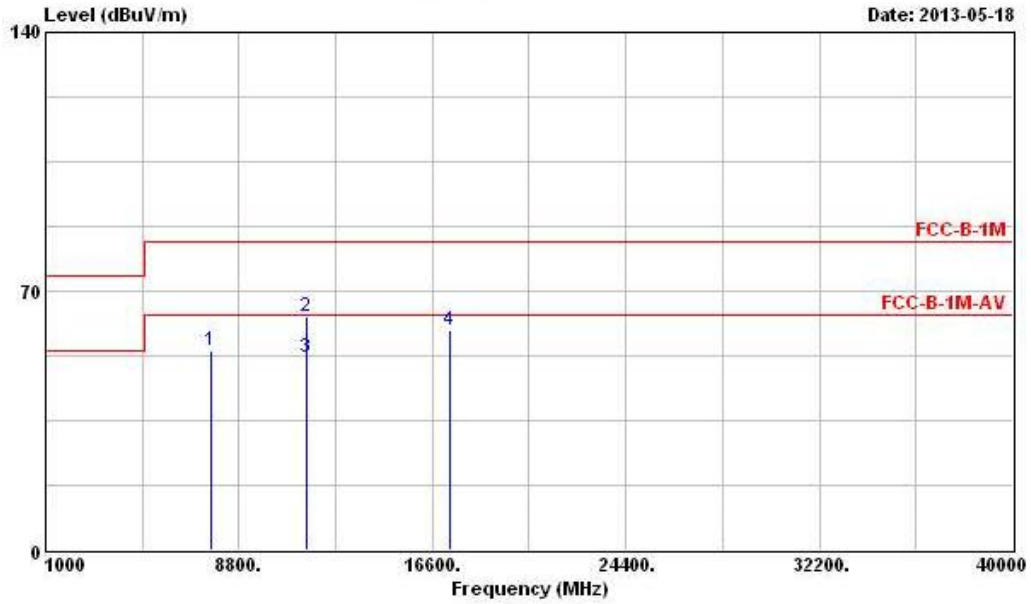

| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 7716.000 | 56.33 | -7.21 | 63.54 | 50.32 | 35.30 | 5.98 | 35.27 | PK | --- | --- |
| 2 | 11590.000 | 70.16 | -13.38 | 83.54 | 60.13 | 38.37 | 6.53 | 34.87 | Peak | --- | --- |
| 3 | 11590.000 | 57.76 | -5.78 | 63.54 | 47.73 | 38.37 | 6.53 | 34.87 | Average | --- | --- |
| 4 | @17385.000 | 59.05 | -4.49 | 63.54 | 43.78 | 40.98 | 8.36 | 34.07 | PK | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

**Modulation: VHT-80_MCS0; Test Frequency: 5775 MHz; number of TX Chain: 2**

| Transmitter Conducted Unwanted Emissions Result in Restricted Bands | | | | | | |
|---|---|---|---|---|---|---|
| **Frequency (MHz)** | **Chain 0 Test Level (dBm)** | **Chain 1 Test Level (dBm)** | **DG (dBi)** | **EIRP Level (dBm)** | **Limit (dBm)** | **Level Type** |
| 10499.40 | -43.72 | -42.43 | 7.77 | -32.26 | -21.2 | Peak |
| 10442.60 | -53.55 | -53.55 | 7.77 | -42.78 | -41.2 | Average |

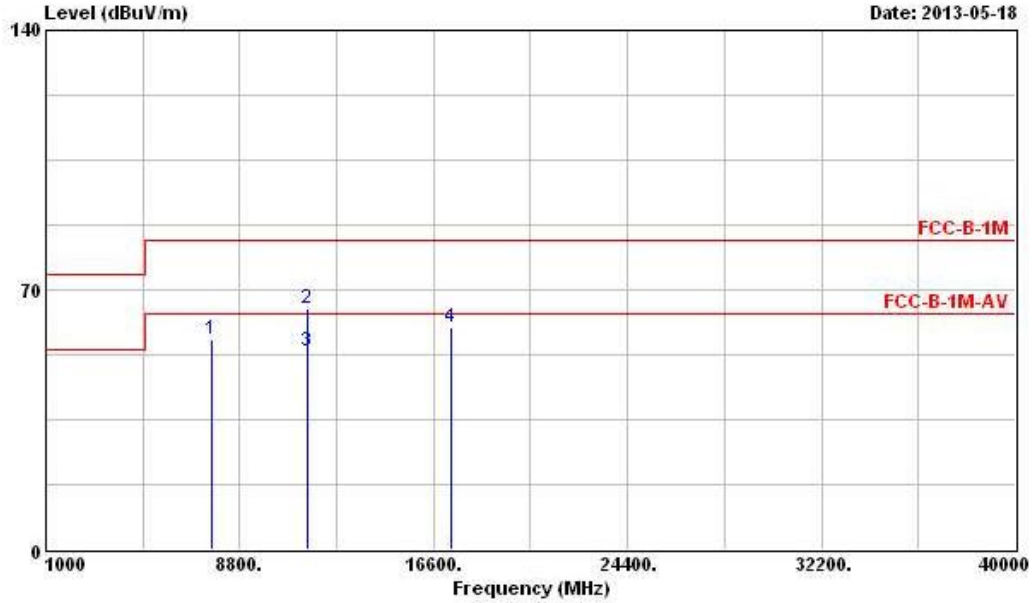
| Operating Mode | VHT-80_MCS0 | Polarization | H |
|---|---|---|---|
| Operating Frequency | 5775 MHz | Configuration | With 50Ω Terminated |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 7668.000 | 53.72 | -9.82 | 63.54 | 47.76 | 35.30 | 5.92 | 35.26 | PK | --- | --- |
| 2 | 11550.000 | 62.88 | -20.66 | 83.54 | 52.85 | 38.34 | 6.55 | 34.86 | Peak | --- | --- |
| 3 | 11550.000 | 52.05 | -11.49 | 63.54 | 42.02 | 38.34 | 6.55 | 34.86 | Average | --- | --- |
| 4 | @17325.000 | 59.55 | -3.99 | 63.54 | 44.28 | 40.96 | 8.38 | 34.07 | PK | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

| Operating Mode | VHT-80_MCS0 | Polarization | H |
|---|---|---|---|
| Operating Frequency | 5775 MHz | Configuration | With 50Ω Terminated |




| | Freq | Level | Over Limit | Limit Line | Read Level | Antenna Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | | cm | deg |
| 1 | 7668.000 | 56.44 | -7.10 | 63.54 | 50.48 | 35.30 | 5.92 | 35.26 | PK | --- | --- |
| 2 | 11550.000 | 65.03 | -18.51 | 83.54 | 55.00 | 38.34 | 6.55 | 34.86 | Peak | --- | --- |
| 3 | 11550.000 | 53.23 | -10.31 | 63.54 | 43.20 | 38.34 | 6.55 | 34.86 | Average | --- | --- |
| 4 | @17325.000 | 59.85 | -3.69 | 63.54 | 44.58 | 40.96 | 8.38 | 34.07 | PK | --- | --- |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

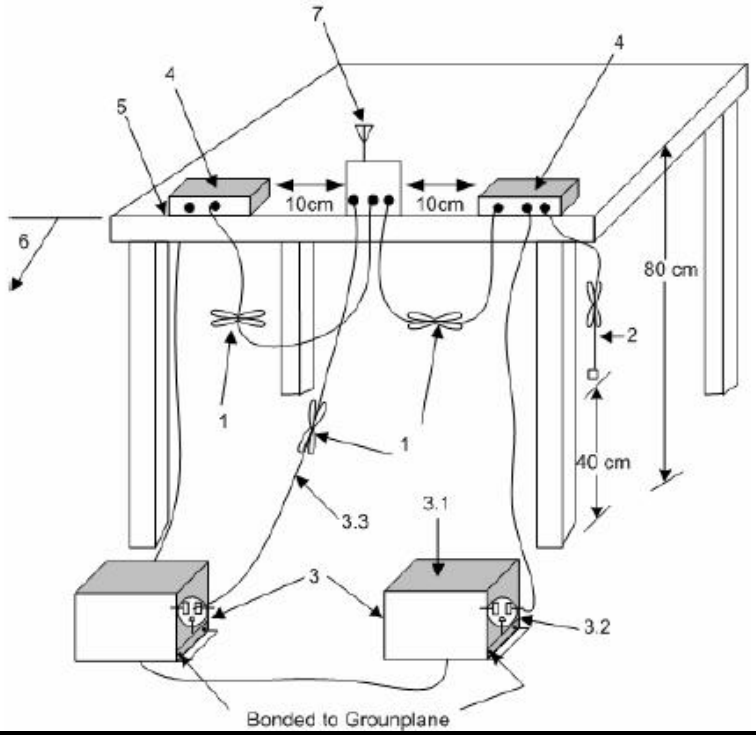
## 3.6 AC Power-line Conducted Emissions

### 3.6.1 Test Procedures

| Test Method |
|---|
| ☒ Refer as ANSI C63.10-2009, clause 6.2 for AC power-line conducted emissions. |

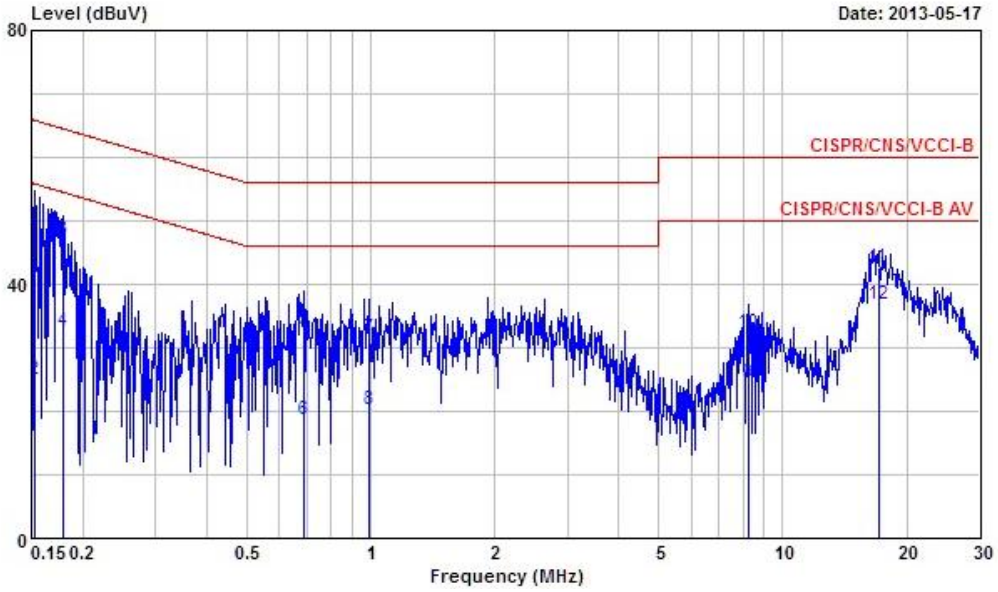
### 3.6.2 Test Setup

**AC Power-line Conducted Emissions**



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

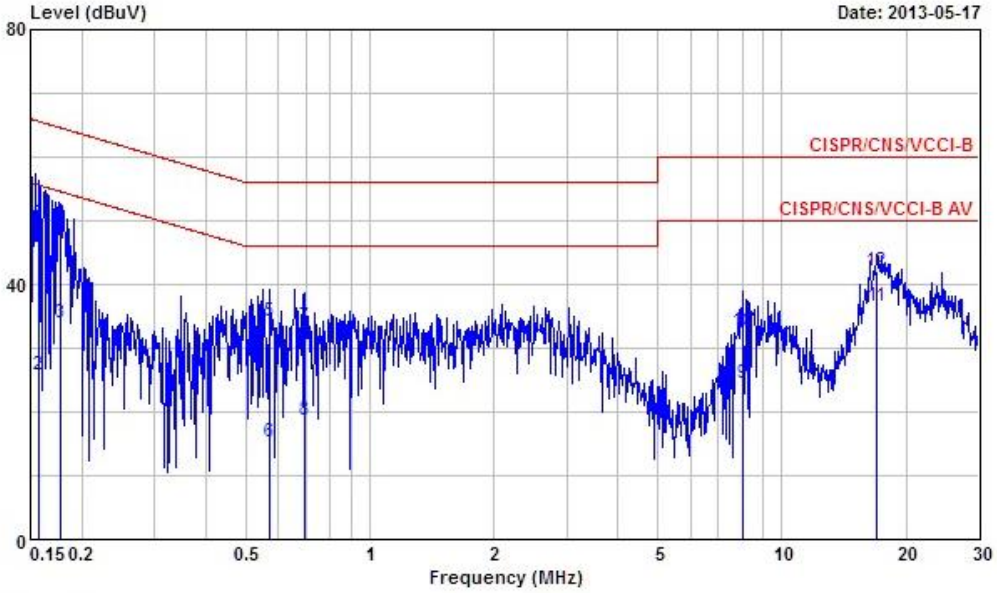
| AC Power-line Conducted Emissions Result | | | |
|---|---|---|---|
| **Operating Mode** | 1 | **Power Phase** | Neutral |
| **Operating Function** | Normal link | | |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Remark |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV | dBuV | dB | dB | |
| 1 | 0.1524030 | 49.36 | -16.51 | 65.87 | 48.86 | 0.24 | 0.26 | QP |
| 2 | 0.1524030 | 24.88 | -30.99 | 55.87 | 24.38 | 0.24 | 0.26 | Average |
| 3 | 0.1786590 | 47.23 | -17.32 | 64.55 | 46.83 | 0.23 | 0.17 | QP |
| 4 | 0.1786590 | 32.54 | -22.01 | 54.55 | 32.14 | 0.23 | 0.17 | Average |
| 5 | 0.6862570 | 32.98 | -23.02 | 56.00 | 32.59 | 0.23 | 0.16 | QP |
| 6 | 0.6862570 | 18.63 | -27.37 | 46.00 | 18.24 | 0.23 | 0.16 | Average |
| 7 | 0.9891400 | 31.52 | -24.48 | 56.00 | 31.09 | 0.23 | 0.20 | QP |
| 8 | 0.9891400 | 20.38 | -25.62 | 46.00 | 19.95 | 0.23 | 0.20 | Average |
| 9 | 8.240 | 24.38 | -25.62 | 50.00 | 23.87 | 0.39 | 0.12 | Average |
| 10 | 8.240 | 32.41 | -27.59 | 60.00 | 31.90 | 0.39 | 0.12 | QP |
| 11 | 17.110 | 42.70 | -17.30 | 60.00 | 41.97 | 0.53 | 0.20 | QP |
| 12 | 17.110 | 36.91 | -13.09 | 50.00 | 36.18 | 0.53 | 0.20 | Average |

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

| AC Power-line Conducted Emissions Result | | | |
|---|---|---|---|
| **Operating Mode** | 1 | **Power Phase** | Line |
| **Operating Function** | Normal link | | |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Remark |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV | dBuV | dB | dB | |
| 1 | 0.1564950 | 49.79 | -15.86 | 65.65 | 49.44 | 0.11 | 0.24 | QP |
| 2 | 0.1564950 | 25.81 | -29.84 | 55.65 | 25.46 | 0.11 | 0.24 | Average |
| 3 | 0.1777150 | 33.84 | -20.75 | 54.59 | 33.56 | 0.11 | 0.17 | Average |
| 4 | 0.1777150 | 48.56 | -16.03 | 64.59 | 48.28 | 0.11 | 0.17 | QP |
| 5 | 0.5731280 | 34.18 | -21.82 | 56.00 | 33.94 | 0.10 | 0.14 | QP |
| 6 | 0.5731280 | 15.30 | -30.70 | 46.00 | 15.06 | 0.10 | 0.14 | Average |
| 7 | 0.6972520 | 33.33 | -22.67 | 56.00 | 33.06 | 0.11 | 0.16 | QP |
| 8 | 0.6972520 | 18.59 | -27.41 | 46.00 | 18.32 | 0.11 | 0.16 | Average |
| 9 | 8.020 | 24.58 | -25.42 | 50.00 | 24.24 | 0.22 | 0.12 | Average |
| 10 | 8.020 | 32.58 | -27.42 | 60.00 | 32.24 | 0.22 | 0.12 | QP |
| 11 | 17.020 | 36.57 | -13.43 | 50.00 | 36.08 | 0.29 | 0.20 | Average |
| 12 | 17.020 | 42.06 | -17.94 | 60.00 | 41.57 | 0.29 | 0.20 | QP |

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

# 4 Test Equipment and Calibration Data

| Instrument | Manufacturer | Model No. | Serial No. | Characteristics | Calibration Date | Remark |
|---|---|---|---|---|---|---|
| EMC Receiver | R&S | ESCS 30 | 100174 | 9kHz ~ 2.75GHz | Mar. 26, 2013 | Conduction (CO04-HY) |
| LISN | SCHWARZBECK MESS-ELEKTRONIK | NSLK 8127 | 8127-477 | 9kHz ~ 30MHz | Jan. 21, 2013 | Conduction (CO04-HY) |
| LISN (Support Unit) | EMCO | 3810/2NM | 9703-1839 | 9kHz ~ 30MHz | Apr. 18, 2013 | Conduction (CO04-HY) |
| RF Cable-CON | HUBER+SUHNER | RG213/U | 7.61183201e+012 | 9kHz ~ 30MHz | Nov. 09, 2012 | Conduction (CO04-HY) |

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

| Instrument | Manufacturer | Model No. | Serial No. | Characteristics | Calibration Date | Remark |
|---|---|---|---|---|---|---|
| Spectrum Analyzer | R&S | FSP 40 | 100305 | 9KHz~40GHz | Mar. 20, 2013 | Conducted (TH01-HY) |
| AC Power Source | G.W | APS-9102 | EL920581 | AC 0V ~ 300V | Jul. 02, 2012 | Conducted (TH01-HY) |
| Temp. and Humidity Chamber | Giant Force | GTH-225-20-SP-SD | MAA1112-007 | -20 ~ 100℃ | Nov. 21, 2012 | Conducted (TH01-HY) |
| Signal Generator | R&S | SMR40 | 100116 | 10MHz ~ 40GHz | Jun. 26, 2012 | Conducted (TH01-HY) |
| Power Sensor | Anritsu | MA2411B | 0917017 | 300MHz ~ 40GHz | Feb. 02, 2013 | Conducted (TH01-HY) |
| Power Meter | Anritsu | ML2495A | 0949003 | 300MHz ~ 40GHz | Feb. 02, 2013 | Conducted (TH01-HY) |
| RF Cable-2m | HUBER+SUHNER | SUCOFLEX_104 | SN 345675/4 | 1GHz ~ 26.5GHz | NA | Conducted (TH01-HY) |
| RF Cable-3m | HUBER+SUHNER | SUCOFLEX_104 | SN 345669/4 | 1GHz ~ 26.5GHz | NA | Conducted (TH01-HY) |

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

| Instrument | Manufacturer | Model No. | Serial No. | Characteristics | Calibration Date | Remark |
|---|---|---|---|---|---|---|
| Spectrum Analyzer | R&S | FSP40 | 100593 | 9kHz ~ 40GHz | Sep. 14, 2012 | Radiation (03CH02-HY) |
| 3m Semi Anechoic Chamber | SIDT FRANKONIA | SAC-3M | 03CH02-HY | 30MHz ~ 1GHz 3m | May 10, 2012 | Radiation (03CH02-HY) |
| Amplifier | Agilent | 8447D | 2944A11146 | 100kHz ~ 1.3GHz | Jul. 23, 2012 | Radiation (03CH02-HY) |
| Amplifier | Agilent | 8449B | 3008A02373 | 1GHz ~ 26.5GHz | Aug. 10, 2012 | Radiation (03CH02-HY) |
| Horn Antenna | ETS-LINDGREN | 3117 | 00091920 | 1GHz ~ 18GHz | Nov. 16, 2012 | Radiation (03CH02-HY) |
| Horn Antenna | SCHWARZBECK | BBHA9170 | BBHA9170154 | 15GHz ~ 40GHz | Jan. 08, 2013 | Radiation (03CH02-HY) |
| RF Cable-R03m | Jye Bao | RG142 | CB021 | 9kHz ~ 1GHz | Nov. 10, 2012 | Radiation (03CH02-HY) |
| RF Cable-high | SUHNER | SUCOFLEX106 | 03CH02-HY | 1GHz ~ 40GHz | Mar. 05, 2013 | Radiation (03CH02-HY) |
| Bilog Antenna | SCHAFFNER | CBL61128 | 2723 | 30MHz ~ 2GHz | Oct. 22, 2012 | Radiation (03CH02-HY) |
| Turn Table | HD | DS 420 | 420/649/00 | 0~ 360 degree | N/A | Radiation (03CH02-HY) |
| Antenna Mast | HD | MA 240 | 240/559/00 | 1 ~ 4 m | N/A | Radiation (03CH02-HY) |

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

| Instrument | Manufacturer | Model No. | Serial No. | Characteristics | Calibration Date | Remark |
|---|---|---|---|---|---|---|
| Loop Antenna | TESEQ | HLA 6120 | 31244 | 9 kHz - 30 MHz | Dec. 02, 2012 | Radiation (03CH02-HY) |

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