# FCC Test Report

# (Co-Located)

| | |
|---|---|
| **Report No.:** | RF191111C01B-1 |
| **FCC ID:** | TVE-4617T06785 |
| **Test Model:** | FAP-431F, FAP-433F (refer to item 3.1 for more details) |
| **Series Model:** | FortiAP 431Fxxxxxx, FAP-431Fxxxxxx, FORTIAP-431Fxxxxxx, FortiAP 433Fxxxxxx, FAP-433Fxxxxxx, FORTIAP-433Fxxxxxx (where “x” can be used as “A-Z”, or “0-9”, or “-”, or blank for software changes or marketing purposes only) (refer to item 3.1 for more details) |
| **Received Date:** | Apr. 15, 2020 |
| **Test Date:** | May 29 ~ Jun. 01, 2020 |
| **Issued Date:** | Jun. 20, 2020 |
| **Applicant:** | Fortinet Inc. |
| **Address:** | 899 Kifer Road Sunnyvale, CA 94086 USA |
| **Issued By:** | Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch<br>Lin Kou Laboratories |
| **Lab Address:** | No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan |
| **Test Location:** | No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan |
| **FCC Registration / Designation Number:** | 788550 / TW0003 |

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## Release Control Record

| Issue No. | Description | Date Issued |
|---|---|---|
| RF191111C01B-1 | Original release | Jun. 20, 2020 |

## 1 Certificate of Conformity

| | |
|---|---|
| **Product:** | Secured Wireless Access Point |
| **Brand:** | Fortinet |
| **Test Model:** | FAP-431F, FAP-433F (refer to item 3.1 for more details) |
| **Series Model:** | FortiAP 431Fxxxxxx, FAP-431Fxxxxxx, FORTIAP-431Fxxxxxx, FortiAP 433Fxxxxxx, FAP-433Fxxxxxx, FORTIAP-433Fxxxxxx (where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only) (refer to item 3.1 for more details) |
| **Sample Status:** | Engineering sample |
| **Applicant:** | Fortinet Inc. |
| **Test Date:** | May 29 ~ Jun. 01, 2020 |
| **Standards:** | 47 CFR FCC Part 15, Subpart C (Section 15.247)<br>47 CFR FCC Part 15, Subpart E (Section 15.407)<br>ANSI C63.10-2013 |

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

**Prepared by :** Pettie Chen , **Date:** Jun. 20, 2020

Pettie Chen / Senior Specialist

**Approved by :** Bruce Chen , **Date:** Jun. 20, 2020

Bruce Chen / Senior Project Engineer

## 2 Summary of Test Results

| Applied Standard: | 47 CFR FCC Part 15, Subpart C (Section 15.247)<br>47 CFR FCC Part 15, Subpart E (Section 15.407) | | |
|---|---|---|---|
| FCC Clause | Test Item | Result | Remarks |
| 15.205 / 15.209 / 15.247(d) 15.407(b) (1/2/3/4(i/ii)/6) | Radiated Emissions | Pass | Meet the requirement of limit. Minimum passing margin is -1.0dB at 45.46, 49.68MHz. |

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

### 2.1 Measurement Uncertainty

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

| Measurement | Frequency | Expanded Uncertainty (k=2) (±) |
|---|---|---|
| Radiated Emissions up to 1 GHz | 9kHz ~ 30MHz | 3.04 dB |
| | 30MHz ~ 200MHz | 3.86 dB |
| | 200MHz ~1000MHz | 3.87 dB |
| Radiated Emissions above 1 GHz | 1GHz ~ 18GHz | 2.29 dB |
| | 18GHz ~ 40GHz | 2.29 dB |

### 2.2 Modification Record

There were no modifications required for compliance.

## 3 General Information

### 3.1 General Description of EUT

| | |
|---|---|
| Product | Secured Wireless Access Point |
| Brand | Fortinet |
| Test Model | FAP-431F, FAP-433F |
| Series Model | FortiAP 431Fxxxxxx, FAP-431Fxxxxxx, FORTIAP-431Fxxxxxx, FortiAP 433Fxxxxxx, FAP-433Fxxxxxx, FORTIAP-433Fxxxxxx (where “x” can be used as “A-Z”, or “0-9”, or “-”, or blank for software changes or marketing purposes only) |
| Model Difference | Refer to note |
| Sample Status | Engineering sample |
| Power Supply Rating | 12Vdc from Adapter<br>54Vdc from PoE |
| Modulation Type | 802.11b: BPSK, QPSK, CCK<br>802.11g/n: BPSK, QPSK, 16QAM, 64QAM<br>802.11ac: BPSK, QPSK, 16QAM, 64QAM, 256QAM<br>802.11ax: BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM |
| Modulation Technology | DSSS, OFDM, OFDMA |
| Transfer Rate | 802.11b: 11/5.5/2/1Mbps<br>802.11g: 54/48/36/24/18/12/9/6Mbps<br>802.11n (HT20/40): 6.5 to 600Mbps (MCS0 to MCS31)<br>802.11ac (VHT20/40): 6.5 to 1733Mbps (MCS0 to MCS9, NSS=1 to 4)<br>802.11ax: 9 to 1148Mbps (MCS0 to MCS11, NSS=1 to 4) |
| Operating Frequency | 2412~2462MHz, 5180 ~ 5240MHz, 5260 ~ 5320MHz, 5500 ~ 5720MHz, 5745 ~ 5825MHz |
| Number of Channel | **2.4GHz Band:**<br>2GHz traffic radio:<br>802.11b, 802.11g, 802.11n (HT20), 802.11ac (VHT20) , 802.11ax (HE20): 11<br>802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 7<br>Scanning radio:<br>802.11b, 802.11g, 802.11n (HT20): 11<br>802.11n (HT40): 7<br>**5.0GHz Band:**<br>5GHz traffic radio:<br>5180 ~ 5240MHz:<br>802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 4<br>802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2<br>802.11ac (VHT80), 802.11ax (HE80): 1<br>802.11ac (VHT80+VHT80), 802.11ax (HE80+HE80): 1<br>5260 ~ 5320MHz:<br>802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 4<br>802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2<br>802.11ac (VHT80), 802.11ax (HE80): 1<br>802.11ac (VHT80+VHT80), 802.11ax (HE80+HE80): 1<br>5500 ~ 5720MHz:<br>802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 12 |

| | |
|---|---|
| | 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 6<br>802.11ac (VHT80), 802.11ax (HE80): 3<br>802.11ac (VHT80+VHT80), 802.11ax (HE80+HE80): 2<br>5745 ~ 5825MHz:<br>802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 5<br>802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2<br>802.11ac (VHT80), 802.11ax (HE80): 1<br>Scanning radio:<br>5180 ~ 5240MHz:<br>802.11a, 802.11n (HT20), 802.11ac (VHT20): 4<br>802.11n (HT40), 802.11ac (VHT40): 2<br>802.11ac (VHT80): 1<br>5260 ~ 5320MHz:<br>802.11a, 802.11n (HT20), 802.11ac (VHT20): 4<br>802.11n (HT40), 802.11ac (VHT40): 2<br>802.11ac (VHT80): 1<br>5500 ~ 5720MHz:<br>802.11a, 802.11n (HT20), 802.11ac (VHT20): 12<br>802.11n (HT40), 802.11ac (VHT40): 6<br>802.11ac (VHT80): 3<br>5745 ~ 5825MHz:<br>802.11a, 802.11n (HT20), 802.11ac (VHT20): 5<br>802.11n (HT40), 802.11ac (VHT40): 2<br>802.11ac (VHT80): 1 |
| Output Power | **Model: FAP-431F**<br>**2.4GHz Band:**<br>2G traffic radio: CDD Mode: 982.103mW<br>2G traffic radio: Beamforming Mode: 296.049mW<br>Scanning radio: CDD Mode: 17.179mW<br>**5.0GHz Band:**<br>5180 ~ 5240MHz:<br>5G traffic radio: CDD Mode: 717.473mW<br>5G traffic radio: Beamforming Mode: 274.293mW<br>Scanning radio: CDD Mode: 16.904mW<br>5260 ~ 5320MHz:<br>5G traffic radio: CDD Mode: 225.992mW<br>5G traffic radio: Beamforming Mode: 59.597mW<br>Scanning radio: CDD Mode: 16.749mW<br>5500 ~ 5720MHz:<br>5G traffic radio: CDD Mode: 224.897mW<br>5G traffic radio: Beamforming Mode: 57.550mW<br>Scanning radio: CDD Mode: 16.827mW<br>5745 ~ 5825MHz:<br>5G traffic radio: CDD Mode: 798.100mW<br>5G traffic radio: Beamforming Mode: 291.061mW<br>Scanning radio: CDD Mode: 16.904mW<br>**Model: FAP-433F**<br>**2.4GHz Band:**<br>2G traffic radio: CDD Mode: 810.142mW<br>2G traffic radio: Beamforming Mode: 389.091mW<br>Scanning radio: CDD Mode: 16.634mW |

| | |
|---|---|
| | **5.0GHz Band:**<br>5180 ~ 5240MHz:<br>5G traffic radio: CDD Mode: 535.974mW<br>5G traffic radio: Beamforming Mode: 235.516mW<br>Scanning radio: CDD Mode: 16.711mW<br>5260 ~ 5320MHz:<br>5G traffic radio: CDD Mode: 202.031mW<br>5G traffic radio: Beamforming Mode: 50.965mW<br>Scanning radio: CDD Mode: 16.293mW<br>5500 ~ 5720MHz:<br>5G traffic radio: CDD Mode: 213.960mW<br>5G traffic radio: Beamforming Mode: 53.744mW<br>Scanning radio: CDD Mode: 16.368mW<br>5745 ~ 5825MHz:<br>5G traffic radio: CDD Mode: 864.483mW<br>5G traffic radio: Beamforming Mode: 203.444mW<br>Scanning radio: CDD Mode: 16.144mW |
| Antenna Type | Refer to Note |
| Antenna Connector | Refer to Note |
| Accessory Device | NA |
| Cable Supplied | NA |

Note:

1. The following models are provided to this EUT. The model FAP-433F, FAP-431F were chosen for final test.

| Brand | Test Model | Series Model | Difference |
|---|---|---|---|
| Fortinet | FAP-431F | FortiAP 431Fxxxxxx, FAP-431Fxxxxxx, FORTIAP-431Fxxxxxx (where “x” can be used as “A-Z”, or “0-9”, or “-”, or blank for software changes or marketing purposes only) | internal antenna |
| | FAP-433F | FortiAP 433Fxxxxxx, FAP-433Fxxxxxx, FORTIAP-433Fxxxxxx (where “x” can be used as “A-Z”, or “0-9”, or “-”, or blank for software changes or marketing purposes only) | external antenna |

2. The EUT incorporates a MIMO function. Physically, the EUT provides 4 completed transmitters and 4 receivers.

**2.4GHz Band:**

| Modulation Mode | CDD Mode | Beamforming Mode | TX Function | Radio |
|---|---|---|---|---|
| 802.11b | Support | Not Support | 4TX | 2G traffic radio |
| 802.11g | Support | Not Support | 4TX | |
| 802.11n (HT20) | Support | Not Support | 4TX | |
| 802.11n (HT40) | Support | Not Support | 4TX | |
| 802.11ac (VHT20) | Support | Support | 4TX | |
| 802.11ac (VHT40) | Support | Support | 4TX | |
| 802.11ax (HE20) | Support | Support | 4TX | |
| 802.11ax (HE40) | Support | Support | 4TX | |
| 802.11b | Support | Not Support | 1TX | Scanning radio |
| 802.11g | Support | Not Support | 1TX | |
| 802.11n (HT20) | Support | Not Support | 1TX | |
| 802.11n (HT40) | Support | Not Support | 1TX | |

**5.0GHz Band:**

| Modulation Mode | CDD Mode | Beamforming Mode | TX Function | Radio |
|---|---|---|---|---|
| 802.11a | Support | Not Support | 4TX | 5G traffic radio |
| 802.11n (HT20) | Support | Not Support | 4TX | |
| 802.11n (HT40) | Support | Not Support | 4TX | |
| 802.11ac (VHT20) | Support | Support | 4TX | |
| 802.11ac (VHT40) | Support | Support | 4TX | |
| 802.11ac (VHT80) | Support | Support | 4TX | |
| 802.11ax (HE20) | Support | Support | 4TX | |
| 802.11ax (HE40) | Support | Support | 4TX | |
| 802.11ax (HE80) | Support | Support | 4TX | |
| 802.11ax (HE80+80) | Support | Support | 2TX+2TX | |
| 802.11a | Support | Not Support | 1TX | Scanning radio |
| 802.11n (HT20) | Support | Not Support | 1TX | |
| 802.11n (HT40) | Support | Not Support | 1TX | |
| 802.11ac (VHT20) | Support | Not Support | 1TX | |
| 802.11ac (VHT40) | Support | Not Support | 1TX | |
| 802.11ac (VHT80) | Support | Not Support | 1TX | |

* The bandwidth and modulation are similar for HT20/HT40 on 802.11n mode and VHT20/VHT40 on 802.11ac mode and HE20/HE40 on 802.11ax mode. Therefore the investigated worst case is the representative mode in test report. (Final test mode refer section 3.2.1)

* For 802.11n/ax, CDD mode and Beamforming mode are presented in power output test item. For other test items, CDD mode is the worst case for final tests after pretesting.

3. The EUT consumes power from the following adapter and POE.

| Adapter (support units only) | |
|---|---|
| Brand | Asian Power Devices Inc. |
| Model | WA-30J12R |
| Input Power | 100-240Vac, 50-60Hz, 0.9A MAX |
| Output Power | 12Vdc, 2.5A |
| Power Line | 1.5m cable without core attached on adapter |

| POE (support units only) | |
|---|---|
| Brand | EnGenius |
| Model | EPA5006GAT |
| Input Power | 100-240Vac, 50-60Hz, 0.8A |
| Output Power | 54Vdc, 0.6A<br>PIN 4,5:54Vdc<br>PIN 7,8:RETURN |

4. The following antennas were provided to the EUT.

For Internal Antenna

| Antenna Type | PIFA | | | | | |
|---|---|---|---|---|---|---|
| Antenna Connector | IPEX | | | | | |
| Antenna No. | Gain (dBi) | | | | | |
| | 2400MHz | 2450MHz | 2500MHz | UNII-1 & UNII-2A | UNII-2C | UNII-3 |
| DL1 | 4.04 | 4.36 | **4.79** | 6.21 | **6.33** | 5.25 |
| DL2 | **5.52** | 5.29 | 5.19 | 5.07 | **5.99** | 5.03 |
| DL3 | 4.34 | **5.06** | 5.05 | **5.30** | 5.15 | 5.18 |
| DL4 | 4.72 | 4.66 | **5.62** | 5.34 | **6.37** | 5.85 |
| Scanning | 4.93 | 4.60 | **5.22** | 5.06 | 5.09 | **5.14** |
| BT | 4.23 | 4.66 | **4.71** | - | - | - |

For External Antenna

| Antenna Type | Dipole | | | | | |
|---|---|---|---|---|---|---|
| Antenna Connector | SMA | | | | | |
| Gain (dBi) | Frequency | | | | | |
| | 2400MHz | 2450MHz | 2500MHz | UNII-1 & UNII-2A | UNII-2C | UNII-3 |
| Ext. Ant. | 3.88 | 3.33 | 4 | 6.01 | 6.18 | 6.2 |
| BT | 4.23 | 4.66 | 4.71 | - | - | - |

*The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

5. 2G traffic radio, 5GHz traffic radio, Scanning radio (5G) and BLE technologies can transmit at same time.
But 5GHz traffic radio and Scanning radio (5G) cannot transmit in the same band at same time.
2G traffic radio and Scanning radio (2.4G) cannot transmit at same time.
BLE and 2G traffic radio (2.4G) cannot transmit at same time.
BLE and Scanning radio (2.4G) cannot transmit at same time.

### 3.2 Description of Test Modes

For 2.4GHz

11 channels are provided for 802.11b, 802.11g, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

| Channel | Frequency | Channel | Frequency |
|---|---|---|---|
| 1 | 2412MHz | 7 | 2442MHz |
| 2 | 2417MHz | 8 | 2447MHz |
| 3 | 2422MHz | 9 | 2452MHz |
| 4 | 2427MHz | 10 | 2457MHz |
| 5 | 2432MHz | 11 | 2462MHz |
| 6 | 2437MHz | | |

7 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

| Channel | Frequency | Channel | Frequency |
|---|---|---|---|
| 3 | 2422MHz | 7 | 2442MHz |
| 4 | 2427MHz | 8 | 2447MHz |
| 5 | 2432MHz | 9 | 2452MHz |
| 6 | 2437MHz | | |

For 5180~5240MHz:

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

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

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

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

1 channel is provided for 802.11ac (VHT80), 802.11ax (HE80), 802.11ac (VHT80+VHT80), 802.11ax (HE80+HE80):

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

For 5260 ~ 5320MHz:

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

| Channel | Frequency | Channel | Frequency |
|---|---|---|---|
| 52 | 5260 MHz | 60 | 5300 MHz |
| 56 | 5280 MHz | 64 | 5320 MHz |

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

| Channel | Frequency | Channel | Frequency |
|---|---|---|---|
| 54 | 5270 MHz | 62 | 5310 MHz |

1 channel is provided for 802.11ac (VHT80), 802.11ax (HE80), 802.11ac (VHT80+VHT80), 802.11ax (HE80+HE80):

| Channel | Frequency |
|---|---|
| 58 | 5290MHz |

For 5500 ~ 5720MHz:

12 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

| Channel | Frequency | Channel | Frequency |
|---|---|---|---|
| 100 | 5500 MHz | 124 | 5620 MHz |
| 104 | 5520 MHz | 128 | 5640 MHz |
| 108 | 5540 MHz | 132 | 5660 MHz |
| 112 | 5560 MHz | 136 | 5680 MHz |
| 116 | 5580 MHz | 140 | 5700 MHz |
| 120 | 5600 MHz | 144 | 5720 MHz |

6 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

| Channel | Frequency | Channel | Frequency |
|---|---|---|---|
| 102 | 5510 MHz | 126 | 5630 MHz |
| 110 | 5550 MHz | 134 | 5670 MHz |
| 118 | 5590 MHz | 142 | 5710 MHz |

3 channels are provided for 802.11ac (VHT80), 802.11ax (HE80):

| Channel | Frequency | Channel | Frequency |
|---|---|---|---|
| 106 | 5530 MHz | 138 | 5690 MHz |
| 122 | 5610 MHz | | |

2 channels are provided for 802.11ac (VHT80+VHT80), 802.11ax (HE80+HE80):

| Channel | Frequency | Channel | Frequency |
|---|---|---|---|
| 106 | 5530 MHz | 122 | 5610 MHz |

For 5745 ~ 5825MHz:

5 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

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

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

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

1 channel is provided for 802.11ac (VHT80), 802.11ax (HE80):

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

### 3.2.1 Test Mode Applicability and Tested Channel Detail

| EUT Configure Mode | Applicable to | | Description | |
|---|---|---|---|---|
| | RE≥1G | RE<1G | EUT Model | Power |
| A | √ | √ | FAP-431F | Power from adapter |
| B | - | √ | | Power from PoE |
| C | √ | √ | FAP-433F | Power from adapter |
| D | - | √ | | Power from PoE |

Where **RE≥1G:** Radiated Emission above 1GHz **RE<1G:** Radiated Emission below 1GHz

Note: The antenna had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Y-plane (For Model: FAP-431F), X-plane (For Model: FAP-433F)**

**Radiated Emission Test (Above 1GHz):**

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

| EUT Configure Mode | Mode | Freq. Range (MHz) | Available Channel | Tested Channel | Modulation Technology |
|---|---|---|---|---|---|
| A | 2G traffic radio: 802.11ax (HE20)+ 5G traffic radio: 802.11ax (HE20)+ Scanning radio: 802.11a | 2412-2462 | 1 to 11 | 6 + 52 + 149 | OFDMA |
| | | 5260-5320 | 52 to 64 | | OFDMA |
| | | 5745-5825 | 149 to 165 | | OFDM |
| A | 5G traffic radio: 802.11ax (HE20)+ Scanning radio: 802.11b+ BT LE 2M | 5260-5320 | 52 to 64 | 52 + 6 + 39 | OFDMA |
| | | 2412-2462 | 1 to 11 | | DSSS |
| | | 2400-2480 | 0 to 39 | | GFSK |
| A | 2G traffic radio: 802.11ax (HE20)+ 5G traffic radio: 802.11ax (HE20)+ Scanning radio: 802.11n (HT20) | 2412-2462 | 1 to 11 | 6 + 40 + 100 | OFDMA |
| | | 5180-5240 | 36 to 48 | | OFDMA |
| | | 5500-5700 | 100 to 140 | | OFDM |
| A | 5G traffic radio: 802.11ax (HE20)+ Scanning radio: 802.11b+ BT LE 2M | 5180-5240 | 36 to 48 | 40 + 6 + 39 | OFDMA |
| | | 2412-2462 | 1 to 11 | | DSSS |
| | | 2400-2480 | 0 to 39 | | GFSK |
| C | 2G traffic radio: 802.11ax (HE20)+ 5G traffic radio: 802.11ax (HE20)+ Scanning radio: 802.11a | 2412-2462 | 1 to 11 | 6 + 40 + 149 | OFDMA |
| | | 5180-5240 | 36 to 48 | | OFDMA |
| | | 5745-5825 | 149 to 165 | | OFDM |
| C | 5G traffic radio: 802.11ax (HE20)+ Scanning radio: 802.11n (HT20)+ BT LE 2M | 5180-5240 | 36 to 48 | 40 + 6 + 39 | OFDMA |
| | | 2412-2462 | 1 to 11 | | OFDM |
| | | 2400-2480 | 0 to 39 | | GFSK |
| C | 2G traffic radio: 802.11ax (HE20)+ 5G traffic radio: 802.11ax (HE20)+ Scanning radio: 802.11n (HT20) | 2412-2462 | 1 to 11 | 6 + 116 + 64 | OFDMA |
| | | 5500-5700 | 100 to 140 | | OFDMA |
| | | 5260-5320 | 52 to 64 | | OFDM |
| C | 5G traffic radio: 802.11ax (HE20)+ Scanning radio: 802.11n (HT20)+ BT LE 2M | 5500-5700 | 100 to 140 | 116 + 6 + 39 | OFDMA |
| | | 2412-2462 | 1 to 11 | | OFDM |
| | | 2400-2480 | 0 to 39 | | GFSK |

## Radiated Emission Test (Below 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

| EUT Configure Mode | Mode | Freq. Range (MHz) | Available Channel | Tested Channel | Modulation Technology |
|---|---|---|---|---|---|
| A, B | 2G traffic radio: 802.11ax (HE20)+ 5G traffic radio: 802.11ax (HE20)+ Scanning radio: 802.11a | 2412-2462 | 1 to 11 | 6 + 52 + 149 | OFDMA |
| | | 5260-5320 | 52 to 64 | | OFDMA |
| | | 5745-5825 | 149 to 165 | | OFDM |
| A, B | 5G traffic radio: 802.11ax (HE20)+ Scanning radio: 802.11b+ BT LE 2M | 5260-5320 | 52 to 64 | 52 + 6 + 39 | OFDMA |
| | | 2412-2462 | 1 to 11 | | DSSS |
| | | 2400-2480 | 0 to 39 | | GFSK |
| A, B | 2G traffic radio: 802.11ax (HE20)+ 5G traffic radio: 802.11ax (HE20)+ Scanning radio: 802.11n (HT20) | 2412-2462 | 1 to 11 | 6 + 40 + 100 | OFDMA |
| | | 5180-5240 | 36 to 48 | | OFDMA |
| | | 5500-5700 | 100 to 140 | | OFDM |
| A, B | 5G traffic radio: 802.11ax (HE20)+ Scanning radio: 802.11b+ BT LE 2M | 5180-5240 | 36 to 48 | 40 + 6 + 39 | OFDMA |
| | | 2412-2462 | 1 to 11 | | DSSS |
| | | 2400-2480 | 0 to 39 | | GFSK |
| C, D | 2G traffic radio: 802.11ax (HE20)+ 5G traffic radio: 802.11ax (HE20)+ Scanning radio: 802.11a | 2412-2462 | 1 to 11 | 6 + 40 + 149 | OFDMA |
| | | 5180-5240 | 36 to 48 | | OFDMA |
| | | 5745-5825 | 149 to 165 | | OFDM |
| C, D | 5G traffic radio: 802.11ax (HE20)+ Scanning radio: 802.11n (HT20)+ BT LE 2M | 5180-5240 | 36 to 48 | 40 + 6 + 39 | OFDMA |
| | | 2412-2462 | 1 to 11 | | OFDM |
| | | 2400-2480 | 0 to 39 | | GFSK |
| C, D | 2G traffic radio: 802.11ax (HE20)+ 5G traffic radio: 802.11ax (HE20)+ Scanning radio: 802.11n (HT20) | 2412-2462 | 1 to 11 | 6 + 116 + 64 | OFDMA |
| | | 5500-5700 | 100 to 140 | | OFDMA |
| | | 5260-5320 | 52 to 64 | | OFDM |
| C, D | 5G traffic radio: 802.11ax (HE20)+ Scanning radio: 802.11n (HT20)+ BT LE 2M | 5500-5700 | 100 to 140 | 116 + 6 + 39 | OFDMA |
| | | 2412-2462 | 1 to 11 | | OFDM |
| | | 2400-2480 | 0 to 39 | | GFSK |

## Test Condition:

| Applicable to | Environmental Conditions | Input Power | Tested by |
|---|---|---|---|
| RE≥1G | 23 deg. C, 66% RH | 120Vac, 60Hz | Adair Peng |
| RE<1G | 23 deg. C, 66% RH | 120Vac, 60Hz<br>54Vdc | Adair Peng |

### 3.3 Description of Support Units

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

| ID | Product | Brand | Model No. | Serial No. | FCC ID | Remarks |
|---|---|---|---|---|---|---|
| A. | Notebook | DELL | E5410 | 1HC2XM1 | FCC DoC Approved | - |
| B. | Load | NA | NA | NA | NA | - |
| C. | Adapter | Asian Power Devices Inc. | WA-30J12R | NA | NA | Provided by client |
| D. | USB Flash | HP | v250W | 09 | NA | - |
| E. | POE | EnGenius | EPA5006GAT | NA | NA | Provided by client |

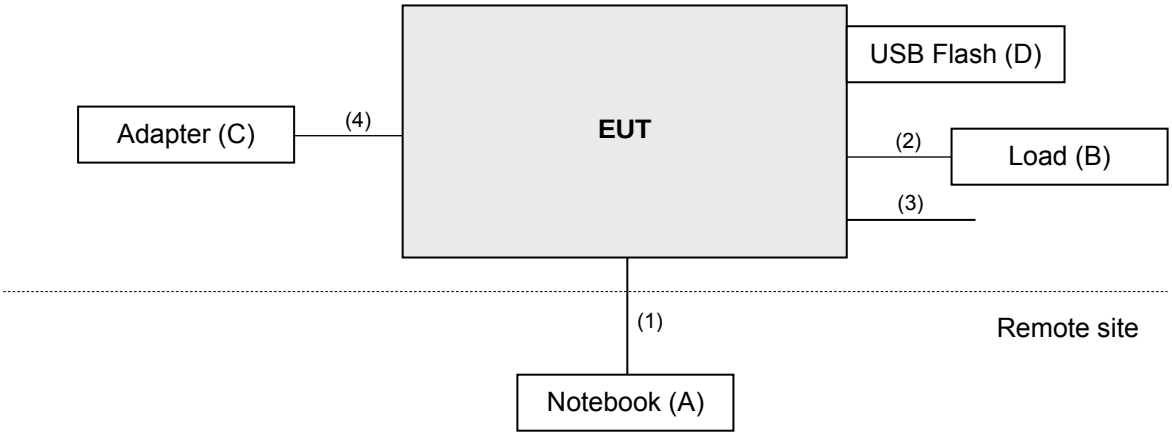
Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item A, E acted as communication partners to transfer data.

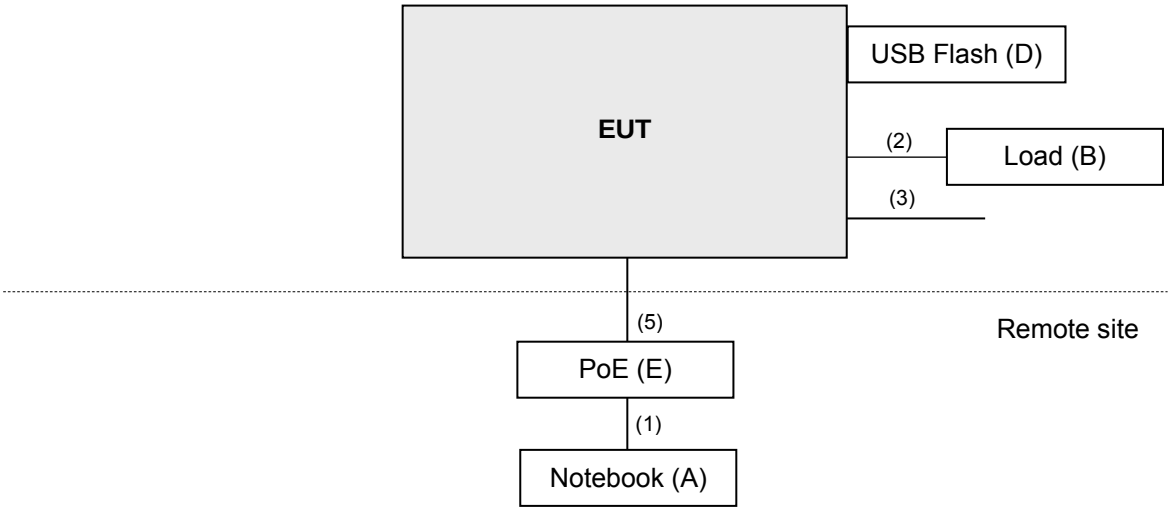
| ID | Cable Descriptions | Qty. | Length (m) | Shielding (Yes/No) | Cores (Qty.) | Remarks |
|---|---|---|---|---|---|---|
| 1. | LAN | 1 | 7.0 | N | 0 | RJ45, Cat5e |
| 2. | LAN | 1 | 1.5 | N | 0 | RJ45, Cat5e |
| 3. | Console | 1 | 1.0 | Y | 1 | - |
| 4. | Power cable | 1 | 1.5 | - | 0 | Provided by client |
| 5. | LAN | 1 | 1.5 | N | 0 | RJ45, Cat5e |

#### 3.3.1 Configuration of System under Test

Mode A, C




Mode B, D



### 3.4 General Description of Applied Standards

The EUT is a RF Product. According to the specification of the EUT declared by the manufacturer, it must comply with the requirements of the following standards:

**FCC Part 15, Subpart C (15.247)**

**FCC Part 15, Subpart E (15.407)**

ANSI C63.10-2013

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

# 4 Test Types and Results

## 4.1 Radiated Emission and Bandedge Measurement

### 4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

| Frequencies (MHz) | Field Strength (microvolts/meter) | Measurement Distance (meters) |
|---|---|---|
| 0.009 ~ 0.490 | 2400/F(kHz) | 300 |
| 0.490 ~ 1.705 | 24000/F(kHz) | 30 |
| 1.705 ~ 30.0 | 30 | 30 |
| 30 ~ 88 | 100 | 3 |
| 88 ~ 216 | 150 | 3 |
| 216 ~ 960 | 200 | 3 |
| Above 960 | 500 | 3 |

Note:

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

Limits of unwanted emission out of the restricted bands

| Applicable To | | | Limit | |
|---|---|---|---|---|
| 789033 D02 General UNII Test Procedure New Rules v02r01 | | | Field Strength at 3m | |
| | | | PK: 74 (dBμV/m) | AV: 54 (dBμV/m) |
| Frequency Band | Applicable To | | EIRP Limit | Equivalent Field Strength at 3m |
| 5150~5250 MHz | 15.407(b)(1) | | PK: -27 (dBm/MHz) | PK: 68.2(dBμV/m) |
| 5250~5350 MHz | 15.407(b)(2) | | | |
| 5470~5725 MHz | 15.407(b)(3) | | | |
| 5725~5850 MHz | ☒ | 15.407(b)(4)(i) | PK: -27 (dBm/MHz) *1<br>PK: 10 (dBm/MHz) *2<br>PK: 15.6 (dBm/MHz) *3<br>PK: 27 (dBm/MHz) *4 | PK: 68.2(dBμV/m) *1<br>PK: 105.2 (dBμV/m) *2<br>PK: 110.8(dBμV/m) *3<br>PK: 122.2 (dBμV/m) *4 |
| | ☐ | 15.407(b)(4)(ii) | Emission limits in section 15.247(d) | |

*1 beyond 75 MHz or more above of the band edge.

*2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

*3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

*4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

### 4.1.2 Test Instruments

| Description & Manufacturer | Model No. | Serial No. | Date of Calibration | Due Date of Calibration |
|---|---|---|---|---|
| Test Receiver ROHDE & SCHWARZ | ESR3 | 102579 | Jun. 27, 2019 | Jun. 26, 2020 |
| Spectrum Analyzer ROHDE & SCHWARZ | FSP40 | 100039 | Jun. 12, 2019 | Jun. 11, 2020 |
| BILOG Antenna SCHWARZBECK | VULB9168 | 9168-171 | Nov. 11, 2019 | Nov. 10, 2020 |
| HORN Antenna SCHWARZBECK | 9120D | 209 | Nov. 24, 2019 | Nov. 23, 2020 |
| HORN Antenna SCHWARZBECK | BBHA 9170 | BBHA9170241 | Nov. 24, 2019 | Nov. 23, 2020 |
| Preamplifier Agilent (Below 1GHz) | 8447D | 2944A10738 | Aug. 20, 2019 | Aug. 19, 2020 |
| Pre-Amplifier Agilent (Above 1GHz) | 8449B | 3008A01961 | Sep. 05, 2019 | Sep. 04, 2020 |
| RF Coaxial Cable WOKEN With 5dB PAD | 8D-FB | Cable-CH3-01 | Aug. 20, 2019 | Aug. 19, 2020 |
| RF signal cable HUBER+SUHNER | SUCOFLEX 104 | Cable-CH3-03 (223653/4) | Aug. 20, 2019 | Aug. 19, 2020 |
| RF signal cable HUBER+SUHNER& EMCI | SUCOFLEX 104&EMC104-SM-SM-8000 | Cable-CH3-03 (309224+170907) | Aug. 20, 2019 | Aug. 19, 2020 |
| Software BV ADT | ADT_Radiated_ V7.6.15.9.5 | NA | NA | NA |
| Antenna Tower inn-co GmbH | MA 4000 | 013303 | NA | NA |
| Antenna Tower Controller BV ADT | AT100 | AT93021702 | NA | NA |
| Turn Table BV ADT | TT100 | TT93021702 | NA | NA |
| Turn Table Controller BV ADT | SC100 | SC93021702 | NA | NA |
| Boresight Antenna Fixture | FBA-01 | FBA-SIP01 | NA | NA |
| Pre-amplifier (18GHz-40GHz) EMC | EMC184045B | 980175 | Sep. 05, 2019 | Sep. 04, 2020 |
| USB Wideband Power Sensor KEYSIGHT | U2021XA | MY55050005/MY55190004/MY55190007/MY55210005 | Jul. 15, 2019 | Jul. 14, 2020 |

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 3.

### 4.1.3 Test Procedures

**For Radiated emission below 30MHz**

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

**Note:**

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

**For Radiated emission above 30MHz**

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

**Note:**

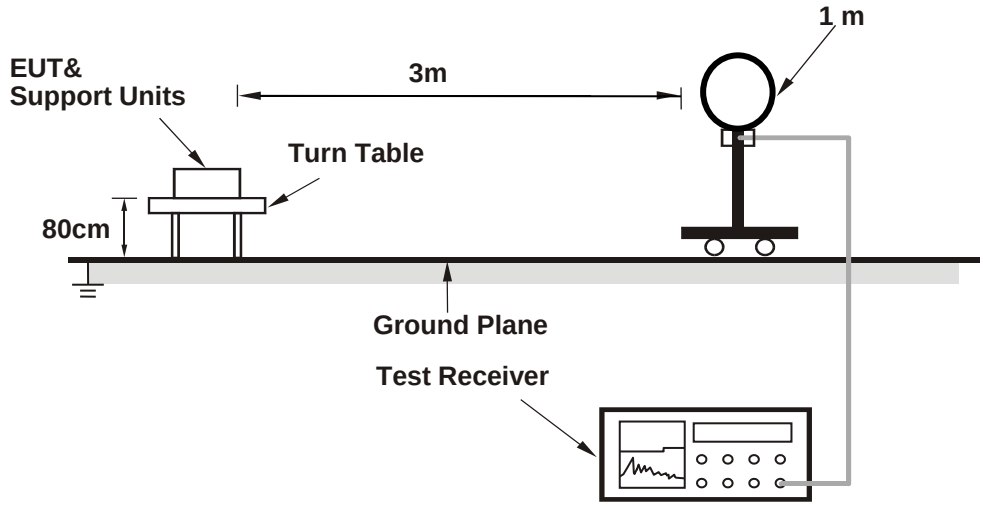
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

### 4.1.4 Deviation from Test Standard

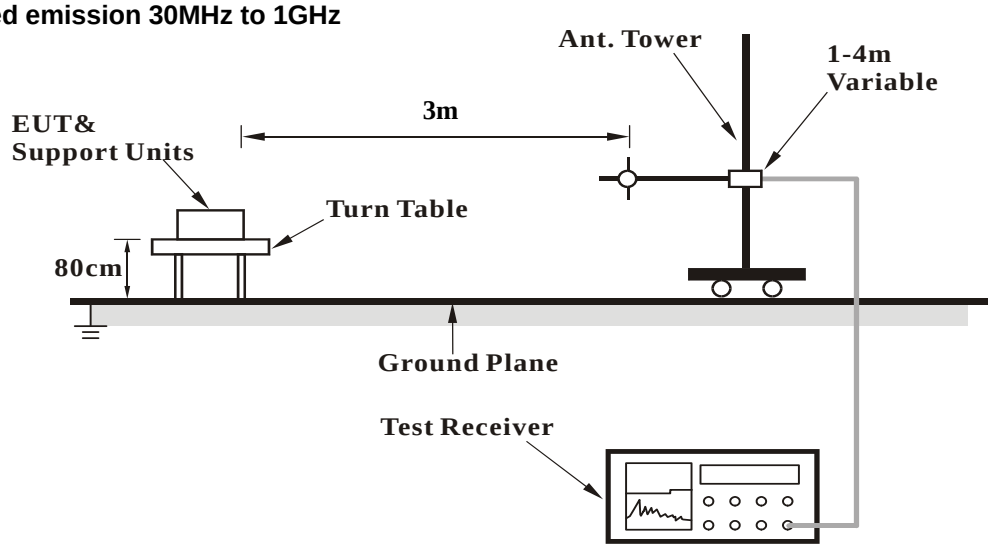
No deviation.

### 4.1.5 Test Setup

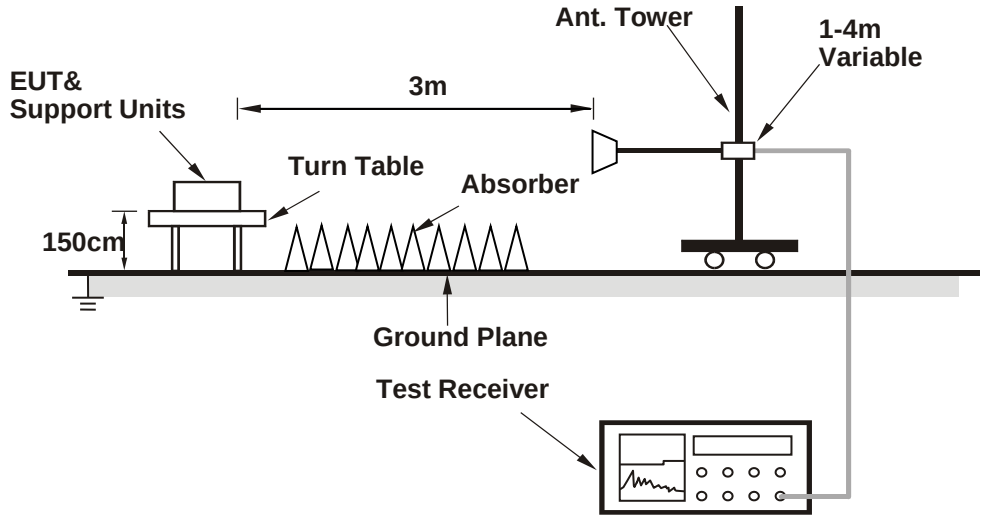
**For Radiated emission below 30MHz**




**For Radiated emission 30MHz to 1GHz**



**For Radiated emission above 1GHz**




For the actual test configuration, please refer to the attached file (Test Setup Photo).

### 4.1.6 EUT Operating Conditions

a. Placed the EUT on the testing table.
b. Prepared a notebook to act as a communication partner and placed it outside of testing area.
c. The communication partner connected with EUT via a RJ45 cable and ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
d. The communication partner sent data to EUT by command "PING".

### 4.1.7 Test Results

Above 1GHz Data:

2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11a

| CHANNEL | CH 6 + CH 52 + CH 149 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | TEST MODE | A |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *2437.00 | 122.8 PK | | | 1.63 H | 292 | 90.5 | 32.3 |
| 2 | *2437.00 | 109.9 AV | | | 1.63 H | 292 | 77.6 | 32.3 |
| 3 | 4874.00 | 58.2 PK | 74.0 | -15.8 | 1.62 H | 290 | 54.5 | 3.7 |
| 4 | 4874.00 | 43.0 AV | 54.0 | -11.0 | 1.62 H | 290 | 39.3 | 3.7 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *2437.00 | 118.0 PK | | | 3.98 V | 332 | 85.7 | 32.3 |
| 2 | *2437.00 | 105.3 AV | | | 3.98 V | 332 | 73.0 | 32.3 |
| 3 | 4874.00 | 64.1 PK | 74.0 | -9.9 | 3.28 V | 329 | 60.4 | 3.7 |
| 4 | 4874.00 | 47.5 AV | 54.0 | -6.5 | 3.28 V | 329 | 43.8 | 3.7 |

Remarks:

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

| CHANNEL | CH 6 + CH 52 + CH 149 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | TEST MODE | A |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5150.00 | 55.3 PK | 74.0 | -18.7 | 1.90 H | 6 | 51.2 | 4.1 |
| 2 | 5150.00 | 43.3 AV | 54.0 | -10.7 | 1.90 H | 6 | 39.2 | 4.1 |
| 3 | *5260.00 | 120.7 PK | | | 1.87 H | 3 | 81.7 | 39.0 |
| 4 | *5260.00 | 107.2 AV | | | 1.87 H | 3 | 68.2 | 39.0 |
| 5 | *5745.00 | 104.8 PK | | | 2.11 H | 289 | 64.8 | 40.0 |
| 6 | *5745.00 | 94.3 AV | | | 2.11 H | 289 | 54.3 | 40.0 |
| 7 | #10520.00 | 60.8 PK | 68.2 | -7.4 | 1.92 H | 322 | 42.5 | 18.3 |
| 8 | 11490.00 | 60.3 PK | 74.0 | -13.7 | 2.42 H | 123 | 41.5 | 18.8 |
| 9 | 11490.00 | 47.3 AV | 54.0 | -6.7 | 2.42 H | 123 | 28.5 | 18.8 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5150.00 | 55.1 PK | 74.0 | -18.9 | 1.88 V | 351 | 51.0 | 4.1 |
| 2 | 5150.00 | 43.1 AV | 54.0 | -10.9 | 1.88 V | 351 | 39.0 | 4.1 |
| 3 | *5260.00 | 118.6 PK | | | 1.85 V | 347 | 79.6 | 39.0 |
| 4 | *5260.00 | 105.4 AV | | | 1.85 V | 347 | 66.4 | 39.0 |
| 5 | *5745.00 | 104.0 PK | | | 2.23 V | 344 | 64.0 | 40.0 |
| 6 | *5745.00 | 93.6 AV | | | 2.23 V | 344 | 53.6 | 40.0 |
| 7 | #10520.00 | 61.1 PK | 68.2 | -7.1 | 1.83 V | 146 | 42.8 | 18.3 |
| 8 | 11490.00 | 60.9 PK | 74.0 | -13.1 | 2.12 V | 211 | 42.1 | 18.8 |
| 9 | 11490.00 | 47.6 AV | 54.0 | -6.4 | 2.12 V | 211 | 28.8 | 18.8 |

Remarks:

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

5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11b+BT LE 2M

| CHANNEL | CH 52 + CH 6 + CH 39 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | TEST MODE | A |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *2437.00 | 99.4 PK | | | 2.05 H | 44 | 67.1 | 32.3 |
| 2 | *2437.00 | 95.9 AV | | | 2.05 H | 44 | 63.6 | 32.3 |
| 3 | *2480.00 | 95.8 PK | | | 2.11 H | 298 | 63.4 | 32.4 |
| 4 | *2480.00 | 92.2 AV | | | 2.11 H | 298 | 59.8 | 32.4 |
| 5 | 2483.50 | 59.1 PK | 74.0 | -14.9 | 2.16 H | 301 | 26.7 | 32.4 |
| 6 | 2483.50 | 48.0 AV | 54.0 | -6.0 | 2.16 H | 301 | 15.6 | 32.4 |
| 7 | 4874.00 | 53.2 PK | 74.0 | -20.8 | 1.22 H | 326 | 49.5 | 3.7 |
| 8 | 4874.00 | 47.5 AV | 54.0 | -6.5 | 1.22 H | 326 | 43.8 | 3.7 |
| 9 | 4960.00 | 60.6 PK | 74.0 | -13.4 | 1.45 H | 6 | 56.5 | 4.1 |
| 10 | 4960.00 | 51.7 AV | 54.0 | -2.3 | 1.45 H | 6 | 47.6 | 4.1 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *2437.00 | 95.6 PK | | | 3.39 V | 7 | 63.3 | 32.3 |
| 2 | *2437.00 | 92.0 AV | | | 3.39 V | 7 | 59.7 | 32.3 |
| 3 | *2480.00 | 92.3 PK | | | 2.85 V | 332 | 59.9 | 32.4 |
| 4 | *2480.00 | 88.6 AV | | | 2.85 V | 332 | 56.2 | 32.4 |
| 5 | 2483.50 | 58.9 PK | 74.0 | -15.1 | 2.88 V | 335 | 26.5 | 32.4 |
| 6 | 2483.50 | 47.6 AV | 54.0 | -6.4 | 2.88 V | 335 | 15.2 | 32.4 |
| 7 | 4874.00 | 51.2 PK | 74.0 | -22.8 | 2.32 V | 316 | 47.5 | 3.7 |
| 8 | 4874.00 | 44.0 AV | 54.0 | -10.0 | 2.32 V | 316 | 40.3 | 3.7 |
| 9 | 4960.00 | 56.3 PK | 74.0 | -17.7 | 2.85 V | 38 | 52.2 | 4.1 |
| 10 | 4960.00 | 48.1 AV | 54.0 | -5.9 | 2.85 V | 38 | 44.0 | 4.1 |

Remarks:

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

| CHANNEL | CH 52 + CH 6 + CH 39 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | TEST MODE | A |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5150.00 | 55.3 PK | 74.0 | -18.7 | 1.93 H | 5 | 51.2 | 4.1 |
| 2 | 5150.00 | 43.3 AV | 54.0 | -10.7 | 1.93 H | 5 | 39.2 | 4.1 |
| 3 | *5260.00 | 120.7 PK | | | 1.89 H | 2 | 81.7 | 39.0 |
| 4 | *5260.00 | 107.3 AV | | | 1.89 H | 2 | 68.3 | 39.0 |
| 5 | #10520.00 | 61.1 PK | 68.2 | -7.1 | 1.95 H | 330 | 42.8 | 18.3 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 5150.00 | 55.4 PK | 74.0 | -18.6 | 1.92 V | 358 | 51.3 | 4.1 |
| 2 | 5150.00 | 43.3 AV | 54.0 | -10.7 | 1.92 V | 358 | 39.2 | 4.1 |
| 3 | *5260.00 | 119.3 PK | | | 1.87 V | 355 | 80.3 | 39.0 |
| 4 | *5260.00 | 106.4 AV | | | 1.87 V | 355 | 67.4 | 39.0 |
| 5 | #10520.00 | 60.9 PK | 68.2 | -7.3 | 2.20 V | 216 | 42.6 | 18.3 |

Remarks:

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

2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)

| | | | |
|---|---|---|---|
| CHANNEL | CH 6 + CH 40 + CH 100 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | TEST MODE | A |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *2437.00 | 121.3 PK | | | 1.57 H | 286 | 89.0 | 32.3 |
| 2 | *2437.00 | 108.6 AV | | | 1.57 H | 286 | 76.3 | 32.3 |
| 3 | 4874.00 | 58.5 PK | 74.0 | -15.5 | 1.57 H | 282 | 54.8 | 3.7 |
| 4 | 4874.00 | 43.2 AV | 54.0 | -10.8 | 1.57 H | 282 | 39.5 | 3.7 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *2437.00 | 120.7 PK | | | 3.99 V | 333 | 88.4 | 32.3 |
| 2 | *2437.00 | 108.1 AV | | | 3.99 V | 333 | 75.8 | 32.3 |
| 3 | 4874.00 | 64.3 PK | 74.0 | -9.7 | 3.39 V | 320 | 60.6 | 3.7 |
| 4 | 4874.00 | 48.0 AV | 54.0 | -6.0 | 3.39 V | 320 | 44.3 | 3.7 |

Remarks:

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

| CHANNEL | CH 6 + CH 40 + CH 100 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | TEST MODE | A |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 125.1 PK | | | 2.09 H | 1 | 85.8 | 39.3 |
| 2 | *5200.00 | 112.0 AV | | | 2.09 H | 1 | 72.7 | 39.3 |
| 3 | 5460.00 | 55.7 PK | 74.0 | -18.3 | 2.08 H | 291 | 51.2 | 4.5 |
| 4 | 5460.00 | 43.7 AV | 54.0 | -10.3 | 2.08 H | 291 | 39.2 | 4.5 |
| a | #5470.00 | 56.0 PK | 68.2 | -12.2 | 2.11 H | 293 | 51.5 | 4.5 |
| 6 | *5500.00 | 104.5 PK | | | 2.03 H | 286 | 64.8 | 39.7 |
| 7 | *5500.00 | 94.3 AV | | | 2.03 H | 286 | 54.6 | 39.7 |
| 8 | #10400.00 | 60.2 PK | 68.2 | -8.0 | 1.88 H | 319 | 42.8 | 17.4 |
| 9 | 11000.00 | 60.6 PK | 74.0 | -13.4 | 2.36 H | 123 | 41.3 | 19.3 |
| 10 | 11000.00 | 47.9 AV | 54.0 | -6.1 | 2.36 H | 123 | 28.6 | 19.3 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 124.8 PK | | | 1.47 V | 9 | 85.5 | 39.3 |
| 2 | *5200.00 | 111.8 AV | | | 1.47 V | 9 | 72.5 | 39.3 |
| 3 | 5460.00 | 55.6 PK | 74.0 | -18.4 | 1.66 V | 355 | 51.1 | 4.5 |
| 4 | 5460.00 | 43.6 AV | 54.0 | -10.4 | 1.66 V | 355 | 39.1 | 4.5 |
| 5 | #5470.00 | 56.0 PK | 68.2 | -12.2 | 1.70 V | 358 | 51.5 | 4.5 |
| 6 | *5500.00 | 103.9 PK | | | 1.63 V | 352 | 64.2 | 39.7 |
| 7 | *5500.00 | 93.9 AV | | | 1.63 V | 352 | 54.2 | 39.7 |
| 8 | #10400.00 | 60.4 PK | 68.2 | -7.8 | 1.77 V | 133 | 43.0 | 17.4 |
| 9 | 11000.00 | 60.8 PK | 74.0 | -13.2 | 2.02 V | 221 | 41.5 | 19.3 |
| 10 | 11000.00 | 48.2 AV | 54.0 | -5.8 | 2.02 V | 221 | 28.9 | 19.3 |

Remarks:

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

5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11b+BT LE 2M

| CHANNEL | CH 40 + CH 6 + CH 39 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | TEST MODE | A |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *2437.00 | 100.3 PK | | | 2.15 H | 45 | 68.0 | 32.3 |
| 2 | *2437.00 | 96.7 AV | | | 2.15 H | 45 | 64.4 | 32.3 |
| 3 | *2480.00 | 94.4 PK | | | 2.40 H | 309 | 62.0 | 32.4 |
| 4 | *2480.00 | 90.7 AV | | | 2.40 H | 309 | 58.3 | 32.4 |
| 5 | 2483.50 | 59.2 PK | 74.0 | -14.8 | 2.42 H | 311 | 26.8 | 32.4 |
| 6 | 2483.50 | 47.9 AV | 54.0 | -6.1 | 2.42 H | 311 | 15.5 | 32.4 |
| 7 | 4874.00 | 53.5 PK | 74.0 | -20.5 | 1.20 H | 322 | 49.8 | 3.7 |
| 8 | 4874.00 | 47.7 AV | 54.0 | -6.3 | 1.20 H | 322 | 44.0 | 3.7 |
| 9 | 4960.00 | 60.7 PK | 74.0 | -13.3 | 1.42 H | 4 | 56.6 | 4.1 |
| 10 | 4960.00 | 52.1 AV | 54.0 | -1.9 | 1.42 H | 4 | 48.0 | 4.1 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *2437.00 | 97.9 PK | | | 3.51 V | 320 | 65.6 | 32.3 |
| 2 | *2437.00 | 94.3 AV | | | 3.51 V | 320 | 62.0 | 32.3 |
| 3 | *2480.00 | 92.6 PK | | | 2.85 V | 330 | 60.2 | 32.4 |
| 4 | *2480.00 | 88.7 AV | | | 2.85 V | 330 | 56.3 | 32.4 |
| 5 | 2483.50 | 59.1 PK | 74.0 | -14.9 | 2.88 V | 334 | 26.7 | 32.4 |
| 6 | 2483.50 | 47.7 AV | 54.0 | -6.3 | 2.88 V | 334 | 15.3 | 32.4 |
| 7 | 4874.00 | 51.4 PK | 74.0 | -22.6 | 2.29 V | 315 | 47.7 | 3.7 |
| 8 | 4874.00 | 44.2 AV | 54.0 | -9.8 | 2.29 V | 315 | 40.5 | 3.7 |
| 9 | 4960.00 | 56.7 PK | 74.0 | -17.3 | 2.82 V | 34 | 52.6 | 4.1 |
| 10 | 4960.00 | 48.3 AV | 54.0 | -5.7 | 2.82 V | 34 | 44.2 | 4.1 |

Remarks:

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

| | | | |
|---|---|---|---|
| CHANNEL | CH 40 + CH 6 + CH 39 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | TEST MODE | A |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 125.5 PK | | | 2.09 H | 358 | 86.2 | 39.3 |
| 2 | *5200.00 | 112.4 AV | | | 2.09 H | 358 | 73.1 | 39.3 |
| 3 | #10400.00 | 60.6 PK | 68.2 | -7.6 | 2.05 H | 331 | 43.2 | 17.4 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 122.3 PK | | | 1.60 V | 12 | 83.0 | 39.3 |
| 2 | *5200.00 | 112.2 AV | | | 1.60 V | 12 | 72.9 | 39.3 |
| 3 | #10400.00 | 60.7 PK | 68.2 | -7.5 | 1.75 V | 142 | 43.3 | 17.4 |

Remarks:

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

2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11a

| | | | |
|---|---|---|---|
| CHANNEL | CH 6 + CH 40 + CH 149 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | TEST MODE | C |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *2437.00 | 115.1 PK | | | 1.90 H | 167 | 82.8 | 32.3 |
| 2 | *2437.00 | 101.8 AV | | | 1.90 H | 167 | 69.5 | 32.3 |
| 3 | 4874.00 | 51.3 PK | 74.0 | -22.7 | 2.98 H | 87 | 47.6 | 3.7 |
| 4 | 4874.00 | 37.5 AV | 54.0 | -16.5 | 2.98 H | 87 | 33.8 | 3.7 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *2437.00 | 124.8 PK | | | 2.44 V | 95 | 92.5 | 32.3 |
| 2 | *2437.00 | 111.4 AV | | | 2.44 V | 95 | 79.1 | 32.3 |
| 3 | 4874.00 | 51.8 PK | 74.0 | -22.2 | 2.24 V | 16 | 48.1 | 3.7 |
| 4 | 4874.00 | 38.7 AV | 54.0 | -15.3 | 2.24 V | 16 | 35.0 | 3.7 |

Remarks:

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

| CHANNEL | CH 6 + CH 40 + CH 149 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | TEST MODE | C |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 111.7 PK | | | 2.17 H | 74 | 72.4 | 39.3 |
| 2 | *5200.00 | 98.7 AV | | | 2.17 H | 74 | 59.4 | 39.3 |
| 3 | *5745.00 | 93.1 PK | | | 1.60 H | 151 | 53.1 | 40.0 |
| 4 | *5745.00 | 82.8 AV | | | 1.60 H | 151 | 42.8 | 40.0 |
| 5 | #10400.00 | 59.4 PK | 68.2 | -8.8 | 1.85 H | 108 | 42.0 | 17.4 |
| 6 | 11490.00 | 60.0 PK | 74.0 | -14.0 | 2.41 H | 153 | 41.2 | 18.8 |
| 7 | 11490.00 | 46.8 AV | 54.0 | -7.2 | 2.41 H | 153 | 28.0 | 18.8 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 129.4 PK | | | 1.57 V | 172 | 89.7 | 39.7 |
| 2 | *5200.00 | 115.7 AV | | | 1.57 V | 172 | 76.0 | 39.7 |
| 3 | *5745.00 | 105.4 PK | | | 1.51 V | 143 | 65.0 | 40.4 |
| 4 | *5745.00 | 94.9 AV | | | 1.51 V | 143 | 54.5 | 40.4 |
| 5 | #10400.00 | 60.2 PK | 68.2 | -8.0 | 2.15 V | 229 | 43.0 | 17.2 |
| 6 | 11490.00 | 58.7 PK | 74.0 | -15.3 | 1.91 V | 301 | 41.0 | 17.7 |
| 7 | 11490.00 | 45.9 AV | 54.0 | -8.1 | 1.91 V | 301 | 28.2 | 17.7 |

Remarks:

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

5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)+BT LE 2M

| CHANNEL | CH 40 + CH 6 + CH 39 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | TEST MODE | C |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *2437.00 | 91.9 PK | | | 1.48 H | 239 | 59.6 | 32.3 |
| 2 | *2437.00 | 81.6 AV | | | 1.48 H | 239 | 49.3 | 32.3 |
| 3 | *2480.00 | 93.1 PK | | | 3.27 H | 126 | 60.7 | 32.4 |
| 4 | *2480.00 | 89.6 AV | | | 3.27 H | 126 | 57.2 | 32.4 |
| 5 | 2483.50 | 59.6 PK | 74.0 | -14.4 | 3.30 H | 129 | 27.2 | 32.4 |
| 6 | 2483.50 | 47.2 AV | 54.0 | -6.8 | 3.30 H | 129 | 14.8 | 32.4 |
| 7 | 4874.00 | 46.2 PK | 74.0 | -27.8 | 1.88 H | 245 | 42.5 | 3.7 |
| 8 | 4874.00 | 32.9 AV | 54.0 | -21.1 | 1.88 H | 245 | 29.2 | 3.7 |
| 9 | 4960.00 | 48.3 PK | 74.0 | -25.7 | 2.47 H | 277 | 44.2 | 4.1 |
| 10 | 4960.00 | 37.7 AV | 54.0 | -16.3 | 2.47 H | 277 | 33.6 | 4.1 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *2437.00 | 100.8 PK | | | 1.70 V | 150 | 68.5 | 32.3 |
| 2 | *2437.00 | 90.3 AV | | | 1.70 V | 150 | 58.0 | 32.3 |
| 3 | *2480.00 | 96.6 PK | | | 2.68 V | 147 | 64.2 | 32.4 |
| 4 | *2480.00 | 92.9 AV | | | 2.68 V | 147 | 60.5 | 32.4 |
| 5 | 2483.50 | 60.2 PK | 74.0 | -13.8 | 2.77 V | 155 | 27.8 | 32.4 |
| 6 | 2483.50 | 47.5 AV | 54.0 | -6.5 | 2.77 V | 155 | 15.1 | 32.4 |
| 7 | 4874.00 | 51.2 PK | 74.0 | -22.8 | 2.09 V | 303 | 47.5 | 3.7 |
| 8 | 4874.00 | 36.3 AV | 54.0 | -17.7 | 2.09 V | 303 | 32.6 | 3.7 |
| 9 | 4960.00 | 51.6 PK | 74.0 | -22.4 | 2.19 V | 206 | 47.5 | 4.1 |
| 10 | 4960.00 | 40.6 AV | 54.0 | -13.4 | 2.19 V | 206 | 36.5 | 4.1 |

Remarks:

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

| CHANNEL | CH 40 + CH 6 + CH 39 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | TEST MODE | C |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 111.8 PK | | | 2.21 H | 70 | 72.5 | 39.3 |
| 2 | *5200.00 | 98.6 AV | | | 2.21 H | 70 | 59.3 | 39.3 |
| 3 | #10400.00 | 59.3 PK | 68.2 | -8.9 | 1.79 H | 109 | 41.9 | 17.4 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5200.00 | 129.1 PK | | | 1.61 V | 171 | 89.8 | 39.3 |
| 2 | *5200.00 | 115.3 AV | | | 1.61 V | 171 | 76.0 | 39.3 |
| 3 | #10400.00 | 60.7 PK | 68.2 | -7.5 | 2.11 V | 246 | 43.3 | 17.4 |

Remarks:

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

2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)

| CHANNEL | CH 6 + CH 116 + CH 64 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | TEST MODE | C |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *2437.00 | 115.3 PK | | | 1.99 H | 171 | 83.0 | 32.3 |
| 2 | *2437.00 | 102.0 AV | | | 1.99 H | 171 | 69.7 | 32.3 |
| 3 | 4874.00 | 50.6 PK | 74.0 | -23.4 | 2.91 H | 90 | 47.5 | 3.1 |
| 4 | 4874.00 | 37.1 AV | 54.0 | -16.9 | 2.91 H | 90 | 34.0 | 3.1 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *2437.00 | 125.0 PK | | | 2.50 V | 101 | 92.3 | 32.7 |
| 2 | *2437.00 | 111.7 AV | | | 2.50 V | 101 | 79.0 | 32.7 |
| 3 | 4874.00 | 51.7 PK | 74.0 | -22.3 | 2.35 V | 17 | 48.2 | 3.5 |
| 4 | 4874.00 | 38.6 AV | 54.0 | -15.4 | 2.35 V | 17 | 35.1 | 3.5 |

Remarks:

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

| CHANNEL | CH 6 + CH 116 + CH 64 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | TEST MODE | C |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5320.00 | 95.4 PK | | | 1.99 H | 162 | 56.2 | 39.2 |
| 2 | *5320.00 | 85.1 AV | | | 1.99 H | 162 | 45.9 | 39.2 |
| 3 | 5350.00 | 56.2 PK | 74.0 | -17.8 | 1.87 H | 165 | 52.1 | 4.1 |
| 4 | 5350.00 | 42.5 AV | 54.0 | -11.5 | 1.87 H | 165 | 38.4 | 4.1 |
| 5 | *5580.00 | 111.6 PK | | | 1.98 H | 19 | 71.9 | 39.7 |
| 6 | *5580.00 | 97.5 AV | | | 1.98 H | 19 | 57.8 | 39.7 |
| 7 | 10640.00 | 60.0 PK | 74.0 | -14.0 | 2.09 H | 117 | 41.4 | 18.6 |
| 8 | 10640.00 | 46.2 AV | 54.0 | -7.8 | 2.09 H | 117 | 27.6 | 18.6 |
| 9 | 11160.00 | 59.8 PK | 74.0 | -14.2 | 1.77 H | 193 | 41.2 | 18.6 |
| 10 | 11160.00 | 46.1 AV | 54.0 | -7.9 | 1.77 H | 193 | 27.5 | 18.6 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5320.00 | 107.7 PK | | | 1.60 V | 115 | 68.5 | 39.2 |
| 2 | *5320.00 | 97.5 AV | | | 1.60 V | 115 | 58.3 | 39.2 |
| 3 | 5350.00 | 57.8 PK | 74.0 | -16.2 | 1.69 V | 123 | 53.7 | 4.1 |
| 4 | 5350.00 | 44.9 AV | 54.0 | -9.1 | 1.69 V | 123 | 40.8 | 4.1 |
| 5 | *5580.00 | 124.9 PK | | | 1.80 V | 315 | 85.2 | 39.7 |
| 6 | *5580.00 | 112.0 AV | | | 1.80 V | 315 | 72.3 | 39.7 |
| 7 | 10640.00 | 61.0 PK | 74.0 | -13.0 | 2.03 V | 193 | 42.4 | 18.6 |
| 8 | 10640.00 | 47.2 AV | 54.0 | -6.8 | 2.03 V | 193 | 28.6 | 18.6 |
| 9 | 11160.00 | 60.6 PK | 74.0 | -13.4 | 2.50 V | 303 | 42.0 | 18.6 |
| 10 | 11160.00 | 47.1 AV | 54.0 | -6.9 | 2.50 V | 303 | 28.5 | 18.6 |

Remarks:

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

5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)+BT LE 2M

| CHANNEL | CH 116 + CH 6 + CH 39 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 40GHz | TEST MODE | C |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *2437.00 | 92.3 PK | | | 1.50 H | 241 | 60.0 | 32.3 |
| 2 | *2437.00 | 82.0 AV | | | 1.50 H | 241 | 49.7 | 32.3 |
| 3 | *2480.00 | 93.3 PK | | | 3.33 H | 130 | 60.9 | 32.4 |
| 4 | *2480.00 | 89.9 AV | | | 3.33 H | 130 | 57.5 | 32.4 |
| 5 | 2483.50 | 59.7 PK | 74.0 | -14.3 | 3.20 H | 122 | 27.3 | 32.4 |
| 6 | 2483.50 | 47.1 AV | 54.0 | -6.9 | 3.20 H | 122 | 14.7 | 32.4 |
| 7 | 4874.00 | 46.4 PK | 74.0 | -27.6 | 1.90 H | 250 | 42.7 | 3.7 |
| 8 | 4874.00 | 33.2 AV | 54.0 | -20.8 | 1.90 H | 250 | 29.5 | 3.7 |
| 9 | 4960.00 | 48.1 PK | 74.0 | -25.9 | 2.50 H | 288 | 44.0 | 4.1 |
| 10 | 4960.00 | 37.8 AV | 54.0 | -16.2 | 2.50 H | 288 | 33.7 | 4.1 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *2437.00 | 101.0 PK | | | 1.77 V | 152 | 68.7 | 32.3 |
| 2 | *2437.00 | 90.4 AV | | | 1.77 V | 152 | 58.1 | 32.3 |
| 3 | *2480.00 | 96.8 PK | | | 2.77 V | 150 | 64.4 | 32.4 |
| 4 | *2480.00 | 93.1 AV | | | 2.77 V | 150 | 60.7 | 32.4 |
| 5 | 2483.50 | 60.4 PK | 74.0 | -13.6 | 2.69 V | 155 | 28.0 | 32.4 |
| 6 | 2483.50 | 47.4 AV | 54.0 | -6.6 | 2.69 V | 155 | 15.0 | 32.4 |
| 7 | 4874.00 | 50.8 PK | 74.0 | -23.2 | 1.93 V | 294 | 47.1 | 3.7 |
| 8 | 4874.00 | 36.0 AV | 54.0 | -18.0 | 1.93 V | 294 | 32.3 | 3.7 |
| 9 | 4960.00 | 51.8 PK | 74.0 | -22.2 | 2.29 V | 215 | 47.7 | 4.1 |
| 10 | 4960.00 | 40.7 AV | 54.0 | -13.3 | 2.29 V | 215 | 36.6 | 4.1 |

Remarks:

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

| | | | |
|---|---|---|---|
| CHANNEL | CH 116 + CH 6 + CH 39 | DETECTOR FUNCTION | Peak (PK)<br>Average (AV) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | TEST MODE | C |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5580.00 | 110.2 PK | | | 1.99 H | 20 | 70.5 | 39.7 |
| 2 | *5580.00 | 97.1 AV | | | 1.99 H | 20 | 57.4 | 39.7 |
| 3 | 11160.00 | 60.6 PK | 74.0 | -13.4 | 2.21 H | 199 | 42.0 | 18.6 |
| 4 | 11160.00 | 46.9 AV | 54.0 | -7.1 | 2.21 H | 199 | 28.3 | 18.6 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | *5580.00 | 124.8 PK | | | 1.77 V | 303 | 85.1 | 39.7 |
| 2 | *5580.00 | 111.9 AV | | | 1.77 V | 303 | 72.2 | 39.7 |
| 3 | 11160.00 | 60.8 PK | 74.0 | -13.2 | 2.55 V | 308 | 42.2 | 18.6 |
| 4 | 11160.00 | 47.2 AV | 54.0 | -6.8 | 2.55 V | 308 | 28.6 | 18.6 |

Remarks:

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

Below 1GHz data

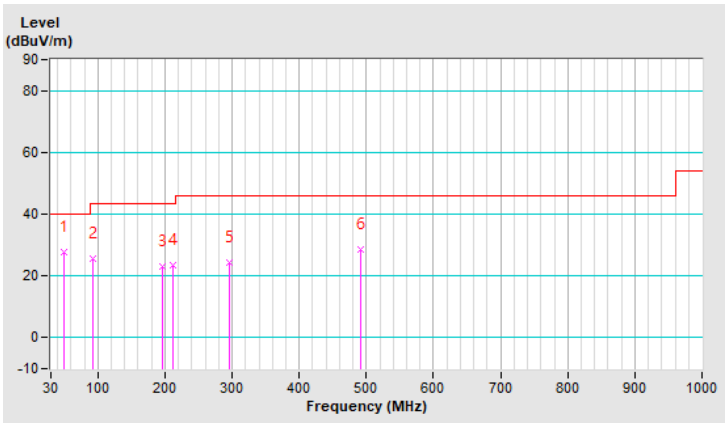
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11a

| | | | |
|---|---|---|---|
| CHANNEL | CH 6 + CH 52 + CH 149 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | A |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 49.68 | 27.8 QP | 40.0 | -12.2 | 2.00 H | 299 | 36.6 | -8.8 |
| 2 | 93.26 | 25.8 QP | 43.5 | -17.7 | 2.00 H | 243 | 39.9 | -14.1 |
| 3 | 195.88 | 23.2 QP | 43.5 | -20.3 | 1.50 H | 35 | 34.8 | -11.6 |
| 4 | 212.75 | 23.4 QP | 43.5 | -20.1 | 1.50 H | 277 | 34.8 | -11.4 |
| 5 | 295.70 | 24.5 QP | 46.0 | -21.5 | 1.00 H | 135 | 32.1 | -7.6 |
| 6 | 492.51 | 28.4 QP | 46.0 | -17.6 | 2.00 H | 149 | 30.0 | -1.6 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

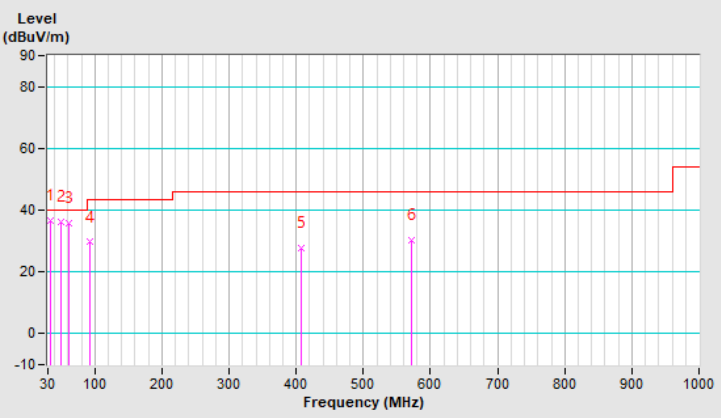


| | | | |
|---|---|---|---|
| CHANNEL | CH 6 + CH 52 + CH 149 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | A |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 34.22 | 36.7 QP | 40.0 | -3.3 | 1.00 V | 169 | 47.0 | -10.3 |
| 2 | 49.68 | 36.2 QP | 40.0 | -3.8 | 1.00 V | 274 | 45.0 | -8.8 |
| 3 | 60.93 | 35.6 QP | 40.0 | -4.4 | 1.00 V | 214 | 45.0 | -9.4 |
| 4 | 93.26 | 29.6 QP | 43.5 | -13.9 | 1.00 V | 146 | 43.7 | -14.1 |
| 5 | 406.75 | 27.7 QP | 46.0 | -18.3 | 1.00 V | 195 | 32.0 | -4.3 |
| 6 | 571.23 | 30.1 QP | 46.0 | -15.9 | 1.00 V | 6 | 29.9 | 0.2 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



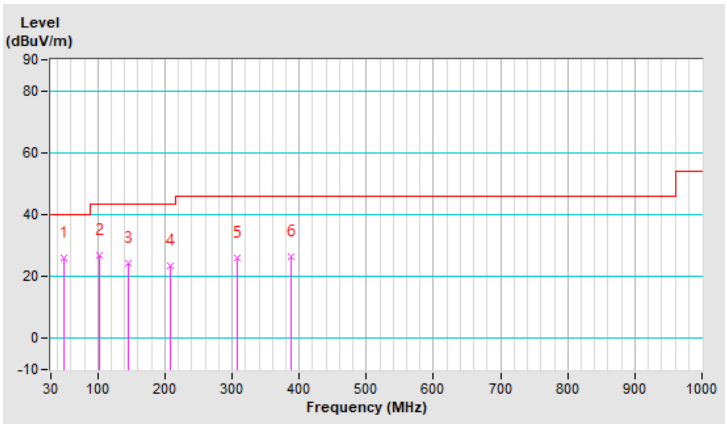
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11b+BT LE 2M

| | | | |
|---|---|---|---|
| CHANNEL | CH 52 + CH 6 + CH 39 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | A |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 49.68 | 26.0 QP | 40.0 | -14.0 | 1.00 H | 238 | 34.8 | -8.8 |
| 2 | 103.10 | 26.7 QP | 43.5 | -16.8 | 1.50 H | 296 | 39.4 | -12.7 |
| 3 | 145.28 | 24.3 QP | 43.5 | -19.2 | 1.00 H | 260 | 33.1 | -8.8 |
| 4 | 208.54 | 23.5 QP | 43.5 | -20.0 | 1.00 H | 285 | 35.0 | -11.5 |
| 5 | 306.94 | 25.9 QP | 46.0 | -20.1 | 2.00 H | 126 | 33.0 | -7.1 |
| 6 | 388.48 | 26.3 QP | 46.0 | -19.7 | 1.00 H | 131 | 31.1 | -4.8 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

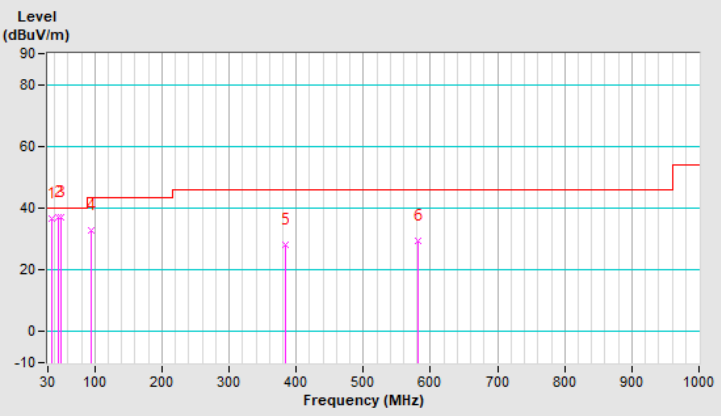


| | | | |
|---|---|---|---|
| CHANNEL | CH 52 + CH 6 + CH 39 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | A |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 35.62 | 36.7 QP | 40.0 | -3.3 | 1.00 V | 294 | 46.8 | -10.1 |
| 2 | 45.46 | 37.2 QP | 40.0 | -2.8 | 1.00 V | 12 | 46.1 | -8.9 |
| 3 | 49.68 | 36.9 QP | 40.0 | -3.1 | 1.00 V | 27 | 45.7 | -8.8 |
| 4 | 94.67 | 32.9 QP | 43.5 | -10.6 | 1.00 V | 115 | 46.9 | -14.0 |
| 5 | 384.26 | 28.0 QP | 46.0 | -18.0 | 1.50 V | 336 | 32.9 | -4.9 |
| 6 | 581.07 | 29.4 QP | 46.0 | -16.6 | 1.00 V | 12 | 28.9 | 0.5 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



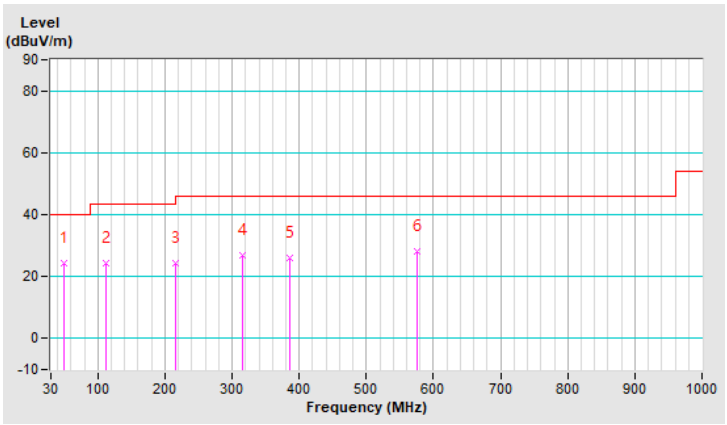
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)

| CHANNEL | CH 6 + CH 40 + CH 100 | DETECTOR FUNCTION | Quasi-Peak (QP) |
|---|---|---|---|
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | A |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 49.68 | 24.4 QP | 40.0 | -15.6 | 1.50 H | 270 | 33.2 | -8.8 |
| 2 | 112.94 | 24.5 QP | 43.5 | -19.0 | 1.00 H | 272 | 36.1 | -11.6 |
| 3 | 215.57 | 24.4 QP | 43.5 | -19.1 | 1.00 H | 309 | 35.7 | -11.3 |
| 4 | 315.38 | 26.7 QP | 46.0 | -19.3 | 1.00 H | 134 | 33.6 | -6.9 |
| 5 | 385.67 | 26.0 QP | 46.0 | -20.0 | 2.00 H | 125 | 30.9 | -4.9 |
| 6 | 575.45 | 28.2 QP | 46.0 | -17.8 | 1.00 H | 57 | 27.8 | 0.4 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

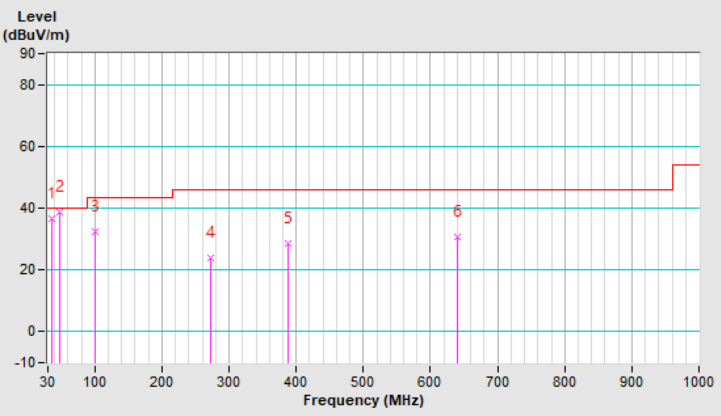


| | | | |
|---|---|---|---|
| CHANNEL | CH 6 + CH 40 + CH 100 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | A |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 35.62 | 36.8 QP | 40.0 | -3.2 | 1.50 V | 183 | 46.9 | -10.1 |
| 2 | 46.87 | 38.6 QP | 40.0 | -1.4 | 1.00 V | 327 | 47.5 | -8.9 |
| 3 | 100.29 | 32.4 QP | 43.5 | -11.1 | 1.00 V | 75 | 45.5 | -13.1 |
| 4 | 273.20 | 24.0 QP | 46.0 | -22.0 | 1.50 V | 65 | 32.2 | -8.2 |
| 5 | 388.48 | 28.6 QP | 46.0 | -17.4 | 1.00 V | 343 | 33.4 | -4.8 |
| 6 | 640.12 | 30.5 QP | 46.0 | -15.5 | 1.00 V | 198 | 29.0 | 1.5 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



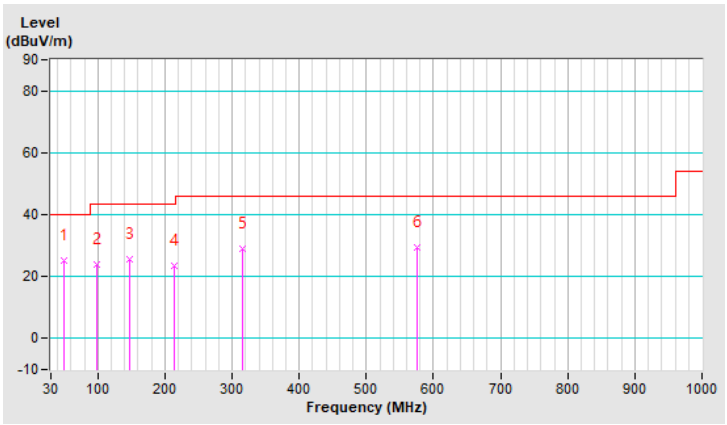
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11b+BT LE 2M

| | | | |
|---|---|---|---|
| CHANNEL | CH 40 + CH 6 + CH 39 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | A |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 49.68 | 25.0 QP | 40.0 | -15.0 | 1.00 H | 273 | 33.8 | -8.8 |
| 2 | 98.88 | 24.1 QP | 43.5 | -19.4 | 2.00 H | 273 | 37.4 | -13.3 |
| 3 | 148.09 | 25.4 QP | 43.5 | -18.1 | 1.00 H | 257 | 34.1 | -8.7 |
| 4 | 214.16 | 23.6 QP | 43.5 | -19.9 | 1.50 H | 129 | 34.9 | -11.3 |
| 5 | 315.38 | 28.9 QP | 46.0 | -17.1 | 1.00 H | 151 | 35.8 | -6.9 |
| 6 | 575.45 | 29.4 QP | 46.0 | -16.6 | 1.00 H | 323 | 29.0 | 0.4 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

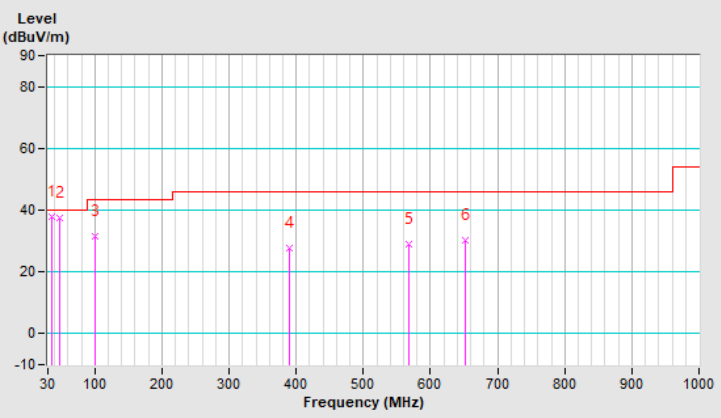


| | | | |
|---|---|---|---|
| CHANNEL | CH 40 + CH 6 + CH 39 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | A |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 35.62 | 37.9 QP | 40.0 | -2.1 | 1.00 V | 91 | 48.0 | -10.1 |
| 2 | 46.87 | 37.4 QP | 40.0 | -2.6 | 1.00 V | 328 | 46.3 | -8.9 |
| 3 | 100.29 | 31.5 QP | 43.5 | -12.0 | 1.00 V | 118 | 44.6 | -13.1 |
| 4 | 389.88 | 27.9 QP | 46.0 | -18.1 | 1.00 V | 330 | 32.6 | -4.7 |
| 5 | 567.01 | 29.0 QP | 46.0 | -17.0 | 1.50 V | 10 | 28.9 | 0.1 |
| 6 | 652.77 | 30.2 QP | 46.0 | -15.8 | 1.00 V | 9 | 28.7 | 1.5 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



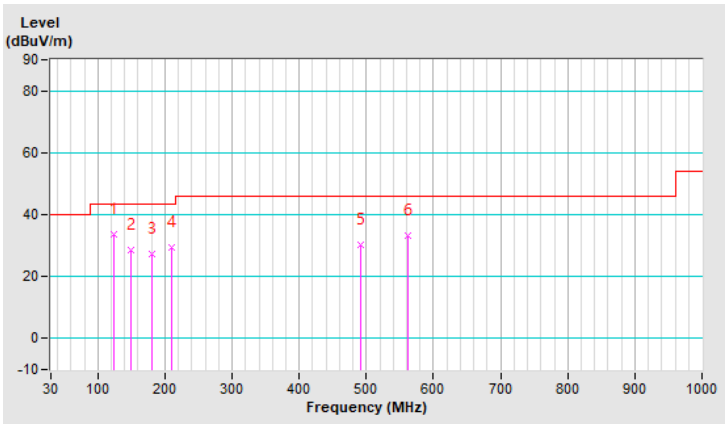
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11a

| CHANNEL | CH 6 + CH 52 + CH 149 | DETECTOR FUNCTION | Quasi-Peak (QP) |
|---|---|---|---|
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | B |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 124.19 | 33.6 QP | 43.5 | -9.9 | 1.50 H | 273 | 44.2 | -10.6 |
| 2 | 149.49 | 28.4 QP | 43.5 | -15.1 | 1.00 H | 258 | 36.9 | -8.5 |
| 3 | 180.42 | 27.3 QP | 43.5 | -16.2 | 1.00 H | 236 | 37.2 | -9.9 |
| 4 | 209.94 | 29.6 QP | 43.5 | -13.9 | 1.00 H | 256 | 41.1 | -11.5 |
| 5 | 491.10 | 30.4 QP | 46.0 | -15.6 | 1.50 H | 135 | 32.0 | -1.6 |
| 6 | 561.39 | 33.1 QP | 46.0 | -12.9 | 1.50 H | 8 | 33.3 | -0.2 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

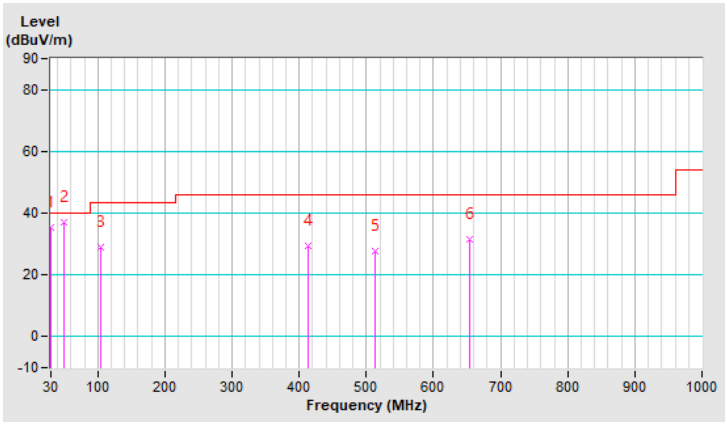


| | | | |
|---|---|---|---|
| CHANNEL | CH 6 + CH 52 + CH 149 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | B |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 30.00 | 35.5 QP | 40.0 | -4.5 | 1.00 V | 310 | 45.9 | -10.4 |
| 2 | 49.68 | 36.9 QP | 40.0 | -3.1 | 1.00 V | 278 | 45.7 | -8.8 |
| 3 | 104.51 | 29.1 QP | 43.5 | -14.4 | 1.49 V | 49 | 41.5 | -12.4 |
| 4 | 412.38 | 29.3 QP | 46.0 | -16.7 | 1.00 V | 205 | 33.5 | -4.2 |
| 5 | 513.59 | 27.7 QP | 46.0 | -18.3 | 1.00 V | 342 | 28.7 | -1.0 |
| 6 | 654.17 | 31.7 QP | 46.0 | -14.3 | 1.49 V | 5 | 30.3 | 1.4 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



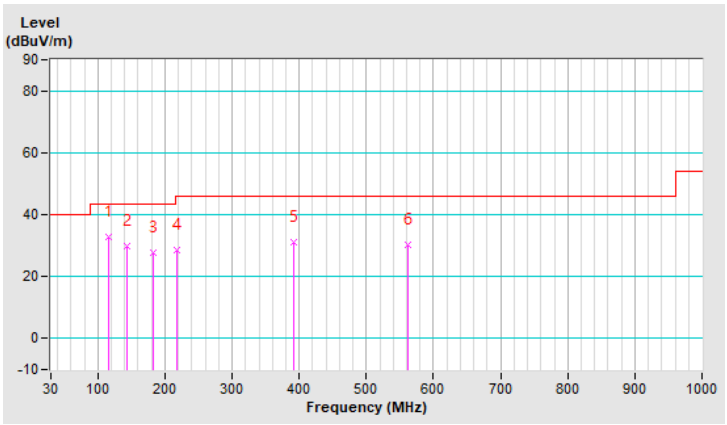
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11b+BT LE 2M

| | | | |
|---|---|---|---|
| CHANNEL | CH 52 + CH 6 + CH 39 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | B |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 115.75 | 32.9 QP | 43.5 | -10.6 | 1.50 H | 303 | 44.3 | -11.4 |
| 2 | 142.46 | 29.9 QP | 43.5 | -13.6 | 1.00 H | 276 | 38.8 | -8.9 |
| 3 | 181.83 | 27.6 QP | 43.5 | -15.9 | 1.50 H | 282 | 37.7 | -10.1 |
| 4 | 216.97 | 28.4 QP | 46.0 | -17.6 | 1.00 H | 313 | 39.7 | -11.3 |
| 5 | 391.29 | 31.2 QP | 46.0 | -14.8 | 1.00 H | 141 | 35.9 | -4.7 |
| 6 | 561.39 | 30.4 QP | 46.0 | -15.6 | 1.00 H | 3 | 30.6 | -0.2 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

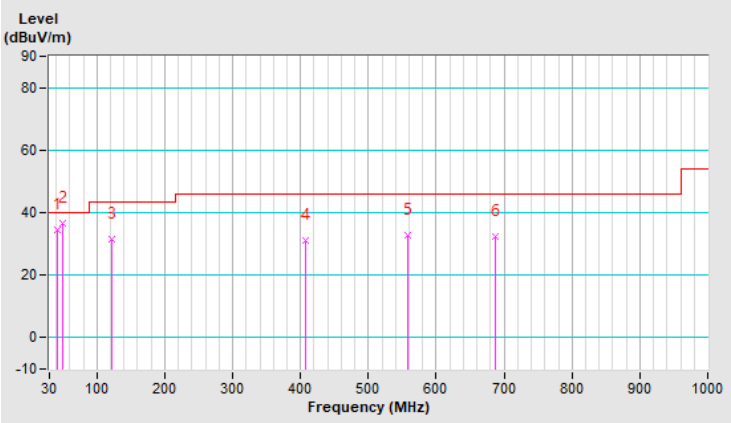


| | | | |
|---|---|---|---|
| CHANNEL | CH 52 + CH 6 + CH 39 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | B |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 41.25 | 34.7 QP | 40.0 | -5.3 | 1.00 V | 49 | 43.9 | -9.2 |
| 2 | 49.68 | 36.7 QP | 40.0 | -3.3 | 1.00 V | 253 | 45.5 | -8.8 |
| 3 | 122.78 | 31.7 QP | 43.5 | -11.8 | 1.00 V | 215 | 42.4 | -10.7 |
| 4 | 408.16 | 31.0 QP | 46.0 | -15.0 | 1.00 V | 186 | 35.3 | -4.3 |
| 5 | 557.17 | 32.9 QP | 46.0 | -13.1 | 1.50 V | 326 | 33.2 | -0.3 |
| 6 | 686.51 | 32.4 QP | 46.0 | -13.6 | 1.50 V | 168 | 30.5 | 1.9 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



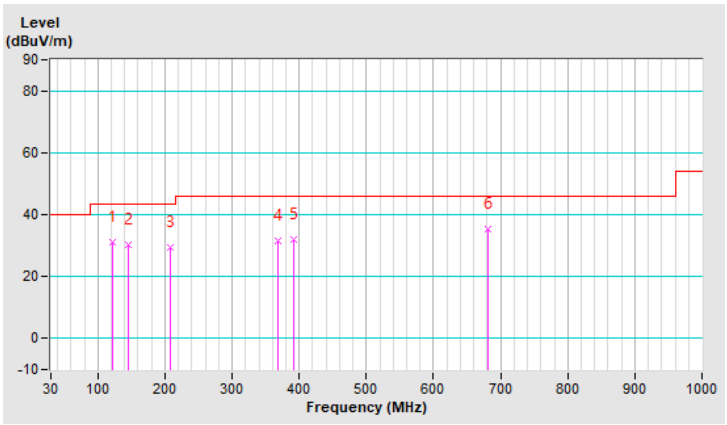
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)

| CHANNEL | CH 6 + CH 40 + CH 100 | DETECTOR FUNCTION | Quasi-Peak (QP) |
|---|---|---|---|
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | B |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 121.38 | 31.0 QP | 43.5 | -12.5 | 1.00 H | 93 | 41.8 | -10.8 |
| 2 | 145.28 | 30.3 QP | 43.5 | -13.2 | 1.00 H | 275 | 39.1 | -8.8 |
| 3 | 208.54 | 29.2 QP | 43.5 | -14.3 | 1.50 H | 291 | 40.7 | -11.5 |
| 4 | 367.39 | 31.4 QP | 46.0 | -14.6 | 1.00 H | 136 | 36.8 | -5.4 |
| 5 | 391.29 | 31.8 QP | 46.0 | -14.2 | 2.00 H | 137 | 36.5 | -4.7 |
| 6 | 680.88 | 35.2 QP | 46.0 | -10.8 | 1.00 H | 125 | 33.2 | 2.0 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

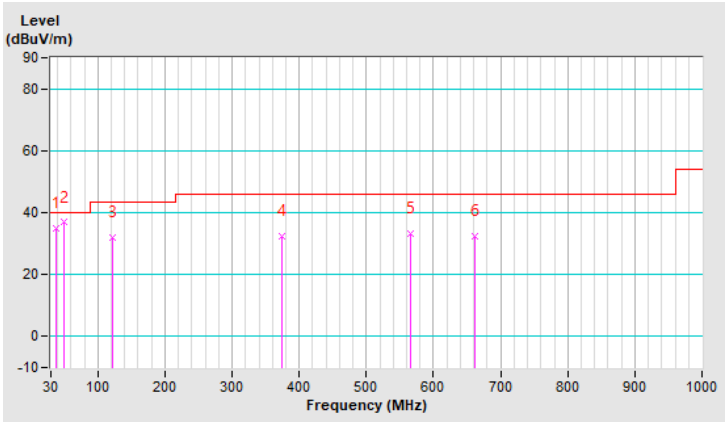


| | | | |
|---|---|---|---|
| CHANNEL | CH 6 + CH 40 + CH 100 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | B |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 38.43 | 35.0 QP | 40.0 | -5.0 | 1.00 V | 224 | 44.7 | -9.7 |
| 2 | 49.68 | 36.8 QP | 40.0 | -3.2 | 1.00 V | 265 | 45.6 | -8.8 |
| 3 | 122.78 | 31.8 QP | 43.5 | -11.7 | 1.50 V | 57 | 42.5 | -10.7 |
| 4 | 374.42 | 32.3 QP | 46.0 | -13.7 | 1.50 V | 184 | 37.4 | -5.1 |
| 5 | 565.61 | 33.4 QP | 46.0 | -12.6 | 1.00 V | 358 | 33.3 | 0.1 |
| 6 | 661.20 | 32.5 QP | 46.0 | -13.5 | 1.00 V | 162 | 31.0 | 1.5 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



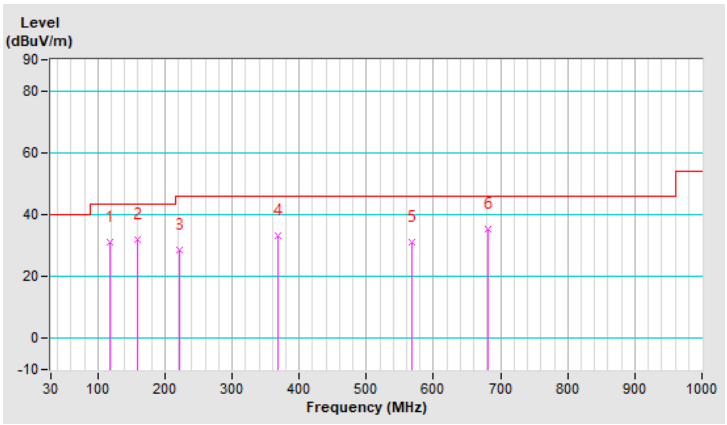
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11b+BT LE 2M

| CHANNEL | CH 40 + CH 6 + CH 39 | DETECTOR FUNCTION | Quasi-Peak (QP) |
|---|---|---|---|
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | B |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 117.16 | 31.0 QP | 43.5 | -12.5 | 1.00 H | 292 | 42.3 | -11.3 |
| 2 | 159.33 | 31.9 QP | 43.5 | -11.6 | 1.00 H | 258 | 40.4 | -8.5 |
| 3 | 221.19 | 28.6 QP | 46.0 | -17.4 | 1.00 H | 273 | 39.9 | -11.3 |
| 4 | 368.80 | 33.1 QP | 46.0 | -12.9 | 1.50 H | 137 | 38.5 | -5.4 |
| 5 | 567.01 | 31.0 QP | 46.0 | -15.0 | 1.00 H | 342 | 30.9 | 0.1 |
| 6 | 680.88 | 35.4 QP | 46.0 | -10.6 | 2.00 H | 146 | 33.4 | 2.0 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

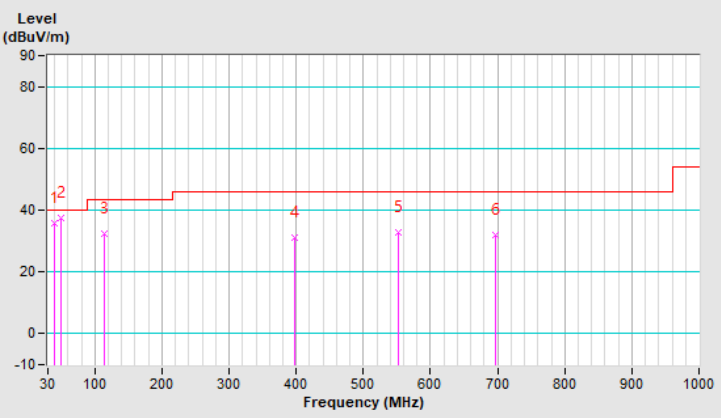


| | | | |
|---|---|---|---|
| CHANNEL | CH 40 + CH 6 + CH 39 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | B |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 39.84 | 35.6 QP | 40.0 | -4.4 | 1.50 V | 281 | 45.1 | -9.5 |
| 2 | 49.68 | 37.5 QP | 40.0 | -2.5 | 1.50 V | 191 | 46.3 | -8.8 |
| 3 | 114.35 | 32.2 QP | 43.5 | -11.3 | 1.00 V | 84 | 43.7 | -11.5 |
| 4 | 396.91 | 31.1 QP | 46.0 | -14.9 | 1.00 V | 184 | 35.7 | -4.6 |
| 5 | 551.55 | 32.9 QP | 46.0 | -13.1 | 1.00 V | 132 | 33.4 | -0.5 |
| 6 | 697.75 | 31.9 QP | 46.0 | -14.1 | 2.00 V | 51 | 30.0 | 1.9 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



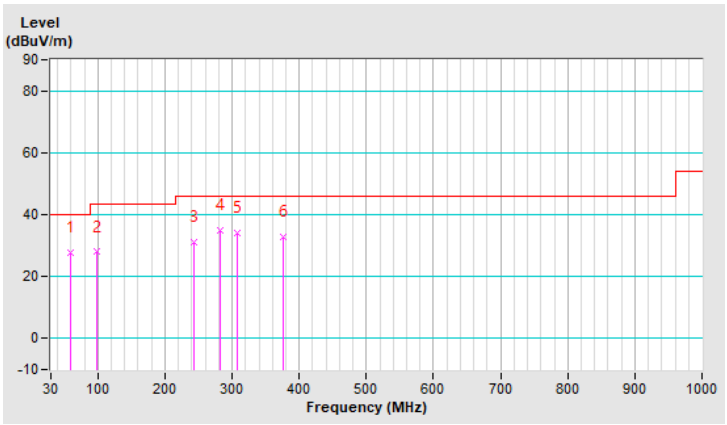
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11a

| | | | |
|---|---|---|---|
| CHANNEL | CH 6 + CH 40 + CH 149 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | C |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 59.52 | 27.8 QP | 40.0 | -12.2 | 2.00 H | 255 | 37.0 | -9.2 |
| 2 | 98.88 | 27.9 QP | 43.5 | -15.6 | 2.00 H | 219 | 41.2 | -13.3 |
| 3 | 242.28 | 31.3 QP | 46.0 | -14.7 | 1.00 H | 262 | 41.1 | -9.8 |
| 4 | 281.64 | 35.1 QP | 46.0 | -10.9 | 1.00 H | 190 | 43.1 | -8.0 |
| 5 | 308.35 | 33.9 QP | 46.0 | -12.1 | 1.00 H | 31 | 41.0 | -7.1 |
| 6 | 375.83 | 32.8 QP | 46.0 | -13.2 | 2.00 H | 309 | 37.9 | -5.1 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

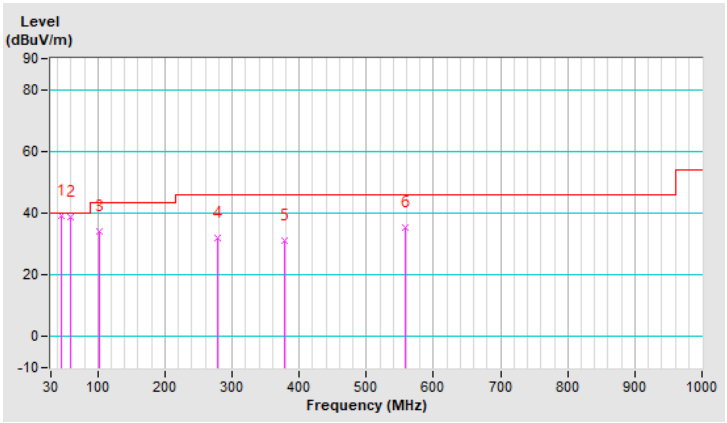


| | | | |
|---|---|---|---|
| CHANNEL | CH 6 + CH 40 + CH 149 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | C |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| **1** | **45.46** | **39.0 QP** | **40.0** | **-1.0** | **1.00 V** | **278** | **47.9** | **-8.9** |
| 2 | 59.52 | 38.8 QP | 40.0 | -1.2 | 1.00 V | 278 | 48.0 | -9.2 |
| 3 | 103.10 | 34.2 QP | 43.5 | -9.3 | 1.49 V | 83 | 46.9 | -12.7 |
| 4 | 278.83 | 31.9 QP | 46.0 | -14.1 | 1.49 V | 167 | 39.9 | -8.0 |
| 5 | 377.23 | 31.1 QP | 46.0 | -14.9 | 1.00 V | 310 | 36.2 | -5.1 |
| 6 | 557.17 | 35.3 QP | 46.0 | -10.7 | 1.00 V | 325 | 35.6 | -0.3 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



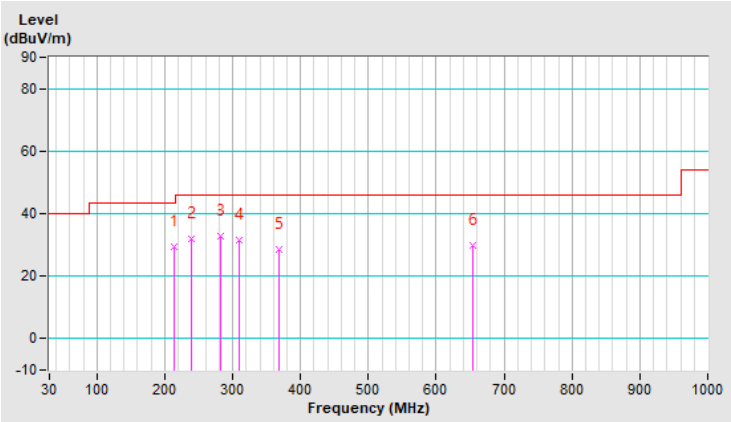
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)+BT LE 2M

| CHANNEL | CH 40 + CH 6 + CH 39 | DETECTOR FUNCTION | Quasi-Peak (QP) |
|---|---|---|---|
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | C |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 214.16 | 29.6 QP | 43.5 | -13.9 | 1.50 H | 225 | 40.9 | -11.3 |
| 2 | 239.46 | 32.0 QP | 46.0 | -14.0 | 1.00 H | 275 | 41.9 | -9.9 |
| 3 | 281.64 | 32.9 QP | 46.0 | -13.1 | 1.00 H | 187 | 40.9 | -8.0 |
| 4 | 309.75 | 31.5 QP | 46.0 | -14.5 | 1.00 H | 260 | 38.6 | -7.1 |
| 5 | 368.80 | 28.5 QP | 46.0 | -17.5 | 2.00 H | 191 | 33.9 | -5.4 |
| 6 | 654.17 | 29.7 QP | 46.0 | -16.3 | 2.00 H | 218 | 28.3 | 1.4 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

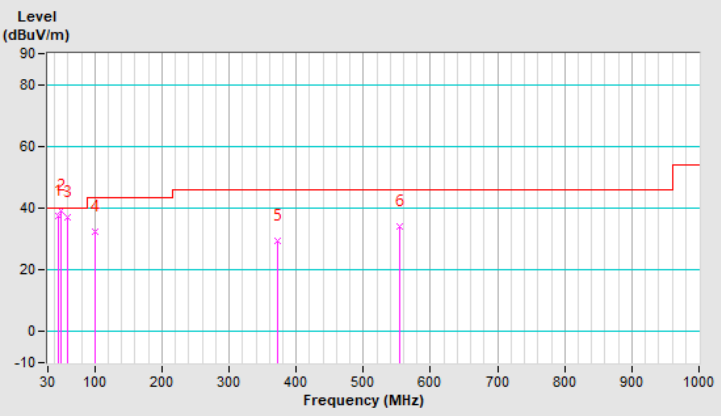


| | | | |
|---|---|---|---|
| CHANNEL | CH 40 + CH 6 + CH 39 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | C |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 45.46 | 37.6 QP | 40.0 | -2.4 | 1.00 V | 326 | 46.5 | -8.9 |
| **2** | **49.68** | **39.0 QP** | **40.0** | **-1.0** | **1.00 V** | **146** | **47.8** | **-8.8** |
| 3 | 59.52 | 37.2 QP | 40.0 | -2.8 | 1.00 V | 248 | 46.4 | -9.2 |
| 4 | 100.29 | 32.3 QP | 43.5 | -11.2 | 1.50 V | 109 | 45.4 | -13.1 |
| 5 | 371.61 | 29.5 QP | 46.0 | -16.5 | 1.00 V | 190 | 34.8 | -5.3 |
| 6 | 554.36 | 34.0 QP | 46.0 | -12.0 | 1.50 V | 75 | 34.4 | -0.4 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



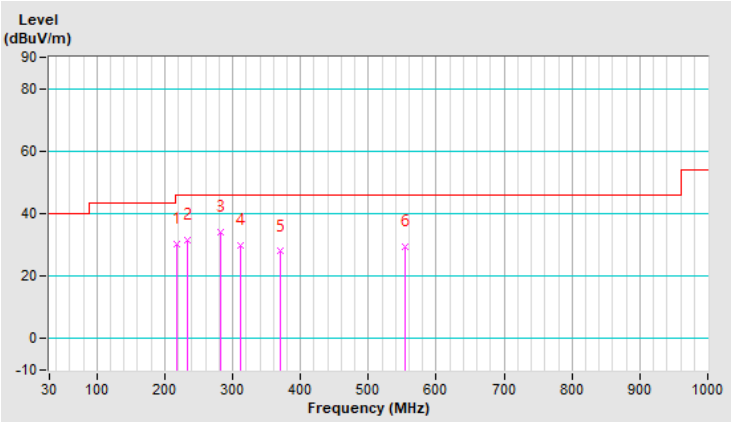
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)

| CHANNEL | CH 6 + CH 116 + CH 64 | DETECTOR FUNCTION | Quasi-Peak (QP) |
|---|---|---|---|
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | C |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 216.97 | 30.2 QP | 46.0 | -15.8 | 1.50 H | 238 | 41.5 | -11.3 |
| 2 | 232.43 | 31.5 QP | 46.0 | -14.5 | 2.00 H | 246 | 42.3 | -10.8 |
| 3 | 283.04 | 34.0 QP | 46.0 | -12.0 | 2.00 H | 187 | 41.9 | -7.9 |
| 4 | 312.57 | 29.9 QP | 46.0 | -16.1 | 1.00 H | 258 | 36.9 | -7.0 |
| 5 | 370.20 | 27.9 QP | 46.0 | -18.1 | 1.00 H | 169 | 33.2 | -5.3 |
| 6 | 554.36 | 29.4 QP | 46.0 | -16.6 | 1.00 H | 31 | 29.8 | -0.4 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

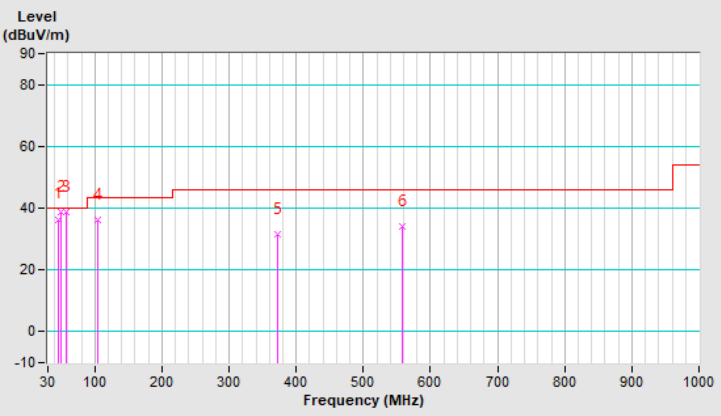


| | | | |
|---|---|---|---|
| CHANNEL | CH 6 + CH 116 + CH 64 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | C |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 45.46 | 36.4 QP | 40.0 | -3.6 | 1.00 V | 338 | 45.3 | -8.9 |
| 2 | 49.68 | 38.8 QP | 40.0 | -1.2 | 1.00 V | 352 | 47.6 | -8.8 |
| 3 | 56.71 | 38.9 QP | 40.0 | -1.1 | 1.00 V | 325 | 48.0 | -9.1 |
| 4 | 104.51 | 36.2 QP | 43.5 | -7.3 | 1.50 V | 82 | 48.6 | -12.4 |
| 5 | 373.01 | 31.7 QP | 46.0 | -14.3 | 1.50 V | 185 | 36.9 | -5.2 |
| 6 | 558.58 | 33.9 QP | 46.0 | -12.1 | 1.00 V | 192 | 34.2 | -0.3 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



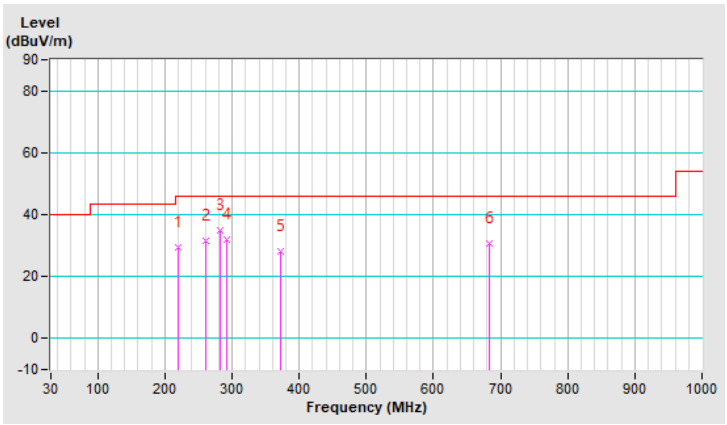
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)+BT LE 2M

| CHANNEL | CH 116 + CH 6 + CH 39 | DETECTOR FUNCTION | Quasi-Peak (QP) |
|---|---|---|---|
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | C |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 219.78 | 29.3 QP | 46.0 | -16.7 | 2.00 H | 252 | 40.6 | -11.3 |
| 2 | 260.55 | 31.7 QP | 46.0 | -14.3 | 1.50 H | 51 | 40.8 | -9.1 |
| 3 | 283.04 | 34.8 QP | 46.0 | -11.2 | 1.00 H | 179 | 42.7 | -7.9 |
| 4 | 292.88 | 31.9 QP | 46.0 | -14.1 | 1.00 H | 27 | 39.6 | -7.7 |
| 5 | 373.01 | 28.0 QP | 46.0 | -18.0 | 1.00 H | 145 | 33.2 | -5.2 |
| 6 | 683.70 | 30.8 QP | 46.0 | -15.2 | 1.50 H | 5 | 28.8 | 2.0 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

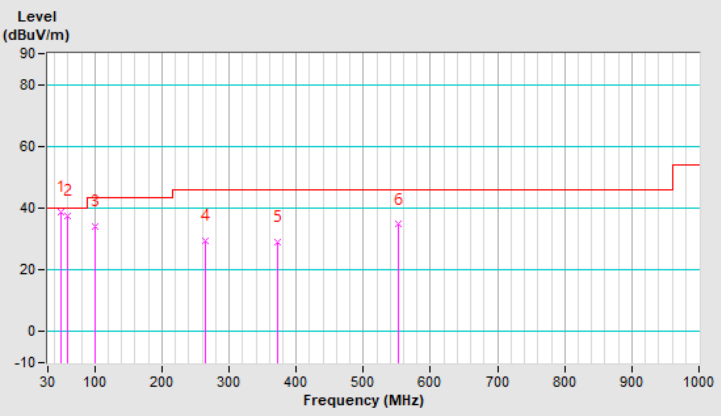


| | | | |
|---|---|---|---|
| CHANNEL | CH 116 + CH 6 + CH 39 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | C |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 49.68 | 38.7 QP | 40.0 | -1.3 | 1.00 V | 16 | 47.5 | -8.8 |
| 2 | 59.52 | 37.3 QP | 40.0 | -2.7 | 1.00 V | 269 | 46.5 | -9.2 |
| 3 | 100.29 | 34.1 QP | 43.5 | -9.4 | 1.00 V | 122 | 47.2 | -13.1 |
| 4 | 264.77 | 29.2 QP | 46.0 | -16.8 | 2.00 V | 158 | 38.0 | -8.8 |
| 5 | 371.61 | 29.1 QP | 46.0 | -16.9 | 1.50 V | 207 | 34.4 | -5.3 |
| 6 | 551.55 | 34.7 QP | 46.0 | -11.3 | 1.00 V | 70 | 35.2 | -0.5 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



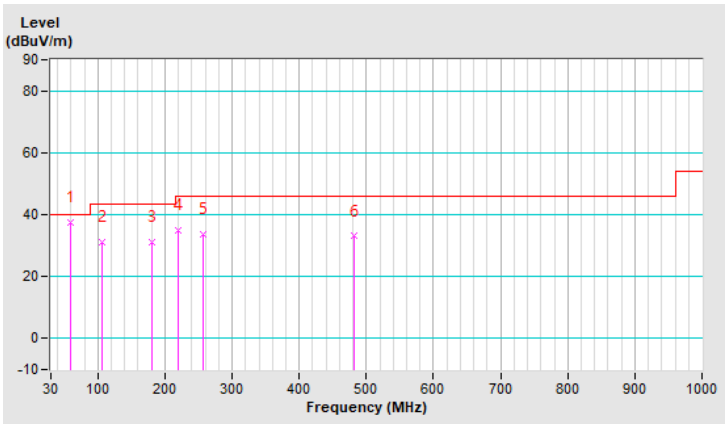
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11a

| CHANNEL | CH 6 + CH 40 + CH 149 | DETECTOR FUNCTION | Quasi-Peak (QP) |
|---|---|---|---|
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | D |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 59.52 | 37.4 QP | 40.0 | -2.6 | 2.00 H | 238 | 46.6 | -9.2 |
| 2 | 105.91 | 31.0 QP | 43.5 | -12.5 | 1.49 H | 213 | 43.3 | -12.3 |
| 3 | 180.42 | 31.2 QP | 43.5 | -12.3 | 2.00 H | 74 | 41.1 | -9.9 |
| 4 | 219.78 | 35.1 QP | 46.0 | -10.9 | 1.49 H | 241 | 46.4 | -11.3 |
| 5 | 256.33 | 33.7 QP | 46.0 | -12.3 | 1.00 H | 13 | 42.9 | -9.2 |
| 6 | 482.67 | 33.0 QP | 46.0 | -13.0 | 2.00 H | 110 | 34.9 | -1.9 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

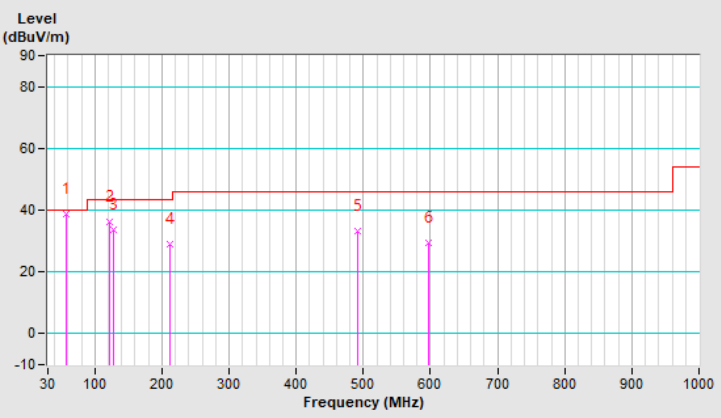


| | | | |
|---|---|---|---|
| CHANNEL | CH 6 + CH 40 + CH 149 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | D |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 58.12 | 38.6 QP | 40.0 | -1.4 | 1.00 V | 262 | 47.7 | -9.1 |
| 2 | 121.38 | 36.1 QP | 43.5 | -7.4 | 1.00 V | 56 | 46.9 | -10.8 |
| 3 | 127.00 | 33.8 QP | 43.5 | -9.7 | 2.00 V | 28 | 44.2 | -10.4 |
| 4 | 212.75 | 28.9 QP | 43.5 | -14.6 | 1.50 V | 347 | 40.3 | -11.4 |
| 5 | 491.10 | 33.2 QP | 46.0 | -12.8 | 1.00 V | 151 | 34.8 | -1.6 |
| 6 | 596.54 | 29.3 QP | 46.0 | -16.7 | 2.00 V | 282 | 28.4 | 0.9 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



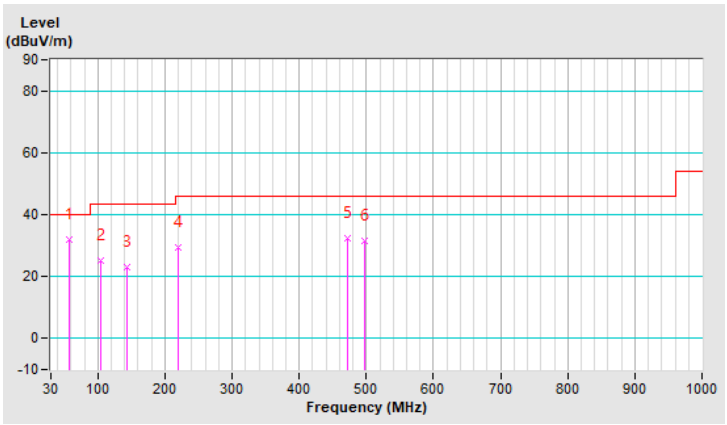
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)+ BT LE 2M

| | | | |
|---|---|---|---|
| CHANNEL | CH 40 + CH 6 + CH 39 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | D |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 58.12 | 31.8 QP | 40.0 | -8.2 | 1.50 H | 245 | 40.9 | -9.1 |
| 2 | 104.51 | 25.0 QP | 43.5 | -18.5 | 1.50 H | 217 | 37.4 | -12.4 |
| 3 | 143.87 | 23.2 QP | 43.5 | -20.3 | 1.00 H | 59 | 32.0 | -8.8 |
| 4 | 219.78 | 29.4 QP | 46.0 | -16.6 | 1.00 H | 235 | 40.7 | -11.3 |
| 5 | 472.83 | 32.5 QP | 46.0 | -13.5 | 1.00 H | 208 | 34.6 | -2.1 |
| 6 | 496.72 | 31.6 QP | 46.0 | -14.4 | 2.00 H | 200 | 33.1 | -1.5 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

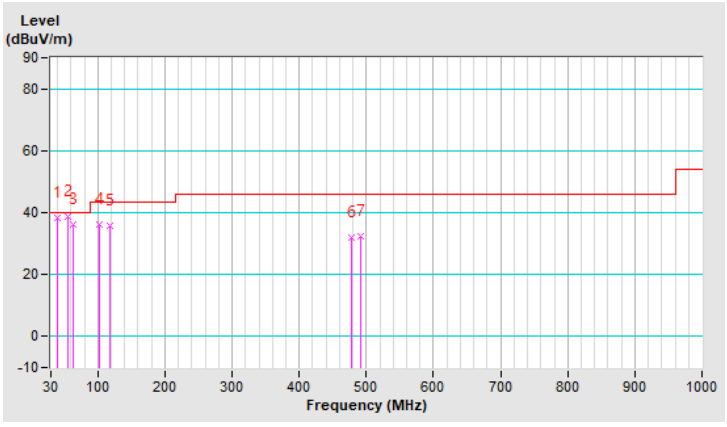


| | | | |
|---|---|---|---|
| CHANNEL | CH 40 + CH 6 + CH 39 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | D |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 39.84 | 38.5 QP | 40.0 | -1.5 | 1.00 V | 2 | 48.0 | -9.5 |
| 2 | 55.30 | 38.9 QP | 40.0 | -1.1 | 1.00 V | 2 | 47.8 | -8.9 |
| 3 | 63.74 | 36.0 QP | 40.0 | -4.0 | 1.00 V | 337 | 45.5 | -9.5 |
| 4 | 103.10 | 36.1 QP | 43.5 | -7.4 | 1.00 V | 16 | 48.8 | -12.7 |
| 5 | 118.57 | 35.8 QP | 43.5 | -7.7 | 1.00 V | 14 | 46.8 | -11.0 |
| 6 | 478.45 | 31.9 QP | 46.0 | -14.1 | 1.50 V | 100 | 33.9 | -2.0 |
| 7 | 492.51 | 32.2 QP | 46.0 | -13.8 | 1.00 V | 85 | 33.8 | -1.6 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



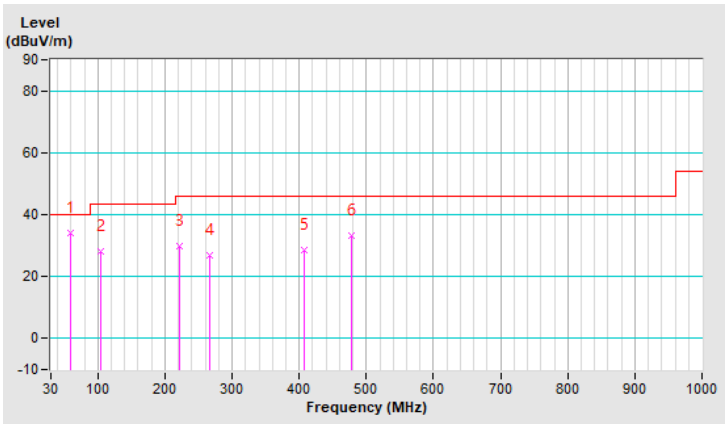
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)

| CHANNEL | CH 6 + CH 116 + CH 64 | DETECTOR FUNCTION | Quasi-Peak (QP) |
|---|---|---|---|
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | D |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 59.52 | 34.0 QP | 40.0 | -6.0 | 2.00 H | 230 | 43.2 | -9.2 |
| 2 | 104.51 | 28.0 QP | 43.5 | -15.5 | 1.50 H | 224 | 40.4 | -12.4 |
| 3 | 221.19 | 29.7 QP | 46.0 | -16.3 | 1.00 H | 256 | 41.0 | -11.3 |
| 4 | 267.58 | 27.0 QP | 46.0 | -19.0 | 1.50 H | 286 | 35.6 | -8.6 |
| 5 | 406.75 | 28.4 QP | 46.0 | -17.6 | 2.00 H | 209 | 32.7 | -4.3 |
| 6 | 478.45 | 33.3 QP | 46.0 | -12.7 | 1.00 H | 199 | 35.3 | -2.0 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

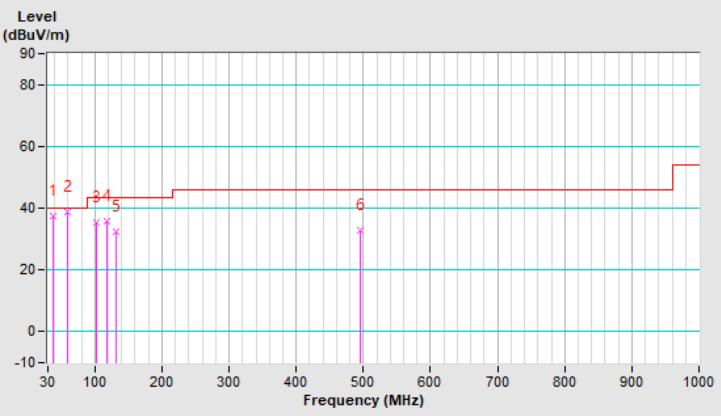


| | | | |
|---|---|---|---|
| CHANNEL | CH 6 + CH 116 + CH 64 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | D |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 38.43 | 37.3 QP | 40.0 | -2.7 | 1.00 V | 12 | 47.0 | -9.7 |
| 2 | 59.52 | 38.8 QP | 40.0 | -1.2 | 1.00 V | 255 | 48.0 | -9.2 |
| 3 | 101.70 | 35.4 QP | 43.5 | -8.1 | 1.00 V | 101 | 48.3 | -12.9 |
| 4 | 118.57 | 35.8 QP | 43.5 | -7.7 | 1.50 V | 12 | 46.8 | -11.0 |
| 5 | 131.22 | 32.2 QP | 43.5 | -11.3 | 1.50 V | 14 | 42.1 | -9.9 |
| 6 | 495.32 | 32.9 QP | 46.0 | -13.1 | 1.00 V | 81 | 34.5 | -1.6 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



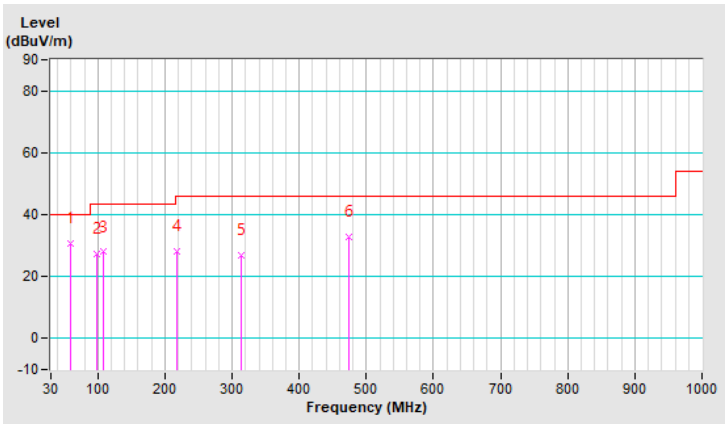
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)+BT LE 2M

| | | | |
|---|---|---|---|
| CHANNEL | CH 116 + CH 6 + CH 39 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | D |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 59.52 | 30.8 QP | 40.0 | -9.2 | 1.50 H | 259 | 40.0 | -9.2 |
| 2 | 98.88 | 27.2 QP | 43.5 | -16.3 | 1.50 H | 222 | 40.5 | -13.3 |
| 3 | 107.32 | 27.9 QP | 43.5 | -15.6 | 1.00 H | 222 | 40.0 | -12.1 |
| 4 | 216.97 | 28.2 QP | 46.0 | -17.8 | 1.00 H | 268 | 39.5 | -11.3 |
| 5 | 313.97 | 26.9 QP | 46.0 | -19.1 | 2.00 H | 271 | 33.8 | -6.9 |
| 6 | 474.23 | 32.7 QP | 46.0 | -13.3 | 1.00 H | 119 | 34.7 | -2.0 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

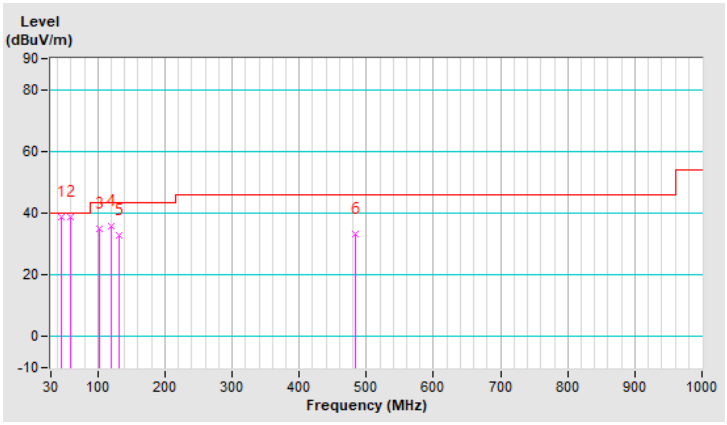


| | | | |
|---|---|---|---|
| CHANNEL | CH 116 + CH 6 + CH 39 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 9kHz ~ 1GHz | TEST MODE | D |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 45.46 | 38.8 QP | 40.0 | -1.2 | 1.00 V | 26 | 47.7 | -8.9 |
| 2 | 59.52 | 38.8 QP | 40.0 | -1.2 | 1.00 V | 243 | 48.0 | -9.2 |
| 3 | 103.10 | 34.9 QP | 43.5 | -8.6 | 1.00 V | 71 | 47.6 | -12.7 |
| 4 | 119.97 | 35.7 QP | 43.5 | -7.8 | 1.50 V | 15 | 46.6 | -10.9 |
| 5 | 131.22 | 33.0 QP | 43.5 | -10.5 | 1.00 V | 335 | 42.9 | -9.9 |
| 6 | 484.07 | 33.4 QP | 46.0 | -12.6 | 2.00 V | 94 | 35.3 | -1.9 |

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



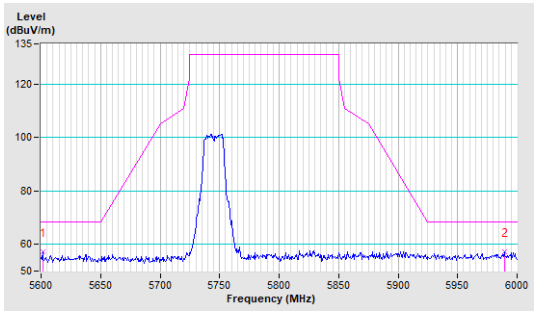
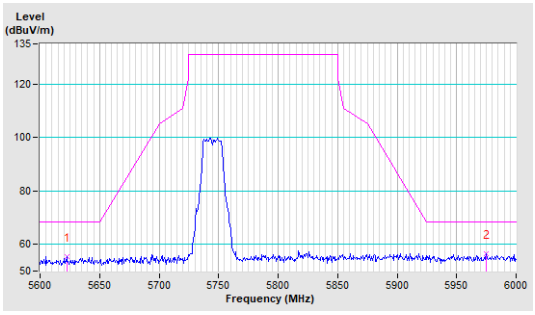
## 5 Pictures of Test Arrangements

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

## Annex A- Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

### Test Mode A

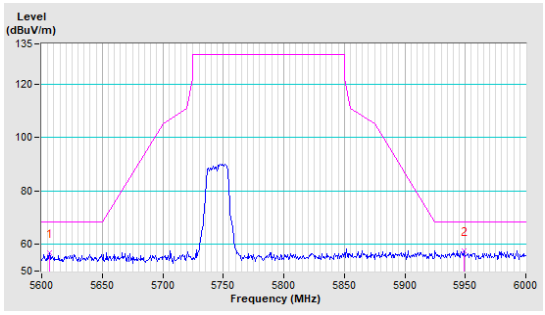
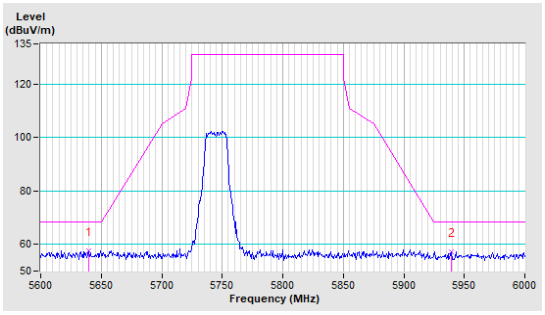
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11a

| CH 149 5745 MHz | |
|---|---|
| **Horizontal** | **Vertical** |
|  |  |



### Test Mode C

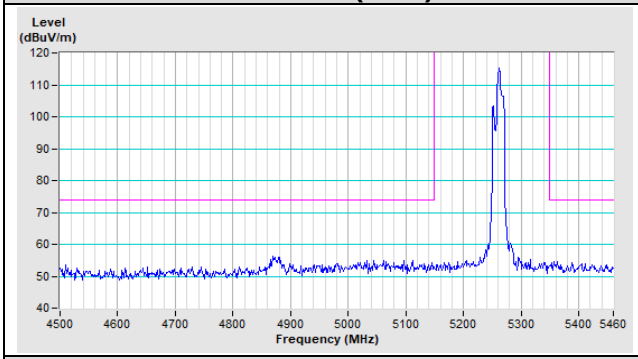
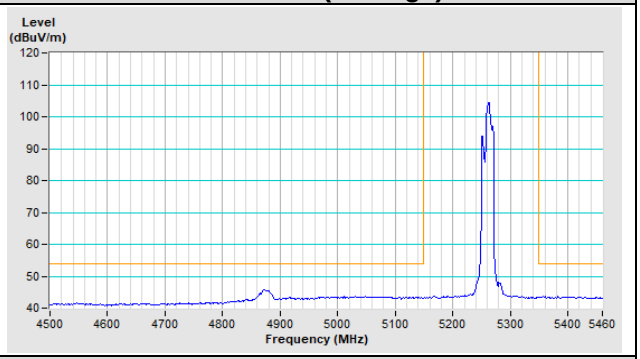
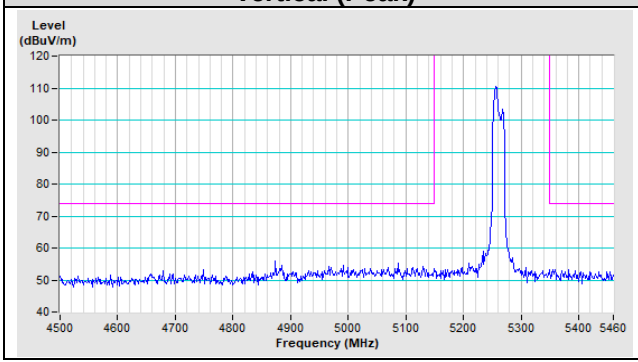
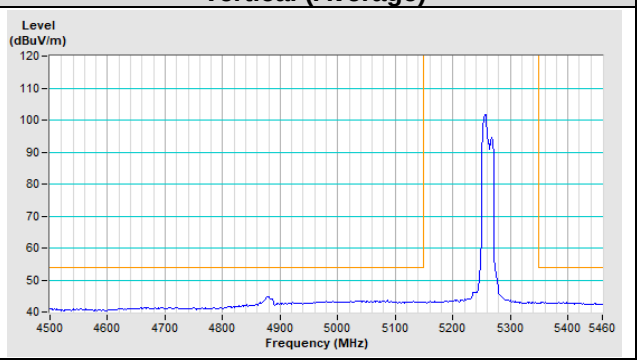
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11a

| CH 149 5745 MHz | |
|---|---|
| **Horizontal** | **Vertical** |
|  |  |

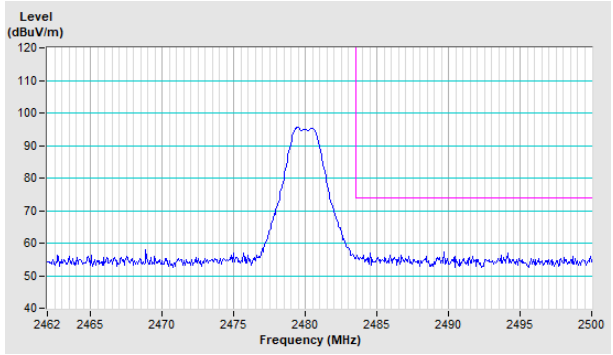
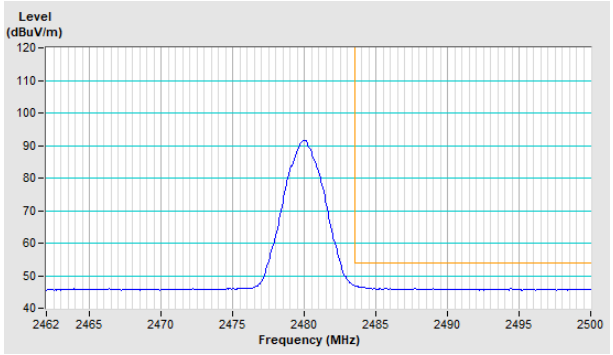
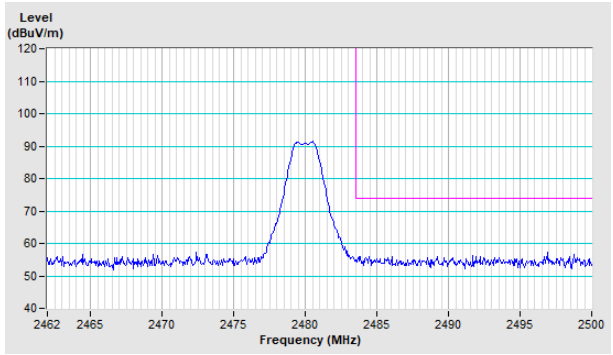
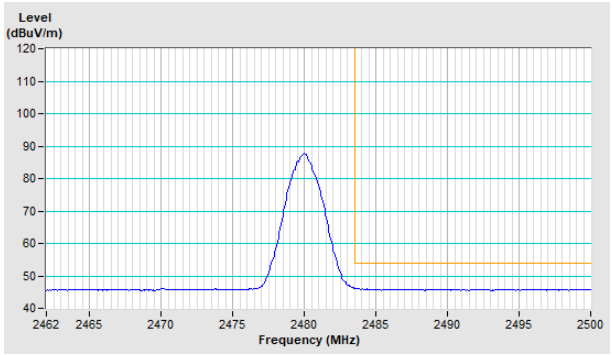
## Annex B- Band Edge Measurement

### Test Mode A

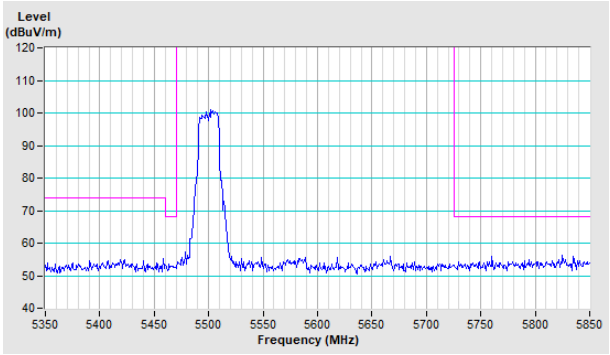
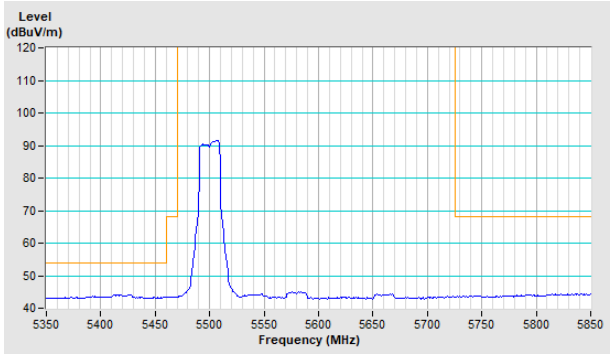
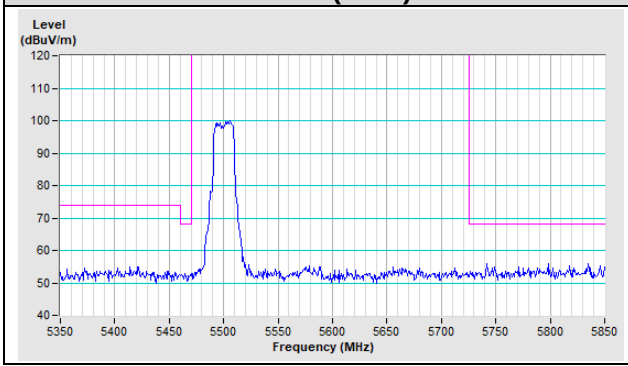
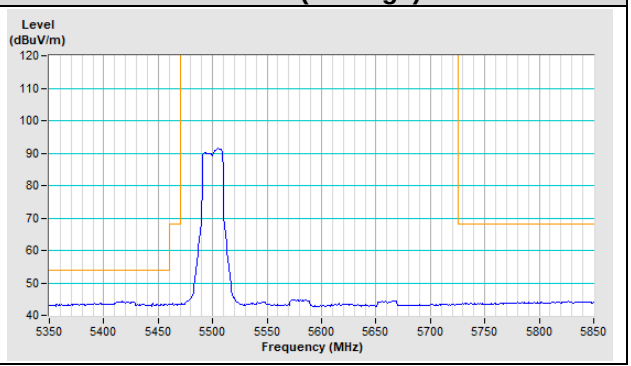
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11a

| 5G traffic radio: 802.11ax (HE20): Channel 52 | |
|---|---|
| Horizontal (Peak) | Horizontal (Average) |
|  |  |
| Vertical (Peak) | Vertical (Average) |
|  |  |

## 5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11b+BT LE 2M

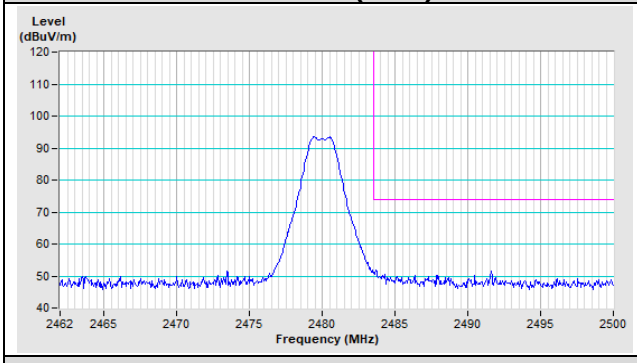
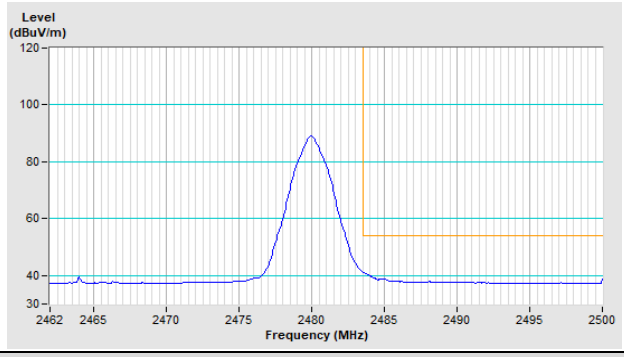
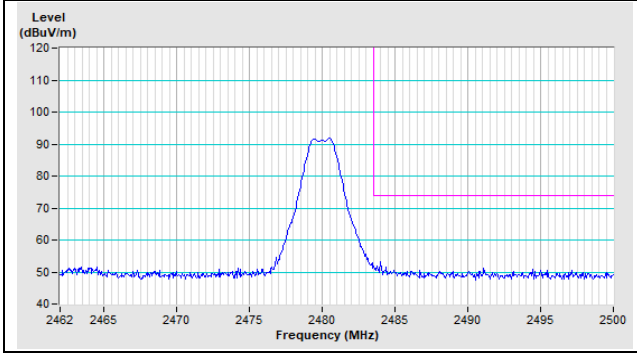
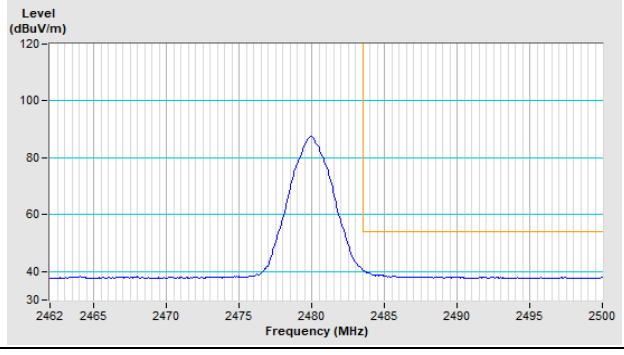
| 5G traffic radio: 802.11ax (HE20): Channel 52 | |
|---|---|
| **Horizontal (Peak)** | **Horizontal (Average)** |
|  |  |
| **Vertical (Peak)** | **Vertical (Average)** |
|  |  |

2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)

| Scanning radio: 802.11n (HT20): Channel 100 | |
|---|---|
| Horizontal (Peak) | Horizontal (Average) |
|  |  |
| Vertical (Peak) | Vertical (Average) |
|  |  |

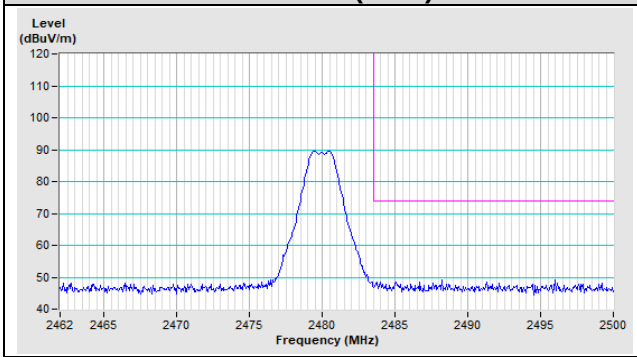
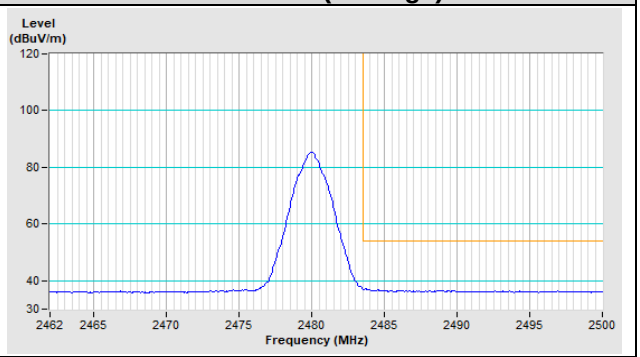
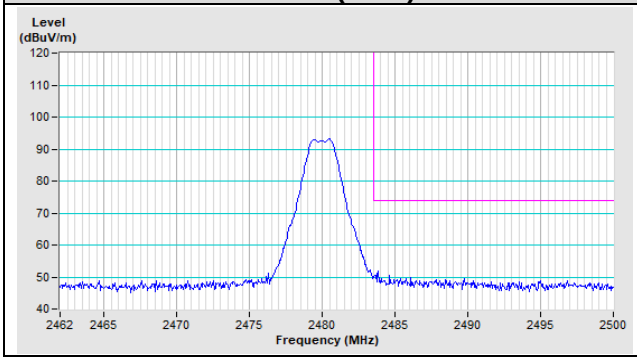
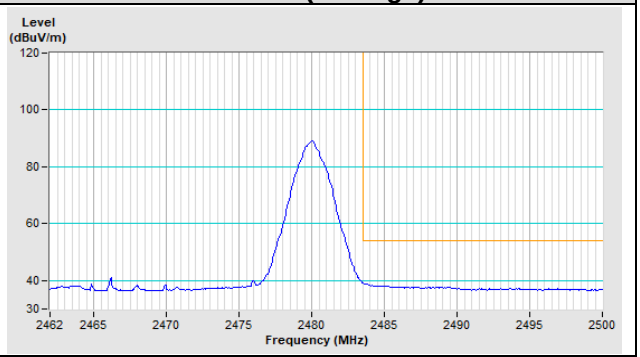


5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11b+BT LE 2M

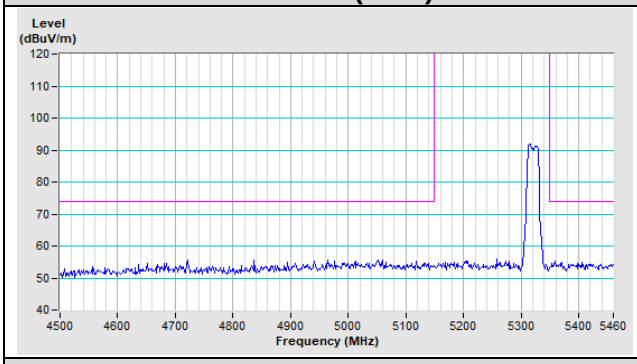
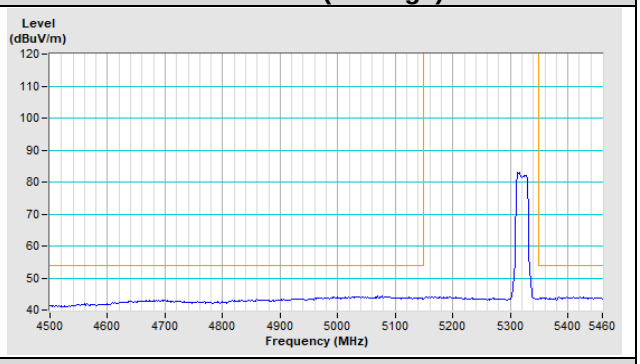
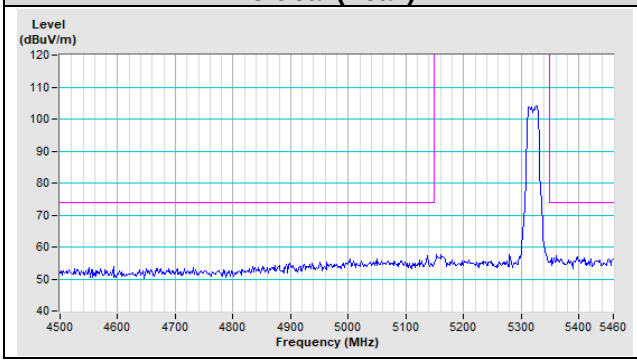
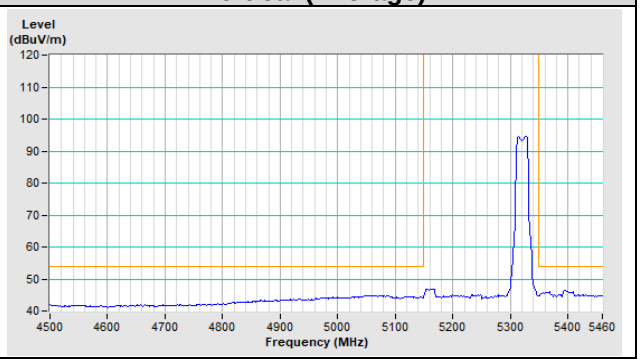
| BT LE 2M: Channel 39 | |
|---|---|
| Horizontal (Peak) | Horizontal (Average) |
|  |  |
| Vertical (Peak) | Vertical (Average) |
|  |  |

## Test Mode C

5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)+BT LE 2M

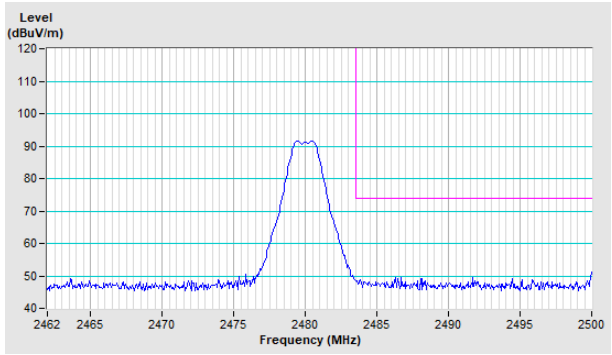
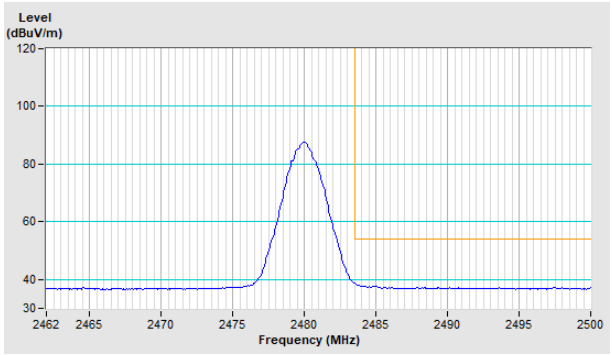
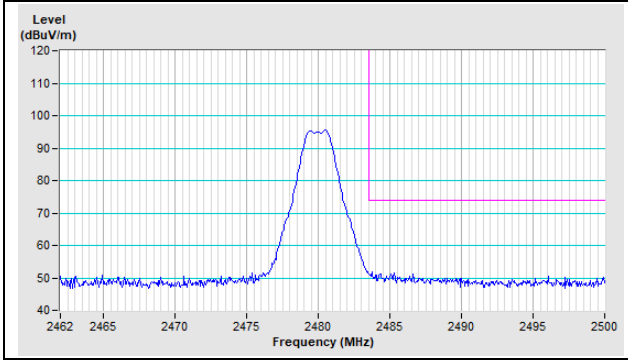
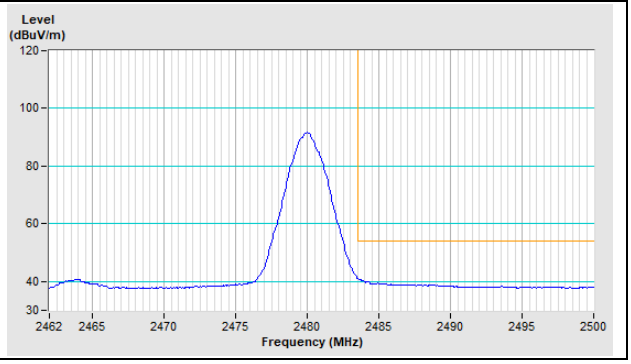
| BT LE 2M: Channel 39 | |
|---|---|
| **Horizontal (Peak)** | **Horizontal (Average)** |
|  |  |
| **Vertical (Peak)** | **Vertical (Average)** |
|  |  |

2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)

| Scanning radio: 802.11n (HT20): Channel 64 | |
|---|---|
| Horizontal (Peak) | Horizontal (Average) |
|  |  |
| Vertical (Peak) | Vertical (Average) |
|  |  |



5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)+BT LE 2M

| BT LE 2M: Channel 39 | |
|---|---|
| Horizontal (Peak) | Horizontal (Average) |
|  |  |
| Vertical (Peak) | Vertical (Average) |
|  |  |

**Appendix – Information of the Testing Laboratories**

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:


**Lin Kou EMC/RF Lab**
Tel: 886-2-26052180
Fax: 886-2-26051924

**Hsin Chu EMC/RF/Telecom Lab**
Tel: 886-3-6668565
Fax: 886-3-6668323

**Hwa Ya EMC/RF/Safety Lab**
Tel: 886-3-3183232
Fax: 886-3-3270892

**Email:** service.adt@tw.bureauveritas.com
**Web Site:** www.bureauveritas-adt.com


The address and road map of all our labs can be found in our web site also.

**--- END ---**