

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.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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**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)
47 CFR FCC Part 15, Subpart E (Section 15.407)
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) 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) ($\pm$)
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 54Vdc from PoE
Modulation Type	802.11b: BPSK, QPSK, CCK 802.11g/n: BPSK, QPSK, 16QAM, 64QAM 802.11ac: BPSK, QPSK, 16QAM, 64QAM, 256QAM 802.11ax: BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM
Modulation Technology	DSSS, OFDM, OFDMA
Transfer Rate	802.11b: 11/5.5/2/1Mbps 802.11g: 54/48/36/24/18/12/9/6Mbps 802.11n (HT20/40): 6.5 to 600Mbps (MCS0 to MCS31) 802.11ac (VHT20/40): 6.5 to 1733Mbps (MCS0 to MCS9, NSS=1 to 4) 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: <u>2GHz traffic radio:</u> 802.11b, 802.11g, 802.11n (HT20), 802.11ac (VHT20) , 802.11ax (HE20): 11 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 7 <u>Scanning radio:</u> 802.11b, 802.11g, 802.11n (HT20): 11 802.11n (HT40): 7 5.0GHz Band: <u>5GHz traffic radio:</u> 5180 ~ 5240MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 4 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2 802.11ac (VHT80), 802.11ax (HE80): 1 802.11ac (VHT80+VHT80), 802.11ax (HE80+HE80): 1 5260 ~ 5320MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 4 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2 802.11ac (VHT80), 802.11ax (HE80): 1 802.11ac (VHT80+VHT80), 802.11ax (HE80+HE80): 1 5500 ~ 5720MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 12

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

	5.0GHz Band: 5180 ~ 5240MHz: 5G traffic radio: CDD Mode: 535.974mW 5G traffic radio: Beamforming Mode: 235.516mW Scanning radio: CDD Mode: 16.711mW 5260 ~ 5320MHz: 5G traffic radio: CDD Mode: 202.031mW 5G traffic radio: Beamforming Mode: 50.965mW Scanning radio: CDD Mode: 16.293mW 5500 ~ 5720MHz: 5G traffic radio: CDD Mode: 213.960mW 5G traffic radio: Beamforming Mode: 53.744mW Scanning radio: CDD Mode: 16.368mW 5745 ~ 5825MHz: 5G traffic radio: CDD Mode: 864.483mW 5G traffic radio: Beamforming Mode: 203.444mW 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 PIN 4,5:54Vdc 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 $\geq$ 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 $\geq$ 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 $\geq$ 1G	23 deg. C, 66% RH	120Vac, 60Hz	Adair Peng
RE $<$ 1G	23 deg. C, 66% RH	120Vac, 60Hz 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:

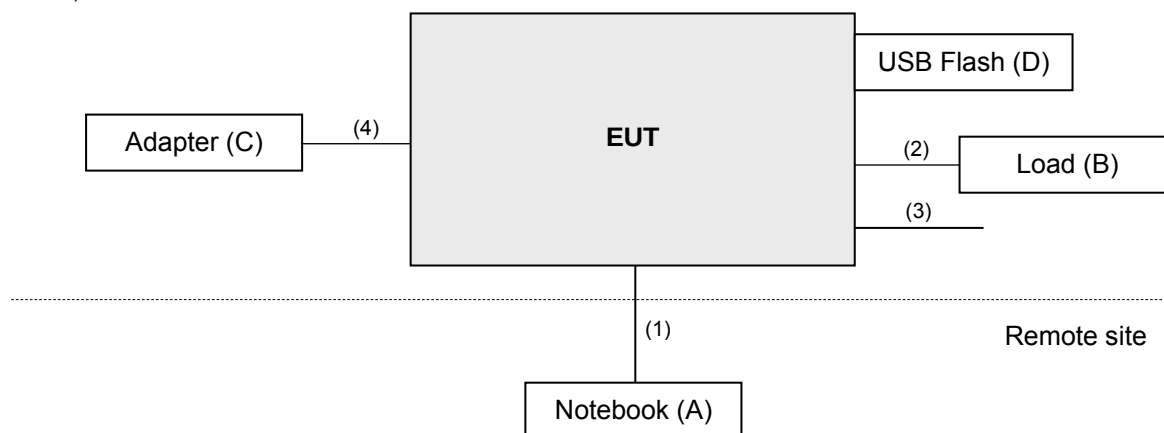
1. All power cords of the above support units are non-shielded (1.8m).

2. Item A, E acted as communication partners to transfer data.

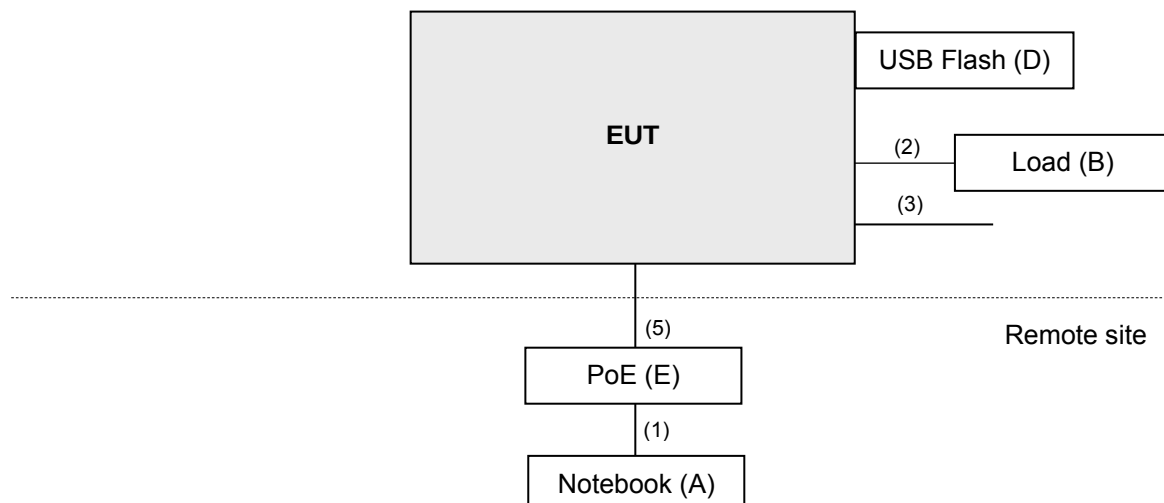
ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	LAN	1	7.0	N	0	RJ45, Cat5e
2.	LAN	1	1.5	N	0	RJ45, Cat5e
3.	Console	1	1.0	Y	1	-
4.	Power cable	1	1.5	-	0	Provided by client
5.	LAN	1	1.5	N	0	RJ45, Cat5e

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 (dBuV/m)	AV: 54 (dBuV/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(dBuV/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} PK: 10 (dBm/MHz) ^{*2} PK: 15.6 (dBm/MHz) ^{*3} PK: 27 (dBm/MHz) ^{*4}	PK: 68.2(dBuV/m) ^{*1} PK: 105.2 (dBuV/m) ^{*2} PK: 110.8(dBuV/m) ^{*3} PK: 122.2 (dBuV/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:

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

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/MY5 5190004/MY55190 007/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:

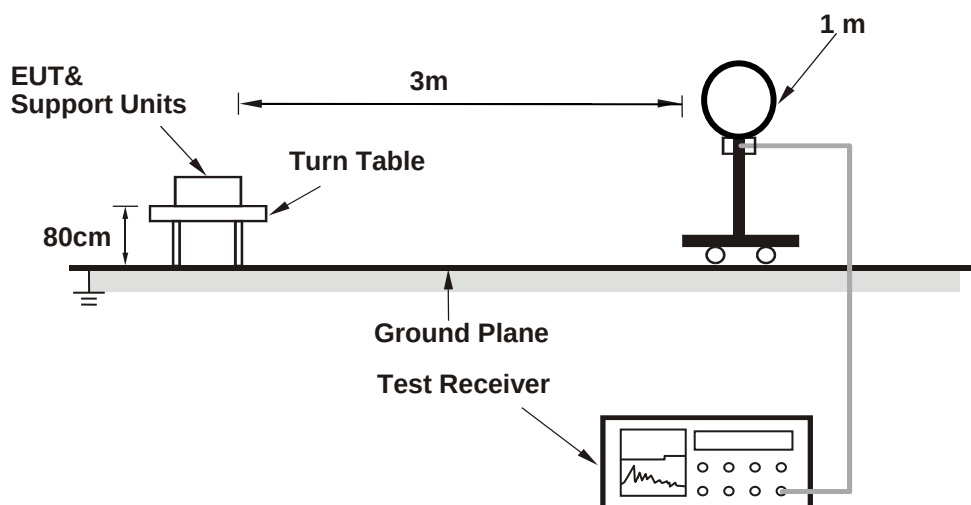
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98%) or 10Hz (Duty cycle $\geq 98\%$) 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

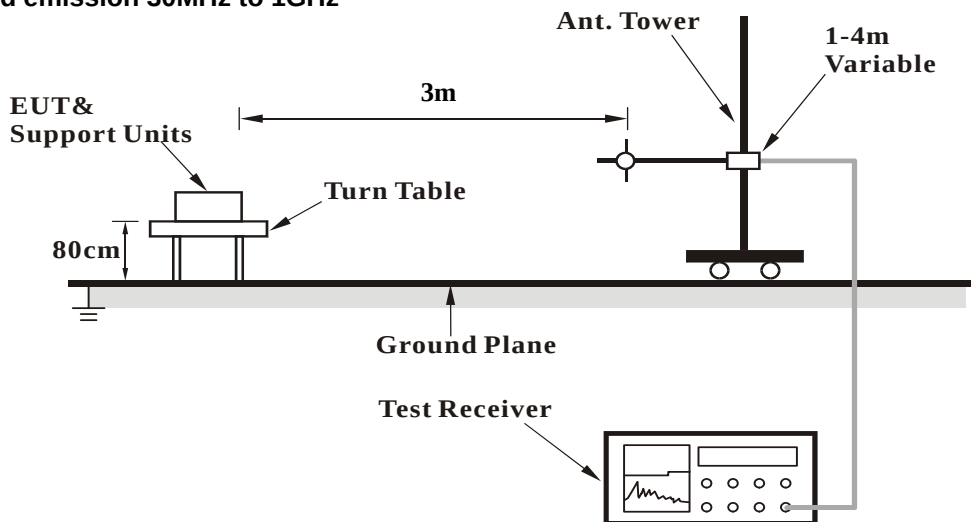
No deviation.

4.1.5 Test Setup

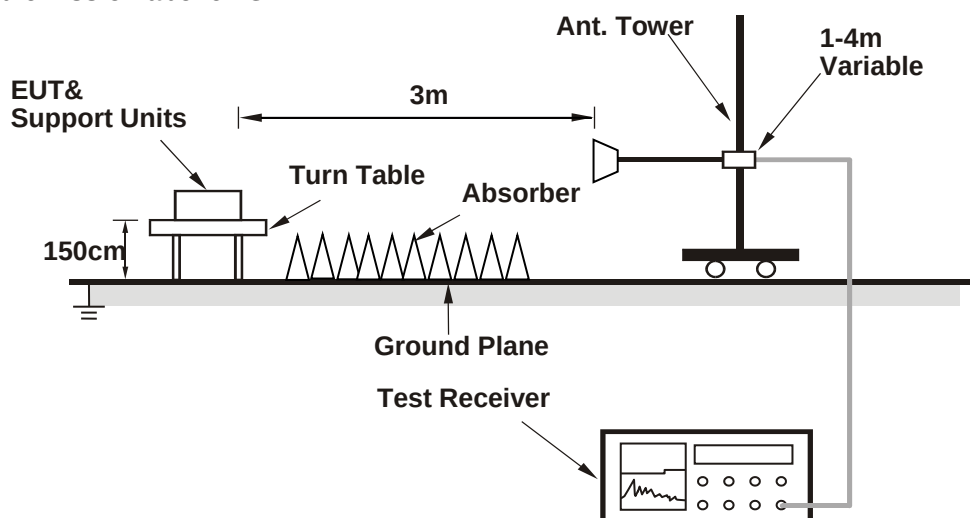
For Radiated emission below 30MHz



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

- Placed the EUT on the testing table.
- Prepared a notebook to act as a communication partner and placed it outside of testing area.
- 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.
- 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) 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) 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) 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) 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) 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) 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) 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) 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) 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) 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) 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) 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) 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) 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) 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) 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

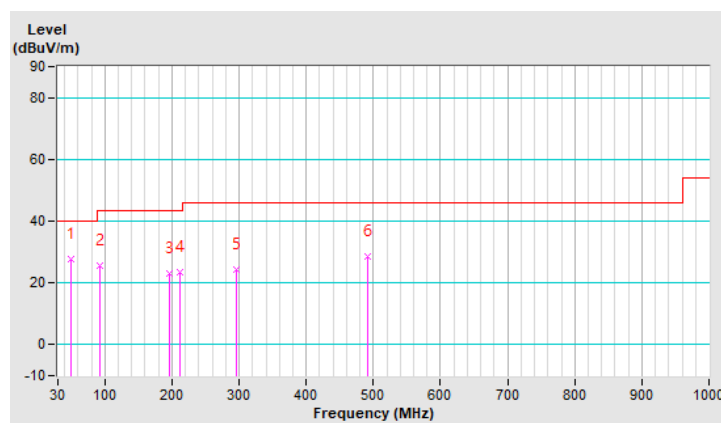
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11a

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.

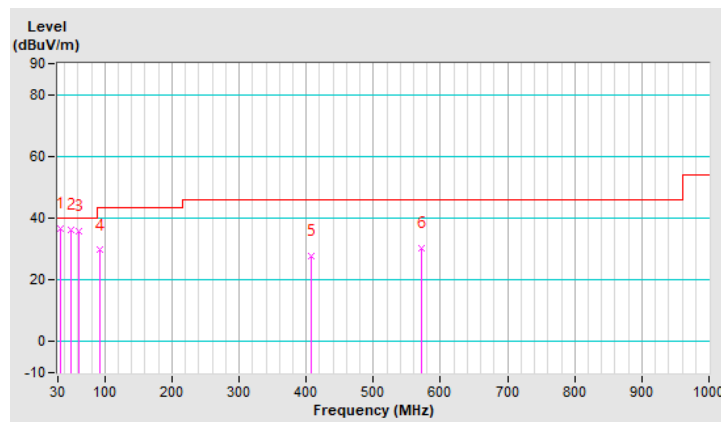


CHANNEL	CH 6 + CH 52 + CH 149	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	A

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.



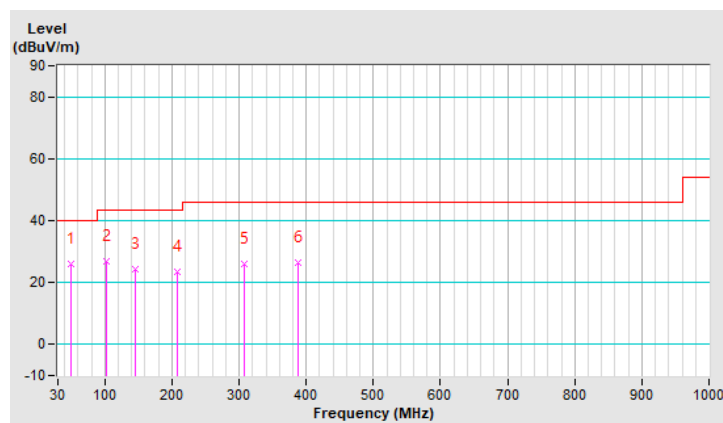
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11b+BT LE 2M

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.

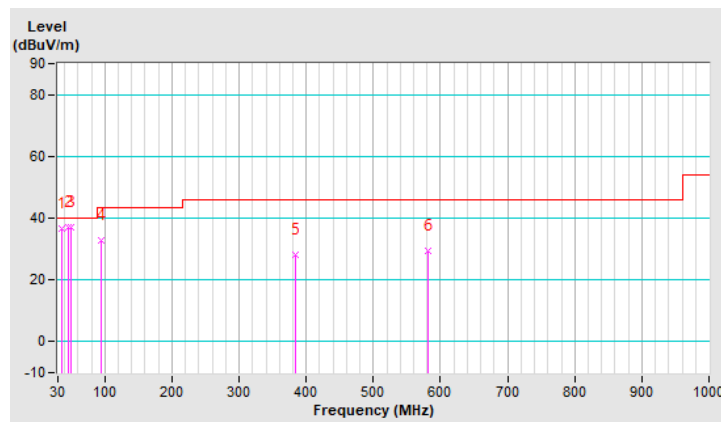


CHANNEL	CH 52 + CH 6 + CH 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	A

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.



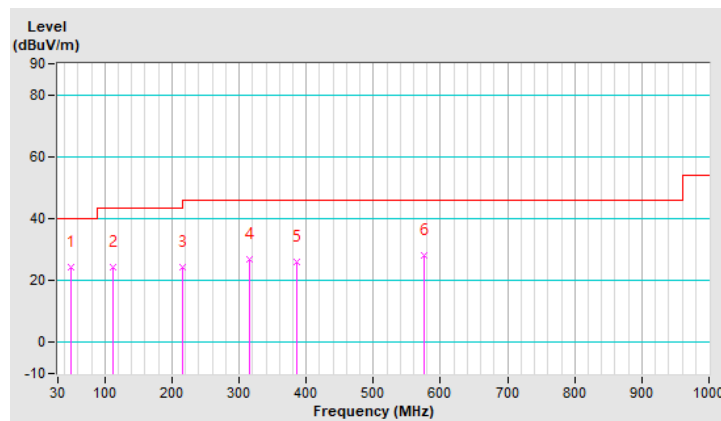
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)

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.

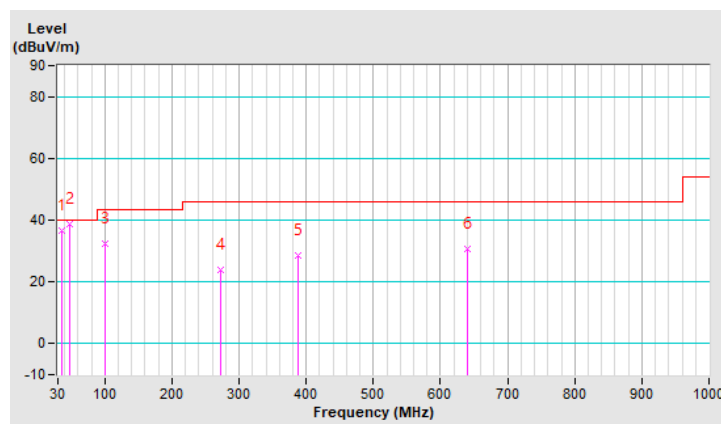


CHANNEL	CH 6 + CH 40 + CH 100	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	A

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.



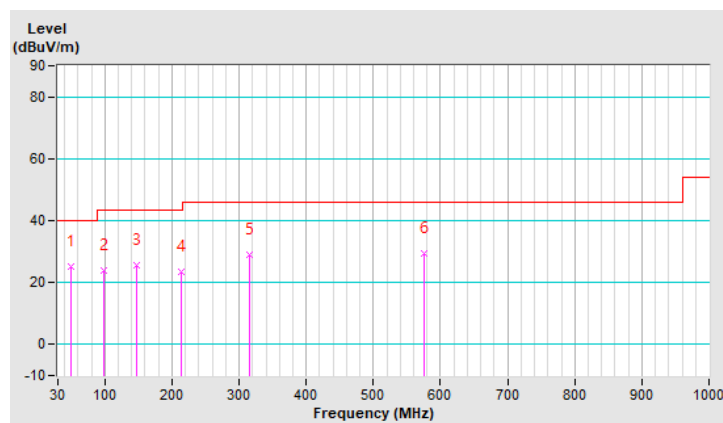
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11b+BT LE 2M

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.

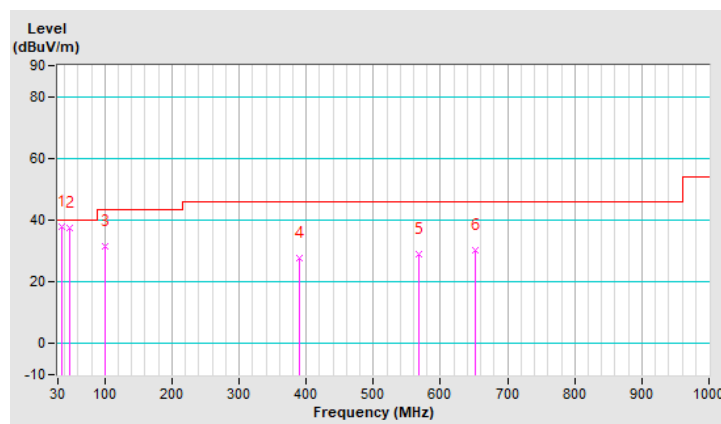


CHANNEL	CH 40 + CH 6 + CH 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	A

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.



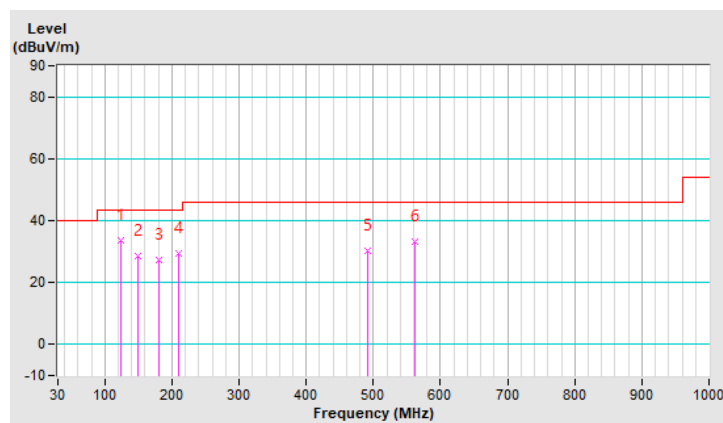
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11a

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.

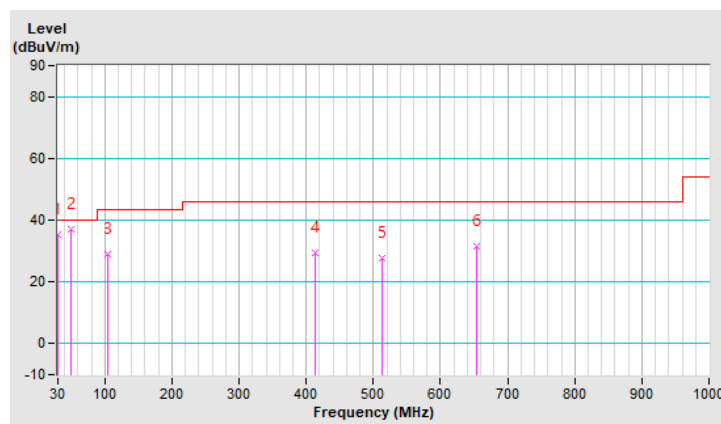


CHANNEL	CH 6 + CH 52 + CH 149	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	B

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.



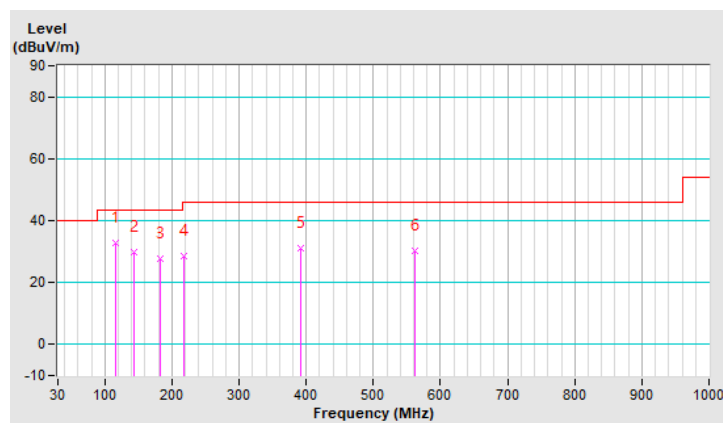
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11b+BT LE 2M

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.

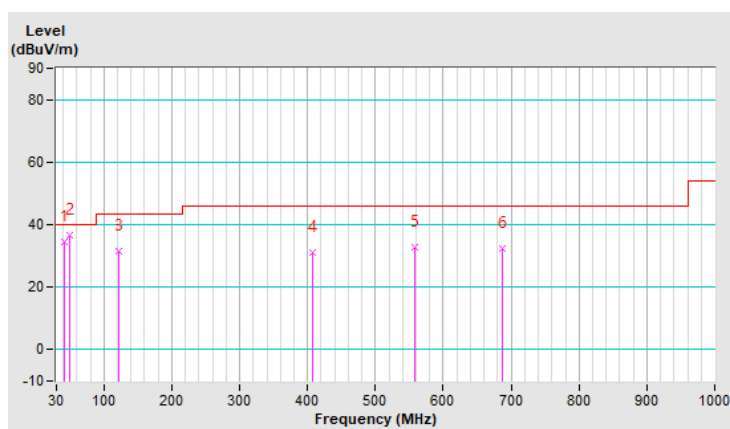


CHANNEL	CH 52 + CH 6 + CH 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	B

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.



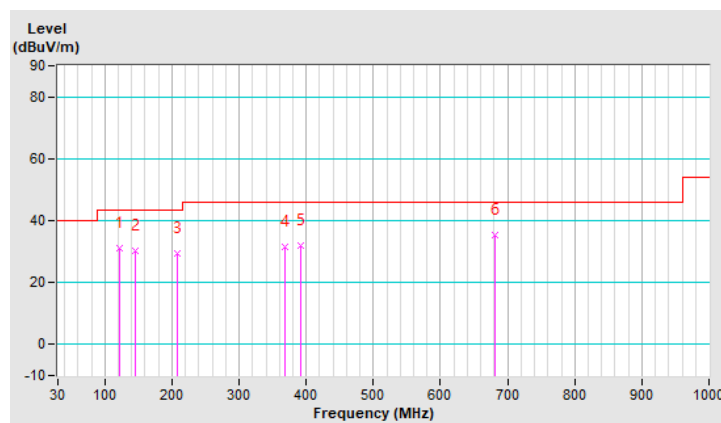
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)

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.

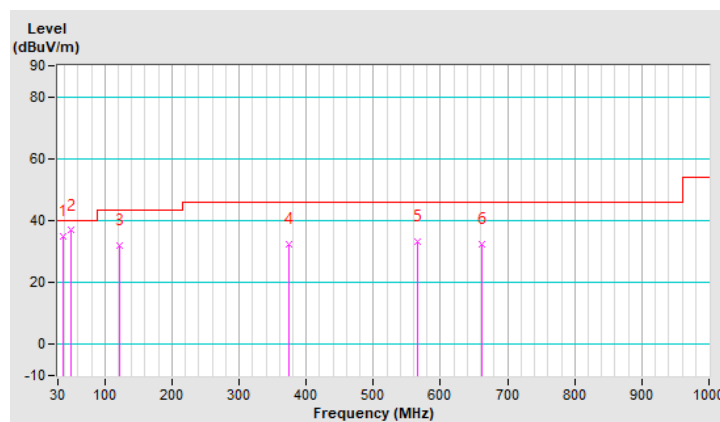


CHANNEL	CH 6 + CH 40 + CH 100	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	B

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.



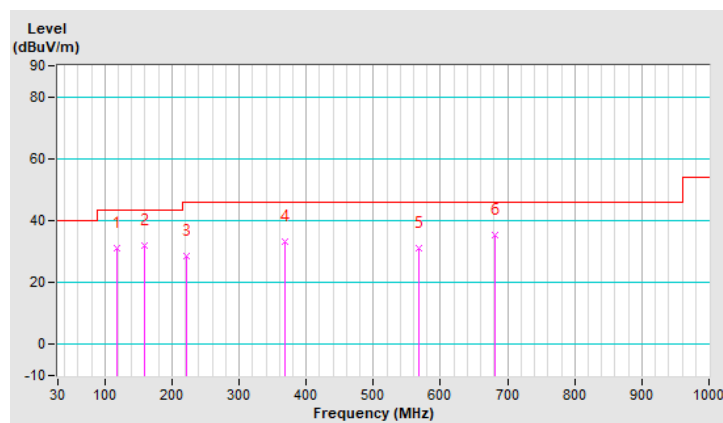
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11b+BT LE 2M

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.

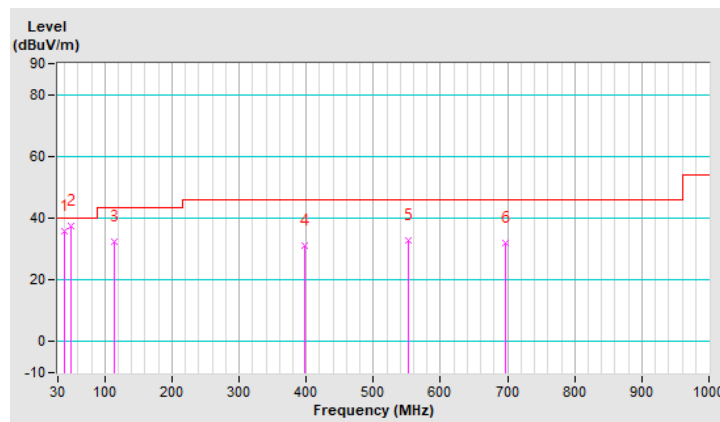


CHANNEL	CH 40 + CH 6 + CH 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	B

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.



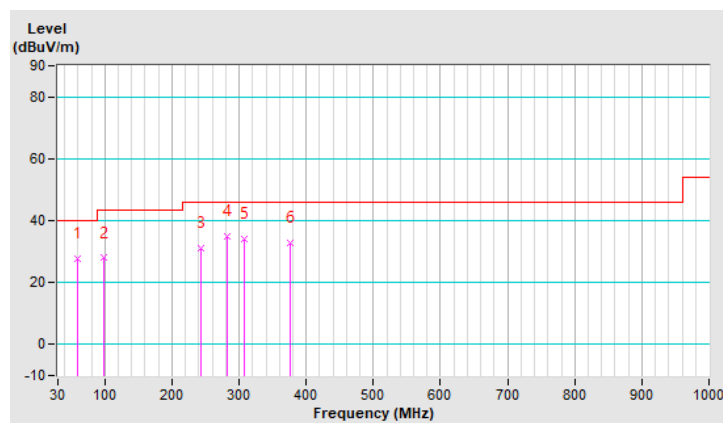
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11a

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.

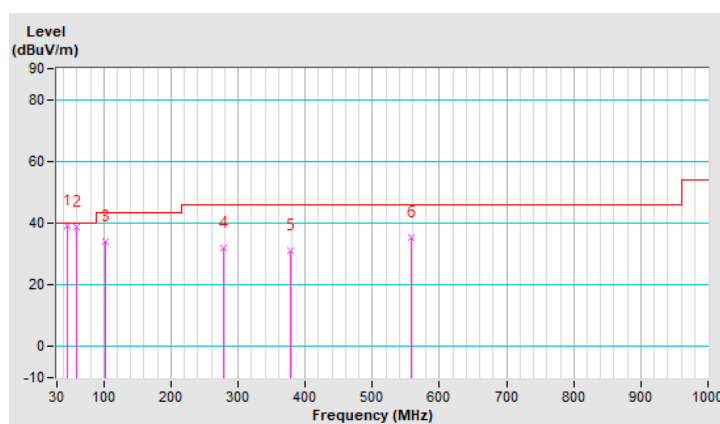


CHANNEL	CH 6 + CH 40 + CH 149	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	C

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.



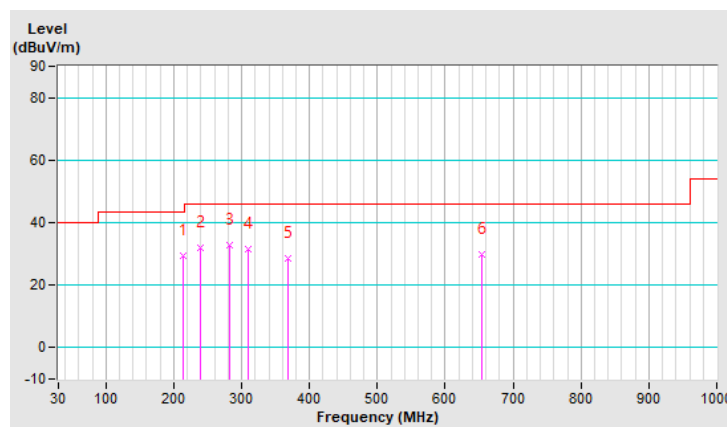
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)+BT LE 2M

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.

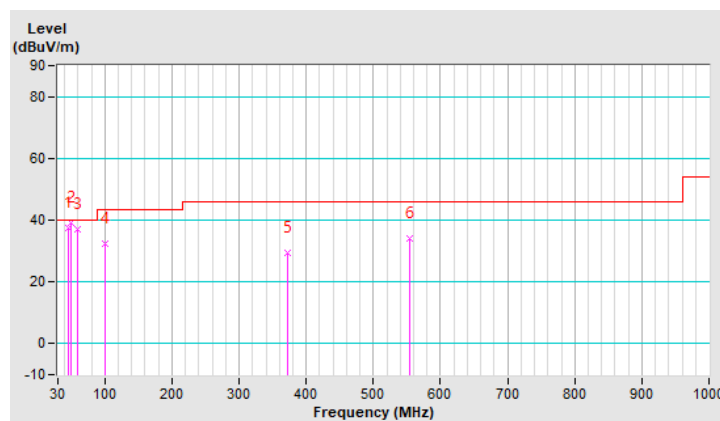


CHANNEL	CH 40 + CH 6 + CH 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	C

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.



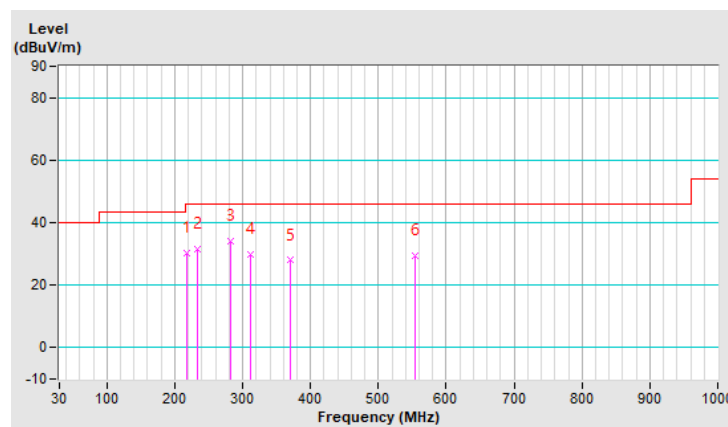
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)

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.

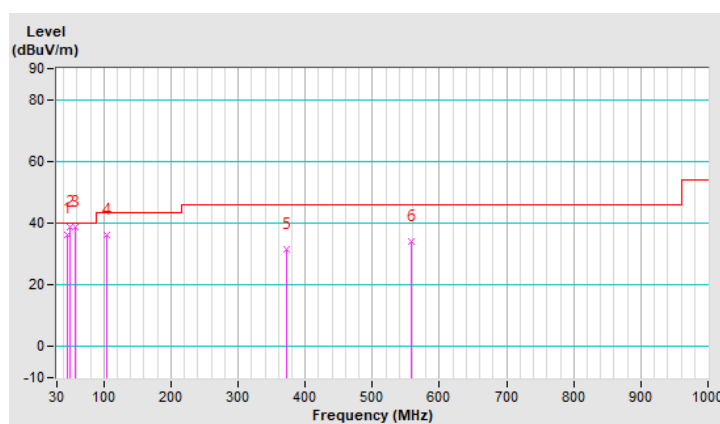


CHANNEL	CH 6 + CH 116 + CH 64	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	C

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.



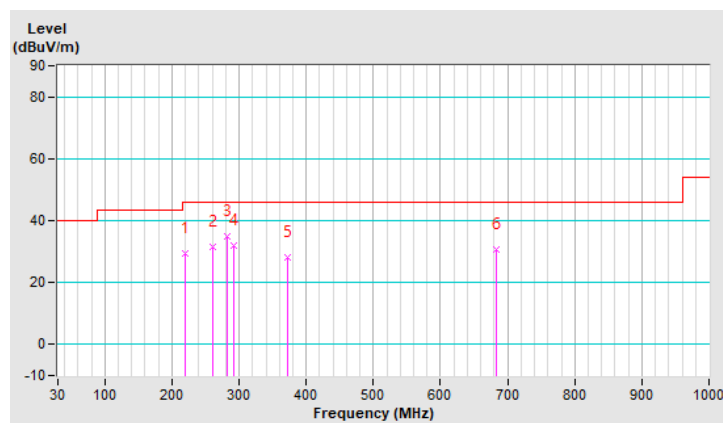
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)+BT LE 2M

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.

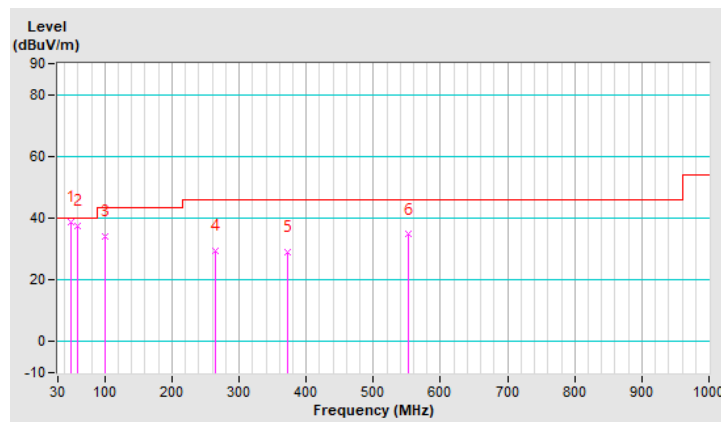


CHANNEL	CH 116 + CH 6 + CH 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	C

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.



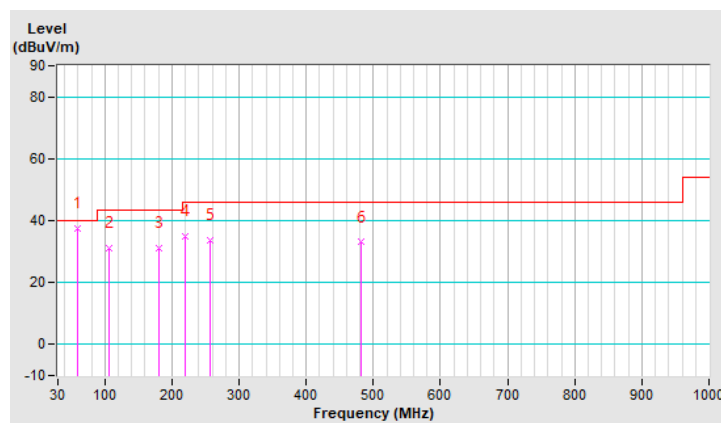
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11a

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.

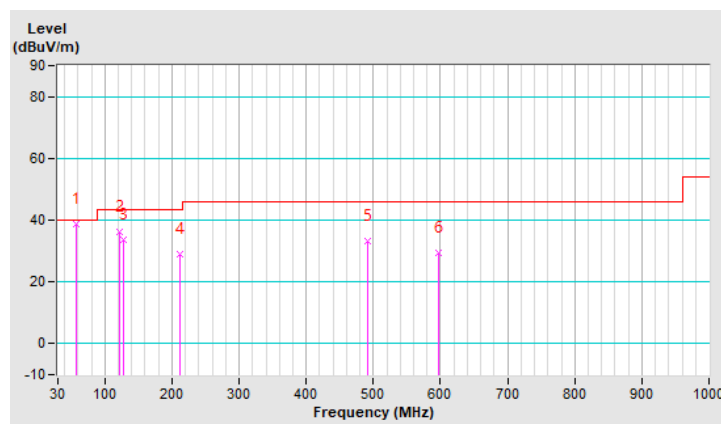


CHANNEL	CH 6 + CH 40 + CH 149	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	D

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.



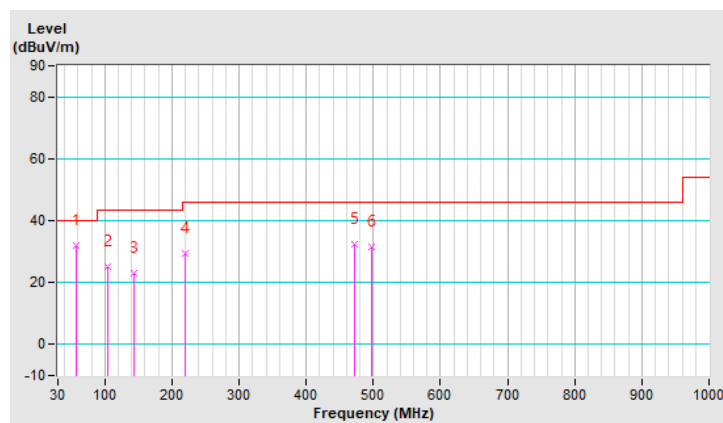
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)+ BT LE 2M

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.

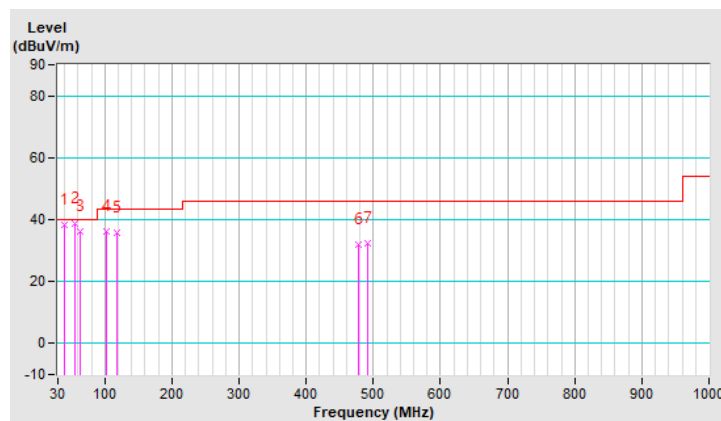


CHANNEL	CH 40 + CH 6 + CH 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	D

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.



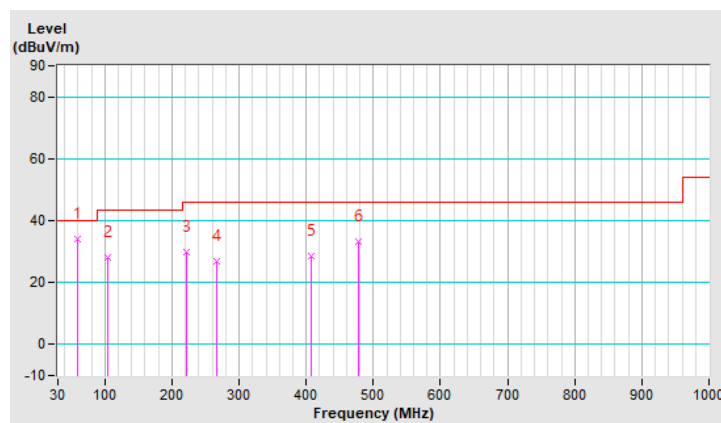
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)

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.

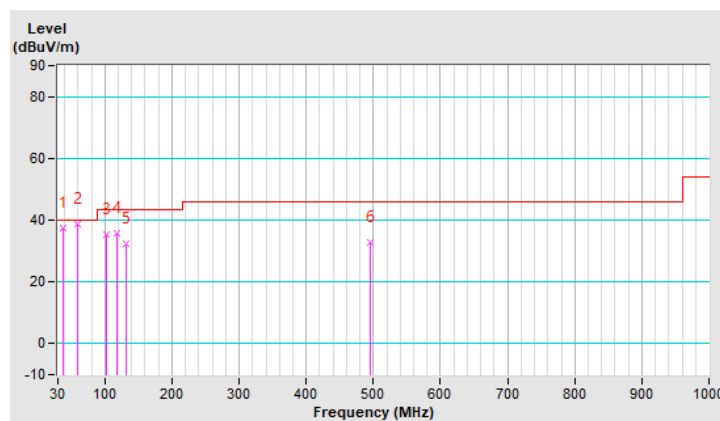


CHANNEL	CH 6 + CH 116 + CH 64	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	D

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.



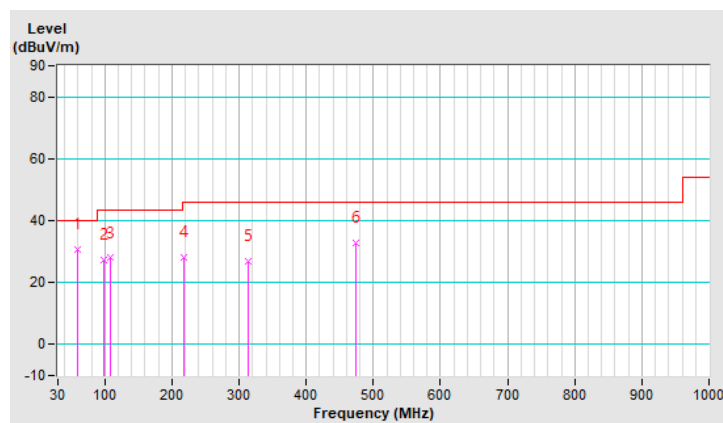
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)+BT LE 2M

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.

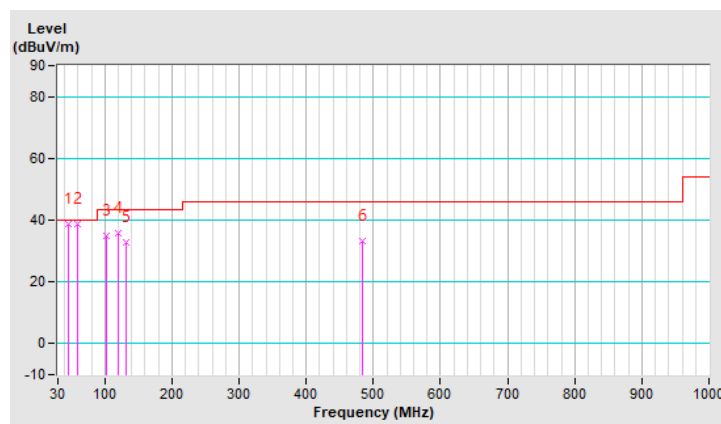


CHANNEL	CH 116 + CH 6 + CH 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	D

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.



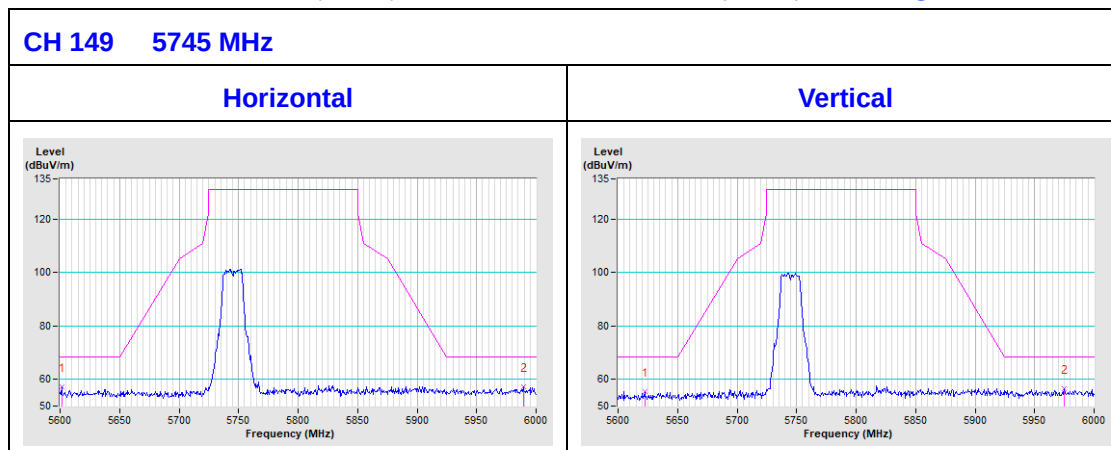
5 Pictures of Test Arrangements

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

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

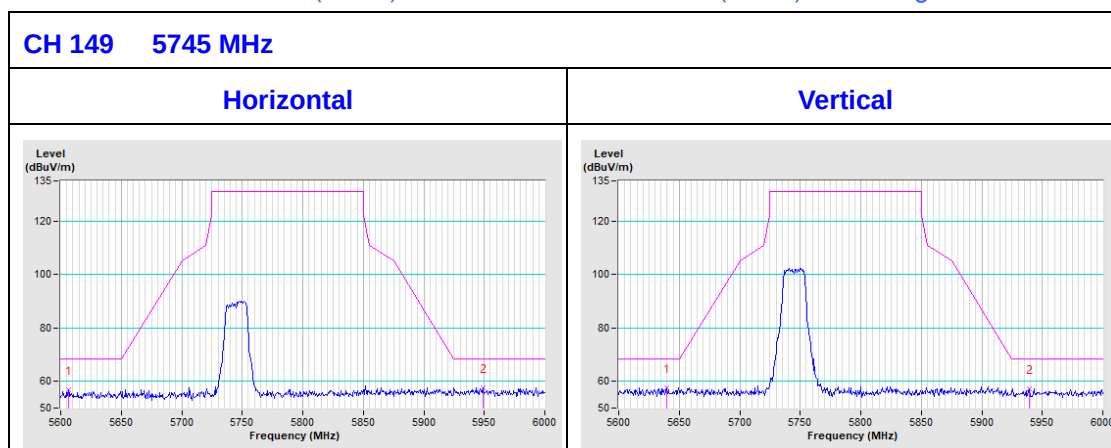
Test Mode A

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



Test Mode C

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



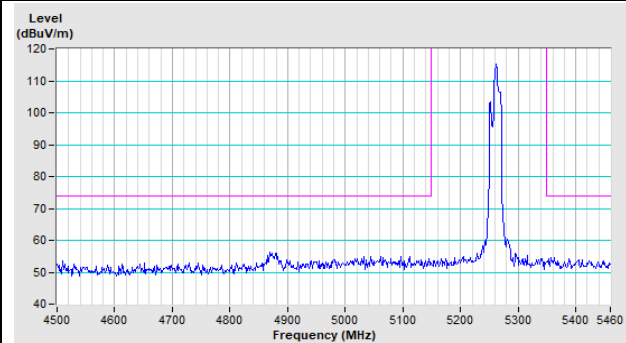
Annex B- Band Edge Measurement

Test Mode A

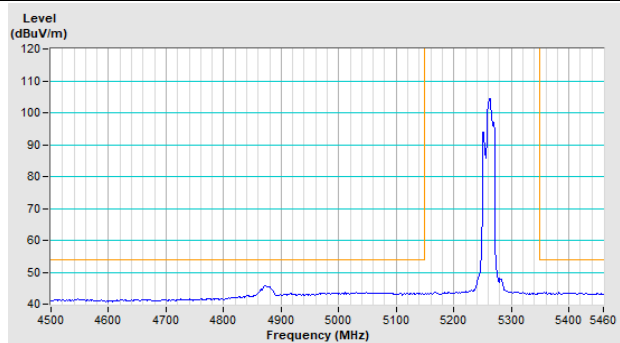
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11a

5G traffic radio: 802.11ax (HE20): Channel 52

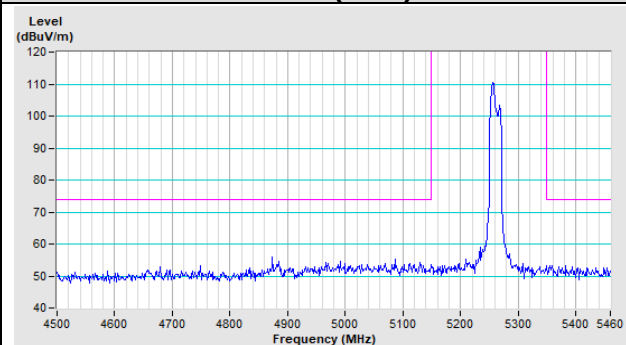
Horizontal (Peak)



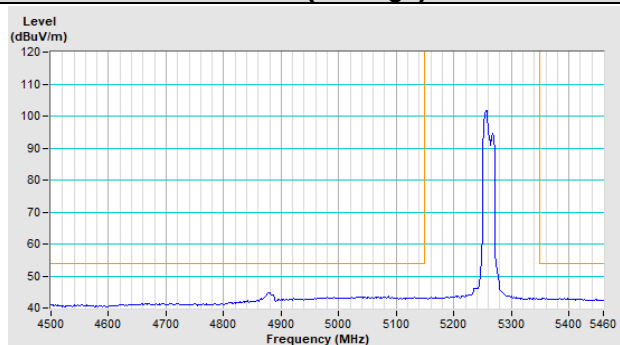
Horizontal (Average)



Vertical (Peak)



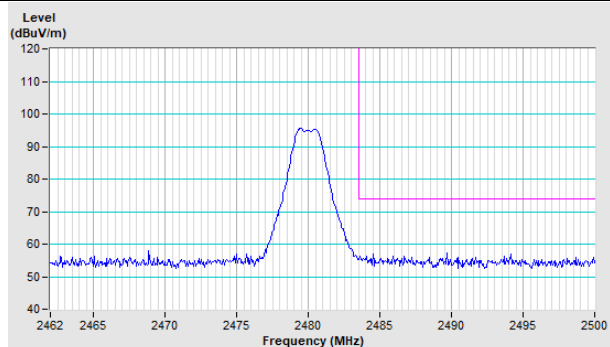
Vertical (Average)



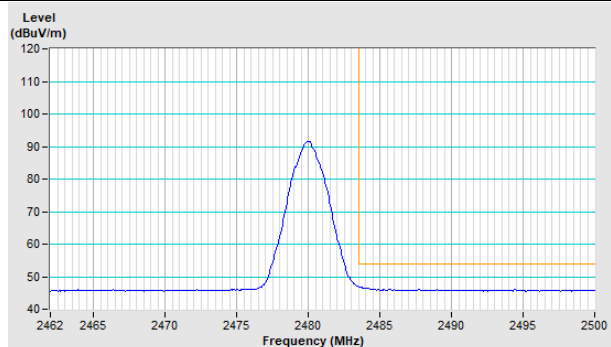
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11b+BT LE 2M

5G traffic radio: 802.11ax (HE20): Channel 52

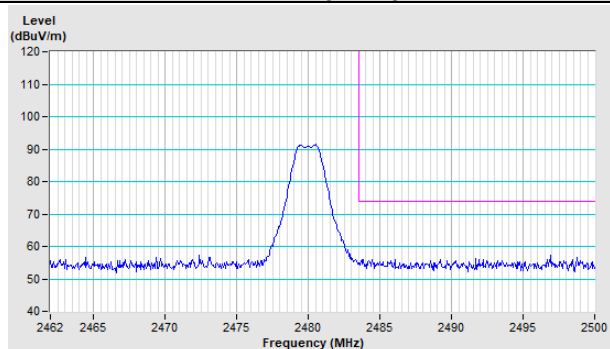
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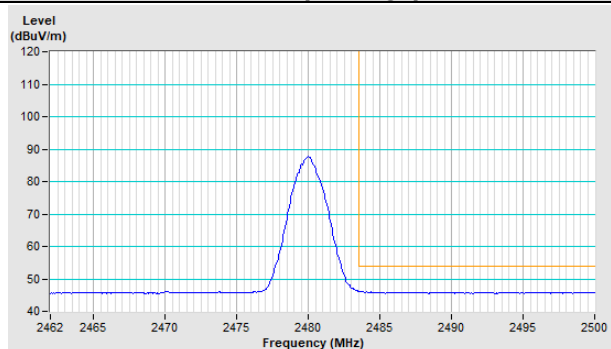
Horizontal (Average)



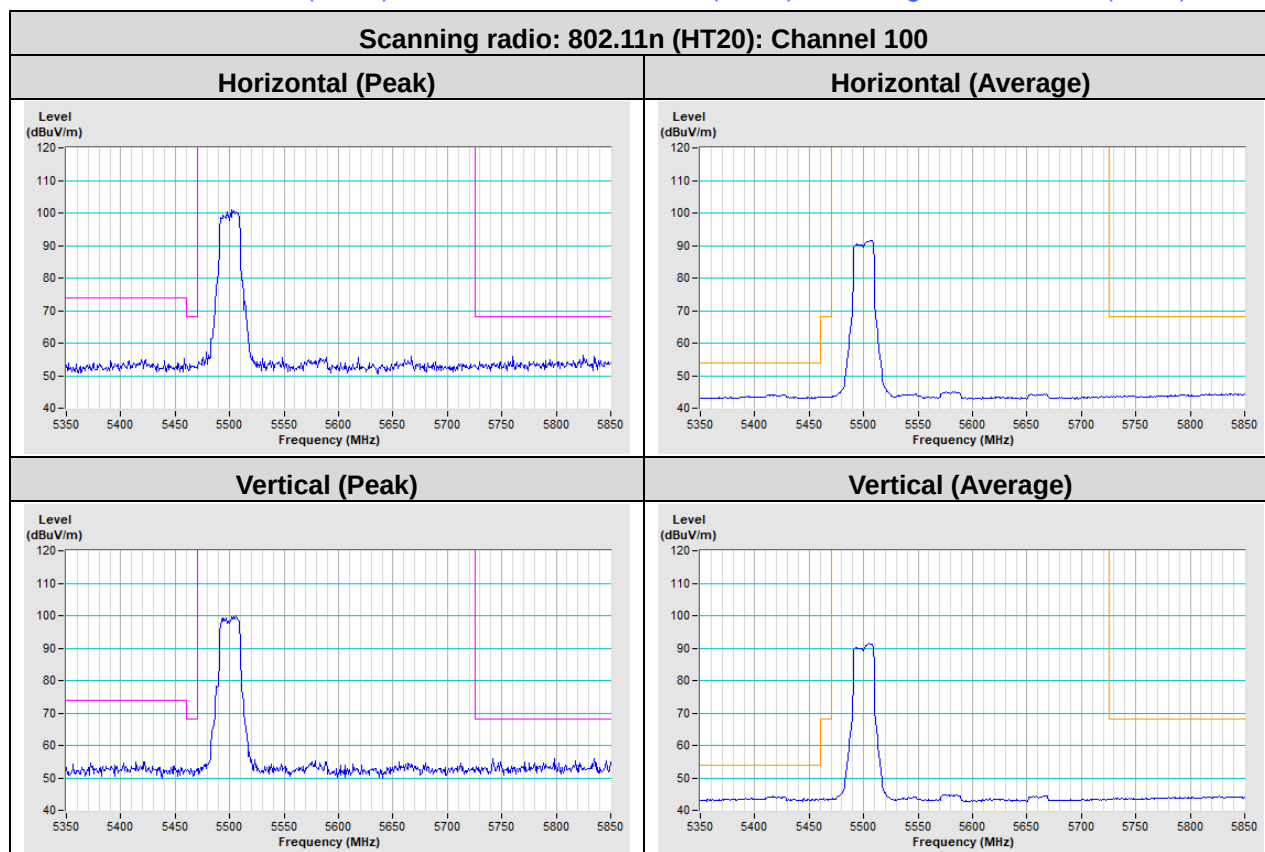
Vertical (Peak)



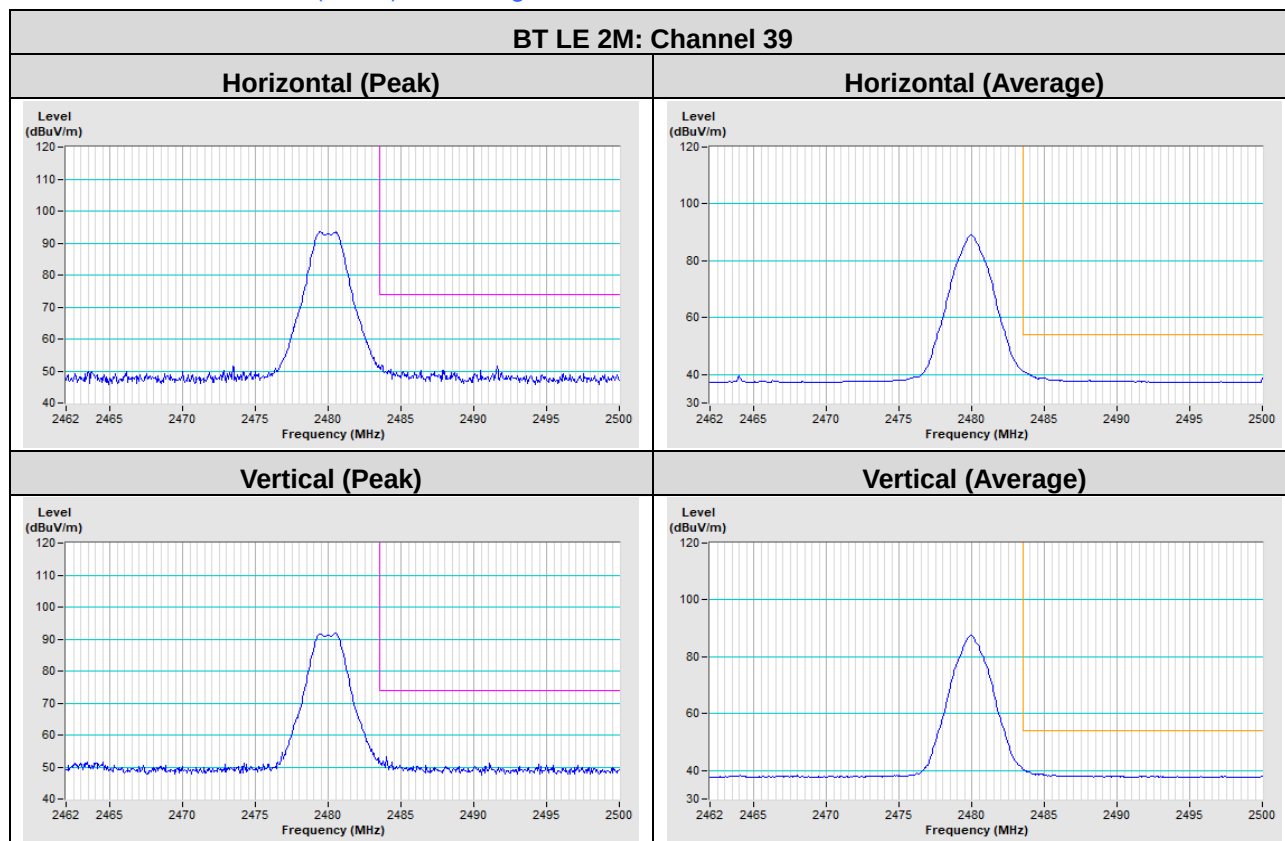
Vertical (Average)



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

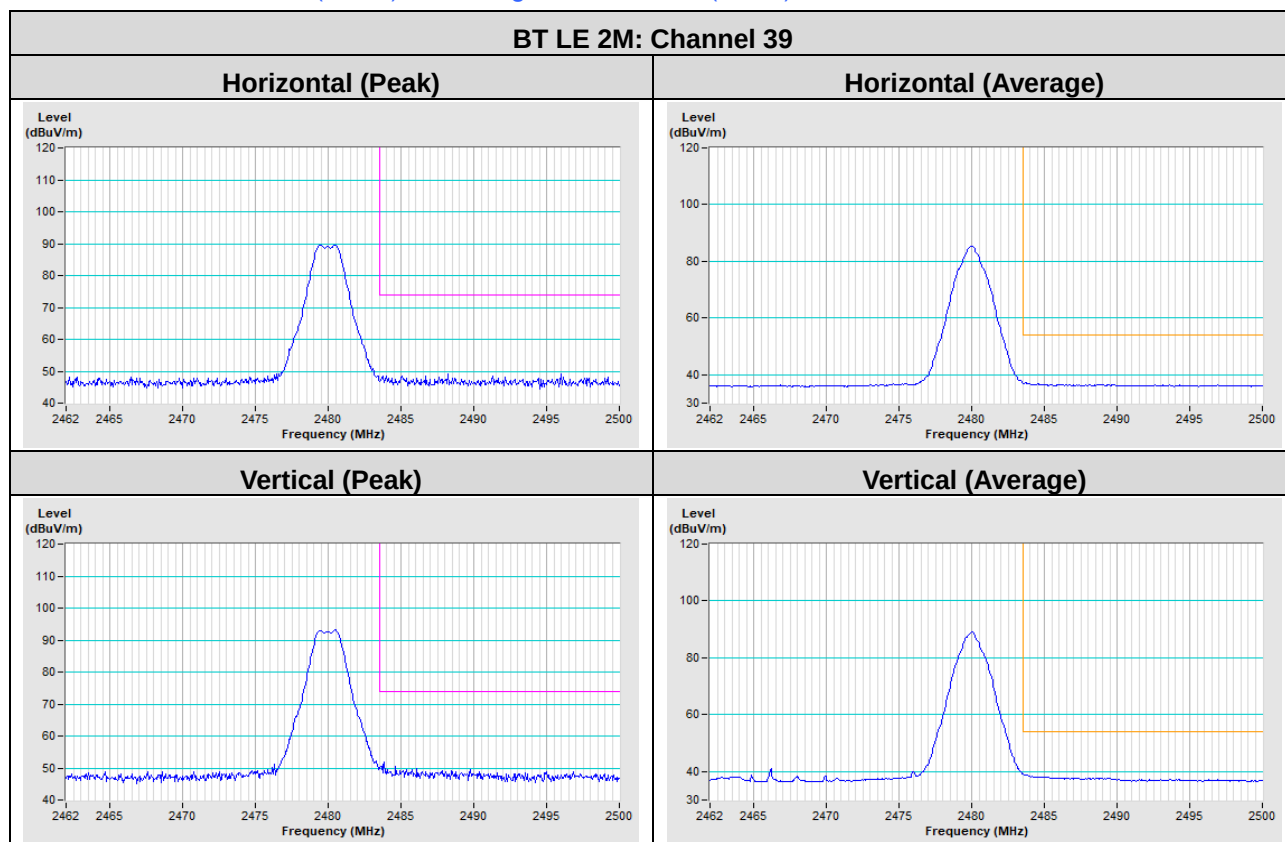


5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11b+BT LE 2M



Test Mode C

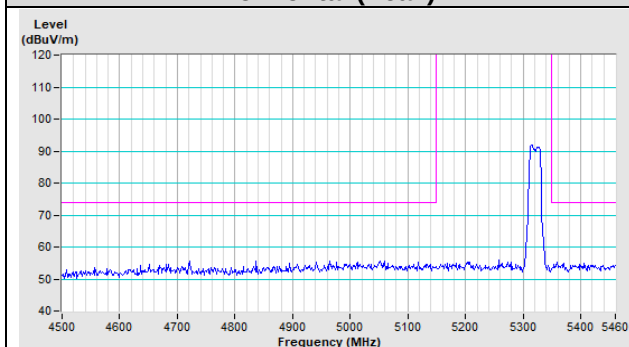
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)+BT LE 2M



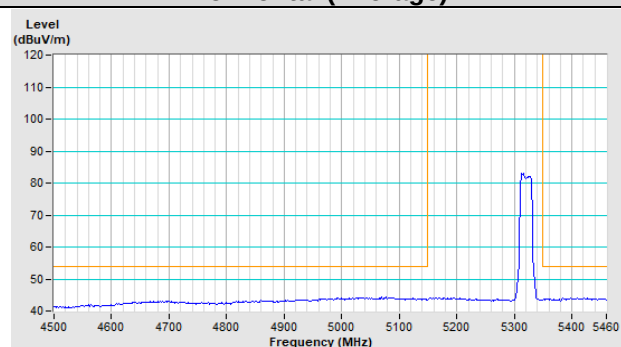
2G traffic radio: 802.11ax (HE20)+5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)

Scanning radio: 802.11n (HT20): Channel 64

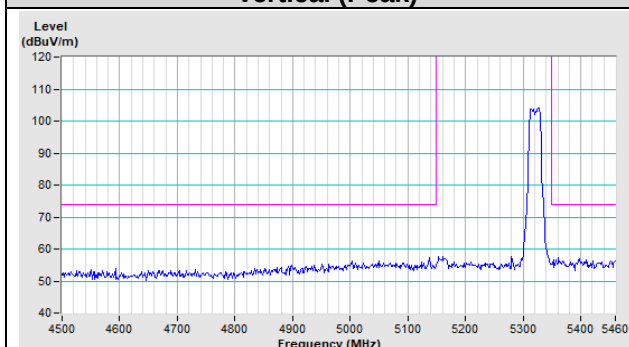
Horizontal (Peak)



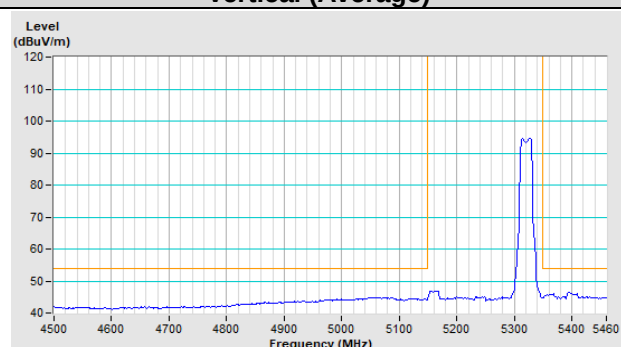
Horizontal (Average)



Vertical (Peak)



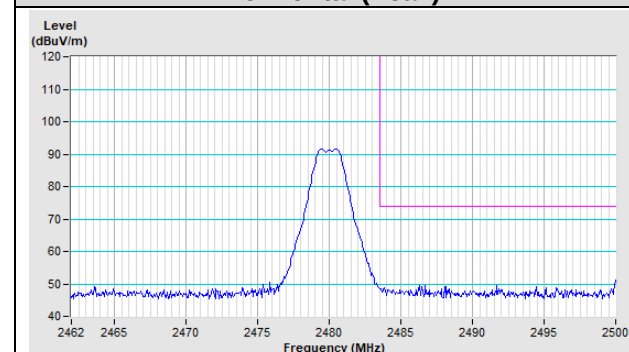
Vertical (Average)



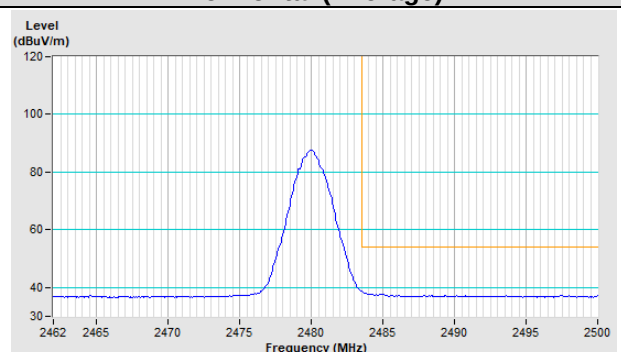
5G traffic radio: 802.11ax (HE20)+Scanning radio: 802.11n (HT20)+BT LE 2M

BT LE 2M: Channel 39

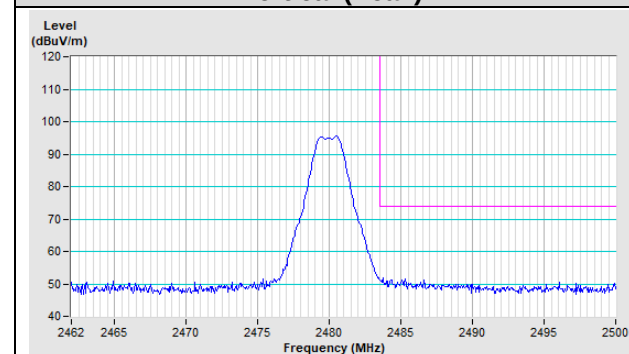
Horizontal (Peak)



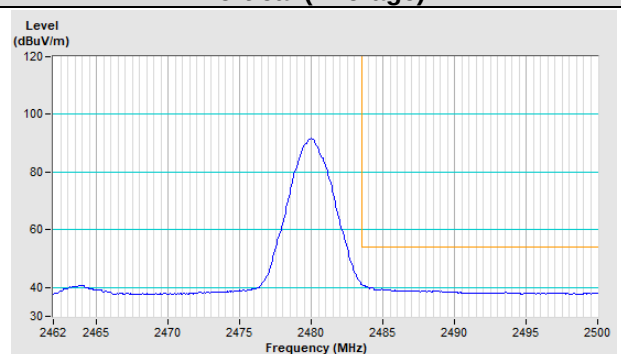
Horizontal (Average)



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:

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Fax: 886-2-26051924

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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.

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