

## Supplemental “Transmit Simultaneously” Test Report

**Report No.:** RFBARR-WTW-P23040352-5

**FCC ID:** RAS-MT7925B22M

**Test Model:** MT7925B22M

**Received Date:** 2023/4/17

**Test Date:** 2023/7/12 ~ 2023/7/20

**Issued Date:** 2023/7/26

**Applicant:** MediaTek Inc.

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**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
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Taiwa.

**Test Location:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,  
Taiwan.

**FCC Registration /  
Designation Number:** 723255 / TW2022



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### Release Control Record

Issue No.	Description	Date Issued
RFBARR-WTW-P23040352-5	Original release.	2023/7/26

## 1 Certificate of Conformity

**Product:** 2TX 11be (WiFi7) BW160 + BT/BLE Combo Card

**Brand:** MediaTek

**Test Model:** MT7925B22M

**Sample Status:** Engineering sample

**Applicant:** MediaTek Inc.

**Test Date:** 2023/7/12 ~ 2023/7/20

**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 EMC characteristics under the conditions specified in this report.

Prepared by :

*Vito Lung*

Vito Lung / Specialist

, Date:

2023/7/26

Approved by :

*May Chen*

May Chen / Manager

, Date:

2023/7/26

## 2 Summary of Test Results

FCC Part 15, Subpart C, E (SECTION 15.247, 15.407)			
FCC Clause	Test Item	Result	Remarks
15.207 15.407(b)(6)	AC Power Conducted Emission	Pass	Meet the requirement of limit. Minimum passing margin is -7.22 dB at 0.15000 MHz.
15.205 / 15.209 / 15.247(d) 15.407(b) (1/2/3/4(i/ii)/6)	Radiated Emissions and Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -0.8 dB at 299.26 MHz.

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) ( $\pm$ )
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.9 dB
Conducted Emissions	-	2.5 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.1 dB
	30MHz ~ 1GHz	5.1 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	5.1 dB
	18GHz ~ 40GHz	5.3 dB

### 2.2 Modification Record

There were no modifications required for compliance.

### 3 General Information

#### 3.1 General Description of EUT

Product	2TX 11be (WiFi7) BW160 + BT/BLE Combo Card
Brand	MediaTek
Test Model	MT7925B22M
Status of EUT	Engineering sample
Power Supply Rating	3.3 Vdc from host equipment
Modulation Type	<b>WLAN:</b> CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM for OFDM in 11ac mode 4096QAM for OFDMA in 11ax mode 4096QAM for OFDMA in 11be mode <b>BT-EDR:</b> GFSK, $\pi/4$ -DQPSK, 8DPSK <b>BT-LE:</b> GFSK
Modulation Technology	<b>WLAN:</b> DSSS, OFDM, OFDMA <b>BT-EDR:</b> FHSS <b>BT-LE:</b> DTS
Transfer Rate	<b>WLAN:</b> 802.11a: up to 54 Mbps 802.11n: up to 300 Mbps 802.11ac: up to 1733.3 Mbps 802.11ax: up to 2401.9 Mbps 802.11be: up to 2882.4 Mbps <b>BT-EDR:</b> Up to 3 Mbps <b>BT-LE:</b> Up to 2 Mbps
Operating Frequency	<b>WLAN:</b> <b>2.4GHz:</b> 2.412 ~ 2.472 GHz <b>5GHz:</b> 5.18 GHz ~ 5.25 GHz, 5.25 GHz ~ 5.32 GHz, 5.5 GHz ~ 5.72 GHz, 5.745 GHz ~ 5.825 GHz <b>5.9GHz:</b> 5.815 GHz ~ 5.885 GHz <b>6GHz:</b> 5.955 GHz ~ 6.415 GHz 6.435 GHz ~ 6.525 GHz 6.535 GHz ~ 6.865 GHz 6.875 GHz ~ 7.115 GHz <b>BT-EDR:</b> 2.402 GHz ~ 2.48 GHz <b>BT-LE:</b> 2.402 GHz ~ 2.48 GHz
Antenna Type	Refer to section 3.2
Antenna Connector	Refer to section 3.2
Accessory Device	NA
Data Cable Supplied	NA

Note:

1. There are Bluetooth and WLAN (2.4 GHz & 5 GHz & 5.9G & 6 GHz) technology used for the EUT.
2. Simultaneously transmission condition.

Condition	Technology	
1	WLAN (2.4 GHz) (1TX)	WLAN (5 GHz) (1TX)
2	WLAN (2.4 GHz) (1TX)	WLAN (5.9 GHz) (1TX)
3	WLAN (2.4 GHz) (1TX)	WLAN (6 GHz) (1TX)
4	WLAN (5 GHz) (1TX)	WLAN (6 GHz) (1TX)
5	WLAN (5 GHz) (2TX)	Bluetooth
6	WLAN (5.9 GHz) (2TX)	Bluetooth
7	WLAN (6GHz) (2TX)	Bluetooth

3. The EUT has below Sku numbers, which are identical to each other in all aspects except for the following table:

Sku No	Brand	Model	Different
Skul	MediaTek	MT7925B22M	DVDDIO 3.3V, power from platform.
Sku2	MediaTek	MT7925B22M	DVDDIO 1.8V, power from IC PMU. (Power Management Unit).

4. The EUT support MRU mode is listed as below.

BW	Small size		Large size
	26+52	26+106	484+242
20MHz	v	v	-
40MHz	v	v	-
80MHz	v	v	v

5. The EUT support OFDMA and Partial RU mode, therefore partial RU combination were investigated and the worst case scenario was identified.

6. The EUT incorporates a MIMO function:

2.4 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11b	1TX (Diversity) / 2TX	2RX
802.11g	1TX (Diversity) / 2TX	2RX
802.11n (HT20)	1TX (Diversity) / 2TX	2RX
802.11n (HT40)	1TX (Diversity) / 2TX	2RX
VHT20	1TX (Diversity) / 2TX	2RX
VHT40	1TX (Diversity) / 2TX	2RX
802.11ax (HE20)	1TX (Diversity) / 2TX	2RX
802.11ax (HE40)	1TX (Diversity) / 2TX	2RX
802.11be (EHT20)	1TX (Diversity) / 2TX	2RX
802.11be (EHT40)	1TX (Diversity) / 2TX	2RX
802.11ax (RU26/52/106/242/484)	1TX (Diversity) / 2TX	2RX
802.11be (RU26/52/106/242/484 MRU52+26/106+26)	1TX (Diversity) / 2TX	2RX

<b>5 GHz Band</b>		
<b>Modulation Mode</b>	<b>TX &amp; RX Configuration</b>	
<b>802.11a</b>	1TX (Diversity) / 2TX	2RX
<b>802.11n (HT20)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11n (HT40)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11ac (VHT20)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11ac (VHT40)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11ac (VHT80)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11ac (VHT160)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11ax (HE20)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11ax (HE40)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11ax (HE80)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11ax (HE160)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11be (EHT20)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11be (EHT40)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11be (EHT80)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11be (EHT160)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11ax (RU26/52/106/242/484/996/2x996)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11be (RU26/52/106/242/484/996 MRU52+26/106+26/ 484+242)</b>	1TX (Diversity) / 2TX	2RX
<b>6 GHz Band</b>		
<b>Modulation Mode</b>	<b>TX &amp; RX Configuration</b>	
<b>802.11a</b>	1TX (Diversity) / 2TX	2RX
<b>802.11ax (HE20)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11ax (HE40)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11ax (HE80)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11ax (HE160)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11be (EHT20)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11be (EHT40)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11be (EHT80)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11be (EHT160)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11be (EHT320)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11ax (RU26/52/106/242/484/996/996x2)</b>	1TX (Diversity) / 2TX	2RX
<b>802.11be (RU26/52/106/242/484/996/996x2/ MRU52+26/106+26/484+242/ 996+484/996+484+242)</b>	1TX (Diversity) / 2TX	2RX

7. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.



### 3.2 Description of Antenna

The antenna gain was declared by client; please refer to the following table:

Antenna Set No.	RF Chain No.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
1	Chain0	PSA	RFMTA340718EMLB302	3.18 4.92	2.4~2.4835 5.15~5.895	PIFA	i-pex(MHF)	200
	Chain1	PSA	RFMTA340718EMLB302	3.18 4.92	2.4~2.4835 5.15~5.895	PIFA	i-pex(MHF)	200
2	Chain0	PSA	RFMTA311020EMMB301	1.71 4.82 4.76 4.29 4.61 4.09	2.4~2.4835 5.15~5.895 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	i-pex(MHF)	200
	Chain1	PSA	RFMTA311020EMMB301	1.71 4.82 4.76 4.29 4.61 4.09	2.4~2.4835 5.15~5.895 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	i-pex(MHF)	200
3	Chain0	PSA	RFMTA421230IMMB701	-13.92 -13.91 -13.91 -14.46	5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	i-pex(MHF)	300
	Chain1	PSA	RFMTA421230IMMB701	-13.92 -13.91 -13.91 -14.46	5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	i-pex(MHF)	300
4	Chain0	Cortec	AN2450-4902BRS	2.42 3.87	2.4~2.4835 5.15~5.895	Dipole	R-SMA	150
	Chain1	Cortec	AN2450-4902BRS	2.42 3.87	2.4~2.4835 5.15~5.895	Dipole	R-SMA	150
5	Chain0	VSO	JR2Q00340-1	1.62 3.2 3.93 3.61 3.61 3.14	2.4~2.4835 5.15~5.895 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	Dipole	RP SMA PLUG	40
	Chain1	VSO	JR2Q00340-1	1.62 3.2 3.93 3.61 3.61 3.14	2.4~2.4835 5.15~5.895 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	Dipole	RP SMA PLUG	40
6	Chain0	PSA	RFPCA460632IMMB701	-13.2 -13.67 -13.67 -13.09	5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	Dipole	IPEX	320
	Chain1	PSA	RFPCA460632IMMB701	-13.2 -13.67 -13.67 -13.09	5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	Dipole	IPEX	320

\* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

### 3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To				Description
	RE $\geq$ 1G	RE<1G	PLC	OB	
1	√	√	√	√	WLAN (2.4 GHz) (1TX) + WLAN (5 GHz) (1TX)
2	√	√	√	√	WLAN (2.4 GHz) (1TX) + WLAN (5.9 GHz) (1TX)
3	√	√	√	√	WLAN (2.4 GHz) (1TX) + WLAN (6 GHz) (1TX)
4	√	√	√	√	WLAN (5 GHz) (1TX) + WLAN (6 GHz) (1TX)
5	√	√	√	√	WLAN (5 GHz) (2TX) + Bluetooth
6	√	√	√	√	WLAN (5.9 GHz) (2TX) + Bluetooth
7	√	√	√	√	WLAN (6GHz) (2TX) + Bluetooth

Where **RE $\geq$ 1G**: Radiated Emission above 1GHz

**RE<1G**: Radiated Emission below 1GHz

**PLC**: Power Line Conducted Emission

**OB**: Conducted Out-Band Emission Measurement

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

**Radiated Emission Test (Above 1GHz): (Radiated with 50 ohm load)**

The tested configurations represent the worst-case mode from all possible combinations by the maximum power.

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

Configure Mode	Mode	Tested Channel	Modulation Technology	Modulation Type
1	2.4GHz: 802.11b + 5GHz: 802.11be (EHT20)	6	DSSS	DBPSK
		165	OFDMA	BPSK
2	2.4GHz: 802.11b + 5.9GHz: 802.11be (EHT40)	6	DSSS	DBPSK
		167	OFDMA	BPSK
3	2.4GHz: 802.11b + 6GHz: 802.11be (EHT80)	6	DSSS	DBPSK
		39	OFDMA	BPSK
4	5GHz: 802.11be (EHT20) + 6GHz: 802.11be (EHT80)	165	OFDMA	BPSK
		39	OFDMA	BPSK
5	5GHz: 802.11be (EHT20) + BT-EDR	165	OFDMA	BPSK
		39	FHSS	GFSK
6	5.9GHz: 802.11be (EHT80) + BT-EDR	171	OFDMA	BPSK
		39	FHSS	GFSK
7	6GHz: 802.11be (EHT160) + BT-EDR	47	OFDMA	BPSK
		39	FHSS	GFSK

**Radiated Emission Test (Below 1GHz): (Radiated with 50 ohm load)**

The tested configurations represent the worst-case mode from all possible combinations by the maximum power.

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

Configure Mode	Mode	Tested Channel	Modulation Technology	Modulation Type
1	2.4GHz: 802.11b + 5GHz: 802.11be (EHT20)	6	DSSS	DBPSK
		165	OFDMA	BPSK
2	2.4GHz: 802.11b + 5.9GHz: 802.11be (EHT40)	6	DSSS	DBPSK
		167	OFDMA	BPSK
3	2.4GHz: 802.11b + 6GHz: 802.11be (EHT80)	6	DSSS	DBPSK
		39	OFDMA	BPSK
4	5GHz: 802.11be (EHT20) + 6GHz: 802.11be (EHT80)	165	OFDMA	BPSK
		39	OFDMA	BPSK
5	5GHz: 802.11be (EHT20) + BT-EDR	165	OFDMA	BPSK
		39	FHSS	GFSK
6	5.9GHz: 802.11be (EHT80) + BT-EDR	171	OFDMA	BPSK
		39	FHSS	GFSK
7	6GHz: 802.11be (EHT160) + BT-EDR	47	OFDMA	BPSK
		39	FHSS	GFSK

### Power Line Conducted Emission Test:

The tested configurations represent the worst-case mode from all possible combinations by the maximum power.

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

Configure Mode	Mode	Tested Channel	Modulation Technology	Modulation Type
1	2.4GHz: 802.11b + 5GHz: 802.11be (EHT20)	6	DSSS	DBPSK
		165	OFDMA	BPSK
2	2.4GHz: 802.11b + 5.9GHz: 802.11be (EHT40)	6	DSSS	DBPSK
		167	OFDMA	BPSK
3	2.4GHz: 802.11b + 6GHz: 802.11be (EHT80)	6	DSSS	DBPSK
		39	OFDMA	BPSK
4	5GHz: 802.11be (EHT20) + 6GHz: 802.11be (EHT80)	165	OFDMA	BPSK
		39	OFDMA	BPSK
5	5GHz: 802.11be (EHT20) + BT-EDR	165	OFDMA	BPSK
		39	FHSS	GFSK
6	5.9GHz: 802.11be (EHT80) + BT-EDR	171	OFDMA	BPSK
		39	FHSS	GFSK
7	6GHz: 802.11be (EHT160) + BT-EDR	47	OFDMA	BPSK
		39	FHSS	GFSK

### Conducted Out-Band Emission Measurement:

The tested configurations represent the worst-case mode from all possible combinations by the maximum power.

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

Configure Mode	Mode	Tested Channel	Modulation Technology	Modulation Type
1	2.4GHz: 802.11b + 5GHz: 802.11be (EHT20)	6	DSSS	DBPSK
		165	OFDMA	BPSK
2	2.4GHz: 802.11b + 5.9GHz: 802.11be (EHT40)	6	DSSS	DBPSK
		167	OFDMA	BPSK
3	2.4GHz: 802.11b + 6GHz: 802.11be (EHT80)	6	DSSS	DBPSK
		39	OFDMA	BPSK
4	5GHz: 802.11be (EHT20) + 6GHz: 802.11be (EHT80)	165	OFDMA	BPSK
		39	OFDMA	BPSK
5	5GHz: 802.11be (EHT20) + BT-EDR	165	OFDMA	BPSK
		39	FHSS	GFSK
6	5.9GHz: 802.11be (EHT80) + BT-EDR	171	OFDMA	BPSK
		39	FHSS	GFSK
7	6GHz: 802.11be (EHT160) + BT-EDR	47	OFDMA	BPSK
		39	FHSS	GFSK

### Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested By
RE $\geq$ 1G	28deg. C, 67%RH	3.3 Vdc	Tom Yang
RE $<$ 1G	25deg. C, 66%RH	120 Vac, 60 Hz (System)	Tom Yang
PLC	25deg. C, 75%RH	120 Vac, 60 Hz (System)	Tom Yang
OB	25deg. C, 60%RH	3.3 Vdc	Willy Lin

### 3.3 Description of Support Units

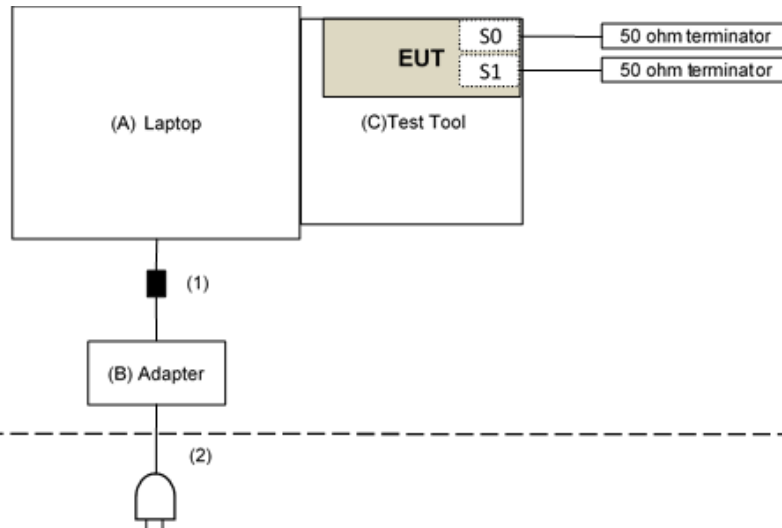
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Laptop	DELL	E5430	HYV4VY1	DoC	Provided by Lab
B	Adapter	DELL	LLA65NS2-01	N/A	N/A	Provided by Lab
C	Test Tool	Mediatek	MTK1849	N/A	N/A	Supplied by applicant

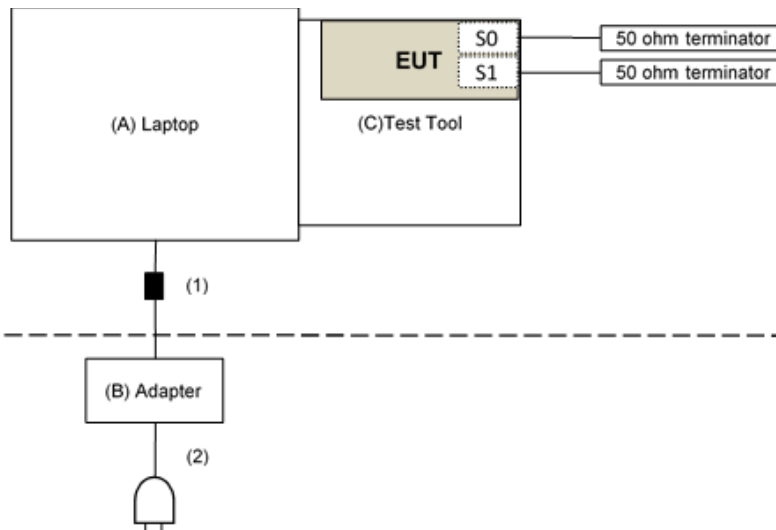
ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC Cable	1	1.8	No	1	Provided by Lab
2	AC Cable	1	1	No	0	Provided by Lab

### 3.3.1 Configuration of System under Test

#### For AC Power Conducted Emission test



#### For Unwanted Emission test





## 4 Test Types and Results

### 4.1 Radiated Emission and Bandedge Measurement

#### 4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

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

#### Note:

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

#### Limits of unwanted emission out of the restricted bands

Applicable To		Limit	
789033 D02 General UNII Test Procedure New Rules v02r01		Field Strength at 3m	
		PK:74 (dBµV/m)	AV:54 (dBµV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3m
5150~5250 MHz	15.407(b)(1)	PK:-27 (dBm/MHz)	PK:68.2(dBµV/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		
5725~5850 MHz	15.407(b)(4)(i)	PK:-27 (dBm/MHz) <sup>*1</sup> PK:10 (dBm/MHz) <sup>*2</sup> PK:15.6 (dBm/MHz) <sup>*3</sup> PK:27 (dBm/MHz) <sup>*4</sup>	PK: 68.2(dBµV/m) <sup>*1</sup> PK:105.2 (dBµV/m) <sup>*2</sup> PK: 110.8(dBµV/m) <sup>*3</sup> PK:122.2 (dBµV/m) <sup>*4</sup>
<sup>*1</sup> beyond 75 MHz or more above of the band edge.		<sup>*2</sup> below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.	
<sup>*3</sup> below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.		<sup>*4</sup> 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:

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

## 4.1.2 Test Instruments

**For Radiated Emission test:**

Description & Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
EMI Test Receiver R&S	ESR3	102528	2023/2/10	2024/2/9
PXA Signal Analyzer Keysight	N9030B	MY57141948	2023/5/19	2024/5/18
Software	ADT_Radiated_V8.7.0 8	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA
Preamplifier Agilent	8447D	2944A10636	2023/3/12	2024/3/11
Loop Antenna Electro-Metrics	EM-6879	264	2023/2/21	2024/2/20
RF Coaxial Cable JYEBO	5D-FB	LOOPCAB-00 1	2022/12/19	2023/12/18
RF Coaxial Cable JYEBO	5D-FB	LOOPCAB-00 2	2022/12/19	2023/12/18
MXA Signal Analyzer Keysight	N9020B	MY60112410	2023/3/6	2024/3/5
Preamplifier EMCI	EMC330N	980538	2023/4/6	2024/4/5
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-0842	2022/10/24	2023/10/23
RF Coaxial Cable COMMATE/PEWC	8D	966-5-1	2023/2/18	2024/2/17
RF Coaxial Cable COMMATE/PEWC	8D	966-5-2	2023/4/6	2024/4/5
RF Coaxial Cable COMMATE/PEWC	8D	966-5-3	2023/2/18	2024/2/17
Fixed Attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-02	2022/12/28	2023/12/27
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-1819	2022/11/13	2023/11/12
Preamplifier EMCI	EMC12630SE	980509	2023/4/7	2024/4/6
RF Coaxial Cable EMCI	EMC104-SM-SM-1500	180503	2023/4/7	2024/4/6
RF Coaxial Cable EMCI	EMC104-SM-SM-2000	180501	2023/4/7	2024/4/6
RF Coaxial Cable EMCI	EMC104-SM-SM-6000	180506	2023/4/7	2024/4/6
Preamplifier EMCI	EMC184045SE	980387	2022/12/28	2023/12/27
Horn Antenna Schwarzbeck	BBHA 9170	9170-739	2022/11/13	2023/11/12
RF Coaxial Cable EMCI	EMC102-KM-KM-1200	160924	2022/12/28	2023/12/27
RF Coaxial Cable EMCI	EMC-KM-KM-4000	200214	2023/2/20	2024/2/19

## Note:

1. The test was performed in 966 Chamber No. 5.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: 2023/7/12 ~ 2023/7/13

**For other test items:**

Description & Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
MXA Signal Analyzer Keysight	N9020B	MY60112409	2023/2/18	2024/2/17
Fixed Attenuator Woken	MDCS18N-10	MDCS18N-10-01	2023/3/27	2024/3/26
Software	ADT_RF Test Software V6.6.5.4	NA	NA	NA

**Note:**

1. The test was performed in Oven room 2.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: 2023/7/20

#### 4.1.3 Test Procedures

##### Radiated versus Conducted Measurement.

The unwanted emission limits in both the restricted and non-restricted bands are based on antenna-port conducted measurements in conjunction with cabinet emissions tests are permitted to demonstrate compliance.

The following steps was performed:

- a. Cabinet emissions measurements. Radiated measurement was performed to ensure that cabinet emissions are below the emission limits. For the cabinet-emission measurements the antenna was replaced by a termination matching the nominal impedance of the antenna.
- b. Conducted tests was performed using equipment that matches the nominal impedance of the antenna assembly used with the EUT.
- c. EIRP calculation. A value representative of an upper bound on out-of-band antenna gain (in dBi) shall be added to the measured antenna-port conducted emission power to compute EIRP within the specified measurement bandwidth. (For emissions in the restricted bands, additional calculations are required to convert EIRP to field strength at the specified distance.) The upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands or 2 dBi, whichever is greater.
- d. EIRP adjustments for multiple outputs. (Follow the procedures specified in FCC KDB Publication 662911)
- e. For all of Radiation emission test

##### **For Radiated emission below 30MHz**

- e-1.1. 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.
- e-1.2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- e-1.3. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- e-1.4. 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-1.5. 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 200 Hz at frequency below 150 kHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz or 10 kHz at frequency (150 kHz to 30 MHz).
3. All modes of operation were investigated and the worst-case emissions are reported.
4. KDB 414788 OATS and Chamber Correlation Justification
  - Based on FCC 15.31(f)(2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempts should be made to avoid making measurements in the near field.
  - OATs and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

### For Radiated emission above 30MHz

- e-2.1. 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.
- e-2.2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- e-2.3. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e-2.4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e-2.5. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- e-2.6. 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:

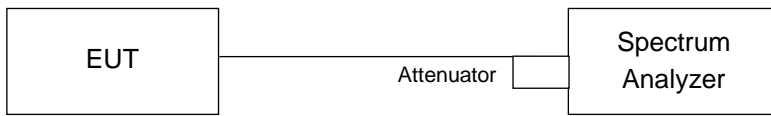
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP), Average detection (AV), Peak detection (PK) at frequency (30MHz to 1 GHz).
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) and Average detection (AV) at frequency above 1 GHz.
3. For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is  $\geq 1/T$  (Duty cycle < 98%) or 10 Hz (Duty cycle  $\geq 98\%$ ) for Average detection (AV) at frequency above 1 GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

#### 4.1.4 Deviation from Test Standard

No deviation.

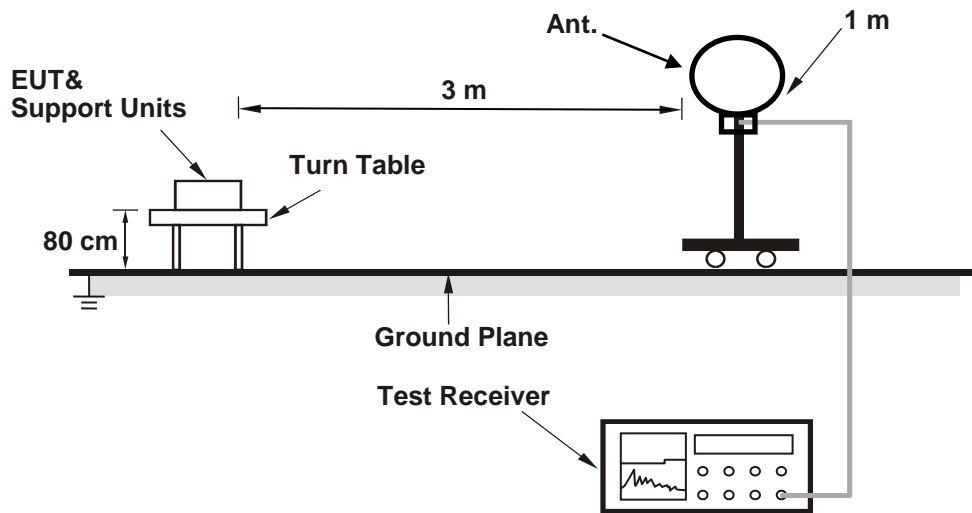
#### 4.1.5 Test Setup

##### For Conducted Configuration:

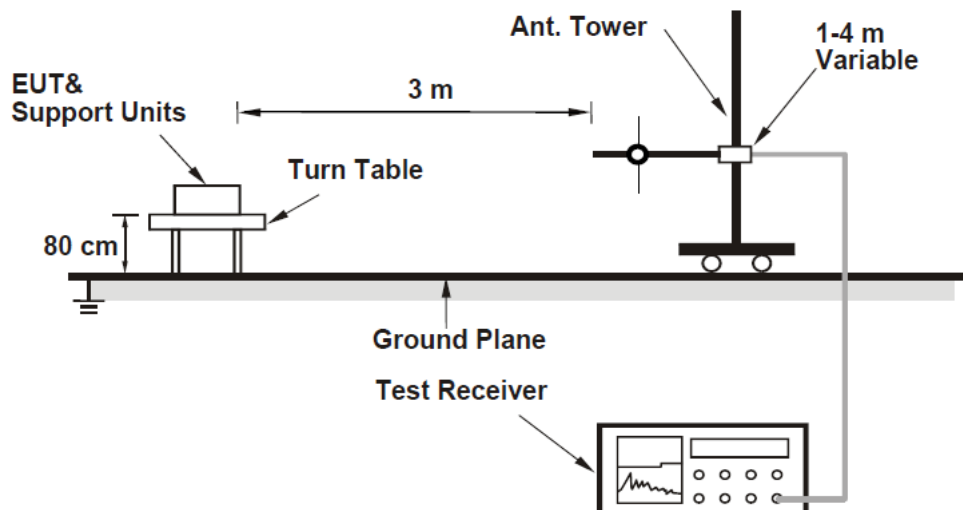


##### For Radiated Configuration:

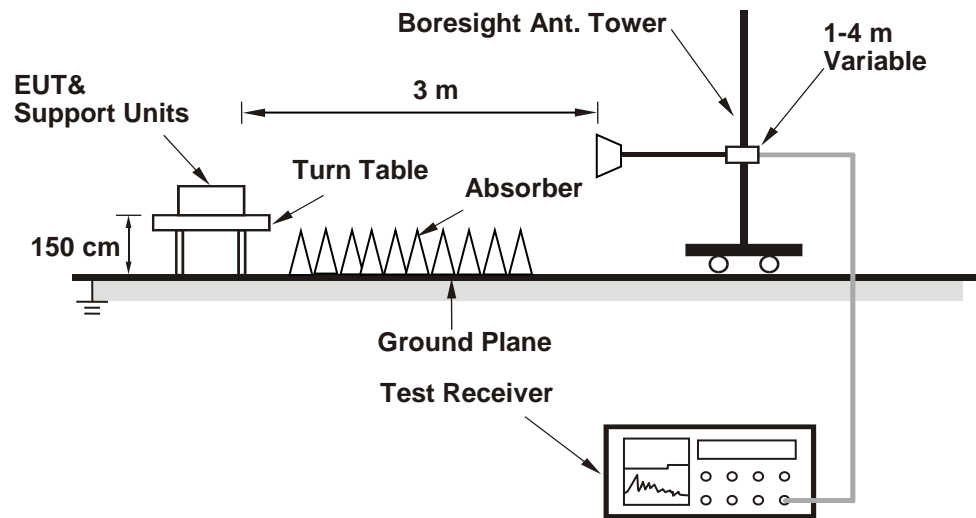
##### For Radiated emission below 30 MHz



##### For Radiated emission above 30 MHz



### For Radiated emission above 1GHz



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

#### 4.1.6 EUT Operating Conditions

- a. Connected the EUT with the Laptop which is placed on the testing table.
- b. Controlling software (QATOOL\_V06 (0.0.2.100) & WCN\_Combo\_Tool) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

#### 4.1.7 Test Results (Conducted Measurement)

##### Radiated versus Conducted Measurement

###### For Radiated measurement:

The level of unwanted emissions was measured when radiated by the cabinet or structure of the equipment with the antenna connector(s) terminated by a specified load (cabinet radiation)

###### For Conducted measurement:

The level of unwanted emissions was measured as their power in a specified load (conducted spurious emissions).

##### Conducted Emission Convert Formula

a.  $\text{Emission Level (dBuV/m)} = \text{EIRP Level (dBm)} - 20\log(d) + 104.8$

d = measurement distance in 3 meters.

b.  $\text{EIRP Level (dBm)} = \text{Raw Value(dBm)} + \text{Correction Factor(dB)}$

c. Correction Factor is directional gain, and the composite gain will be used when signal support the correlated signal

For the out of band spurious the gain for the specific band may have been used rather than the highest gain across all bands.

For the band edge the gain for the specific band may have been used.

###### Notes:

1. In restricted bands below 1000 MHz, add upper bound on ground plane reflection:

For  $f = 30 - 1000$  MHz, add 4.7 dB.

2. The conducted emission test was considered some factor to compute test result.



**For Mode 1**

**Above 1GHz Data:**

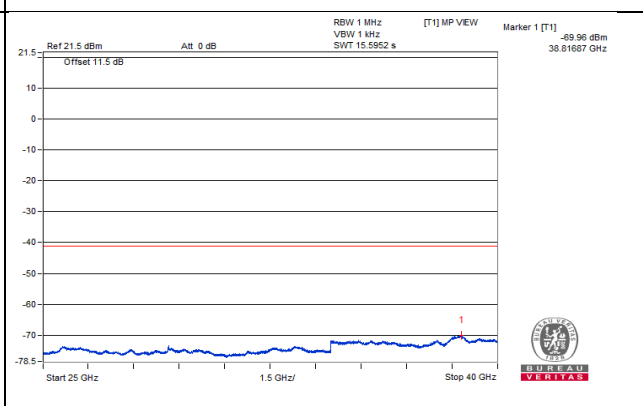
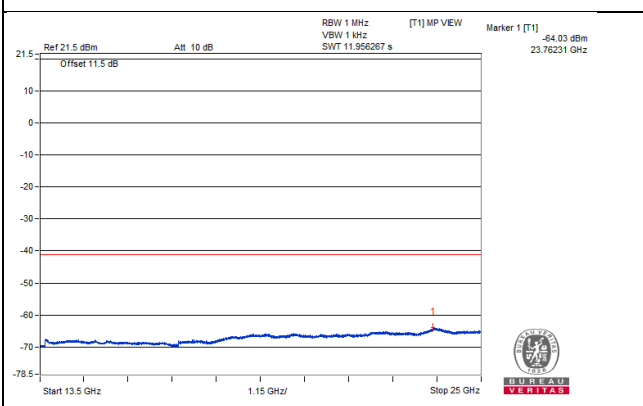
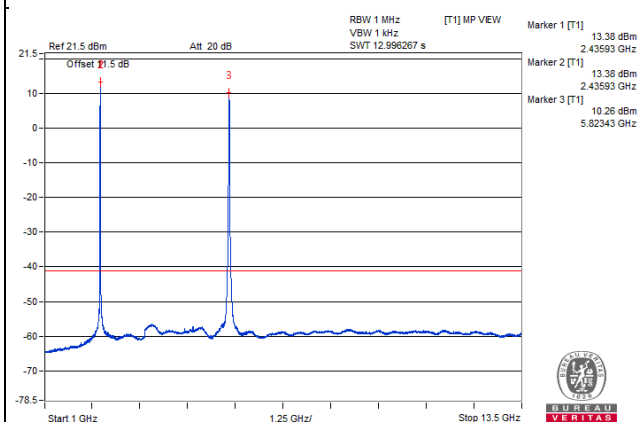
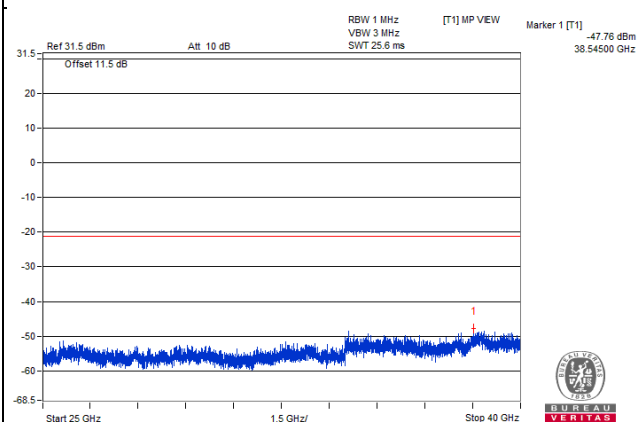
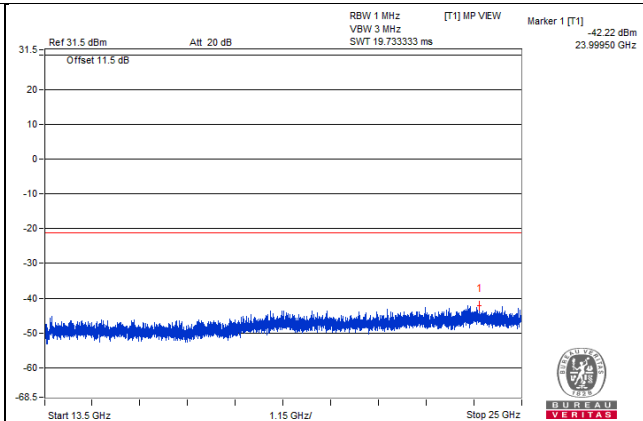
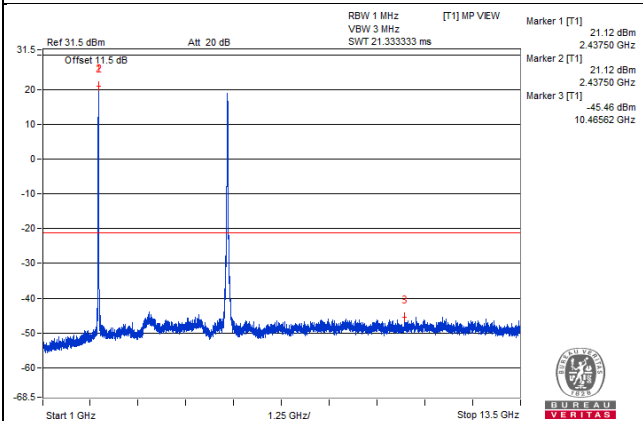
**Conducted spurious emission table**

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	38776.25	40.01 PK	74	-33.99	-60.17	4.92	-55.25
2	38796.25	18.64 AV	54	-35.36	-81.54	4.92	-76.62

Remarks:

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.

**Chain 0**



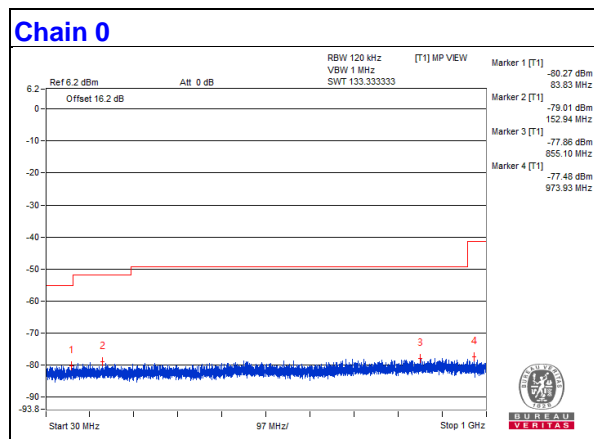
### Below 1GHz Data:

#### Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	59.58	16.5	40	-23.5	-83.68	4.92	-78.76
2	145.43	16.35	43.5	-27.15	-83.83	4.92	-78.91
3	299.9	16.27	46	-29.73	-83.91	4.92	-78.99
4	567.98	17.16	46	-28.84	-83.02	4.92	-78.10
5	755.56	18.7	46	-27.3	-81.48	4.92	-76.56
6	869.89	18.51	46	-27.49	-81.67	4.92	-76.75

#### Remarks:

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.
3. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



**For Mode 2**

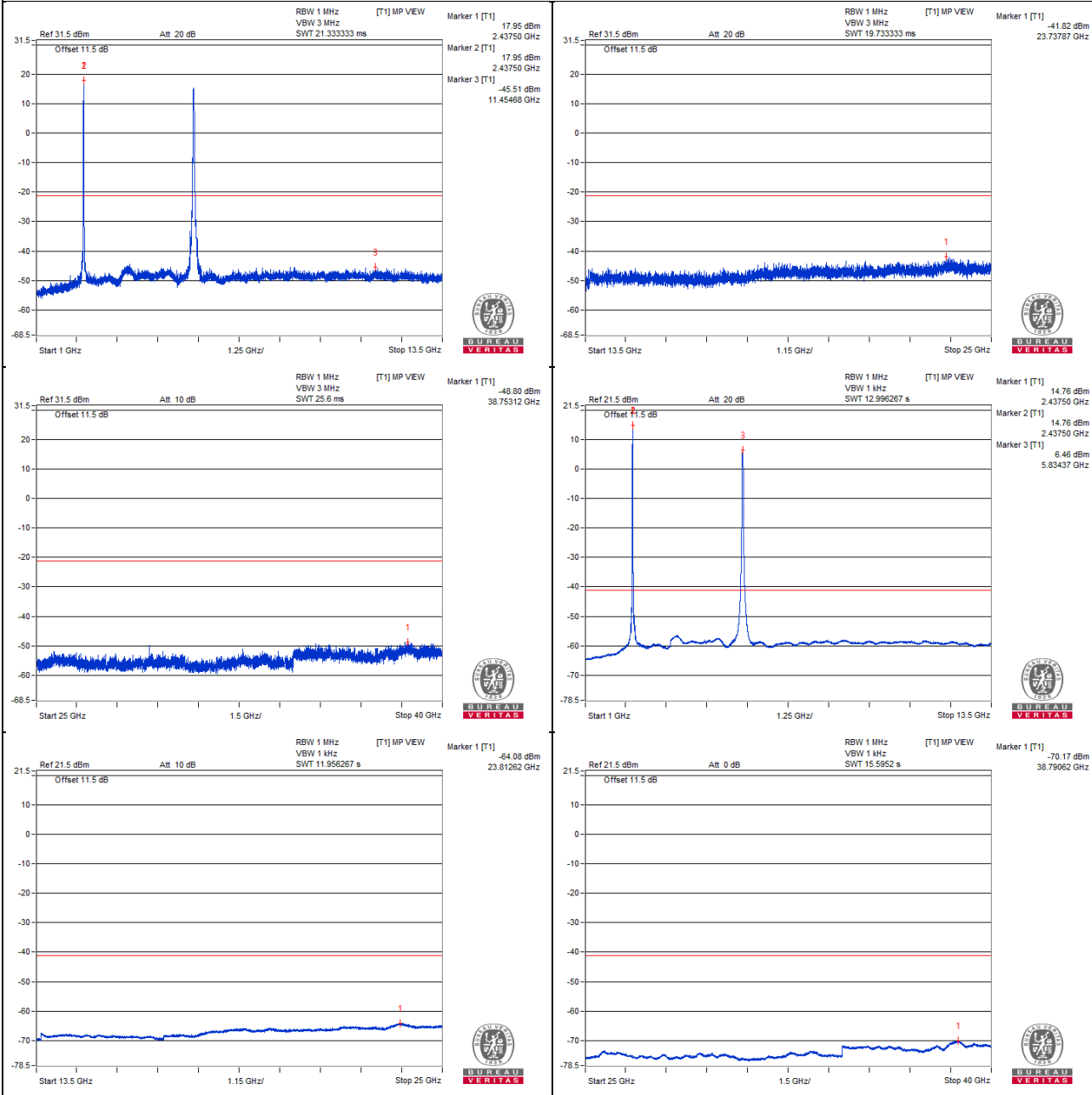
**Above 1GHz Data:**

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	38802.75	40.44 PK	74	-33.56	-59.74	4.92	-54.82
2	38822.5	18.9 AV	54	-35.1	-81.28	4.92	-76.36

Remarks:

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.

### Chain 0



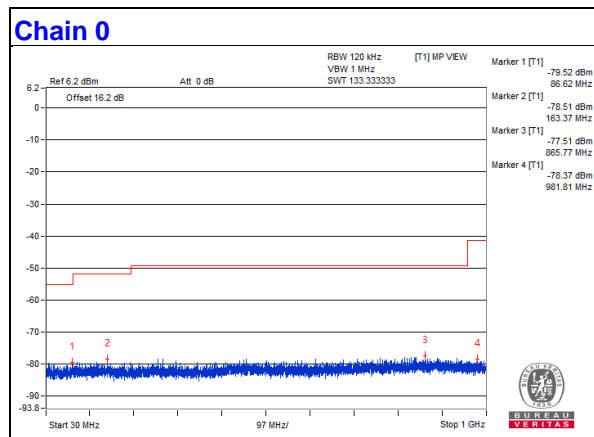
### Below 1GHz Data:

#### Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	65.28	15.56	40	-24.44	-84.62	4.92	-79.70
2	187.14	16.18	43.5	-27.32	-84	4.92	-79.08
3	302.32	16.54	46	-29.46	-83.64	4.92	-78.72
4	425.27	16.85	46	-29.15	-83.33	4.92	-78.41
5	799.81	17.43	46	-28.57	-82.75	4.92	-77.83
6	865.41	17.96	46	-28.04	-82.22	4.92	-77.30

#### Remarks:

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.
3. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



**For Mode 3**

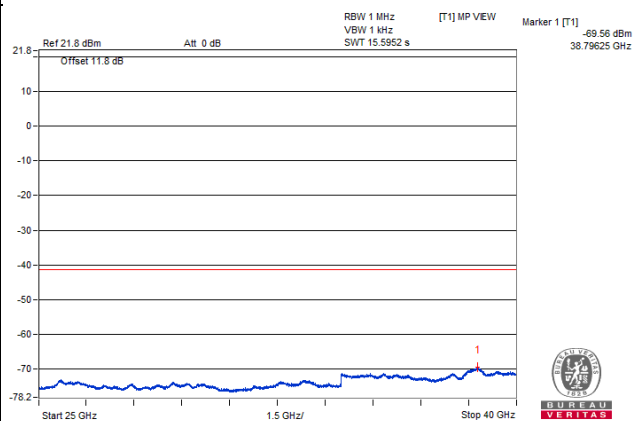
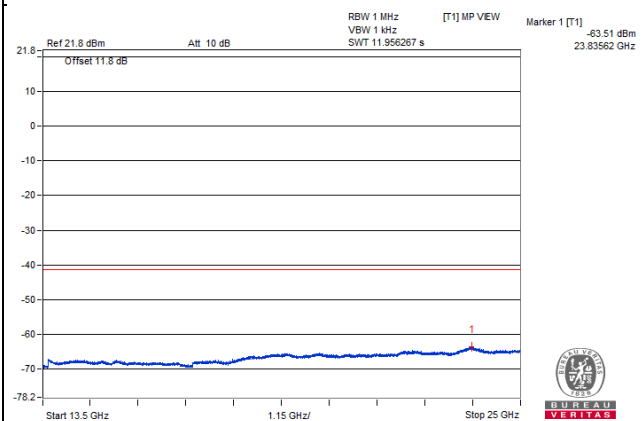
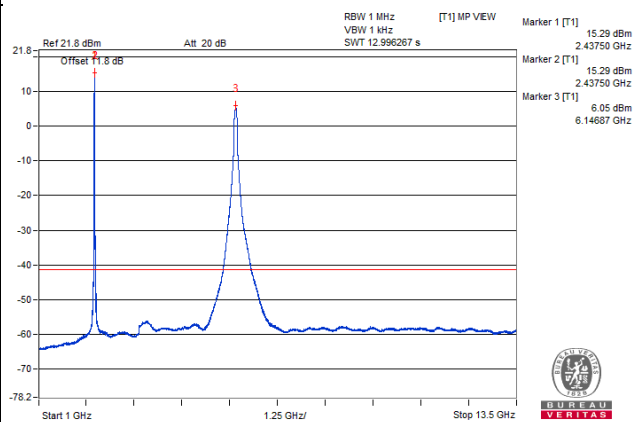
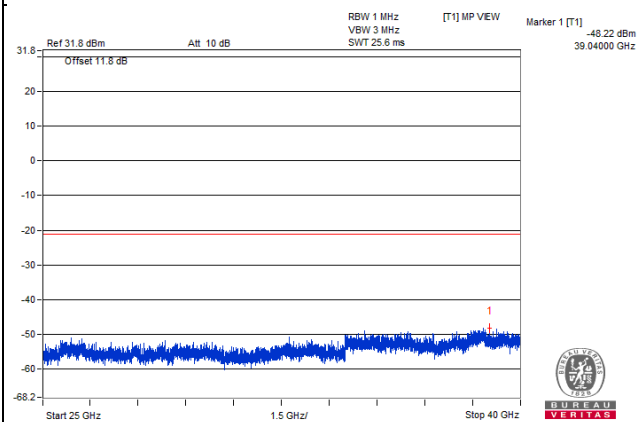
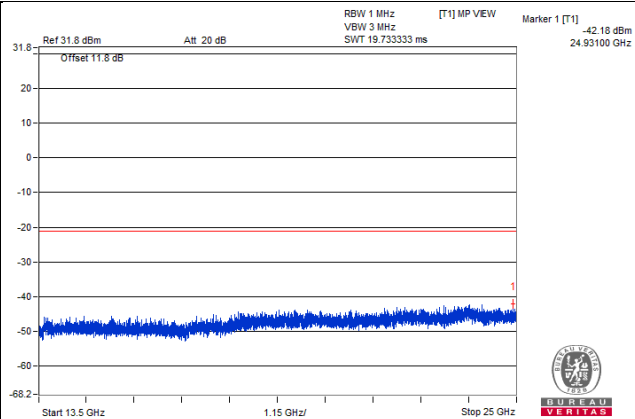
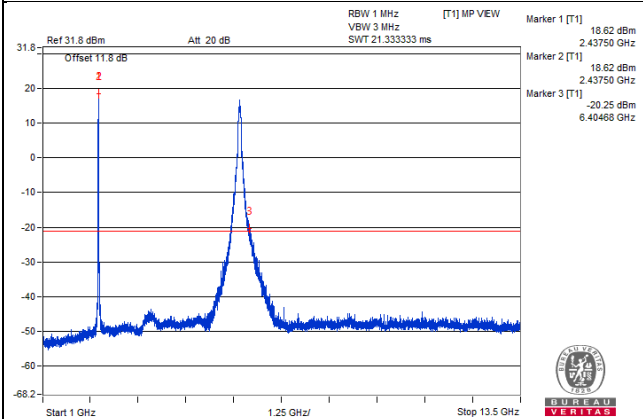
**Above 1GHz Data:**

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	38706.25	40.23 PK	74	-33.77	-59.95	4.92	-55.03
2	38736.25	18.82 AV	54	-35.18	-81.36	4.92	-76.44

Remarks:

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.

### Chain 0





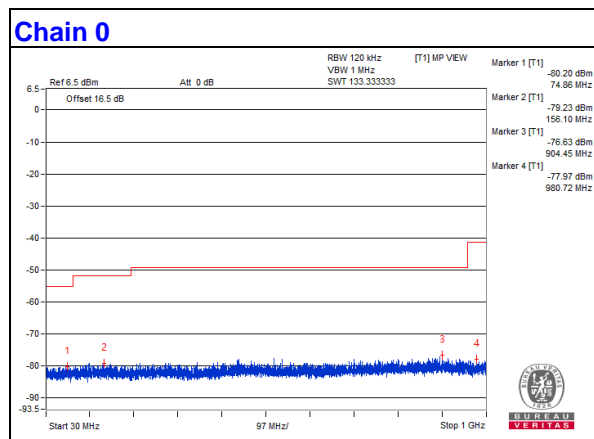
**Below 1GHz Data:**

**Conducted spurious emission table**

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	31.94	16.94	40	-23.06	-83.24	4.92	-78.32
2	105.9	17.39	43.5	-26.11	-82.79	4.92	-77.87
3	249.34	18.41	46	-27.59	-81.77	4.92	-76.85
4	566.16	17.95	46	-28.05	-82.23	4.92	-77.31
5	796.54	18.07	46	-27.93	-82.11	4.92	-77.19
6	921.79	18.43	46	-27.57	-81.75	4.92	-76.83

**Remarks:**

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.
3. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



**For Mode 4**

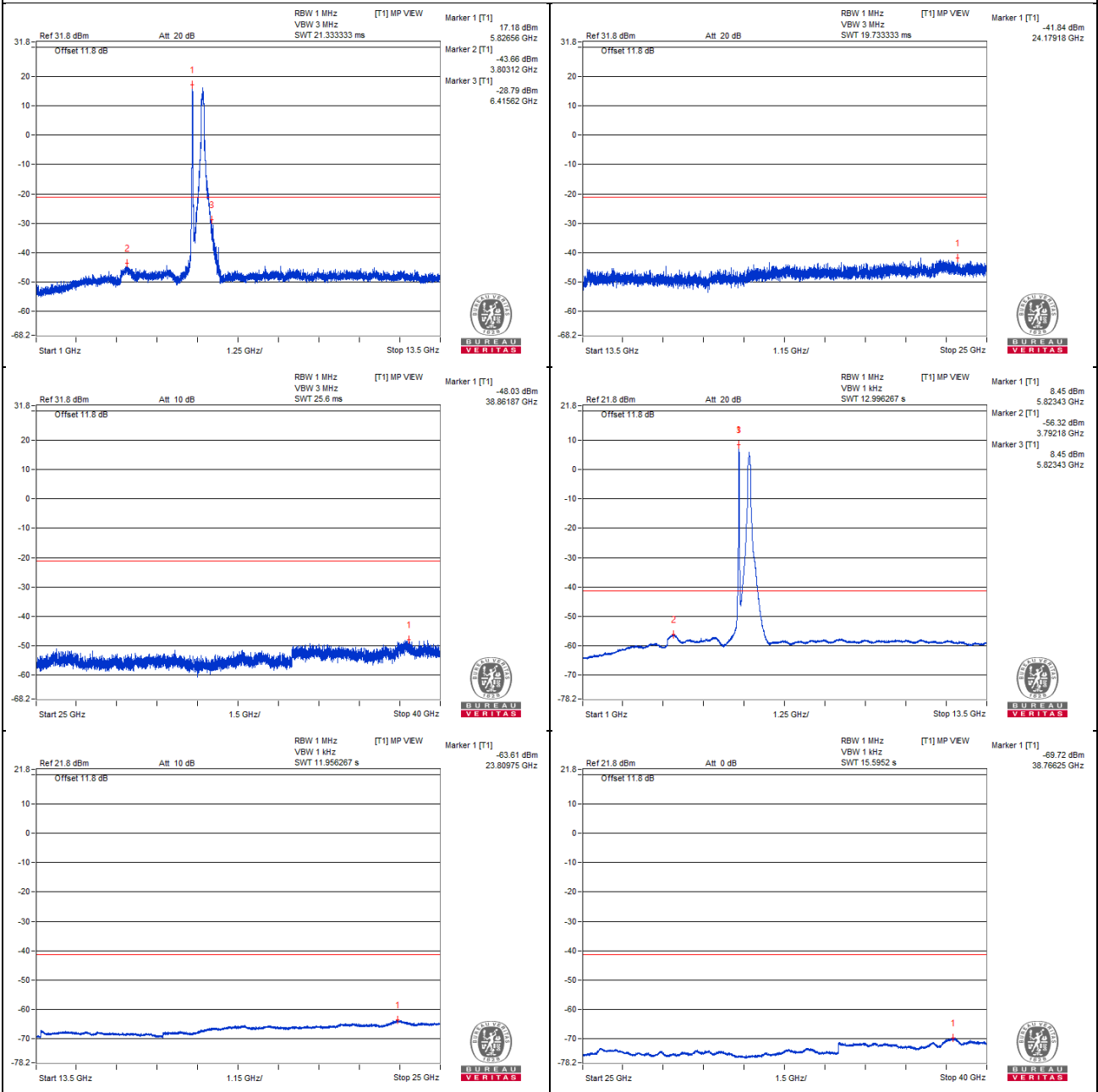
**Above 1GHz Data:**

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	38869.37	40.47 PK	74	-33.53	-59.71	4.92	-54.79
2	38849.75	18.72 AV	54	-35.28	-81.46	4.92	-76.54

Remarks:

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.

### Chain 0



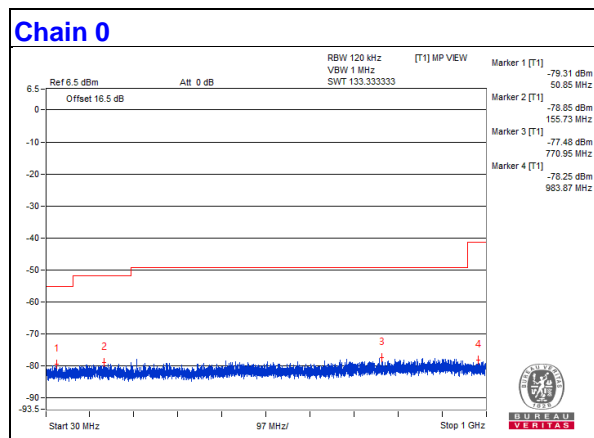
**Below 1GHz Data:**

**Conducted spurious emission table**

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	86.26	15.87	40	-24.13	-84.31	4.92	-79.39
2	138.39	16.13	43.5	-27.37	-84.05	4.92	-79.13
3	268.01	16.74	46	-29.26	-83.44	4.92	-78.52
4	486.02	18.51	46	-27.49	-81.67	4.92	-76.75
5	741.49	17.77	46	-28.23	-82.41	4.92	-77.49
6	867.35	18.53	46	-27.47	-81.65	4.92	-76.73

**Remarks:**

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.
3. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



**For Mode 5**

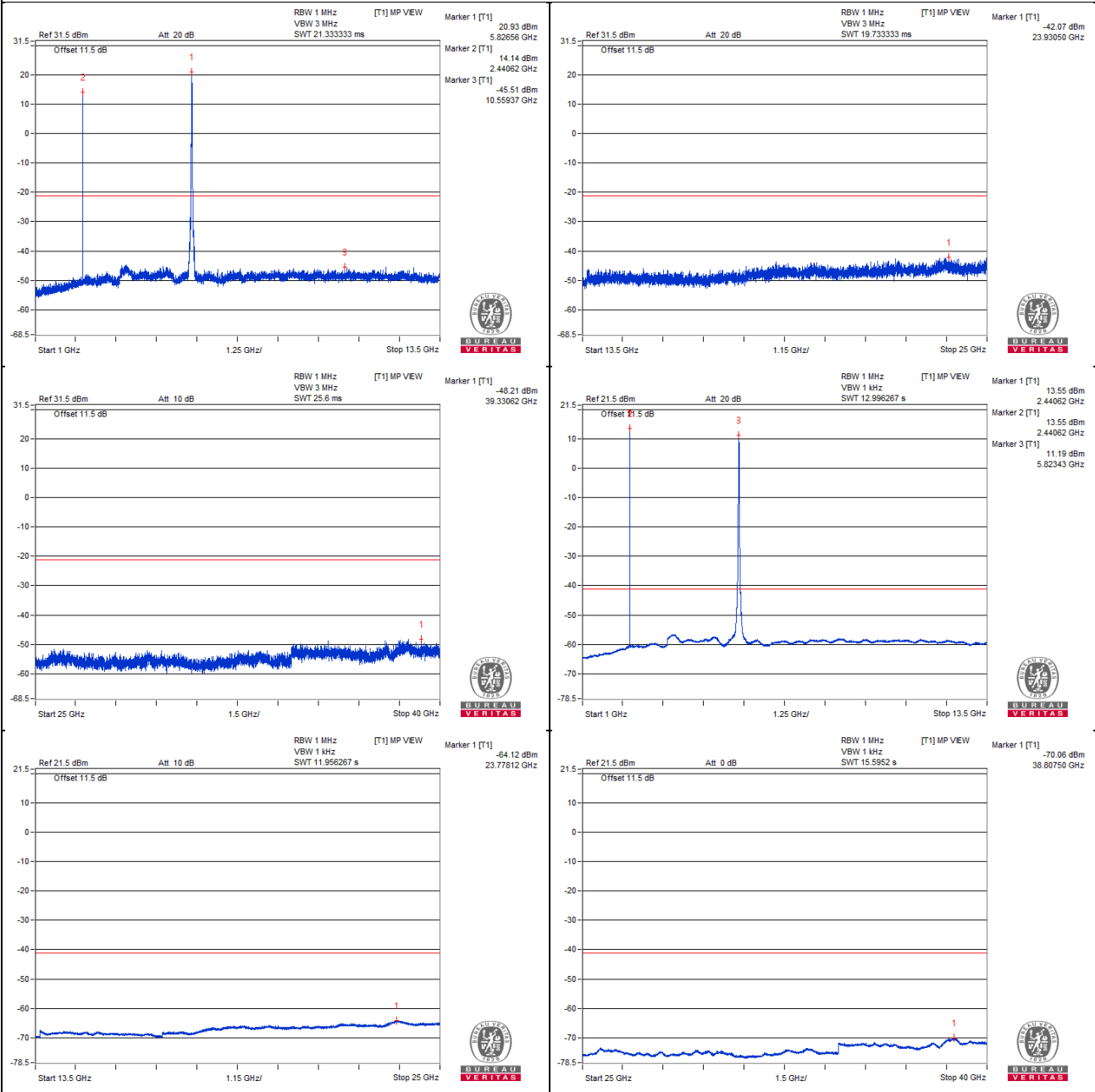
**Above 1GHz Data:**

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	38820.62	43.36 PK	74	-30.64	-59.83	7.93	-51.90
2	38809.37	21.8 AV	54	-32.2	-81.39	7.93	-73.46

Remarks:

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.

### Chain 0



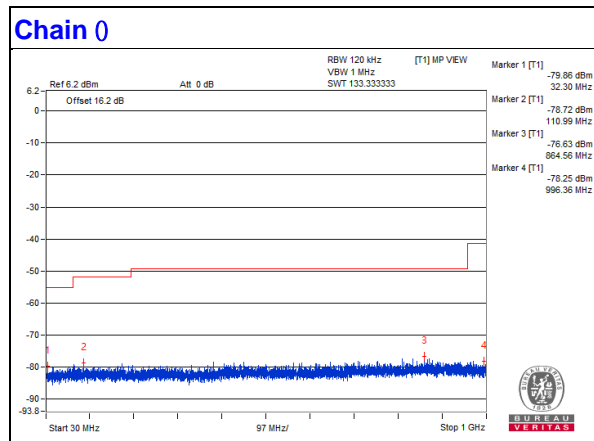
### Below 1GHz Data:

#### Conducted spurious emission table

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	66.98	15.24	40	-24.76	-84.94	4.92	-80.02
2	100.2	16.57	43.5	-26.93	-83.61	4.92	-78.69
3	288.5	16.78	46	-29.22	-83.4	4.92	-78.48
4	510.75	17.11	46	-28.89	-83.07	4.92	-78.15
5	601.69	17.8	46	-28.2	-82.38	4.92	-77.46
6	901.06	17.83	46	-28.17	-82.35	4.92	-77.43

#### Remarks:

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.
3. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



**For Mode 6**

**Above 1GHz Data:**

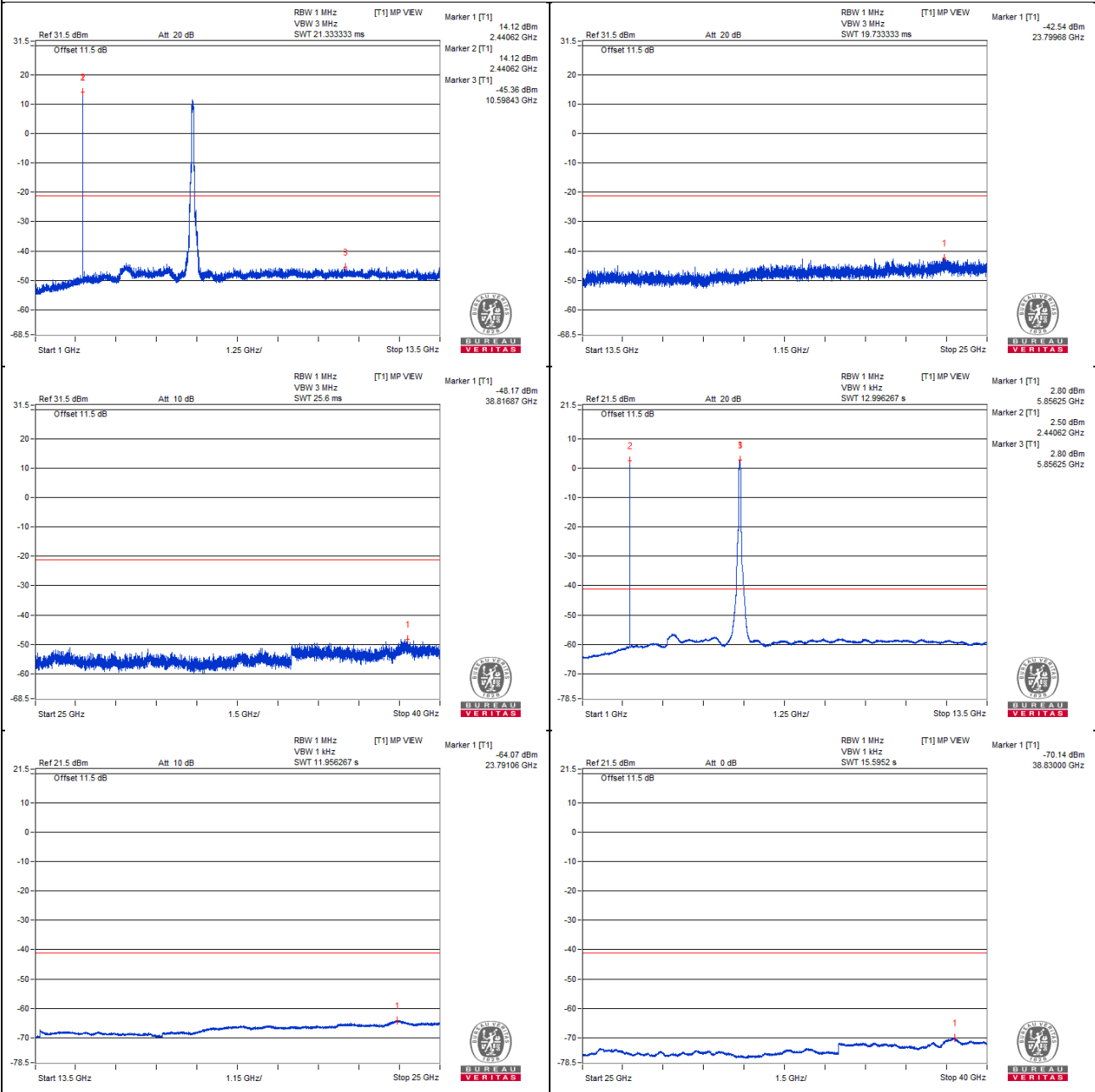
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	38785.62	43.25 PK	74	-30.75	-59.94	7.93	-52.01
2	38805.62	21.75 AV	54	-32.25	-81.44	7.93	-73.51

Remarks:

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.



### Chain 0



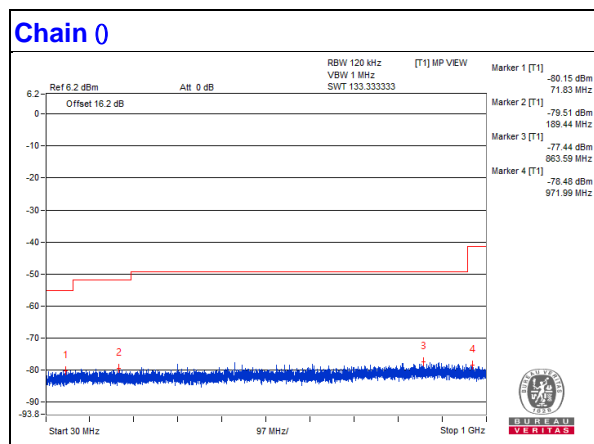
**Below 1GHz Data:**

**Conducted spurious emission table**

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	59.34	16.5	40	-23.5	-83.68	4.92	-78.76
2	102.62	16.11	43.5	-27.39	-84.07	4.92	-79.15
3	261.83	16.76	46	-29.24	-83.42	4.92	-78.50
4	581.44	16.77	46	-29.23	-83.41	4.92	-78.49
5	666.32	17.14	46	-28.86	-83.04	4.92	-78.12
6	916.82	17.98	46	-28.02	-82.2	4.92	-77.28

**Remarks:**

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.
3. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



**For Mode 7**

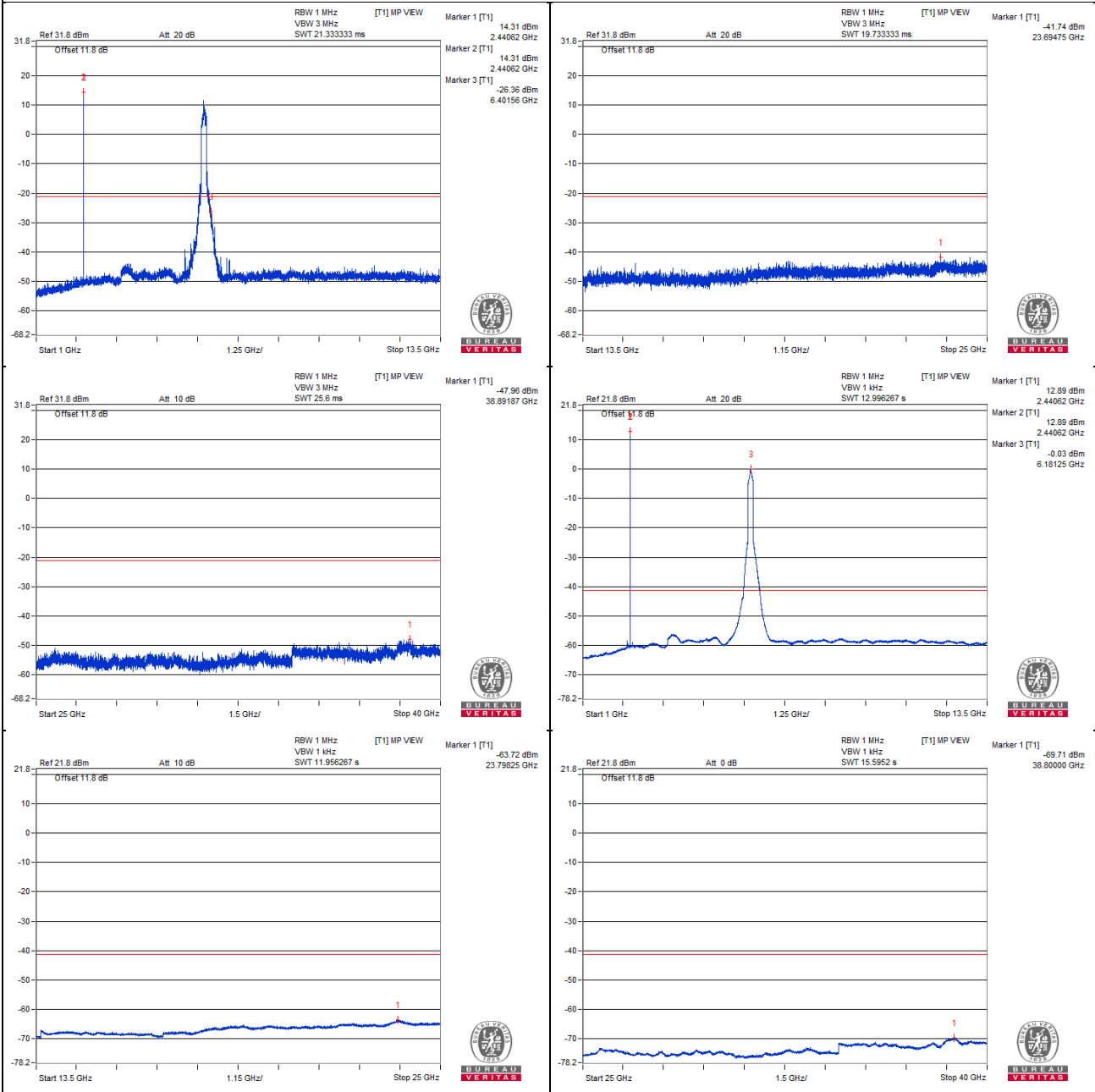
**Above 1GHz Data:**

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	38800	43.85 PK	74	-30.15	-59.34	7.93	-51.41
2	38780	21.88 AV	54	-32.12	-81.31	7.93	-73.38

Remarks:

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.

### Chain 0



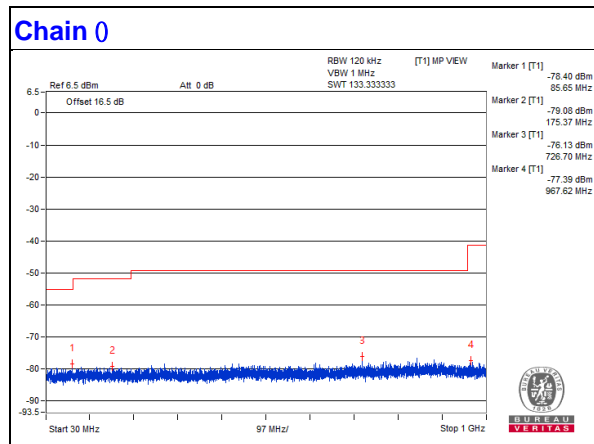
**Below 1GHz Data:**

**Conducted spurious emission table**

No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	32.42	16.03	40	-23.97	-84.15	4.92	-79.23
2	207.38	16.79	43.5	-26.71	-83.39	4.92	-78.47
3	244.12	17.34	46	-28.66	-82.84	4.92	-77.92
4	444.19	17.16	46	-28.84	-83.02	4.92	-78.10
5	726.82	19.3	46	-26.7	-80.88	4.92	-75.96
6	966.77	18.6	54	-35.4	-81.58	4.92	-76.66

**Remarks:**

1. Margin value = Emission Level – Limit value
2. The other emission levels were very low against the limit.
3. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



#### 4.1.8 Test Results (Radiated Measurement)

**Radiated test with 50ohm terminator on antenna port.**

**For Mode 1**

**Above 1GHz Data:**

<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 3 MHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4874.00	41.6 PK	74.0	-32.4	1.50 H	274	37.0	4.6
2	4874.00	36.5 AV	54.0	-17.5	1.50 H	274	31.9	4.6
3	7311.00	45.7 PK	74.0	-28.3	1.13 H	325	34.1	11.6
4	7311.00	36.9 AV	54.0	-17.1	1.13 H	325	25.3	11.6
5	11650.00	49.4 PK	74.0	-24.6	3.50 H	41	32.9	16.5
6	11650.00	38.1 AV	54.0	-15.9	3.50 H	41	21.6	16.5
7	#17475.00	50.1 PK	68.2	-18.1	1.50 H	148	28.1	22.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4874.00	41.5 PK	74.0	-32.5	1.01 V	210	36.9	4.6
2	4874.00	37.1 AV	54.0	-16.9	1.01 V	210	32.5	4.6
3	7311.00	46.4 PK	74.0	-27.6	2.12 V	214	34.8	11.6
4	7311.00	39.1 AV	54.0	-14.9	2.12 V	214	27.5	11.6
5	11650.00	50.9 PK	74.0	-23.1	2.10 V	217	34.4	16.5
6	11650.00	41.8 AV	54.0	-12.2	2.10 V	217	25.3	16.5
7	#17475.00	51.6 PK	68.2	-16.6	1.66 V	16	29.6	22.0

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. "#": The radiated frequency is out of the restricted band.

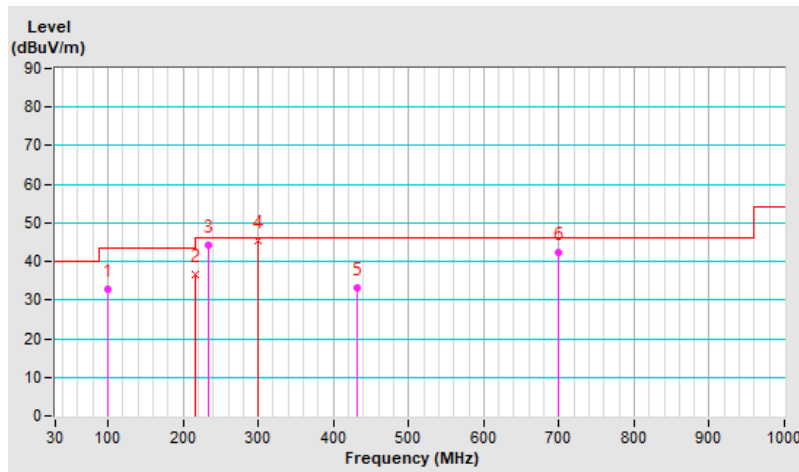
**Below 1GHz Data:**

<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	(QP) RB = 120kHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	99.91	32.8 QP	43.5	-10.7	3.00 H	43	50.2	-17.4
2	216.59	36.5 QP	46.0	-9.5	2.00 H	173	53.0	-16.5
3	232.93	44.1 QP	46.0	-1.9	1.00 H	8	59.5	-15.4
<b>4</b>	<b>299.26</b>	<b>45.2 QP</b>	<b>46.0</b>	<b>-0.8</b>	<b>1.00 H</b>	<b>220</b>	<b>57.8</b>	<b>-12.6</b>
5	432.02	33.3 QP	46.0	-12.7	2.00 H	160	42.1	-8.8
6	699.53	42.3 QP	46.0	-3.7	1.50 H	68	46.3	-4.0

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



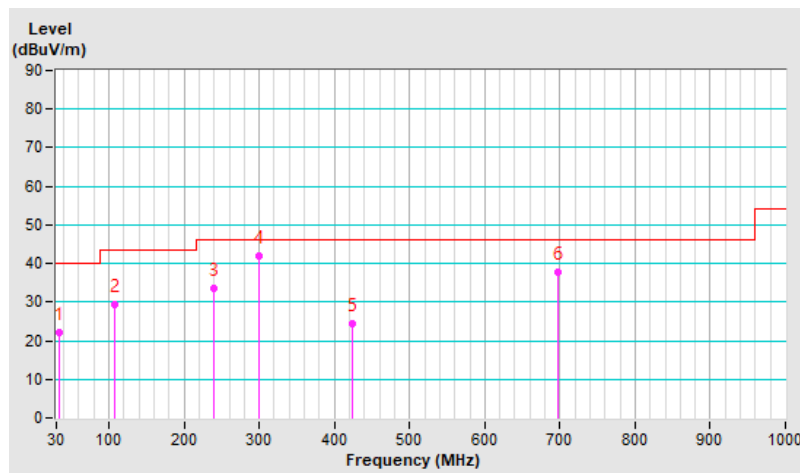
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	(QP) RB = 120kHz
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**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	33.65	22.2 QP	40.0	-17.8	1.00 V	268	36.1	-13.9
2	107.14	29.2 QP	43.5	-14.3	2.00 V	21	45.4	-16.2
3	240.36	33.6 QP	46.0	-12.4	1.50 V	182	48.3	-14.7
4	299.09	41.9 QP	46.0	-4.1	1.00 V	232	54.5	-12.6
5	424.04	24.4 QP	46.0	-21.6	1.50 V	317	33.5	-9.1
6	697.08	37.9 QP	46.0	-8.1	1.50 V	202	41.9	-4.0

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.





**For Mode 2**

**Above 1GHz Data:**

<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 3 MHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4874.00	42.0 PK	74.0	-32.0	1.52 H	283	37.4	4.6
2	4874.00	36.9 AV	54.0	-17.1	1.52 H	283	32.3	4.6
3	7311.00	46.0 PK	74.0	-28.0	1.16 H	339	34.4	11.6
4	7311.00	37.3 AV	54.0	-16.7	1.16 H	339	25.7	11.6
5	11670.00	48.7 PK	74.0	-25.3	3.23 H	38	32.3	16.4
6	11670.00	38.7 AV	54.0	-15.3	3.23 H	38	22.3	16.4
7	#17505.00	54.0 PK	88.2	-34.2	1.47 H	206	32.0	22.0
8	#17505.00	43.3 AV	68.2	-24.9	1.47 H	206	21.3	22.0

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4874.00	42.0 PK	74.0	-32.0	1.00 V	222	37.4	4.6
2	4874.00	37.4 AV	54.0	-16.6	1.00 V	222	32.8	4.6
3	7311.00	46.6 PK	74.0	-27.4	2.13 V	203	35.0	11.6
4	7311.00	39.2 AV	54.0	-14.8	2.13 V	203	27.6	11.6
5	11670.00	48.2 PK	74.0	-25.8	2.01 V	184	31.8	16.4
6	11670.00	38.6 AV	54.0	-15.4	2.01 V	184	22.2	16.4
7	#17505.00	55.5 PK	88.2	-32.7	1.57 V	61	33.5	22.0
8	#17505.00	43.1 AV	68.2	-25.1	1.57 V	61	21.1	22.0

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " # ": The radiated frequency is out of the restricted band.

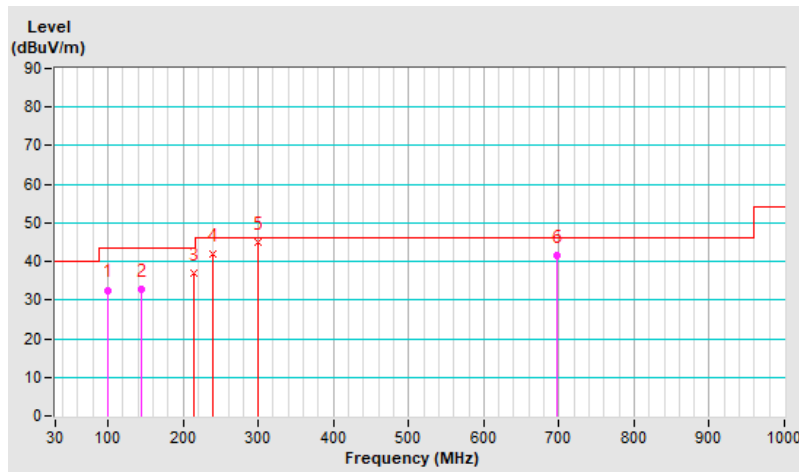
**Below 1GHz Data:**

<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	(QP) RB = 120kHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	99.90	32.6 QP	43.5	-10.9	1.50 H	327	50.0	-17.4
2	143.84	32.7 QP	43.5	-10.8	2.00 H	198	45.9	-13.2
3	215.02	37.1 QP	43.5	-6.4	1.50 H	324	53.6	-16.5
4	239.30	41.8 QP	46.0	-4.2	1.50 H	211	56.6	-14.8
5	299.17	45.1 QP	46.0	-0.9	1.00 H	205	57.7	-12.6
6	697.12	41.7 QP	46.0	-4.3	1.50 H	66	45.7	-4.0

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

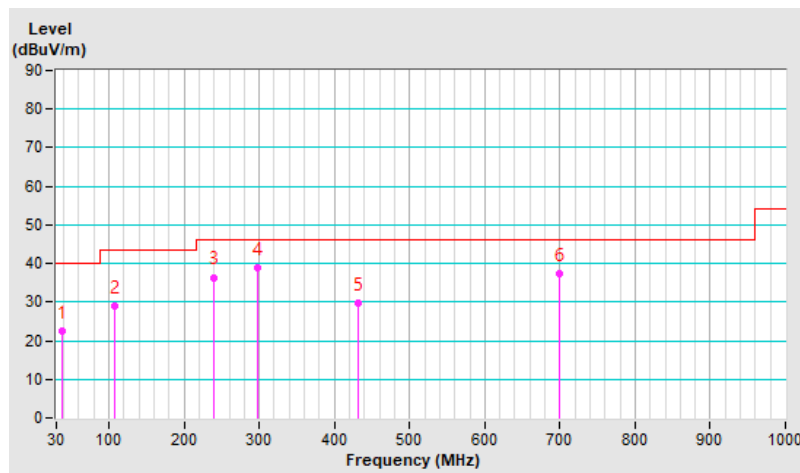


<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	(QP) RB = 120kHz
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Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	38.63	22.6 QP	40.0	-17.4	1.00 V	198	36.1	-13.5
2	106.89	28.8 QP	43.5	-14.7	1.50 V	317	45.0	-16.2
3	240.08	36.4 QP	46.0	-9.6	1.50 V	318	51.1	-14.7
4	298.59	38.8 QP	46.0	-7.2	3.00 V	272	51.4	-12.6
5	432.04	29.6 QP	46.0	-16.4	1.50 V	327	38.4	-8.8
6	699.61	37.4 QP	46.0	-8.6	2.00 V	245	41.4	-4.0

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



**For Mode 3**
**Above 1GHz Data:**

<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 3 MHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4874.00	41.9 PK	74.0	-32.1	1.50 H	280	37.3	4.6
2	4874.00	36.6 AV	54.0	-17.4	1.50 H	280	32.0	4.6
3	7311.00	45.6 PK	74.0	-28.4	1.12 H	316	34.0	11.6
4	7311.00	36.8 AV	54.0	-17.2	1.12 H	316	25.2	11.6
5	12290.00	48.2 PK	74.0	-25.8	2.96 H	50	32.8	15.4
6	12290.00	37.9 AV	54.0	-16.1	2.96 H	50	22.5	15.4
7	18435.00	52.8 PK	74.0	-21.2	1.70 H	174	69.5	-16.7
<b>8</b>	<b>18435.00</b>	<b>41.9 AV</b>	<b>54.0</b>	<b>-12.1</b>	<b>1.70 H</b>	<b>174</b>	<b>58.6</b>	<b>-16.7</b>
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4874.00	42.0 PK	74.0	-32.0	1.00 V	207	37.4	4.6
2	4874.00	37.5 AV	54.0	-16.5	1.00 V	207	32.9	4.6
3	7311.00	45.9 PK	74.0	-28.1	2.17 V	226	34.3	11.6
4	7311.00	38.8 AV	54.0	-15.2	2.17 V	226	27.2	11.6
5	12290.00	48.3 PK	74.0	-25.7	2.00 V	201	32.9	15.4
6	12290.00	38.0 AV	54.0	-16.0	2.00 V	201	22.6	15.4
7	18435.00	52.0 PK	74.0	-22.0	1.54 V	66	84.8	-32.8
8	18435.00	41.9 AV	54.0	-12.1	1.54 V	66	74.7	-32.8

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " # ": The radiated frequency is out of the restricted band.

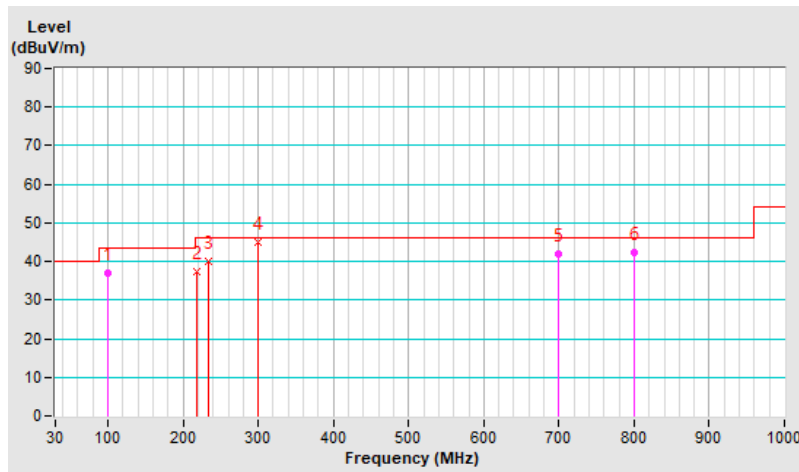
**Below 1GHz Data:**

<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	(QP) RB = 120kHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	99.96	36.9 QP	43.5	-6.6	2.00 H	323	54.2	-17.3
2	217.60	37.4 QP	46.0	-8.6	1.50 H	178	54.0	-16.6
3	233.33	39.9 QP	46.0	-6.1	1.50 H	217	55.3	-15.4
4	299.12	44.9 QP	46.0	-1.1	1.00 H	238	57.5	-12.6
5	699.98	41.8 QP	46.0	-4.2	1.00 H	83	45.8	-4.0
6	799.45	42.3 QP	46.0	-3.7	1.00 H	5	44.8	-2.5

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



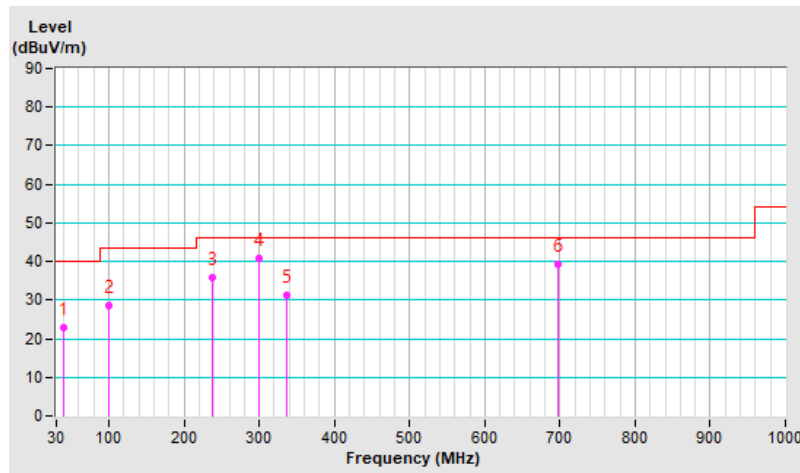
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	(QP) RB = 120kHz
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**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	38.73	22.9 QP	40.0	-17.1	1.00 V	358	36.4	-13.5
2	99.92	28.7 QP	43.5	-14.8	1.00 V	176	46.1	-17.4
3	238.03	35.8 QP	46.0	-10.2	1.50 V	247	50.7	-14.9
4	298.98	40.7 QP	46.0	-5.3	1.00 V	311	53.3	-12.6
5	335.62	31.4 QP	46.0	-14.6	2.00 V	221	43.0	-11.6
6	697.17	39.3 QP	46.0	-6.7	1.50 V	264	43.3	-4.0

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



**For Mode 4**
**Above 1GHz Data:**

<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 3 MHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	11650.00	48.6 PK	74.0	-25.4	3.47 H	38	32.1	16.5
2	11650.00	38.1 AV	54.0	-15.9	3.47 H	38	21.6	16.5
3	12290.00	49.1 PK	74.0	-24.9	2.93 H	46	33.7	15.4
4	12290.00	38.8 AV	54.0	-15.2	2.93 H	46	23.4	15.4
5	#17475.00	51.2 PK	68.2	-17.0	1.60 H	193	29.2	22.0
6	18435.00	53.1 PK	74.0	-20.9	1.61 H	185	69.8	-16.7
7	18435.00	42.2 AV	54.0	-11.8	1.61 H	185	58.9	-16.7

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	11650.00	49.3 PK	74.0	-24.7	2.14 V	197	32.8	16.5
2	11650.00	38.4 AV	54.0	-15.6	2.14 V	197	21.9	16.5
3	12290.00	48.7 PK	74.0	-25.3	1.89 V	214	33.3	15.4
4	12290.00	38.1 AV	54.0	-15.9	1.89 V	214	22.7	15.4
5	#17475.00	51.8 PK	68.2	-16.4	1.62 V	34	29.8	22.0
6	18435.00	53.0 PK	74.0	-21.0	1.51 V	82	69.7	-16.7
7	18435.00	42.4 AV	54.0	-11.6	1.51 V	82	59.1	-16.7

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " # ": The radiated frequency is out of the restricted band.

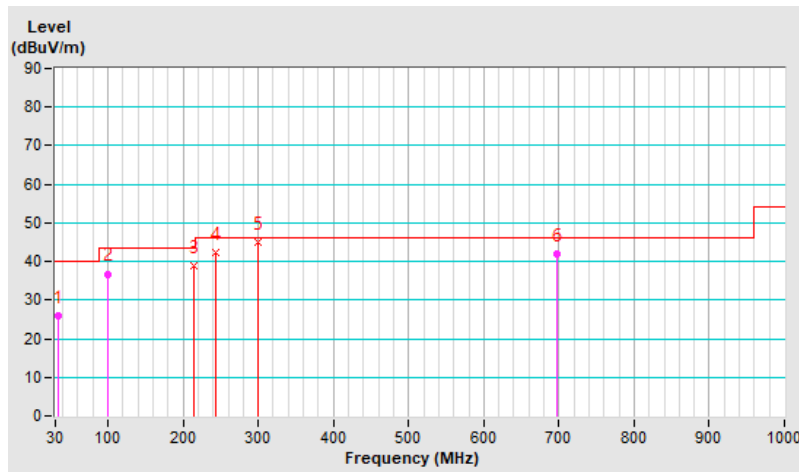
**Below 1GHz Data:**

<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	(QP) RB = 120kHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	33.30	25.8 QP	40.0	-14.2	1.50 H	273	39.8	-14.0
2	99.77	36.8 QP	43.5	-6.7	2.00 H	285	54.2	-17.4
3	215.09	38.8 QP	43.5	-4.7	1.50 H	149	55.3	-16.5
4	242.94	42.2 QP	46.0	-3.8	1.50 H	15	56.8	-14.6
5	299.15	45.1 QP	46.0	-0.9	1.00 H	179	57.7	-12.6
6	697.27	41.9 QP	46.0	-4.1	1.50 H	59	45.9	-4.0

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.





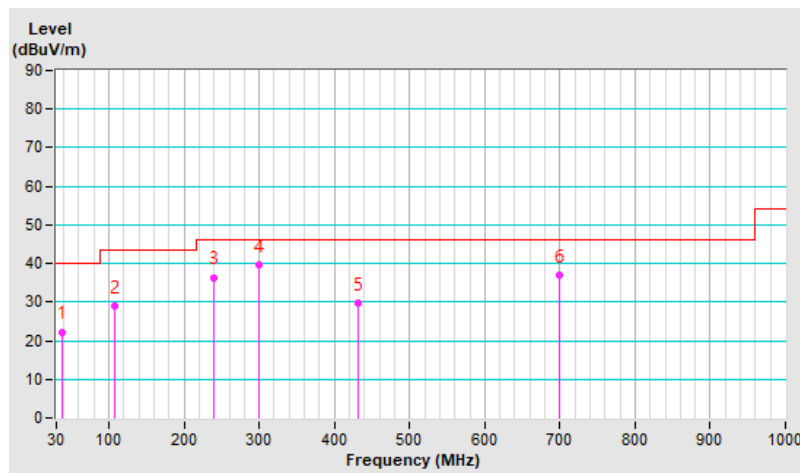
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	(QP) RB = 120kHz
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**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	38.53	22.3 QP	40.0	-17.7	1.00 V	198	35.9	-13.6
2	106.97	29.0 QP	43.5	-14.5	1.00 V	318	45.2	-16.2
3	240.22	36.4 QP	46.0	-9.6	1.50 V	268	51.1	-14.7
4	299.02	39.6 QP	46.0	-6.4	3.00 V	312	52.2	-12.6
5	431.95	29.7 QP	46.0	-16.3	2.00 V	288	38.5	-8.8
6	699.87	37.1 QP	46.0	-8.9	1.00 V	292	41.1	-4.0

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



**For Mode 5**

**Above 1GHz Data:**

<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 3 MHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4882.00	41.5 PK	74.0	-32.5	1.41 H	233	36.9	4.6
2	4882.00	31.0 AV	54.0	-23.0	1.41 H	233	26.4	4.6
3	7323.00	45.6 PK	74.0	-28.4	1.18 H	126	33.9	11.7
4	7323.00	34.7 AV	54.0	-19.3	1.18 H	126	23.0	11.7
5	11650.00	48.6 PK	74.0	-25.4	3.47 H	23	32.1	16.5
6	11650.00	37.9 AV	54.0	-16.1	3.47 H	23	21.4	16.5
7	#17475.00	51.6 PK	68.2	-16.6	1.58 H	174	29.6	22.0

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4882.00	41.2 PK	74.0	-32.8	2.22 V	47	36.6	4.6
2	4882.00	29.7 AV	54.0	-24.3	2.22 V	47	25.1	4.6
3	7323.00	46.1 PK	74.0	-27.9	3.60 V	26	34.4	11.7
4	7323.00	37.3 AV	54.0	-16.7	3.60 V	26	25.6	11.7
5	11650.00	48.5 PK	74.0	-25.5	2.10 V	196	32.0	16.5
6	11650.00	37.5 AV	54.0	-16.5	2.10 V	196	21.0	16.5
7	#17475.00	52.4 PK	68.2	-15.8	1.57 V	27	30.4	22.0

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. "#": The radiated frequency is out of the restricted band.

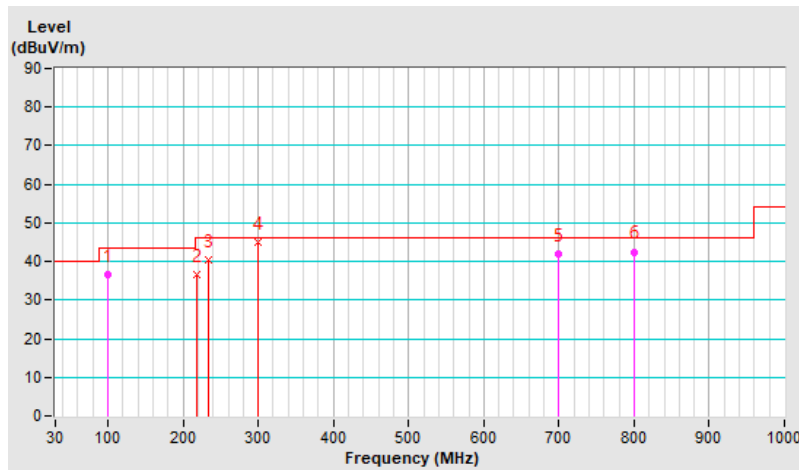
**Below 1GHz Data:**

<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	(QP) RB = 120kHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	99.97	36.5 QP	43.5	-7.0	1.50 H	305	53.8	-17.3
2	217.54	36.6 QP	46.0	-9.4	1.00 H	187	53.2	-16.6
3	233.58	40.3 QP	46.0	-5.7	1.50 H	226	55.6	-15.3
4	299.42	45.1 QP	46.0	-0.9	1.00 H	194	57.7	-12.6
5	699.89	41.8 QP	46.0	-4.2	1.50 H	60	45.8	-4.0
6	799.51	42.5 QP	46.0	-3.5	1.00 H	353	45.0	-2.5

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



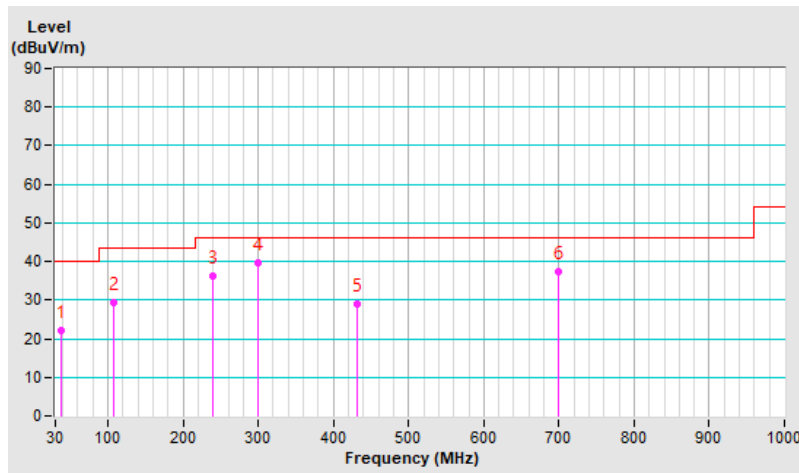
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	(QP) RB = 120kHz
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**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	38.53	22.2 QP	40.0	-17.8	1.00 V	144	35.8	-13.6
2	106.97	29.2 QP	43.5	-14.3	1.00 V	344	45.4	-16.2
3	240.22	36.3 QP	46.0	-9.7	1.50 V	313	51.0	-14.7
4	298.94	39.6 QP	46.0	-6.4	2.00 V	317	52.2	-12.6
5	432.19	28.8 QP	46.0	-17.2	2.00 V	282	37.6	-8.8
6	699.97	37.2 QP	46.0	-8.8	1.50 V	247	41.2	-4.0

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



**For Mode 6**
**Above 1GHz Data:**

<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 3 MHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4882.00	41.9 PK	74.0	-32.1	1.45 H	240	37.3	4.6
2	4882.00	31.1 AV	54.0	-22.9	1.45 H	240	26.5	4.6
3	7323.00	45.7 PK	74.0	-28.3	1.17 H	145	34.0	11.7
4	7323.00	35.2 AV	54.0	-18.8	1.17 H	145	23.5	11.7
5	11710.00	48.9 PK	74.0	-25.1	3.22 H	54	32.6	16.3
6	11710.00	38.9 AV	54.0	-15.1	3.22 H	54	22.6	16.3
7	#17565.00	53.7 PK	88.2	-34.5	1.51 H	166	31.6	22.1
8	#17565.00	43.5 AV	68.2	-24.7	1.51 H	166	21.4	22.1

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4882.00	41.3 PK	74.0	-32.7	2.23 V	51	36.7	4.6
2	4882.00	29.9 AV	54.0	-24.1	2.23 V	51	25.3	4.6
3	7323.00	45.4 PK	74.0	-28.6	3.66 V	13	33.7	11.7
4	7323.00	36.9 AV	54.0	-17.1	3.66 V	13	25.2	11.7
5	11710.00	48.5 PK	74.0	-25.5	1.98 V	142	32.2	16.3
6	11710.00	38.8 AV	54.0	-15.2	1.98 V	142	22.5	16.3
7	#17565.00	56.0 PK	88.2	-32.2	1.49 V	87	33.9	22.1
8	#17565.00	43.4 AV	68.2	-24.8	1.49 V	87	21.3	22.1

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " # ": The radiated frequency is out of the restricted band.

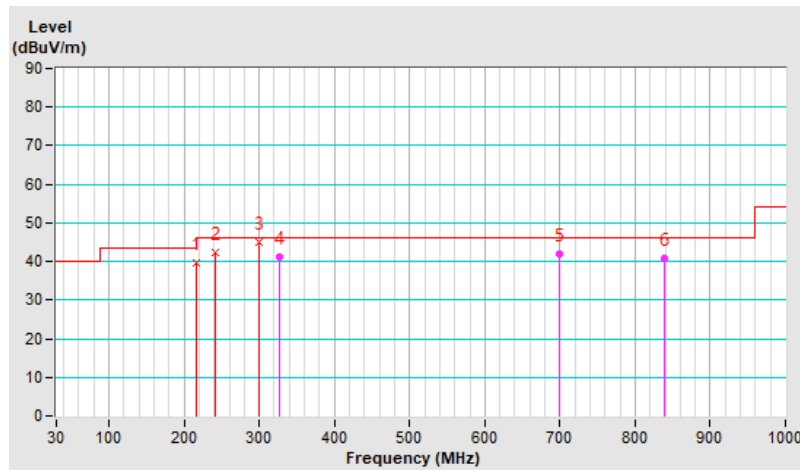
**Below 1GHz Data:**

<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	(QP) RB = 120kHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	215.44	39.8 QP	43.5	-3.7	1.50 H	178	56.3	-16.5
2	240.55	42.2 QP	46.0	-3.8	1.00 H	358	56.9	-14.7
3	299.29	45.0 QP	46.0	-1.0	1.00 H	203	57.6	-12.6
4	327.33	41.0 QP	46.0	-5.0	1.00 H	358	52.7	-11.7
5	699.44	41.8 QP	46.0	-4.2	1.50 H	74	45.8	-4.0
6	839.69	40.7 QP	46.0	-5.3	1.50 H	219	42.7	-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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

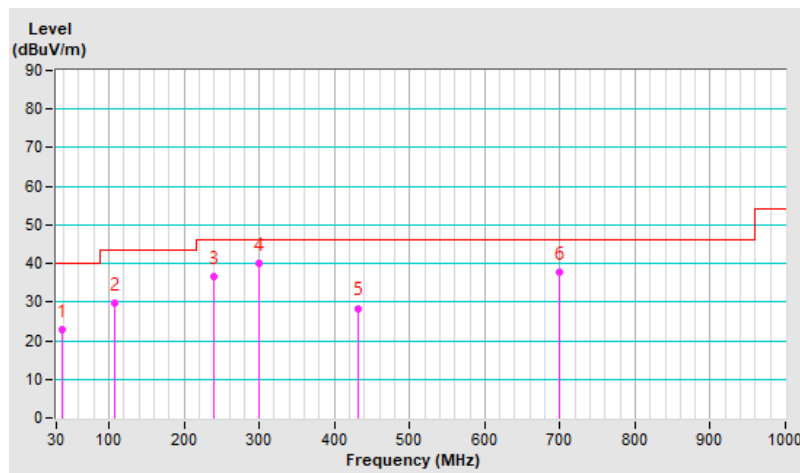


<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	(QP) RB = 120kHz
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Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	38.46	22.7 QP	40.0	-17.3	1.00 V	166	36.3	-13.6
2	106.80	29.7 QP	43.5	-13.8	1.50 V	356	46.0	-16.3
3	240.01	36.7 QP	46.0	-9.3	1.50 V	290	51.4	-14.7
4	299.07	40.0 QP	46.0	-6.0	2.00 V	285	52.6	-12.6
5	432.11	28.4 QP	46.0	-17.6	2.00 V	239	37.2	-8.8
6	699.99	37.7 QP	46.0	-8.3	1.50 V	264	41.7	-4.0

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



**For Mode 7**

**Above 1GHz Data:**

<b>Frequency Range</b>	1 GHz ~ 40 GHz	<b>Detector Function &amp; Bandwidth</b>	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 3 MHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4882.00	42.1 PK	74.0	-31.9	1.48 H	235	37.5	4.6
2	4882.00	31.6 AV	54.0	-22.4	1.48 H	235	27.0	4.6
3	7323.00	45.7 PK	74.0	-28.3	1.16 H	146	34.0	11.7
4	7323.00	34.8 AV	54.0	-19.2	1.16 H	146	23.1	11.7
5	12370.00	48.9 PK	74.0	-25.1	2.89 H	69	33.6	15.3
6	12370.00	37.2 AV	54.0	-16.8	2.89 H	69	21.9	15.3
7	18555.00	53.8 PK	74.0	-20.2	1.65 H	211	70.3	-16.5
8	18555.00	42.9 AV	54.0	-11.1	1.65 H	211	59.4	-16.5

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4882.00	40.9 PK	74.0	-33.1	2.26 V	55	36.3	4.6
2	4882.00	30.0 AV	54.0	-24.0	2.26 V	55	25.4	4.6
3	7323.00	46.2 PK	74.0	-27.8	3.60 V	20	34.5	11.7
4	7323.00	37.1 AV	54.0	-16.9	3.60 V	20	25.4	11.7
5	12370.00	48.6 PK	74.0	-25.4	1.86 V	216	33.3	15.3
6	12370.00	37.3 AV	54.0	-16.7	1.86 V	216	22.0	15.3
7	18555.00	54.1 PK	74.0	-19.9	1.65 V	86	70.6	-16.5
8	18555.00	43.0 AV	54.0	-11.0	1.65 V	86	59.5	-16.5

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " # ": The radiated frequency is out of the restricted band.



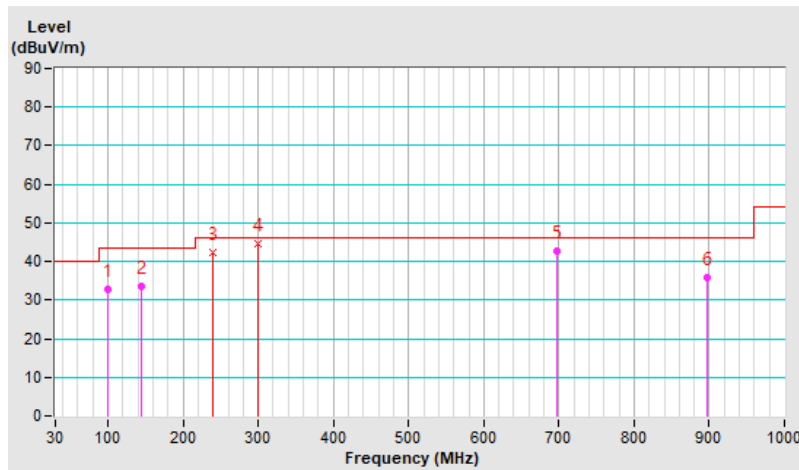
**Below 1GHz Data:**

<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	(QP) RB = 120kHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	99.98	32.7 QP	43.5	-10.8	2.00 H	7	50.0	-17.3
2	143.94	33.5 QP	43.5	-10.0	2.00 H	160	46.7	-13.2
3	239.95	42.3 QP	46.0	-3.7	1.50 H	337	57.1	-14.8
4	299.46	44.6 QP	46.0	-1.4	1.00 H	214	57.2	-12.6
5	696.80	42.6 QP	46.0	-3.4	1.50 H	32	46.6	-4.0
6	896.33	35.8 QP	46.0	-10.2	1.50 H	272	37.0	-1.2

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



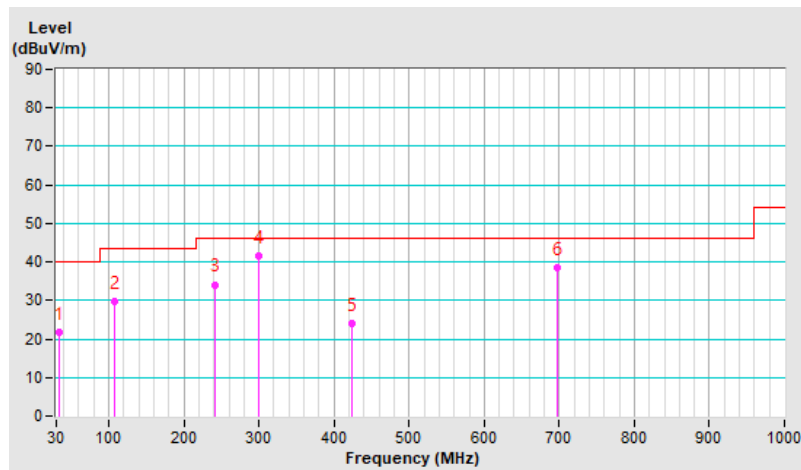
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	(QP) RB = 120kHz
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**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	33.54	21.7 QP	40.0	-18.3	1.00 V	246	35.7	-14.0
2	107.36	29.6 QP	43.5	-13.9	2.00 V	43	45.7	-16.1
3	240.54	34.1 QP	46.0	-11.9	1.50 V	234	48.8	-14.7
4	299.02	41.4 QP	46.0	-4.6	1.00 V	254	54.0	-12.6
5	424.26	23.9 QP	46.0	-22.1	1.50 V	295	32.9	-9.0
6	697.30	38.4 QP	46.0	-7.6	1.50 V	234	42.4	-4.0

**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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



## 4.2 Conducted Emission Measurement

### 4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

### 4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
EMI Test Receiver R&S	ESCS 30	847124/029	2022/10/14	2023/10/13
LISN R&S	ESH3-Z5	848773/004	2022/10/18	2023/10/17
50 ohm terminal resistance NA	NA	EMC-01	2022/9/27	2023/9/26
RF Coaxial Cable JYEBO	5D-FB	COCCAB-001	2022/8/24	2023/8/23
Fixed Attenuator STI	STI02-2200-10	005	2022/8/24	2023/8/23
Software BVADT	BVADT_Cond_V7.3.7.4	NA	NA	NA

Note:

1. The test was performed in Conduction 1.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: 2023/7/13

#### 4.2.3 Test Procedures

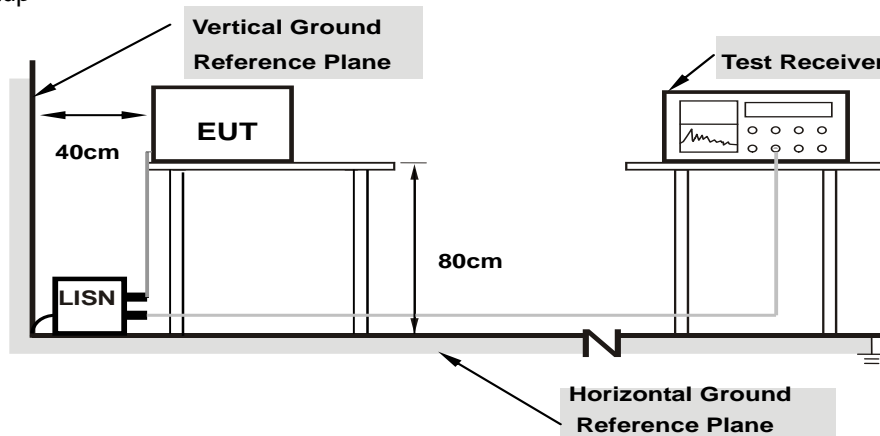
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

**Note:** The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

#### 4.2.4 Deviation from Test Standard

No deviation.

#### 4.2.5 Test Setup



**Note:** 1.Support units were connected to second LISN.

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

#### 4.2.6 EUT Operating Conditions

Same as 4.1.6.

#### 4.2.7 Test Results

##### For Mode 1

<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
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Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.95	48.83	32.99	58.78	42.94	66.00	56.00	-7.22	-13.06
2	0.23947	9.94	34.24	15.11	44.18	25.05	62.11	52.11	-17.93	-27.06
3	0.49157	9.95	17.58	0.57	27.53	10.52	56.14	46.14	-28.61	-35.62
4	3.49157	10.11	23.28	16.34	33.39	26.45	56.00	46.00	-22.61	-19.55
5	7.37611	10.32	13.96	8.67	24.28	18.99	60.00	50.00	-35.72	-31.01
6	21.80172	11.04	21.38	16.08	32.42	27.12	60.00	50.00	-27.58	-22.88

##### Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

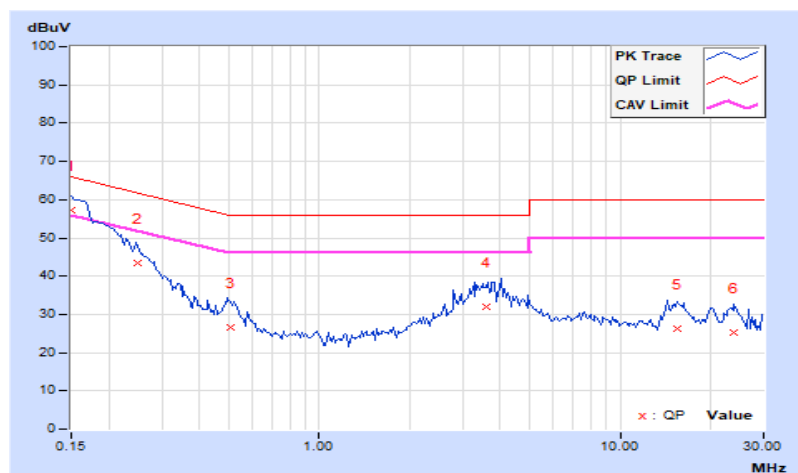


<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
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Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15094	9.99	47.38	30.86	57.37	40.85	65.95	55.95	-8.58	-15.10
2	0.25017	9.99	33.38	15.17	43.37	25.16	61.75	51.75	-18.38	-26.59
3	0.51019	10.01	16.53	2.71	26.54	12.72	56.00	46.00	-29.46	-33.28
4	3.61505	10.16	21.93	15.00	32.09	25.16	56.00	46.00	-23.91	-20.84
5	15.55315	10.63	15.53	7.09	26.16	17.72	60.00	50.00	-33.84	-32.28
6	23.84317	10.85	14.43	8.75	25.28	19.60	60.00	50.00	-34.72	-30.40

**Remarks:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



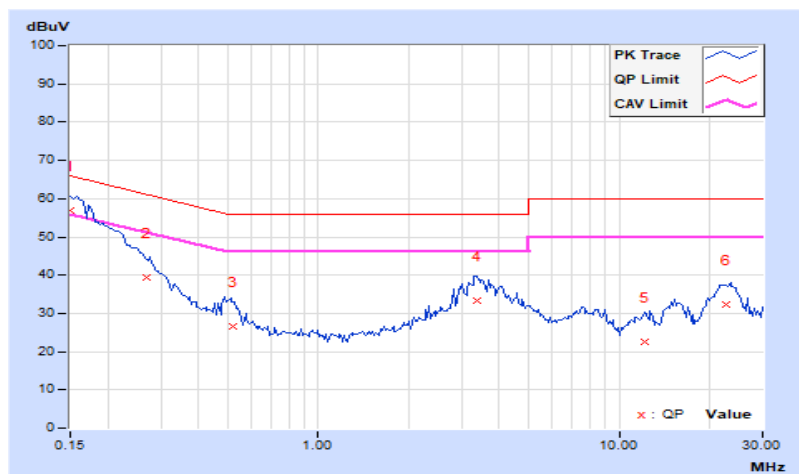
**For Mode 2**

<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
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Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15092	9.94	46.86	30.43	56.80	40.37	65.95	55.95	-9.15	-15.58
2	0.27015	9.94	29.53	10.11	39.47	20.05	61.11	51.11	-21.64	-31.06
3	0.51925	9.96	16.53	2.48	26.49	12.44	56.00	46.00	-29.51	-33.56
4	3.39157	10.11	23.26	16.68	33.37	26.79	56.00	46.00	-22.63	-19.21
5	12.09743	10.57	12.15	4.88	22.72	15.45	60.00	50.00	-37.28	-34.55
6	22.75669	11.08	21.38	16.42	32.46	27.50	60.00	50.00	-27.54	-22.50

**Remarks:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

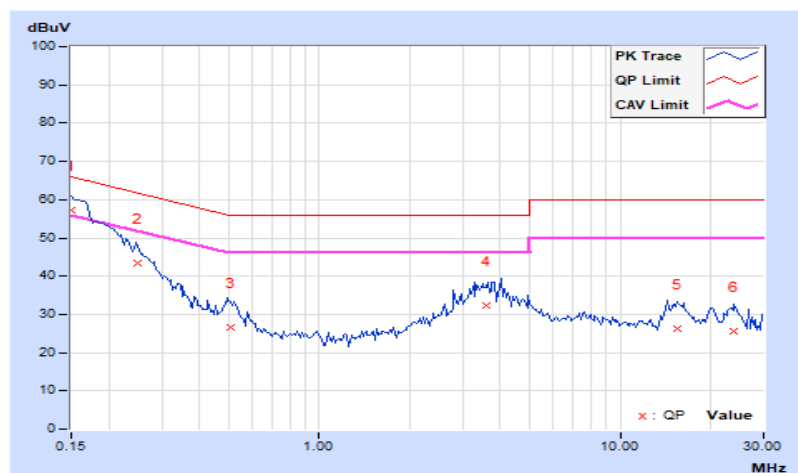


<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
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Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.99	47.35	30.93	57.34	40.92	66.00	56.00	-8.66	-15.08
2	0.24917	9.99	33.43	15.11	43.42	25.10	61.78	51.78	-18.36	-26.68
3	0.51096	10.01	16.54	2.71	26.55	12.72	56.00	46.00	-29.45	-33.28
4	3.60119	10.16	22.15	15.28	32.31	25.44	56.00	46.00	-23.69	-20.56
5	15.53792	10.63	15.58	7.17	26.21	17.80	60.00	50.00	-33.79	-32.20
6	23.82171	10.85	14.64	8.96	25.49	19.81	60.00	50.00	-34.51	-30.19

**Remarks:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value





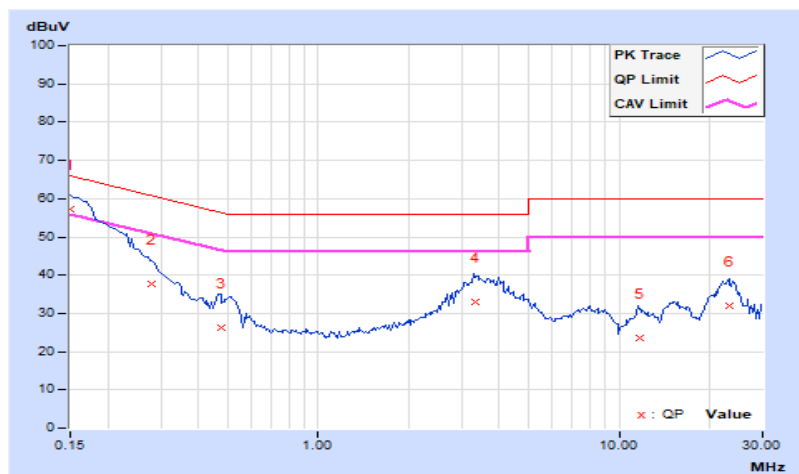
**For Mode 3**

<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
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Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15015	9.94	47.46	31.11	57.40	41.05	65.99	55.99	-8.59	-14.94
2	0.27853	9.94	27.73	8.68	37.67	18.62	60.86	50.86	-23.19	-32.24
3	0.47952	9.95	16.15	2.78	26.10	12.73	56.35	46.35	-30.25	-33.62
4	3.33471	10.10	22.82	16.35	32.92	26.45	56.00	46.00	-23.08	-19.55
5	11.68955	10.55	13.03	5.72	23.58	16.27	60.00	50.00	-36.42	-33.73
6	23.21711	11.09	20.96	15.73	32.05	26.82	60.00	50.00	-27.95	-23.18

**Remarks:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

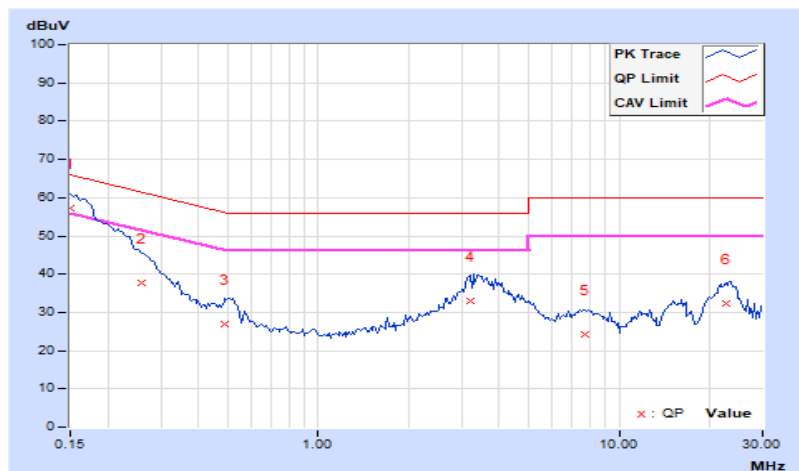


<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
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Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15094	9.99	47.28	29.55	57.27	39.54	65.95	55.95	-8.68	-16.41
2	0.25769	9.99	27.78	7.34	37.77	17.33	61.51	51.51	-23.74	-34.18
3	0.48951	10.00	17.06	3.71	27.06	13.71	56.18	46.18	-29.12	-32.47
4	3.21719	10.13	22.93	15.78	33.06	25.91	56.00	46.00	-22.94	-20.09
5	7.70159	10.34	13.84	8.82	24.18	19.16	60.00	50.00	-35.82	-30.84
6	22.59157	10.83	21.38	16.11	32.21	26.94	60.00	50.00	-27.79	-23.06

**Remarks:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



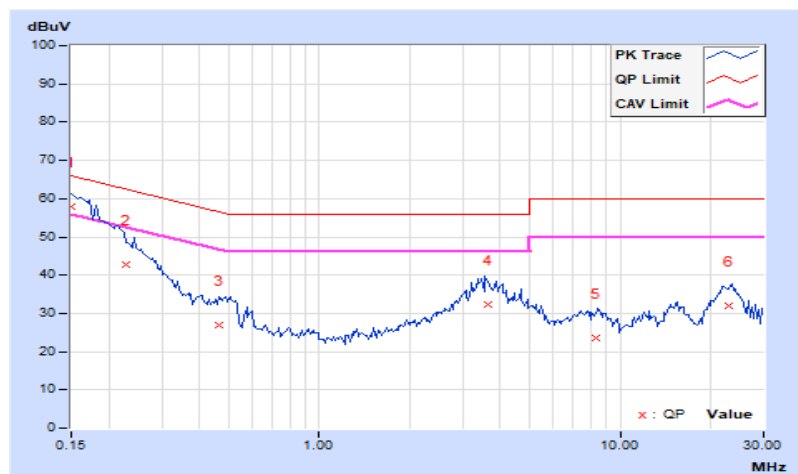
### For Mode 4

<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
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Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15095	9.94	47.99	31.34	57.93	41.28	65.95	55.95	-8.02	-14.67
2	0.22958	9.94	32.86	13.53	42.80	23.47	62.46	52.46	-19.66	-28.99
3	0.46715	9.95	16.85	3.17	26.80	13.12	56.56	46.56	-29.76	-33.44
4	3.65719	10.13	22.28	14.95	32.41	25.08	56.00	46.00	-23.59	-20.92
5	8.32171	10.37	13.18	10.86	23.55	21.23	60.00	50.00	-36.45	-28.77
6	23.01593	11.09	20.94	15.71	32.03	26.80	60.00	50.00	-27.97	-23.20

#### Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

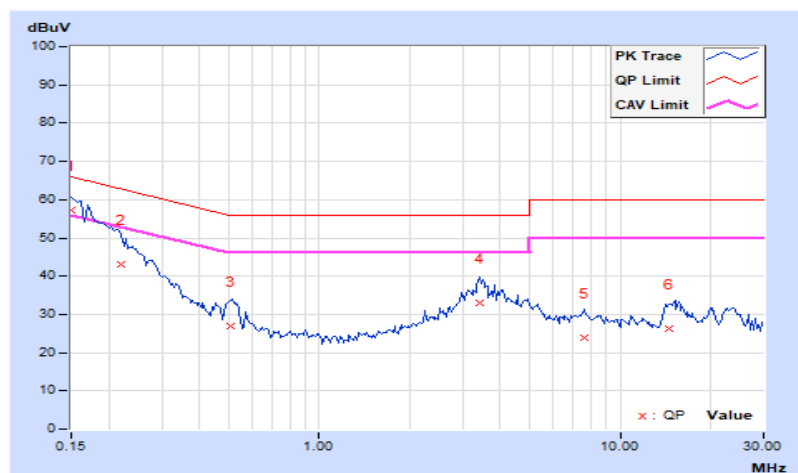


<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
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Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.99	47.35	30.82	57.34	40.81	66.00	56.00	-8.66	-15.19
2	0.22019	9.99	33.15	16.93	43.14	26.92	62.81	52.81	-19.67	-25.89
3	0.50916	10.01	16.88	2.37	26.89	12.38	56.00	46.00	-29.11	-33.62
4	3.39914	10.14	22.85	16.16	32.99	26.30	56.00	46.00	-23.01	-19.70
5	7.60171	10.34	13.48	8.17	23.82	18.51	60.00	50.00	-36.18	-31.49
6	14.62953	10.60	15.53	6.26	26.13	16.86	60.00	50.00	-33.87	-33.14

**Remarks:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



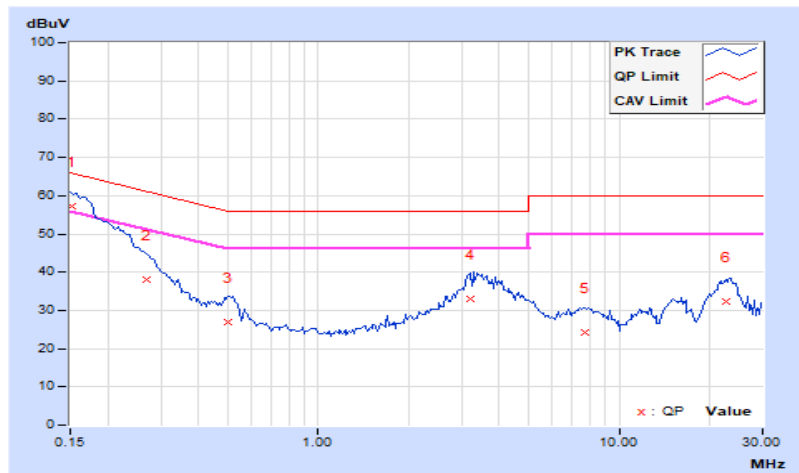
**For Mode 5**

<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
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Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15173	9.94	47.26	29.37	57.20	39.31	65.90	55.90	-8.70	-16.59
2	0.26977	9.94	28.13	7.54	38.07	17.48	61.13	51.13	-23.06	-33.65
3	0.49963	9.95	17.03	3.71	26.98	13.66	56.01	46.01	-29.03	-32.35
4	3.20155	10.09	22.92	15.73	33.01	25.82	56.00	46.00	-22.99	-20.18
5	7.67624	10.34	13.80	8.76	24.14	19.10	60.00	50.00	-35.86	-30.90
6	22.56473	11.07	21.35	15.99	32.42	27.06	60.00	50.00	-27.58	-22.94

**Remarks:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

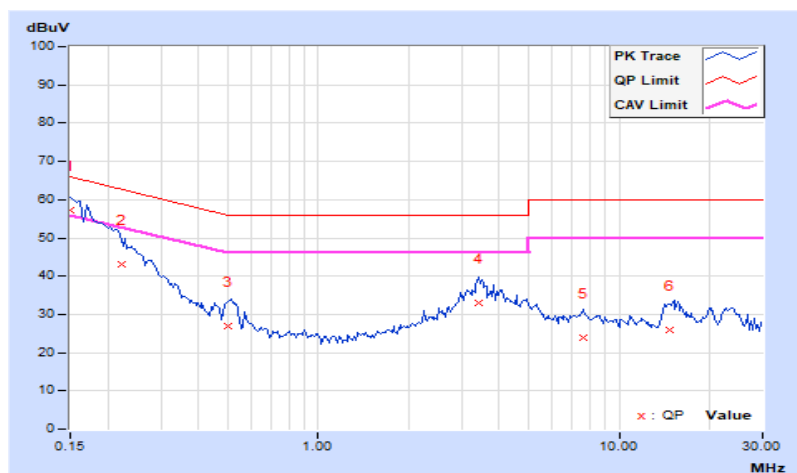


<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
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Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15076	9.99	47.35	30.82	57.34	40.81	65.96	55.96	-8.62	-15.15
2	0.22157	9.99	33.15	16.96	43.14	26.95	62.76	52.76	-19.62	-25.81
3	0.50015	10.01	16.76	2.24	26.77	12.25	56.00	46.00	-29.23	-33.75
4	3.39971	10.14	22.78	16.06	32.92	26.20	56.00	46.00	-23.08	-19.80
5	7.59151	10.34	13.46	8.28	23.80	18.62	60.00	50.00	-36.20	-31.38
6	14.63471	10.60	15.48	6.36	26.08	16.96	60.00	50.00	-33.92	-33.04

**Remarks:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



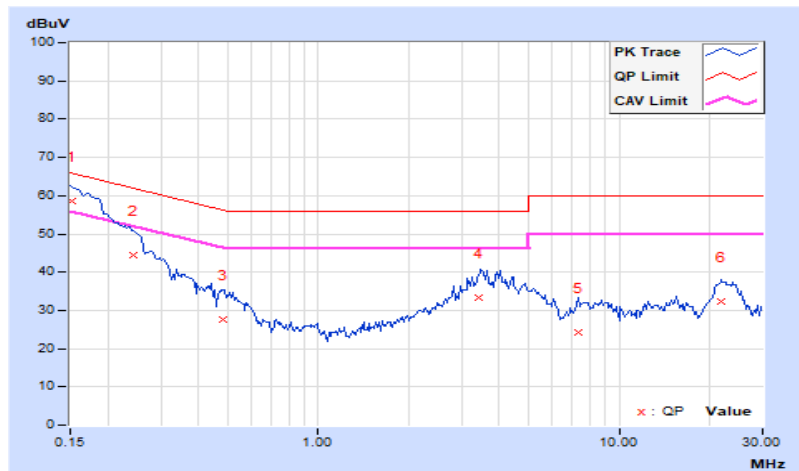
**For Mode 6**

<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
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Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15182	9.94	48.71	32.85	58.65	42.79	65.90	55.90	-7.25	-13.11
2	0.24157	9.94	34.34	15.01	44.28	24.95	62.04	52.04	-17.76	-27.09
3	0.48254	9.95	17.58	0.53	27.53	10.48	56.30	46.30	-28.77	-35.82
4	3.43715	10.11	23.26	16.38	33.37	26.49	56.00	46.00	-22.63	-19.51
5	7.30171	10.32	13.92	8.57	24.24	18.89	60.00	50.00	-35.76	-31.11
6	21.80155	11.04	21.37	16.21	32.41	27.25	60.00	50.00	-27.59	-22.75

**Remarks:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
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Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15151	9.99	47.37	31.07	57.36	41.06	65.92	55.92	-8.56	-14.86
2	0.24915	9.99	33.43	15.15	43.42	25.14	61.79	51.79	-18.37	-26.65
3	0.48992	10.00	16.53	2.43	26.53	12.43	56.17	46.17	-29.64	-33.74
4	3.60157	10.16	22.15	15.28	32.31	25.44	56.00	46.00	-23.69	-20.56
5	15.49971	10.63	15.52	7.13	26.15	17.76	60.00	50.00	-33.85	-32.24
6	23.88162	10.85	14.67	8.99	25.52	19.84	60.00	50.00	-34.48	-30.16

**Remarks:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value





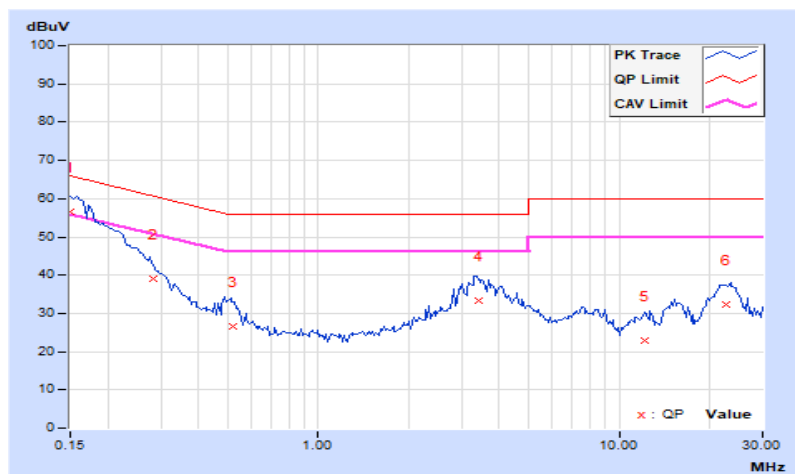
**For Mode 7**

<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
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Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15034	9.94	46.76	30.15	56.70	40.09	65.98	55.98	-9.28	-15.89
2	0.28315	9.94	29.26	9.76	39.20	19.70	60.72	50.72	-21.52	-31.02
3	0.52171	9.96	16.53	2.34	26.49	12.30	56.00	46.00	-29.51	-33.70
4	3.39471	10.11	23.28	16.63	33.39	26.74	56.00	46.00	-22.61	-19.26
5	12.17754	10.58	12.15	4.85	22.73	15.43	60.00	50.00	-37.27	-34.57
6	22.82158	11.08	21.34	16.26	32.42	27.34	60.00	50.00	-27.58	-22.66

**Remarks:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

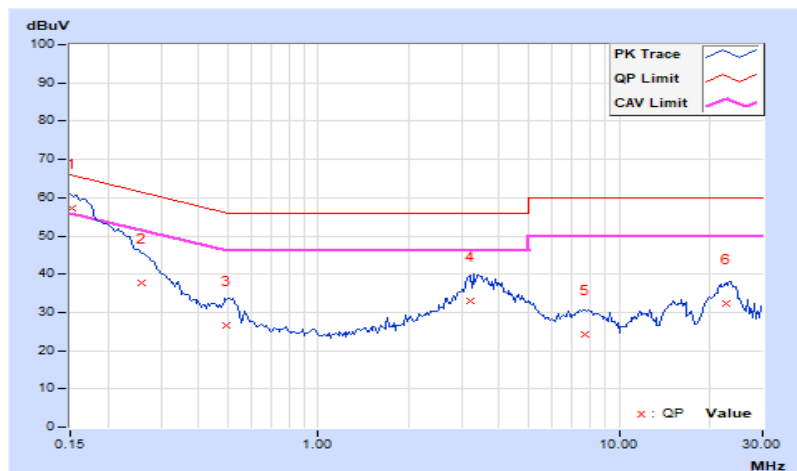


<b>Frequency Range</b>	150kHz ~ 30MHz	<b>Detector Function &amp; Resolution Bandwidth</b>	Quasi-Peak (QP) / Average (AV), 9 kHz
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Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15271	9.99	47.23	29.55	57.22	39.54	65.85	55.85	-8.63	-16.31
2	0.25796	9.99	27.74	7.38	37.73	17.37	61.50	51.50	-23.77	-34.13
3	0.49762	10.00	16.73	3.42	26.73	13.42	56.04	46.04	-29.31	-32.62
4	3.21916	10.13	22.93	15.75	33.06	25.88	56.00	46.00	-22.94	-20.12
5	7.66792	10.34	13.84	8.88	24.18	19.22	60.00	50.00	-35.82	-30.78
6	22.57625	10.83	21.35	16.15	32.18	26.98	60.00	50.00	-27.82	-23.02

**Remarks:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

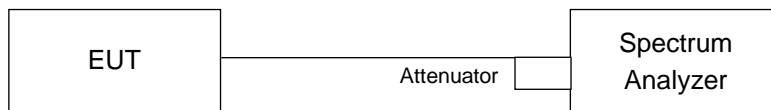


### 4.3 Conducted Out of Band Emission Measurement

#### 4.3.1 Limits of Conducted Out of Band Emission Measurement

Below 20 dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

#### 4.3.2 Test Setup



#### 4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

#### 4.3.4 Test Procedures

##### MEASUREMENT PROCEDURE REF

1. Set the RBW = 100 kHz.
2. Set the VBW  $\geq$  300 kHz.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

##### MEASUREMENT PROCEDURE OOBE

1. Set RBW = 100 kHz.
2. Set VBW  $\geq$  300 kHz.
3. Detector = peak.
4. Sweep = auto couple.
5. Trace Mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum amplitude level.

#### 4.3.5 Deviation from Test Standard

No deviation.

#### 4.3.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

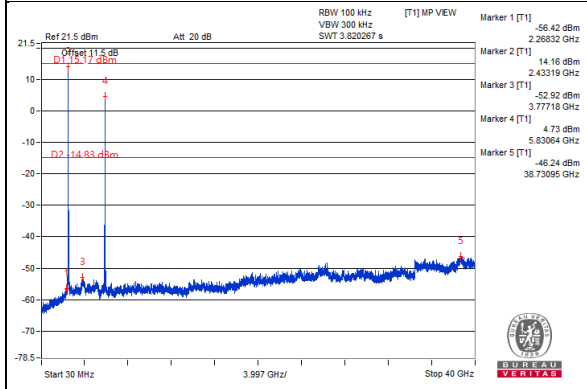
#### 4.3.7 Test Results

The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20 dB offset below D1. It shows compliance with the requirement.

### For Mode 1

2.4GHz: 802.11b\_CH6 + 5GHz: 802.11be (EHT20)\_CH165

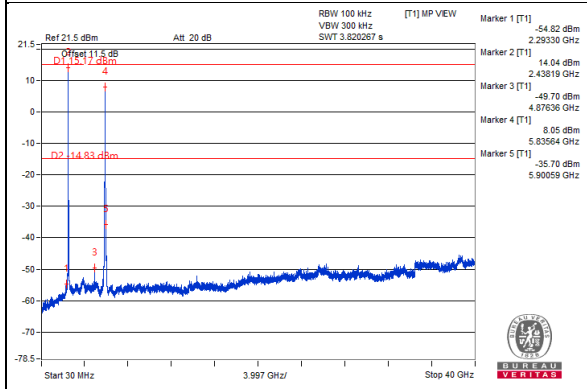
#### Chain0



### For Mode 2

2.4GHz: 802.11b\_CH6 + 5.9GHz: 802.11be (EHT40)\_CH167

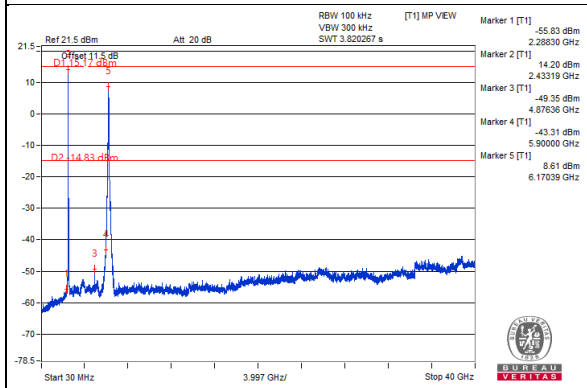
#### Chain0



### For Mode 3

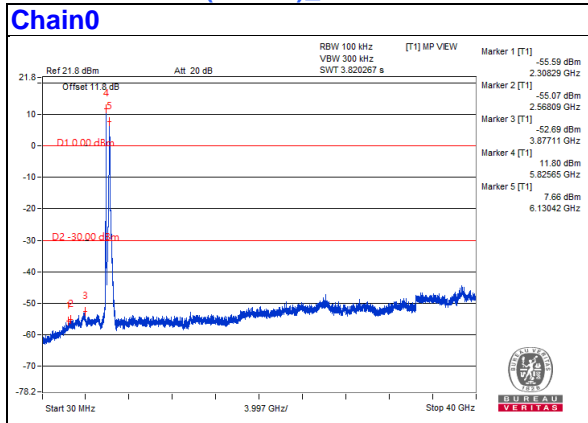
2.4GHz: 802.11b\_CH6 + 6GHz: 802.11be (EHT80)\_CH39

#### Chain0



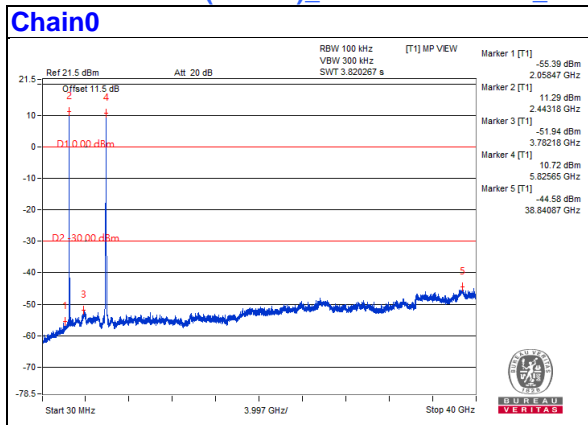
### For Mode 4

5GHz: 802.11be (EHT20)\_CH165 + 6GHz: 802.11be (EHT80)\_CH39



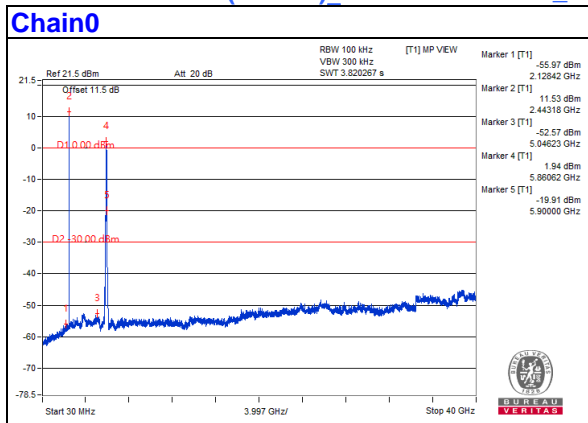
### For Mode 5

5GHz: 802.11be (EHT20)\_CH165 + BT-EDR\_CH39



### For Mode 6

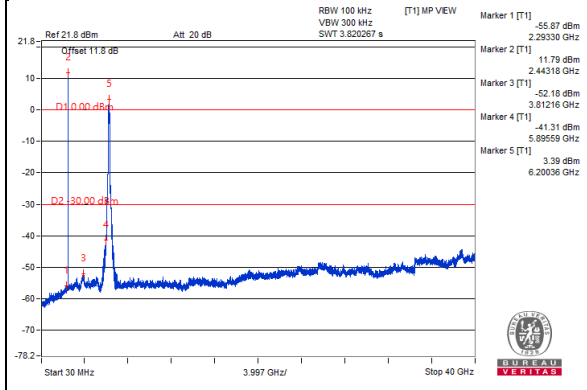
5.9GHz: 802.11be (EHT80)\_CH171 + BT-EDR\_CH39



**For Mode 7**

**6GHz: 802.11be (EHT160)\_CH47 + BT-EDR\_CH39**

**Chain0**



## 5 Pictures of Test Arrangements

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

## 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 according to ISO/IEC 17025.

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**Web Site:** [www.bureauveritas-adt.com](http://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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