TEST REPORT

CERTIFICATE OF CONFORMITY

Standards:	**47 CFR FCC Part 15, Subpart B, Class B** **ANSI C63.4:2014**
Report No.:	FCBWIN-WTW-P21040653
FCC ID:	J9C-QCNFA725
Model No.:	QCNFA725
Received Date:	Apr. 20, 2021
Test Date:	May 24 to 26, 2021
Issued Date:	June 29, 2021

Applicant :	Qualcomm Technologies, Inc.
Address:	5775 Morehouse Drive, San Diego, CA 92121-1714
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
Test Location (1):	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
Test Location (2):	No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan.
FCC Registration / Designation Number:	810758 / TW1085 for Test Location (1) 960022 / TW1058 for Test Location (2)

Approved by : _____ , **Date:** June 29, 2021

Ken Lu / Manager

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Prepared by : Cherry Chuo / Specialist

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Release Control Record

Issue No.	Description	Date Issued
FCBWIN-WTW-P21040653	Original release.	June 29, 2021

1 Certification

Product:	Wi-Fi 6E BT 5.2 M.2 1418 Module
Brand:	Qualcomm
Test Model:	QCNFA725
Sample Status:	Engineering sample
Applicant:	Qualcomm Technologies, Inc.
Test Date:	May 24 to 26, 2021
Standards:	47 CFR FCC Part 15, Subpart B, Class B ANSI C63.4:2014

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.

2 Summary of Test Results

FCC Part 15 Clause	Test Item	Result/Remarks	Verdict
15.107	Conducted Emissions from Power Ports	Minimum passing Class B margin is -18.21 dB at 13.64844 MHz	Pass
15.109	Radiated Emissions up to 1 GHz	Minimum passing Class B margin is -3.02 dB at 99.65 MHz	Pass
	Radiated Emissions above 1 GHz	Minimum passing Class B margin is -6.13 dB at 14614.94 MHz	Pass

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:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions from Power Ports	150kHz ~ 30MHz	1.8 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	4.1 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	4.5 dB
	6GHz ~ 18GHz	4.1 dB
	18GHz ~ 40GHz	4.7 dB

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

3 General Information

3.1 Description of EUT

Product	Wi-Fi 6E BT 5.2 M.2 1418 Module
Brand	Qualcomm
Test Model	QCNFA725
Sample Status	Engineering sample
Operating Software	NA
Power Supply Rating	3.3Vdc from host equipment
Accessory Device	NA
Data Cable Supplied	NA

3.2 Primary Clock Frequencies of Internal Source

The highest frequency generated or used within the EUT or on which the EUT operates or tunes is 7125 MHz, provided by Qualcomm Technologies, Inc., for detailed internal source, please refer to the manufacturer's specifications.

3.3 Features of EUT

The tests reported herein were performed according to the method specified by Qualcomm Technologies, Inc., for detailed feature description, please refer to the manufacturer's specifications or user's manual.

3.4 Operating Modes of EUT and Determination of Worst Case Operating Mode

For Radiated emission test, EUT has been pre-tested under following test modes, test mode A was the worst case for final test.

Test Condition		
Mode	Radiated emission test	
	Test conditon mode	Antenna mode
A	**Hotspot Mode WiFi 5G+ Client Mode 5G+BT**	**260-25094(Antenna A)**
B	Hotspot Mode WiFi 5G+ Client Mode 2.4G+BT	260-25094(Antenna A)
C	Hotspot Mode WiFi 2.4G+ Client Mode 5G+BT	260-25094(Antenna A)
D	Client WiFi 5G+BT	260-25094(Antenna A)
E	Client WiFi 2.4G+BT	260-25094(Antenna A)
F	Client WiFi 6G	260-25083(Antenna B)
G	Client WiFi 5G+BT	260-25084(Antenna C)
H	Client WiFi 2.4G+BT	260-25084(Antenna C)
I	Client WiFi 6G+BT	260-25084(Antenna C)
J	Hotspot Mode WiFi 5G+ Client Mode 2.4G+BT	260-25084(Antenna C)
K	Hotspot Mode WiFi 5G+ Client Mode 5G+BT	260-25084(Antenna C)
L	Hotspot Mode WiFi 5G+ Client Mode 6G+BT	260-25084(Antenna C)

NOTE: The test configurations are defined by the applicant requirement.

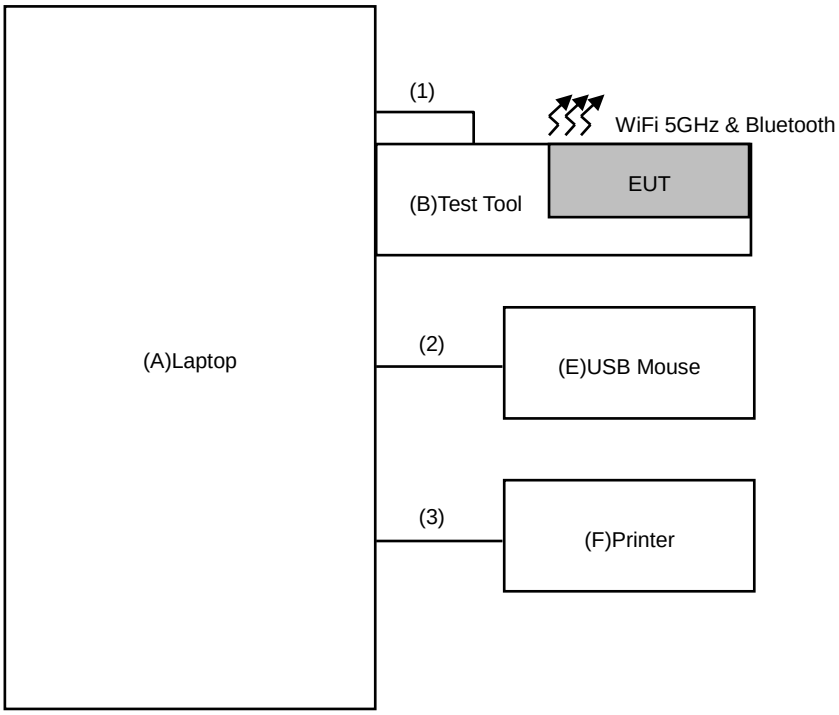
Test mode is presented in the report as below.

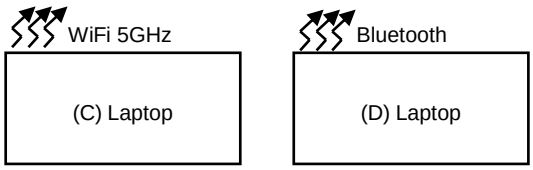
Test Condition		
Mode	Conducted / Radiated emission test	
	Test conditon mode	Antenna mode
1	Hotspot Mode WiFi 5G+ Client Mode 5G+BT	260-25094(Antenna A)

3.5 Test Program Used and Operation Descriptions

1 Turn on the power of all equipment.
2 Support unit A (Laptop) links with support unit D (Laptop) via EUT Bluetooth link.
3 Support unit A (Laptop) runs” EMC test.exe” then sends "H" messages to itself.

3.6 Connection Diagram of EUT and Peripheral Devices





3.7 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Laptop	Lenovo	80WG	YD01YRC9	NA	Provided by Lab
B	Test tool	NA	NA	NA	NA	Supplied by applicant
C	Laptop	ASUS	X413F	L3N0CX14V85713A	NA	Provided by Lab
D	Laptop	ASUS	X413F	L3N0CX14V790133	NA	Provided by Lab
E	USB Mouse	Logitech	M-U0026	810-002182_001	NA	Provided by Lab
F	Printer	EPSON	LQ-300+II	G88Y074085	DoC	Provided by Lab

Note:

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	USB Cable	1	1.5	Yes	0	Provided by Lab
2	USB Cable	1	1.8	Yes	0	Provided by Lab
3	USB Cable	1	1.8	Yes	0	Provided by Lab

4 Test Instruments

The calibration interval of the all test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.1 Conducted Emissions from Power Ports

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	100287	Apr. 28, 2021	Apr. 27, 2022
Line-Impedance Stabilization Network (for Peripheral) R&S	ENV 216	100072	June 13, 2020	June 12, 2021
Line-Impedance Stabilization Network (for EUT) SCHWARZBECK	NSLK-8127	8127-522	Sep. 08, 2020	Sep. 07, 2021
RF Cable	5D-FB	COACAB-001	Mar. 12, 2021	Mar. 11, 2022
10 dB PAD EMEC	STI02-2200-10	006	Aug. 28, 2020	Aug. 27, 2021
50 ohms Terminator	N/A	EMC-02	Sep. 16, 2020	Sep. 15, 2021
50 ohms Terminator	N/A	EMC-03	Sep. 30, 2020	Sep. 29, 2021
Software BVADT	BVADT_Cond_ V7.3.7.4	NA	NA	NA

Note:

1. The test was performed in HC - Conduction 3
2. The VCCI Shielded Room C Registration No. is C-13611.
3. Tested Date: May 24, 2021

4.2 Radiated Emissions up to 1 GHz

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY50010125	Apr. 09, 2021	Apr. 08, 2022
Pre-Amplifier Agilent	8449B	3008A01975	Feb. 18, 2021	Feb. 17, 2022
Horn Antenna SCHWARZBECK	BBHA 9120D	D123	Nov. 22, 2020	Nov. 21, 2021
RF Coaxial Cable EMCI	EMC104-SM-SM-11000	170209	Mar. 03, 2021	Mar. 02, 2022
RF Coaxial Cable EMCI	EMC104-SM-SM-6000	170207	Mar. 03, 2021	Mar. 02, 2022
RF Coaxial Cable EMCI	EMC104-SM-SM-2500	170206	Mar. 03, 2021	Mar. 02, 2022
Software BVADT	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table CT	NA	NA	NA	NA

Note:

1. The test was performed in HC - 10m Chamber 1
2. The VCCI Chamber F Registration No. is G-10136.
3. The 3dB beamwidth of the horn antenna is minimum 27 degree (or w = 1.44m at 3m distance) for 1~6 GHz.
4. Tested Date: May 26, 2021

4.3 Radiated Emissions above 1 GHz

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY50010125	Apr. 09, 2021	Apr. 08, 2022
Pre-Amplifier Agilent	8449B	3008A01975	Feb. 18, 2021	Feb. 17, 2022
Horn Antenna SCHWARZBECK	BBHA 9120D	D123	Nov. 22, 2020	Nov. 21, 2021
RF Coaxial Cable EMCI	EMC104-SM-SM-11000	170209	Mar. 03, 2021	Mar. 02, 2022
RF Coaxial Cable EMCI	EMC104-SM-SM-6000	170208	Mar. 03, 2021	Mar. 02, 2022
RF Coaxial Cable EMCI	EMC104-SM-SM-2500	170206	Mar. 03, 2021	Mar. 02, 2022
Spectrum Analyzer Agilent	E4446A	MY48250254	Nov. 20, 2020	Nov. 19, 2021
Pre-Amplifier SPACEK LABS	SLKKa-48-6	9K16	Aug. 26, 2020	Aug. 25, 2021
Horn Antenna SCHWARZBECK	BBHA 9170	9170-424	Nov. 22, 2020	Nov. 21, 2021
RF Cable SUHNER	SUCOFLEX 102	36432/2	Jan. 05, 2021	Jan. 04, 2022
RF Cable EMCI	EMC101G-KM-KM-4500	201263	Dec. 30, 2020	Dec. 29, 2021
Software BVADT	ADT_Radiated_ V8.7.08	NA	NA	NA
Antenna Tower & Turn Table CT	NA	NA	NA	NA
Fix tool for Boresight antenna tower	BAF-01	5	NA	NA

Note:

1. The test was performed in HC - 10m Chamber 1
2. Tested Date: May 26, 2021

5 Limits of Test Items

5.1 Conducted Emissions from Power Ports

Frequency (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.5 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

Notes: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases linearly with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

5.2 Radiated Emissions up to 1 GHz

Radiated Emissions Limits at 10 meters (dBµV/m)				
Frequencies (MHz)	FCC Part 15B, Class A	FCC Part 15B, Class B	CISPR 22, Class A	CISPR 22, Class B
30-88	39	29.5	40	30
88-216	43.5	33.1		
216-230	46.4	35.6		
230-960			47	37
960-1000	49.5	43.5		

Radiated Emissions Limits at 3 meters (dBµV/m)				
Frequencies (MHz)	FCC Part 15B, Class A	FCC Part 15B, Class B	CISPR 22, Class A	CISPR 22, Class B
30-88	49.5	40	50.5	40.5
88-216	54	43.5		
216-230	56.9	46		
230-960			57.5	47.5
960-1000	60	54		

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

5.3 Radiated Emissions above 1 GHz

Frequency Range (For unintentional radiators)

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705-108	1000
108-500	2000
500-1000	5000
Above 1000	5th harmonic of the highest frequency or 40GHz, whichever is lower

Radiated Emissions Limits at 3 meters (dBµV/m)		
Frequency range	Class A	Class B
Above 1GHz	Avg: 60 Peak: 80	Avg: 54 Peak: 74

Notes: 1. These limit levels apply for a measurement distance of 3 m. If using a different measurement distance, the measured levels shall be extrapolated to the 3 m limit distance using a factor of 20 dB per decade of distance. The measurement distance shall place the measurement antenna in the far field of the ITE or digital apparatus under test.

6 Test Arrangements

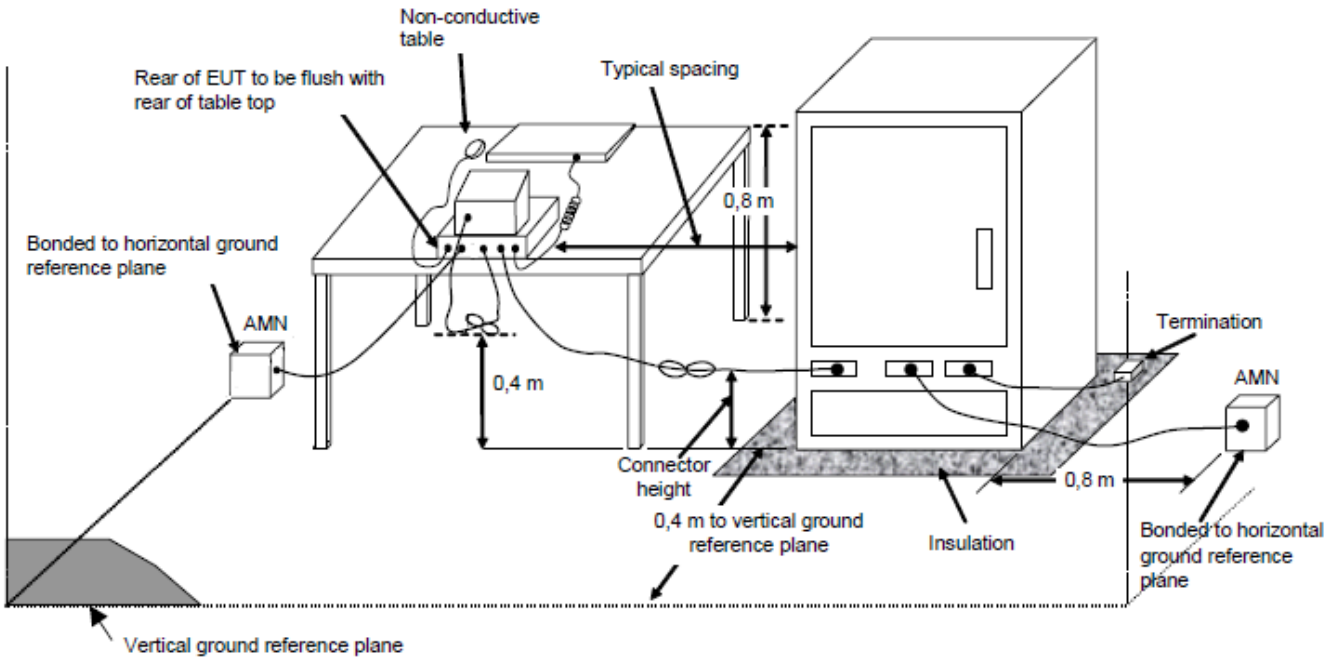
6.1 Conducted Emissions from Power Ports

a. For the table-top EUT is placed on a 0.8 meter to the top of rotating table; for the the floor standing EUT shall be insulated (by insulation of 12 mm) from the horizontal reference ground plane. The EUT is 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 are connected to the power mains through another LISN. They provide coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. The test results of conducted emissions at mains ports are recorded of six worst margins for quasi-peak (mandatory) [and average (if necessary)] values against the limits at frequencies of interest unless the margin is 20 dB or greater.

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.

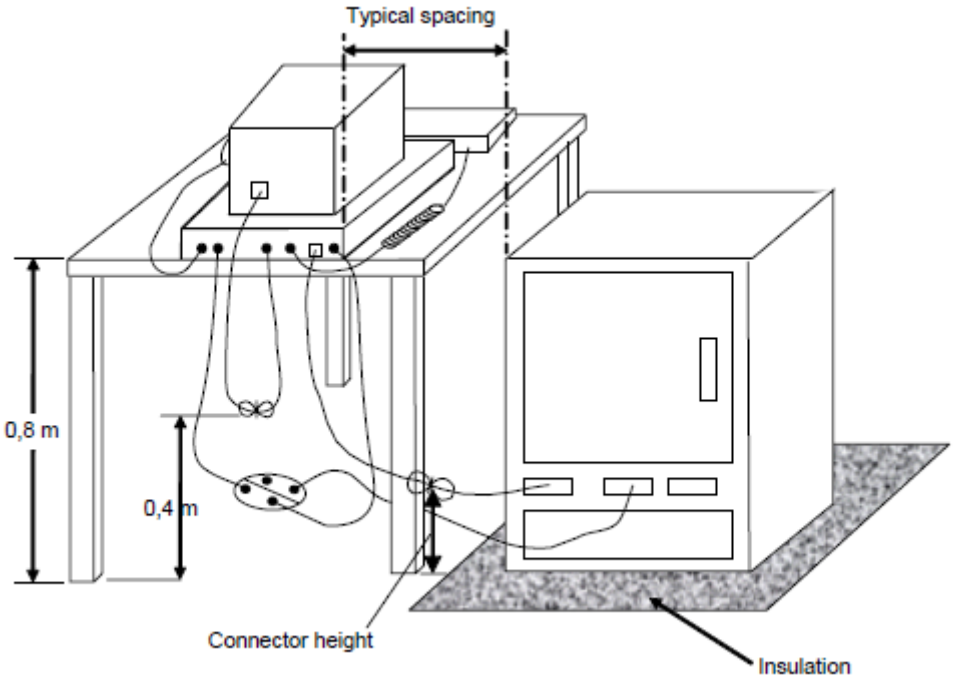


For the actual test configuration, please refer to the related Item – Photographs of the Test Configuration.

6.2 Radiated Emissions up to 1 GHz

a. For the table-top EUT is placed on a 0.8 meter to the top of rotating table; for the the floor standing EUT shall be insulated (by insulation of 12 mm) from the horizontal reference ground plane. The rotating table is rotated 360 degrees to determine the position of the highest radiation. If the equipment requires a dedicated ground connection, this shall be provided and bonded to the RGP.
b. The EUT was set 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is up to 1 GHz.

Note: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for quasi-peak detection (QP) at frequency up to 1GHz.

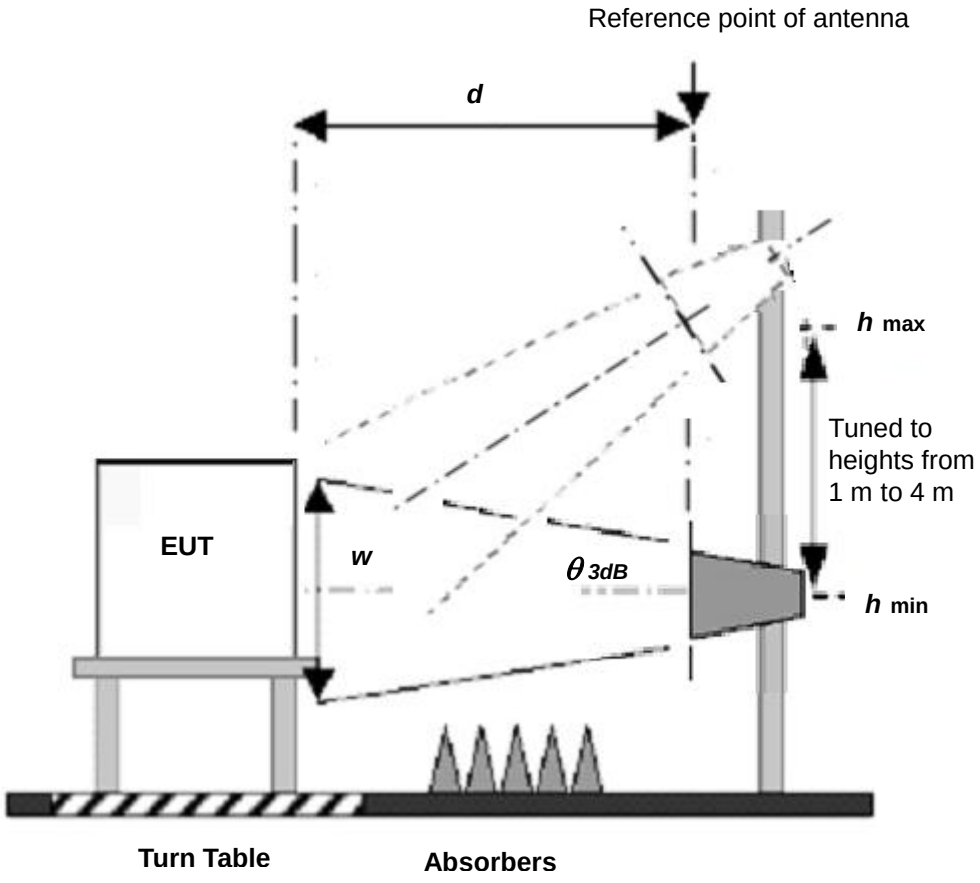


For the actual test configuration, please refer to the related Item – Photographs of the Test Configuration.

6.3 Radiated Emissions above 1 GHz

a. For the table-top EUT is placed on a 0.8 meter to the top of rotating table; for the the floor standing EUT shall be insulated (by insulation of 12 mm) from the horizontal reference ground plane. The rotating table is rotated 360 degrees to determine the position of the highest radiation. If the equipment requires a dedicated ground connection, this shall be provided and bonded to the RGP.
b. The EUT was set *d* = 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. The height of antenna can be varied from one meter to four meters, the height of adjustment depends on the EUT height and the antenna 3dB beamwidth both, to detect the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The spectrum analyzer system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.

Note: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection (PK) at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz for Average detection (AV) at frequency above 1GHz.



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

7 Test Results

7.1 Conducted Emissions from Power Ports

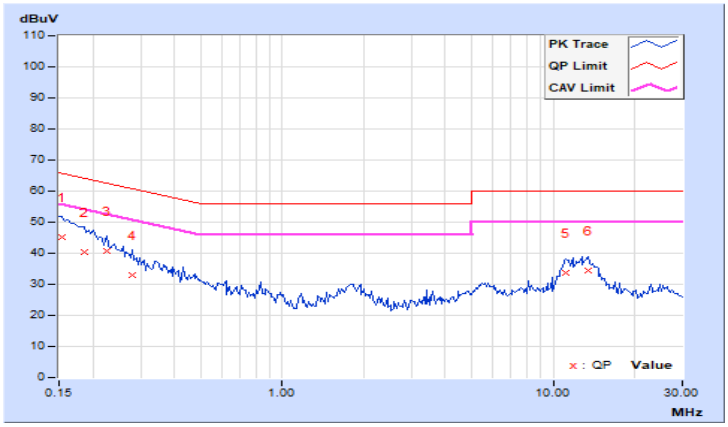
Mode 1

Frequency Range	150kHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power (System)	120Vac, 60Hz	**Environmental Conditions**	26℃, 72%RH
Tested by	Eagle Chen		

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	0.15391	10.01	35.15	13.23	45.16	23.24	65.79	55.79	-20.63	-32.55
2	0.18516	10.00	30.39	12.64	40.39	22.64	64.25	54.25	-23.86	-31.61
3	0.22422	10.00	30.67	14.60	40.67	24.60	62.66	52.66	-21.99	-28.06
4	0.27891	10.01	22.82	12.48	32.83	22.49	60.85	50.85	-28.02	-28.36
5	11.17969	10.55	23.28	18.76	33.83	29.31	60.00	50.00	-26.17	-20.69
6	13.54297	10.66	23.75	19.22	34.41	29.88	60.00	50.00	-25.59	-20.12

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

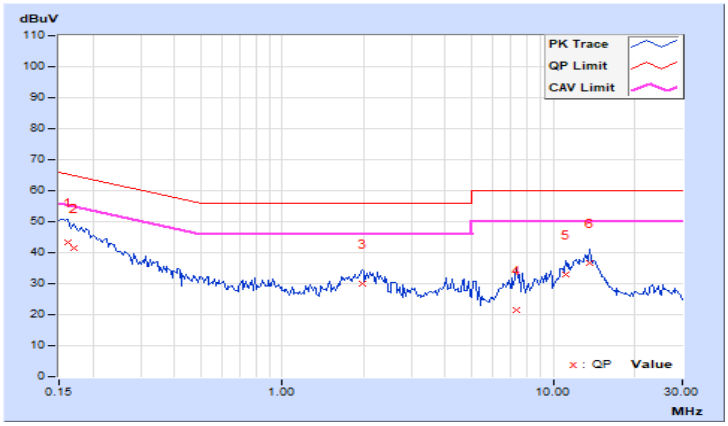


Frequency Range	150kHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power (System)	120Vac, 60Hz	**Environmental Conditions**	26℃, 72%RH
Tested by	Eagle Chen		

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	0.16172	10.03	33.20	11.53	43.23	21.56	65.38	55.38	-22.15	-33.82
2	0.16953	10.03	31.32	10.24	41.35	20.27	64.98	54.98	-23.63	-34.71
3	1.96875	10.17	19.83	16.33	30.00	26.50	56.00	46.00	-26.00	-19.50
4	7.35938	10.45	10.93	5.83	21.38	16.28	60.00	50.00	-38.62	-33.72
5	11.06641	10.61	22.33	18.28	32.94	28.89	60.00	50.00	-27.06	-21.11
6	**13.64844**	**10.72**	**25.85**	**21.07**	**36.57**	**31.79**	**60.00**	**50.00**	**-23.43**	**-18.21**

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



7.2 Radiated Emissions up to 1 GHz

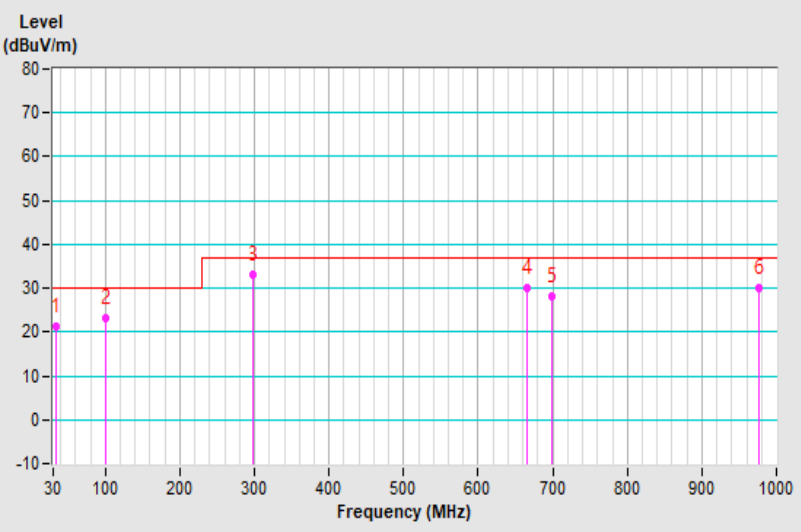
Mode 1

Frequency Range	30MHz ~ 1GHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP), 120kHz
Input Power	3.3Vdc from host equipment	**Environmental Conditions**	19℃, 63%RH
Tested By	Darren Lin		

Antenna Polarity & Test Distance : Horizontal at 10 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	33.27	21.29 QP	30.00	-8.71	1.00 H	69	35.21	-13.92
2	99.91	23.06 QP	30.00	-6.94	4.00 H	227	39.60	-16.54
3	298.79	33.06 QP	37.00	-3.94	2.11 H	45	43.80	-10.74
4	666.39	30.07 QP	37.00	-6.93	2.00 H	254	32.11	-2.04
5	699.71	28.19 QP	37.00	-8.81	4.00 H	201	29.71	-1.52
6	976.11	30.14 QP	37.00	-6.86	1.00 H	200	25.71	4.43

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value

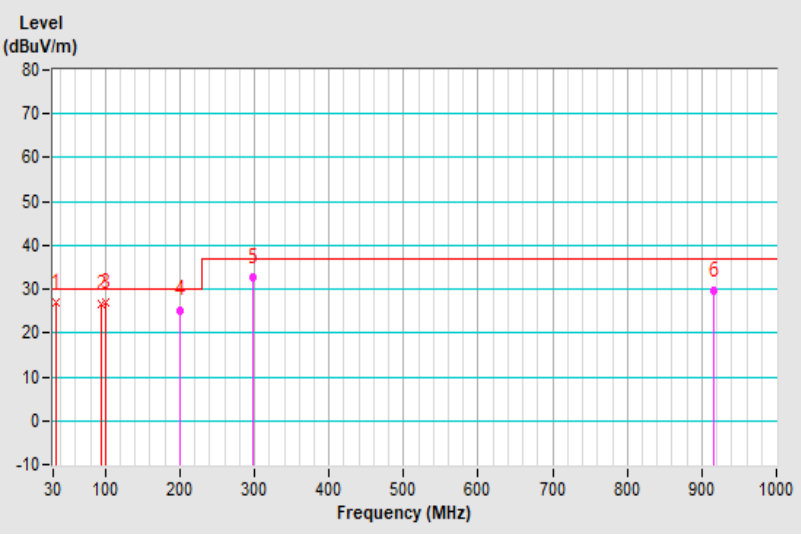


Frequency Range	30MHz ~ 1GHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP), 120kHz
Input Power	3.3Vdc from host equipment	**Environmental Conditions**	19℃, 63%RH
Tested By	Darren Lin		

Antenna Polarity & Test Distance : Vertical at 10 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	33.23	26.94 QP	30.00	-3.06	1.00 V	334	41.20	-14.26
2	93.80	26.43 QP	30.00	-3.57	1.00 V	8	44.33	-17.90
3	**99.65**	**26.98 QP**	**30.00**	**-3.02**	**2.11 V**	**77**	**43.78**	**-16.80**
4	199.19	25.27 QP	30.00	-4.73	1.00 V	161	40.59	-15.32
5	298.76	32.72 QP	37.00	-4.28	1.00 V	351	43.44	-10.72
6	915.42	29.78 QP	37.00	-7.22	4.00 V	356	25.93	3.85

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value



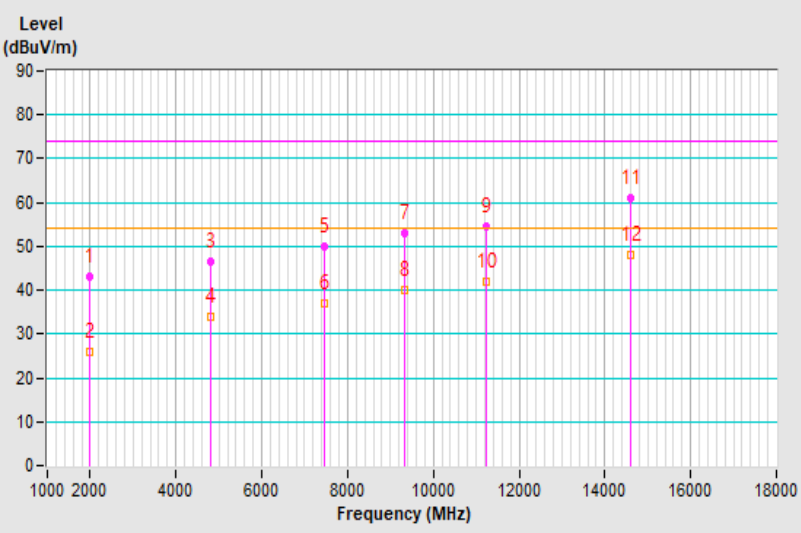
7.3 Radiated Emissions above 1 GHz

Frequency Range	1GHz ~ 18GHz	**Detector Function & Resolution Bandwidth**	Peak (PK) / Average (AV), 1MHz
Input Power	3.3Vdc from host equipment	**Environmental Conditions**	20℃, 60%RH
Tested By	Nick Lo		

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	1994.14	43.19 PK	74.00	-30.81	1.00 H	258	47.31	-4.12
2	1994.14	26.04 AV	54.00	-27.96	1.55 H	300	30.16	-4.12
3	4796.00	46.56 PK	74.00	-27.44	1.00 H	43	40.00	6.56
4	4796.00	33.99 AV	54.00	-20.01	3.11 H	164	27.43	6.56
5	7471.25	49.85 PK	74.00	-24.15	1.00 H	115	41.38	8.47
6	7471.25	36.92 AV	54.00	-17.08	2.51 H	21	28.45	8.47
7	9339.15	52.84 PK	74.00	-21.16	1.00 H	266	42.10	10.74
8	9339.15	40.01 AV	54.00	-13.99	1.81 H	119	29.27	10.74
9	11238.19	54.67 PK	74.00	-19.33	1.00 H	27	41.28	13.39
10	11238.19	42.03 AV	54.00	-11.97	1.57 H	266	28.64	13.39
11	14614.94	61.11 PK	74.00	-12.89	1.00 H	16	42.51	18.60
12	**14614.94**	**47.87 AV**	**54.00**	**-6.13**	**3.33 H**	**332**	**29.27**	**18.60**

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value

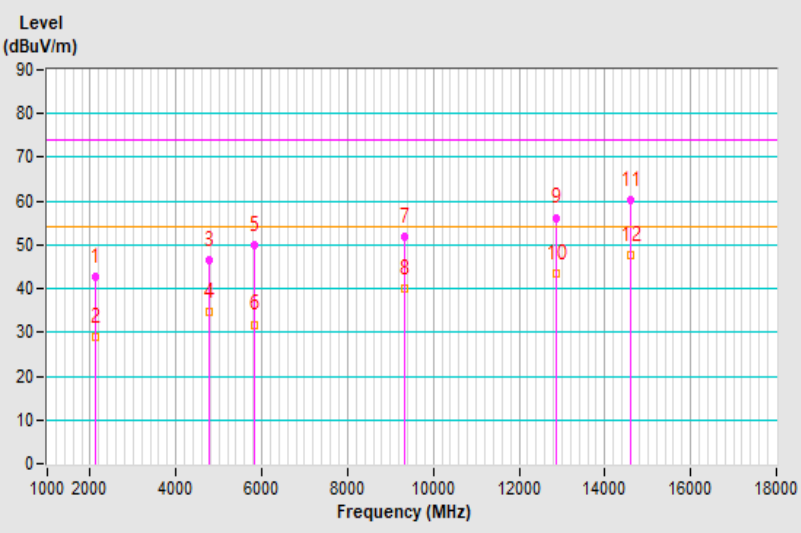


Frequency Range	1GHz ~ 18GHz	**Detector Function & Resolution Bandwidth**	Peak (PK) / Average (AV), 1MHz
Input Power	3.3Vdc from host equipment	**Environmental Conditions**	20℃, 60%RH
Tested By	Nick Lo		

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	2129.04	42.79 PK	74.00	-31.21	1.00 V	122	45.25	-2.46
2	2129.04	29.11 AV	54.00	-24.89	1.55 V	228	31.57	-2.46
3	4777.32	46.50 PK	74.00	-27.50	1.00 V	192	40.61	5.89
4	4777.32	34.65 AV	54.00	-19.35	2.00 V	0	28.76	5.89
5	5812.97	49.82 PK	74.00	-24.18	1.00 V	79	46.75	3.07
6	5812.97	31.82 AV	54.00	-22.18	2.54 V	102	28.75	3.07
7	9335.00	51.89 PK	74.00	-22.11	1.00 V	220	41.15	10.74
8	9335.00	39.92 AV	54.00	-14.08	1.09 V	125	29.18	10.74
9	12867.42	56.22 PK	74.00	-17.78	1.00 V	360	42.22	14.00
10	12867.42	43.55 AV	54.00	-10.45	1.00 V	360	29.55	14.00
11	14602.49	60.28 PK	74.00	-13.72	1.00 V	300	41.68	18.60
12	14602.49	47.55 AV	54.00	-6.45	2.00 V	0	28.95	18.60

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value

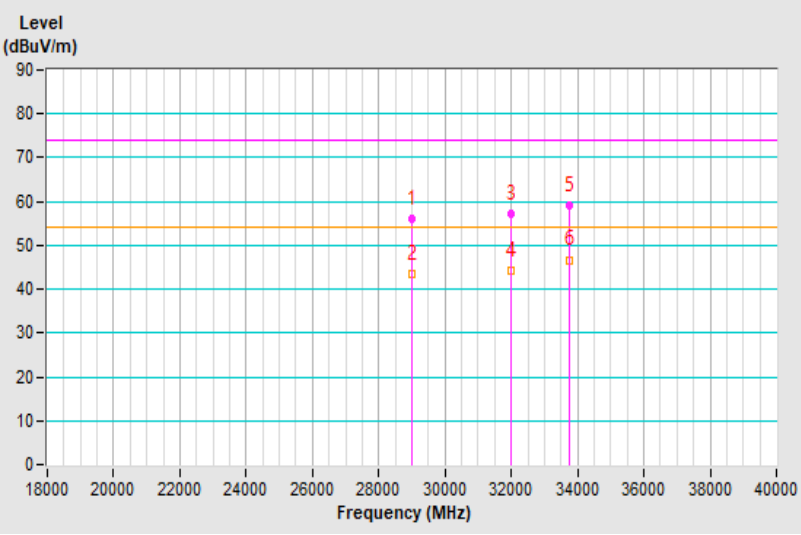


Frequency Range	18GHz ~ 36.625GHz	**Detector Function & Resolution Bandwidth**	Peak (PK) / Average (AV), 1MHz
Input Power	3.3Vdc from host equipment	**Environmental Conditions**	20℃, 60%RH
Tested By	Nick Lo		

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	29020.14	56.19 PK	74.00	-17.81	1.00 H	256	56.14	0.05
2	29020.14	43.37 AV	54.00	-10.63	2.00 H	102	43.32	0.05
3	31977.29	57.18 PK	74.00	-16.82	2.00 H	137	53.71	3.47
4	31977.29	44.17 AV	54.00	-9.83	2.00 H	80	40.70	3.47
5	33747.28	59.25 PK	74.00	-14.75	1.50 H	156	52.32	6.93
6	33747.28	46.69 AV	54.00	-7.31	2.00 H	360	39.76	6.93

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value

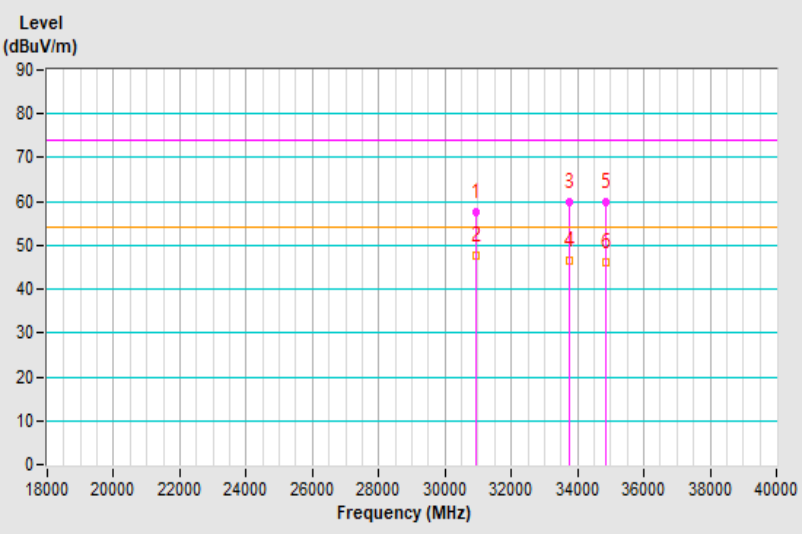


Frequency Range	18GHz ~ 36.625GHz	**Detector Function & Resolution Bandwidth**	Peak (PK) / Average (AV), 1MHz
Input Power	3.3Vdc from host equipment	**Environmental Conditions**	20℃, 60%RH
Tested By	Nick Lo		

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	30935.17	57.47 PK	74.00	-16.53	1.50 V	57	55.58	1.89
2	30935.17	47.55 AV	54.00	-6.45	1.50 V	0	45.66	1.89
3	33741.91	59.87 PK	74.00	-14.13	1.50 V	355	53.05	6.82
4	33741.91	46.58 AV	54.00	-7.42	1.50 V	146	39.76	6.82
5	34856.55	59.87 PK	74.00	-14.13	2.00 V	135	54.56	5.31
6	34856.55	45.96 AV	54.00	-8.04	2.00 V	360	40.65	5.31

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value



8 Pictures of Test Arrangements

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

9 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 accredited and approved according to ISO/IEC 17025.

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

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

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

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

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

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

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