FCC Test Report (Z-Wave)

Report No.:	RF180625E05-2
FCC ID:	2ABTEG1500
Test Model:	Fios-G1500
Received Date:	July 20, 2018
Test Date:	Aug. 23, 2018
Issued Date:	Sep. 12, 2018
Applicant:	Verizon Online LLC
Address:	1300 I Street NW, Room 400W, Washington, District of Columbia, 20005 United State
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 R.O.C.
Test Location:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
FCC Registration / Designation Number:	723255 / TW2022

Testing Laboratory
2022

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Release Control Record

Issue No.	Description	Date Issued
RF180625E05-2	Original release.	Sep. 12, 2018

1 Certificate of Conformity

Product:	Fios-G1500
Brand:	Verizon
Test Model:	Fios-G1500
Sample Status:	ENGINEERING SAMPLE
Applicant:	Verizon Online LLC
Test Date:	Aug. 23, 2018
Standards:	47 CFR FCC Part 15, Subpart C (Section 15.249) 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 : Phoenix Huang , **Date:** Sep. 12, 2018

Phoenix Huang / Specialist

Approved by : , **Date:** Sep. 12, 2018

May Chen / Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.249)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -3.35dB at 0.35703MHz.
15.209 15.249 15.249 (d)	Radiated Emission Test Band Edge Measurement Limit: 50dB less than the peak value of fundamental frequency or meet radiated emission limit in section 15.209	PASS	Meet the requirement of limit. Minimum passing margin is -0.1dB at 908.40MHz.
15.203	Antenna Requirement	PASS	No antenna connector is used.

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) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.84 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.53 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	5.08 dB
	6GHz ~ 18GHz	4.98 dB
	18GHz ~ 40GHz	5.19 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT (Z-Wave)

Product	Fios-G1500
Brand	Verizon
Test Model	Fios-G1500
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	12Vdc from adapter
Modulation Type	FSK
Transfer Rate	9.6/40/100 kbit/s
Operating Frequency	908.4 ~ 916MHz
Number of Channel	3
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter x 1
Data Cable Supplied	NA

Note:

1. There are WLAN and Z-Wave technology used for the EUT. The EUT has below radios as following table:

Radio 1	Radio 2	Radio 3
WLAN (2.4GHz)	WLAN (5GHz)	Z-Wave

2. Simultaneously transmission condition.

Condition	Technology		
1	WLAN 2.4GHz	WLAN 5GHz	Z-Wave
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.			

3. The USB port of the EUT, it can't connect a WiFi/WWAN dongle and transmit simultaneously.

4. The EUT must be supplied with a power adapter as following table:

No.	Brand	Model No.	Spec.
1	Ktec	KSA20C1200300HU	Input: 100-240Vac, 1A, 50-60Hz Output: 12V, 3A DC output cable: Unshielded, 1.5m
2	LEI	MU36-D120300-A1	Input: 100-240Vac, 1.5A, 50-60Hz Output: 12V, 3A DC output cable: Unshielded, 1.5m
Note: From the above adapters, the radiated emissions worse case was found in **Adapter No. 2**. Therefore only the test data of the mode was recorded in this report.			

5. The antennas provided to the EUT, please refer to the following table:

WLAN Directional gain table			
Frequency range (GHz)	Directional Antenna Gain (dBi)	Antenna Type	Antenna Connector
2.4 ~ 2.4835	2.94	Dipole	i-pex(MHF)
5.15 ~ 5.25	3.56		
5.25 ~ 5.35	3.56		
5.47 ~ 5.725	3.56		
5.725 ~ 5.85	3.56		
Z-Wave antenna spec.			
Antenna Net Gain (dBi)	Frequency range (MHz)	Antenna Type	Antenna Connector
1.73	902~928	Dipole	None
Note: More detailed information, please refer to operating description.			

6. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 Description of Test Modes

3 channels are provided to this EUT:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	908.42 (9.6kbit/s)	3	916 (100kbit/s)
2	908.4 (40kbit/s)		

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT CONFIGURE MODE	APPLICABLE TO			DESCRIPTION
	RE≥1G	RE<1G	PLC	
1	√	√	√	Adapter No. 2
2	-	-	√	Adapter No. 1

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

PLC: Power Line Conducted Emission

Note: "-"means no effect.

Radiated Emission Test (Above 1GHz):

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

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

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE
1 to 3	1, 2, 3	FSK

Radiated Emission Test (Below 1GHz):

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

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

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE
1 to 3	1, 2, 3	FSK

Power Line Conducted Emission Test:

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

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

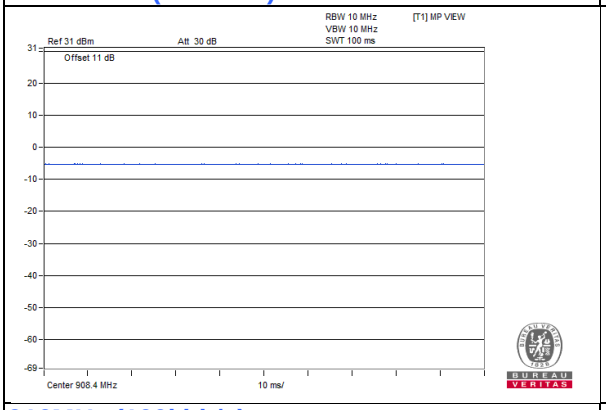
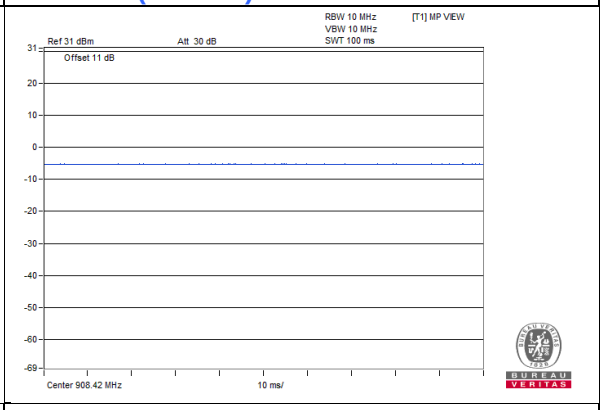
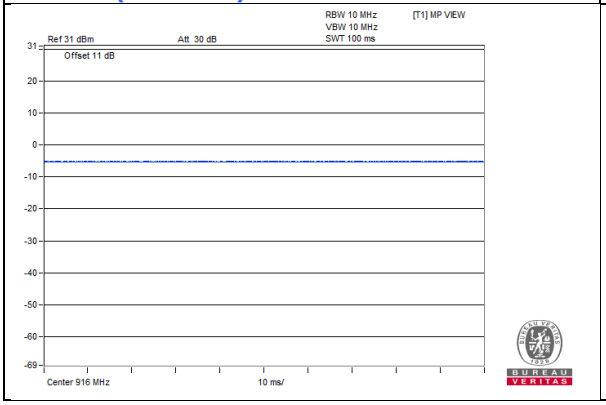
AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TYPE
1 to 3	2	FSK

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	23deg. C, 64%RH	120Vac, 60Hz	Eason Tseng
RE<1G	23deg. C, 62%RH	120Vac, 60Hz	Eason Tseng
PLC	25deg. C, 75%RH	120Vac, 60Hz	Frank Chuang

3.3 Duty Cycle of Test Signal

Duty cycle of test signal is 100 %, duty factor is not required.

908.42MHz (9.6kbit/s)	908.4MHz (40kbit/s)
	
916MHz (100kbit/s)	
	

3.4 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.

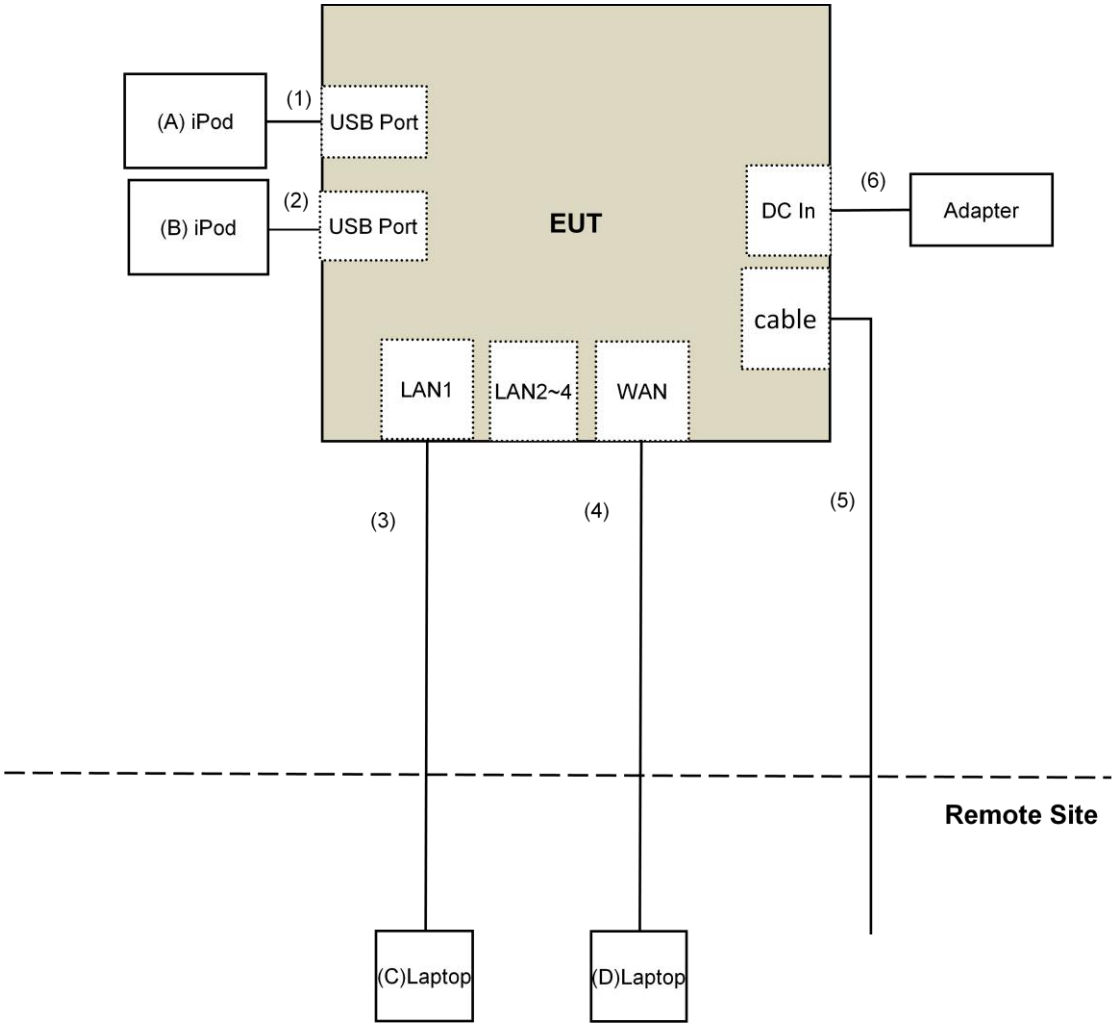
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	iPod	Apple	MC749TA/A	CC4DMFKUDFDM	NA	Provided by Lab
B.	iPod	Apple	MD778TA/A	CC4JMH7LF4T1	NA	Provided by Lab
C.	Laptop	DELL	E5430	HYV4VY1	FCC DoC	Provided by Lab
D.	Laptop	DELL	E6420	B92T3R1	FCC DoC	Provided by Lab

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	0.1	Yes	0	Provided by Lab
2.	USB Cable	1	0.1	Yes	0	Provided by Lab
3.	RJ-45 Cable	1	10	No	0	Provided by Lab
4.	RJ-45 Cable	1	10	No	0	Provided by Lab
5.	Coaxial Cable	1	10	Yes	0	Provided by Lab
6.	DC Cable	1	1.5	No	0	Supplied by client

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards

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

FCC Part 15, Subpart C (15.249)
ANSI C63.10-2013

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

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

The field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following

Fundamental Frequency	Field Strength of Fundamental (millivolts/meter)	Field Strength of Harmonics (microvolts/meter)
902 ~ 928 MHz	50	500
2400 ~ 2483.5 MHz	50	500
5725 ~ 5875 MHz	50	500
24 ~ 24.25 GHz	250	2500

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits as below table, whichever is the lesser attenuation

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.

4.1.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY50010156	July 12, 2018	July 11, 2019
Pre-Amplifier EMCI	EMC001340	980142	Feb. 09, 2018	Feb. 08, 2019
Loop Antenna(*) Electro-Metrics	EM-6879	264	Dec. 16, 2016	Dec. 15, 2018
RF Cable	NA	LOOPCAB-001	Jan. 15, 2018	Jan. 14, 2019
RF Cable	NA	LOOPCAB-002	Jan. 15, 2018	Jan. 14, 2019
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-05	May 05, 2018	May 04, 2019
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Nov. 29, 2017	Nov. 28, 2018
RF Cable	8D	966-3-1	Mar. 20, 2018	Mar. 19, 2019
RF Cable	8D	966-3-2	Mar. 20, 2018	Mar. 19, 2019
RF Cable	8D	966-3-3	Mar. 20, 2018	Mar. 19, 2019
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	Oct. 03, 2017	Oct. 02, 2018
Horn_Antenna SCHWARZBECK	BBHA9120-D	9120D-406	Dec. 12, 2017	Dec. 11, 2018
Pre-Amplifier EMCI	EMC12630SE	980384	Jan. 29, 2018	Jan. 28, 2019
RF Cable	EMC104-SM-SM-1200	160922	Jan. 29, 2018	Jan. 28, 2019
RF Cable	EMC104-SM-SM-2000	150317	Jan. 29, 2018	Jan. 28, 2019
RF Cable	EMC104-SM-SM-5000	150322	Jan. 29, 2018	Jan. 28, 2019
Spectrum Analyzer Keysight	N9030A	MY54490679	July 23, 2018	July 22, 2019
Pre-Amplifier EMCI	EMC184045SE	980386	Jan. 29, 2018	Jan. 28, 2019
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170608	Dec. 14, 2017	Dec. 13, 2018
RF Cable	EMC102-KM-KM-1200	160924	Jan. 29, 2018	Jan. 28, 2019
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. *The calibration interval of the above test instruments is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in 966 Chamber No. 3.
4. The CANADA Site Registration No. is 20331-1
5. Loop antenna was used for all emissions below 30 MHz.
6. Tested Date: Aug. 23, 2018

4.1.3 Test Procedures

For Radiated emission below 30MHz

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

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

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

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

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

NOTE:

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

For Radiated emission above 30MHz

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

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

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

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

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

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

Note:

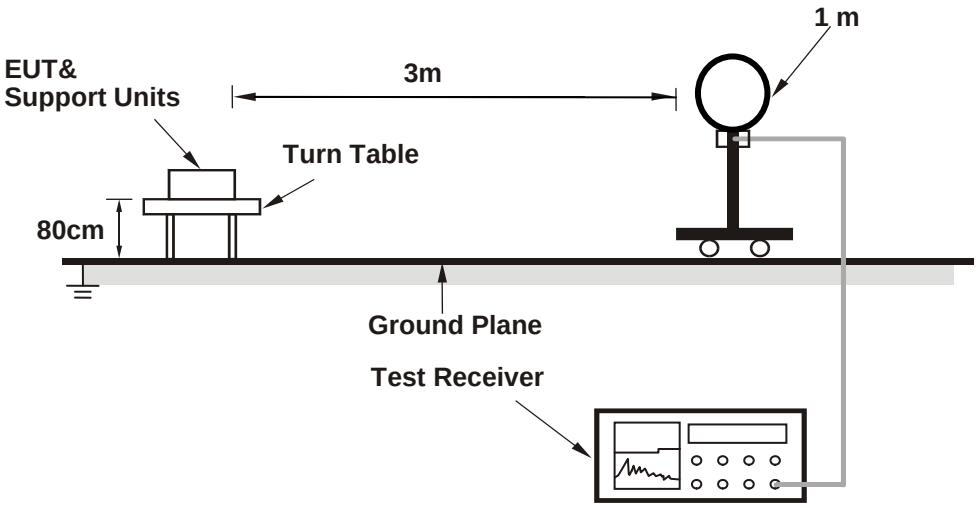
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

4.1.4 Deviation from Test Standard

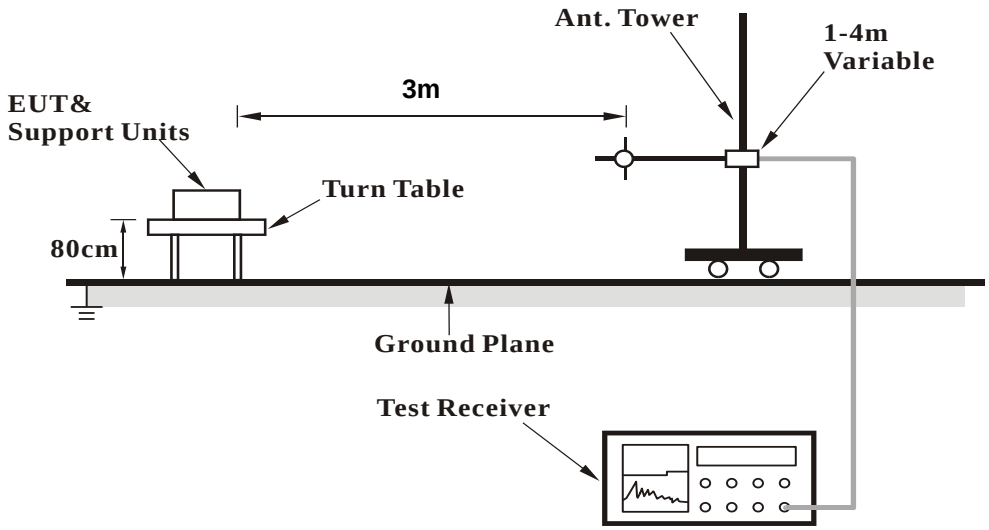
No deviation.

4.1.5 Test Setup

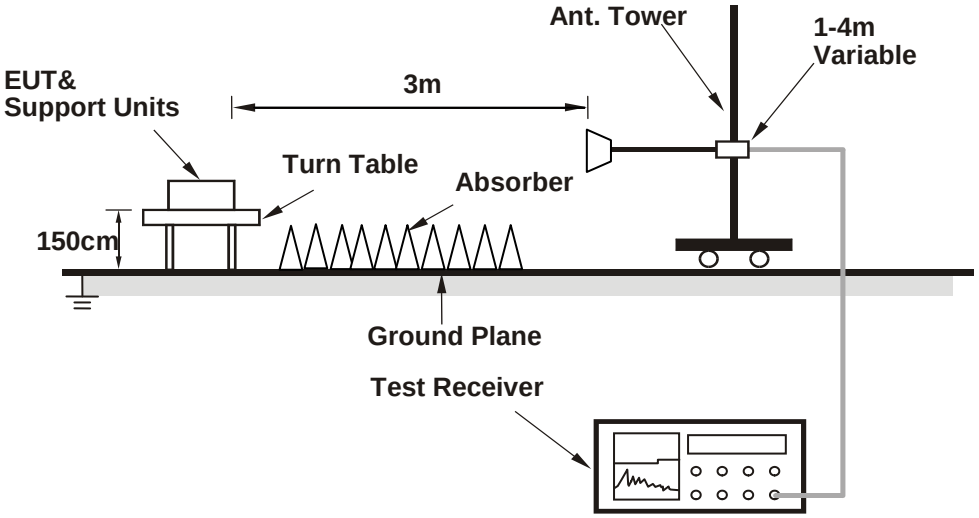
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Conditions

a. Connected the EUT with the Laptop which is placed on remote site.
b. Controlling software (Telnet paste command) has been activated to set the EUT on specific status.

4.1.7 Test Results

Above 1GHz Data：

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 10GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1816.84	44.3 PK	74.0	-29.7	2.14 H	175	49.7	-5.4
2	1816.84	31.0 AV	54.0	-23.0	2.14 H	175	36.4	-5.4
3	2725.26	44.1 PK	74.0	-29.9	1.95 H	165	46.0	-1.9
4	2725.26	30.5 AV	54.0	-23.5	1.95 H	165	32.4	-1.9
5	3633.68	44.7 PK	74.0	-29.3	1.87 H	191	45.4	-0.7
6	3633.68	33.0 AV	54.0	-21.0	1.87 H	191	33.7	-0.7
7	4542.10	52.2 PK	74.0	-21.8	1.62 H	237	51.2	1.0
8	4542.10	39.4 AV	54.0	-14.6	1.62 H	237	38.4	1.0
9	5450.52	53.7 PK	74.0	-20.3	1.72 H	207	51.0	2.7
10	5450.52	43.7 AV	54.0	-10.3	1.72 H	207	41.0	2.7
11	6358.94	56.0 PK	74.0	-18.0	1.90 H	178	51.3	4.7
12	6358.94	45.1 AV	54.0	-8.9	1.90 H	178	40.4	4.7
13	7267.36	54.6 PK	74.0	-19.4	1.20 H	146	46.8	7.8
14	7267.36	43.4 AV	54.0	-10.6	1.20 H	146	35.6	7.8
15	8175.78	57.4 PK	74.0	-16.6	1.46 H	154	49.0	8.4
16	8175.78	45.1 AV	54.0	-8.9	1.46 H	154	36.7	8.4
17	9084.20	44.4 PK	74.0	-29.6	1.76 H	213	34.9	9.5
18	9084.20	42.3 AV	54.0	-11.7	1.76 H	213	32.8	9.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1816.84	45.6 PK	74.0	-28.4	1.35 V	242	51.0	-5.4
2	1816.84	32.6 AV	54.0	-21.4	1.35 V	242	38.0	-5.4
3	2725.26	44.4 PK	74.0	-29.6	1.19 V	209	46.3	-1.9
4	2725.26	31.3 AV	54.0	-22.7	1.19 V	209	33.2	-1.9
5	3633.68	45.9 PK	74.0	-28.1	1.33 V	318	46.6	-0.7
6	3633.68	34.0 AV	54.0	-20.0	1.33 V	318	34.7	-0.7
7	4542.10	52.4 PK	74.0	-21.6	1.19 V	262	51.4	1.0
8	4542.10	41.6 AV	54.0	-12.4	1.19 V	262	40.6	1.0
9	5450.52	55.0 PK	74.0	-19.0	1.53 V	260	52.3	2.7
10	5450.52	41.6 AV	54.0	-12.4	1.53 V	260	38.9	2.7
11	6358.94	55.7 PK	74.0	-18.3	1.59 V	253	51.0	4.7
12	6358.94	42.5 AV	54.0	-11.5	1.59 V	253	37.8	4.7
13	7267.36	52.6 PK	74.0	-21.4	1.81 V	69	44.8	7.8
14	7267.36	40.7 AV	54.0	-13.3	1.81 V	69	32.9	7.8
15	8175.78	56.8 PK	74.0	-17.2	2.07 V	132	48.4	8.4
16	8175.78	43.7 AV	54.0	-10.3	2.07 V	132	35.3	8.4
17	9084.20	48.1 PK	74.0	-25.9	2.34 V	194	38.6	9.5
18	9084.20	46.4 AV	54.0	-7.6	2.34 V	194	36.9	9.5

REMARKS:

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

CHANNEL	TX Channel 2	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 10GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1816.80	44.5 PK	74.0	-29.5	2.08 H	168	49.9	-5.4
2	1816.80	31.2 AV	54.0	-22.8	2.08 H	168	36.6	-5.4
3	2725.20	43.6 PK	74.0	-30.4	1.94 H	163	45.5	-1.9
4	2725.20	30.2 AV	54.0	-23.8	1.94 H	163	32.1	-1.9
5	3633.60	45.1 PK	74.0	-28.9	1.91 H	199	45.8	-0.7
6	3633.60	33.1 AV	54.0	-20.9	1.91 H	199	33.8	-0.7
7	4542.00	52.6 PK	74.0	-21.4	1.63 H	231	51.6	1.0
8	4542.00	39.7 AV	54.0	-14.3	1.63 H	231	38.7	1.0
9	5450.40	54.1 PK	74.0	-19.9	1.73 H	216	51.4	2.7
10	5450.40	44.0 AV	54.0	-10.0	1.73 H	216	41.3	2.7
11	6358.80	55.8 PK	74.0	-18.2	1.88 H	189	51.1	4.7
12	6358.80	45.0 AV	54.0	-9.0	1.88 H	189	40.3	4.7
13	7267.20	54.4 PK	74.0	-19.6	1.24 H	147	46.6	7.8
14	7267.20	43.3 AV	54.0	-10.7	1.24 H	147	35.5	7.8
15	8175.60	57.1 PK	74.0	-16.9	1.45 H	142	48.7	8.4
16	8175.60	44.9 AV	54.0	-9.1	1.45 H	142	36.5	8.4
17	9084.00	44.2 PK	74.0	-29.8	1.77 H	205	34.7	9.5
18	9084.00	42.4 AV	54.0	-11.6	1.77 H	205	32.9	9.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1816.80	45.9 PK	74.0	-28.1	1.35 V	227	51.3	-5.4
2	1816.80	32.6 AV	54.0	-21.4	1.35 V	227	38.0	-5.4
3	2725.20	43.9 PK	74.0	-30.1	1.25 V	209	45.8	-1.9
4	2725.20	30.8 AV	54.0	-23.2	1.25 V	209	32.7	-1.9
5	3633.60	46.0 PK	74.0	-28.0	1.31 V	309	46.7	-0.7
6	3633.60	34.2 AV	54.0	-19.8	1.31 V	309	34.9	-0.7
7	4542.00	52.3 PK	74.0	-21.7	1.18 V	275	51.3	1.0
8	4542.00	41.7 AV	54.0	-12.3	1.18 V	275	40.7	1.0
9	5450.40	55.1 PK	74.0	-18.9	1.51 V	265	52.4	2.7
10	5450.40	41.9 AV	54.0	-12.1	1.51 V	265	39.2	2.7
11	6358.80	55.6 PK	74.0	-18.4	1.56 V	263	50.9	4.7
12	6358.80	42.2 AV	54.0	-11.8	1.56 V	263	37.5	4.7
13	7267.20	52.2 PK	74.0	-21.8	1.83 V	57	44.4	7.8
14	7267.20	40.4 AV	54.0	-13.6	1.83 V	57	32.6	7.8
15	8175.60	57.5 PK	74.0	-16.5	2.05 V	120	49.1	8.4
16	8175.60	44.2 AV	54.0	-9.8	2.05 V	120	35.8	8.4
17	9084.00	47.7 PK	74.0	-26.3	2.35 V	182	38.2	9.5
18	9084.00	46.2 AV	54.0	-7.8	2.35 V	182	36.7	9.5

REMARKS:

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

CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 10GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1832.00	44.5 PK	74.0	-29.5	2.10 H	177	49.9	-5.4
2	1832.00	31.2 AV	54.0	-22.8	2.10 H	177	36.6	-5.4
3	2748.00	43.9 PK	74.0	-30.1	1.96 H	152	45.8	-1.9
4	2748.00	30.4 AV	54.0	-23.6	1.96 H	152	32.3	-1.9
5	3664.00	45.3 PK	74.0	-28.7	1.87 H	175	45.9	-0.6
6	3664.00	33.4 AV	54.0	-20.6	1.87 H	175	34.0	-0.6
7	4580.00	51.7 PK	74.0	-22.3	1.59 H	248	50.5	1.2
8	4580.00	39.0 AV	54.0	-15.0	1.59 H	248	37.8	1.2
9	5496.00	54.0 PK	74.0	-20.0	1.76 H	212	51.5	2.5
10	5496.00	44.0 AV	54.0	-10.0	1.76 H	212	41.5	2.5
11	6412.00	56.0 PK	74.0	-18.0	1.88 H	193	51.2	4.8
12	6412.00	45.0 AV	54.0	-9.0	1.88 H	193	40.2	4.8
13	7328.00	54.2 PK	74.0	-19.8	1.23 H	158	46.3	7.9
14	7328.00	43.1 AV	54.0	-10.9	1.23 H	158	35.2	7.9
15	8244.00	57.5 PK	74.0	-16.5	1.51 H	164	49.2	8.3
16	8244.00	45.0 AV	54.0	-9.0	1.51 H	164	36.7	8.3
17	9160.00	44.7 PK	74.0	-29.3	1.80 H	215	34.9	9.8
18	9160.00	42.6 AV	54.0	-11.4	1.80 H	215	32.8	9.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	1832.00	45.7 PK	74.0	-28.3	1.38 V	247	51.1	-5.4
2	1832.00	32.5 AV	54.0	-21.5	1.38 V	247	37.9	-5.4
3	2748.00	44.1 PK	74.0	-29.9	1.20 V	202	46.0	-1.9
4	2748.00	31.0 AV	54.0	-23.0	1.20 V	202	32.9	-1.9
5	3664.00	46.0 PK	74.0	-28.0	1.28 V	324	46.6	-0.6
6	3664.00	34.3 AV	54.0	-19.7	1.28 V	324	34.9	-0.6
7	4580.00	52.5 PK	74.0	-21.5	1.13 V	271	51.3	1.2
8	4580.00	41.8 AV	54.0	-12.2	1.13 V	271	40.6	1.2
9	5496.00	55.1 PK	74.0	-18.9	1.56 V	275	52.6	2.5
10	5496.00	41.9 AV	54.0	-12.1	1.56 V	275	39.4	2.5
11	6412.00	55.8 PK	74.0	-18.2	1.61 V	243	51.0	4.8
12	6412.00	42.9 AV	54.0	-11.1	1.61 V	243	38.1	4.8
13	7328.00	52.6 PK	74.0	-21.4	1.78 V	71	44.7	7.9
14	7328.00	41.0 AV	54.0	-13.0	1.78 V	71	33.1	7.9
15	8244.00	56.6 PK	74.0	-17.4	2.09 V	133	48.3	8.3
16	8244.00	43.8 AV	54.0	-10.2	2.09 V	133	35.5	8.3
17	9160.00	48.2 PK	74.0	-25.8	2.39 V	186	38.4	9.8
18	9160.00	46.6 AV	54.0	-7.4	2.39 V	186	36.8	9.8

REMARKS:

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

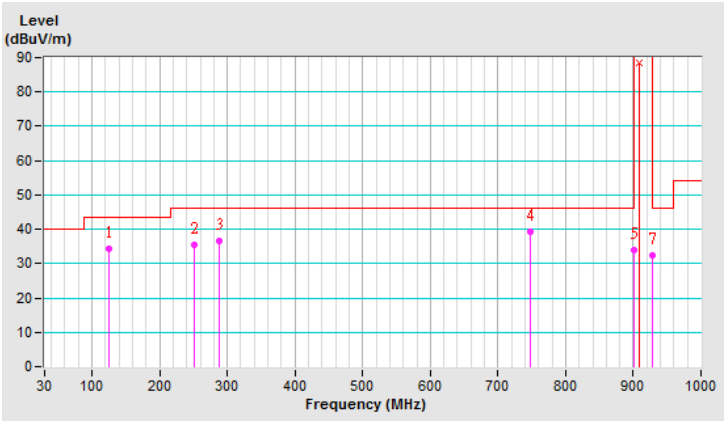
Below 1GHz Data:

CHANNEL	TX Channel 1	**DETECTOR FUNCTION**	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	124.72	34.2 QP	43.5	-9.3	2.50 H	82	43.6	-9.4
2	251.63	35.6 QP	46.0	-10.4	1.50 H	62	44.5	-8.9
3	288.33	36.7 QP	46.0	-9.3	1.50 H	82	44.0	-7.3
4	747.98	39.2 QP	46.0	-6.8	1.50 H	129	36.0	3.2
5	902.00	33.9 QP	46.0	-12.1	1.01 H	333	28.8	5.1
6	*908.42	88.6 QP	94.0	-5.4	1.01 H	333	83.4	5.2
7	928.00	32.3 QP	46.0	-13.7	1.01 H	333	27.0	5.3

REMARKS:

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

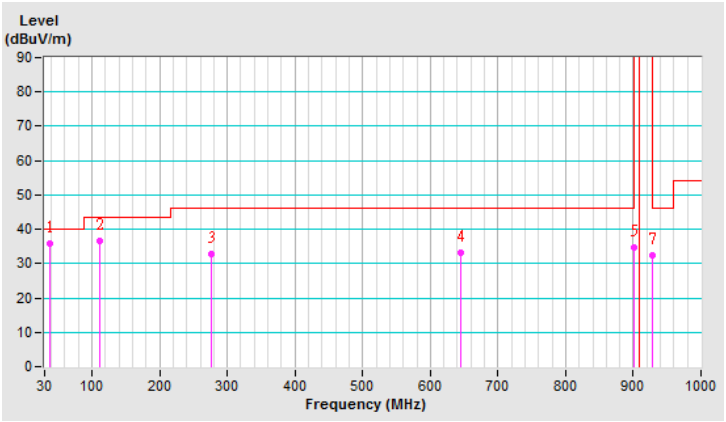


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	37.76	35.9 QP	40.0	-4.1	1.00 V	184	44.4	-8.5
2	111.48	36.6 QP	43.5	-6.9	2.00 V	318	47.0	-10.4
3	276.38	32.9 QP	46.0	-13.1	1.50 V	274	40.7	-7.8
4	644.98	33.2 QP	46.0	-12.8	1.50 V	149	32.0	1.2
5	902.00	34.8 QP	46.0	-11.2	1.05 V	182	29.7	5.1
6	*908.42	93.8 QP	94.0	-0.2	1.05 V	182	88.6	5.2
7	928.00	32.3 QP	46.0	-13.7	1.52 V	182	27.0	5.3

REMARKS:

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

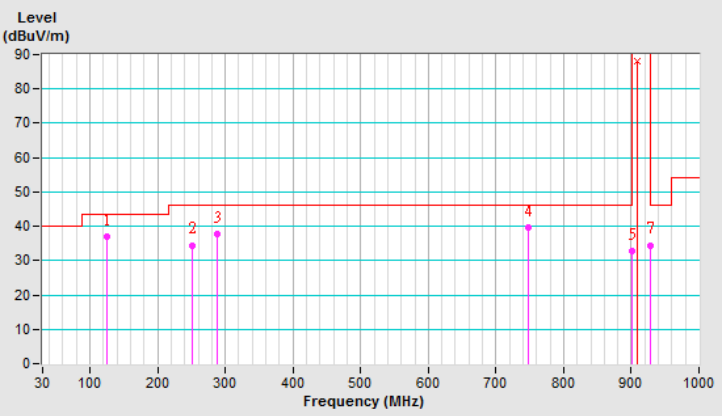


CHANNEL	TX Channel 2	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	124.93	36.9 QP	43.5	-6.6	2.50 H	92	46.2	-9.3
2	251.18	34.5 QP	46.0	-11.5	1.50 H	109	43.4	-8.9
3	288.62	37.6 QP	46.0	-8.4	1.50 H	74	44.9	-7.3
4	747.62	39.5 QP	46.0	-6.5	1.50 H	114	36.3	3.2
5	902.00	32.7 QP	46.0	-13.3	1.02 H	337	27.6	5.1
6	*908.40	88.2 QP	94.0	-5.8	1.02 H	337	83.0	5.2
7	928.00	34.5 QP	46.0	-11.5	1.02 H	337	29.2	5.3

REMARKS:

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

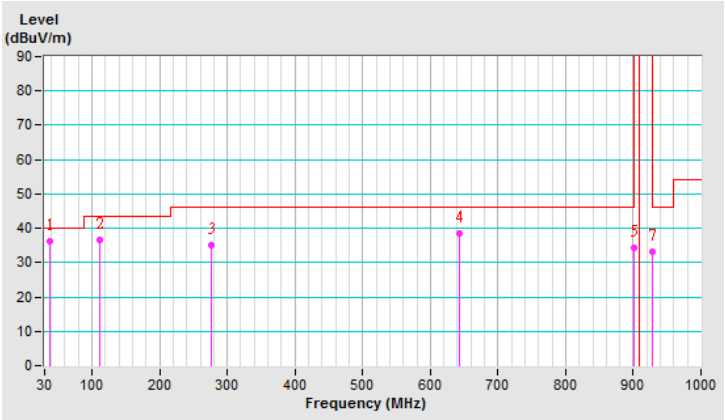


CHANNEL	TX Channel 2	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	37.94	36.2 QP	40.0	-3.8	1.00 V	179	44.7	-8.5
2	111.35	36.5 QP	43.5	-7.0	2.00 V	301	46.9	-10.4
3	276.16	35.2 QP	46.0	-10.8	1.50 V	263	43.0	-7.8
4	642.27	38.4 QP	46.0	-7.6	1.50 V	133	37.2	1.2
5	902.00	34.3 QP	46.0	-11.7	1.08 V	182	29.2	5.1
6	***908.40**	**93.9 QP**	**94.0**	**-0.1**	**1.08 V**	**182**	**88.7**	**5.2**
7	928.00	33.3 QP	46.0	-12.7	1.08 V	182	28.0	5.3

REMARKS:

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

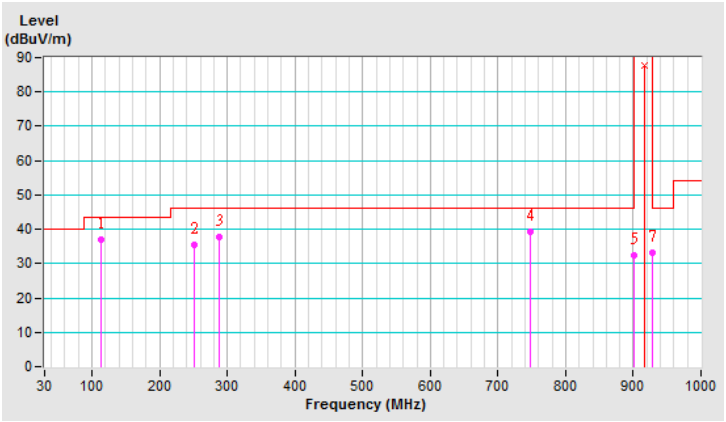


CHANNEL	TX Channel 3	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	113.42	37.1 QP	43.5	-6.4	1.50 H	64	47.3	-10.2
2	251.94	35.6 QP	46.0	-10.4	1.50 H	124	44.5	-8.9
3	288.43	37.7 QP	46.0	-8.3	1.50 H	95	45.0	-7.3
4	747.72	39.1 QP	46.0	-6.9	1.50 H	122	35.9	3.2
5	902.00	32.5 QP	46.0	-13.5	1.00 H	333	27.4	5.1
6	*916.00	87.9 QP	94.0	-6.1	1.00 H	333	82.7	5.2
7	928.00	33.3 QP	46.0	-12.7	1.00 H	333	28.0	5.3

REMARKS:

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

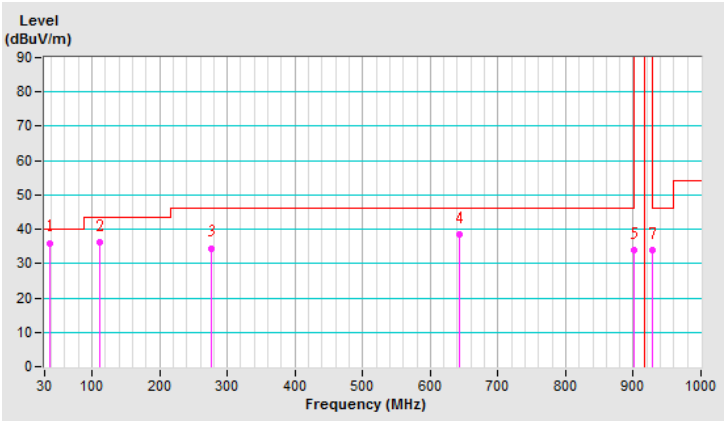


CHANNEL	TX Channel 3	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	37.52	36.0 QP	40.0	-4.0	1.00 V	161	44.6	-8.6
2	111.59	36.2 QP	43.5	-7.3	1.50 V	292	46.6	-10.4
3	276.10	34.5 QP	46.0	-11.5	1.50 V	241	42.3	-7.8
4	642.46	38.5 QP	46.0	-7.5	1.50 V	121	37.3	1.2
5	902.00	33.9 QP	46.0	-12.1	1.08 V	181	28.8	5.1
6	*916.00	93.7 QP	94.0	-0.3	1.08 V	181	88.5	5.2
7	928.00	33.9 QP	46.0	-12.1	1.08 V	181	28.6	5.3

REMARKS:

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



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
Test Receiver R&S	ESCS 30	847124/029	Nov. 01, 2017	Oct. 31, 2018
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Nov. 15, 2017	Nov. 14, 2018
Line-Impedance Stabilization Network (for Peripheral) R&S	ENV216	100072	June 04, 2018	June 03, 2019
50 ohms Terminator	N/A	EMC-02	Sep. 22, 2017	Sep. 21, 2018
RF Cable	5D-FB	COCCAB-001	Sep. 29, 2017	Sep. 28, 2018
Fixed attenuator EMCI	STI02-2200-10	003	Mar. 16, 2018	Mar. 15, 2019
Software BVADT	BVADT_Cond_ V7.3.7.4	NA	NA	NA

Note:
1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Conduction 1.
3. Tested Date: Aug. 23, 2018

4.2.3 Test Procedures

a. 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.

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

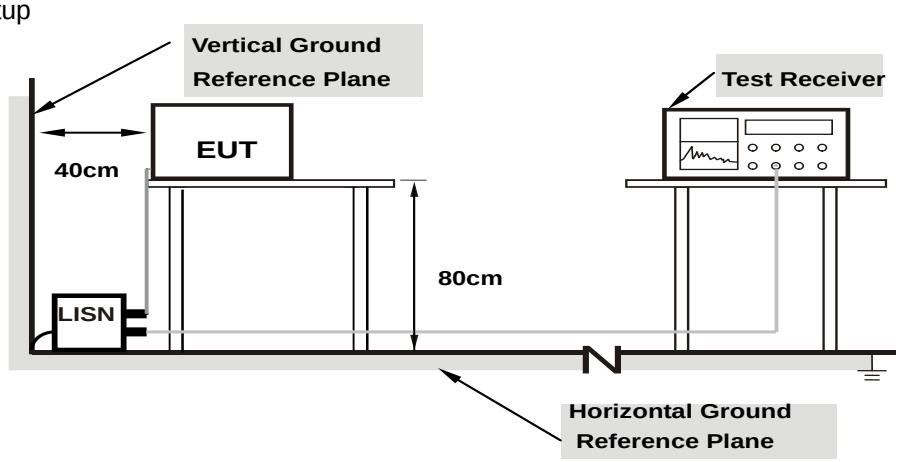
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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.

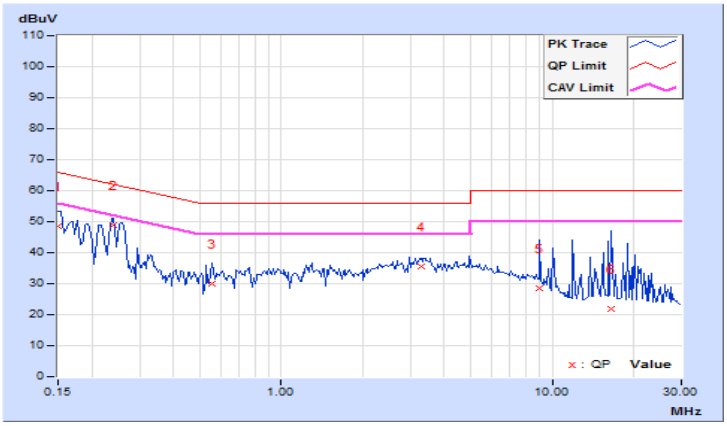
4.2.7 Test Results (Mode 1)

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)

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	10.05	38.54	29.87	48.59	39.92	66.00	56.00	-17.41	-16.08
2	0.23984	10.08	38.66	35.97	48.74	46.05	62.10	52.10	-13.36	-6.05
3	0.55234	10.13	19.84	12.31	29.97	22.44	56.00	46.00	-26.03	-23.56
4	3.27734	10.30	25.28	18.04	35.58	28.34	56.00	46.00	-20.42	-17.66
5	8.99219	10.65	17.84	12.25	28.49	22.90	60.00	50.00	-31.51	-27.10
6	16.55078	11.16	10.68	2.63	21.84	13.79	60.00	50.00	-38.16	-36.21

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

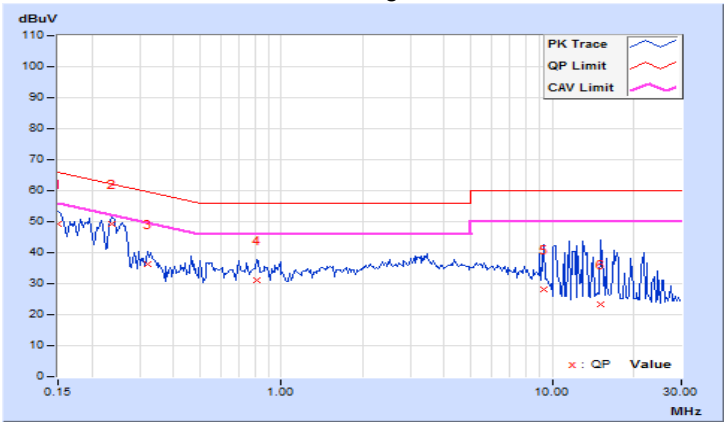


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

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	9.95	39.23	30.16	49.18	40.11	66.00	56.00	-16.82	-15.89
2	0.23594	9.98	39.13	36.39	49.11	46.37	62.24	52.24	-13.13	-5.87
3	0.32188	10.00	26.25	20.71	36.25	30.71	59.66	49.66	-23.41	-18.95
4	0.81406	10.03	21.07	15.63	31.10	25.66	56.00	46.00	-24.90	-20.34
5	9.33203	10.50	17.53	11.90	28.03	22.40	60.00	50.00	-31.97	-27.60
6	15.19922	10.88	12.62	4.64	23.50	15.52	60.00	50.00	-36.50	-34.48

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



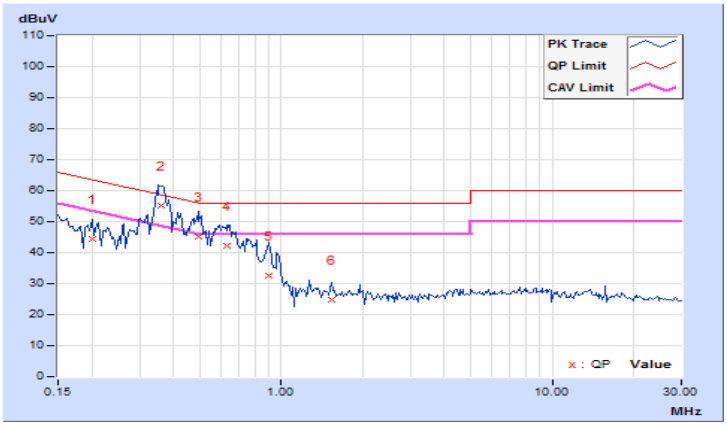
4.2.8 Test Results (Mode 2)

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)

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	0.20078	10.07	34.51	20.26	44.58	30.33	63.58	53.58	-19.00	-23.25
2	0.36094	10.11	45.07	29.86	55.18	39.97	58.71	48.71	-3.53	-8.74
3	0.49375	10.13	35.01	18.68	45.14	28.81	56.10	46.10	-10.96	-17.29
4	0.62656	10.14	32.10	16.31	42.24	26.45	56.00	46.00	-13.76	-19.55
5	0.90391	10.16	22.38	13.80	32.54	23.96	56.00	46.00	-23.46	-22.04
6	1.54297	10.20	14.62	8.05	24.82	18.25	56.00	46.00	-31.18	-27.75

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

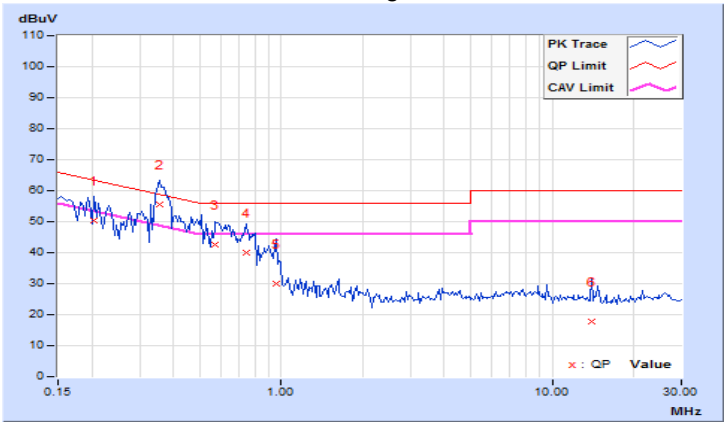


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

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	0.20469	9.97	40.30	23.37	50.27	33.34	63.42	53.42	-13.15	-20.08
2	**0.35703**	**10.01**	**45.44**	**30.18**	**55.45**	**40.19**	**58.80**	**48.80**	**-3.35**	**-8.61**
3	0.57188	10.03	32.56	14.95	42.59	24.98	56.00	46.00	-13.41	-21.02
4	0.73984	10.03	30.15	16.61	40.18	26.64	56.00	46.00	-15.82	-19.36
5	0.95469	10.04	20.14	11.32	30.18	21.36	56.00	46.00	-25.82	-24.64
6	14.06641	10.80	7.09	0.21	17.89	11.01	60.00	50.00	-42.11	-38.99

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



5 Pictures of Test Arrangements

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

Appendix – Information on 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:

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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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