Microtest
微测检测

Test Report

FCC ID: 2ARU6-NETV2

Date of issue: Dec. 18, 2018

Report Number:	MTi181218E107
Sample Description:	NeTV2
Model(s):	NETV2MVP
Applicant:	Alphamax LLC
Address:	PO Box 406, Chinatown Post Office, Singapore 910501
Date of Test:	Nov. 28, 2018 to Dec. 18, 2018

Shenzhen Microtest Co., Ltd.
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Test Result Certification

Applicant's name:	Alphamax LLC
Address:	PO Box 406, Chinatown Post Office, Singapore 910501
Manufacture's Name:	Alphamax LLC
Address:	PO Box 406, Chinatown Post Office, Singapore 910501
Product name:	NeTV2
Trademark:	NeTV2
Model name:	NETV2MVP
Standards:	FCC Part 15.407
Test Procedure:	ANSI C63.10-2013 KDB 789033 D02 General UNII Test Procedures New Rules v02r01

This deIVce described above has been tested by Shenzhen Microtest Co., Ltd. and the test results show that the equipment under test (EUT) compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

Tested by: Leo Su

Leo Su Dec. 18, 2018

Reviewed by: Blue.Zheng

Blue Zheng Dec. 18, 2018

Approved by: Smith Chen

Smith Chen Dec. 18, 2018

1 General information

1.1 Description of EUT

Equipment:	NeTV2
Trade name:	NeTV2
Model name:	NETV2MVP
Serial Model:	N/A
Difference in series models:	N/A
Frequency range:	Band I: 5150 MHz to 5250 MHz, Band II:5250 MHz to 5350 MHz, Band III:5470 MHz to 5725 MHz, Band IV: 5725 MHz to 5850 MHz
Modulation type:	OFDM with BPSK/QPSK/16QAM/64QAM/256QAM for 802.11a/n/ac;
Transfer rate:	802.11a: 6,9,12,18,24,36,48,54Mbps; 802.11n(HT20/HT40):MCS0-MCS15; 802.11ac(VHT20): NSS1, MCS0-MCS8 802.11ac(VHT40/VHT80):NSS1, MCS0-MCS9
Channel bandwidth:	802.11a: 20 MHz 802.11n: 20 MHz, 40 MHz 802.11ac: 20 MHz, 40 MHz, 80MHz
Antenna type:	Integrated antenna
Antenna gain:	2.3dBi
Max. output power:	Band I: 14.12 dBm Band II: 12.61 dBm Band III: 12.20 dBm Band IV: 12.09 dBm
Hardware version:	1.0
Software version:	1.0
Power supply:	DC 12V from adapter AC 120V/60Hz
Adapter information:	Model: GEO101U-120100 Input: 100-240V~50/60Hz 0.3A Output: 12V 1A
Battery:	N/A
Contains FCC ID:	2ABCB-RPI3BP

1.2 Operation channel list

802.11a/n/ac (20MHz) Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	56	5280	108	5540	128	5620
40	5200	60	5300	112	5560	132	5660
44	5220	64	5320	116	5580	136	5680
48	5240	100	5500	120	5600	140	5700
52	5260	104	5600	124	5620	-	-

802.11n/ac (40MHz) Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	62	5310	118	5590	-	-
46	5230	102	5510	126	5630	-	-
54	5270	110	5550	134	5670	-	-

802.11ac (80MHz) Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	122	5610	-	-	-	-
58	5290	-	-	-	-	-	-
106	5530	-	-	-	-	-	-

1.3 Test channel list

For 802.11a/n (HT20)

Band I (5150 - 5250 MHz)			Band II (5250 - 5350 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
36	Low	5180	52	Low	5260
44	Mid	5220	56	Mid	5280
48	High	5240	64	High	5320

Band III (5470 - 5725 MHz)			Band IV (5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
100	Low	5500	149	Low	5745
120	Mid	5600	157	Mid	5785
140	High	5700	165	High	5825

For 802.11n (HT40)

Band I (5150 - 5250 MHz)			Band II (5250 - 5350 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
38	Low	5190	54	Low	5270
46	High	5230	62	High	5310

Band III (5470 - 5725 MHz)			Band IV (5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
102	Low	5510	151	Low	5755
118	Mid	5590	159	High	5795
134	High	5670	--	--	--

1.4 Ancillary equipment list

Equipment	Model	S/N	Manufacturer	Certificate type
adapter	GEO101U-120100	/	Shenzhen GEAO Technology Co.,Ltd	/

1.5 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.

Item	Equipment	Brand	Model/Type No.	Series No.	Note
/	/	/	/	/	/
/	/	/	/	/	/

Note:
(1)The support equipment was authorized by Declaration of Confirmation.
(2)For detachable type I/O cable should be specified the length in cm in『Length』column.

2 Summary of the Test Results

Test procedures according to the technical standards:

No.	Standard Section	Test Item	Result	Remark
1	15.203/15.407	Antenna Requirement	Pass	Note 1
2	15.407(a)	RF Output Power	Pass	/
3	15.207	Power Line Conducted Emission	Pass	/
4	15.407(a)	26dB Emission Bandwidth and Occuipied bandwidth	Pass	Note 1
5	15.407(e)	6 dB bandwidth	Pass	Note 1
6	15.407(a)	Power Spectral Density	Pass	Note 1
7	15.407(b) 15.209	Radiation Spurious Emission	Pass	/
Note 1: The RF module of EUT in this test report is the same as the report No.: UL-RPT-RP11913492-2416A1913492-2416A, which is issued by UL VS LTD. on Feb. 28, 2018. Thus only the test item of radiation spurious emissions, Peak output power and conducted emission was evaluated in this report. The other test items please refer to the test report of UL-RPT-RP11913492-2416A1913492-2416A.				

3 Test Facilities and Accreditations

3.1 Test laboratory

Test Laboratory	Shenzhen Microtest Co., Ltd
Location	No.102A & 302A, East Block, Hengfang Industrial Park, Xingye Road, Xixiang, Bao'an District, Shenzhen, Guangdong, China
FCC Registration No.:	448573

3.2 EnIVronmental conditions

Temperature:	20ºC~30ºC
Humidity	30%~70%
Atmospheric pressure	98kPa~101kPa

3.3 Measurement uncertainty

The reported uncertainty of measurement y ± U，where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2，proIVding a level of confidence of approximately 95 %

No.	Item	Uncertainty
1	Conducted Emission Test	±1.38dB
2	RF power, conducted	±0.16dB
3	Spurious emissions, conducted	±0.21dB
4	All emissions, radiated(<1G)	±4.68dB
5	All emissions, radiated(>1G)	±4.89dB
6	Temperature	±0.5°C
7	Humidity	±2%

3.4 Test software

Software Name	Manufacturer	Model	Version
RF Test System	Farad	LZ-RF	Lz_Rf 3A3

4 Equipment list

Equipment No.	Equipment Name	Manufacturer	Model	Serial No.	Calibration date	Due date
MTI-E001	Spectrum Analyzer	Agilent	E4407B	MY41441082	2018/09/18	2019/09/17
MTI-E002	CMU 200 universal radio communication tester	Rohde&schwarz	CMU 200	114587	2018/09/18	2019/09/17
MTI-E004	EMI Test Receiver	Rohde&schwarz	ESPI	1000314	2018/09/18	2019/09/17
MTI-E006	Broadband antenna	schwarabeck	VULB9163	872	2018/09/18	2019/09/17
MTI-E007	Horn antenna	schwarabeck	BBHA9120D	1201	2018/09/18	2019/09/17
MTI-E014	amplifier	America	8447D	3113A06150	2018/09/18	2019/09/17
MTI-E015	Conduction Immunity Signal Generator	Schloder	CDG6000	126A1343/2015	2018/09/18	2019/09/17
MTI-E016	Coupled decoupling network	Schloder	CDA M2/M3	A2210332/2015	2018/09/18	2019/09/17
MTI-E032	Comprehensive test instrument	Rohde&schwarz	CMW500	124192	2018/09/18	2019/09/17
MTI-E034	amplifier	Agilent	8449B	3008A02400	2018/09/18	2019/09/17
MTI-E037	Artificial power network	Schwarzbeck	NSLK8127	#841	2018/09/18	2019/09/17
MTI-E040	Spectrum analyzer	Agilent	N9020A	MY49100060	2018/09/18	2019/09/17
MTI-E041	Signal generator	Agilent	N5182A	MY49060455	2018/09/18	2019/09/17
MTI-E042	Analog signal generator	Agilent	E4421B	GB40051240	2018/09/18	2019/09/17
MTI-E043	Power probe	Dare Instruments	RPR3006W	16I00054SNO16	2018/09/18	2019/09/17
MTI-E047	10dB attenuator	Mini-Circuits	UNAT-10+	15542	2018/09/18	2019/09/17
MTI-E049	spectrum analyzer	Rohde&schwarz	FSP-38	100019	2018/09/18	2019/09/17
MTI-E050	PSG Signal generator	Agilent	E8257D	MY46520873	2018/09/18	2019/09/17
MTI-E051	Active Loop Antenna 9kHz - 30MHz	Schwarzbeek	FMZB 1519 B	00044	2018/09/18	2019/09/17
MTI-E052	18-40GHz amplifier	Chengdu step Micro Technology	ZLNA-18-40G-21	1608001	2018/09/18	2019/09/17
MTI-E053	15-40G Antenna	Schwarzbeek	BBHA9170	BBHA9170582	2018/09/18	2019/09/17
MTI-E058	Artificial power network	Schwarzbeck	NSLK8127	#841	2018/09/18	2019/09/17
Note: the calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).						

5 Test Results

5.1 Antenna requirement

5.1.1 Standard requirement

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

5.1.2 EUT Antenna

The antenna is an integral antenna, which was permanently affixed to the deivce and un-replaced, complies with 15.203. In addition, the maximum antenna gain is 2.3dBi.

5.2 RF output power

5.2.1 Limit

For the 5.15-5.25 GHz band

For client deIVces in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW proIVded the maximum antenna gain does not exceed 6 dBi.If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz band

The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

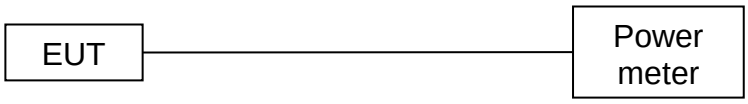
For the band 5.725-5.85 GHz

The maximum conducted output power over the frequency band of operation shall not exceed 1 W.If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

5.2.2 Test procedure

The maximum peak conducted output power may be measured using a broadband Average RF power meter. The power meter shall have a IVdeo bandwidth that is greater than or equal to the emission bandwidth and utilize a fast-responding diode detector.

5.2.3 Test setup



5.2.4 Test results

For Band I

Modulation mode	Test Channel	Frequency(MHz)	Maximum Peak Conducted Power		Limit(mW)
			(dBm)	(mW)	
11a	CH36	5180	11.71	14.83	250
11a	CH40	5200	11.65	14.62	250
11a	CH48	5240	10.73	11.83	250
11n (HT20)	CH36	5180	10.11	10.26	250
11n (HT20)	CH40	5200	9.98	9.95	250
11n (HT20)	CH48	5240	9.16	8.24	250
11n (HT40)	CH38	5190	14.12	25.82	250
11n (HT40)	CH46	5230	13.69	23.39	250
11n (ac80)	CH42	5210	13.67	23.28	250

For Band II

Modulation mode	Test Channel	Frequency(MHz)	Maximum Peak Conducted Power		Limit(mW)
			(dBm)	(mW)	
11a	CH52	5260	10.12	10.28	250
11a	CH56	5280	10.01	10.02	250
11a	CH64	5320	8.11	6.47	250
11n (HT20)	CH52	5260	8.69	7.40	250
11n (HT20)	CH56	5280	5.57	3.61	250
11n (HT20)	CH64	5320	7.82	6.05	250
11n (HT40)	CH54	5270	12.61	18.24	250
11n (HT40)	CH62	5310	11.63	14.55	250
11n (ac80)	CH58	5290	11.61	14.49	250

For Band III

Modulation mode	Test Channel	Frequency(MHz)	Maximum Peak Conducted Power		Limit(mW)
			(dBm)	(mW)	
11a	CH100	5500	8.29	6.75	250
11a	CH120	5600	7.92	6.19	250
11a	CH140	5700	8.71	7.43	250
11n (HT20)	CH100	5500	7.81	6.04	250
11n (HT20)	CH120	5600	8.65	7.33	250
11n (HT20)	CH140	5700	8.32	6.79	250
11n (HT40)	CH102	5510	10.12	10.28	250
11n (HT40)	CH118	5590	9.97	9.93	250
11n (HT40)	CH134	5670	12.20	16.60	250
11n (ac80)	CH106	5530	11.68	6.75	250

For Band IV

Modulation mode	Test Channel	Frequency(MHz)	Maximum Peak Conducted Power		Limit(mW)
			(dBm)	(mW)	
11a	CH149	5745	8.71	7.43	1000
11a	CH157	5785	8.80	7.59	1000
11a	CH165	5825	9.11	8.15	1000
11n (HT20)	CH149	5745	8.42	6.95	1000
11n (HT20)	CH157	5785	9.36	8.63	1000
11n (HT20)	CH165	5825	8.64	7.31	1000
11n (HT40)	CH151	5755	11.82	15.21	1000
11n (HT40)	CH159	5795	12.09	16.18	1000
11n (ac80)	CH155	5775	11.49	14.09	1000

5.3 Power line conducted emission

5.3.1 Limits

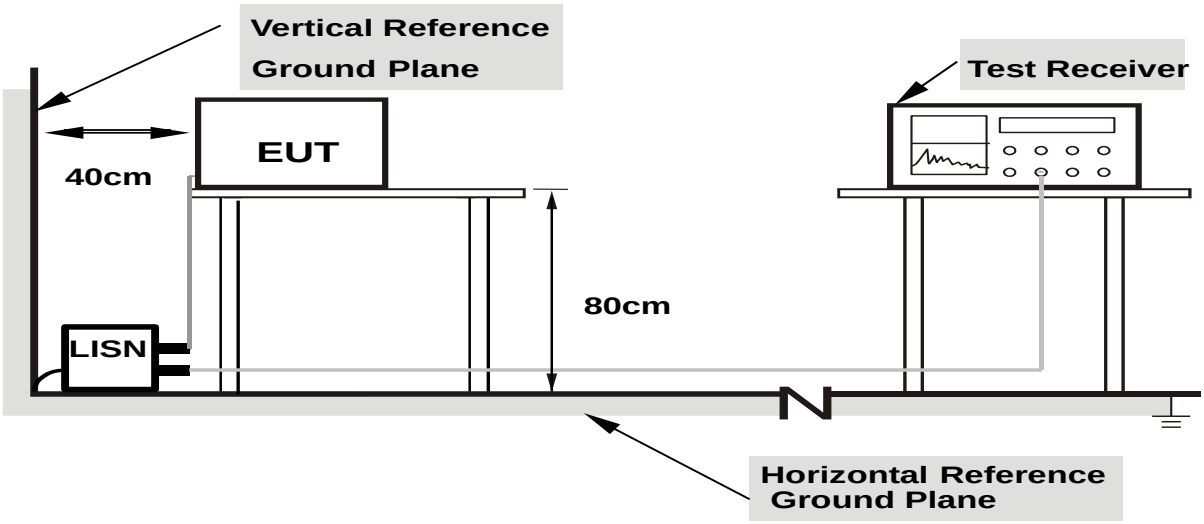
FREQUENCY (MHz)	Class B (dBuV)	
	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note

(1)The tighter limit applies at the band edges.

(2)The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

5.3.2 Test setup



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

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

5.3.3 Test procedure

a. EUT Operating Conditions

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

b. The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

c. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN proIVde 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

d. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

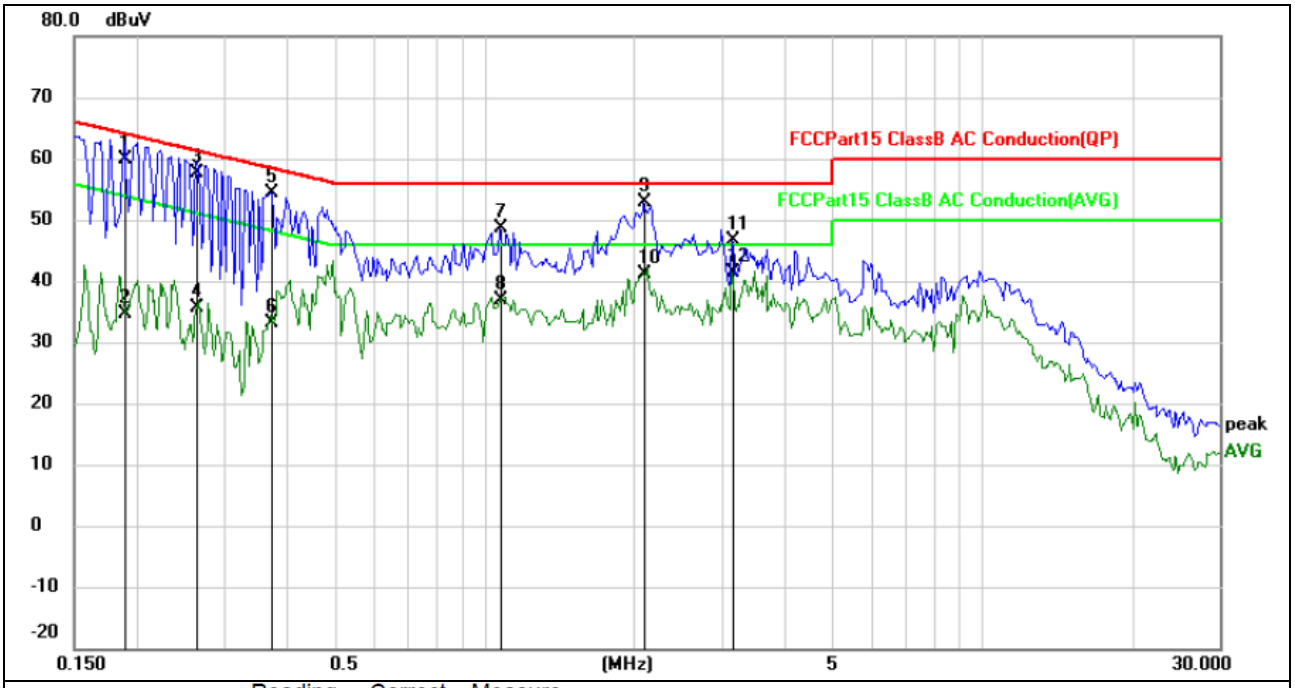
e. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

f. LISN at least 80 cm from nearest part of EUT chassis.

For the actual test configuration, please refer to the related Item –EUT Test Photos.

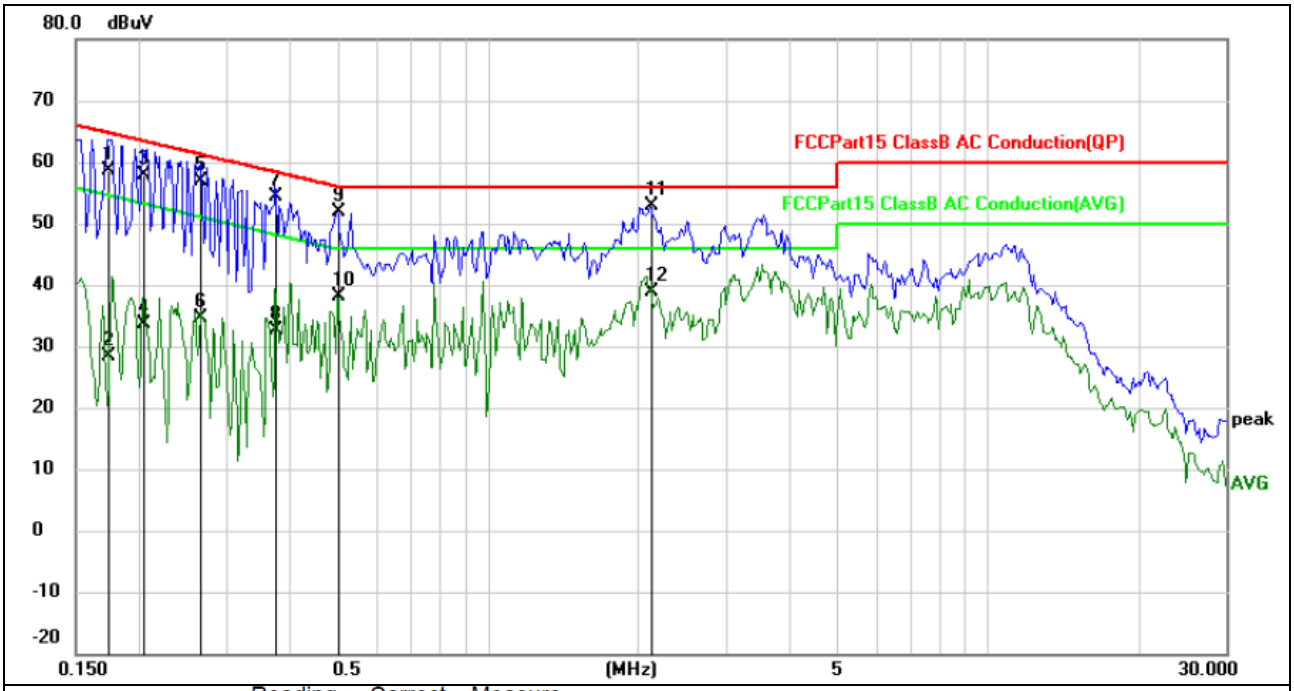
5.3.4 Test results

EUT：	NeTV2	Model Name. ：	NETV2MVP
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Phase：	L
Test Voltage ：	DC 12V from adapter AC 120V/60Hz	Test Mode：	TX Mode



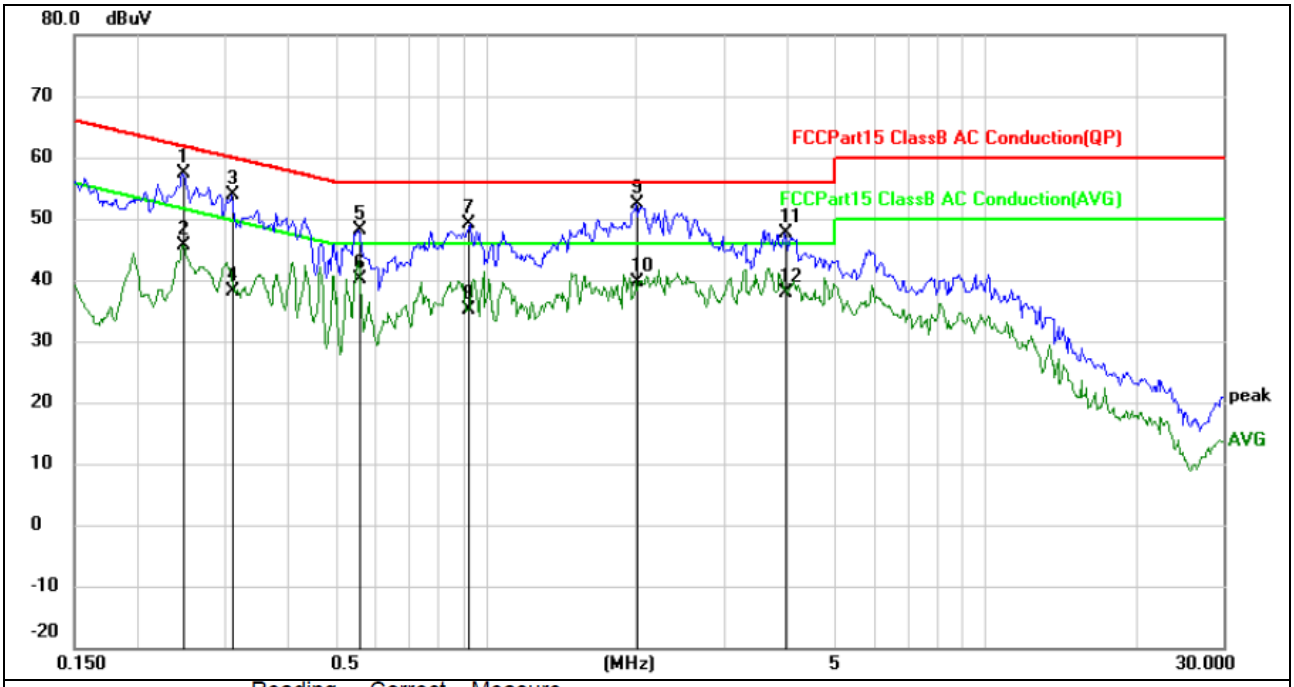
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1890	58.40	1.57	59.97	64.08	-4.11	QP	
2		0.1890	33.09	1.57	34.66	54.08	-19.42	AVG	
3		0.2631	56.10	1.57	57.67	61.33	-3.66	QP	
4		0.2631	34.17	1.57	35.74	51.33	-15.59	AVG	
5		0.3724	52.88	1.57	54.45	58.45	-4.00	QP	
6		0.3724	31.50	1.57	33.07	48.45	-15.38	AVG	
7		1.0718	47.15	1.58	48.73	56.00	-7.27	QP	
8		1.0718	35.31	1.58	36.89	46.00	-9.11	AVG	
9	*	2.0951	51.45	1.52	52.97	56.00	-3.03	QP	
10		2.0951	39.70	1.52	41.22	46.00	-4.78	AVG	
11		3.1484	45.52	1.00	46.52	56.00	-9.48	QP	
12		3.1484	40.41	1.00	41.41	46.00	-4.59	AVG	

EUT：	NeTV2	Model Name. ：	NETV2MVP
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Phase：	N
Test Voltage ：	DC 12V from adapter AC 120V/60Hz	Test Mode：	Normal link



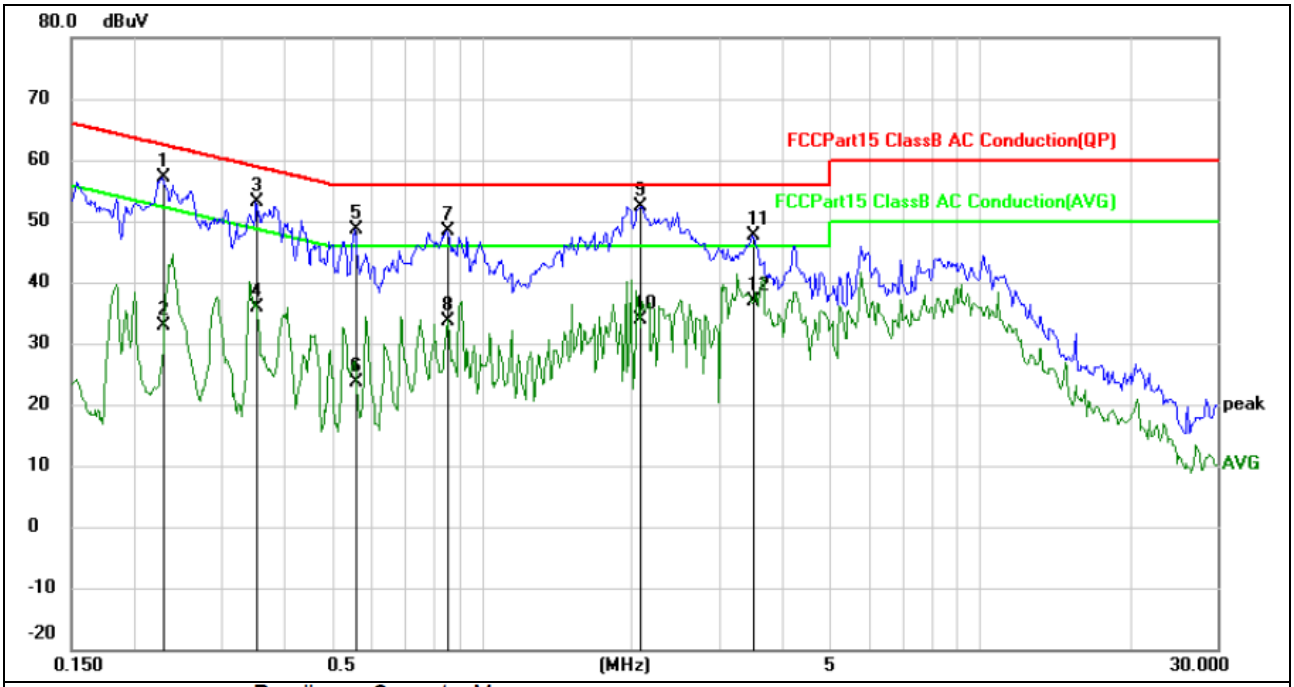
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1733	57.00	1.57	58.57	64.80	-6.23	QP	
2		0.1733	26.71	1.57	28.28	54.80	-26.52	AVG	
3		0.2046	56.23	1.57	57.80	63.42	-5.62	QP	
4		0.2046	32.12	1.57	33.69	53.42	-19.73	AVG	
5		0.2671	55.41	1.57	56.98	61.21	-4.23	QP	
6		0.2671	33.17	1.57	34.74	51.21	-16.47	AVG	
7		0.3765	52.70	1.57	54.27	58.36	-4.09	QP	
8		0.3765	31.05	1.57	32.62	48.36	-15.74	AVG	
9		0.5014	50.20	1.57	51.77	56.00	-4.23	QP	
10		0.5014	36.50	1.57	38.07	46.00	-7.93	AVG	
11	*	2.1108	51.30	1.51	52.81	56.00	-3.19	QP	
12		2.1108	37.40	1.51	38.91	46.00	-7.09	AVG	

EUT：	NeTV2	Model Name. ：	NETV2MVP
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Phase：	L
Test Voltage ：	DC 12V from adapter AC 240V/60Hz	Test Mode：	Normal link



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2474	55.71	1.57	57.28	61.84	-4.56	QP	
2		0.2474	44.12	1.57	45.69	51.84	-6.15	AVG	
3		0.3100	52.20	1.57	53.77	59.97	-6.20	QP	
4		0.3100	36.51	1.57	38.08	49.97	-11.89	AVG	
5		0.5562	46.56	1.57	48.13	56.00	-7.87	QP	
6		0.5562	38.66	1.57	40.23	46.00	-5.77	AVG	
7		0.9233	47.68	1.57	49.25	56.00	-6.75	QP	
8		0.9233	33.64	1.57	35.21	46.00	-10.79	AVG	
9	*	2.0093	50.90	1.58	52.48	56.00	-3.52	QP	
10		2.0093	38.12	1.58	39.70	46.00	-6.30	AVG	
11		3.9647	46.72	0.89	47.61	56.00	-8.39	QP	
12		3.9647	37.09	0.89	37.98	46.00	-8.02	AVG	

EUT：	NeTV2	Model Name. ：	NETV2MVP
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Phase：	N
Test Voltage ：	DC 12V from adapter AC 240V/60Hz	Test Mode：	Normal link



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2280	55.47	1.57	57.04	62.52	-5.48	QP	
2		0.2280	31.34	1.57	32.91	52.52	-19.61	AVG	
3		0.3531	51.60	1.57	53.17	58.89	-5.72	QP	
4		0.3531	34.41	1.57	35.98	48.89	-12.91	AVG	
5		0.5562	47.07	1.57	48.64	56.00	-7.36	QP	
6		0.5562	21.98	1.57	23.55	46.00	-22.45	AVG	
7		0.8488	46.69	1.57	48.26	56.00	-7.74	QP	
8		0.8488	32.15	1.57	33.72	46.00	-12.28	AVG	
9	*	2.0834	50.91	1.53	52.44	56.00	-3.56	QP	
10		2.0834	32.35	1.53	33.88	46.00	-12.12	AVG	
11		3.5000	46.56	0.95	47.51	56.00	-8.49	QP	
12		3.5000	36.01	0.95	36.96	46.00	-9.04	AVG	

5.4 26dB Emission Bandwidth and Occuipied bandwidth

5.4.1 Limit

For purposes of this subpart the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier

5.4.2 Test procedure

26d Emission bandwidth

Set RBW = approximately 1% of the emission bandwidth.

Set VBW ≥ 3*RBW

Detector = Peak.

Trace mode = Max hold.

Measure the maximum width of the emission that is 26 dB down from the peak of the emission.

Occupied Bandwidth

Set Span = 1.5 times to 5.0 times the OBW

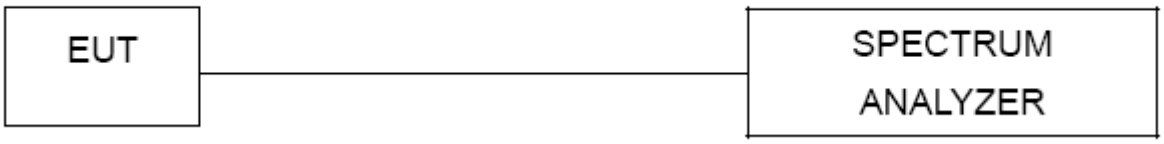
Set RBW = 1% to 5% of the OBW.

Set VBW ≥ 3*RBW, Detector = Peak.

Trace mode = Max hold.

Use the 99% power bandwidth function of the instrument.

5.4.3 Test setup



5.4.4 Test results

Please refer to the section 5.2.2 of test report No.: UL-RPT-RP11913492-2416A1913492-2416A, which is issued by UL VS LTD. on Feb. 28, 2018.

5.5 6dB Bandwidth

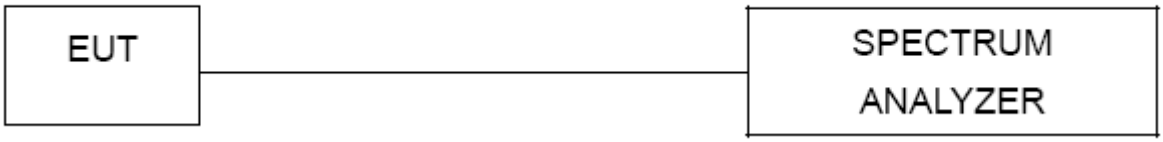
5.5.1 LimiT

For purposes of this subpart the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier

5.5.2 Test procedure

1. Set RBW= 100 kHz.
2. Set the IVdeo bandwidth (VBW) ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 26 dB relative to the maximum level measured in the fundamental emission.

5.5.3 Test setup



5.5.4 Test results

Please refer to the section 5.2.3 of test report No.: UL-RPT-RP11913492-2416A1913492-2416A, which is issued by UL VS LTD. on Feb. 28, 2018.

5.6 Radiated spurious emission

Radiated Emission Limits

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/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

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

5.6.1 Test procedure

The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.

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

The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

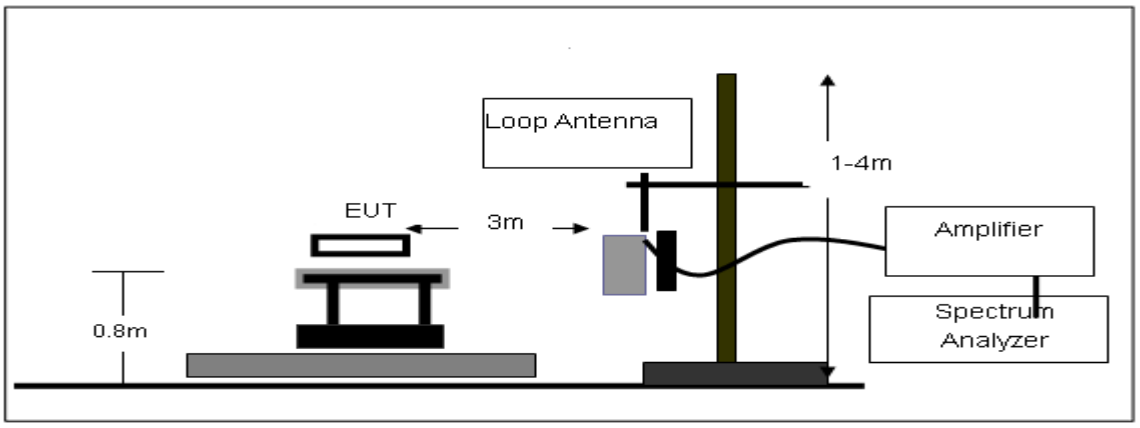
The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
For the actual test configuration, please refer to the related Item –EUT Test Photos.

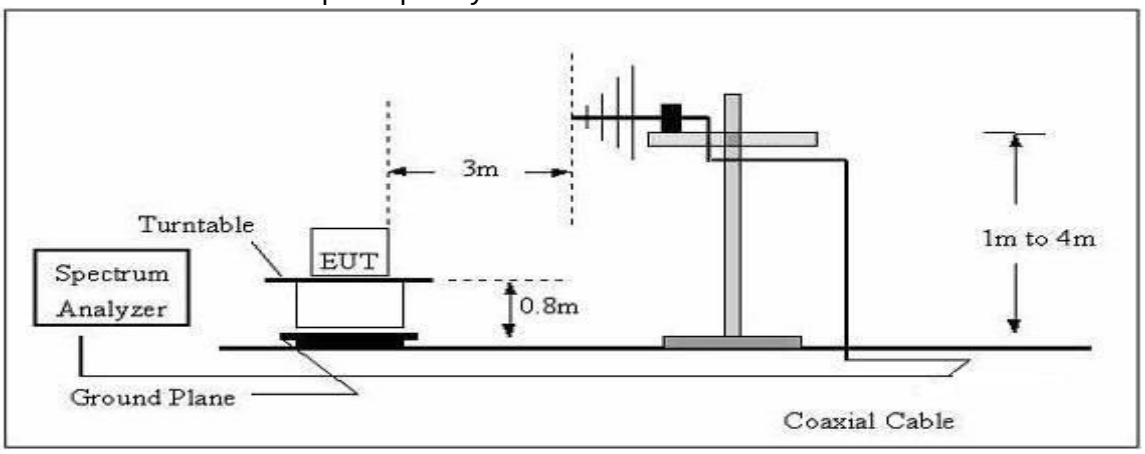
Note:Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

5.6.2 Test setup

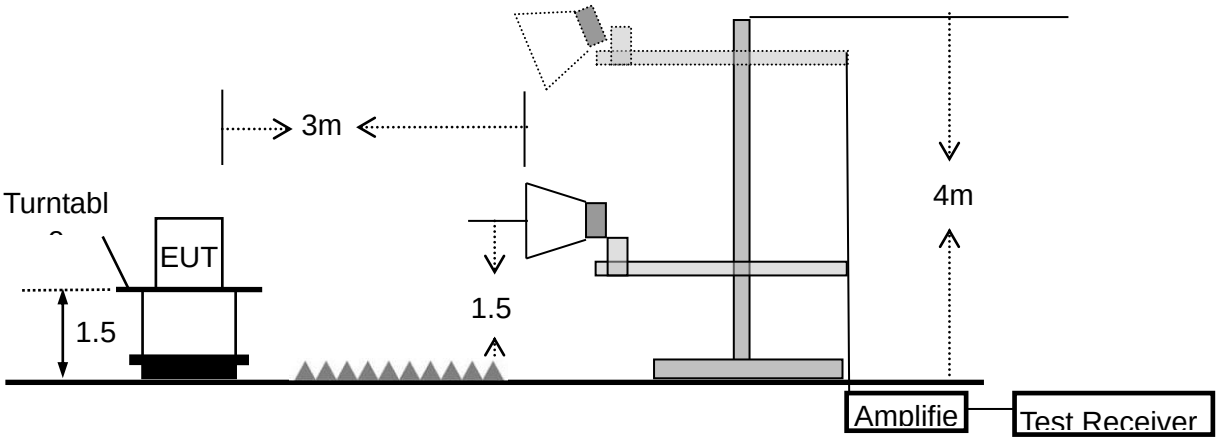
（A）Radiated Emission test-up Frequency Below 30MHz



（B）Radiated Emission Test-Up Frequency 30MHz~1GHz



（C）Radiated Emission Test-Up Frequency Above 1GHz



5.6.3 Test results

EUT：	NeTV2	Model Name：	NETV2MVP
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage：	DC 12V from adapter AC 120V/60Hz
Test Mode：	TX	Polarization :	--

Below 30MHz

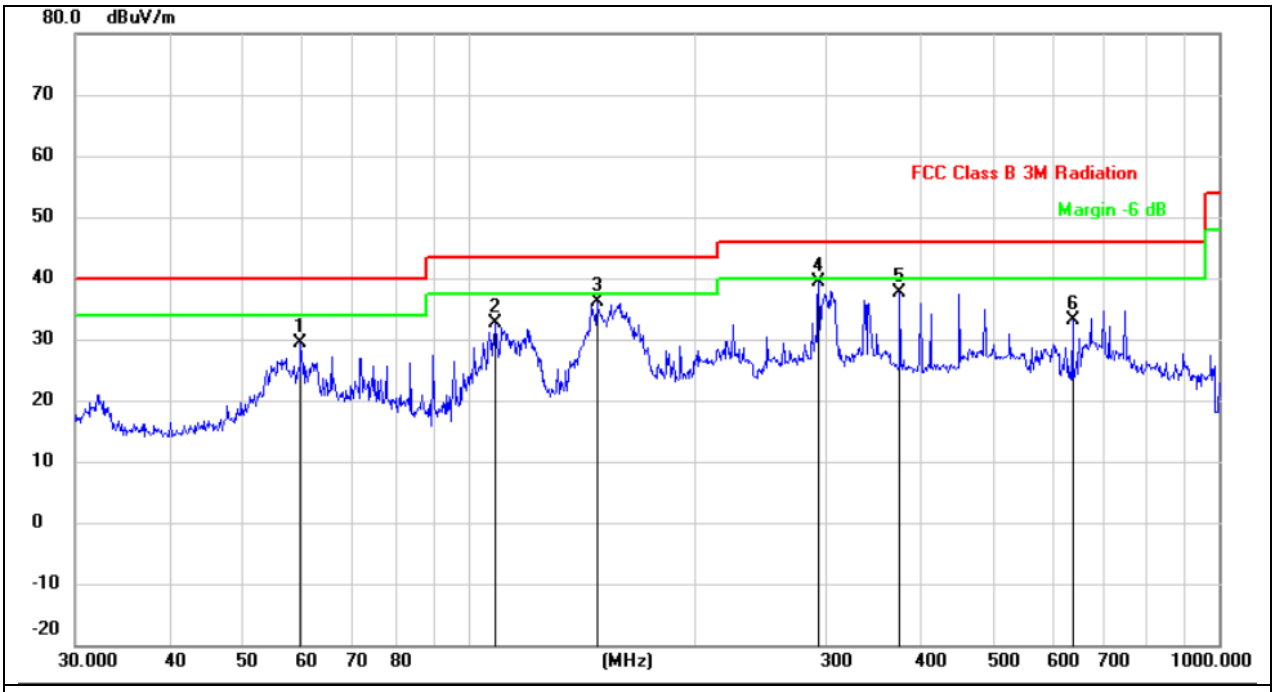
Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	Pass
--	--	--	--	Pass

Note1:The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
Note2:Distance extrapolation factor =40 log (specific distance/test distance)(dB);Limit line = specific limits(dBuV) + distance extrapolation factor.

Between 30MHz – 1GHz

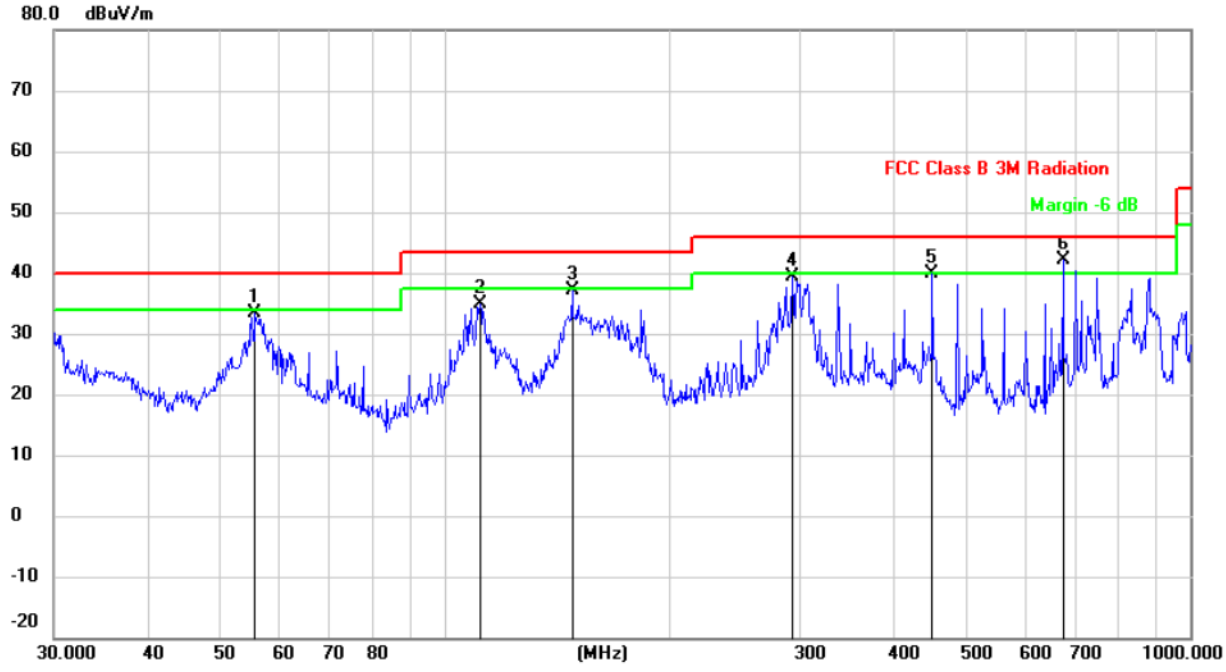
Note1 : Emission Level = Meter Reading + Factor, Margin= Emission Level- Limit, Factor = Antenna Factor + Cable Loss – Pre-amplifier.
Note2 :The peak value is less than the AV value, AV value is not required Factor added by measurement software automatically.

EUT：	NeTV2	Model Name ：	NETV2MVP
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Phase :	H
Test Voltage ：	DC 12V from adapter AC 120V/60Hz	Mode:	Normal link



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dBuV/m	dBuV/m	dBuV/m	dB	Detector
1		59.8588	40.64	-11.15	29.49	40.00	-10.51	QP
2		108.6470	44.10	-11.45	32.65	43.50	-10.85	QP
3		148.4410	50.71	-14.54	36.17	43.50	-7.33	QP
4	*	293.0842	48.22	-8.82	39.40	46.00	-6.60	QP
5		375.9384	44.75	-7.04	37.71	46.00	-8.29	QP
6		638.3686	38.14	-4.91	33.23	46.00	-12.77	QP

EUT：	NeTV2	Model Name ：	NETV2MVP
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Phase：	V
Test Voltage：	DC 12V from adapter AC 120V/60Hz	Mode:	Normal link



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dBuV/m	dBuV/m	dBuV/m	dB	Detector
1		55.8046	43.98	-10.54	33.44	40.00	-6.56	QP
2		111.7377	46.55	-11.73	34.82	43.50	-8.68	QP
3		148.4410	50.77	-13.54	37.23	43.50	-6.27	QP
4		293.0842	47.13	-7.82	39.31	46.00	-6.69	QP
5		451.1349	45.68	-5.80	39.88	46.00	-6.12	QP
6	*	675.2078	46.65	-4.50	42.15	46.00	-3.85	QP

1G-40GHz

Note1 : Emission Level = Meter Reading + Factor, Margin= Emission Level- Limit, Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Note2 :The peak value is less than the AV value, AV value is not required Factor added by measurement software automatically.

Note3 :The spurious emission of 25GHz – 40GHz band which the margin is lower more than 20dB,So that it is not reported in this test report.

For Band I

Polar	Frequency	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
(H/V)	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G									
Vertical	4434.212	56.43	5.94	35.40	44.00	53.77	74.00	-20.23	Pk
Vertical	4434.212	43.82	5.94	35.40	44.00	41.16	54.00	-12.84	AV
Vertical	10370.154	61.87	8.46	39.75	44.50	65.58	74.00	-8.42	Pk
Vertical	10370.154	43.18	8.46	39.75	44.50	46.89	54.00	-7.11	AV
Vertical	15540.126	57.33	10.12	38.80	44.10	62.15	74.00	-11.85	Pk
Vertical	15540.126	43.26	10.12	38.80	42.70	49.48	54.00	-4.52	AV
Horizontal	4434.242	58.54	5.94	35.18	44.00	55.66	74.00	-18.34	Pk
Horizontal	4434.242	43.42	5.94	35.18	44.00	40.54	54.00	-13.46	AV
Horizontal	10370.121	61.39	8.46	38.71	44.50	64.06	74.00	-9.94	Pk
Horizontal	10730.121	45.34	8.46	38.71	44.50	48.01	54.00	-5.99	AV
Horizontal	15540.115	57.84	10.12	38.38	44.10	62.24	74.00	-11.76	Pk
Horizontal	15540.115	42.26	10.12	38.38	44.10	46.66	54.00	-7.34	AV
middle Channel (5200 MHz)-Above 1G									
Vertical	4592.142	57.36	6.48	36.35	44.05	56.14	74.00	-17.86	Pk
Vertical	4592.142	43.31	6.48	36.35	44.05	42.09	54.00	-11.91	AV
Vertical	10401.205	61.62	8.47	37.88	44.51	63.46	74.00	-10.54	Pk
Vertical	10401.205	45.37	8.47	37.88	44.51	47.21	54.00	-6.79	AV
Vertical	15600.176	57.26	10.12	38.8	44.10	62.08	74.00	-11.92	Pk
Vertical	15600.176	40.98	10.12	38.8	42.70	47.20	54.00	-6.80	AV
Horizontal	4592.313	58.98	6.48	36.37	44.05	57.78	74.00	-16.22	Pk
Horizontal	4592.313	43.21	6.48	36.37	44.05	42.01	54.00	-11.99	AV
Horizontal	10400.215	61.22	8.47	38.64	44.50	63.83	74.00	-10.17	Pk
Horizontal	10400.215	46.34	8.47	38.64	44.50	48.95	54.00	-5.05	AV
Horizontal	15600.175	59.17	10.12	38.38	44.10	63.57	74.00	-10.43	Pk
Horizontal	15600.175	42.09	10.12	38.38	44.10	46.49	54.00	-7.51	AV

High Channel (5240 MHz)-Above 1G									
Vertical	4739.145	59.56	7.10	37.24	43.50	60.40	74.00	-13.60	Pk
Vertical	4739.145	45.26	7.10	37.24	43.50	46.10	54.00	-7.90	AV
Vertical	10480.224	61.58	8.46	37.68	44.50	63.22	74.00	-10.78	Pk
Vertical	10480.224	45.32	8.46	37.68	44.50	46.96	54.00	-7.04	AV
Vertical	15720.154	58.64	10.12	38.8	44.10	63.46	74.00	-10.54	Pk
Vertical	15720.154	42.37	10.12	38.8	42.70	48.59	54.00	-5.41	AV
Horizontal	4739.112	59.03	7.10	37.24	43.50	59.87	74.00	-14.13	Pk
Horizontal	4739.112	44.17	7.10	37.24	43.50	45.01	54.00	-8.99	AV
Horizontal	10481.321	58.42	8.46	38.57	44.50	60.95	74.00	-13.05	Pk
Horizontal	10481.321	42.75	8.46	38.57	44.50	45.28	54.00	-8.72	AV
Horizontal	15720.254	56.26	10.12	38.38	44.10	60.66	74.00	-13.34	Pk
Horizontal	15720.254	42.79	10.12	38.38	44.10	47.19	54.00	-6.81	AV

Note:Both horizontal and vertical antenna polarities were tested and only the worst case(horizontal) emissions were reported.

For Band II

Polar	Frequency	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
(H/V)	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5260 MHz)-Above 1G									
Vertical	4856.114	56.33	5.94	35.40	44.00	53.67	74.00	-20.33	Pk
Vertical	4856.114	45.10	5.94	35.40	44.00	42.44	54.00	-11.56	AV
Vertical	10520.213	62.52	8.46	39.75	44.50	66.23	74.00	-7.77	Pk
Vertical	10520.213	44.06	8.46	39.75	44.50	47.77	54.00	-6.23	AV
Vertical	15785.121	56.96	10.12	38.80	44.10	61.78	74.00	-12.22	Pk
Vertical	15785.121	43.32	10.12	38.80	42.70	49.54	54.00	-4.46	AV
Horizontal	4856.234	58.48	5.94	35.18	44.00	55.60	74.00	-18.40	Pk
Horizontal	4856.234	42.52	5.94	35.18	44.00	39.64	54.00	-14.36	AV
Horizontal	10520.152	61.74	8.46	38.71	44.50	64.41	74.00	-9.59	Pk
Horizontal	10520.152	45.53	8.46	38.71	44.50	48.20	54.00	-5.80	AV
Horizontal	15785.124	57.48	10.12	38.38	44.10	61.88	74.00	-12.12	Pk
Horizontal	15785.124	44.03	10.12	38.38	44.10	48.43	54.00	-5.57	AV
middle Channel (5280 MHz)-Above 1G									
Vertical	4950.247	58.21	6.48	36.35	44.05	56.99	74.00	-17.01	Pk
Vertical	4950.247	41.84	6.48	36.35	44.05	40.62	54.00	-13.38	AV
Vertical	10560.312	62.25	8.47	37.88	44.51	64.09	74.00	-9.91	Pk
Vertical	10560.312	46.73	8.47	37.88	44.51	48.57	54.00	-5.43	AV
Vertical	15845.126	57.89	10.12	38.8	44.10	62.71	74.00	-11.29	Pk
Vertical	15845.126	42.74	10.12	38.8	42.70	48.96	54.00	-5.04	AV
Horizontal	4950.324	60.51	6.48	36.37	44.05	59.31	74.00	-14.69	Pk
Horizontal	4950.324	41.87	6.48	36.37	44.05	40.67	54.00	-13.33	AV
Horizontal	10560.415	61.79	8.47	38.64	44.50	64.40	74.00	-9.60	Pk
Horizontal	10560.415	46.36	8.47	38.64	44.50	48.97	54.00	-5.03	AV
Horizontal	15845.231	57.50	10.12	38.38	44.10	61.90	74.00	-12.10	Pk
Horizontal	15845.231	42.10	10.12	38.38	44.10	46.50	54.00	-7.50	AV

High Channel (5320 MHz)-Above 1G									
Vertical	4900.124	58.75	7.10	37.24	43.50	59.59	74.00	-14.41	Pk
Vertical	4900.124	46.20	7.10	37.24	43.50	47.04	54.00	-6.96	AV
Vertical	10642.152	62.50	8.46	37.68	44.50	64.14	74.00	-9.86	Pk
Vertical	10642.152	46.48	8.46	37.68	44.50	48.12	54.00	-5.88	AV
Vertical	15960.312	57.30	10.12	38.8	44.10	62.12	74.00	-11.88	Pk
Vertical	15960.312	44.05	10.12	38.8	42.70	50.27	54.00	-3.73	AV
Horizontal	4900.451	60.69	7.10	37.24	43.50	61.53	74.00	-12.47	Pk
Horizontal	4900.451	44.47	7.10	37.24	43.50	45.31	54.00	-8.69	AV
Horizontal	10642.242	58.64	8.46	38.57	44.50	61.17	74.00	-12.83	Pk
Horizontal	10642.242	42.49	8.46	38.57	44.50	45.02	54.00	-8.98	AV
Horizontal	15960.131	57.06	10.12	38.38	44.10	61.46	74.00	-12.54	Pk
Horizontal	15960.131	42.58	10.12	38.38	44.10	46.98	54.00	-7.02	AV

For Band III

Polar	Frequency	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
(H/V)	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5500 MHz)-Above 1G									
Vertical	4861.212	59.36	5.94	35.40	44.00	56.70	74.00	-17.30	Pk
Vertical	4861.212	46.63	5.94	35.40	44.00	43.97	54.00	-10.03	AV
Vertical	11003.116	59.20	8.46	39.75	44.50	62.91	74.00	-11.09	Pk
Vertical	11003.116	45.75	8.46	39.75	44.50	49.46	54.00	-4.54	AV
Vertical	16500.125	56.58	10.12	38.80	44.10	61.40	74.00	-12.60	Pk
Vertical	16500.125	41.01	10.12	38.80	42.70	47.23	54.00	-6.77	AV
Horizontal	4861.226	58.02	5.94	35.18	44.00	55.14	74.00	-18.86	Pk
Horizontal	4861.226	46.01	5.94	35.18	44.00	43.13	54.00	-10.87	AV
Horizontal	11003.147	60.90	8.46	38.71	44.50	63.57	74.00	-10.43	Pk
Horizontal	11003.147	44.68	8.46	38.71	44.50	47.35	54.00	-6.65	AV
Horizontal	16500.122	59.97	10.12	38.38	44.10	64.37	74.00	-9.63	Pk
Horizontal	16500.122	44.27	10.12	38.38	44.10	48.67	54.00	-5.33	AV
middle Channel (5600 MHz)-Above 1G									
Vertical	4892.102	58.18	6.48	36.35	44.05	56.96	74.00	-17.04	Pk
Vertical	4892.102	43.68	6.48	36.35	44.05	42.46	54.00	-11.54	AV
Vertical	11203.253	61.12	8.47	37.88	44.51	62.96	74.00	-11.04	Pk
Vertical	11203.253	45.33	8.47	37.88	44.51	47.17	54.00	-6.83	AV
Vertical	16804.154	59.35	10.12	38.8	44.10	64.17	74.00	-9.83	Pk
Vertical	16804.154	42.30	10.12	38.8	42.70	48.52	54.00	-5.48	AV
Horizontal	4892.351	60.08	6.48	36.37	44.05	58.88	74.00	-15.12	Pk
Horizontal	4892.351	45.54	6.48	36.37	44.05	44.34	54.00	-9.66	AV
Horizontal	11203.216	60.70	8.47	38.64	44.50	63.31	74.00	-10.69	Pk
Horizontal	11203.216	46.45	8.47	38.64	44.50	49.06	54.00	-4.94	AV
Horizontal	16804.355	60.88	10.12	38.38	44.10	65.28	74.00	-8.72	Pk
Horizontal	16804.355	44.79	10.12	38.38	44.10	49.19	54.00	-4.81	AV
High Channel (5700 MHz)-Above 1G									
Vertical	4933.132	61.05	7.10	37.24	43.50	61.89	74.00	-12.11	Pk
Vertical	4933.132	48.00	7.10	37.24	43.50	48.84	54.00	-5.16	AV
Vertical	11400.254	55.39	8.46	37.68	44.50	57.03	74.00	-16.97	Pk
Vertical	11400.254	43.33	8.46	37.68	44.50	44.97	54.00	-9.03	AV
Vertical	17102.416	60.34	10.12	38.8	44.10	65.16	74.00	-8.84	Pk
Vertical	17102.416	41.09	10.12	38.8	42.70	47.31	54.00	-6.69	AV
Horizontal	4933.212	67.68	7.10	37.24	43.50	68.52	74.00	-5.48	Pk

Horizontal	4933.212	44.30	7.10	37.24	43.50	45.14	54.00	-8.86	AV
Horizontal	11400.165	58.51	8.46	38.57	44.50	61.04	74.00	-12.96	Pk
Horizontal	11400.165	45.13	8.46	38.57	44.50	47.66	54.00	-6.34	AV
Horizontal	17102.141	61.17	10.12	38.38	44.10	65.57	74.00	-8.43	Pk
Horizontal	17102.141	45.27	10.12	38.38	44.10	49.67	54.00	-4.33	AV

For Band IV

Polar	Frequency	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
(H/V)	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G									
Vertical	4679.136	58.97	5.94	35.40	44.00	56.31	74.00	-17.69	Pk
Vertical	4679.136	47.28	5.94	35.40	44.00	44.62	54.00	-9.38	AV
Vertical	11490.052	60.16	8.46	39.75	44.50	63.87	74.00	-10.13	Pk
Vertical	11490.052	44.99	8.46	39.75	44.50	48.70	54.00	-5.30	AV
Vertical	17235.261	57.25	10.12	38.80	44.10	62.07	74.00	-11.93	Pk
Vertical	17235.261	41.34	10.12	38.80	42.70	47.56	54.00	-6.44	AV
Horizontal	4679.135	58.35	5.94	35.18	44.00	55.47	74.00	-18.53	Pk
Horizontal	4679.135	44.77	5.94	35.18	44.00	41.89	54.00	-12.11	AV
Horizontal	11490.302	60.79	8.46	38.71	44.50	63.46	74.00	-10.54	Pk
Horizontal	11490.302	45.66	8.46	38.71	44.50	48.33	54.00	-5.67	AV
Horizontal	17235.246	60.51	10.12	38.38	44.10	64.91	74.00	-9.09	Pk
Horizontal	17235.246	44.07	10.12	38.38	44.10	48.47	54.00	-5.53	AV
middle Channel (5785 MHz)-Above 1G									
Vertical	4592.208	58.22	6.48	36.35	44.05	57.00	74.00	-17.00	Pk
Vertical	4592.208	44.96	6.48	36.35	44.05	43.74	54.00	-10.26	AV
Vertical	11570.136	60.53	8.47	37.88	44.51	62.37	74.00	-11.63	Pk
Vertical	11570.136	43.63	8.47	37.88	44.51	45.47	54.00	-8.53	AV
Vertical	17355.249	57.92	10.12	38.8	44.10	62.74	74.00	-11.26	Pk
Vertical	17355.249	41.77	10.12	38.8	42.70	47.99	54.00	-6.01	AV
Horizontal	4592.138	60.76	6.48	36.37	44.05	59.56	74.00	-14.44	Pk
Horizontal	4592.138	44.89	6.48	36.37	44.05	43.69	54.00	-10.31	AV
Horizontal	11570.256	60.49	8.47	38.64	44.50	63.10	74.00	-10.90	Pk
Horizontal	11570.256	47.86	8.47	38.64	44.50	50.47	54.00	-3.53	AV
Horizontal	17355.127	60.86	10.12	38.38	44.10	65.26	74.00	-8.74	Pk
Horizontal	17355.127	46.08	10.12	38.38	44.10	50.48	54.00	-3.52	AV
High Channel (5825 MHz)-Above 1G									
Vertical	5039.156	61.65	7.10	37.24	43.50	62.49	74.00	-11.51	Pk
Vertical	5039.156	47.43	7.10	37.24	43.50	48.27	54.00	-5.73	AV
Vertical	11650.131	55.43	8.46	37.68	44.50	57.07	74.00	-16.93	Pk
Vertical	11650.131	44.05	8.46	37.68	44.50	45.69	54.00	-8.31	AV
Vertical	17475.289	60.94	10.12	38.8	44.10	65.76	74.00	-8.24	Pk
Vertical	17475.289	40.21	10.12	38.8	42.70	46.43	54.00	-7.57	AV
Horizontal	5039.316	67.94	7.10	37.24	43.50	68.78	74.00	-5.22	Pk

Horizontal	5039.316	42.78	7.10	37.24	43.50	43.62	54.00	-10.38	AV
Horizontal	11650.203	58.16	8.46	38.57	44.50	60.69	74.00	-13.31	Pk
Horizontal	11650.203	44.98	8.46	38.57	44.50	47.51	54.00	-6.49	AV
Horizontal	17475.152	61.40	10.12	38.38	44.10	65.80	74.00	-8.20	Pk
Horizontal	17475.152	46.16	10.12	38.38	44.10	50.56	54.00	-3.44	AV

5.7 Power spectral density

5.7.1 Limit

For the band 5.15-5.25 GHz

For client deIVces in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.25-5.35 GHz and 5.47-5.725 GHz

The maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

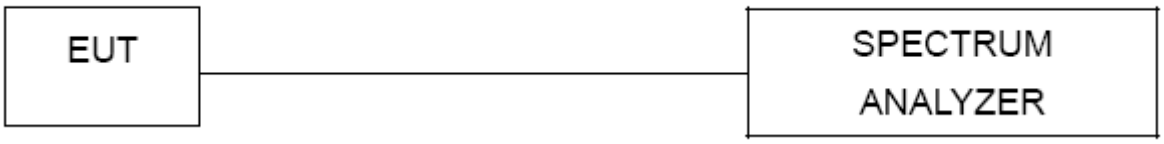
For the band 5.725-5.85 GHz

The maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

5.7.2 Test procedure

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.
3. Set the RBW ≥ 3 kHz.
4. Set the VBW ≥ 3 x RBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

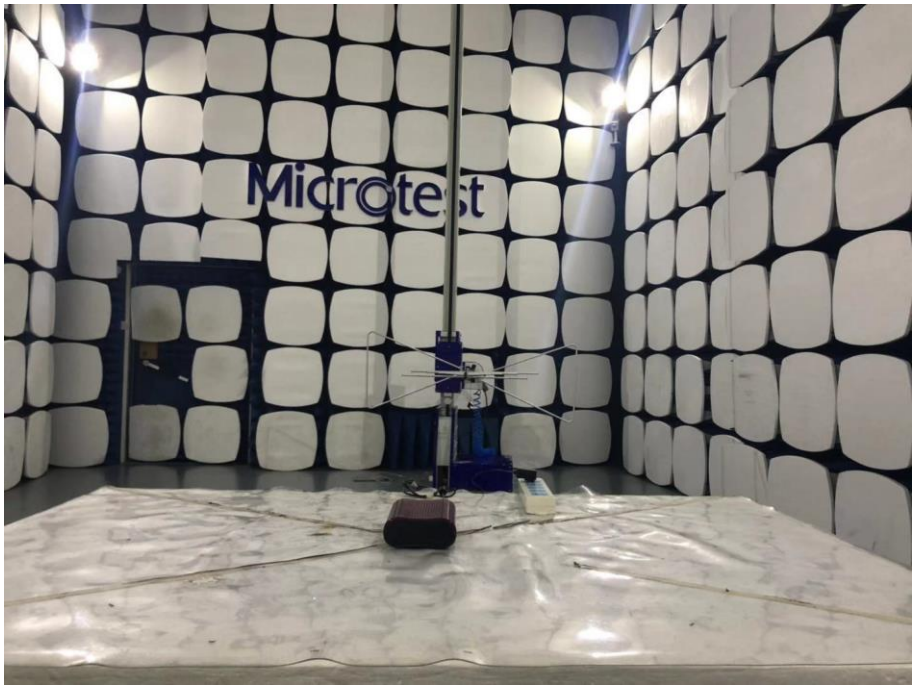
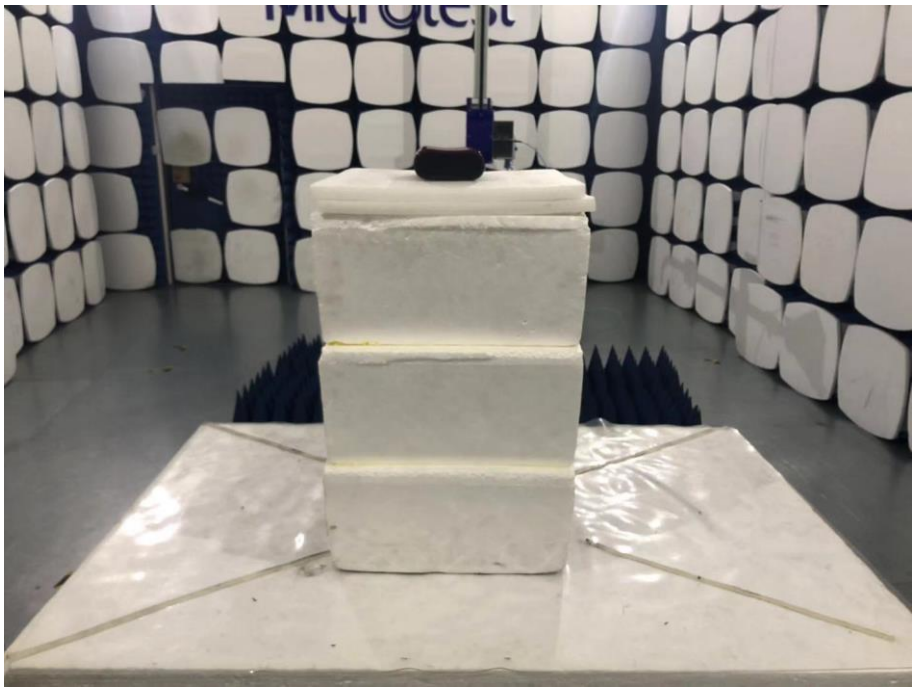
Test setup



5.7.3 Test results

Please refer to the section 5.2.6 of test report No.: UL-RPT-RP11913492-2416A1913492-2416A, which is issued by UL VS LTD. on Feb. 28, 2018.

Photographs of the Test Setup

Radiated emission



Conducted emission


Photographs of the EUT

See the APPENDIX 1: EUT PHOTO in the report No.: MTi181218E106-1.

----END OF REPORT----