

FCC TEST REPORT (WIFI)

for

WeiHeng Digital Company Limited

Traveltek

Model Number: W1330Q,M13,WI1330Q

FCC ID: 2ACH9-W1330Q

Prepared for : WeiHeng Digital Company Limited
Address : Rm732, 3rd session, Build B, Mingyou Industrial
Products Exhibitionand Purchasing Center,
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Date of Report : Jul. 11, 2017

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Keyway Testing Technology Co., Ltd.

Applicant:	WeiHeng Digital Company Limited		
Address:	Rm732, 3rd session, Build B, Mingyou Industrial Products Exhibition and Purchasing Center, Baoyuan Road, Bao'an District, Shenzhen		
Manufacturer:	WeiHeng Digital Company Limited		
Address:	XinYu National High-tech Industrial Development Zone		
E.U.T:	Traveltek		
Model Number:	W1330Q, M13, WI1330Q		
Trade Name:	-----	Serial No.:	-----
Date of Receipt:	Jul.1, 2017	Date of Test:	Jul.1-10, 2017
Test Specification:	FCC Part 15, Subpart 15.247: Oct. 1, 2016 ANSI C63.10:2013 KDB558074 D01 DTS Meas Guidance v03r05		
Test Result:	The equipment under test was found to be compliance with the requirements of the standards applied.		
Issue Date: Jul. 11, 2017			
Tested by:	Reviewed by:	Approved by:	
 _____ Keven Wu / Engineer	 _____ Mark Li / Supervisor	 _____ Andy Gao / Supervisor	
Other Aspects:			
None.			
Abbreviations: OK/P=passed fail/F=failed n.a/N=not applicable E.U.T=equipment under tested			
This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Keyway Testing Technology Co., Ltd.			

1.TEST SUMMARY

Test Items	Test Requirement	Result
Conducted Emissions	15.207	PASS
Radiated Emissions	15.205(a)/15.209/15.247(d)	PASS
6dB&99% Bandwidth	15.247(a)(2)	PASS
Power density	15.247(e)	PASS
Maximum Peak Output Power	15.247(b)	PASS
Duty Cycle	KDB558074 e6.0(b)	PASS
Emissions from out of band	15.247(d)	PASS
Antenna Requirement	15.203	PASS

2.GENERAL PRODUCT INFORMATION

2.1. Product Function

Refer to Technical Construction Form and User Manual.

2.2. Description of Device (EUT)

Product Name:	Traveltek
Model No.:	W1330Q
Series models:	M13,WI1330Q
Model differences:	All the models are the same circuit and RF module, except the model names and colours
Operation Frequency:	2412MHz~2462MHz (802.11b/802.11g/802.11n(HT20)) 2422MHz~2452MHz (802.11n(HT40))
Channel numbers:	11 for 802.11b/802.11g/802.11n(HT20) , 7 for 802.11n(HT40)
Modulation technology:	Direct Sequence Spread Spectrum (DSSS) for (IEEE 802.11b) Orthogonal Frequency Division Multiplexing(OFDM) for (IEEE 802.11g/802.11n)
Data speed (IEEE 802.11b):	1Mbps, 2Mbps, 5.5Mbps, 11Mbps
Data speed (IEEE 802.11g):	6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps
Data speed (IEEE 802.11n):	Up to 150Mbps
Antenna Type:	FPCB antenna
Antenna gain:	1.0 dBi
Power supply:	DC 7.6V from battery or DC 12V from adapter
AC Adapter:	M/N:SWN024S-120200U1 INPUT:100-240V---50/60Hz 075A OUTPUT:DC 12V/2A

2.3. Independent Operation Modes

The basic operation modes are:

2.3.1. EUT work WIFI TX mode, and frequency as below:

Mode 1	802.11b	Frequency
		2412MHz
		2437MHz
		2462MHz
Mode 2	802.11g	2412MHz
		2437MHz
		2462MHz
Mode 3	802.11n(HT20)	2412MHz
		2437MHz
		2462MHz
Mode 4	802.11n(HT40)	2422MHz
		2437MHz
		2452MHz
Mode 5	Link Mode	

Remark: 802.11b data speed:1Mbps, 2Mbps, 5.5Mbps, 11Mbps; 802.11g data speed:6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps; 802.11n(HT20)/n(HT40) data speed:MCS0, MCS1,MCS2, MCS3, MCS4, MCS5, MCS6, MCS7. According to ANSI C63.10 standards, the test results only need to reflect the worst test case. The worst test case:1Mbps for 802.11b, 6Mbps for 802.11g, MCS0 for 802.11n(HT20)/n(HT40) and its data have been recorded in this report.

2.4. Test Supporting System

None.

2.5. Test Sites

2.5.1. Test Facilities

Lab Qualifications : Certificated by Industry Canada
Registration No.: 9868A
Date of registration: December 8, 2011

Certificated by FCC, USA
Registration No.: 370994
Date of registration: February 21, 2012

Certificated by CNAS China
Registration No.: CNAS L5783
Date of registration: August 8, 2012

2.6. List of Test and Measurement Instruments

2.6.1. For conducted emission at the mains terminals test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESCI	101156	Apr. 27,17	Apr. 27,18
Artificial Mains Network	Rohde&Schwarz	ENV216	101315	Apr. 27,17	Apr. 27,18
Artificial Mains Network (AUX)	Rohde&Schwarz	ENV216	101314	Apr. 27,17	Apr. 27,18
RF Cable	FUJIKURA	3D-2W	944 Cable	Apr. 27,17	Apr. 27,18

2.6.2. For radiated emission test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESCI	101156	Apr. 27,17	Apr. 27,18
System Simulator	Agilent	E5515C	GB43130245	Apr. 27,17	Apr. 27,18
Power Splitter	Weinschel	1506A	NW425	Apr. 27,17	Apr. 27,18
Bilog Antenna	ETS-LINDGREEN	3142D	135452	Apr. 27,17	Apr. 27,18
Spectrum Analyzer	Agilent	E4411B	MY4511304	Apr. 27,17	Apr. 27,18
Spectrum Analyzer	R&S	FSV40	132.1.3008K39-100967	Apr. 27,17	Apr. 27,18
3m Semi-anechoic Chamber	ETS-LINDGREEN	966	KW01	Apr. 27,17	Apr. 27,18
Signal Amplifier	SONOMA	310	187016	Apr. 27,17	Apr. 27,18
Signal Amplifier	Agilent	8449B	3008A00251	Apr. 27,17	Apr. 27,18
RF Cable	IMRO	IMRO-400	966 Cable 1#	N/A	N/A
MULTI-DEVICE Controller	ETS-LINDGREEN	2090	126913	N/A	N/A
Horn Antenna	DAZE	ZN30701	11003	Apr. 27,17	Apr. 27,18
Horn Antenna	SCHWARZBECK	BBHA9170	9170-068	Apr. 27,17	Apr. 27,18
Spectrum Analyzer	Agilent	8593E	3911A04271	Apr. 27,17	Apr. 27,18
Spectrum Analyzer	Agilent	E4408B	MY44211125	Apr. 27,17	Apr. 27,18
Signal Amplifier	DAZE	ZN3380C	11001	Apr. 27,17	Apr. 27,18
High Pass filter	Micro	HPM50111	324216	Apr. 27,17	Apr. 27,18
Filter	COM-MW	ZBSF-C836.5-25-X	KW032	Apr. 27,17	Apr. 27,18
Filter	COM-MW	ZBSF-C1747.5-75-X2	KW035	Apr. 27,17	Apr. 27,18
Filter	COM-MW	ZBSF-MET60080-60-X2	KW037	Apr. 27,17	Apr. 27,18
DC Power Supply	LongWei	PS-305D	010964729	Apr. 27,17	Apr. 27,18
Constant temperature and humidity box	GF	GTH-800-40-1P	MAA9906-005	Apr. 27,17	Apr. 27,18
Splitter	Agilent	11636B	0025164	Apr. 27,17	Apr. 27,18
Loop Antenna	ARA	PLA-1030/B	1029	Apr. 22,17	Apr. 22,18
Power Meter	Anritsu	ML2495A	1204003	Apr. 24,17	Apr. 24,18
Power Sensor	Anritsu	MA2411B	1126150	Apr. 24,17	Apr. 24,18

3. TEST SET-UP AND OPERATION MODES

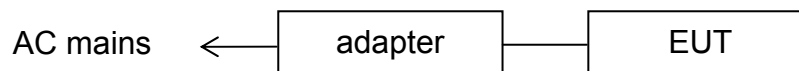
3.1. Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the Operating Instructions.

3.2. Block Diagram of Test Set-up

System Diagram of Connections between EUT and Simulators

Conducted Emission:



Radiated Emission:



(EUT: Traveltek)

3.3. Special Accessories and Auxiliary Equipment

None

3.4. Countermeasures to Achieve EMC Compliance

None.

4. EMISSION TEST RESULTS

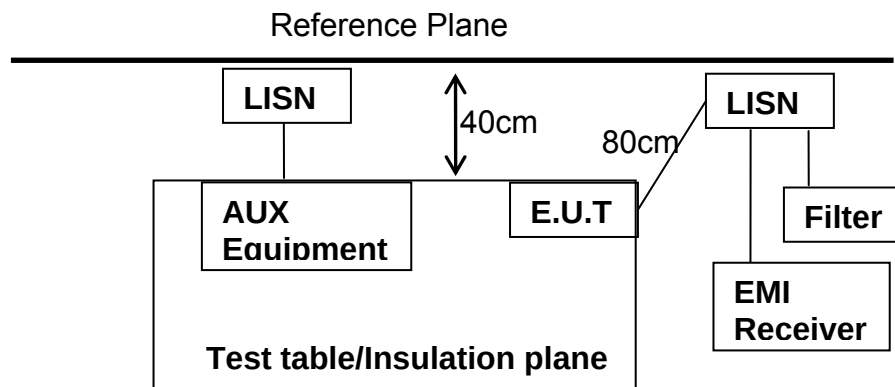
4.1. Conducted Emission at the Mains Terminals Test

4.1.1. Limit 15.209 limits

Frequency MHz	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50
NOTE: 1.The lower limit shall apply at the transition frequencies. 2.The limit decreases linearly with the logarithm of the frequency in the range 0,15 MHz to 0,50 MHz.		

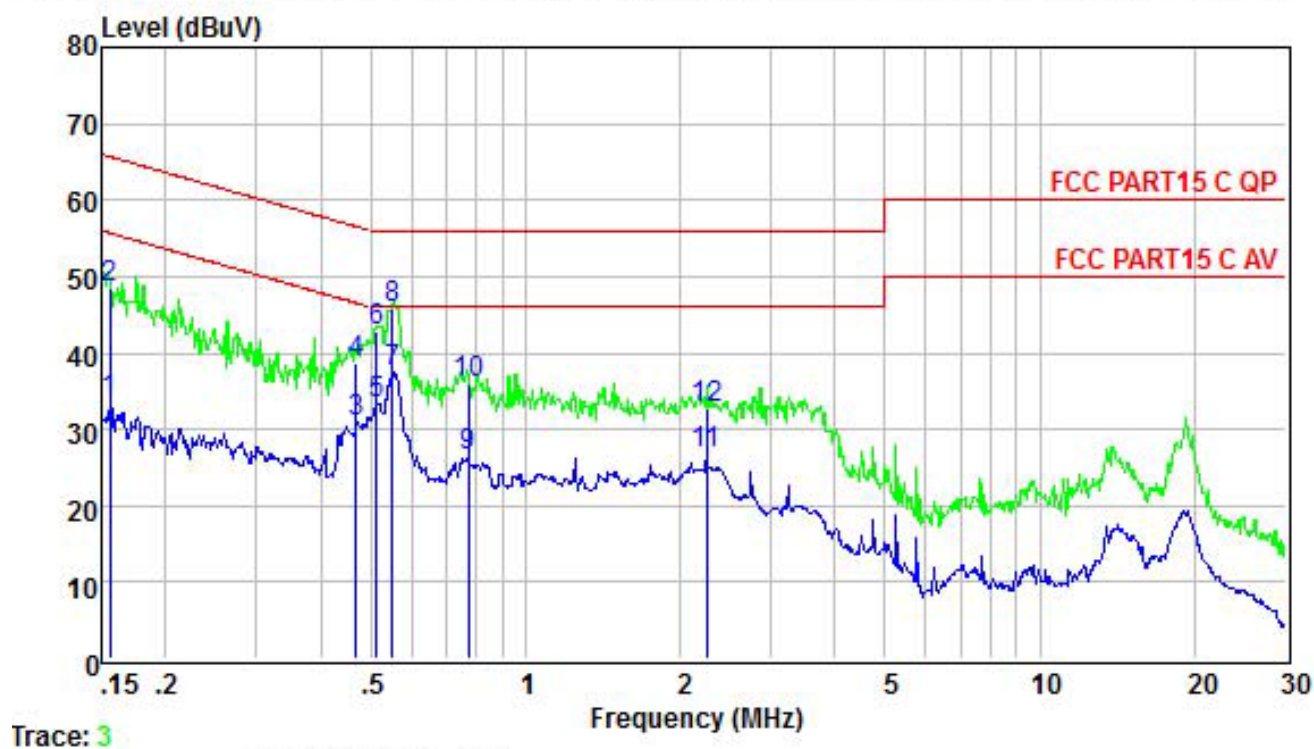
4.1.2. Test Setup

- 1.The EUT was put on a wooden table which was 0.8 m high above the ground and connected to the AC mains through the Artificial Mains Network (AMN). Where the mains cable supplied by the manufacture was longer than 0.8 m, the excess was folded back and forth parallel to the cable at the center so as to form a bundle no longer than 0.4 m.
- 2.The EUT was kept 0.4 m from any other earthed conducting surface. Both sides of AC line were checked to find out the maximum conducted emission levels according to the test procedure during the conducted emission test.
- 3.The frequency range from 150 kHz to 30 MHz was investigated.
- 4.The bandwidth of the test receiver was set at 9 kHz.
- 5.Pretest for all mode, and the test data of the worst case condition(s) was reported on the following page.



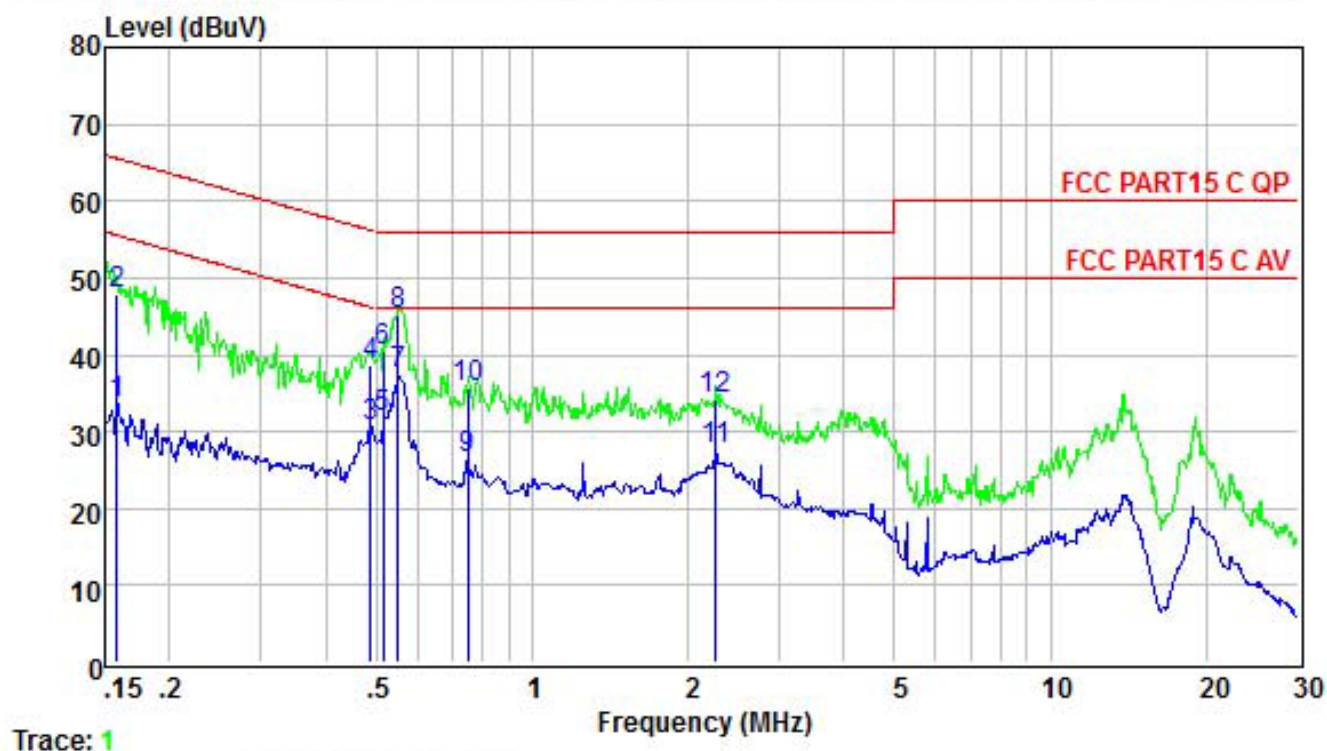
Remark: E.U.T. :Equipment Under Test
 LISN: Line Impedance Stabilization Network
 Test table height: 0.8m.

EUT :	Traveltek	Model Name :	W1330Q
Temperature :	20 °C	Relative Humidity :	54%
Pressure :	1010hPa	Phase :	L
Test Voltage :	DC 12V from Adapter AC 120V/60Hz	Test Mode :	Mode 5



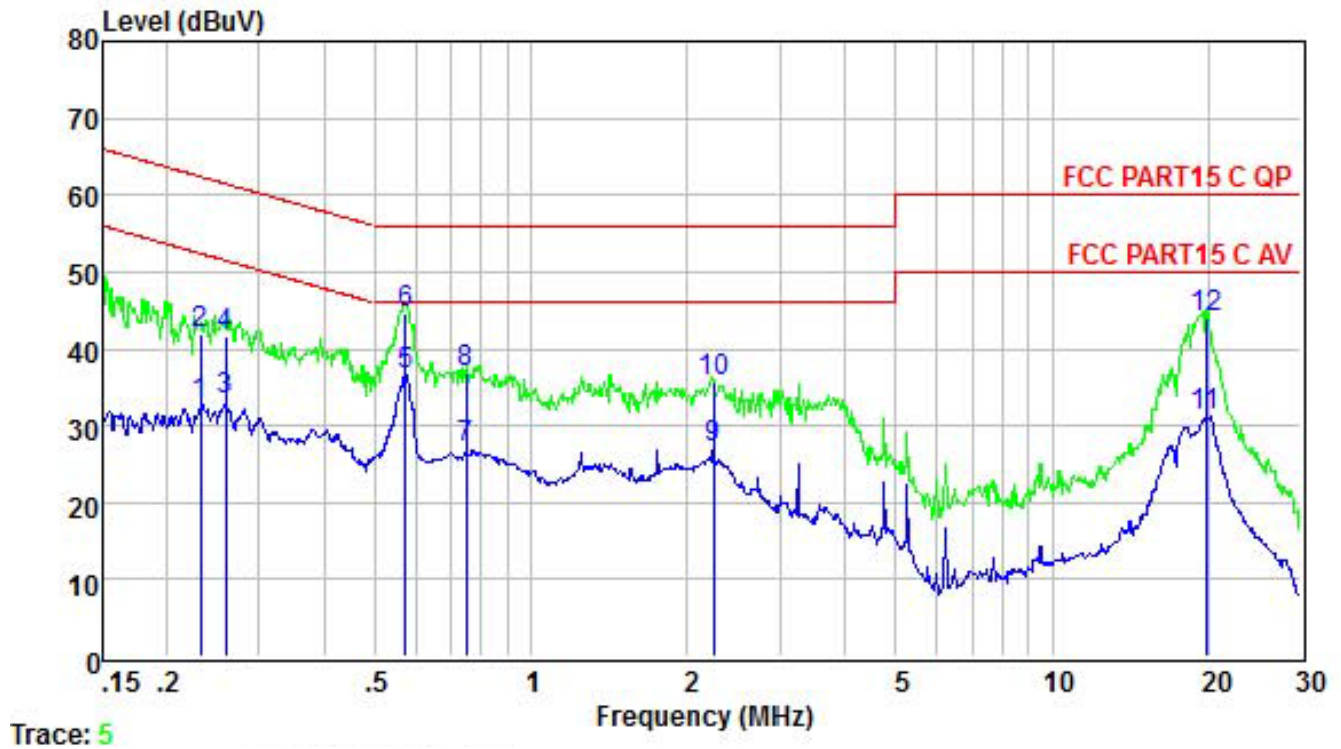
	Freq	Level	Limit	Over	Remark
	MHz	dBuV	Line	Limit	
			dBuV	dB	
1	0.156	33.74	55.69	-21.95	Average
2	0.156	48.60	65.69	-17.09	QP
3	0.469	30.91	46.54	-15.63	Average
4	0.469	38.60	56.54	-17.94	QP
5	0.513	33.27	46.00	-12.73	Average
6	0.513	42.80	56.00	-13.20	QP
7	0.552	37.58	46.00	-8.42	Average
8	0.552	45.70	56.00	-10.30	QP
9	0.775	26.56	46.00	-19.44	Average
10	0.775	35.90	56.00	-20.10	QP
11	2.249	26.74	46.00	-19.26	Average
12	2.249	32.70	56.00	-23.30	QP

EUT :	Traveltek	Model Name :	W1330Q
Temperature :	20 °C	Relative Humidity :	54%
Pressure :	1010hPa	Phase :	N
Test Voltage :	DC 12V from Adapter AC 120V/60Hz	Test Mode :	Mode 5



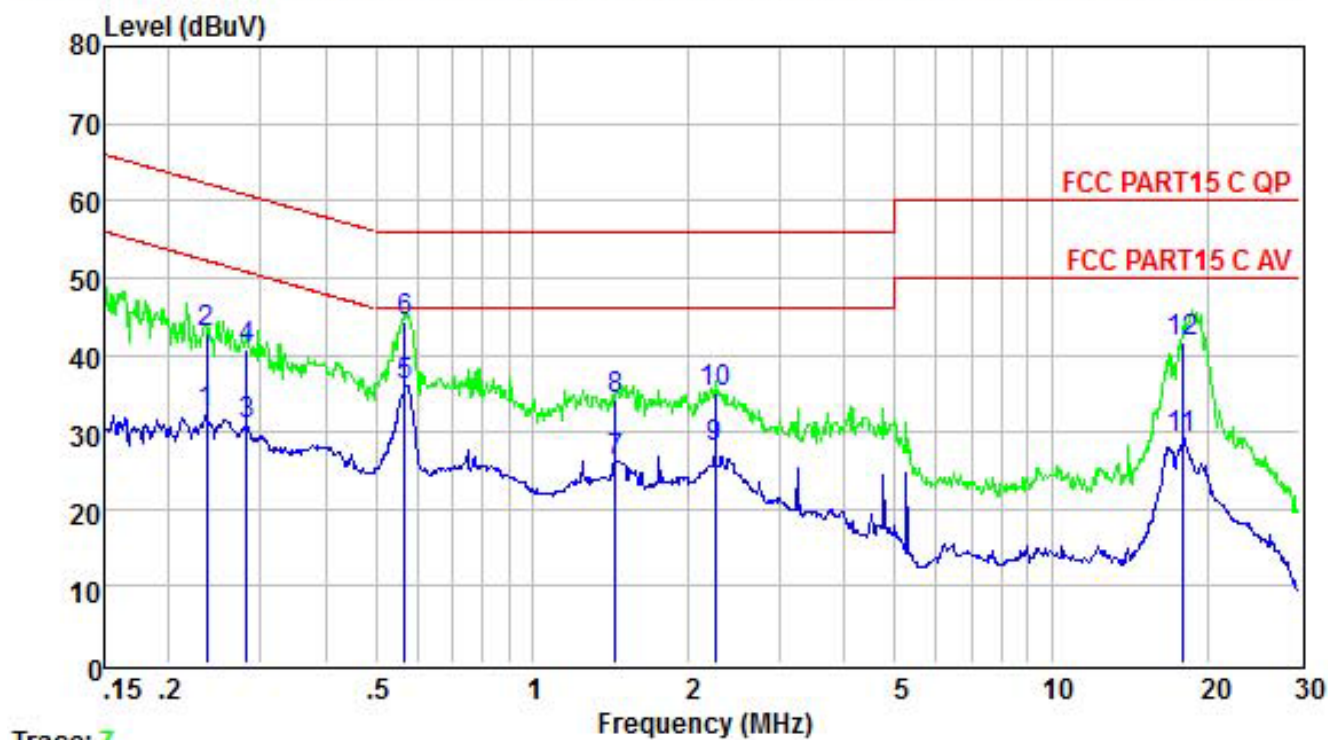
	Freq	Level	Limit	Over	Remark
	MHz	dBuV	dBuV	Limit	
1	0.158	33.60	55.56	-21.96	Average
2	0.158	47.80	65.56	-17.76	QP
3	0.489	30.72	46.19	-15.47	Average
4	0.489	38.70	56.19	-17.49	QP
5	0.516	31.96	46.00	-14.04	Average
6	0.516	40.30	56.00	-15.70	QP
7	0.552	37.37	46.00	-8.63	Average
8	0.552	45.20	56.00	-10.80	QP
9	0.751	26.48	46.00	-19.52	Average
10	0.751	35.80	56.00	-20.20	QP
11	2.261	27.65	46.00	-18.35	Average
12	2.261	34.10	56.00	-21.90	QP

EUT :	Traveltek	Model Name :	W1330Q
Temperature :	20 °C	Relative Humidity :	54%
Pressure :	1010hPa	Phase :	L
Test Voltage :	DC 12V from Adapter AC 240V/50Hz	Test Mode :	Mode 5



	Freq	Level	Limit	Over	Remark
	MHz	dBuV	Line	Limit	
			dBuV	dB	
1	0.232	32.80	52.39	-19.59	Average
2	0.232	41.90	62.39	-20.49	QP
3	0.259	33.27	51.47	-18.20	Average
4	0.259	41.70	61.47	-19.77	QP
5	0.573	36.51	46.00	-9.49	Average
6	0.573	44.70	56.00	-11.30	QP
7	0.751	27.11	46.00	-18.89	Average
8	0.751	36.90	56.00	-19.10	QP
9	2.249	27.12	46.00	-18.88	Average
10	2.249	35.70	56.00	-20.30	QP
11	19.740	31.18	50.00	-18.82	Average
12	19.740	43.90	60.00	-16.10	QP

EUT :	Traveltek	Model Name :	W1330Q
Temperature :	20 °C	Relative Humidity :	54%
Pressure :	1010hPa	Phase :	N
Test Voltage :	DC 12V from Adapter AC 240V/50Hz	Test Mode :	Mode 5



	Freq	Level	Limit	Over	Remark
	MHz	dBuV	Line	Limit	
			dBuV	dB	
1	0.237	32.34	52.22	-19.88	Average
2	0.237	42.80	62.22	-19.42	QP
3	0.282	31.07	50.76	-19.69	Average
4	0.282	40.80	60.76	-19.96	QP
5	0.567	35.99	46.00	-10.01	Average
6	0.567	44.20	56.00	-11.80	QP
7	1.449	26.12	46.00	-19.88	Average
8	1.449	34.20	56.00	-21.80	QP
9	2.249	28.10	46.00	-17.90	Average
10	2.249	35.20	56.00	-20.80	QP
11	17.849	29.16	50.00	-20.84	Average
12	17.849	41.60	60.00	-18.40	QP

4.2. Radiated Emission Test

4.2.1. Limit 15.209 limits

Frequency MHZ	Distance Meters	Filed Strengths Limit	
		$\mu\text{V}/\text{m}$	$\text{dB}(\mu\text{V})/\text{m}$
30~88	3	100	40.0
88~216	3	150	43.5
216~960	3	200	46.0
960~1000	3	500	54.0
Above 1000	3	74.0dB(μV)/m(Peak) 54.0dB(μV)/m(Average)	

4.2.2. Restricted bands of operation

MHz	MHz	MHz	GHz
0.009-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	
All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.			

4.2.3. Test Setup

The EUT was placed on a turn table which was 0.8 m (above 1GHz, the high was 1.5m) above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was set 3 m away from the receiving antenna which was mounted on an antenna tower. The measuring antenna moved up and down to find out the maximum emission level. It moved from 1 m to 4 m for both horizontal and vertical polarizations.

The EUT was tested in the Chamber Site. It was pre-scanned with a Peak detector from the spectrum, and all the final readings from the test receiver were measured with the Quasi-Peak detector.

The bandwidth of the EMI test receiver is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 3MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz, Both PK and AV measure, PK detector is used.

The frequency range from 30MHz to 10th harmonic (25GHz) are checked. And no any emissions were found from 18GHz to 25 GHz, so the radiated emissions from 18GHz to 25GHz were not record.

Notes: 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading-Preamp Factor.

2. Measurement Uncertainty: ± 3.2 dB at a level of confidence of 95%.

3. For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

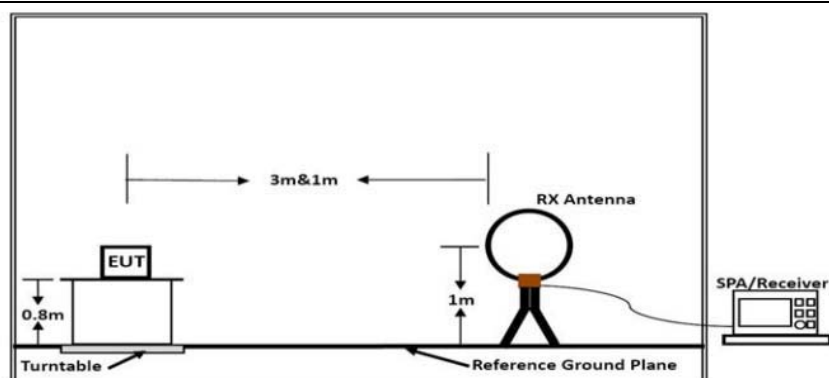
4. For emissions below 1GHz, pretest for all mode, The test data of the worst case condition(s) was reported on the following pages.

5. For Both PK and AV value above 1GHz, PK detector is used.

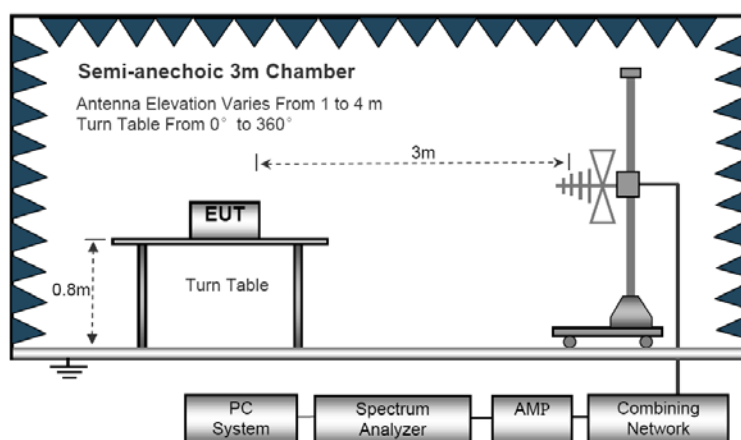
6. EUT Pre-scan X/Y/Z orientation, only worst case is presented in the report (X orientation).

Radiated Emission Test-Up

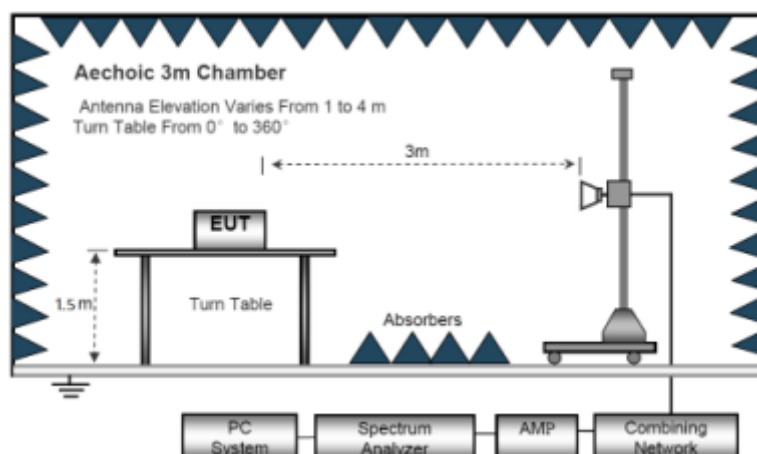
Below 30MHz



Below 1GHz



Above 1GHz



EUT :	Traveltek	Model Name :	W1330Q
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010hPa	Test Mode :	Mode 5
Test Voltage :	DC 5V from PC AC 120V/60Hz		

Below 30MHz

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

Note:

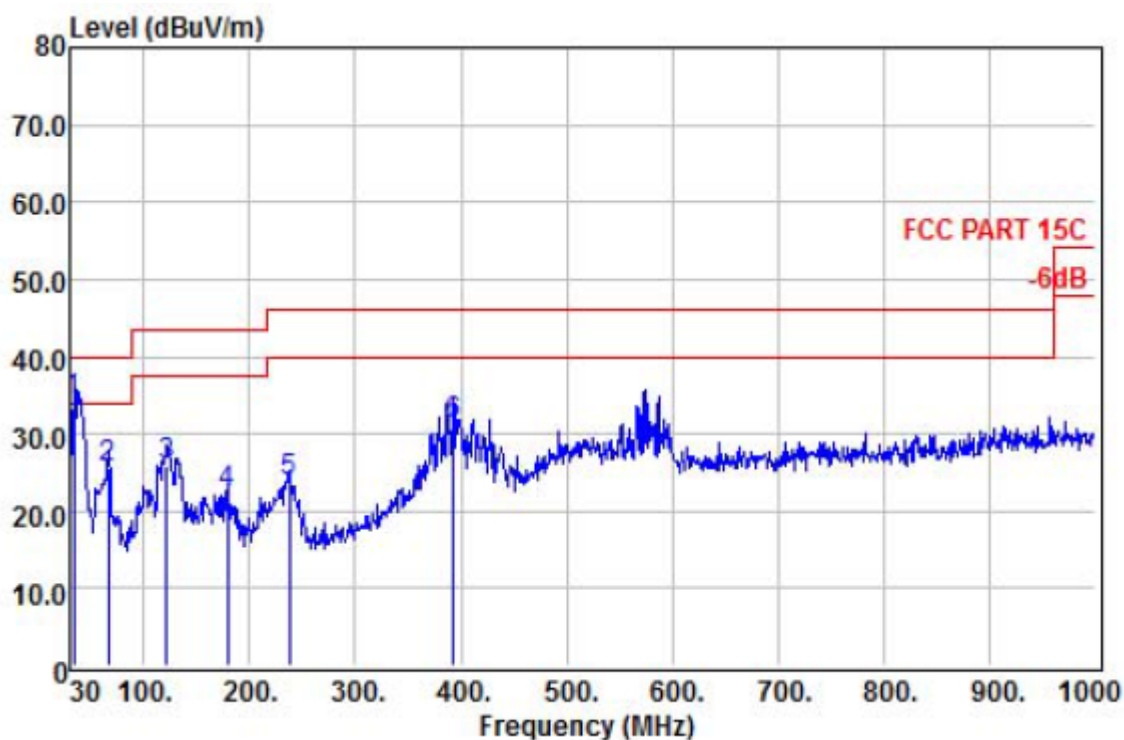
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = $40 \log (\text{specific distance/test distance})$ (dB);

Limit line = specific limits(dBuv) + distance extrapolation factor.

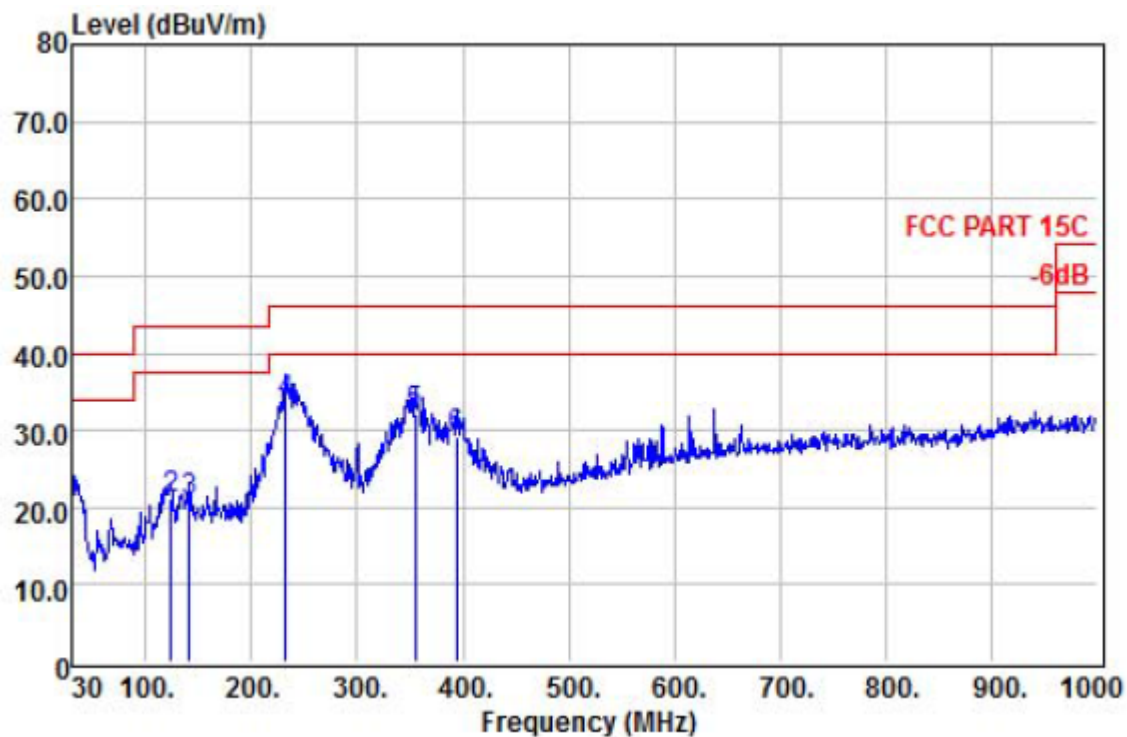
Below 1GHz			
EUT :	Traveltek	Model Name :	W1330Q
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010hPa	Test Mode :	Mode 1 TX Channel 1
Test Voltage :	DC 7.6V		

Vertical



		ReadAntenna	Cable		Limit	Over	
	Freq	Level	Factor	Loss	Line	Limit	Remark
	MHz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB
1 !	33.88	16.31	16.51	1.24	34.06	40.00	-5.94 QP
2	65.89	16.52	7.42	1.62	25.56	40.00	-14.44 QP
3	122.15	14.81	8.46	2.55	25.82	43.50	-17.68 QP
4	179.38	8.74	10.38	3.08	22.20	43.50	-21.30 QP
5	237.58	8.43	12.55	2.75	23.73	46.00	-22.27 QP
6	392.78	11.46	16.27	3.61	31.34	46.00	-14.66 QP

Horizontal



	Freq	Read Level	Antenna Factor	Cable Loss	Level	Limit	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	
1	30.00	0.57	18.80	1.20	20.57	40.00	-19.43	QP
2	124.09	10.18	8.42	2.60	21.20	43.50	-22.30	QP
3	141.55	9.47	8.49	2.90	20.86	43.50	-22.64	QP
4	232.73	18.41	12.42	2.72	33.55	46.00	-12.45	QP
5	354.95	12.71	15.92	3.38	32.01	46.00	-13.99	QP
6	393.75	9.17	16.27	3.62	29.06	46.00	-16.94	QP

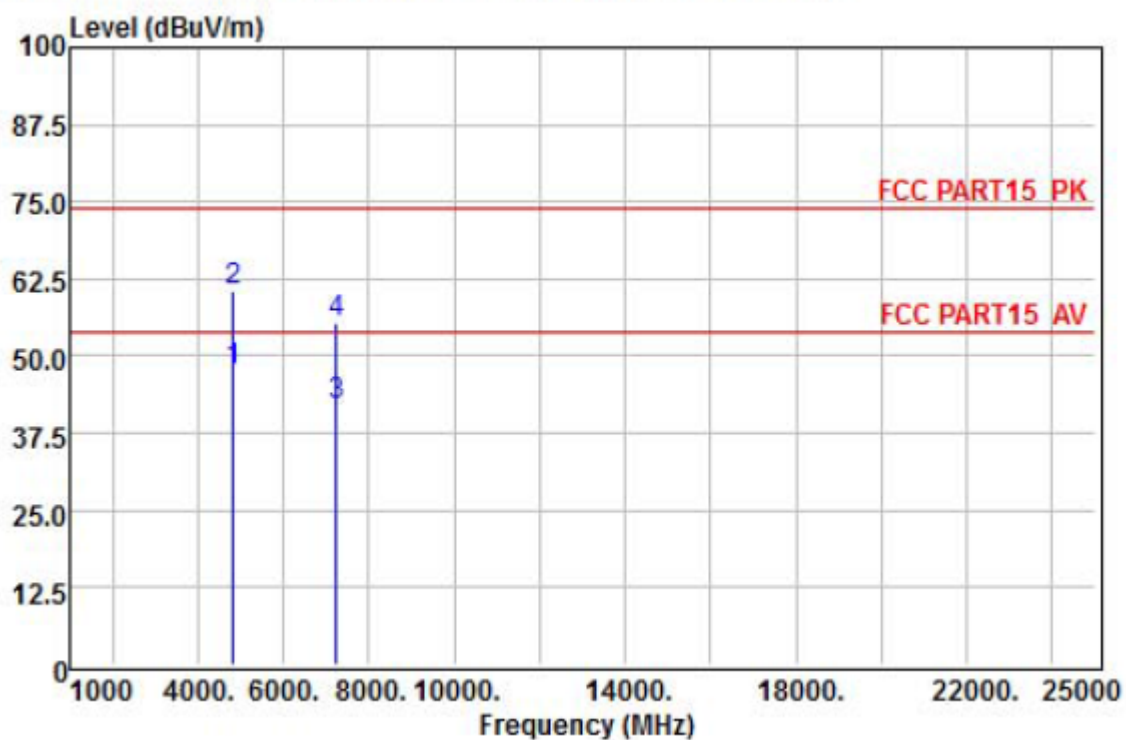
Note: 1. Absolute Level = Reading Level + Antenna Factor + Cable Loss,

2. Over Limit = Absolute Level - Limit;

3. "802.11b" mode is the worst mode, only the worst case is presented in the report.

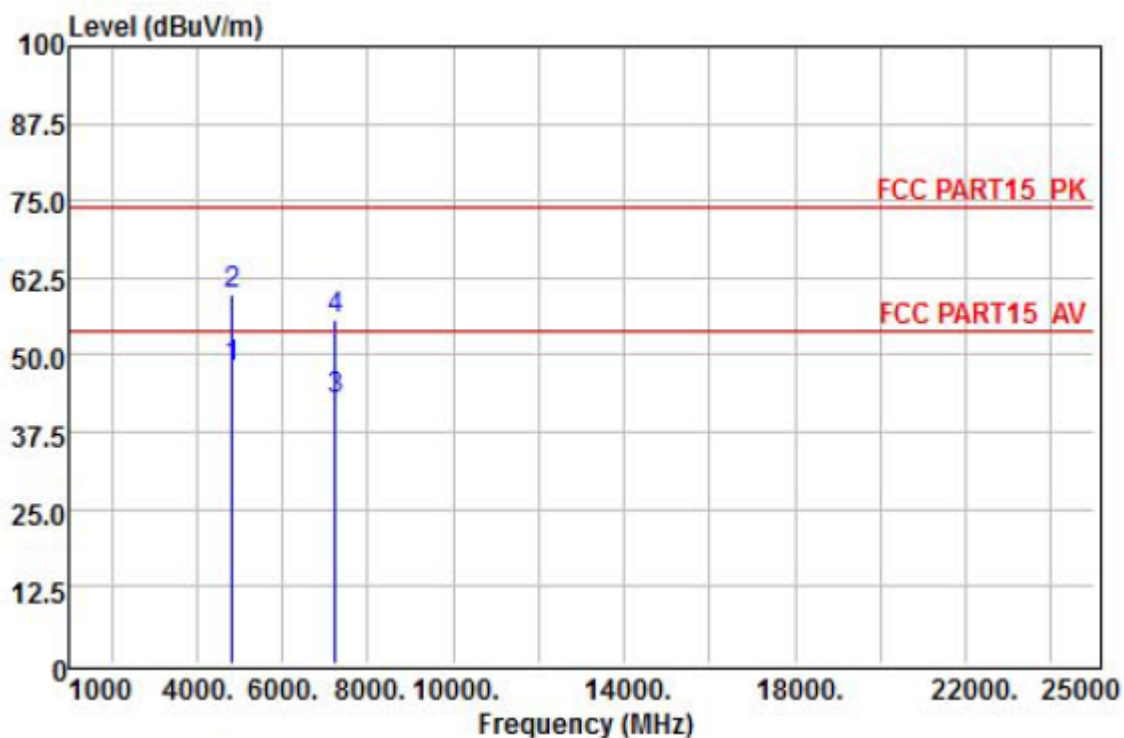
Above 1GHz			
EUT :	Traveltek	Model Name :	W1330Q
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010hPa	Test Mode :	Mode 1 TX Channel 1
Test Voltage :	DC 7.6V		

Vertical



	Freq	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4824.00	30.18	32.99	27.50	12.01	47.68	54.00	-6.32	Average
2	4824.00	43.11	32.99	27.50	12.01	60.61	74.00	-13.39	Peak
3	7236.00	15.95	37.30	27.95	16.61	41.91	54.00	-12.09	Average
4	7236.00	29.37	37.30	27.95	16.61	55.33	74.00	-18.67	Peak

Horizontal

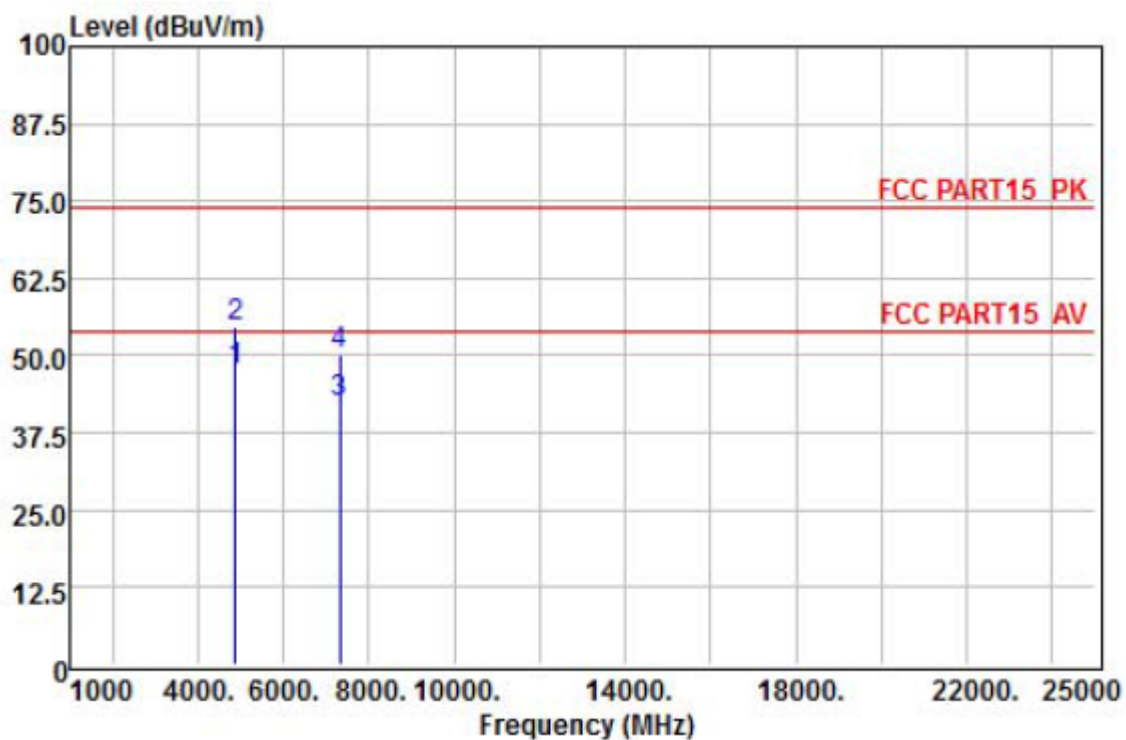


	Freq	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Level	Limit	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4824.00	30.44	32.99	27.50	12.01	47.94	54.00	-6.06	Average
2	4824.00	42.52	32.99	27.50	12.01	60.02	74.00	-13.98	Peak
3	7236.00	16.94	37.30	27.95	16.61	42.90	54.00	-11.10	Average
4	7236.00	29.68	37.30	27.95	16.61	55.64	74.00	-18.36	Peak

Note: 1. Absolute Level= Reading Level + Antenna Factor + Cable Loss-Preamp factor,
 2. Over Limit= Absolute Level – Limit;
 3. When PK value is lower than the Average value limit, average didn't record.
 4. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has not to be reported.

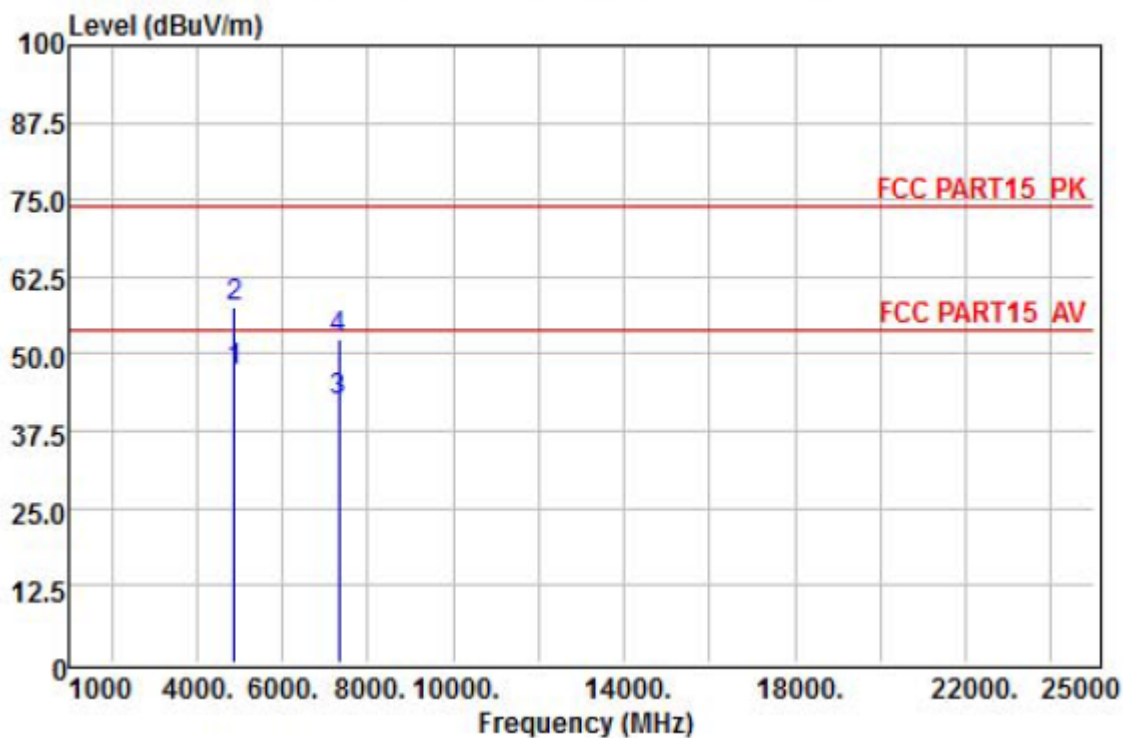
Above 1GHz			
EUT :	Traveltek	Model Name :	W1330Q
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010hPa	Test Mode :	Mode 1 TX Channel 6
Test Voltage :	DC 7.6V		

Vertical



	Freq	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	4874.00	29.76	33.11	27.53	12.14	47.48	54.00	-6.52 Average
2	4874.00	37.04	33.11	27.53	12.14	54.76	74.00	-19.24 Peak
3	7311.00	16.40	37.32	27.96	16.62	42.38	54.00	-11.62 Average
4	7311.00	24.37	37.32	27.96	16.62	50.35	74.00	-23.65 Peak

Horizontal

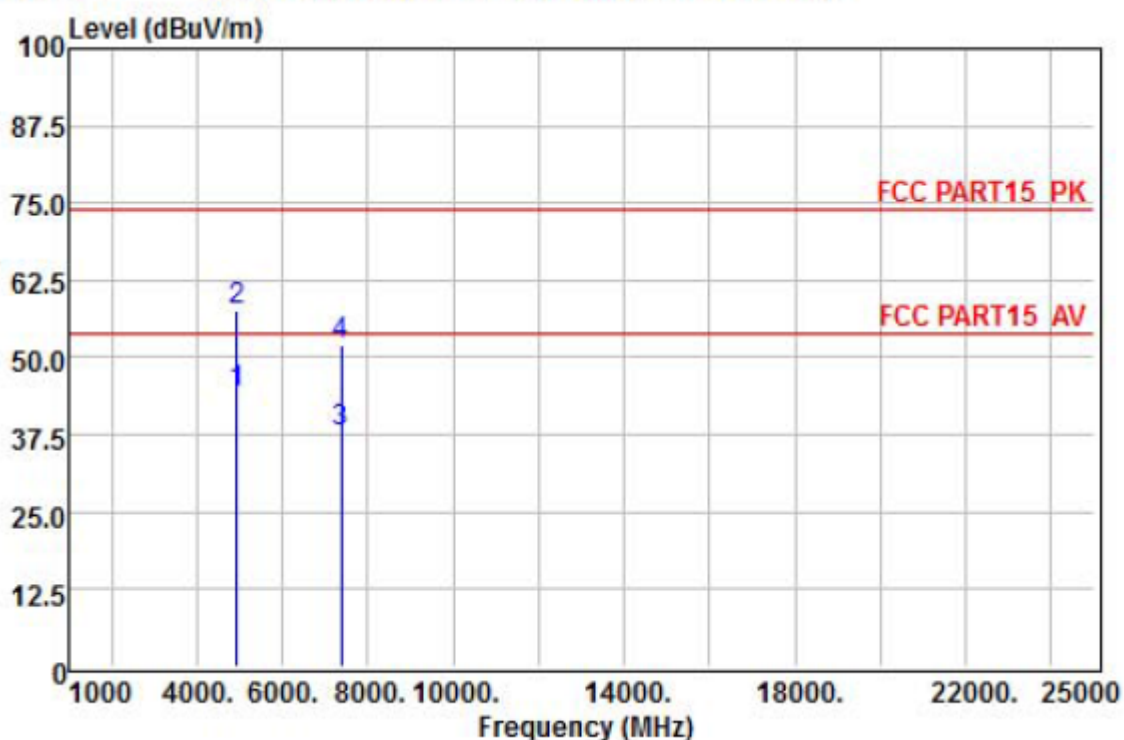


	Freq	Read Level	Antenna Factor	Preamplifier Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4874.00	29.65	33.11	27.53	12.14	47.37	54.00	-6.63	Average
2	4874.00	40.04	33.11	27.53	12.14	57.76	74.00	-16.24	Peak
3	7311.00	16.51	37.32	27.96	16.62	42.49	54.00	-11.51	Average
4	7311.00	26.27	37.32	27.96	16.62	52.25	74.00	-21.75	Peak

Note: 1. Absolute Level= Reading Level + Antenna Factor + Cable Loss-Preamplifier factor,
 2. Over Limit= Absolute Level – Limit;
 3. When PK value is lower than the Average value limit, average didn't record.
 4. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has not to be reported.

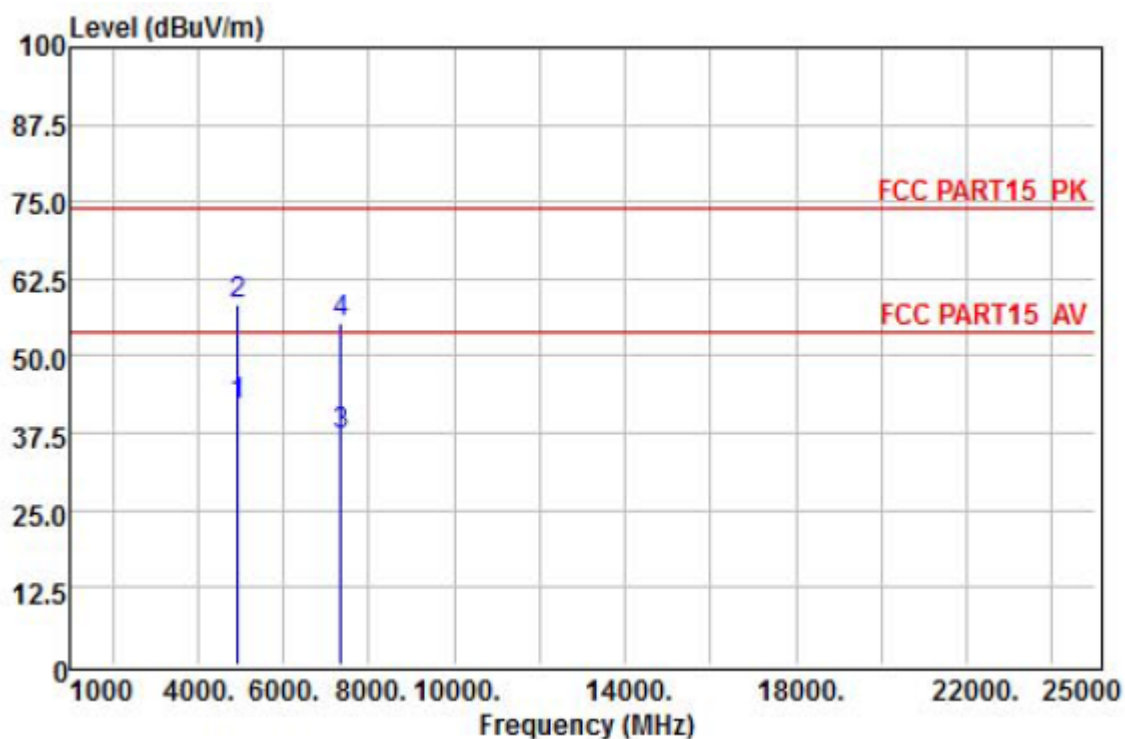
Above 1GHz			
EUT :	Traveltek	Model Name :	W1330Q
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010hPa	Test Mode :	Mode 1 TX Channel 11
Test Voltage :	DC 7.6V		

Vertical



	Freq	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4942.00	26.09	33.28	27.57	12.32	44.12	54.00	-9.88	Average
2	4942.00	39.43	33.28	27.57	12.32	57.46	74.00	-16.54	Peak
3	7386.00	11.74	37.36	27.98	16.62	37.74	54.00	-16.26	Average
4	7386.00	26.23	37.36	27.98	16.62	52.23	74.00	-21.77	Peak

Horizontal

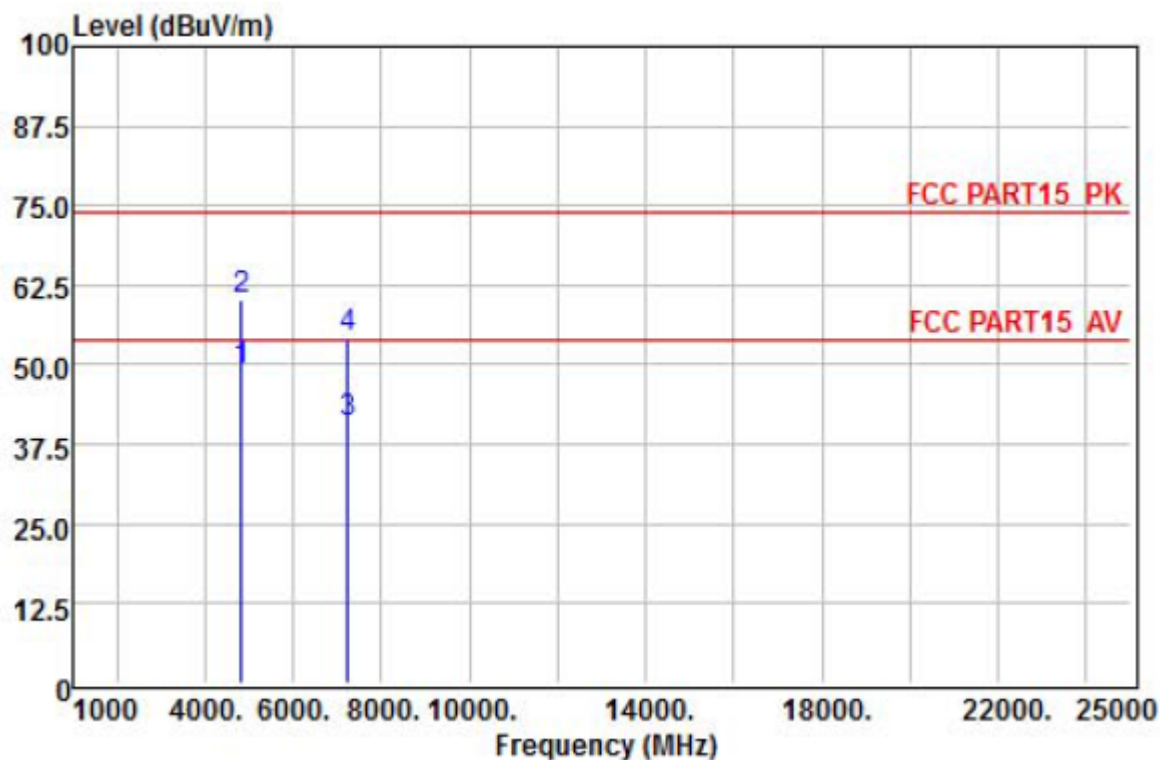


	Freq	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Level	Limit	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4942.00	24.09	33.28	27.57	12.32	42.12	54.00	-11.88	Average
2	4942.00	40.43	33.28	27.57	12.32	58.46	74.00	-15.54	Peak
3	7356.00	11.19	37.34	27.97	16.62	37.18	54.00	-16.82	Average
4	7356.00	29.24	37.34	27.97	16.62	55.23	74.00	-18.77	Peak

Note: 1. Absolute Level= Reading Level + Antenna Factor + Cable Loss-Preamp factor,
 2. Over Limit= Absolute Level – Limit;
 3. When PK value is lower than the Average value limit, average didn't record.
 4. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has not to be reported.

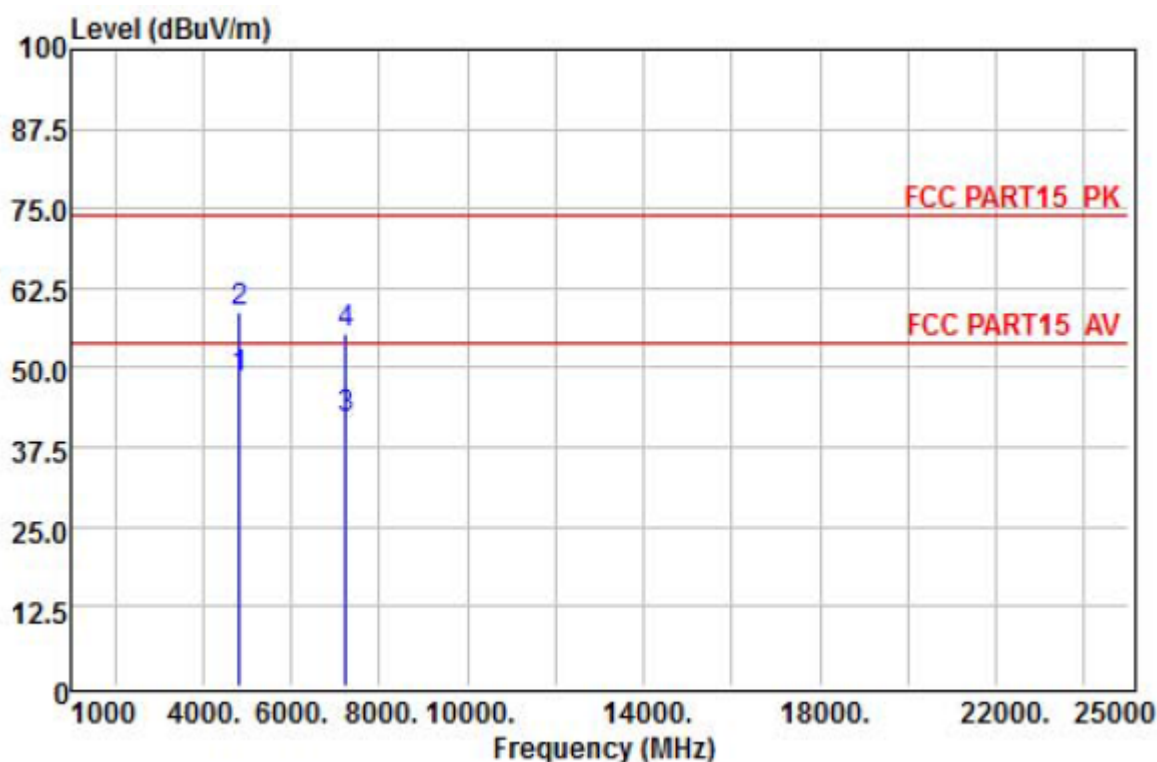
Above 1GHz			
EUT :	Traveltek	Model Name :	W1330Q
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010hPa	Test Mode :	Mode 2 TX Channel 1
Test Voltage :	DC 7.6V		

Vertical



	Freq	Read Level	Antenna Factor	Preamplifier Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4824.00	31.58	32.99	27.50	12.01	49.08	54.00	-4.92	Average
2	4824.00	42.67	32.99	27.50	12.01	60.17	74.00	-13.83	Peak
3	7236.00	14.86	37.30	27.95	16.61	40.82	54.00	-13.18	Average
4	7236.00	28.47	37.30	27.95	16.61	54.43	74.00	-19.57	Peak

Horizontal

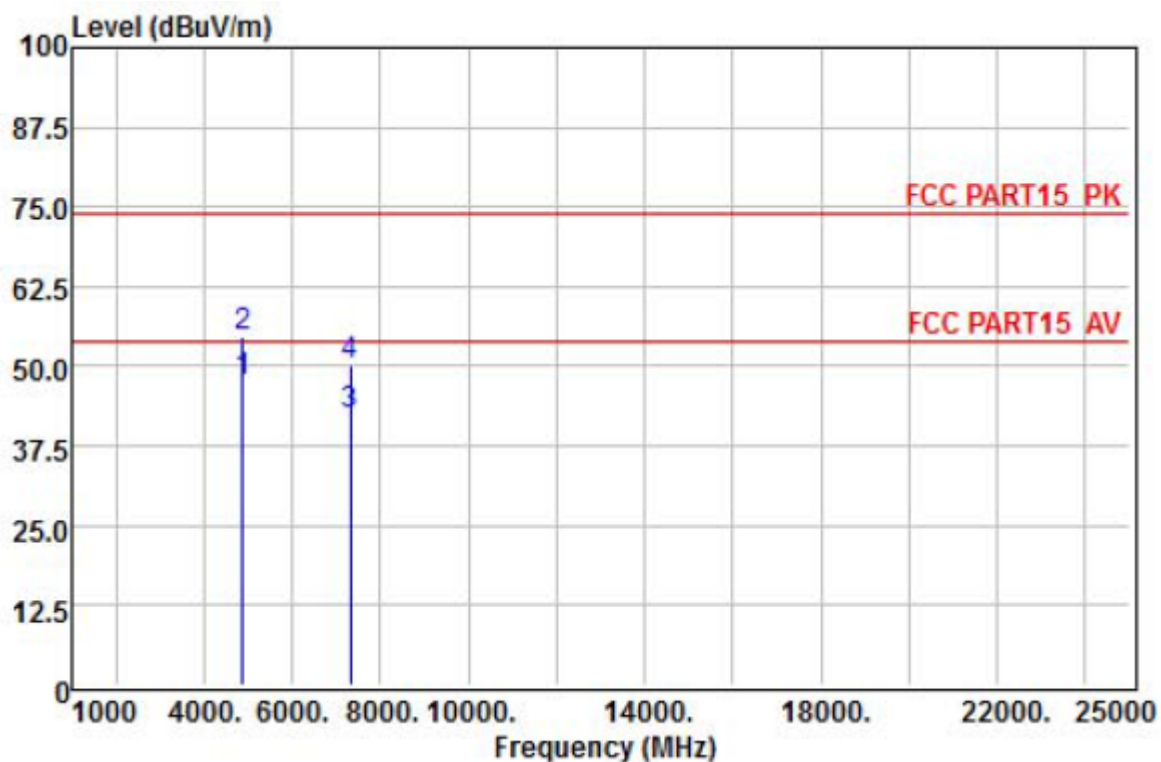


	Freq	ReadAntenna	Preamp	Cable		Limit	Over	
	Level	Factor	Factor	Loss	Level	Line	Limit	Remark
	MHz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	
1	4824.00	30.94	32.99	27.50	12.01	48.44	54.00	-5.56 Average
2	4824.00	41.17	32.99	27.50	12.01	58.67	74.00	-15.33 Peak
3	7236.00	15.96	37.30	27.95	16.61	41.92	54.00	-12.08 Average
4	7236.00	29.47	37.30	27.95	16.61	55.43	74.00	-18.57 Peak

Note: 1. Absolute Level= Reading Level + Antenna Factor + Cable Loss-Preamp factor,
 2. Over Limit= Absolute Level – Limit;
 3. When PK value is lower than the Average value limit, average didn't record.
 4. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has not to be reported.

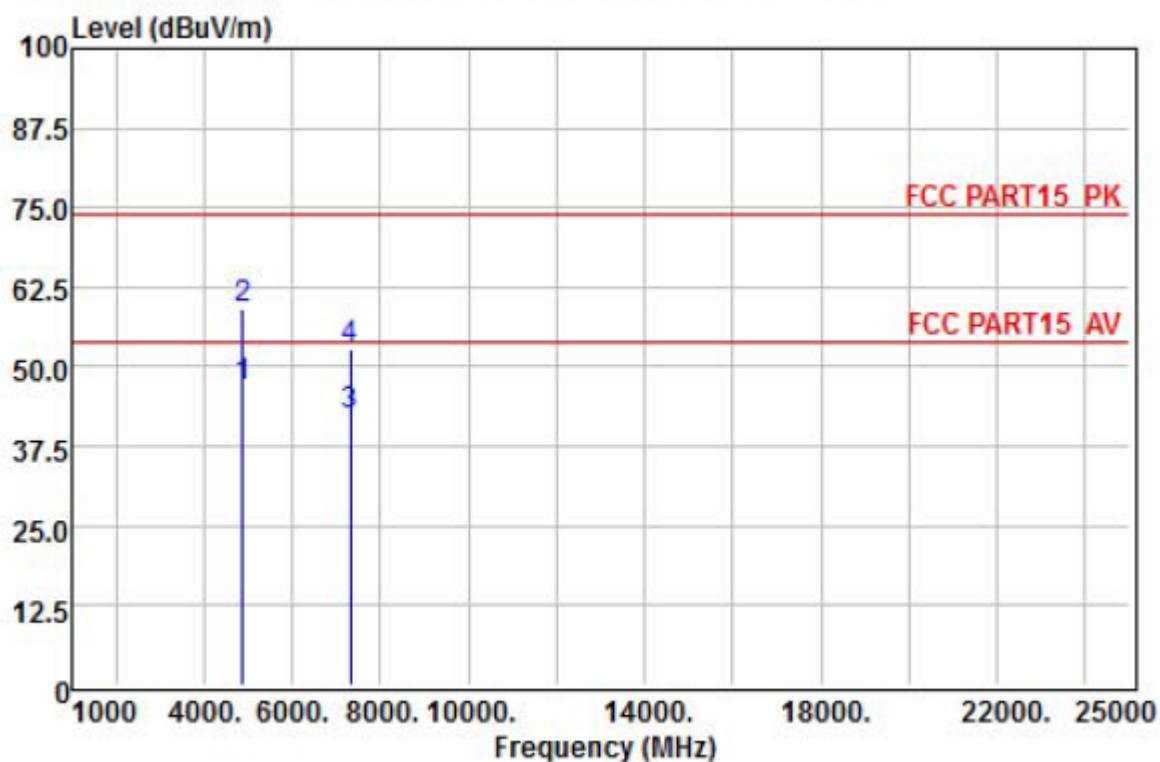
Above 1GHz			
EUT :	Traveltek	Model Name :	W1330Q
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010hPa	Test Mode :	Mode 2 TX Channel 6
Test Voltage :	DC 7.6V		

Vertical



	Freq	Read Level	Antenna Factor	Preamplifier Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4874.00	29.68	33.11	27.53	12.14	47.40	54.00	-6.60	Average
2	4874.00	36.84	33.11	27.53	12.14	54.56	74.00	-19.44	Peak
3	7311.00	16.28	37.32	27.96	16.62	42.26	54.00	-11.74	Average
4	7311.00	24.21	37.32	27.96	16.62	50.19	74.00	-23.81	Peak

Horizontal

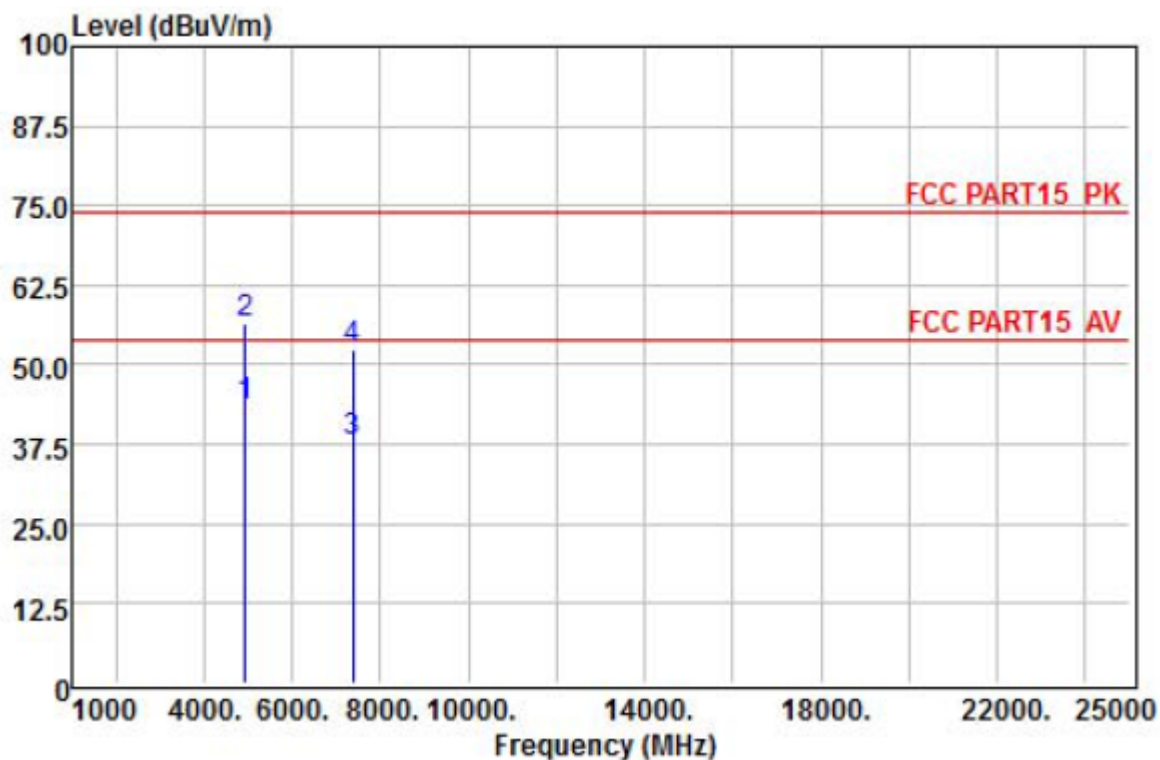


	Freq	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Level	Limit	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4874.00	28.99	33.11	27.53	12.14	46.71	54.00	-7.29	Average
2	4874.00	41.48	33.11	27.53	12.14	59.20	74.00	-14.80	Peak
3	7311.00	16.24	37.32	27.96	16.62	42.22	54.00	-11.78	Average
4	7311.00	26.87	37.32	27.96	16.62	52.85	74.00	-21.15	Peak

Note: 1. Absolute Level= Reading Level + Antenna Factor + Cable Loss-Preamp factor,
 2. Over Limit= Absolute Level – Limit;
 3. When PK value is lower than the Average value limit, average didn't record.
 4. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has not to be reported.

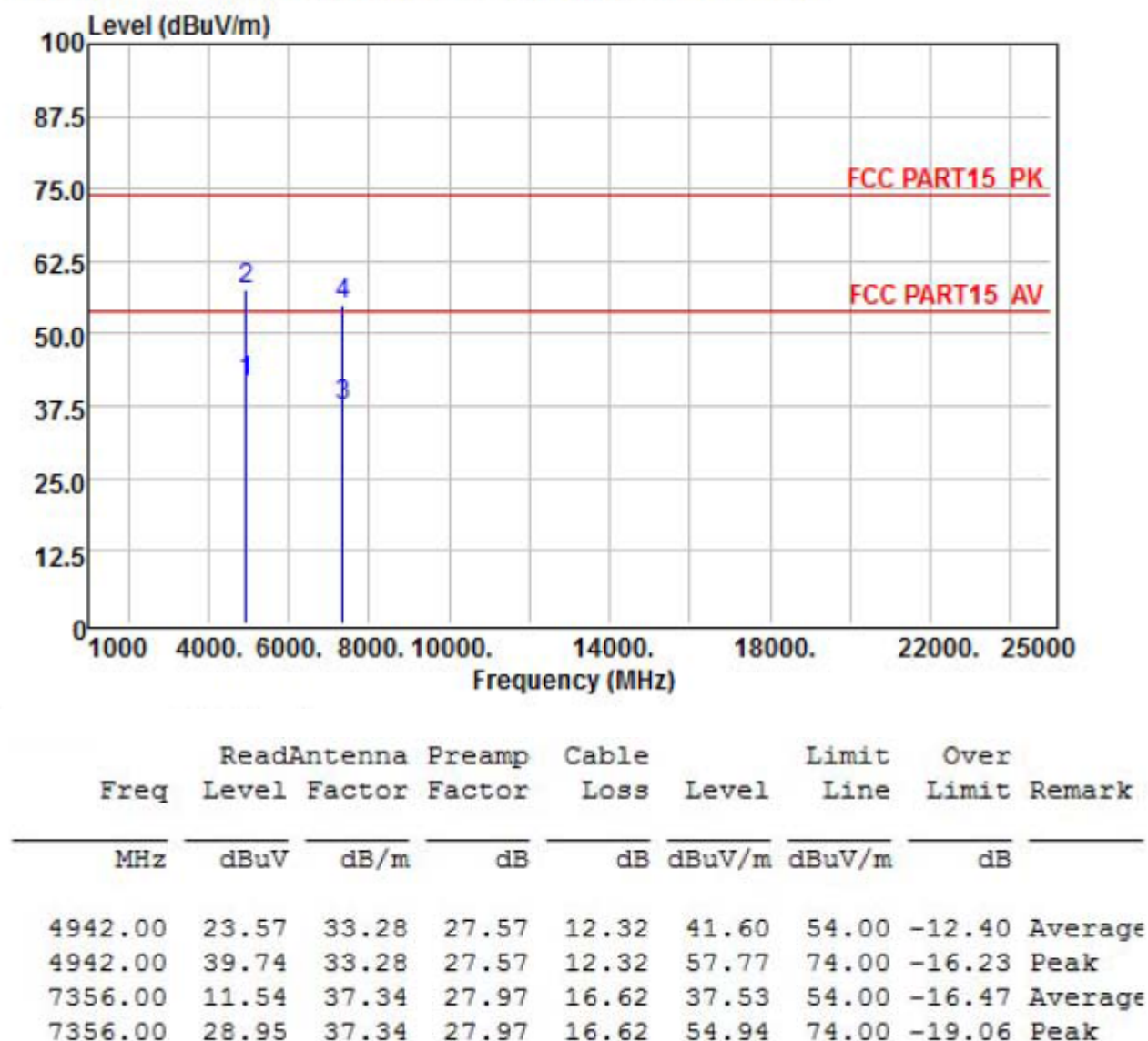
Above 1GHz			
EUT :	Traveltek	Model Name :	W1330Q
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010hPa	Test Mode :	Mode 2 TX Channel 11
Test Voltage :	DC 7.6V		

Vertical



	Freq	Read Level	Antenna Factor	Preamplifier Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4942.00	25.55	33.28	27.57	12.32	43.58	54.00	-10.42	Average
2	4942.00	38.56	33.28	27.57	12.32	56.59	74.00	-17.41	Peak
3	7386.00	11.99	37.36	27.98	16.62	37.99	54.00	-16.01	Average
4	7386.00	26.57	37.36	27.98	16.62	52.57	74.00	-21.43	Peak

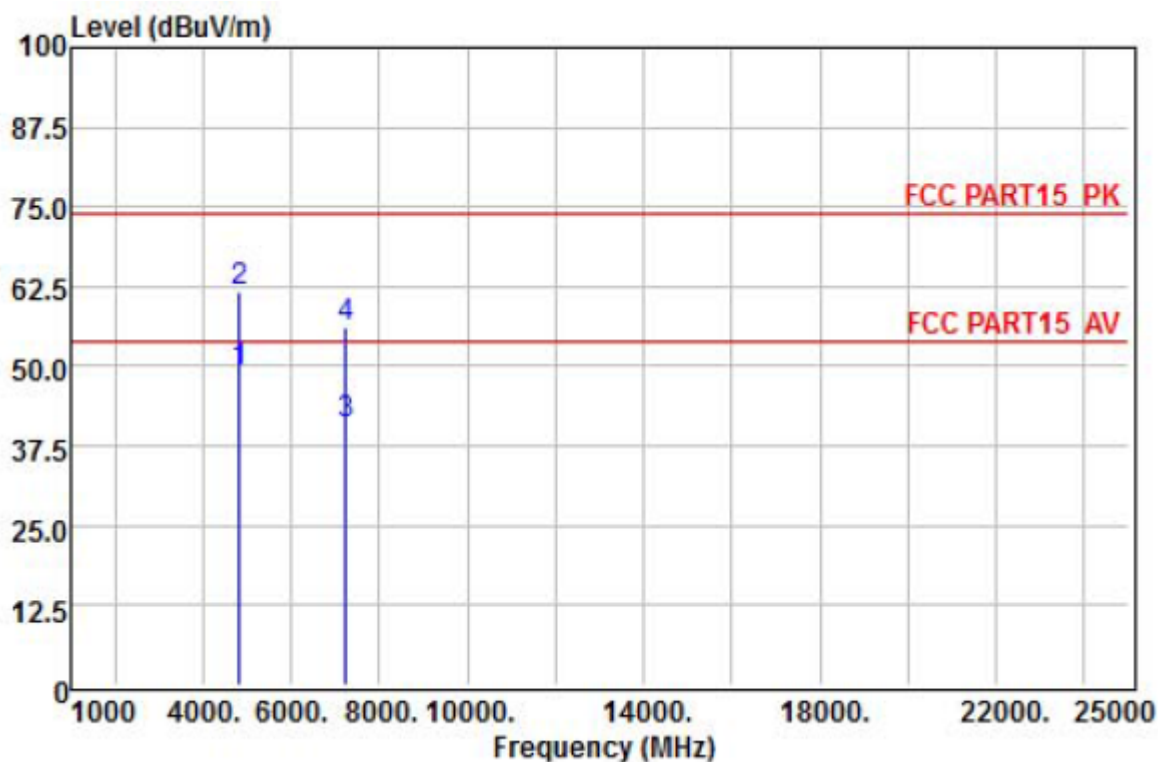
Horizontal



Note: 1. Absolute Level= Reading Level + Antenna Factor + Cable Loss-Preamp factor,
 2. Over Limit= Absolute Level – Limit;
 3. When PK value is lower than the Average value limit, average didn't record.
 4. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has not to be reported.

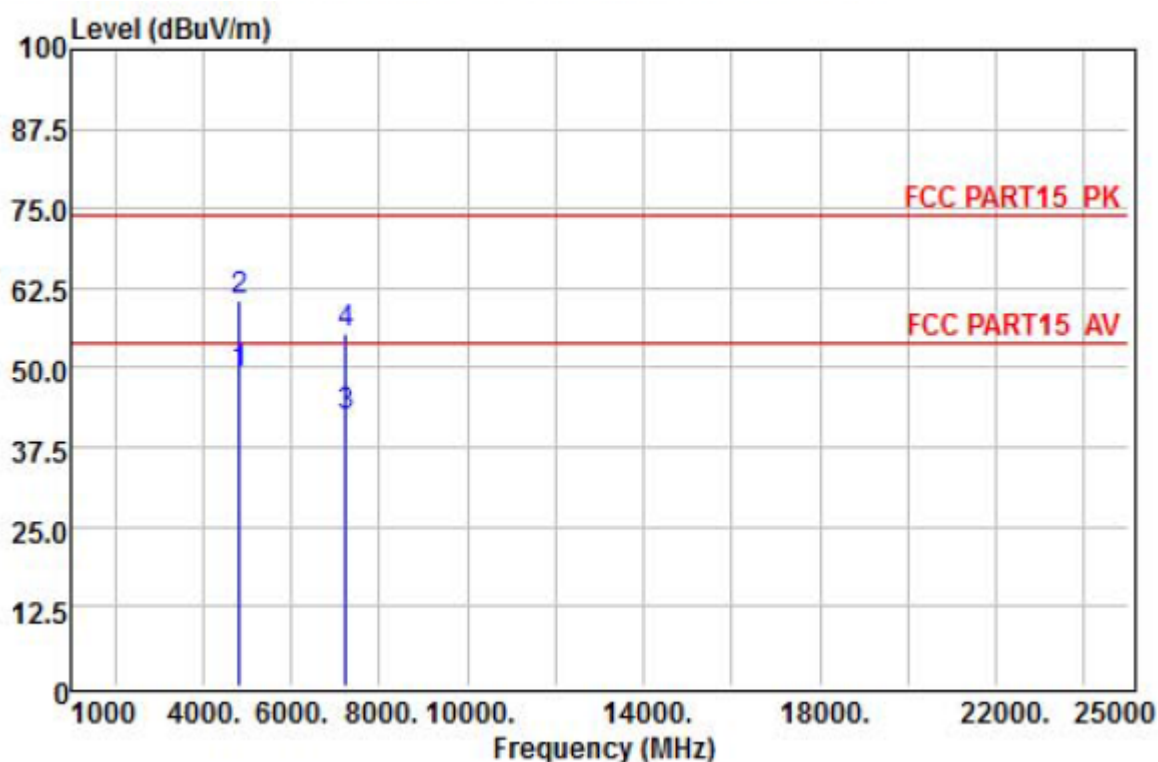
Above 1GHz			
EUT :	Traveltek	Model Name :	W1330Q
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010hPa	Test Mode :	Mode 3 TX Channel 1
Test Voltage :	DC 7.6V		

Vertical



	Freq	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4824.00	31.46	32.99	27.50	12.01	48.96	54.00	-5.04	Average
2	4824.00	44.04	32.99	27.50	12.01	61.54	74.00	-12.46	Peak
3	7236.00	14.87	37.30	27.95	16.61	40.83	54.00	-13.17	Average
4	7236.00	30.05	37.30	27.95	16.61	56.01	74.00	-17.99	Peak

Horizontal

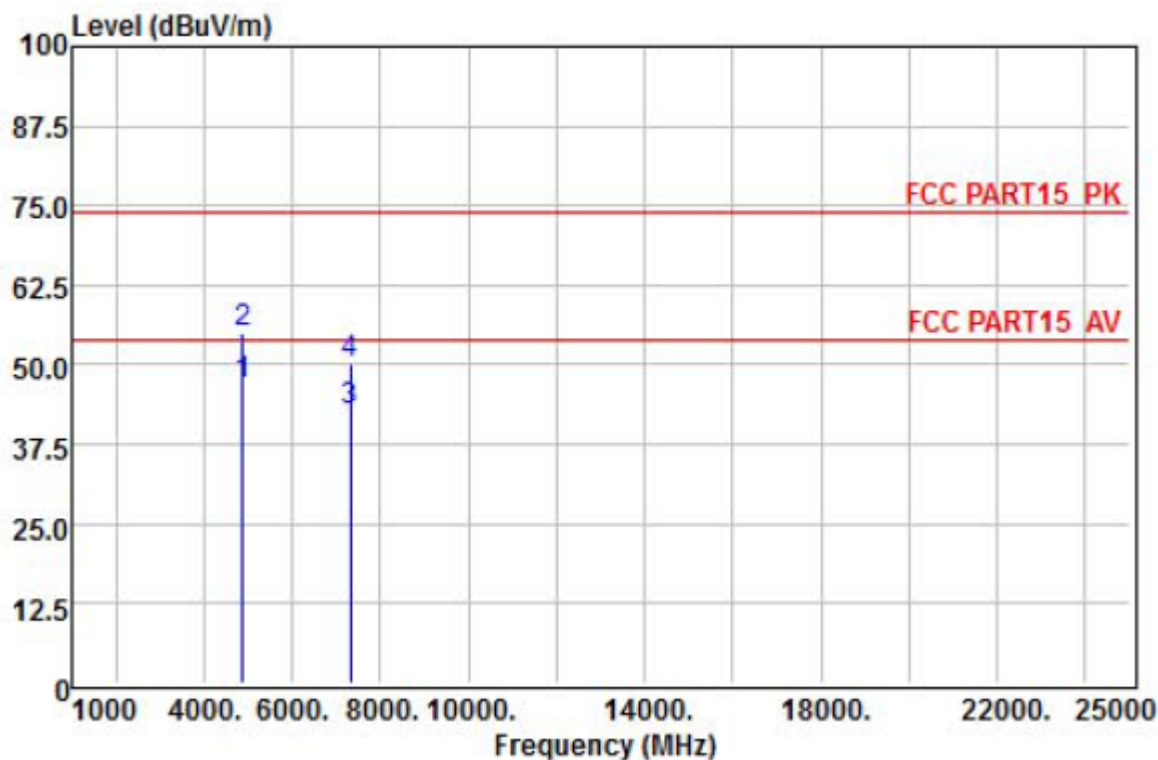


	Freq	ReadAntenna Level	Preamp Factor	Cable Loss	Limit	Over	Remark
	MHz	dBuV	dB/m	dB	dBuV/m	dB	
1	4824.00	31.40	32.99	27.50	12.01	48.90	54.00 -5.10 Average
2	4824.00	42.96	32.99	27.50	12.01	60.46	74.00 -13.54 Peak
3	7236.00	16.43	37.30	27.95	16.61	42.39	54.00 -11.61 Average
4	7236.00	29.31	37.30	27.95	16.61	55.27	74.00 -18.73 Peak

Note: 1. Absolute Level= Reading Level + Antenna Factor + Cable Loss-Preamp factor,
 2. Over Limit= Absolute Level – Limit;
 3. When PK value is lower than the Average value limit, average didn't record.
 4. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has not to be reported.

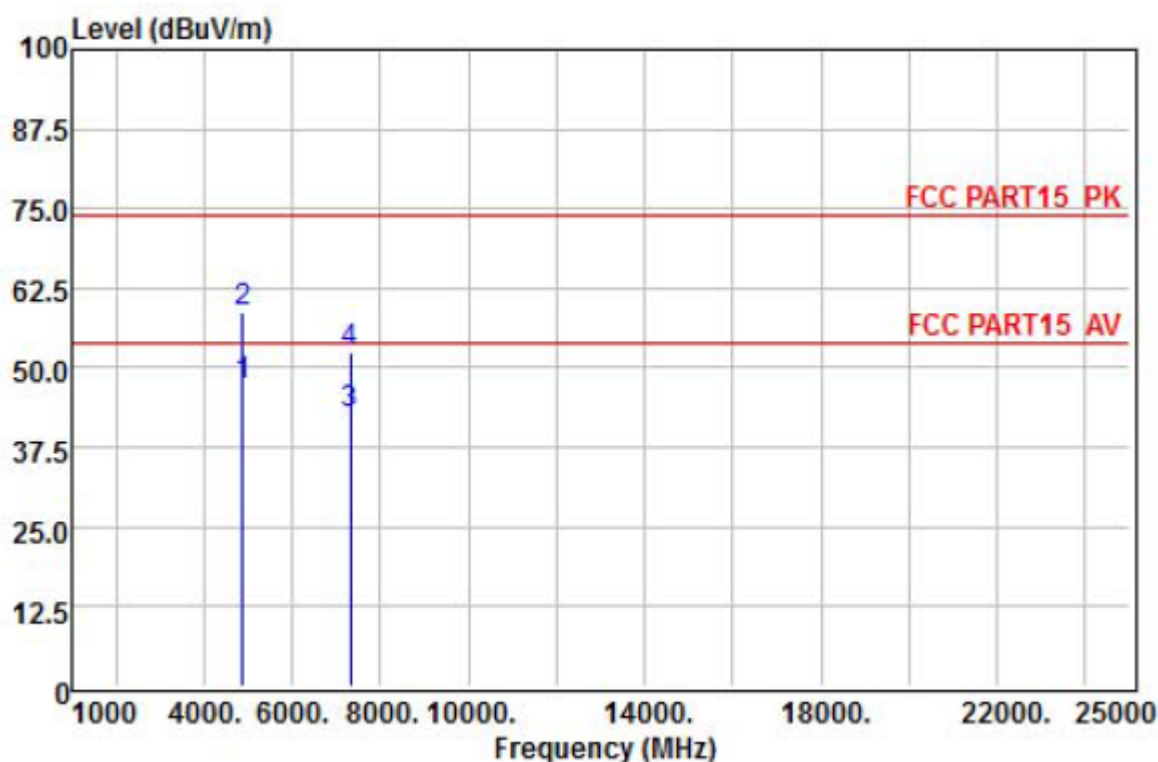
Above 1GHz			
EUT :	Traveltek	Model Name :	W1330Q
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010hPa	Test Mode :	Mode 3 TX Channel 6
Test Voltage :	DC 7.6V		

Vertical



	Freq	Read Level	Antenna Factor	Preamplifier Factor	Cable Loss	Level	Limit	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4874.00	29.17	33.11	27.53	12.14	46.89	54.00	-7.11	Average
2	4874.00	37.15	33.11	27.53	12.14	54.87	74.00	-19.13	Peak
3	7311.00	16.68	37.32	27.96	16.62	42.66	54.00	-11.34	Average
4	7311.00	24.21	37.32	27.96	16.62	50.19	74.00	-23.81	Peak

Horizontal

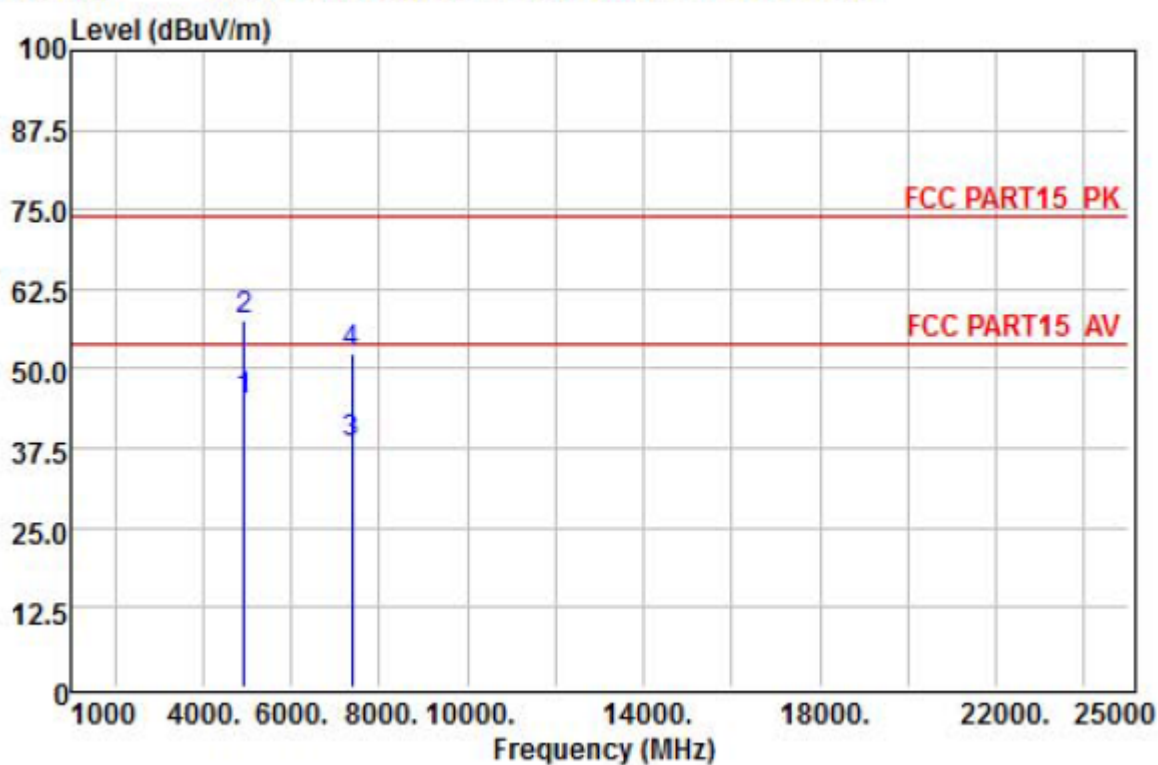


	Freq	ReadAntenna	Preamp	Cable		Limit	Over	
	Level	Factor	Factor	Loss	Level	Line	Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	4874.00	29.45	33.11	27.53	12.14	47.17	54.00	-6.83 Average
2	4874.00	41.01	33.11	27.53	12.14	58.73	74.00	-15.27 Peak
3	7311.00	16.69	37.32	27.96	16.62	42.67	54.00	-11.33 Average
4	7311.00	26.58	37.32	27.96	16.62	52.56	74.00	-21.44 Peak

Note: 1. Absolute Level= Reading Level + Antenna Factor + Cable Loss-Preamp factor,
 2. Over Limit= Absolute Level – Limit;
 3. When PK value is lower than the Average value limit, average didn't record.
 4. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has not to be reported.

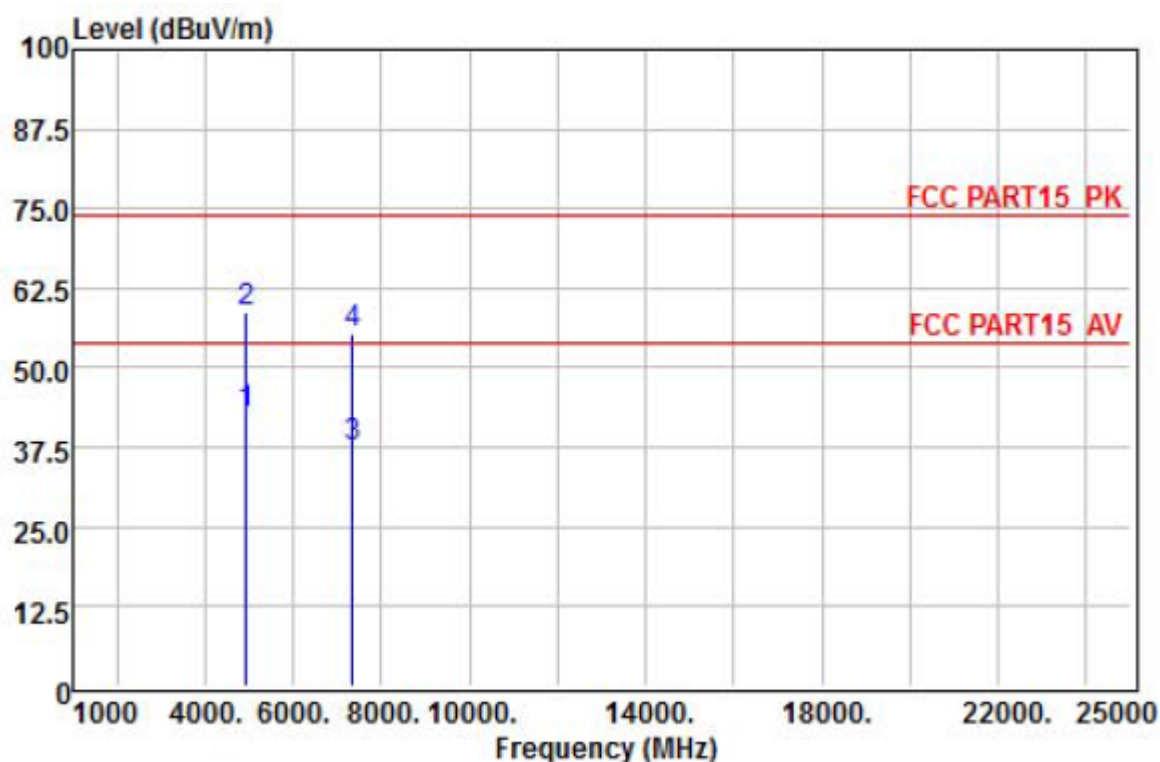
Above 1GHz			
EUT :	Traveltek	Model Name :	W1330Q
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010hPa	Test Mode :	Mode 3 TX Channel 11
Test Voltage :	DC 7.6V		

Vertical



	Freq	Read Level	Antenna Factor	Preamplifier Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4942.00	26.84	33.28	27.57	12.32	44.87	54.00	-9.13	Average
2	4942.00	39.47	33.28	27.57	12.32	57.50	74.00	-16.50	Peak
3	7386.00	12.24	37.36	27.98	16.62	38.24	54.00	-15.76	Average
4	7386.00	26.54	37.36	27.98	16.62	52.54	74.00	-21.46	Peak

Horizontal

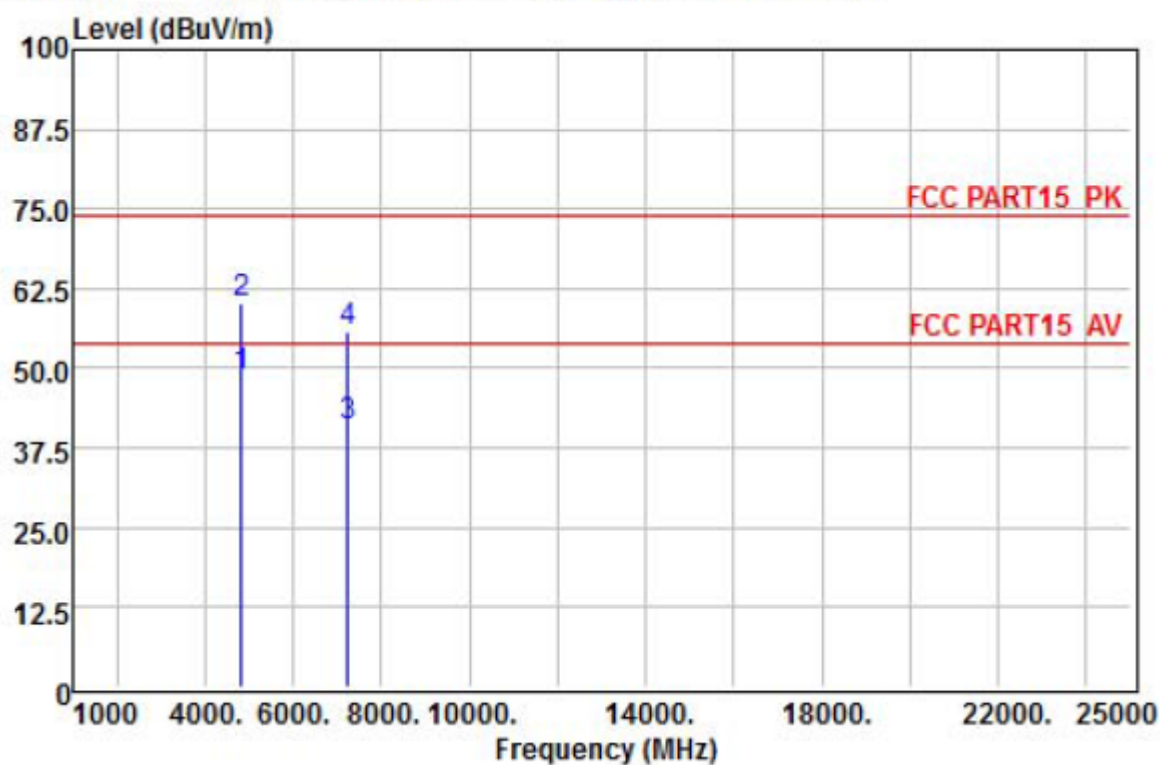


	Freq	ReadAntenna	Preamp	Cable	Limit	Over	
	Level	Factor	Factor	Loss	Line	Limit	Remark
	MHz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB
1	4942.00	24.58	33.28	27.57	12.32	42.61	54.00 -11.39 Average
2	4942.00	40.89	33.28	27.57	12.32	58.92	74.00 -15.08 Peak
3	7356.00	11.62	37.34	27.97	16.62	37.61	54.00 -16.39 Average
4	7356.00	29.38	37.34	27.97	16.62	55.37	74.00 -18.63 Peak

Note: 1. Absolute Level= Reading Level + Antenna Factor + Cable Loss-Preamp factor,
 2. Over Limit= Absolute Level – Limit;
 3. When PK value is lower than the Average value limit, average didn't record.
 4. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has not to be reported.

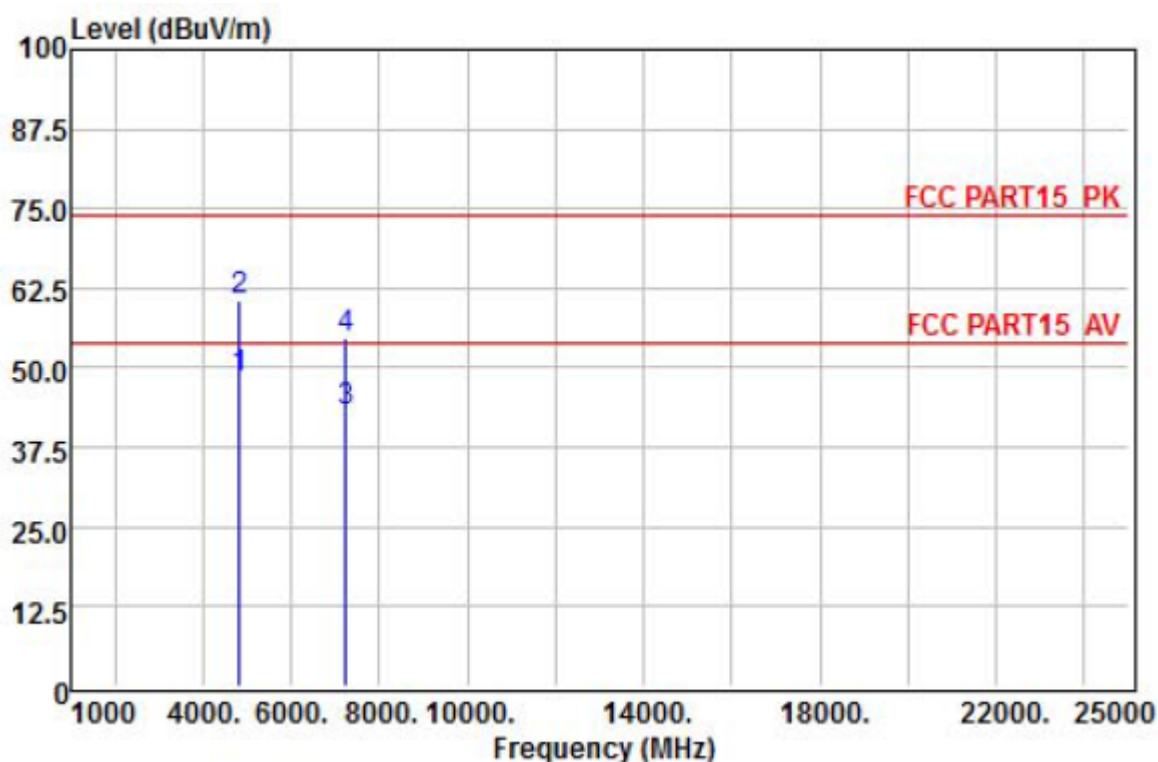
Above 1GHz			
EUT :	Traveltek	Model Name :	W1330Q
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010hPa	Test Mode :	Mode 4 TX Channel 1
Test Voltage :	DC 7.6V		

Vertical



	Freq	ReadAntenna Level	Preamp Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dBuV/m	dB	
1	4824.00	31.13	32.99	27.50	48.63	54.00	-5.37 Average
2	4824.00	42.74	32.99	27.50	60.24	74.00	-13.76 Peak
3	7236.00	14.78	37.30	27.95	40.74	54.00	-13.26 Average
4	7236.00	29.76	37.30	27.95	55.72	74.00	-18.28 Peak

Horizontal

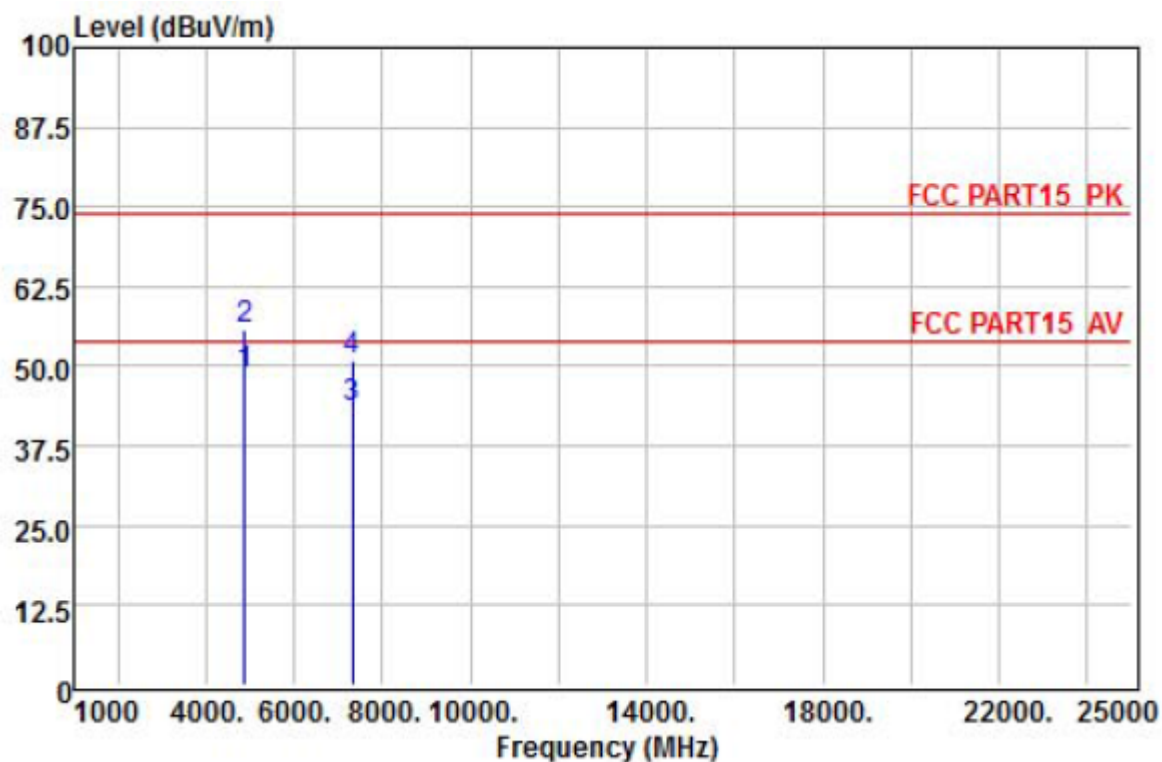


	Freq	ReadLevel	Antenna Factor	Preamplifier Factor	Cable Loss	Level	Limit	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4824.00	30.80	32.99	27.50	12.01	48.30	54.00	-5.70	Average
2	4824.00	42.94	32.99	27.50	12.01	60.44	74.00	-13.56	Peak
3	7236.00	17.05	37.30	27.95	16.61	43.01	54.00	-10.99	Average
4	7236.00	28.87	37.30	27.95	16.61	54.83	74.00	-19.17	Peak

Note: 1. Absolute Level= Reading Level + Antenna Factor + Cable Loss-Preamp factor,
 2. Over Limit= Absolute Level – Limit;
 3. When PK value is lower than the Average value limit, average didn't record.
 4. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has not to be reported.

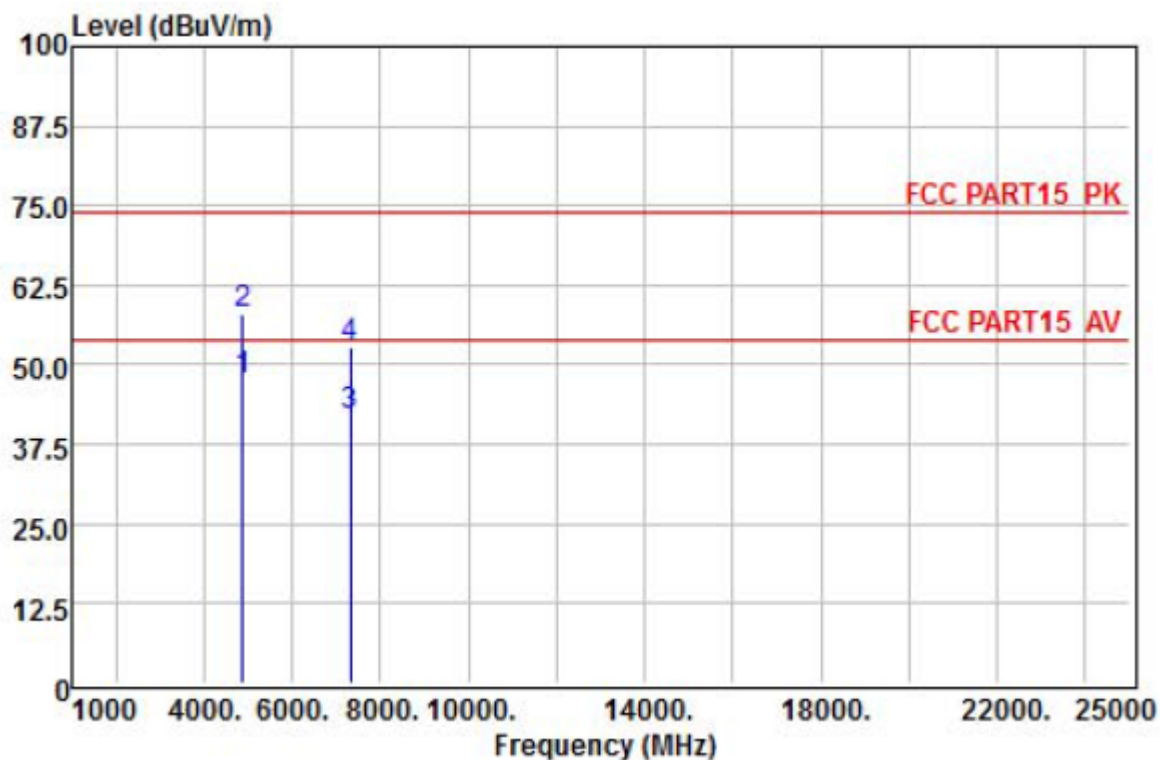
Above 1GHz			
EUT :	Traveltek	Model Name :	W1330Q
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010hPa	Test Mode :	Mode 4 TX Channel 6
Test Voltage :	DC 7.6V		

Vertical



	Read	Antenna	Preamplifier	Cable		Limit	Over	
Freq	Level	Factor	Factor	Loss	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4874.00	31.09	33.11	27.53	12.14	48.81	54.00	-5.19 Average
2	4874.00	38.14	33.11	27.53	12.14	55.86	74.00	-18.14 Peak
3	7311.00	17.45	37.32	27.96	16.62	43.43	54.00	-10.57 Average
4	7311.00	24.85	37.32	27.96	16.62	50.83	74.00	-23.17 Peak

Horizontal



	Freq	ReadAntenna Level	Preamp Factor	Cable Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4874.00	29.99	33.11	27.53	12.14	47.71	54.00	-6.29	Average
2	4874.00	40.17	33.11	27.53	12.14	57.89	74.00	-16.11	Peak
3	7311.00	16.19	37.32	27.96	16.62	42.17	54.00	-11.83	Average
4	7311.00	26.74	37.32	27.96	16.62	52.72	74.00	-21.28	Peak

Note: 1. Absolute Level= Reading Level + Antenna Factor + Cable Loss-Preamp factor,
 2. Over Limit= Absolute Level – Limit;
 3. When PK value is lower than the Average value limit, average didn't record.
 4. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has not to be reported.