



MEASUREMENT REPORT

FCC Part 15B

FCC ID: 2AK5Y-VT16-VT31

ADDRESS: Control Technology China., LTD

Application Type: Certification

Product: TPMS Activation Tool

Model No.: VT16, VT31

FCC Classification: Part 15 Low Power Transmitter Below 1705 kHz (DCD)

FCC Rule Part(s): FCC Part 15 Subpart B

Test Procedure(s): ANSI C63.4: 2014

Test Date: March 11 ~ October 22, 2017

Reviewed By : Kevin Guo
(Kevin Guo)

Approved By : Marlin Chen
(Marlin Chen)



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4-2014. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
1703WSU00202	Rev. 01	Initial report	10-27-2017	Valid

CONTENTS

Description	Page
§2.1033 General Information	4
1. INTRODUCTION	5
1.1. Scope	5
1.2. MRT Test Location.....	5
2. PRODUCT INFORMATION	6
2.1. Equipment Description.....	6
2.2. Test Mode	6
2.3. Test Configuration	7
2.4. Test Software	8
3. DESCRIPTION OF TEST	9
3.1. Evaluation Procedure	9
3.2. AC Line Conducted Emissions	9
3.3. Radiated Emissions.....	10
4. TEST EQUIPMENT CALIBRATION DATE	11
5. MEASUREMENT UNCERTAINTY.....	12
6. TEST RESULT	13
Summary.....	13
6.1. Conducted Emission Measurement	14
6.1.1. Test Limit	14
6.1.2. Test Setup.....	14
6.1.3. Test Result of Conducted Emissions.....	15
6.2. Radiated Emission Measurement	17
6.2.1. Test Limit	17
6.2.2. Test Frequency selected	17
6.2.3. Test Setup.....	18
6.2.4. Test Result of Radiated Emissions.....	19

§2.1033 General Information

Applicant:	Control Technology China., LTD
Applicant Address:	Third and fourth floor, No.5 building, No.98 Jianpeng Road, Jiuting Town, SONGJIANG DISTRICT, SHANGHAI, 201615 P.R.CHINA
Manufacturer:	Control Technology China., LTD
Manufacturer Address:	Third and fourth floor, No.5 building, No.98 Jianpeng Road, Jiuting Town, SONGJIANG DISTRICT, SHANGHAI, 201615 P.R.CHINA
Test Site:	MRT Technology (Suzhou) Co., Ltd
Test Site Address:	D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China
MRT Registration No.:	893164
FCC Rule Part(s):	FCC PART15 Subpart B
Test Device Serial No.:	N/A ☐ Production ☒ Pre-Production ☐ Engineering
FCC Classification:	Part 15 Low Power Transmitter Below 1705 kHz (DCD)

Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Tian'edang Rd., Suzhou, China.

- MRT facility is a FCC registered (MRT Reg. No. 893164) test facility with the site description report on file and has met all the requirements specified in Section 2.948 of the FCC Rules.
- MRT facility is an IC registered (MRT Reg. No. 11384A-1) test laboratory with the site description on file at Industry Canada.
- MRT facility is a VCCI registered (R-4179, G-814, C-4664, T-2206) test laboratory with the site description on file at VCCI Council.
- MRT Lab is accredited to ISO 17025 by the American Association for Laboratory Accreditation (A2LA) under the American Association for Laboratory Accreditation Program (A2LA Cert. No. 3628.01) in EMC, Telecommunications and Radio testing for FCC, Industry Canada, EU and TELEC Rules.



1. INTRODUCTION

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Industry Canada Certification and Engineering Bureau.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taihu Lake. These measurement tests were conducted at the MRT Technology (Suzhou) Co., Ltd. Facility located at D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China. The detailed description of the measurement facility was found to be in compliance with the requirements of § 2.948 according to ANSI C63.4-2009 on September 30, 2013.



2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name	TPMS Activation Tool
Model No.	VT16, VT31
Transmitting Frequency	125KHz
Reception Frequency	315MHz, 433.92MHz
Modulation	ASK, OOK
Operation Voltage	DC 6~10V (battery power)
Antenna for Transmitting	LC resonator circuit, Max gain 0dBi
Antenna for Reception	Quarter wave helix antenna

Note 1: The different of models is only for different customers, the others are the same, including designed circuit, others hardware and hardware control.

Note 2: The test report relate only to the "VT16" tested.

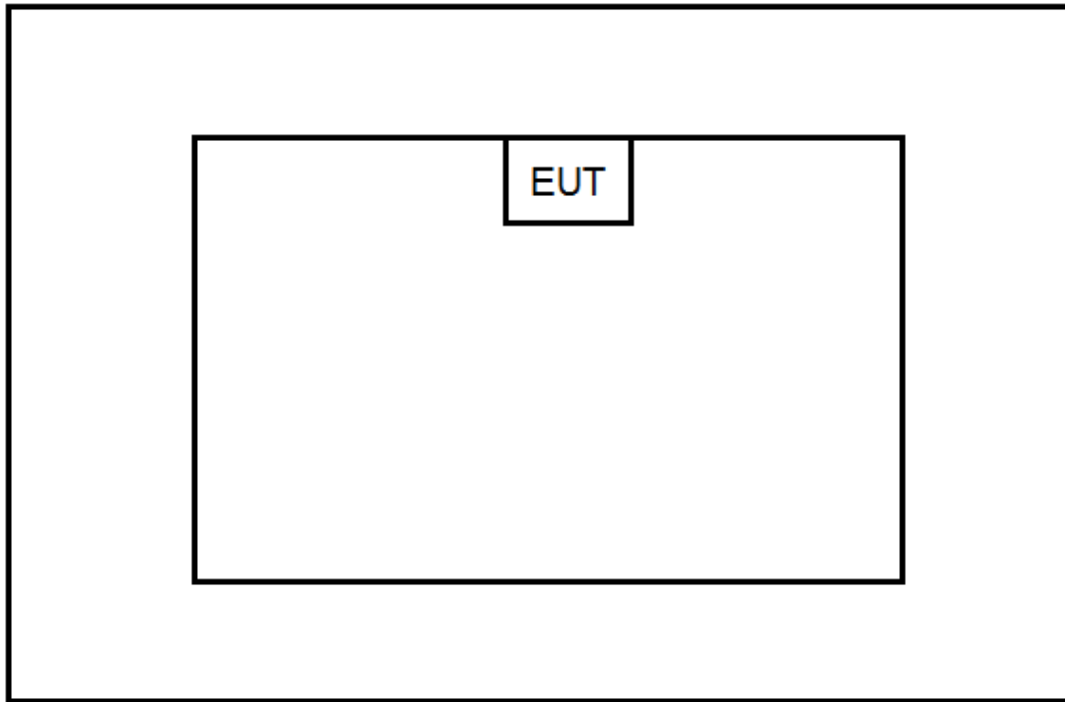
2.2. Test Mode

Test Mode	
EMI Mode	Mode 1: EUT work on normal operation mode.
	Mode 2: Upgrade software of EUT via USB port.

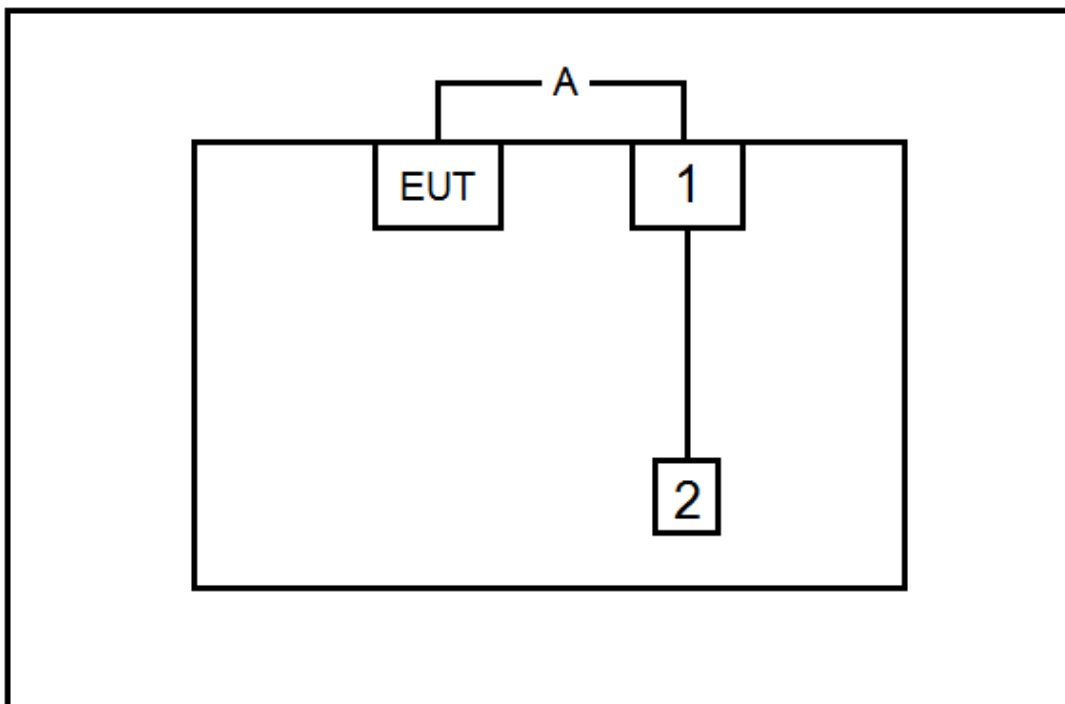
2.3. Test Configuration

The EUT was tested per the guidance FCC Part 15 Subpart B: 2016 and ANSI C63.4: 2014 was used to reference the appropriate EUT setup for radiated emissions testing and AC line conducted testing.

Connection Diagram (Mode 1)



Connection Diagram (Mode 2)



Signal Cable Type		Signal Cable Description			
A	USB Cable	Shielded, 1.5m			
Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook PC	DELL	Precision3510	N/A	Shielded, 1.5m
2	Mouse	DELL	MSIT	N/A	Shielded, 1.5m

2.4. Test Software

Not Applicable.

3. DESCRIPTION OF TEST

3.1. Evaluation Procedure

The measurement procedures described in the American National Standard for Methods of Measurement of Radio-Noise Emission from Low-Voltage Electrical Equipment in the Range of 9kHz to 40GHz (ANSI C63.4-2014) was used in the measurement of the Equipment under test.

Deviation from measurement procedure.....None

3.2. AC Line Conducted Emissions

The line-conducted facility is located inside an 8'x4'x4' shielded enclosure. A 1m x 2m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50uH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. If the EUT is a DC-powered device, power will be derived from the source power supply it normally will be powered from and this supply line(s) will be connected to the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground-plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the receiver and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The receiver was scanned from 150 kHz to 30 MHz. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 9 kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was also maximized by varying: power lines, the mode of operation or resolution, clock or data exchange speed, scrolling H pattern to the EUT and/or support equipment whichever determined the worst-case emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions are used for final measurements on the same test site. Line conducted emissions test results are shown in Section 6.1.

3.3. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. An MF Model 210SS turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable.

For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30 MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30 MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up was placed on top of the 0.8 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, mode of operation, if applicable, turntable azimuth, and receive antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions. According to 3dB beam-width of horn antenna, the horn antenna should be always directed to the EUT when rising height.

4. TEST EQUIPMENT CALIBRATION DATE

Conducted Emissions (SR2)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2018/06/20
Two-Line V-Network	R&S	ENV216	MRTSUE06002	1 year	2018/06/20
Two-Line V-Network	R&S	ENV216	MRTSUE06003	1 year	2018/06/20
Temperature/Humidity Meter	Yuhua	HTC-2	MRTSUE06181	1 year	2017/12/20
Shielding Anechoic Chamber	Mikebang	Chamber-SR2	MRTSUE06214	1 year	2018/05/10

Radiated Emission (AC1)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2018/06/21
PXA Signal Analyzer	Keysight	N9030A	MRTSUE06270	1 year	2018/04/05
Bilog Period Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2017/11/19
Digital Thermometer & Hygrometer	Minggao	ETH529	MRTSUE06170	1 year	2017/11/30
Anechoic Chamber	TDK	Chamber-AC1	MRTSUE06212	1 year	2018/05/10

Software	Version	Function
e3	V8.3.5	EMI Test Software

5. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

AC Conducted Emission Measurement (SR2)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 150kHz~30MHz: 3.5dB
Radiated Emission Measurement (AC1)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): Horizontal: 30MHz~1GHz: 4.07dB Vertical: 30MHz~1GHz: 4.18dB

6. TEST RESULT

Summary

Company Name: Control Technology China., LTD

FCC ID: 2AK5Y-VT16-VT31

FCC Part Section(s)	Test Description	Test Result
15.107	Conducted Emissions	Pass
15.109	Radiated Emissions	Pass

6.1. Conducted Emission Measurement

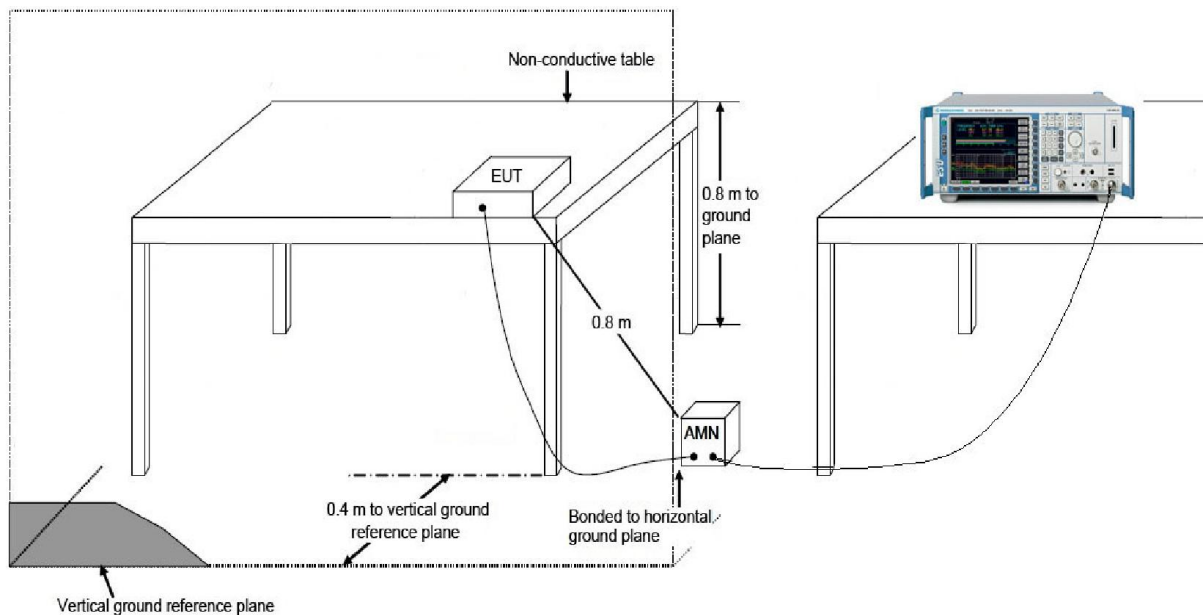
6.1.1. Test Limit

FCC Part 15.107 Limits		
Frequency (MHz)	QP (dB μ V)	AV (dB μ V)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

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

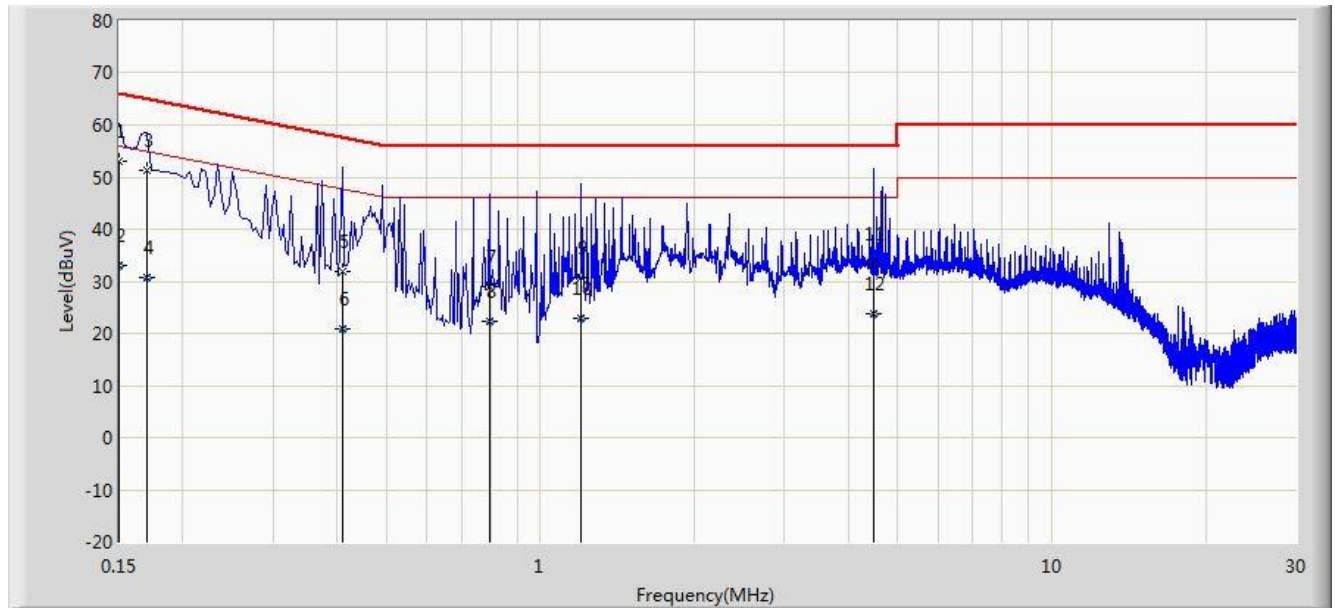
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

6.1.2. Test Setup



6.1.3. Test Result of Conducted Emissions

Site: SR2	Time: 2017/10/15 - 16:35
Limit: FCC_Part15.107_CE_AC Power_ClassB	Engineer: Polly Zong
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: TPMS Activation Tool	Power: AC 120V/60Hz
Test Mode 2	

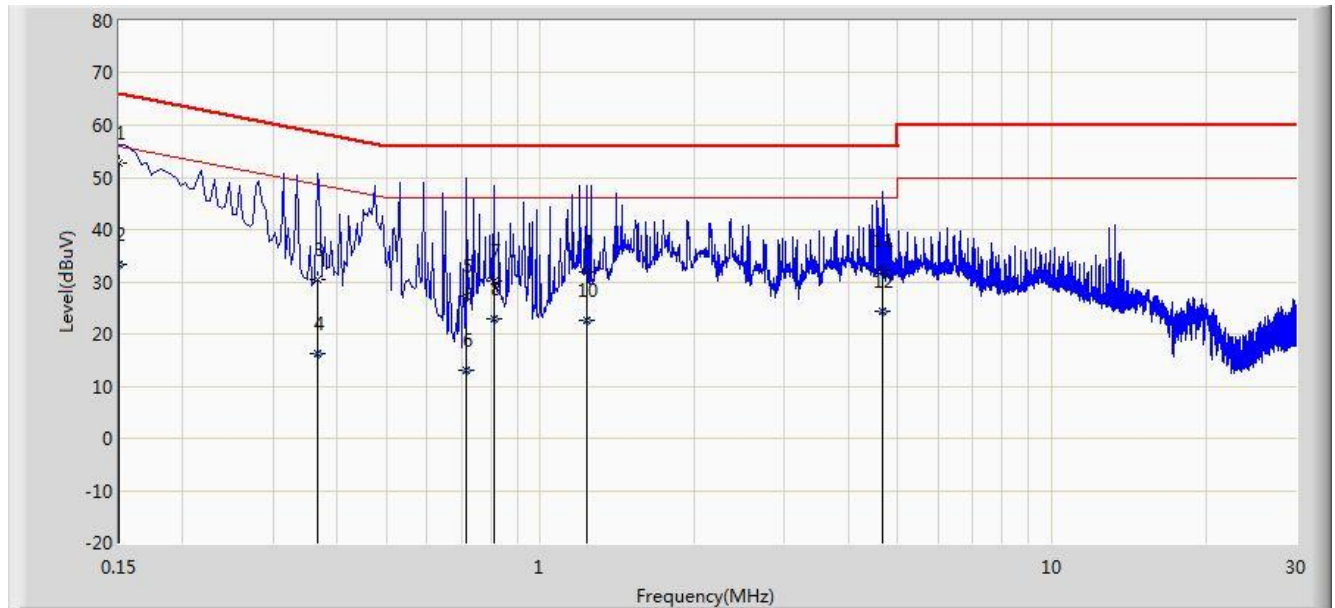


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Over Limit (dB)	Limit (dBμV)	Factor (dB)	Type
1		*	0.150	53.027	41.858	-12.973	66.000	11.168	QP
2			0.150	33.075	21.906	-22.925	56.000	11.168	AV
3			0.170	51.288	41.211	-13.672	64.960	10.078	QP
4			0.170	30.716	20.639	-24.244	54.960	10.078	AV
5			0.410	31.893	21.800	-25.755	57.648	10.093	QP
6			0.410	20.991	10.897	-26.658	47.648	10.093	AV
7			0.794	29.117	19.103	-26.883	56.000	10.014	QP
8			0.794	22.200	12.186	-23.800	46.000	10.014	AV
9			1.202	30.864	20.962	-25.136	56.000	9.901	QP
10			1.202	22.851	12.950	-23.149	46.000	9.901	AV
11			4.490	33.464	23.474	-22.536	56.000	9.990	QP
12			4.490	23.761	13.771	-22.239	46.000	9.990	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

Site: SR2	Time: 2017/10/15 - 16:48
Limit: FCC_Part15.107_CE_AC Power_ClassB	Engineer: Polly Zong
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: TPMS Activation Tool	Power: AC 120V/60Hz
Test Mode 2	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		*	0.150	52.763	41.621	-13.237	66.000	11.142	QP
2			0.150	33.467	22.325	-22.533	56.000	11.142	AV
3			0.366	30.504	20.417	-28.087	58.591	10.087	QP
4			0.366	16.158	6.071	-32.433	48.591	10.087	AV
5			0.718	27.326	17.261	-28.674	56.000	10.065	QP
6			0.718	13.068	3.004	-32.932	46.000	10.065	AV
7			0.810	30.260	20.246	-25.740	56.000	10.014	QP
8			0.810	22.758	12.745	-23.242	46.000	10.014	AV
9			1.234	31.769	21.868	-24.231	56.000	9.900	QP
10			1.234	22.742	12.842	-23.258	46.000	9.900	AV
11			4.654	32.218	22.207	-23.782	56.000	10.011	QP
12			4.654	24.454	14.444	-21.546	46.000	10.011	AV

Note: Measure Level (dBuV) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

6.2. Radiated Emission Measurement

6.2.1. Test Limit

FCC Part 15.109 Limits		
Frequency (MHz)	Distance (m)	Level (dB μ V/m)
30 - 88	3	40
88 - 216	3	43.5
216 - 960	3	46
Above 960	3	54

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

Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Note 3: E field strength (dB μ V/m) = 20 log E field strength (uV/m)

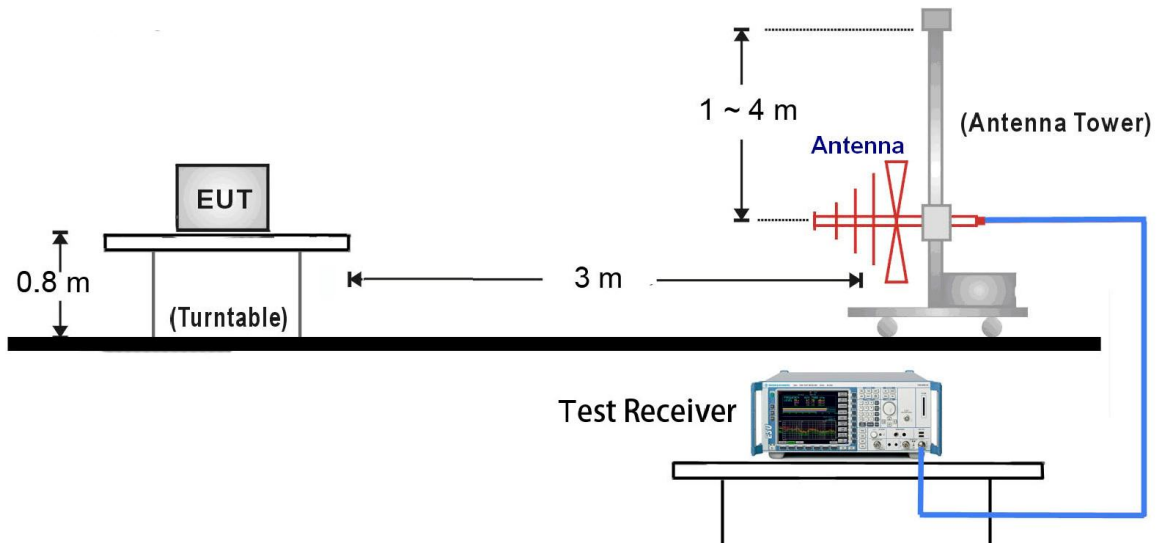
6.2.2. Test Frequency selected

For an unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a radiated emission limit is specified, up to the frequency shown in the following table:

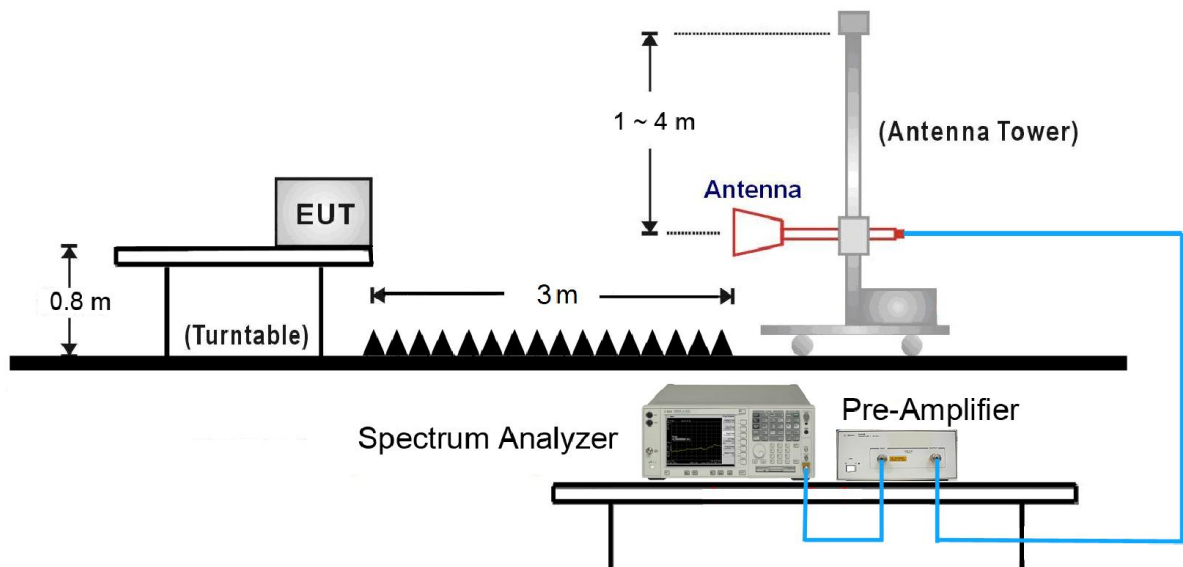
Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705 - 108	1000
108 - 500	2000
500 - 1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

6.2.3. Test Setup

30MHz ~ 1GHz Test Setup:

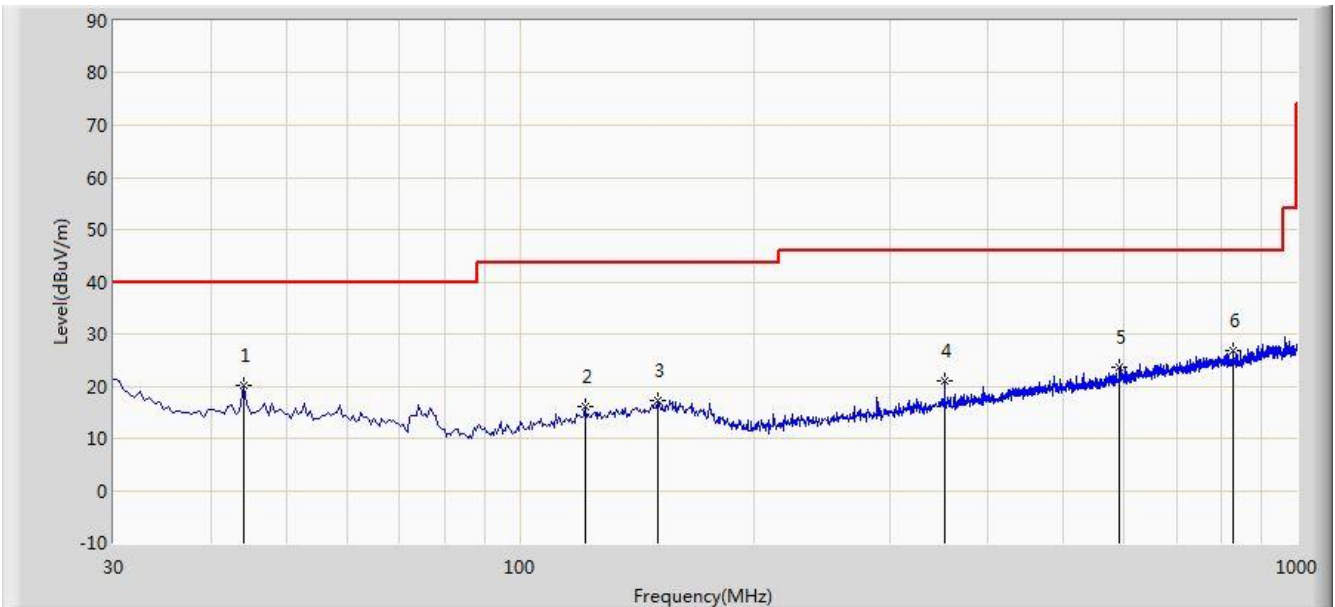


1GMHz ~ 18GHz Test Setup:



6.2.4. Test Result of Radiated Emissions

Site: AC1	Time: 2017/03/13 - 22:23
Limit: FCC_Part15.109_RE(3m)_ClassB	Engineer: Jone Zhang
Probe: VULB 9168 _20-2000MHz	Polarity: Horizontal
EUT: TPMS Activation Tool	Power: DC 9V
Test Mode 1	

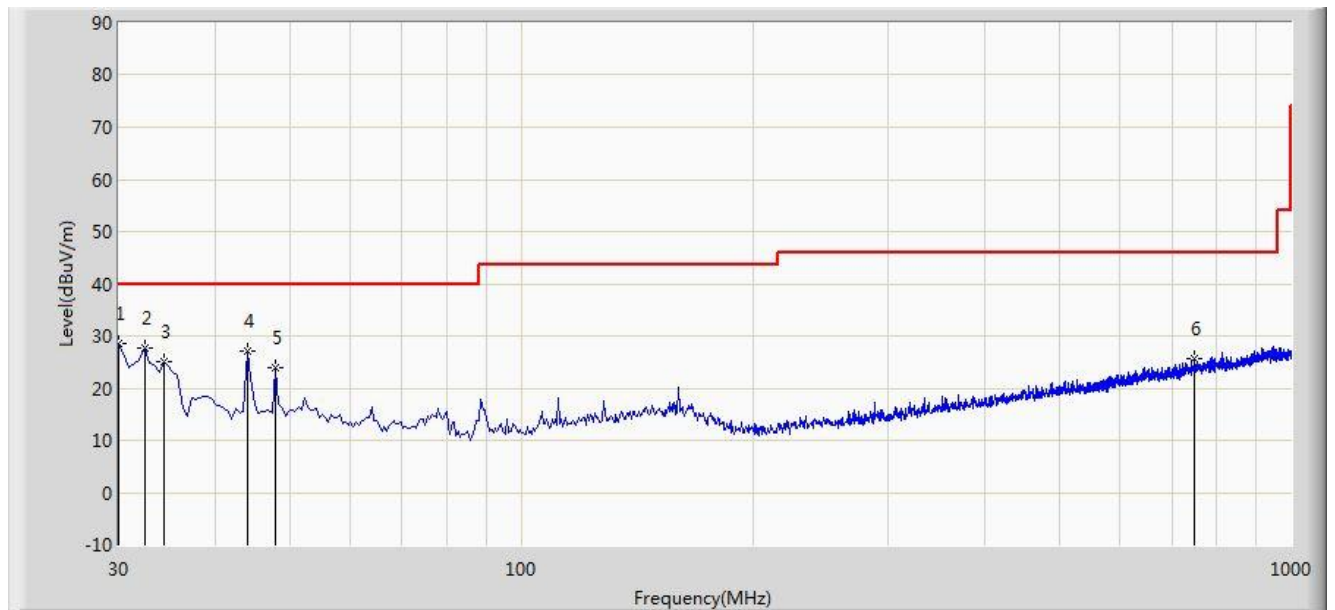


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Over Limit (dB)	Limit (dBμV/m)	Factor (dB)	Type
1			44.065	20.022	5.778	-19.978	40.000	14.244	PK
2			121.180	16.008	2.797	-27.492	43.500	13.211	PK
3			150.765	17.290	2.108	-26.210	43.500	15.182	PK
4			352.040	20.874	5.381	-25.126	46.000	15.493	PK
5			591.145	23.714	3.419	-22.286	46.000	20.295	PK
6			828.795	26.809	3.321	-19.191	46.000	23.488	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: AC1	Time: 2017/03/13 - 22:25
Limit: FCC_Part15.109_RE(3m)_ClassB	Engineer: Jone Zhang
Probe: VULB 9168 _20-2000MHz	Polarity: Vertical
EUT: TPMS Activation Tool	Power: DC 9V
Test Mode 1	

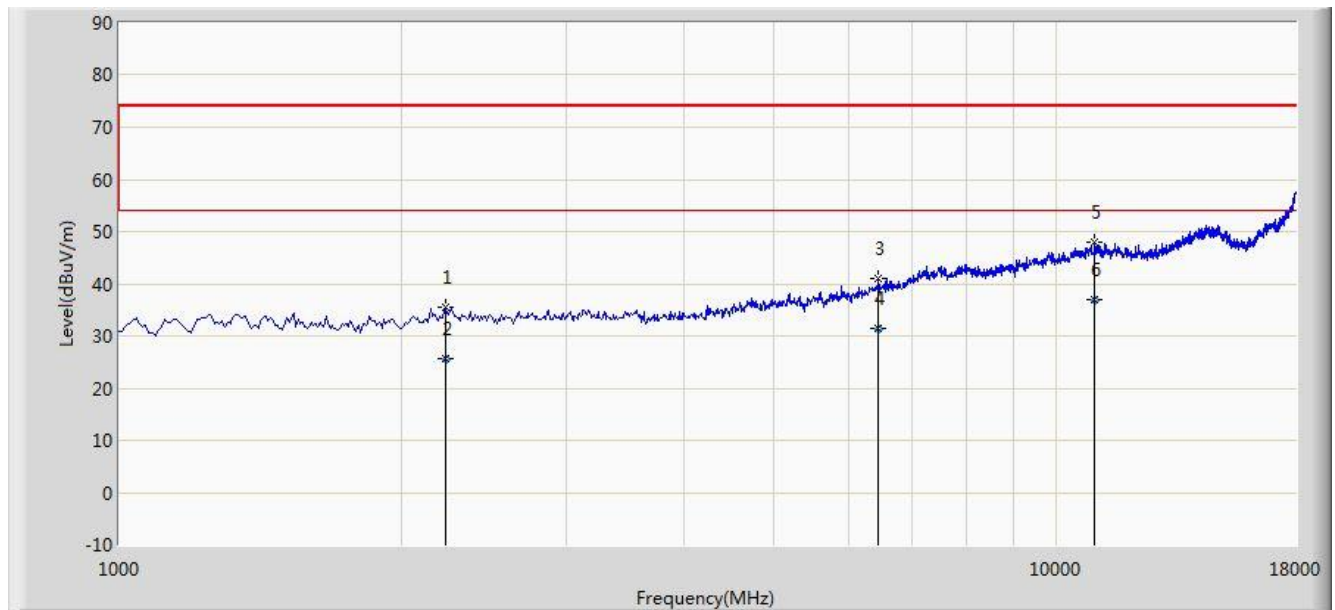


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			30.000	28.486	14.878	-11.514	40.000	13.608	PK
2			32.425	27.604	13.896	-12.396	40.000	13.708	PK
3			34.365	25.034	11.227	-14.966	40.000	13.807	PK
4			44.065	27.228	12.984	-12.772	40.000	14.244	PK
5			47.945	23.918	9.807	-16.082	40.000	14.111	PK
6			747.800	25.761	3.079	-20.239	46.000	22.682	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: AC1	Time: 2017/03/13 - 22:41
Limit: FCC_Part15.109_RE(3m)_ClassB	Engineer: Jone Zhang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: TPMS Activation Tool	Power: DC 9V
Test Mode 1	

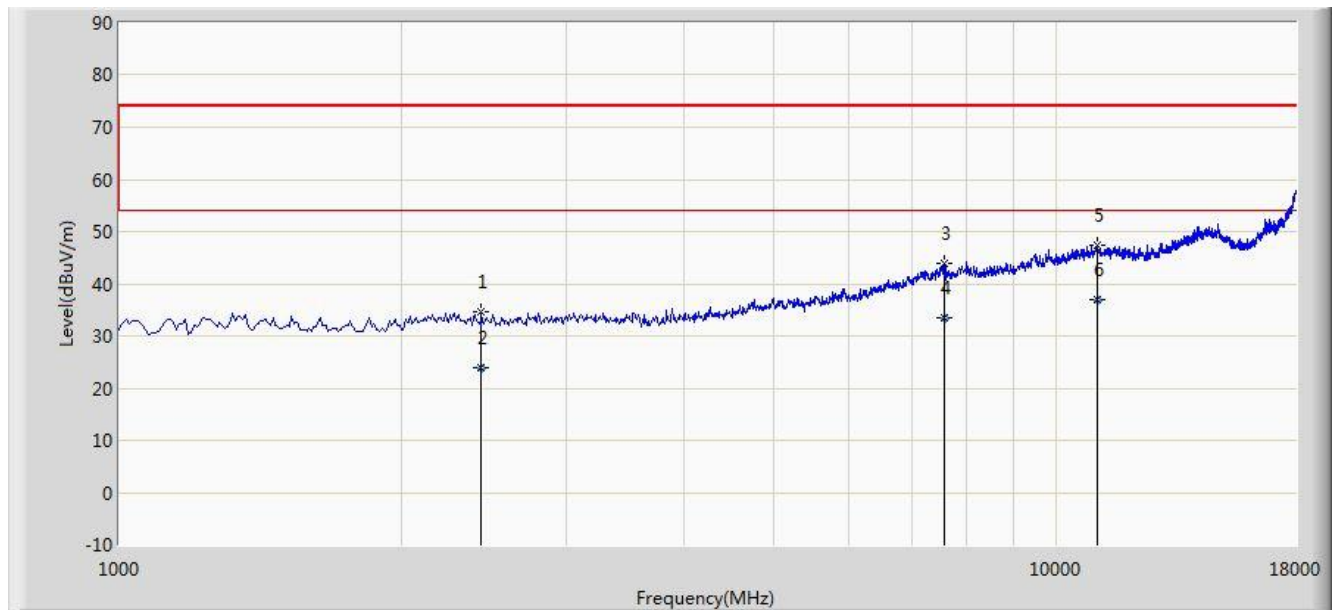


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2232.500	35.565	39.067	-38.435	74.000	-3.503	PK
2			2232.510	25.598	29.100	-28.402	54.000	-3.502	AV
3			6448.500	41.107	35.375	-32.893	74.000	5.732	PK
4			6448.500	31.332	25.600	-22.668	54.000	5.732	AV
5			10962.000	47.911	34.849	-26.089	74.000	13.062	PK
6		*	10962.030	36.962	23.900	-17.038	54.000	13.062	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: AC1	Time: 2017/03/13 - 22:43
Limit: FCC_Part15.109_RE(3m)_ClassB	Engineer: Jone Zhang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: TPMS Activation Tool	Power: DC 9V
Test Mode 1	

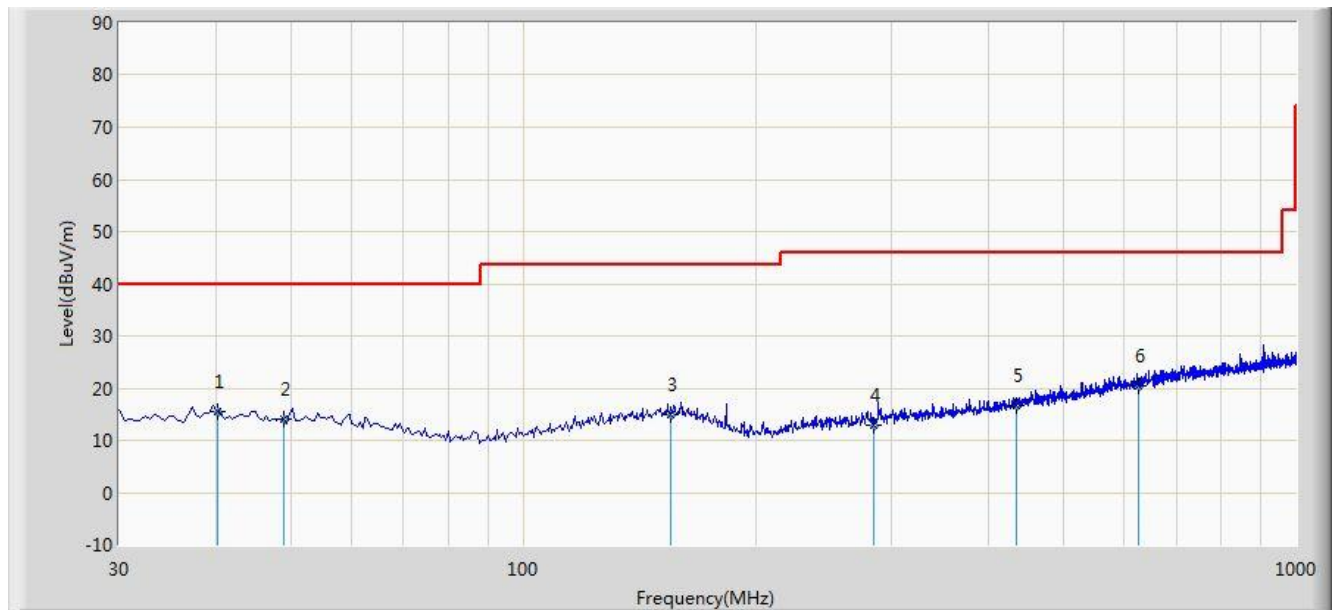


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2436.500	34.743	38.529	-39.257	74.000	-3.786	PK
2			2436.500	23.814	27.600	-30.186	54.000	-3.786	AV
3			7579.000	43.900	35.693	-30.100	74.000	8.207	PK
4			7579.030	33.507	25.300	-20.493	54.000	8.207	AV
5			11047.000	47.299	34.413	-26.701	74.000	12.886	PK
6		*	11047.040	37.036	24.150	-16.964	54.000	12.886	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: AC1	Time: 2017/10/14 - 19:13
Limit: FCC_Part15.109_RE(3m)_ClassB	Engineer: Will Yan
Probe: VULB 9168 _20-2000MHz	Polarity: Horizontal
EUT: TPMS Activation Tool	Power: AC 120V/60Hz
Test Mode 2	

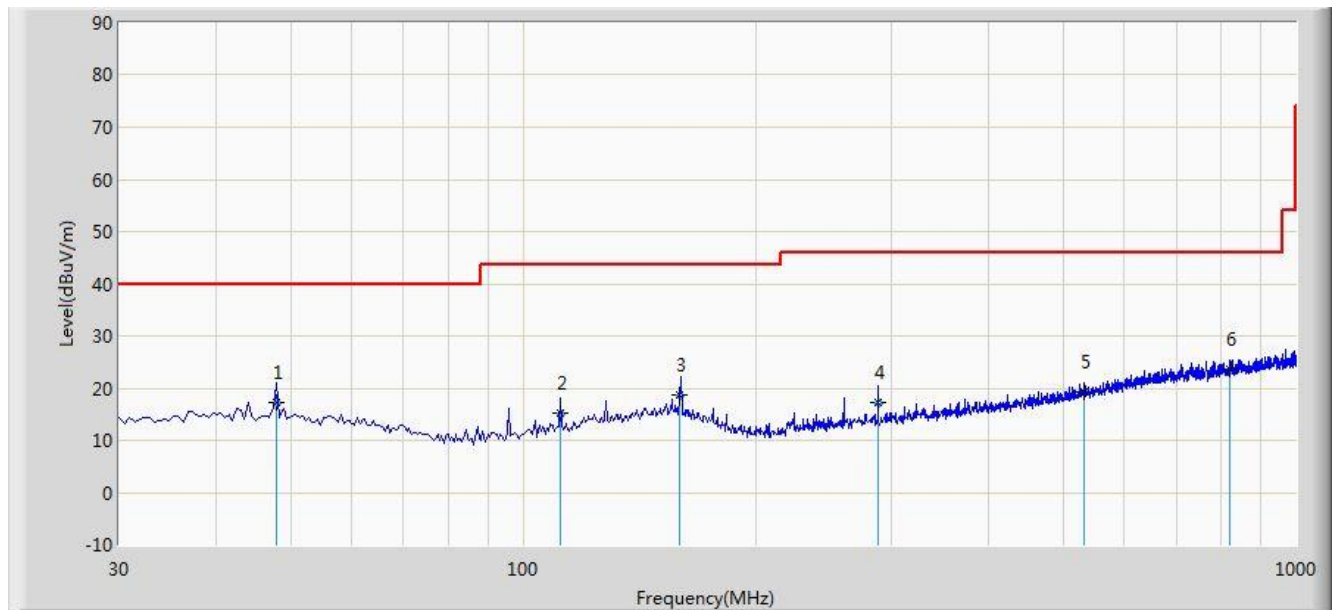


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	40.185	15.431	0.928	-24.569	40.000	14.503	QP
2			48.915	14.062	-0.035	-25.938	40.000	14.097	QP
3			155.130	14.810	-0.375	-28.690	43.500	15.185	QP
4			283.655	12.958	-0.943	-33.042	46.000	13.902	QP
5			434.975	16.550	-0.895	-29.450	46.000	17.445	QP
6			626.550	20.480	-0.570	-25.520	46.000	21.050	QP

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: AC1	Time: 2017/10/14 - 19:13
Limit: FCC_Part15.109_RE(3m)_ClassB	Engineer: Will Yan
Probe: VULB 9168 _20-2000MHz	Polarity: Vertical
EUT: TPMS Activation Tool	Power: AC 120V/60Hz
Test Mode 2	

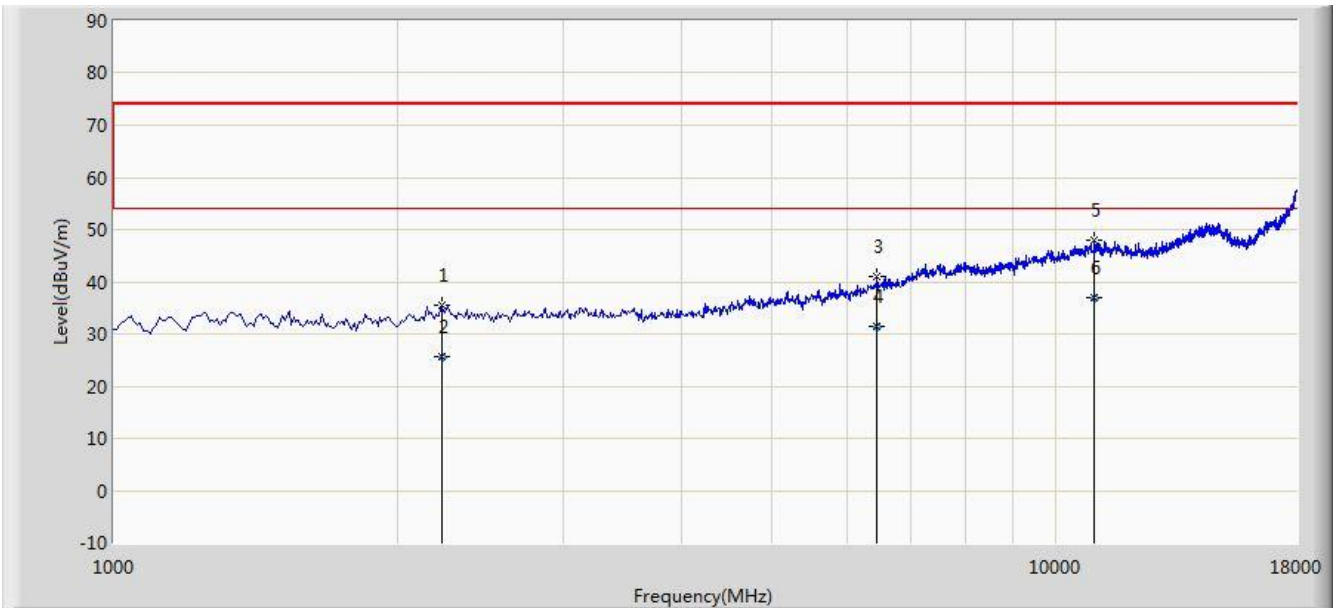


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			47.950	17.231	3.120	-22.769	40.000	14.111	QP
2			111.965	15.245	3.020	-28.255	43.500	12.225	QP
3			159.250	18.817	3.650	-24.683	43.500	15.167	QP
4			288.020	17.132	3.140	-28.868	46.000	13.992	QP
5			532.140	19.335	0.210	-26.665	46.000	19.125	QP
6		*	820.150	23.525	0.120	-22.475	46.000	23.405	QP

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: AC1	Time: 2017/10/14 - 02:15
Limit: FCC_Part15.109_RE(3m)_ClassB	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: TPMS Activation Tool	Power: AC 120V/60Hz
Test Mode 2	

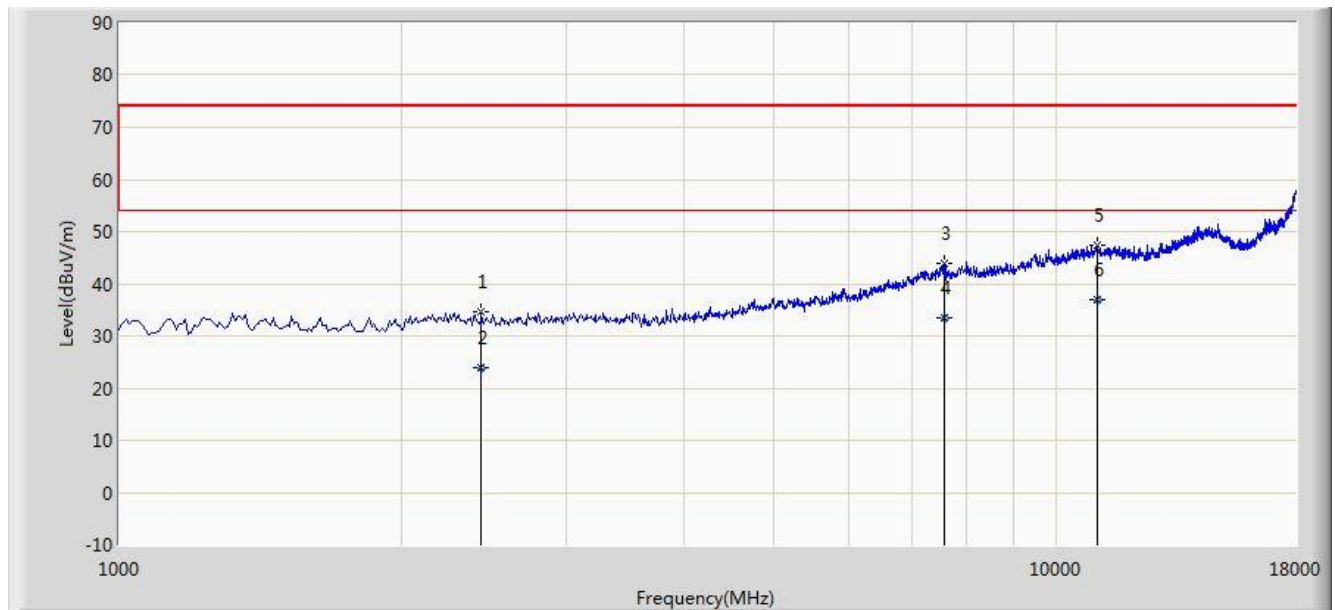


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2232.500	35.565	39.067	-38.435	74.000	-3.503	PK
2			2232.510	25.598	29.100	-28.402	54.000	-3.502	AV
3			6448.500	41.107	35.375	-32.893	74.000	5.732	PK
4			6448.500	31.332	25.600	-22.668	54.000	5.732	AV
5			10962.000	47.911	34.849	-26.089	74.000	13.062	PK
6		*	10962.030	36.962	23.900	-17.038	54.000	13.062	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: AC1	Time: 2017/10/14 - 02:20
Limit: FCC_Part15.109_RE(3m)_ClassB	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: TPMS Activation Tool	Power: AC 120V/60Hz
Test Mode 2	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2436.500	34.743	38.529	-39.257	74.000	-3.786	PK
2			2436.500	23.814	27.600	-30.186	54.000	-3.786	AV
3			7579.000	43.900	35.693	-30.100	74.000	8.207	PK
4			7579.030	33.507	25.300	-20.493	54.000	8.207	AV
5			11047.000	47.299	34.413	-26.701	74.000	12.886	PK
6		*	11047.040	37.036	24.150	-16.964	54.000	12.886	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

The End