FCC REPORT

Applicant:	Automotive Data Solutions Inc.
Address of Applicant:	8400 Bougainville Montreal Quebec Canada H4P 2G1
Equipment Under Test (EUT)	
Product Name:	CAR ALARM (TWO WAY)
Model No.:	TR2420AE,TR2420AD,TR2420AO
FCC ID:	2AEPJ-TR2420AE
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.247
Date of sample receipt:	11 Dec., 2017
Date of Test:	11 Dec., to 21 Dec., 2017
Date of report issued:	22 Dec., 2017
Test Result:	PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Bruce Zhang
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of theCCISproduct certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

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2 Version

Version No.	Date	Description
00	*22 Dec., 2017*	*Original*

Tested by: ***Date:*** *22 Dec., 2017*

Test Engineer

Reviewed by: ***Date:*** *22 Dec., 2017*

Project Engineer

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4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203/15.247 (c)	Pass
AC Power Line Conducted Emission	15.207	N/A
Conducted Peak Output Power	15.247 (b)(3)	Pass
6dB Emission Bandwidth	15.247 (a)(2)	Pass
Power Spectral Density	15.247 (e)	Pass
Band Edge	15.247(d)	Pass
Spurious Emission	15.205/15.209	Pass

Pass: The EUT complies with the essential requirements in the standard.

5 General Information

5.1 Client Information

Applicant:	Automotive Data Solutions Inc.
Address:	8400 Bougainville Montreal Quebec Canada H4P 2G1
Manufacturer/ Factory:	DONGGUAN PORTMAN ELECTRONIC SCIENCE AND TECHNOLOGY CO., LTD
Address:	NO.10, LUYI 2 ROAD, TANGXIA TOWN, DONGGUAN CITY, GUANGDONG PROVINCE CHINA

5.2 General Description of E.U.T.

Product Name:	CAR ALARM (TWO WAY)
Model No.:	TR2420AE,TR2420AD,TR2420AO
Operation Frequency:	915 MHz
Channel numbers:	1
Modulation technology:	LoRa
Antenna Type:	Internal Antenna
Antenna gain:	-1.25dBi
Power supply:	DC 3V(CR2450 Battery)
Remark:	The No.: TR2420AE,TR2420AD,TR2420AO were identical inside, the electrical circuit design, layout, components used and internal wiring, with only difference being model name for different customer.

5.3 Test environment and mode

Operating Environment:	
Temperature:	24.0 °C
Humidity:	54 % RH
Atmospheric Pressure:	1010 mbar
Test mode:	
Operation mode	Keep the EUT in continuous transmitting with modulation

The sample was placed 0.8m(below 1GHz)/1.5m(above 1GHz) above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages. Duty cycle setting during the transmission is 100% with maximum power setting for all modulations. New battery is used .

5.4 Description of Support Units

N/A

5.5 Measurement Uncertainty

Parameters	Expanded Uncertainty
Conducted Emission (9kHz ~ 30MHz)	2.14 dB (k=2)
Radiated Emission (9kHz ~ 30MHz)	4.24 dB (k=2)
Radiated Emission (30MHz ~ 1000MHz)	4.35 dB (k=2)
Radiated Emission (1GHz ~ 18GHz)	4.44 dB (k=2)
Radiated Emission (18GHz ~ 26.5GHz)	4.56 dB (k=2)

5.6 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC - Registration No.: 727551**

Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been accredited as a testing laboratory by FCC (Federal Communications Commission). The Registration No. is 727551.

- **IC - Registration No.: 10106A-1**

The 3m Semi-anechoic chamber of Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

- **CNAS - Registration No.: CNAS L6048**

Shenzhen Zhongjian Nanfang Testing Co., Ltd. is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L6048.

- **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

5.7 Laboratory Location

Shenzhen Zhongjian Nanfang Testing Co., Ltd.
Address: No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,
Bao'an District, Shenzhen, Guangdong, China
Tel: +86-755-23118282, Fax: +86-755-23116366
Email: info@ccis-cb.com, Website: http://www.ccis-cb.com

5.8 Test Instruments list

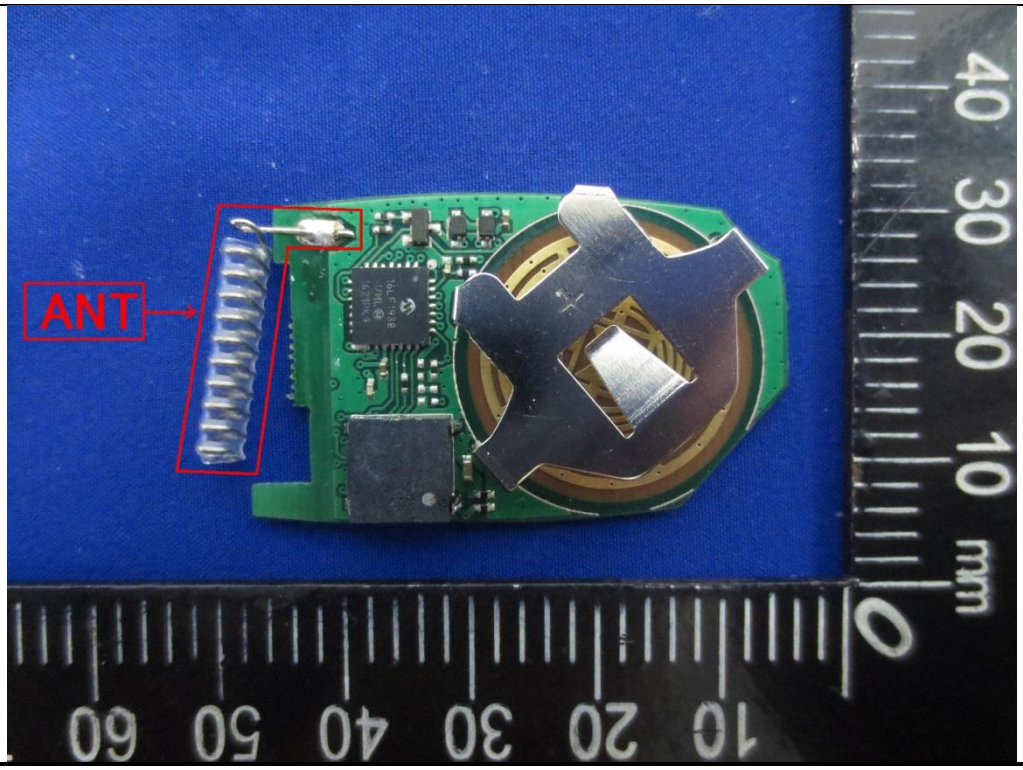
Radiated Emission:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal. Date (mm-dd-yy)**	**Cal. Due date (mm-dd-yy)**
1	3m SAC	SAEMC	9(L)*6(W)* 6(H)	CCIS0001	08-23-2014	08-22-2020
2	BiConiLog Antenna	SCHWARZBECK	VULB9163	CCIS0005	02-25-2017	02-24-2018
3	Horn Antenna	SCHWARZBECK	BBHA9120D	CCIS0006	02-25-2017	02-24-2018
4	Pre-amplifier (10kHz-1.3GHz)	HP	8447D	CCIS0003	02-25-2017	02-24-2018
5	Pre-amplifier (1GHz-18GHz)	Compliance Direction Systems Inc.	PAP-1G18	CCIS0011	02-25-2017	02-24-2018
6	Pre-amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	02-25-2017	02-24-2018
7	Horn Antenna	ETS-LINDGREN	3160	GTS217	02-25-2017	02-24-2018
8	Spectrum analyzer 9k-30GHz	Rohde & Schwarz	FSP30	CCIS0023	02-25-2017	02-24-2018
9	EMI Test Receiver	Rohde & Schwarz	ESRP7	CCIS0167	02-25-2017	02-24-2018
10	Loop antenna	Laplace instrument	RF300	EMC0701	02-25-2017	02-24-2018
11	EMI Test Software	AUDIX	E3	N/A	N/A	N/A

Conducted Emission:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	Shielding Room	ZhongShuo Electron	11.0(L)x4.0(W)x3.0(H)	CCIS0061	07-22-2017	07-21-2020
2	EMI Test Receiver	Rohde & Schwarz	ESCI	CCIS0002	02-25-2017	02-24-2018
3	LISN	CHASE	MN2050D	CCIS0074	02-25-2017	02-24-2018
4	LISN	Rohde & Schwarz	ESH3-Z5	8438621/010	07-21-2017	07-20-2018
5	Coaxial Cable	CCIS	N/A	CCIS0086	02-25-2017	02-24-2018
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	Power Sensor	D.A.R.E	RPR3006W	17I00015SNO27	11-10-2017	11-09- 2018
8	Power Sensor	D.A.R.E	RPR3006W	17I00015SNO28	11-10-2017	11-09- 2018

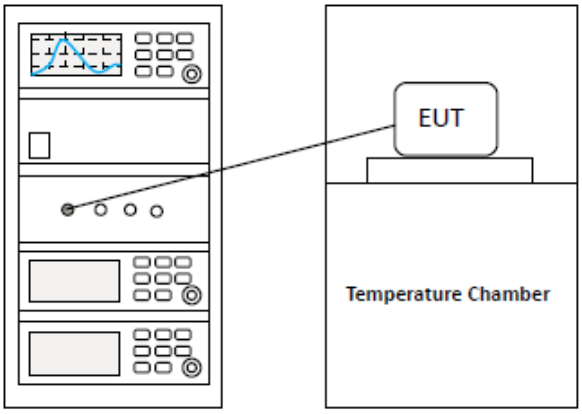
6 Test results andMeasurement Data

6.1 Antenna requirement:

Standard requirement:	FCC Part15 C Section 15.203 /247(c)
15.203 requirement: *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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.*	
E.U.T Antenna:	
The antenna is an internal antenna which cannot replace by end-user, the best case gain of the antenna is -1.25 dBi.	



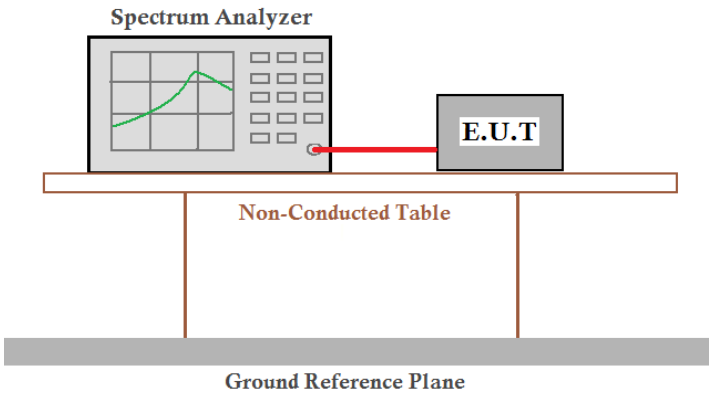
6.2 Conducted Output Power

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)
Test Method:	ANSI C63.10:2013 and 558074 D01 DTS Meas Guidance v04 section 9.2.2
Limit:	30dBm
Test setup:	
Test procedure:	1. Use a fast power sensor suitable for 2,4 GHz and capable of 1 MS/s. 2. Connect the power sensor to the transmit port, sample the transmit signal and store the raw data, every channel 25 bursts. Use these stored samples in all following steps. 3. Find the start and stop times of each burst in the stored measurement samples. 4. Between the start and stop times of each individual burst calculate the RMS power over the burst. Save these Pburst values, as well as the start and stop times for each burst. 5. The highest of all P_{burst} values (value "A" in dBm) will be used for maximum e.i.r.p. calculations. Add the (stated) antenna assembly gain "G" in dBi of the individual antenna. The RF Output Power (P) shall be calculated using the formula below: P = A + G
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data:

Test Frequency	Maximum Conducted Output Power (dBm)	Limit(dBm)	Result
915 MHz	19.74	30.00	Pass

6.3 Occupy Bandwidth

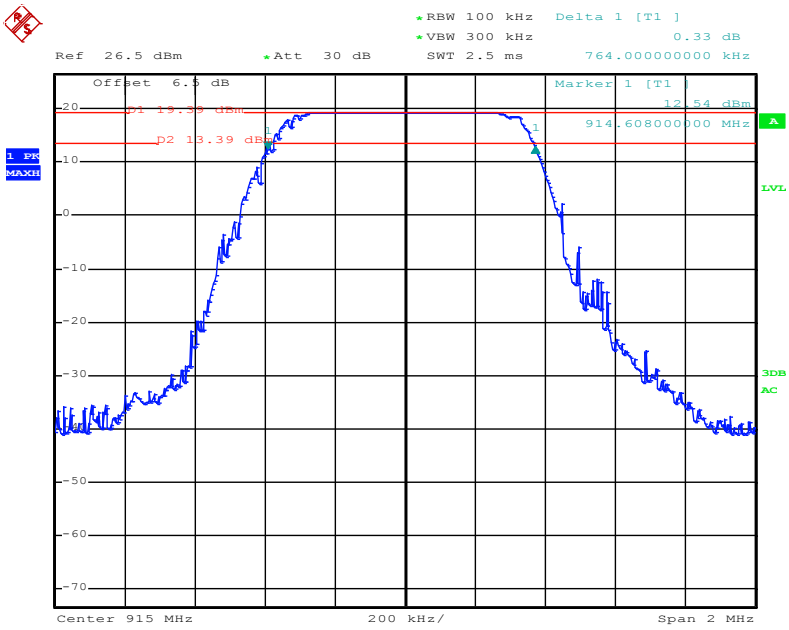
Test Requirement:	FCC Part15 C Section 15.247 (a)(2)
Test Method:	ANSI C63.10:2013 and 558074 D01 DTS Meas Guidance v04 section 8.1
Limit:	>500kHz
Test setup:	
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data:

Test Frequency	6dB Emission Bandwidth (MHz)	Limit(kHz)	Result
915 MHz	0.764	>500	Pass
Test Frequency	99% Occupy Bandwidth (MHz)	Limit(kHz)	Result
915 MHz	0.780	N/A	N/A

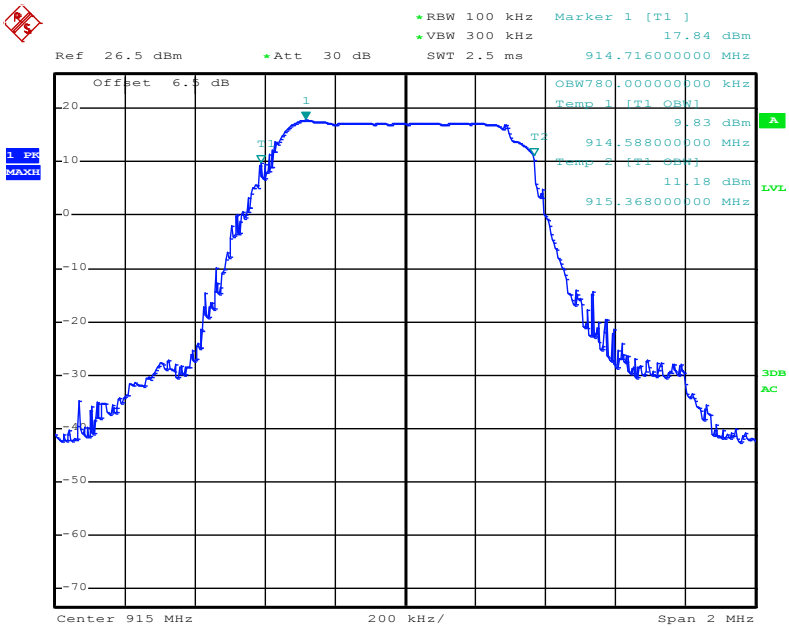
Test plot as follows:

6dB EBW



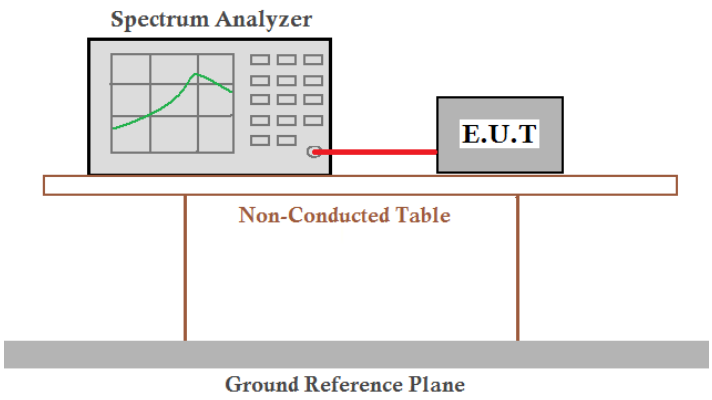
Date: 18.DEC.2017 17:45:33

99% OBW



Date: 18.DEC.2017 17:42:26

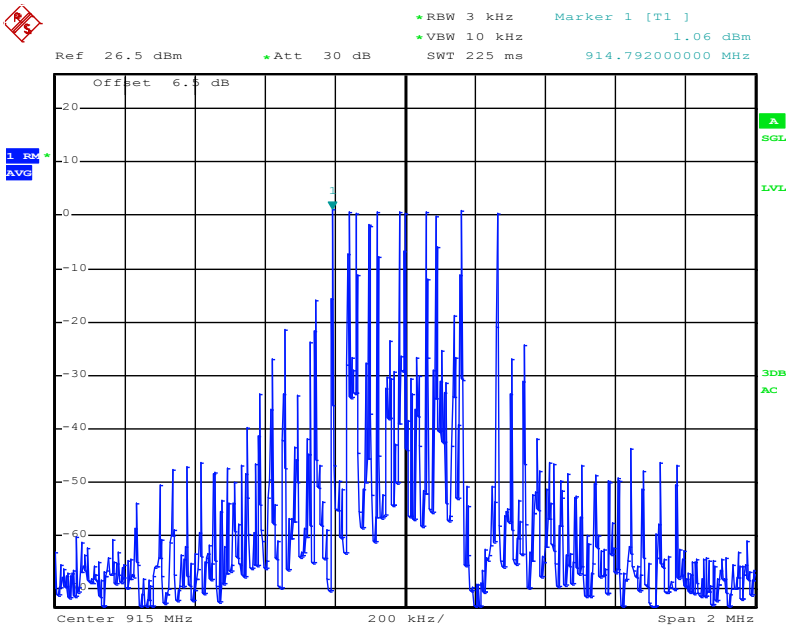
6.4 Power Spectral Density

Test Requirement:	FCC Part15 C Section 15.247 (e)
Test Method:	ANSI C63.10:2013 and 558074 D01 DTS Meas Guidance v04 section 10.3
Limit:	8dBm
Test setup:	
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data:

Test Frequency	Power Spectral Density (dBm)	Limit(dBm)	Result
915 MHz	1.06	8.00	Pass

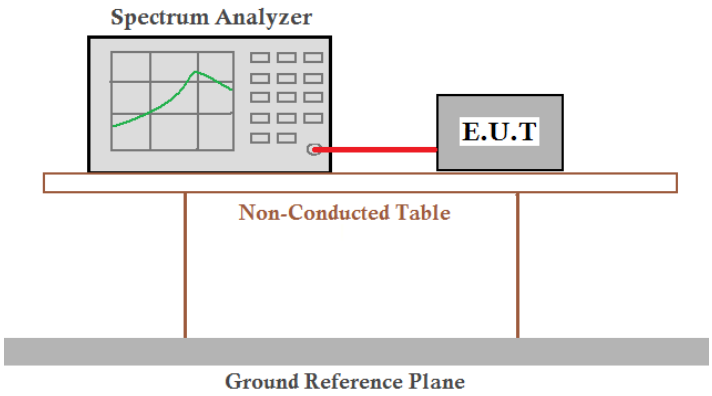
Test plots as follow:



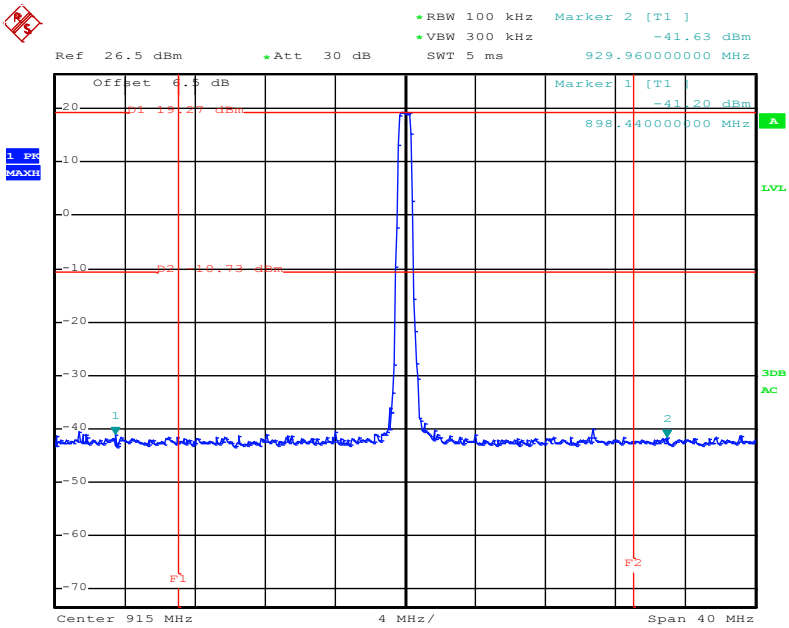
Date: 18.DEC.2017 18:16:15

6.5 Band Edge

6.5.1 Conducted Emission Method

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	ANSI C63.10:2013 and 558074 D01 DTS Meas Guidance v04 section 13
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spreadspectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test setup:	
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Test plots as follow:



Date: 18.DEC.2017 18:08:40

6.5.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209 and 15.205
Test Method:	ANSI C63.10: 2013and 558074 D01 DTS Meas Guidance v04 section 12.1
Test Frequency Range:	960MHz to 1.240GHz
Test site:	Measurement Distance: 3m
Receiver setup:	

Frequency	Detector	RBW	VBW	Remark
960MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak Value
Above 1GHz	Peak	1MHz	3MHz	Peak Value
	RMS	1MHz	3MHz	Average Value

Limit:

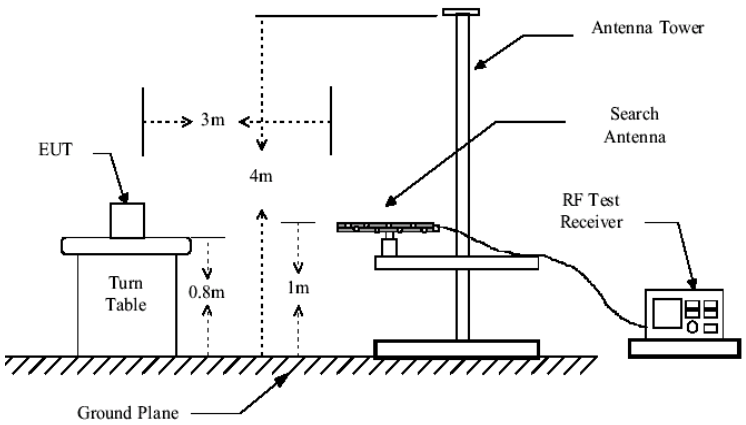
Frequency	Limit (dBuV/m @3m)	Remark
960MHz-1GHz	54.00	Quasi-peak Value
Above 1GHz	54.00	Average Value
	74.00	Peak Value

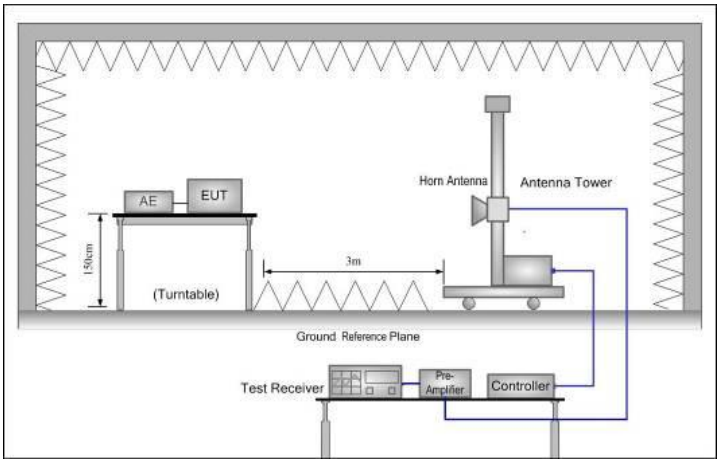
Test Procedure:

1. The EUT was placed on the top of a rotating table 0.8m(below 1GHz) /1.5m(above 1GHz) above the groundat a 3 meter chamber.The table was rotated 360 degrees todetermine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, whichwas mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and thenthe antenna was tuned to heights from 1 meter to 4 meters and the rotatablewas turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and SpecifiedBandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limitspecified, then testing could be stopped and the peak values of the EUT wouldbe reported. Otherwise the emissions that did not have 10dB margin would bere-tested one by one using peak, quasi-peak or average method as specified andthen reported in a data sheet.

Test setup:

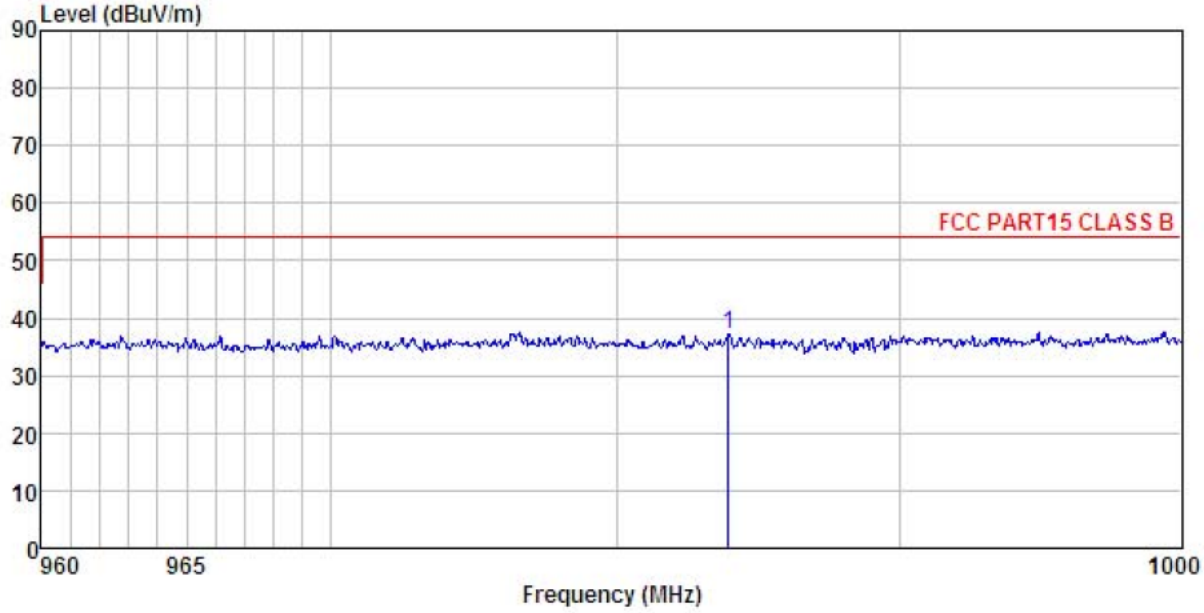
Below 1GHz



	Above 1GHz 
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Test channel: Lowest

Horizontal:

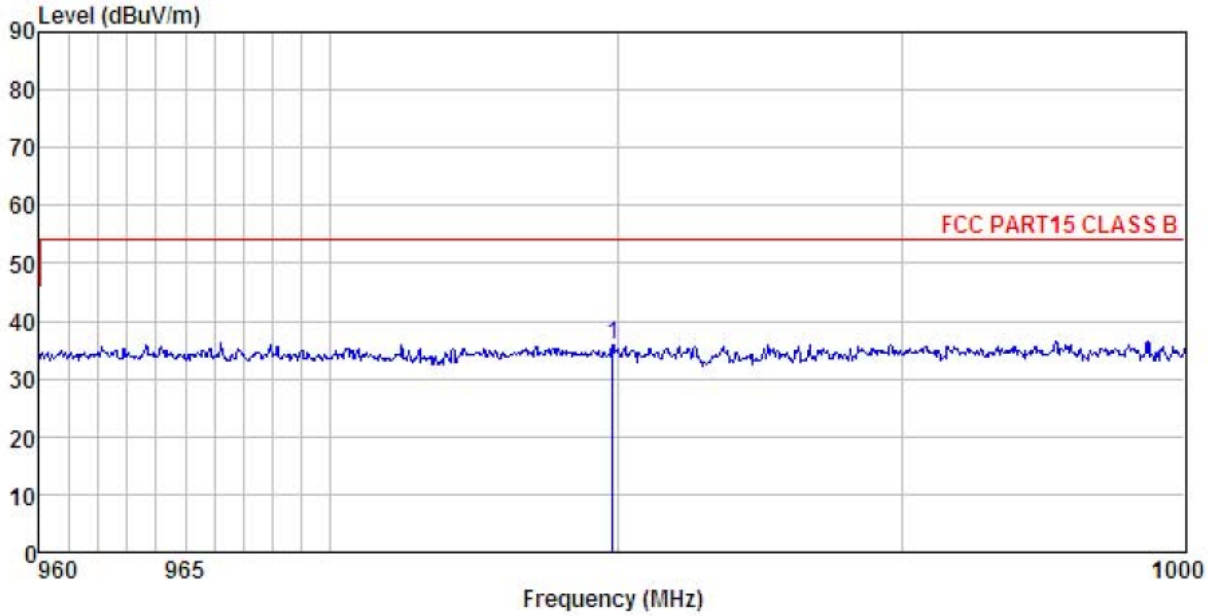


Site : 3m chamber
Condition : FCC PART15 CLASS B 3m VULB9163(30M2G) HORIZONTAL
EUT : CAR ALARM (TWO WAY)
Model : TR2420AE
Test mode : TX mode
Power Rating : DC 3V
Environment : Temp:25.5℃ Huni:55%
Test Engineer: MT
Remark :

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	983.924	11.32	21.60	4.39	0.00	37.31	54.00	-16.69	QP

Test channel: Lowest

Vertical:

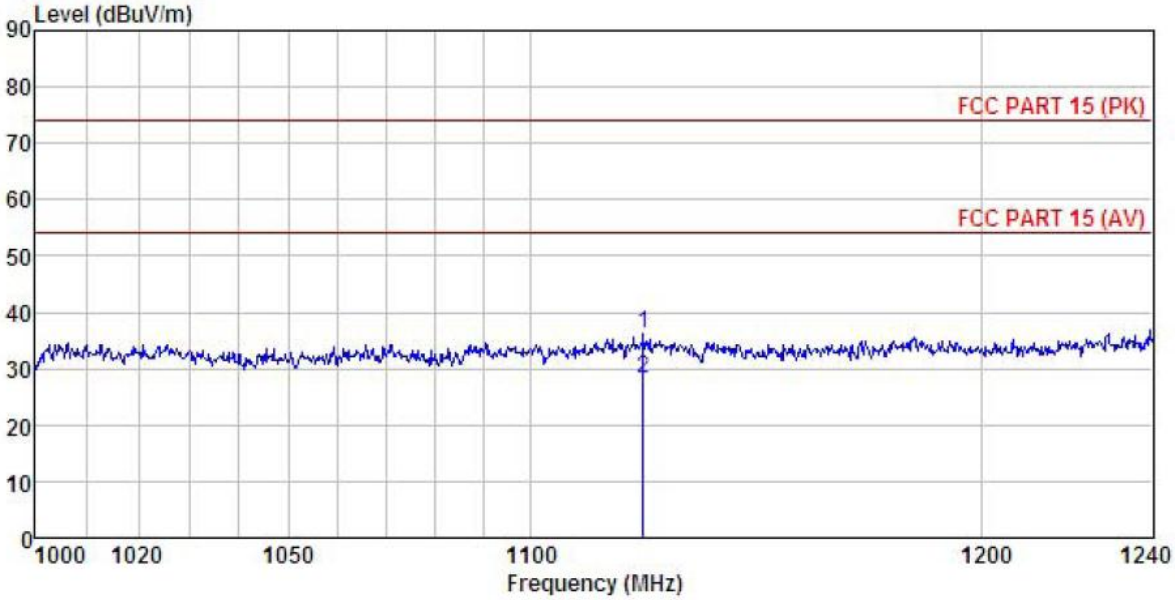


Site : 3m chamber
Condition : FCC PART15 CLASS B 3m VULB9163(30M2G) VERTICAL
EUT : CAR ALARM (TWO WAY)
Model : TR2420AE
Test mode : TX mode
Power Rating : DC 3V
Environment : Temp:25.5°C Huni:55%
Test Engineer: MT
Remark :

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	979.796	9.88	21.55	4.36	0.00	35.79	54.00	-18.21	QP

Test channel: Highest

Horizontal:

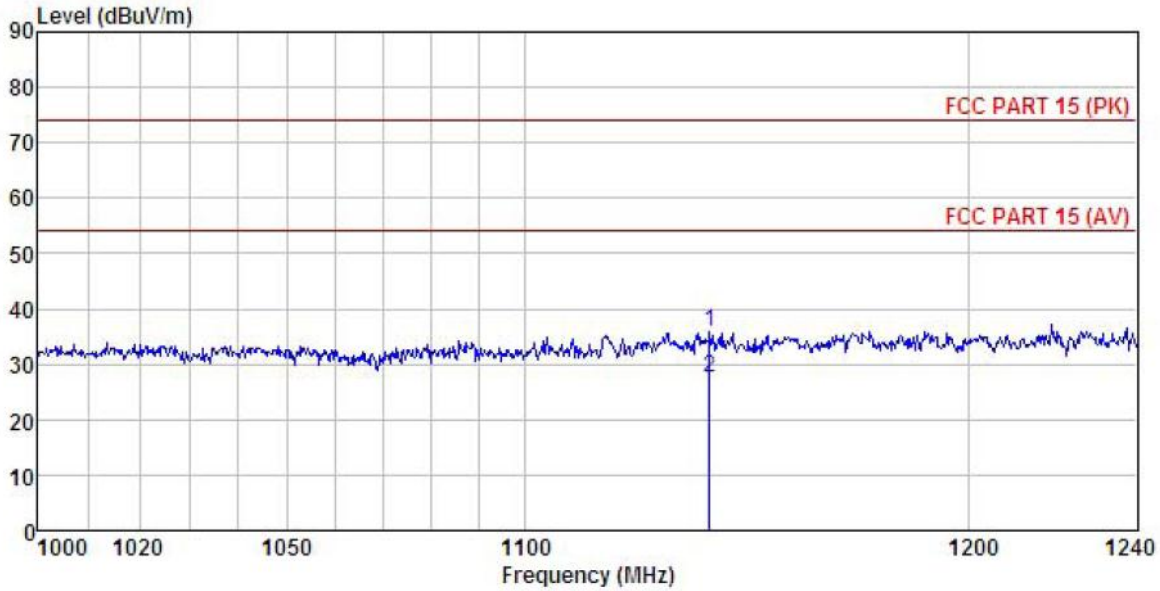


Site : 3m chamber
Condition : FCC PART 15 (PK) 3m BBHA9120(1G18G) HORIZONTAL
EUT : CAR ALARM (TWO WAY)
Model : TR2420AE
Test mode : TX mode
Power Rating : DC 3V
Environment : Temp:25.5℃ Huni:55%
Test Engineer: MT
Remark :

	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1124.143	9.14	23.85	3.20	0.00	36.19	74.00	-37.81	Peak
2	1124.143	1.33	23.85	3.20	0.00	28.38	54.00	-25.62	Average

Test channel: Highest

Vertical:

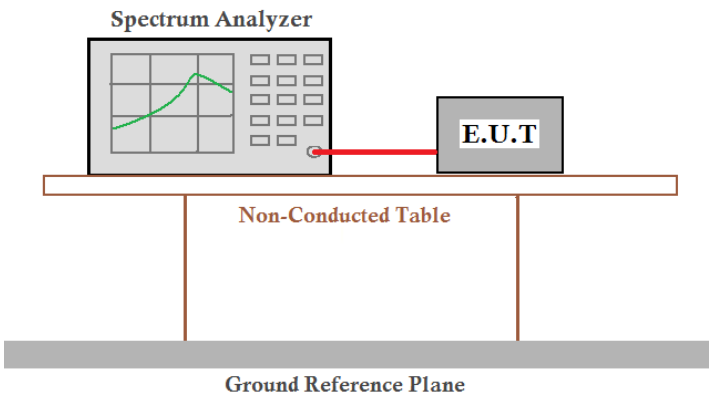


Site : 3m chamber
Condition : FCC PART 15 (PK) 3m BBHA9120(1G18G) VERTICAL
EUT : CAR ALARM (TWO WAY)
Model : TR2420AE
Test mode : TX mode
Power Rating : DC 3V
Environment : Temp:25.5℃ Huni:55%
Test Engineer: MT
Remark :

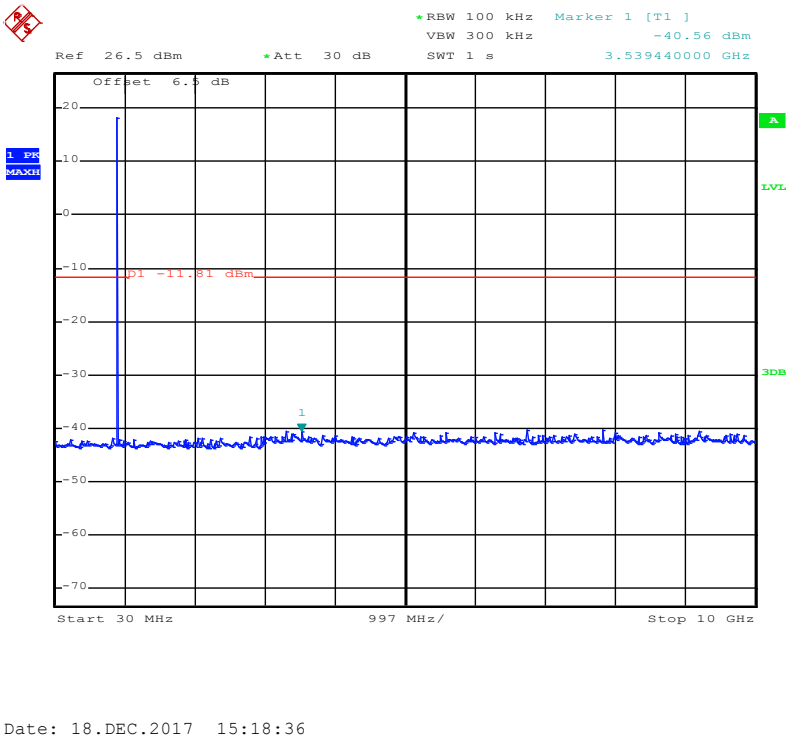
	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1140.462	8.86	23.80	3.23	0.00	35.89	74.00	-38.11	Peak
2	1140.462	0.48	23.80	3.23	0.00	27.51	54.00	-26.49	Average

6.6 Spurious Emission

6.6.1 Conducted Emission Method

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	ANSI C63.10:2013 and 558074 D01 DTS Meas Guidance v04 section 11
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spreadspectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test setup:	
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Test plot as follows:



30MHz~10GHz

6.6.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209 and 15.205
Test Method:	ANSI C63.10:2013
Test Frequency Range:	9KHz to 25GHz
Test site:	Measurement Distance: 3m
Receiver setup:	

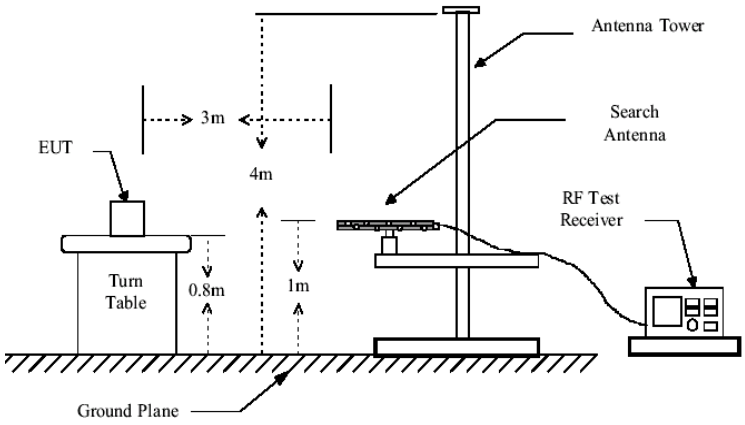
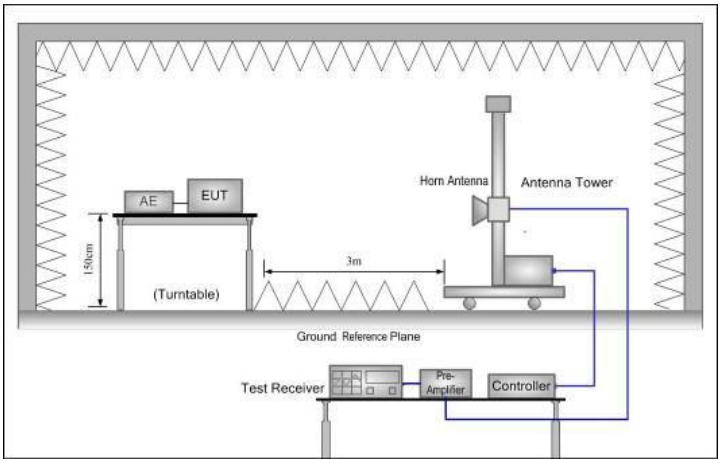
Frequency	Detector	RBW	VBW	Remark
30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value
Above 1GHz	Peak	1MHz	3MHz	Peak Value
	RMS	1MHz	3MHz	Average Value

Limit:

Frequency	Limit (dBuV/m @3m)	Remark
30MHz-88MHz	40.0	Quasi-peak Value
88MHz-216MHz	43.5	Quasi-peak Value
216MHz-960MHz	46.0	Quasi-peak Value
960MHz-1GHz	54.0	Quasi-peak Value
Above 1GHz	54.0	Average Value
	74.0	Peak Value

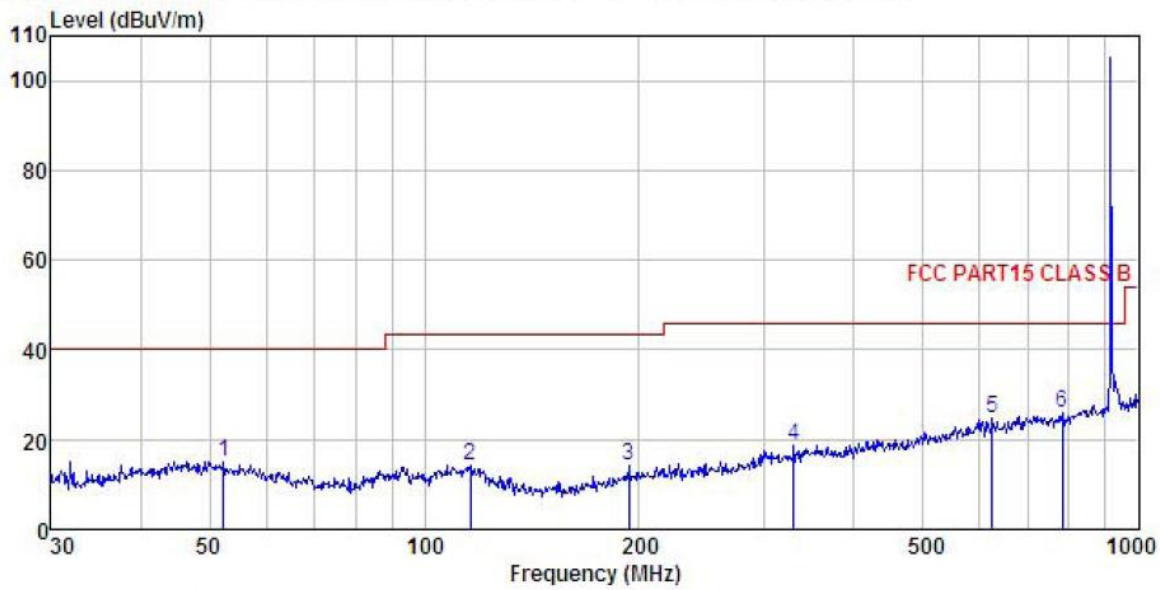
Test Procedure:

1. The EUT was placed on the top of a rotating table 0.8m(below 1GHz)/1.5m(above 1GHz) above the groundat a 3 meter chamber.The table was rotated 360 degrees todetermine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, whichwas mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and thenthe antenna was tuned to heights from 1 meter to 4 meters and the rotatablewas turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and SpecifiedBandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limitspecified, then testing could be stopped and the peak values of the EUT wouldbe reported. Otherwise the emissions that did not have 10dB margin would bere-tested one by one using peak, quasi-peak or average method as specified andthen reported in a data sheet.

Test setup:	Below 1GHz  Above 1GHz 
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed
Remark:	1. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis is the worst case. 2. 9 kHz to 30MHz is too low, so only shows the data of above 30MHz in this report.

Below 1GHz

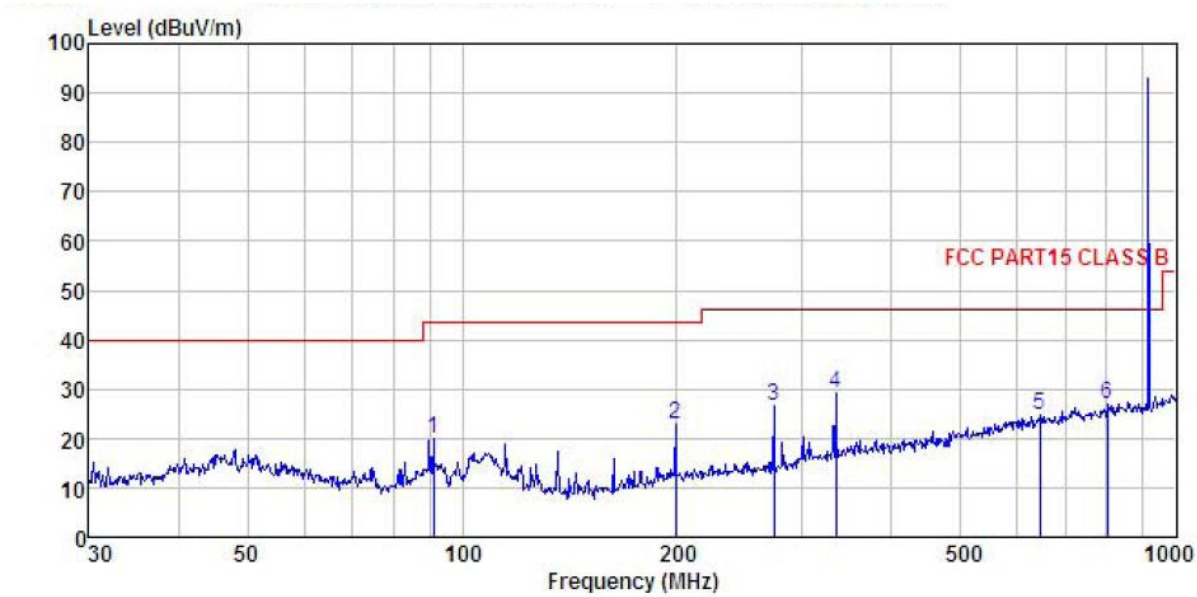
Horizontal:



Site : 3m chamber
Condition : FCC PART15 CLASS B 3m VULB9163(30M2G) HORIZONTAL
EUT : CAR ALARM (TWO WAY)
Model : TR2420AE
Test mode : TX Mode
Power Rating : DC 3V
Environment : Temp:25.5℃ Huni:55%
Test Engineer: MT
REMARK :

	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	52.391	29.62	14.08	1.29	29.81	15.18	40.00	-24.82	QP
2	116.132	30.68	10.98	2.12	29.42	14.36	43.50	-29.14	QP
3	193.095	29.69	10.76	2.82	28.88	14.39	43.50	-29.11	QP
4	329.039	30.34	13.80	3.03	28.51	18.66	46.00	-27.34	QP
5	625.078	31.10	18.60	3.90	28.86	24.74	46.00	-21.26	QP
6	782.345	30.50	19.57	4.35	28.29	26.13	46.00	-19.87	QP

Vertical:



Site : 3m chamber
Condition : FCC PART15 CLASS B 3m VULB9163(30M2G) VERTICAL
EUT : CAR ALARM (TWO WAY)
Model : TR2420AE
Test mode : TX Mode
Power Rating : DC 3V
Environment : Temp:25.5℃ Huni:55%
Test Engineer: MT
REMARK :

	Freq	ReadLevel	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	91.175	36.60	10.87	2.03	29.56	19.94	43.50	-23.56	QP
2	199.286	37.63	11.30	2.86	28.83	22.96	43.50	-20.54	QP
3	273.234	39.62	12.57	2.87	28.50	26.56	46.00	-19.44	QP
4	333.687	40.53	14.00	3.05	28.52	29.06	46.00	-16.94	QP
5	645.120	31.25	18.52	3.87	28.79	24.85	46.00	-21.15	QP
6	801.786	31.30	19.56	4.34	28.19	27.01	46.00	-18.99	QP

Above 1GHz

Peak value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
1830.00	54.04	25.00	4.15	41.27	41.92	74.00	-32.08	Vertical
2745.00	48.61	26.45	5.08	41.72	38.42	74.00	-35.58	Vertical
3660.00	46.65	27.78	5.95	41.62	38.76	74.00	-35.24	Vertical
4575.00	46.70	29.64	6.87	42.12	41.09	74.00	-32.91	Vertical
5490.00	50.10	30.45	7.20	41.83	45.92	74.00	-28.08	Vertical
6405.00	53.97	32.60	8.24	41.92	52.89	74.00	-21.11	Vertical
1830.00	54.14	25.00	4.15	41.27	42.02	74.00	-31.98	Horizontal
2745.00	49.74	26.45	5.08	41.72	39.55	74.00	-34.45	Horizontal
3660.00	47.75	27.78	5.95	41.62	39.86	74.00	-34.14	Horizontal
4575.00	47.20	29.64	6.87	42.12	41.59	74.00	-32.41	Horizontal
5490.00	49.47	30.45	7.20	41.83	45.29	74.00	-28.71	Horizontal
6405.00	53.35	32.60	8.24	41.92	52.27	74.00	-21.73	Horizontal
Average value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
1830.00	46.37	25.00	4.15	41.27	34.25	54.00	-19.75	Vertical
2745.00	41.72	26.45	5.08	41.72	31.53	54.00	-22.47	Vertical
3660.00	39.03	27.78	5.95	41.62	31.14	54.00	-22.86	Vertical
4575.00	38.84	29.64	6.87	42.12	33.23	54.00	-20.77	Vertical
5490.00	43.37	30.45	7.20	41.83	39.19	54.00	-14.81	Vertical
6405.00	45.11	32.60	8.24	41.92	44.03	54.00	-9.97	Vertical
1830.00	48.23	25.00	4.15	41.27	36.11	54.00	-17.89	Horizontal
2745.00	40.09	26.45	5.08	41.72	29.90	54.00	-24.10	Horizontal
3660.00	40.12	27.78	5.95	41.62	32.23	54.00	-21.77	Horizontal
4575.00	39.76	29.64	6.87	42.12	34.15	54.00	-19.85	Horizontal
5490.00	40.18	30.45	7.20	41.83	36.00	54.00	-18.00	Horizontal
6405.00	47.23	32.60	8.24	41.92	46.15	54.00	-7.85	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*