FCC Test Report

Product Name	：	TPMS
Trade name	：	MOBILETRON
Model No.	：	TX026, TX-S137
FCC ID.	：	ULZ-NXP002

Applicant	：	Mobiletron Electronics Co., Ltd.
Address	：	85, Sec. 4, Chung-Ching Rd.,Ta-Ya District, Taichung City 428, Taiwan (R.O.C.)

Date of Receipt	：	Mar. 20, 2018
Issued Date	：	Mar. 30, 2018
Report No.	：	1830308R-RFUSP14V00
Report Version	：	V1.0

Testing Laboratory
3024

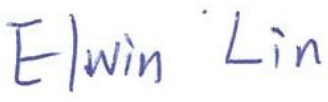
Test Report Certification

Issued Date : Mar. 30, 2018
Report No. : 1830308R-RFUSP14V00

Product Name	:	TPMS
Applicant	:	Mobiletron Electronics Co., Ltd.
Address	:	85, Sec. 4, Chung-Ching Rd.,Ta-Ya District, Taichung City 428, Taiwan (R.O.C.)
Manufacturer	:	Mobiletron Electronics Co., Ltd.
Model No.	:	TX026, TX-S137
FCC ID.	:	ULZ-NXP002
EUT Voltage	:	DC 3V (Power by Battery)
Testing Voltage	:	DC 3V (Power by Battery)
Trade Name	:	MOBILETRON
Applicable Standard	:	FCC 15 Subpart C Section 15.231(b): 2016
Laboratory Name	:	Hsin Chu Laboratory
Address	:	No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 310, Taiwan, R.O.C. TEL: +886-3-582-8001 / FAX: +886-3-582-8958
Test Result	:	Complied

Documented By : 

(Demi Chang / Senior Engineering Adm. Specialist)

Tested By : 

(Elwin Lin / Assistant Engineer)

Approved By : 

(Roy Wang / Director)

Revision History

Report No.	Version	Description	Issued Date
1830308R-RFUSP14V00	V1.0	Initial issue of report.	Mar. 30, 2018

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1. General Information

1.1. EUT Description

Product Name	TPMS
Trade Name	MOBILETRON
Model No.	TX026, TX-S137
Frequency Range	433.92 MHz
Channel Number	1
Type of Modulation	FSK

Antenna Information	
MFR. / Model	MOBILETRON / 20010378
Antenna Type	Soldered on PCB
Antenna Gain	-10 dBi

Working Frequency of Each Channel	
Channel	Frequency
01	433.92 MHz

Note:

1. This device is a TPMS including 433.92 MHz transmitting function.
2. The different model names are for market purpose.
3. These tests are conducted on a sample for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.231.
4. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

1.2. Test Mode

DEKRA verified the construction and function in typical operation. All the test modes are performed in normal operation and are defined as:

Test Mode	Mode 1: Transmit

Performed Item	Mode 1
Conducted Emission	No
Radiated Emission	Yes
Occupied Bandwidth	Yes
Duty cycle	Yes
Transmitter time	Yes

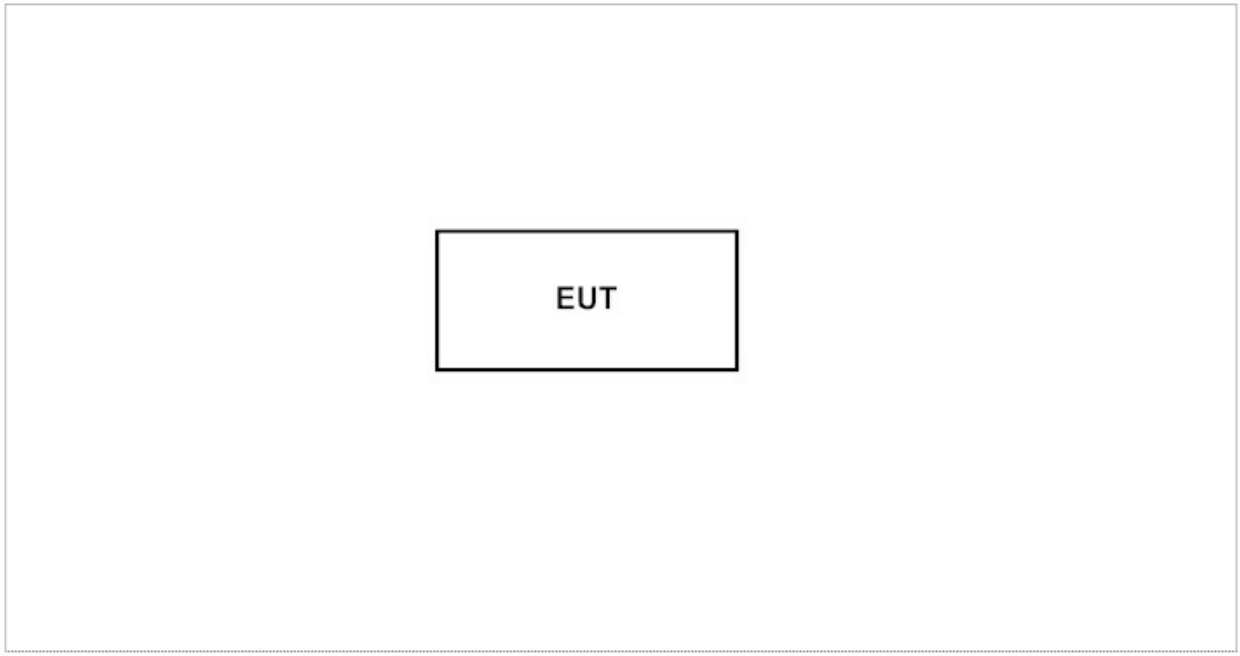
1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product	Manufacturer	Model No.	Serial No.	Power Cord
N/A				

1.4. Configuration of tested System

Connection Diagram



1.5. EUT Exercise Software

1	Setup the EUT as shown in Section 1.4.
2	Confirm that the signal is correct.
3	Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual	Test Site
Temperature (°C)	FCC PART 15 C 15.231(b) Conducted Emission	15 - 35	20°C	--
Humidity (%RH)		25 - 75	50%RH	
Barometric pressure (mbar)		860 - 1060	950-1000	
Temperature (°C)	FCC PART 15 C 15.231(b) Radiated Emission	15 - 35	25°C	2
Humidity (%RH)		25 - 75	45%RH	
Barometric pressure (mbar)		860 - 1060	950-1000	
Temperature (°C)	FCC PART 15 C 15.231(b) Occupied Bandwidth	15 - 35	25°C	3
Humidity (%RH)		25 - 75	65%RH	
Barometric pressure (mbar)		860 - 1060	950-1000	
Temperature (°C)	FCC PART 15 C 15.231(b) Duty cycle	15 - 35	25°C	3
Humidity (%RH)		25 - 75	45%RH	
Barometric pressure (mbar)		860 - 1060	950-1000	
Temperature (°C)	FCC PART 15 C 15.231(b) Transmitter time	15 - 35	25°C	3
Humidity (%RH)		25 - 75	48%RH	
Barometric pressure (mbar)		860 - 1060	950-1000	

Note: Test Site information refers to Laboratory Information.

Laboratory Information

The related certificate for our laboratories about the test site and management system can be downloaded from DEKRA Testing and Certification Co., Ltd. Web Site:
http://www.dekra.com.tw/english/about/certificates.aspx?bval=5
The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site : http://www.dekra.com.tw/index_en.aspx

If you have any comments, Please don't hesitate to contact us. Our test sites as below:

1 No. 75-2, 3rd Lin, WangYe Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan (R.O.C.)
TEL: +886-3-592-8858 / FAX: +886-3-592-8859 E-Mail : info.tw@dekra.com
2 No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan
TEL: +886-3-582-8001 / FAX: +886-3-582-8958 E-Mail : info.tw@dekra.com
3 No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan
TEL: +886-3-582-8001 / FAX: +886-3-582-8958 E-Mail : info.tw@dekra.com

1.7. List of Test Equipment

Radiated Emission / CB2-H, CB4-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Signal Analyzer	R&S	FSVA40	101455	2017/11/21	2018/11/20
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/10	2019/01/09
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2018/03/05	2019/03/04
Bilog Antenna	Teseq	CBL6112D	23191	2017/06/28	2018/06/27
Horn Antenna	Schwarzbeck	BBHA 9120D	639	2017/06/14	2018/06/13
Horn Antenna	Schwarzbeck	BBHA 9170	202	2018/01/31	2019/01/30
Pre-Amplifier	Dekra	AP-025C	201801236	2018/02/26	2019/02/25
Pre-Amplifier	EMCI	EMC11830I	980366	2018/01/08	2019/01/07
Pre-Amplifier	Dekra	AP-400C	201801231	2017/12/13	2018/12/12

Occupied Bandwidth / SR10-H

Duty cycle / SR10-H

Transmitter time / SR10-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Keysight	N9030B	MY57140404	2017/06/13	2018/06/12
Spectrum Analyzer	Keysight	N9010B	MY57110159	2017/06/05	2018/06/04
Spectrum Analyzer	Agilent	N9010A	US47140172	2017/07/26	2018/07/25
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/10	2019/01/09

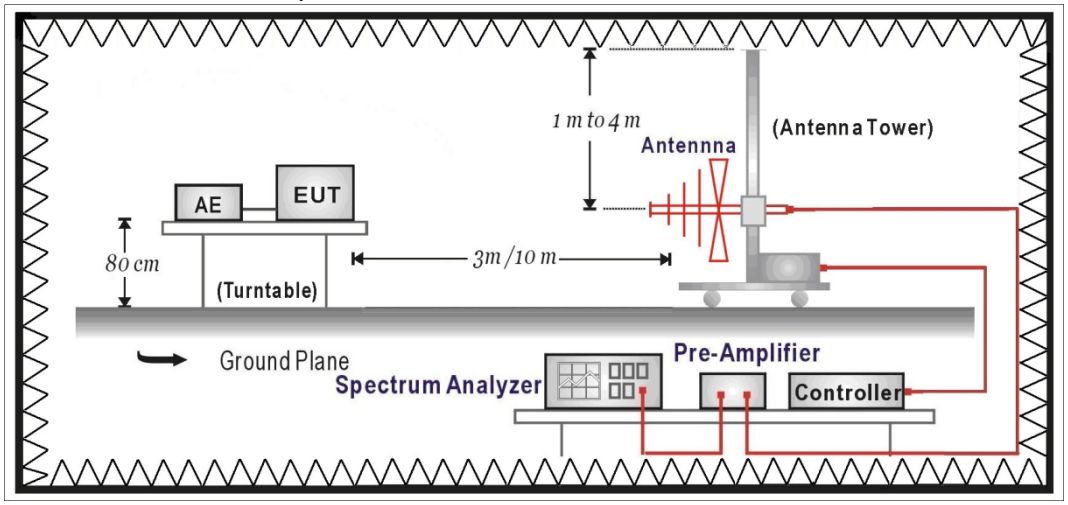
1.8. Measurement Uncertainty

Test Item	Uncertainty
Radiated Emission (30MHz～1GHz)	± 3.8 dB below 1GHz
Radiated Emission (1GHz～26.5GHz)	± 3.9 dB above 1GHz
Occupied Bandwidth	± 150Hz
Duty cycle	± 25msec
Transmitter time	± 25msec

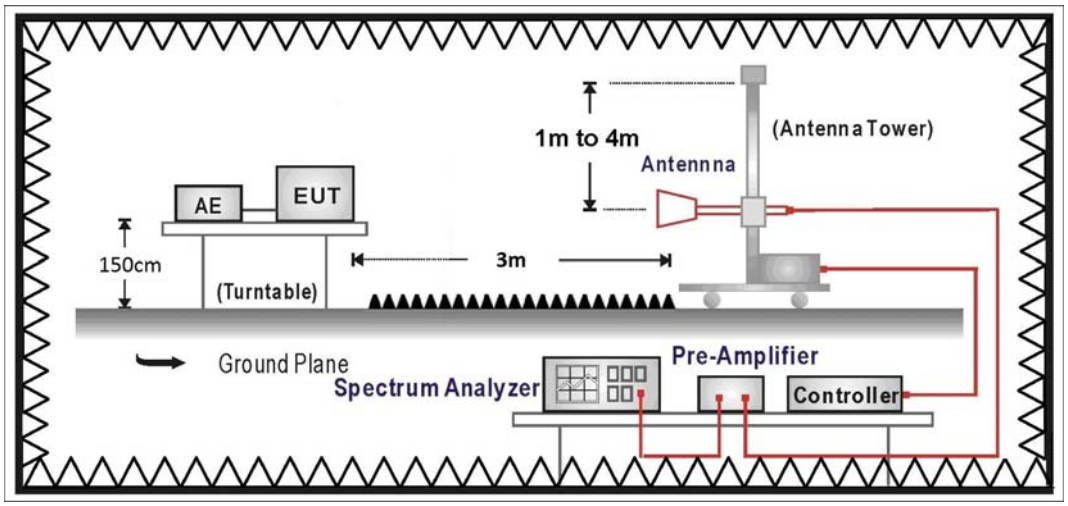
2. Radiated Emission

2.1. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



2.2. Limits

➢ Fundamental and Harmonics Emission Limits

FCC Part 15 Subpart C Paragraph 15.231(b) Limits				
Fundamental Frequency MHz	Field Strength of Fundamental		Field Strength of Harmonics	
	uV/m	dBuV/m	uV/m	dBuV/m
40.66 - 40.70	2250	67.04	225	47.04
70 - 130	1250	61.94	125	41.94
130 - 174	1250 - 3750	61.94 - 71.48	125 - 375	41.94 - 51.48
174 - 260	3750	71.48	375	51.48
260 - 470	3750 - 12500	71.48 - 81.94	375 - 1250	51.48 - 61.94
above 470	12500	81.94	1250	61.94

Remarks: 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)

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.

3. The emission limit in this paragraph is based on measurement instrumentation employing an average detector.

➢ Spurious electric field strength limits

FCC Part 15 Subpart C Paragraph 15.209 Limits			
Frequency MHz	uV/m	dBuV/m	Measurement distance (meter)
0.009 - 0.490	2400/F(kHz)	See Remark[1]	300
0.490 - 1.705	24000/F(kHz)	See Remark[1]	30
1.705 - 30	30	29.5	30
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
Above 960	500	54	3

Remarks : 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)

2. In the Above Table, the tighter limit applies at the band edges.

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

2.3. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 and 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

Radiated emission measurements below 1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB beamwidth of the antenna.

The worst radiated emission is measured on the Final Measurement.

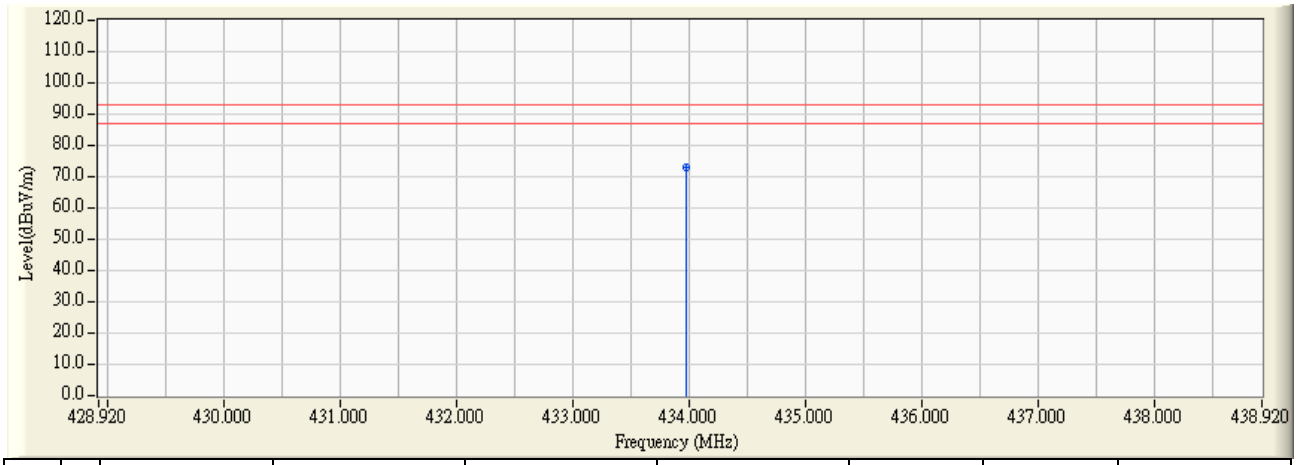
The frequency range from 30MHz to 10th harminics is checked.

2.4. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.231(b): 2015

2.5. Test Result

Site : CB4-H	**Time : 2018/03/23**
Limit : FCC_SpartC_15.231(e)_F_433.92MHz_03M_PK	**Margin : 6**
Probe : CB4_FCC_EFS_S2_30M-1GHz_1116 - HORIZONTAL	**Power : DC 3V (Power by Battery)**
EUT : TPMS	**Note : Mode 1: Transmit 433.92MHz_Xaxis**

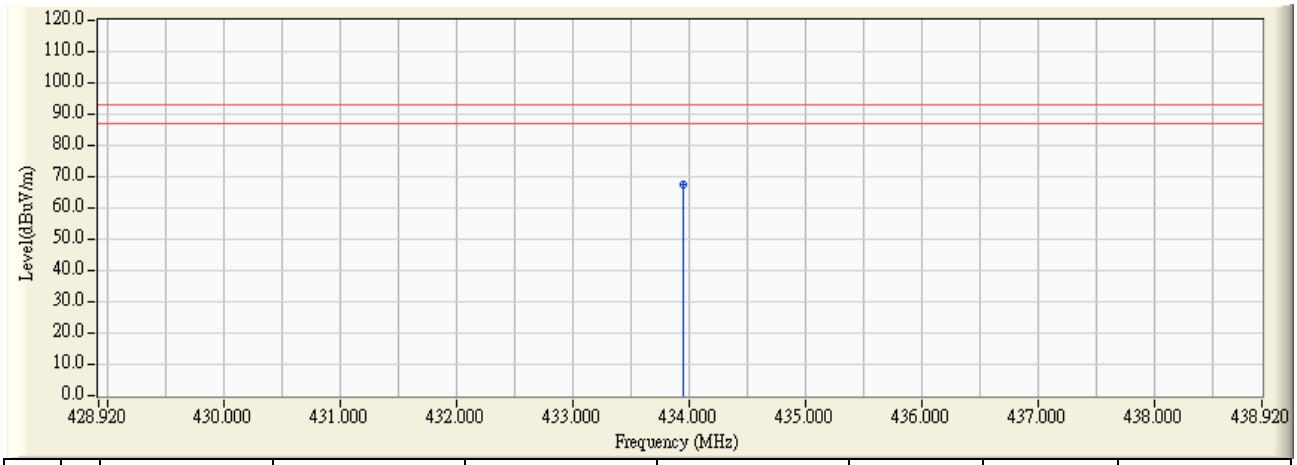


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	433.965	-15.861	88.786	72.925	-19.945	92.870	PEAK

Note:

1. All Reading Levels are Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB4-H	**Time : 2018/03/23**
Limit : FCC_SpartC_15.231(e)_F_433.92MHz_03M_PK	**Margin : 6**
Probe : CB4_FCC_EFS_S2_30M-1GHz_1116 - VERTICAL	**Power : DC 3V (Power by Battery)**
EUT : TPMS	**Note : Mode 1: Transmit 433.92MHz_Xaxis**

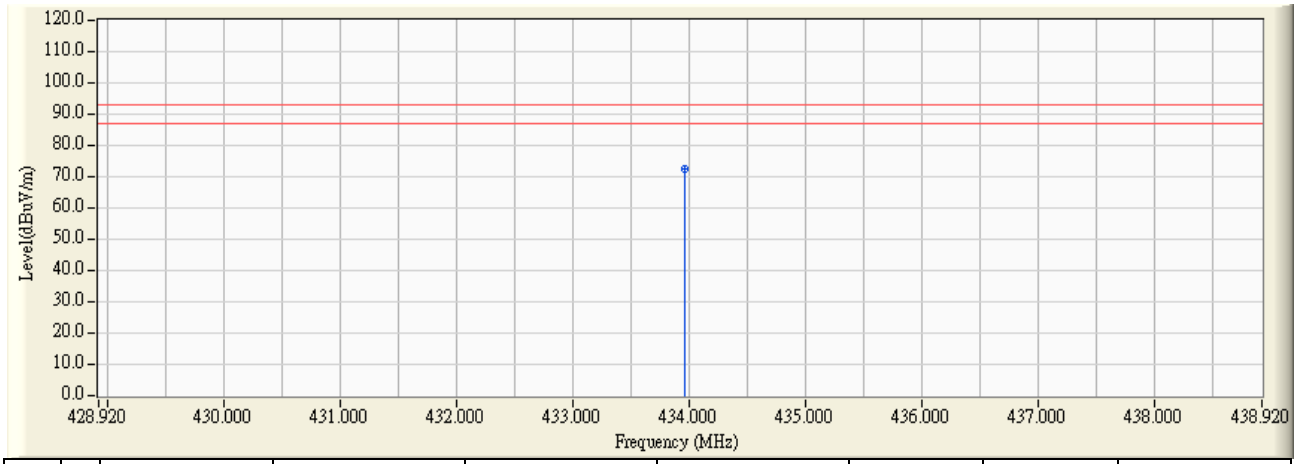


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	433.950	-15.861	83.168	67.307	-25.563	92.870	PEAK

Note:

1. All Reading Levels are Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB4-H	**Time : 2018/03/23**
Limit : FCC_SpartC_15.231(e)_F_433.92MHz_03M_PK	**Margin : 6**
Probe : CB4_FCC_EFS_S2_30M-1GHz_1116 - HORIZONTAL	**Power : DC 3V (Power by Battery)**
EUT : TPMS	**Note : Mode 1: Transmit 433.92MHz_Yaxis**

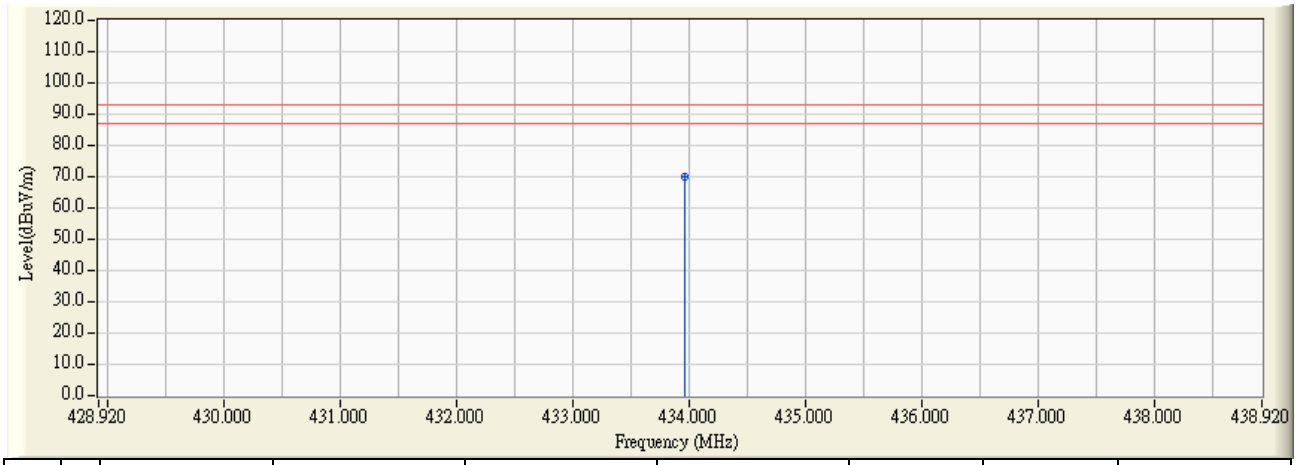


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	433.955	-15.862	88.139	72.278	-20.592	92.870	PEAK

Note:

1. All Reading Levels are Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB4-H	**Time : 2018/03/23**
Limit : FCC_SpartC_15.231(e)_F_433.92MHz_03M_PK	**Margin : 6**
Probe : CB4_FCC_EFS_S2_30M-1GHz_1116 - VERTICAL	**Power : DC 3V (Power by Battery)**
EUT : TPMS	**Note : Mode 1: Transmit 433.92MHz_Yaxis**

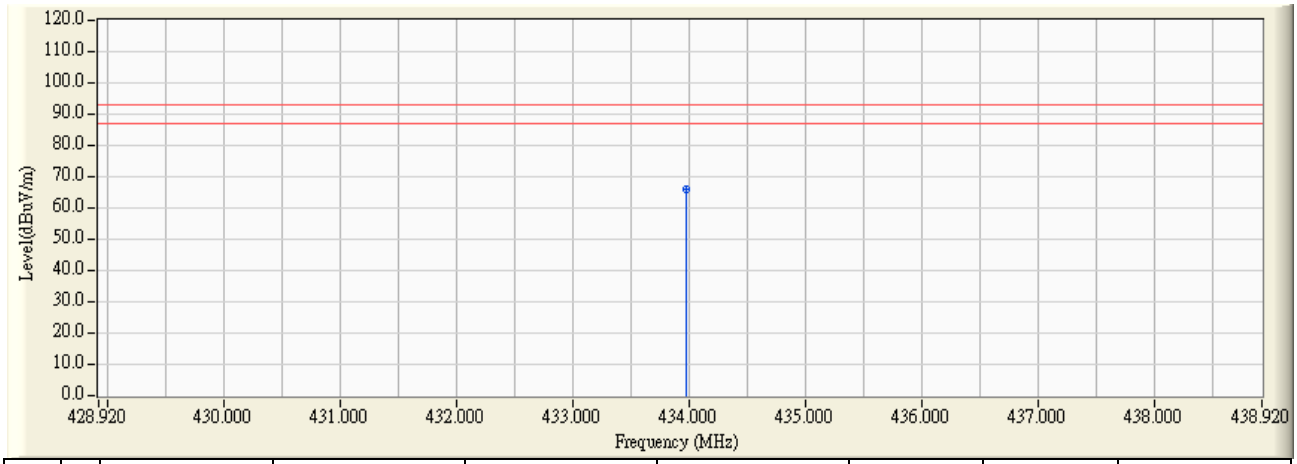


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	433.955	-15.862	85.630	69.769	-23.101	92.870	PEAK

Note:

1. All Reading Levels are Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB4-H	**Time : 2018/03/23**
Limit : FCC_SpartC_15.231(e)_F_433.92MHz_03M_PK	**Margin : 6**
Probe : CB4_FCC_EFS_S2_30M-1GHz_1116 - HORIZONTAL	**Power : DC 3V (Power by Battery)**
EUT : TPMS	**Note : Mode 1: Transmit 433.92MHz_Zaxis**

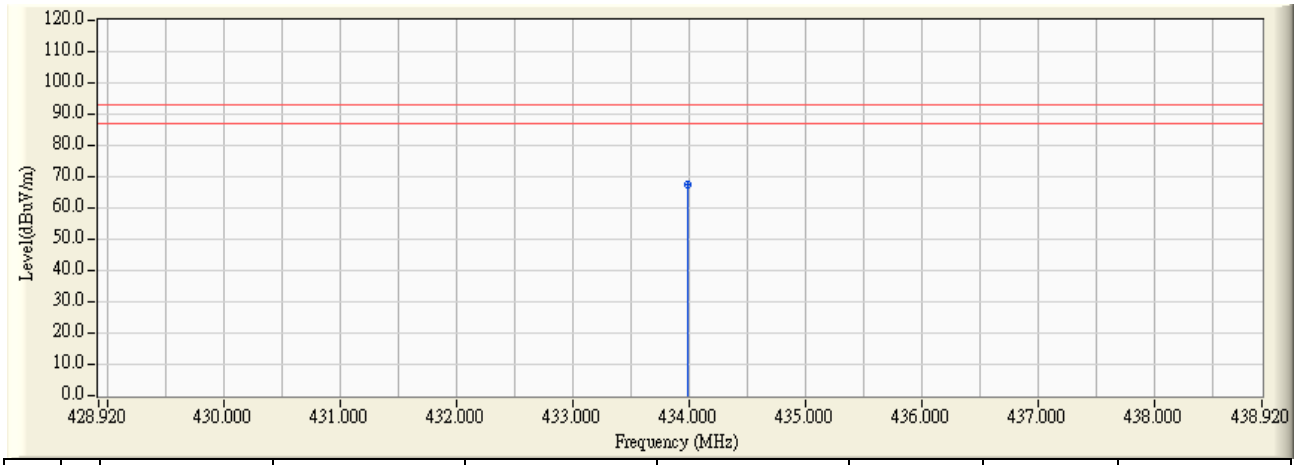


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	433.965	-15.861	81.958	66.097	-26.773	92.870	PEAK

Note:

1. All Reading Levels are Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB4-H	**Time : 2018/03/23**
Limit : FCC_SpartC_15.231(e)_F_433.92MHz_03M_PK	**Margin : 6**
Probe : CB4_FCC_EFS_S2_30M-1GHz_1116 - VERTICAL	**Power : DC 3V (Power by Battery)**
EUT : TPMS	**Note : Mode 1: Transmit 433.92MHz_Zaxis**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	433.990	-15.862	83.203	67.341	-25.529	92.870	PEAK

Note:

1. All Reading Levels are Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Product	TPMS		
Test Item	Fundamental Radiated Emission		
Test Mode	Mode 1: Transmit		
Date of Test	2018/03/23	Test Site	CB4-H

Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Peak Measurement Level (dBuV/m)	Average Measurement Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)
Horizontal						
433.965(X-axis)	-15.861	88.786	72.925	58.069	100.800	80.800
433.955(Y-axis)	-15.862	88.139	72.278	57.422	100.800	80.800
433.965(Z-axis)	-15.861	81.958	66.097	51.241	100.800	80.800
Vertical						
433.950(X-axis)	-15.861	83.168	67.307	52.451	100.800	80.800
433.955(Y-axis)	-15.862	85.630	69.769	54.913	100.800	80.800
433.990(Z-axis)	-15.862	83.203	67.341	52.485	100.800	80.800

Note1:

Peak Measurement Level = Reading Level +Correct factor

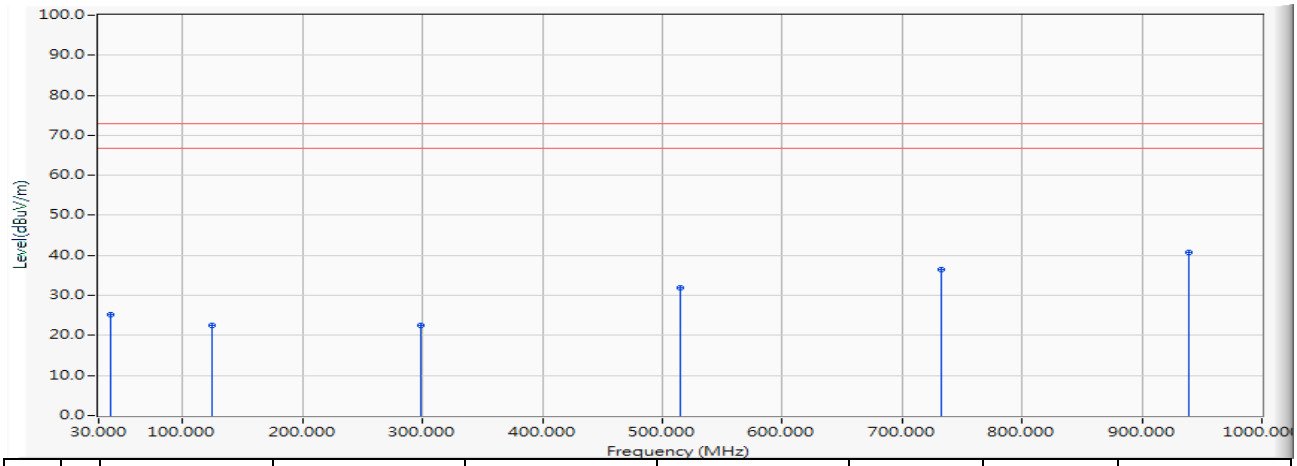
Average Measurement Level = Peak Measurement Level +20Log(Duty Cycle)

(Duty Cycle)=(Ton/(Ton+Toff)=21.304/117.826

20Log(Duty Cycle)= -14.86

30MHz-1GHz Spurious :

Site : DEKRA Taiwan CB2-H	**Time : 2018/03/23**
Limit : FCC_SpartC_15.231(e)_H_433.92MHz_03M_PK	**Margin : 6**
Probe : CB2_FCC_EFS_S2_30M-1GHz_1116 - HORIZONTAL	**Power : DC 3V (Power by Battery)**
EUT : TPMS	**Note : Mode 1: Transmit 15.231_433.92MHz**

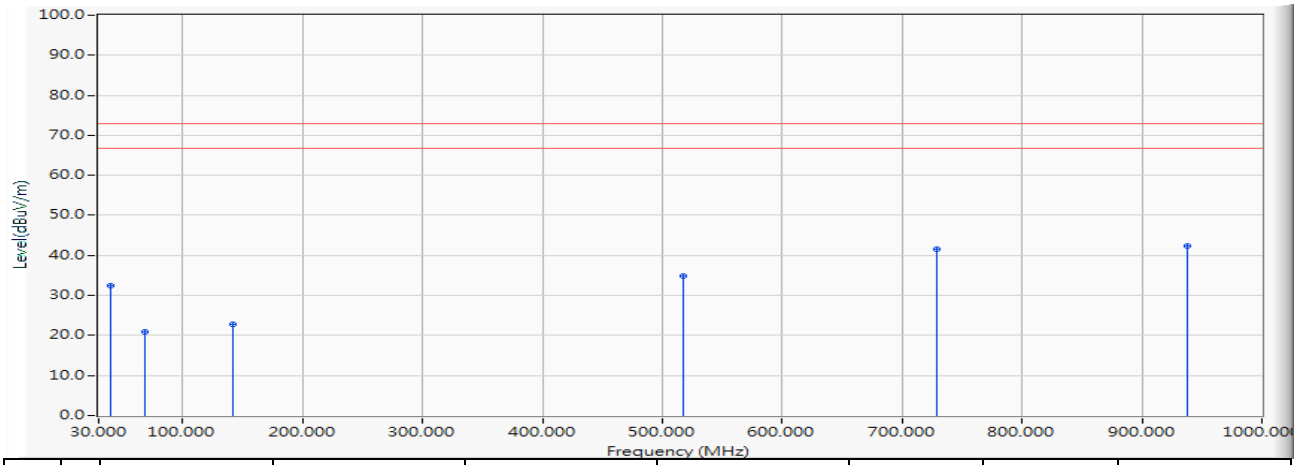


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		40.282	-17.084	42.231	25.147	-47.723	72.870	QUASIPEAK
2		124.575	-21.628	44.109	22.480	-50.390	72.870	QUASIPEAK
3		298.011	-19.229	41.718	22.489	-50.381	72.870	QUASIPEAK
4		515.291	-14.310	46.213	31.903	-40.967	72.870	QUASIPEAK
5		733.056	-11.940	48.285	36.344	-36.526	72.870	QUASIPEAK
6	*	939.375	-8.909	49.625	40.716	-32.154	72.870	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : DEKRA Taiwan CB2-H	**Time : 2018/03/23**
Limit : FCC_SpartC_15.231(e)_H_433.92MHz_03M_PK	**Margin : 6**
Probe : CB2_FCC_EFS_S2_30M-1GHz_1116 - VERTICAL	**Power : DC 3V (Power by Battery)**
EUT : TPMS	**Note : Mode 1: Transmit 15.231_433.92MHz**



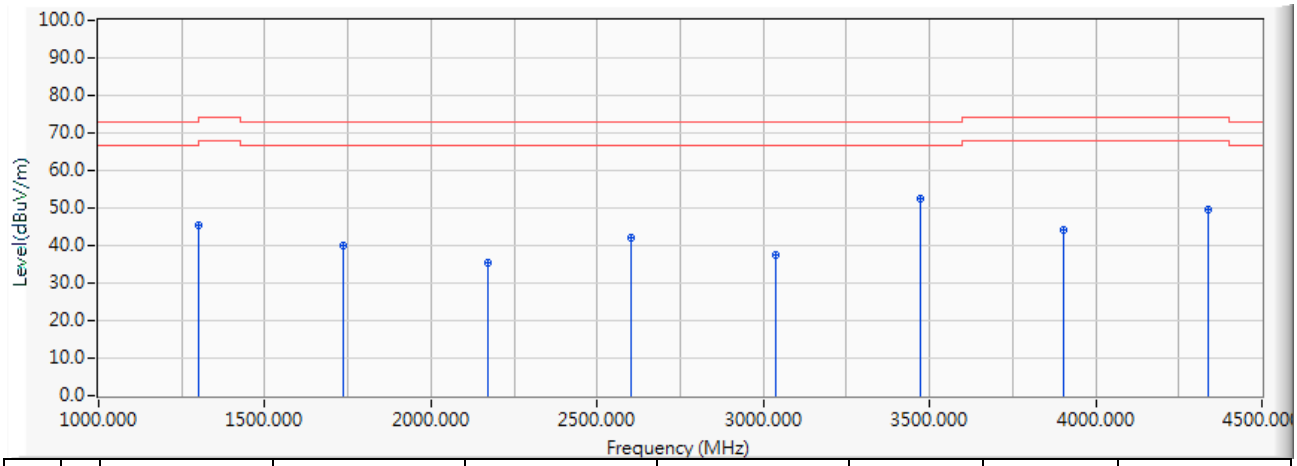
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		40.088	-16.925	49.338	32.414	-40.456	72.870	QUASIPEAK
2		68.703	-28.257	49.087	20.830	-52.040	72.870	QUASIPEAK
3		142.229	-22.056	44.954	22.897	-49.973	72.870	QUASIPEAK
4		518.104	-14.280	49.259	34.979	-37.891	72.870	QUASIPEAK
5		729.467	-11.974	53.590	41.616	-31.254	72.870	QUASIPEAK
6	*	937.435	-8.970	51.277	42.307	-30.563	72.870	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Above 1GHz Spurious:

Site : DEKRA Taiwan CB2-H	**Time : 2018/03/23**
Limit : FCC_SpartC_15.231(e)_H_433.92MHz_03M_PK	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - HORIZONTAL	**Power : DC 3V (Power by Battery)**
EUT : TPMS	**Note : Mode 1: Transmit 15.231_433.92MHz**

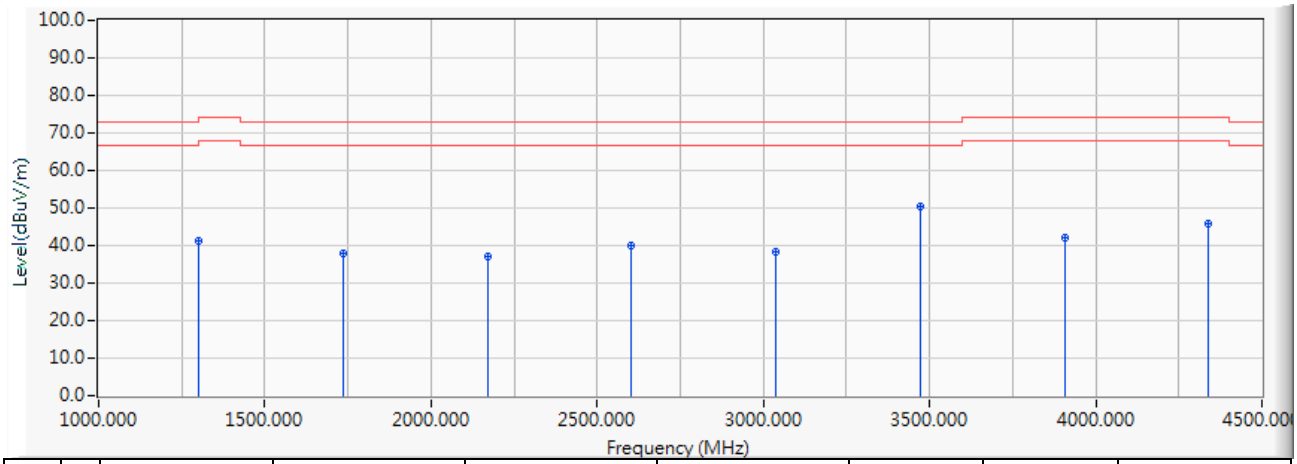


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1301.862	-13.629	59.140	45.511	-28.489	74.000	PEAK
2		1735.440	-12.007	52.010	40.002	-32.868	72.870	PEAK
3		2169.452	-10.266	45.880	35.614	-37.256	72.870	PEAK
4		2603.416	-8.301	50.380	42.078	-30.792	72.870	PEAK
5		3036.650	-7.068	44.550	37.481	-35.389	72.870	PEAK
6	*	3471.943	-6.272	58.760	52.488	-20.382	72.870	PEAK
7		3905.348	-4.618	48.670	44.052	-29.948	74.000	PEAK
8		4339.990	-2.671	52.290	49.619	-24.381	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. “ * ”, means this data is the worst emission level.
4. Measurement Level = Reading Level + Correct Factor.
5. Average Measurement Level = Peak Measurement Level + 20Log (Duty Cycle)
   Duty Cycle(Only Ton)= Ton/ (Ton+off)=36.98/138.28
   20*Log(Duty Cycle) = -11.456
6. The average measurement was not performed when the peak measured data under the limit of peak detection.

Site : DEKRA Taiwan CB2-H	**Time : 2018/03/23**
Limit : FCC_SpartC_15.231(e)_H_433.92MHz_03M_PK	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - VERTICAL	**Power : DC 3V (Power by Battery)**
EUT : TPMS	**Note : Mode 1: Transmit 15.231_433.92MHz**



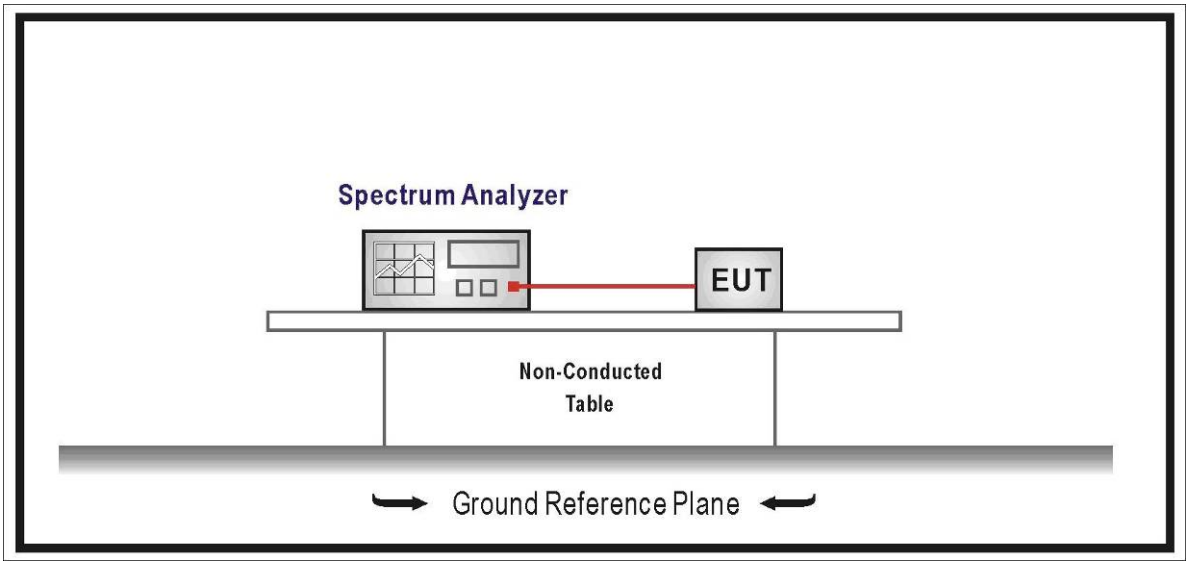
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		1301.768	-13.629	54.790	41.161	-32.839	74.000	PEAK
2		1735.702	-12.007	49.930	37.923	-34.947	72.870	PEAK
3		2169.922	-10.263	47.470	37.207	-35.663	72.870	PEAK
4		2603.220	-8.302	48.370	40.068	-32.802	72.870	PEAK
5		3037.292	-7.068	45.420	38.352	-34.518	72.870	PEAK
6	*	3470.890	-6.274	56.850	50.576	-22.294	72.870	PEAK
7		3905.807	-4.615	46.780	42.164	-31.836	74.000	PEAK
8		4338.988	-2.677	48.450	45.774	-28.226	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. “ * ”, means this data is the worst emission level.
4. Measurement Level = Reading Level + Correct Factor.
5. Average Measurement Level = Peak Measurement Level + 20Log (Duty Cycle)
   Duty Cycle(Only Ton)= Ton/ (Ton+off)=36.98/138.28
   20*Log(Duty Cycle) = -11.456
6. The average measurement was not performed when the peak measured data under the limit of peak detection.

3. Occupied Bandwidth

3.1. Test Setup



3.2. Limits

The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.

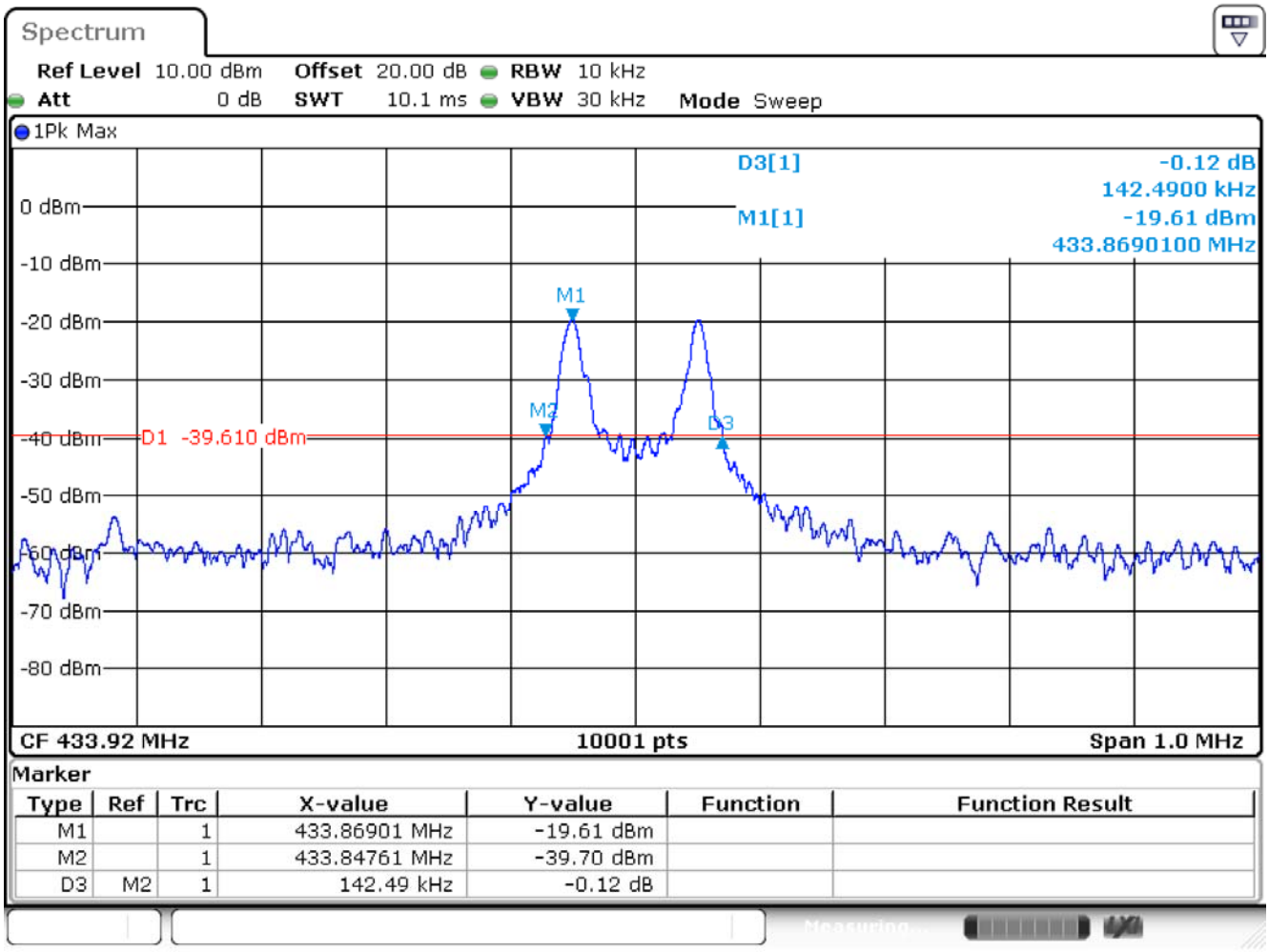
3.3. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.231(b): 2015

3.4. Test Result

Product	TPMS		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2018/03/29	Test Site	SR10-H

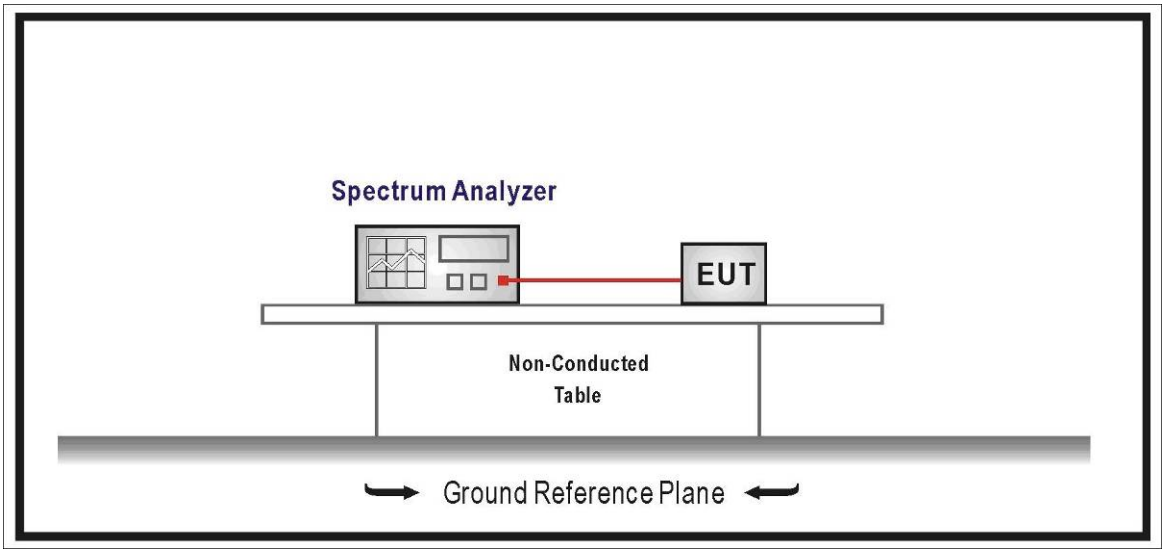
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
1	433.920	142.49	1.0848	Pass



Date: 29.MAR.2018 10:12:41

4. Duty cycle

4.1. Test Setup



4.2. Limits

N/A

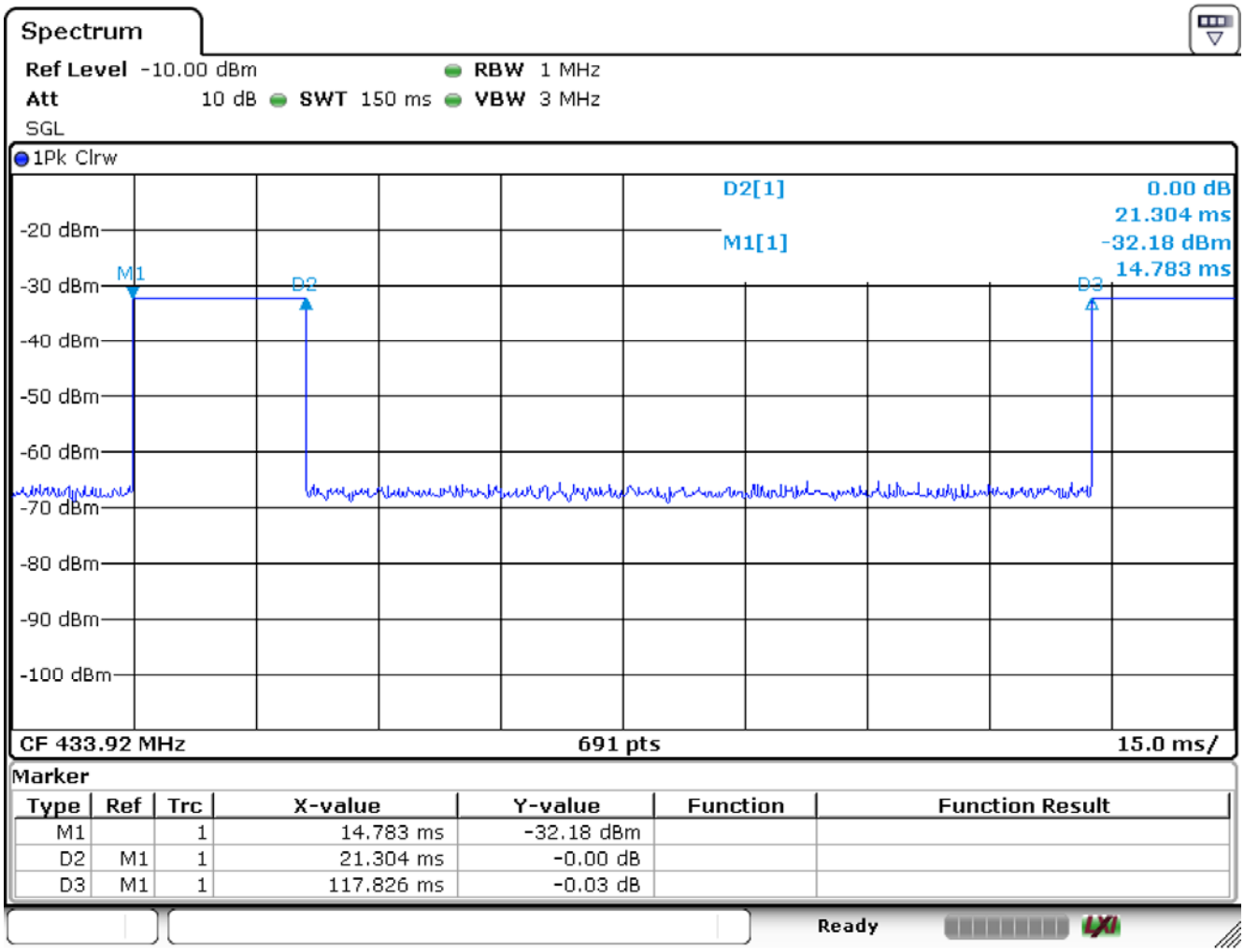
4.3. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.231(b): 2015

4.4. Test Result

Product	TPMS		
Test Item	Duty Cycle		
Test Mode	Mode 1: Transmit		
Date of Test	2018/03/28	Test Site	SR10-H

Mode	On Time(ms)	On+Off Time(s)	Duty Cycle(%)
433.92MHz	21.304	117.826	18.08%



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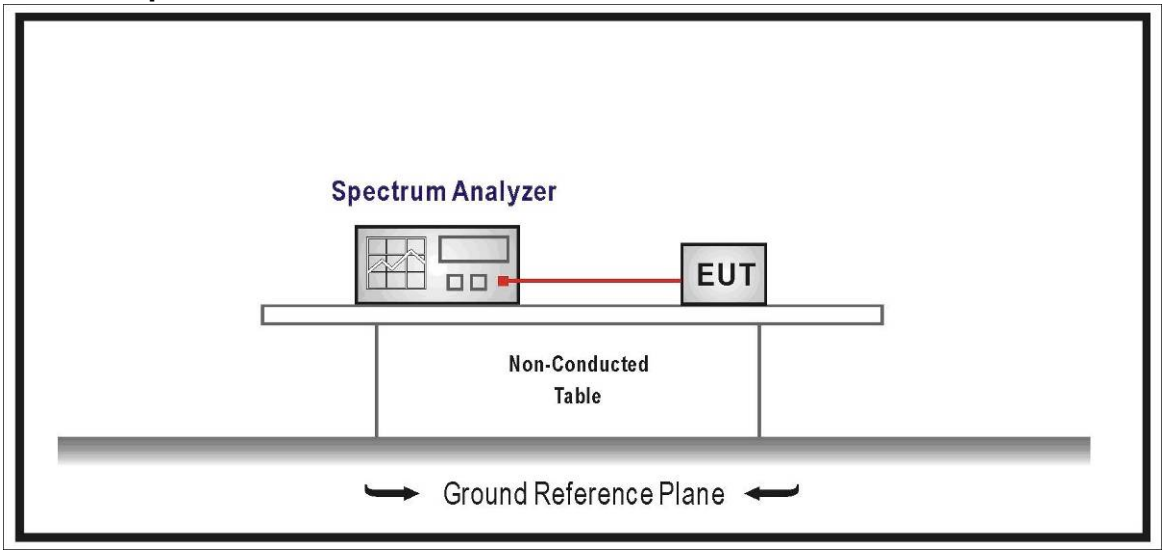
5. Transmitter time

5.1. Test Setup



5.2. Limits

A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released. A transmitter activated automatically shall cease transmission within 5 seconds after activation.

5.3. Test Specification

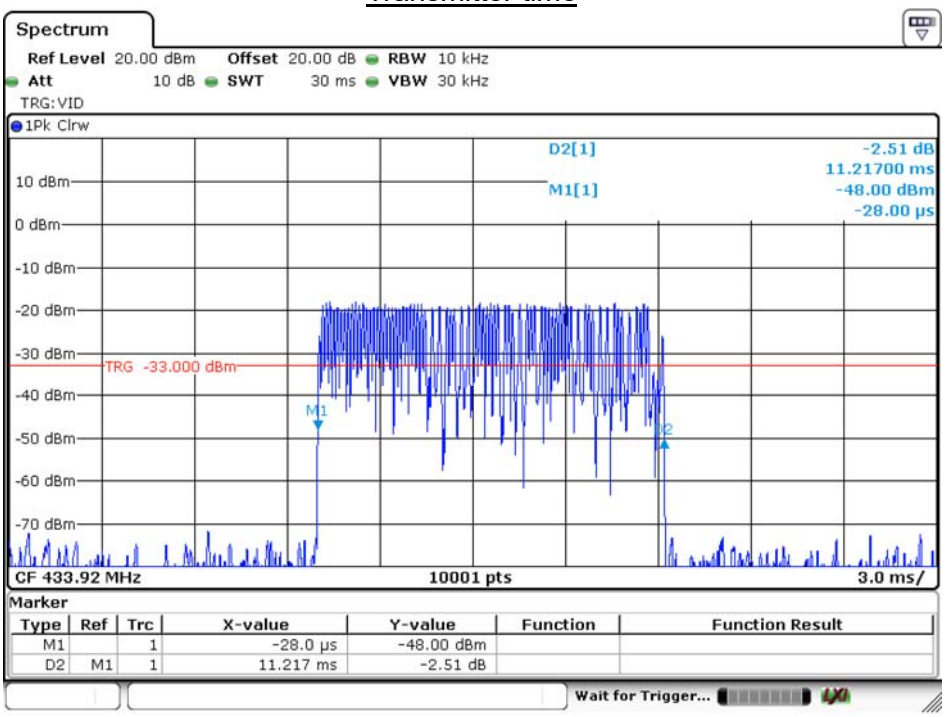
According to FCC Part 15 Subpart C Paragraph 15.231(b): 2015

5.4. Test Result

Product	TPMS		
Test Item	Transmitter time		
Test Mode	Mode 1: Transmit		
Date of Test	2018/03/25	Test Site	SR10-H

Frequency(MHz)	Transmitter time (ms)	
433.920	Measure Value	Limit
	11.217	≦1000
Frequency(MHz)	Silent period (s)	
433.920	Measure Value	Limit
	238.900	≧5
Frequency(MHz)	Total duration of transmissions per hour (sec)	
433.920	Measure Value	Limit
	0.169	≦2

Transmitter time



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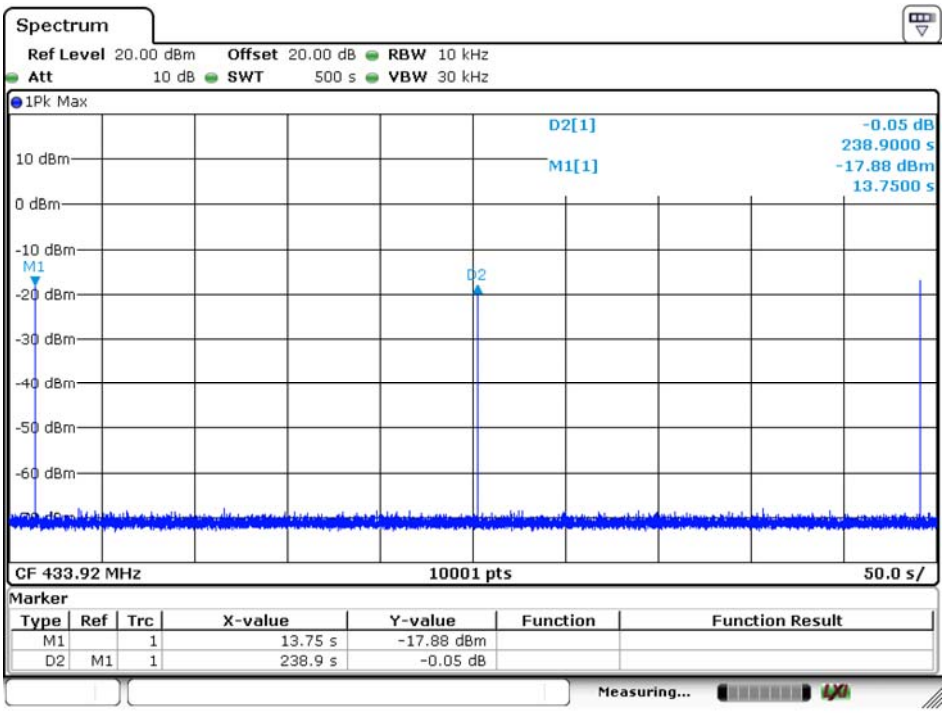

Date: 25.MAR.2018 17:19:28