

Test Report No.: FCC2024-0013-RF

TEST REPORT

FCC ID : 2BFSZ-3818201X9D01

Applicant : ShenZhen Autotech Electronics Ltd.

Product Name : TPMS Sensor

Mode No.: 3818201X9D01(E74U)Classification Of Test:COMMISSION TEST

CVC Testing Technology Co., Ltd.

		T				
		Name: ShenZhen Autotech Electronics Ltd.				
Applicant		Address: 7/F, 8/F Area 1, Factory 3, Jiaan Technology Park, Liuxian 1st Road, Baoan 67th, Shenzhen, Guangdong, China				
		Name: She	nZhen Auto	otech Electronics Lt	d.	
Manufacturer		1st Road, E	Address: 7/F, 8/F Area 1, Factory 3, Jiaan Technology Park, Liuxian 1st Road, Baoan 67th, Shenzhen, Guangdong, China			
	Product Na	Product Name: TPMS Sensor				
		Model No.	: 3818201	K9D01(E74U)		
Equipment Under Te	st	Trade mar	k:永奥	2		
		Serial no.	Serial no.: E74UM40			
		Sampling :	: 2-1, 2-2			
Date of Receipt.	2024.04	.17		Date of Testing	2024.05.31	
Test S	pecificat	tion		Т	est Result	
FCC CFR47 Part 15C (2020) Radio ANSI C63.10 (2013)		o Frequency	Devices	PASS		
		The equip	ment under	test was found	to comply with the	
		requirement	ts of the star	ndards applied.		
Evaluation of Test R	esult				G 1 4 GV/G	
					Seal of CVC	
					Issue Date: 2024.06.19	
Approved by:		Reviewed by: Xu Zhenfei		Tested by: Lu Weiji		
			_		_	
hentware		XVZ	chanfei	L	.uWeiJi	
Other Aspects: NONE.						
Abbreviations:OK, Pass= pas	ssed	Fail = failed	N/A= not ap	olicable EUT= equ	ipment, sample(s) under tested	
This test report relates only to	the EUT, a	and shall not be	reproduced 6	except in full, without wri	tten approval of CVC .	

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1. General Product Information

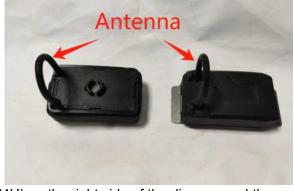
1.1 General information

Product Name	TPMS Sensor
Model No.	3818201X9D01(E74U)
Additional model	3818200X9D01(E07U)
Power Supply	DC 3V
Serial Number(SN)	E74UM40
firmware	V1.0
software	V1.0
specific power settings	Default
Antenna Type	Rubber-wrapped rod antenna(External Antenna)
Antenna Connector	A permanently attached antenna
Antenna Gain	3dBi(provided by client)
Beamforming gain	Unsupported(provided by client)
Frequency Range	433.04~434.79MHz
Channel Number	1 Channel
Type of Modulation	ASK
Max. Power	-33.22dBm
Operate Temp.Range	-40~125℃

Note:

- 1. The information of the EUT is declared by the manufacturer.
- 2. The laboratory is not responsible for the product technical specification provided by the client.
- 3. Declaration of Differences:





The differences between the 3818201X9D01(E74U) on the right side of the diagram and the 3818200X9D01(E07U) on the left side are as follows:

- a. Differing in plastic appearance.
- b. The 3818201X9D01(E74U) housing has metal structures on both sides and is intended to accommodate automotive wheel construction only.
- c. The antenna position has been slightly adjusted.

Apart from the above, both are identical in hardware and software.

2. Test Sites

2.1 Test Facilities

The tests and measurements refer to this report were performed by RF testing Lab. of CVC Testing Technology Co., Ltd.

Add.: No.3, Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou, Guangdong, 510663, People's Republic of China

Telephone : +86-20-32293888 Fax : +86-20-32293889

FCC(Test firm designation number: CN1282) IC(Test firm CAB identifier number: CN0103)

2.2 Description of Non-standard Method and Deviations

The testing and measurement methods used in this report are applied by all standard methods. Not any non-standard method or deviation from the used standards was used.

2.3 List of Test and Measurement Instruments

Refer to Appendix A.

3. Test Configuration

3.1 Test Mode

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

Test Mode	Antenna Delivery	Test Channel
Transmitting	1TX	433.92MHz

The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in lie-down position (X axis) and the worst case was recorded.

In order to find the worst case condition, Pre-tests are needed at the presence of different data rate and different channels. Preliminary tests have been done on all the configurations for confirming worst case. Data rate below means worst-case rate of each test item.

Worst-case data rates and channels are shown as following table.

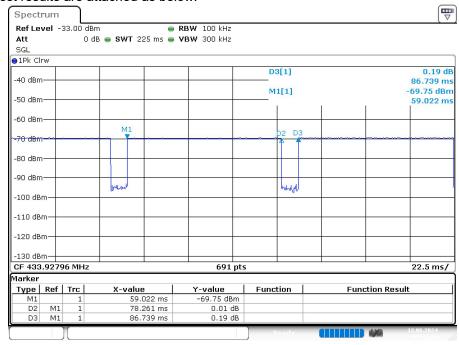
Test Mode	Data Rate		
rest wode	Antenna 1	Antenna 2	MIMO
Transmitting	9600bit/s	/	1

Test Items	Test Antenna	Test Mode	Test Channel
Radiated Emissions	Antenna 1	Transmitting	433.92MHz
Deactivation time measurement	Antenna 1	Transmitting	433.92MHz
Emission Bandwidth Measurement	Antenna 1	Transmitting	433.92MHz

3.2 Duty cycle

TestMode	Antenna	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
Transmitting	Ant1	78.261	86.739	90.23		

The plots of test results are attached as below.



Date: 13.JUN.2024 05:42:39

4. Summary of measurement results

Summary of measurements of results	Clause in FCC rules	Verdict	Note
Conducted Emissions	15.207	N/A	See Note1
Radiated Emissions	15.231(b), 15.209	PASS	1
Deactivation time measurement	15.231 (a)	PASS	1
Emission Bandwidth Measurement	15.231(c)	PASS	1
Antenna Requirement	15.203	PASS	No antenna connector is used

Note1: The device is not connected to the AC power line, there are no testing requirements.

5. Measurement procedure

5.1 Conducted Emission

Ambient condition:

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement:

The EUT was setup according to ANSI C63.10, 2013 for compliance to FCC 47CFR 15.247 requirements. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs) Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

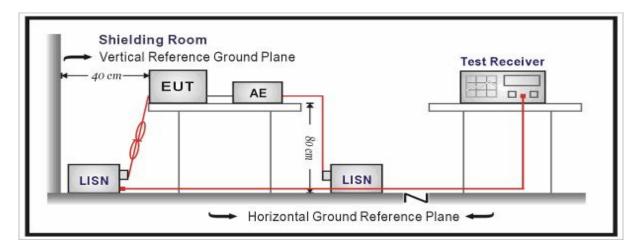
Limits:

Frequency	Conducted Limits(dBµV)		
(MHz)	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.

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

Test Setup:



Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

Notes:

- 1. The following Quasi-Peak and Average measurements were performed on the EUT:
- 2. Final Level =Reading + Factor.

Measurement Uncertainty:

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 1.96. U= 3.12 dB.

Test Results:

Conducted Emission applies to an intentional radiator that is designed to be connected to the public utility (AC) power line. Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines.

5.2 Radiated Emission

Ambient condition:

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement:

The EUT was setup and tested according to ANSI C63.10, 2013.

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 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 is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the Antenna. In order to find the maximum emission, all of the interface cables were 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.

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

Note: When doing emission measurement above 1GHz, the horn Antenna will be bended down a little (as horn Antenna has the narrow beamwidth) in order to keeping the Antenna in the "cone of radiation" of EUT. The 3dB beamwidth is 10~60 degrees for H-plane and 10~90 degrees for E-plane.

Limits:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Frequency	Limit (µV/m)	Limit (dBµV/m @3m)	Remark
0.009MHz-0.490MHz	2400/F(kHz)@300m	20lg(24000000/F(kHz))	Quasi-peak Level
0.490MHz~1.705MHz	24000/F(kHz)@30m	20lg(2400000/F(kHz))	Quasi-peak Level
1.705MHz~30.0MHz	30@30m	49.54	Quasi-peak Level
30MHz-88MHz	100@3m	40.0	Quasi-peak Level
88MHz-216MHz	150@3m	43.5	Quasi-peak Level
216MHz-960MHz	200@3m	46.0	Quasi-peak Level
960MHz-1GHz	500@3m	54.0	Quasi-peak Level
	500@3m	54.0	Average Level
Above 1GHz	5000@3m	74.0	Peak Level

According to 15.231(b), the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

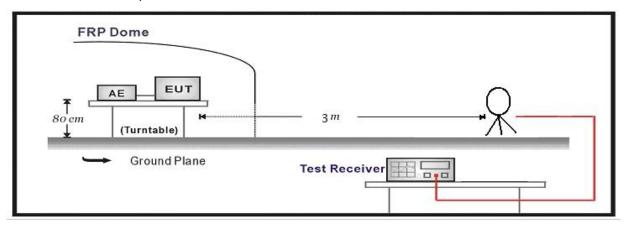
	_	
Fundamental frequency	Field strength of fundamental	Field strength of spurious
(MHz)	(microvolts/meter)	emission (microvolts/meter)
40.66–40.70	2,250	225
70–130	1,250	125
130–174	¹ 1,250 to 3,750	¹ 125 to 375
174–260	3,750	375
260–470	¹ 3,750 to 12,500	¹ 375 to 1,250
Above 470	12,500	1,250

NOTE:

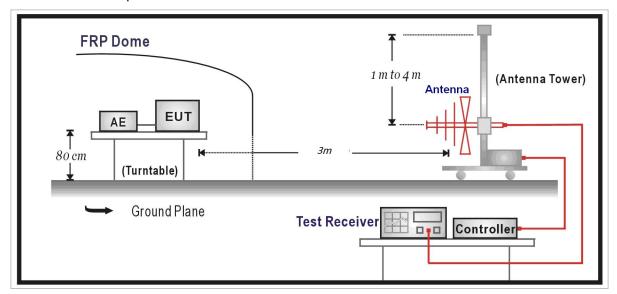
- 1. ¹ Linear interpolations.
- 2. The lower limit shall apply at the transition frequencies.
- 3. Emission level (dBuV/m) = 20 log Emission level (uV/m).
- 4. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

Test Setup:

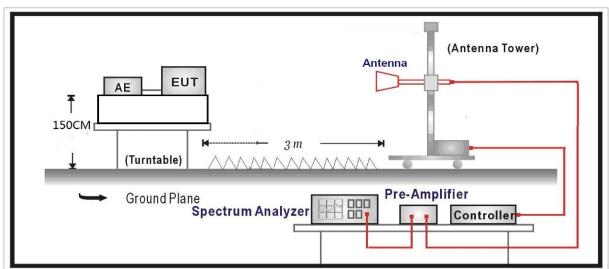
Below 30MHz Test Setup:



Below 1GHz Test Setup:



Above 1GHz Test Setup:



Measurement Data:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Level =Reading - Factor

Factor = Preamplifier Factor – Antenna Factor–Cable Loss

Measurement Uncertainty:

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 1.96.

Frequency	Uncertainty
9KHz-30MHz	3.55 dB
30MHz-200MHz	4.19 dB
200MHz-1GHz	3.63 dB
Above 1GHz	3.68 dB

Test Results:

BELOW 1GHz WORST-CASE DATA: E74U:

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3M								
No.	Freq. (MHz)	Correction Factor (dB/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detect or	Antenna Height (cm)	Table Angle (Degree)	Pass/ Fail
1	48.066	21.1	26.1	40.0	13.9	QP	270	205.2	Pass
2	111.965	18.4	23.5	43.5	20.0	QP	330	152.6	Pass
3	284.868	21.2	25.8	46.0	20.2	QP	200	45.7	Pass
4	748.043	30.4	35.4	46.0	10.6	QP	300	281.0	Pass
5	945.316	33.3	38.9	46.0	7.1	QP	100	174.1	Pass
6	*433.905	25.1	54.0	100.8	46.8	PK	100	152.6	Pass
7	*433.905	-	53.1	80.8	27.7	AV	100	152.6	Pass

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3M								
No.	Freq. (MHz)	Correction Factor (dB/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detect or	Antenna Height (cm)	Table Angle (Degree)	Pass/ Fail
1	52.553	21.0	25.2	40.0	14.8	QP	370	314.4	Pass
2	96.445	18.6	22.7	43.5	20.8	QP	130	117.7	Pass
3	203.145	19.3	25.0	43.5	18.5	QP	100	207.3	Pass
4	357.254	23.0	28.4	46.0	17.6	QP	200	99.2	Pass
5	912.579	33.0	37.8	46.0	8.2	QP	100	279.0	Pass
6	*433.905	25.1	62.0	100.8	38.8	PK	200	189.5	Pass
7	*433.905	-	61.1	80.8	19.7	AV	100	189.5	Pass

BELOW 1GHz WORST-CASE DATA: E07U:

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3M								
No.	Freq. (MHz)	Correction Factor (dB/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detect or	Antenna Height (cm)	Table Angle (Degree)	Pass/ Fail
1	53.038	21.0	25.1	40.0	14.9	QP	270	289.2	Pass
2	97.900	18.8	22.3	43.5	21.2	QP	330	289.2	Pass
3	199.508	19.3	23.4	43.5	20.1	QP	200	232.9	Pass
4	346.584	23.1	29.4	46.0	16.6	QP	300	270.7	Pass
5	867.838	32.4	39.2	46.0	6.8	QP	100	176.4	Pass
6	*433.905	25.1	52.0	100.8	48.8	PK	100	100.9	Pass
7	*433.905	-	52.1	80.8	28.7	AV	100	100.9	Pass

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3M								
No.	Freq. (MHz)	Correction Factor (dB/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detect or	Antenna Height (cm)	Table Angle (Degree)	Pass/ Fail
1	51.219	21.1	25.6	40.0	14.4	QP	370	288.6	Pass
2	107.479	18.7	22.4	43.5	21.1	QP	130	100.6	Pass

3	205.691	19.3	23.3	43.5	20.2	QP	100	100.6	Pass
4	383.444	24.0	27.7	46.0	18.3	QP	200	232.5	Pass
5	920.824	33.1	38.3	46.0	7.7	QP	100	326.2	Pass
6	*433.905	25.1	49.9	100.8	50.9	PK	200	157.2	Pass
7	*433.905	-	49.0	80.8	31.8	AV	100	157.2	Pass

NOTE:

- 1. Margin value = Limit value Emission level.
- 2. " * ": Fundamental frequency.
- 3. Fundamental AV value =PK Emission +20*log(duty cycle)Where the duty factor is calculated from following formula:20 log (Duty cycle) = 20Log(90.23%)=-0.9dB, Please see page 7 for plotted duty.

ABOVE 1GHz WORST-CASE DATA: E74U:

		ANTENNA	POLARITY	& TEST D	STANCE: H	IORIZO	NTAL AT 3	М	
No.	Freq. (MHz)	Correction Factor (dB/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detect or	Antenna Height (cm)	Table Angle (Degree)	Pass/ Fail
1	1302.000	-6.6	43.6	74.00	30.4	PK	150	24.4	Pass
2	1736.000	-5.9	47.7	74.00	26.3	PK	150	258.7	Pass
3	2603.500	-5.2	47.8	74.00	26.2	PK	150	103.8	Pass
4	3037.500	-5.2	45.7	74.00	28.3	PK	150	108.2	Pass
5	3471.500	-5.0	45.4	74.00	28.6	PK	150	108.2	Pass
6	4339.500	-2.3	43.0	74.00	31.0	PK	150	334.5	Pass
7	1302.000	-6.6	39.5	54.00	14.5	AV	150	24.4	Pass
8	1736.000	-5.9	44.1	54.00	9.9	AV	150	258.7	Pass
9	2603.500	-5.2	45.3	54.00	8.7	AV	150	103.8	Pass
10	3037.500	-5.2	41.7	54.00	12.3	AV	150	108.2	Pass
11	3471.500	-5.0	42.1	54.00	11.9	AV	150	108.2	Pass
12	4339.500	-2.3	36.7	54.00	17.3	AV	150	334.5	Pass

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3M								
No.	Freq. (MHz)	Correction Factor (dB/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detect or	Antenna Height (cm)	Table Angle (Degree)	Pass/ Fail
1	1302.000	-6.6	41.2	74.00	32.8	PK	150	255.4	Pass
2	1736.000	-5.9	44.9	74.00	29.1	PK	150	163.5	Pass
3	2169.500	-5.3	40.3	74.00	33.7	PK	150	158.6	Pass
4	2604.000	-5.2	45.3	74.00	28.7	PK	150	155.0	Pass
5	3471.500	-5.0	41.7	74.00	32.3	PK	150	58.9	Pass
6	3905.500	-3.5	42.0	74.00	32.0	PK	150	71.6	Pass
7	1302.000	-6.6	36.2	54.00	17.8	AV	150	255.4	Pass
8	1736.000	-5.9	40.9	54.00	13.1	AV	150	163.5	Pass
9	2169.500	-5.3	34.4	54.00	19.6	AV	150	158.6	Pass
10	2604.000	-5.2	39.0	54.00	15.0	AV	150	155.0	Pass
11	3471.500	-5.0	36.7	54.00	17.3	AV	150	58.9	Pass
12	3905.500	-3.5	36.3	54.00	17.7	AV	150	71.6	Pass

ABOVE 1GHz WORST-CASE DATA: E07U:

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3M								
No.	Freq. (MHz)	Correction Factor (dB/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detect or	Antenna Height (cm)	Table Angle (Degree)	Pass/ Fail
1	1301.500	-6.6	40.9	74.00	33.1	PK	150	115.8	Pass
2	2169.500	-5.3	51.3	74.00	22.7	PK	150	99.6	Pass
3	2603.500	-5.2	49.7	74.00	24.3	PK	150	261.5	Pass
4	3037.500	-5.2	49.0	74.00	25.0	PK	150	261.5	Pass
5	3471.500	-5.0	49.7	74.00	24.3	PK	150	165.1	Pass
6	4773.500	-1.6	41.4	74.00	32.6	PK	150	115.7	Pass
7	1301.500	-6.6	36.1	54.00	17.9	AV	150	115.8	Pass
8	2169.500	-5.3	50.1	54.00	3.9	AV	150	99.6	Pass
9	2603.500	-5.2	48.2	54.00	5.8	AV	150	261.5	Pass
10	3037.500	-5.2	46.7	54.00	7.3	AV	150	261.5	Pass
11	3471.500	-5.0	48.3	54.00	5.7	AV	150	165.1	Pass
12	4773.500	-1.6	35.0	54.00	19.0	AV	150	115.7	Pass

		ANTENN	A POLARIT	Y & TEST	DISTANCE:	VERTIC	AL AT 3M		
No.	Freq. (MHz)	Correction Factor (dB/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detect or	Antenna Height (cm)	Table Angle (Degree)	Pass/ Fail
1	1735.500	-5.9	38.4	74.00	35.6	PK	150	223.4	Pass
2	2169.500	-5.3	41.8	74.00	32.2	PK	150	89.6	Pass
3	2603.500	-5.2	45.5	74.00	28.5	PK	150	353.4	Pass
4	3037.500	-5.2	48.8	74.00	25.2	PK	150	201.8	Pass
5	3471.500	-5.0	44.7	74.00	29.3	PK	150	26.1	Pass
6	5641.000	-0.3	44.6	74.00	29.4	PK	150	346.0	Pass
7	1735.500	-5.9	32.6	54.00	21.4	AV	150	223.4	Pass
8	2169.500	-5.3	37.9	54.00	16.1	AV	150	89.6	Pass
9	2603.500	-5.2	43.2	54.00	10.8	AV	150	353.4	Pass
10	3037.500	-5.2	46.7	54.00	7.3	AV	150	201.8	Pass
11	3471.500	-5.0	42.0	54.00	12.0	AV	150	26.1	Pass
12	5641.000	-0.3	40.5	54.00	13.5	AV	150	346.0	Pass

NOTE:

- 1 Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 2 Margin value = Emission level Limit value.
- 3 The emission levels of other frequencies were less than 20dB margin against the limit.

5.3 20dB BANDWIDTH MEASUREMENT

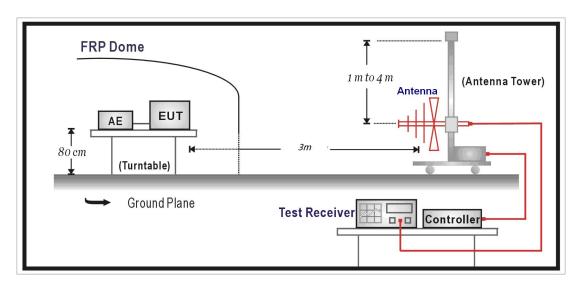
Ambient condition:

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement:

The spectrum analyzer was receiving the maximum emission level. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

Test Setup:



LIMITS OF 20dB BANDWIDTH MEASUREMENT

According to FCC 15.231(c), 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. Bandwidth is determined at the points 20 dB down from the modulated carrier.

Limit=Fundamental Frequency×0.25%=433.92MHz×0.25%=1084.75 kHz

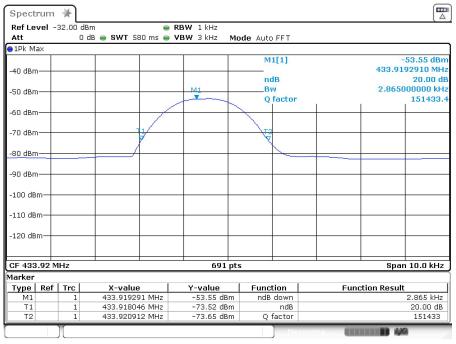
Measurement Uncertainty:

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U = 936 Hz.

Test Results:

Frequency (MHz)	20dB Bandwidth (kHz)	Maximum Limit (kHz)	PASS/FAIL
433.92	2.865	1084.75	PASS

The plots of test results are attached as below.



5.4 DEACTIVATION TIME MEASUREMENT

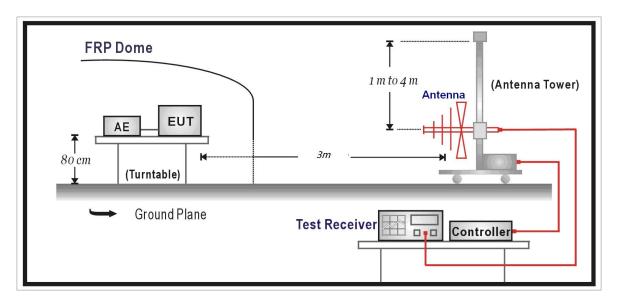
Ambient condition:

Temperature	Relative humidity	Pressure	
23°C ~25°C	45%~50%	101.5kPa	

Method of Measurement:

With the EUT's antenna attached, the EUT's output signal was received by the test antenna, which was connected to the spectrum analyzer set the center frequency, than set the spectrum analyzer to Zero Span for the release time reading. During the testing, the transmission duration was measured and recorded.

Test Setup:



LIMITS OF DEACTIVATION TIME MEASUREMENT

15.231 (a)(1) A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

15.231 (a)(2) A transmitter activated automatically shall cease transmission within 5 seconds after activation.

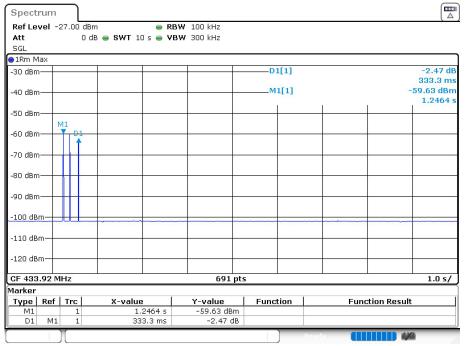
Measurement Uncertainty:

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U = 0.005s.

Test Results:

Frequency (MHz)	Measurement Result (sec)	Maximum limit (sec)	PASS/FAIL
433.92	0.333	5	PASS

The plots of test results are attached as below.



6. Appendix A

Test Equipment	Type/Mode	SERIAL NO.	Equipment No.	Manufact urer	Cal. Due
3m Semi-Anechoic Chamber	FACT-4	ST08035	WKNA-0024	ETS	2024/12/12
5m Semi-Anechoic Chamber	SAC-5	SAC-5-2.0	EM-000557	COMTEST	2024/11/02
Spectrum Analyzer	N9010B	MY57470323	DZ-000174	KEYSIGHT	2025/01/02
EMI Test Receiver	N9038A-508	MY532290079	EM-000397	Agilent	2025/01/13
EMI Test Receiver	ESR7	102235	VGDY-0956	R&S	2025/01/13
loop antenna	HLA 6121	540046	EM-000546	TESEQ	2025/06/05
Broadband Antenna	VULB 9163	9163-676	EM-000382	SCHWAR ZBECK	2025/06/10
Waveguide Horn Antenna	HF906	360306/008	EM-000093	R&S	2025/01/03
Bandstop Filters	SW-BSF-2400-100-7- A1	/	EM-000495	/	2024/08/29

The End