



RF Test Report

FCC ID: 2AZI3-TH9**IC: 29371-TH9**

Report No.	:	TBR-C-202604-0523-8
Applicant	:	SHENZHEN KERUI SMART TECHNOLOGY CO., LTD
Equipment Under Test (EUT)		
EUT Name	:	Wireless Indoor/Outdoor Thermometer&Hygrometer
Model No.	:	TH9
Series Model No.	:	N/A
Brand Name	:	SECRUI
Sample ID	:	HC-C-202604-0523-03-02-1#&HC-C-202604-0523-03-02-2#
Receipt Date	:	2026-05-19
Test Date	:	2026-05-19 to 2026-06-09
Issue Date	:	2026-06-09
Standards	:	FCC Part 15, Subpart C (15.231(e)) RSS-210 Issue 11 June 25, 2024 RSS-Gen Issue 5 April 2018+Amendment 1(March 2019)+Amendment 2 (February 2021)
Test Method	:	ANSI C63.10: 2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a -2024
Conclusions	:	PASS
		In the configuration tested, the EUT complied with the standards specified above.
Tested By	:	Gold. zhang
Reviewed By	:	Wade. Lv
Approved By	:	IVAN SU

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. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

Contents

CONTENTS.....	2
1. GENERAL INFORMATION ABOUT EUT.....	5
1.1 Client Information.....	5
1.2 General Description of EUT (Equipment Under Test)	5
1.3 Block Diagram Showing the Configuration of System Tested.....	6
1.4 Description of Support Units	6
1.5 Description of Test Mode.....	6
1.6 Description of Test Software Setting	6
1.7 Measurement Uncertainty	7
1.8 Test Facility.....	8
2. TEST SUMMARY.....	9
3. TEST SOFTWARE.....	9
4. TEST EQUIPMENT AND TEST SITE.....	10
5. CONDUCTED EMISSION.....	11
5.1 Test Standard and Limit.....	11
5.2 Test Setup.....	11
5.3 Test Procedure.....	11
5.4 Deviation From Test Standard.....	11
5.5 EUT Operating Mode	12
5.6 Test Data.....	12
6. RADIATED SPURIOUS EMISSION TEST	13
6.1 Test Standard and Limit.....	13
6.2 Test Setup.....	14
6.3 Test Procedure.....	15
6.4 Deviation From Test Standard.....	16
6.5 EUT Operating Mode	16
6.6 Test Data.....	16
7. -20DB AND 99% BANDWIDTH TEST	17
7.1 Test Standard and Limit.....	17
7.2 Test Setup.....	17
7.3 Test Procedure.....	17
7.4 Deviation From Test Standard.....	17
7.5 EUT Operating Mode	17



7.6 Test Data.....	17
8. AUTOMATICALLY DEACTIVATE TEST	18
8.1 Test Standard and Limit.....	18
8.2 Test Setup.....	18
8.3 Test Procedure.....	18
8.4 Deviation From Test Standard.....	18
8.5 EUT Operating Mode	18
8.6 Test Data.....	18
9. DUTY CYCLE	19
9.1 Test Standard and Limit.....	19
9.2 Test Setup.....	19
9.3 Test Procedure.....	19
9.4 Deviation From Test Standard.....	19
9.5 EUT Operating Mode	19
9.6 Test Data.....	19
10. ANTENNA REQUIREMENT	20
11.1 Test Standard and Limit	20
11.2 Deviation From Test Standard.....	20
11.3 Antenna Connected Construction.....	20
11.4 Test Data.....	21
ATTACHMENT A--UNWANTED EMISSIONS DATA	22
ATTACHMENT B---20DB AND 99% BANDWIDTH DATA.....	28
ATTACHMENT C-- RELEASE TIME MEASUREMENT DATA.....	29
ATTACHMENT D--DUTY CYCLE DATA	30



Revision History

Report No.	Version	Description	Issued Date
TBR-C-202604-0523-8	Rev.01	Initial issue of report	2026-06-09



1. General Information about EUT

1.1 Client Information

Applicant	:	SHENZHEN KERUI SMART TECHNOLOGY CO., LTD
Address	:	Room 1501, T2, Jinlitong Building, No.1100, Xingye Road, Xin'an Street, Bao'an District, Shenzhen, Guangdong, China
Manufacturer	:	SHENZHEN KERUI SMART TECHNOLOGY CO., LTD
Address	:	Room 1501, T2, Jinlitong Building, No.1100, Xingye Road, Xin'an Street, Bao'an District, Shenzhen, Guangdong, China

1.2 General Description of EUT (Equipment Under Test)

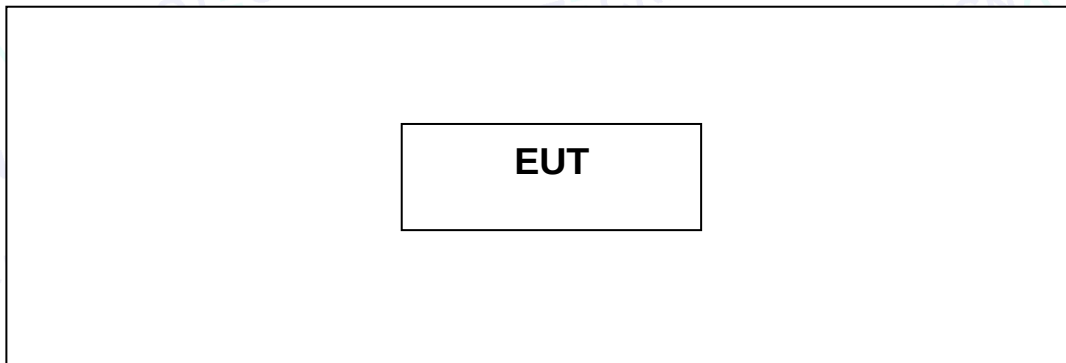
EUT Name	:	Wireless Indoor/Outdoor Thermometer&Hygrometer	
Models No.	:	TH9	
HVIN	:	TH9	
Model Different	:	N/A	
Product Description	:	Operation Frequency:	433.92MHz
		Max Out Power:	86.67dBuV/m (PK Max.)
		Antenna Gain:	-7.31dBi PCB Antenna
		Modulation Type:	ASK
Power Rating	:	DC 3V	
Software Version	:	V1.2	
Hardware Version	:	TH9-V1.1	

Note:

- (1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.



1.3 Block Diagram Showing the Configuration of System Tested



1.4 Description of Support Units

The EUT has been test as an independent unit.

1.5 Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.

Test Items	Note
Radiated Emission	Continuously transmitting
Bandwidth	Continuously transmitting
Duty Cycle	Continuously transmitting
Release Time	Normal Mode

Note:

- (1) During the testing procedure, the continuously transmitting mode was programmed by the customer.
- (2) The EUT is considered a fixed unit, and it was pre-tested on the positioned of each 3 axis: X axis, Y axis and Z axis. The worst case was found positioned on Z-plane. There for only the test data of this Z-plane were used for radiated emission measurement test.

1.6 Description of Test Software Setting

The normal transmission mechanism of this prototype is to automatically transmit upon power-on, and the power level is set as default.



1.7 Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

Test Item	Parameters	Expanded Uncertainty (U_{Lab})
Conducted Emission	Level Accuracy: 9kHz~150kHz 150kHz to 30MHz	± 3.50 dB ± 3.10 dB
Radiated Emission	Level Accuracy: 9kHz to 30 MHz	± 4.60 dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	± 4.50 dB
Radiated Emission	Level Accuracy: Above 1000MHz	± 4.20 dB
RF Power-Conducted	Level Accuracy: Above 1000MHz	± 0.95 dB
Power Spectral Density-Conducted	Level Accuracy: Above 1000MHz	± 3 dB
Occupied Bandwidth	Level Accuracy: 30MHz to 1000 MHz Above 1000MHz	$\pm 3.8\%$
Unwanted Emission-Conducted	Level Accuracy: 30MHz to 1000 MHz Above 1000MHz	± 2.72 dB
Temperature	/	$\pm 0.6^{\circ}\text{C}$
Humidity	/	$\pm 4\%$
Supply voltages	/	$\pm 2\%$
Time	/	$\pm 4\%$



1.8 Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1/F., Building 6, Rundongsheng Industrial Zone, Longzhu, Xixiang, Bao'an District, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

CNAS (L5813)

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

A2LA Certificate No.: 4750.01

The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01.FCC Accredited Test Site Number: 854351. Designation Number: CN1223.

IC Registration No.: (11950A)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A. CAB identifier: CN0056.



2. Test Summary

Standard Section		Test Item	Test Sample(s)	Judgment	Remark
FCC	IC				
15.203	RSS-Gen 6.8	Antenna Requirement	HC-C-202604-0523-03-02-2#	PASS	N/A
15.207	RSS-Gen 8.8	Conducted Emission	HC-C-202604-0523-03-02-1#	N/A	N/A
15.231(e)	RSS-210 A.1.5(d)	Electric Field Strength of Fundamental Emission	HC-C-202604-0523-03-02-2#	PASS	N/A
15.231(e) 15.205 15.209	RSS-210 A.1.5(d) RSS-Gen 8.9	Electric Field Strength of Spurious Emission	HC-C-202604-0523-03-02-2#	PASS	N/A
15.231(e)	RSS-210 A.1.5(b)	Automatically Deactivate	HC-C-202604-0523-03-02-2#	PASS	N/A
15.231(c)	/	-20dB Bandwidth	HC-C-202604-0523-03-02-2#	PASS	N/A
/	RSS-210 A.1.4	99% Emission Bandwidth	HC-C-202604-0523-03-02-2#	PASS	N/A
Reference data		Duty Cycle	HC-C-202604-0523-03-02-2#	PASS	N/A

Note: N/A is an abbreviation for Not Applicable.

3. Test Software

Test Item	Test Software	Manufacturer	Version No.
Radiation Emission	EZ-EMC	EZ	Ver.GARAD-3A1.1+
Radiation Emission	EZ-EMC	EZ	Ver.GARAD-3A1.1+
Radiation Emission	JS1120	Tonscend	V3.6.21



4. Test Equipment and Test Site

Test Site				
No.	Test Site	Manufacturer	Specification	Used
TB-EMCSR001	Shielding Chamber #1	YIHENG	7.5*4.0*3.0 (m)	X
TB-EMCSR002	Shielding Chamber #2	YIHENG	8.0*4.0*3.0 (m)	√
TB-EMCCA001	3m Anechoic Chamber #A	ETS	9.0*6.0*6.0 (m)	X
TB-EMCCB002	3m Anechoic Chamber #B	YIHENG	9.0*6.0*6.0 (m)	√

Radiation Emission Test(B Site)					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	N9020A	MY49100060	Aug. 27, 2025	Aug. 26, 2026
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jun. 16, 2025	Jun. 15, 2026
EMI Test Receiver	Rohde & Schwarz	ESU-8	100472/008	Jan. 30, 2026	Jan. 29, 2027
Bilog Antenna	SCHWARZBECK	VULB 9168	1225	Oct. 18, 2025	Oct. 17, 2027
Horn Antenna	SCHWARZBECK	BBHA 9120 D	2463	Jun. 14, 2024	Jun. 13, 2026
Horn Antenna	SCHWARZBECK	BBHA 9170	1118	Jan. 31, 2026	Jan. 30, 2028
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jan. 04, 2026	Jan. 03, 2028
HF Amplifier	Tonscend	TAP9E6343	AP21C806117	Aug. 27, 2025	Aug. 26, 2026
HF Amplifier	Tonscend	TAP051845	AP21C806141	Aug. 27, 2025	Aug. 26, 2026
HF Amplifier	Tonscend	TAP0184050	AP21C806129	Aug. 27, 2025	Aug. 26, 2026
Pre-amplifier	HP	8449B	3008A00849	Jun. 16, 2025	Jun. 15, 2026
Highpass Filter	CD	HPM-6.4/18G	---	N/A	N/A
Highpass Filter	CD	HPM-2.8/18G	---	N/A	N/A
Highpass Filter	XINBO	XBLBQ-HTA67(8-25G)	22052702-1	N/A	N/A
Antenna Conducted Emission					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jun. 16, 2025	Jun. 15, 2026
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Aug. 27, 2025	Aug. 26, 2026
Spectrum Analyzer	KEYSIGHT	N9020B	MY60110172	Aug. 27, 2025	Aug. 26, 2026
RF Control Unit	Tonsced	JS0806-2	21F8060439	Aug. 27, 2025	Aug. 26, 2026
Power Control Box	Tonsced	JS0806-4ADC	21C8060387	N/A	N/A
Attenuator	XQY	10dB	N/A	N/A	N/A
Attenuator	XQY	10dB	N/A	N/A	N/A
Attenuator	XQY	10dB	N/A	N/A	N/A
Attenuator	XQY	10dB	N/A	N/A	N/A



5. Conducted Emission

5.1 Test Standard and Limit

5.1.1 Test Standard

FCC Part 15.207

RSS-Gen 8.8

5.1.2 Test Limit

Frequency	Maximum RF Line Voltage (dBμV)	
	Quasi-peak Level	Average Level
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
500kHz~5MHz	56	46
5MHz~30MHz	60	50

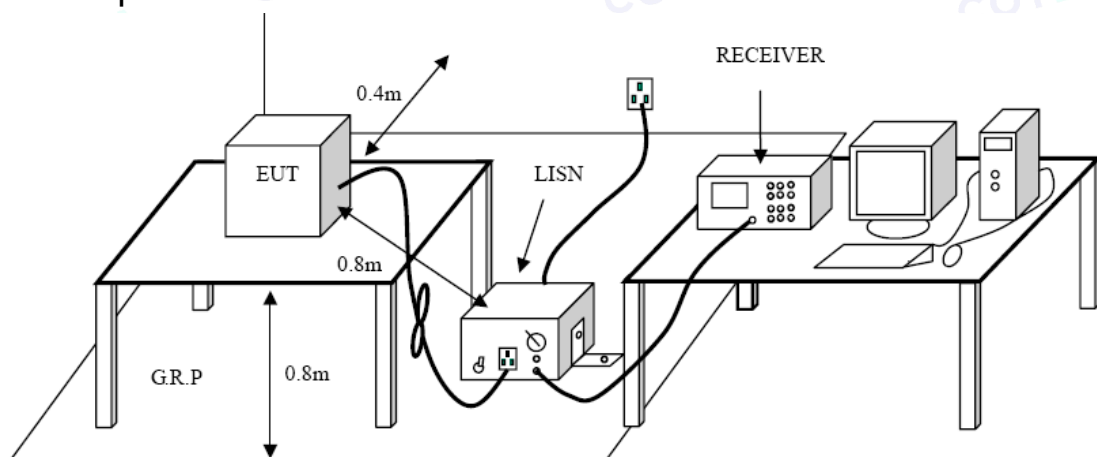
Notes:

(1) *Decreasing linearly with logarithm of the frequency.

(2) The lower limit shall apply at the transition frequencies.

(3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

5.2 Test Setup



5.3 Test Procedure

● The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

● Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

● I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

● LISN at least 80 cm from nearest part of EUT chassis.

● The bandwidth of EMI test receiver is set at 9 kHz, and the test frequency band is from 0.15MHz to 30MHz.

5.4 Deviation From Test Standard

No deviation



5.5 EUT Operating Mode

Please refer to the description of test mode.

5.6 Test Data

N/A.



6. Radiated Spurious Emission Test

6.1 Test Standard and Limit

6.1.1 Test Standard

FCC 15.231e&FCC 15.205&FCC 15.209

RSS-210 A.1.5(d)&RSS-Gen 8.9

6.1.2 Test Limit

According to FCC 15.231(e) requirement:

In addition to the provisions of Section 15.205, the field strength of emissions from intentional radiators operated under this Section shall not exceed the following:

Fundamental Frequency (MHz)	Field Strength of Fundamental (microvolt/meter) at 3m	Field Strength of Spurious Emissions (microvolt/meter) at 3m
40.66~40.70	1000	100
70~130	500	50
130~174	500 to 1500(**)	50 to 150(**)
174~260	1500	150
260~470	1500 to 5000(**)	150 to 500(**)
Above 470	5000	500

** Linear interpolations, the formulas for calculating the maximum permitted fundamental field strengths are as follows:

- (1) for the band 130~174 MHz, $\mu\text{V/m}$ at 3 meters = $22.7273(F) - 2454.5455$;
- (2) for the band 260~470 MHz, $\mu\text{V/m}$ at 3 meter = $16.6667(F) - 2833.3333$.
- (3) The maximum permitted unwanted emissions level is 20 dB below the maximum permitted fundamental level. In addition field strength of any emissions which appear inside of the restriction band shall not exceed the general radiated emissions limits in FCC Part 15.209.

Frequency (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note:

- (1) The tighter limit applies at the band edges.
- (2) For above 30MHz:
 Emission Level(dBuV/m) = $20\log$ Emission Level($\mu\text{V/m}$)
 For 0.009~0.490MHz:
 Emission Level(dBuV/m) = $20\log$ Emission Level($\mu\text{V/m}$) + $40\log(300/3)$
 For 0.049~30MHz:
 Emission Level(dBuV/m) = $20\log$ Emission Level($\mu\text{V/m}$) + $40\log(30/3)$



According to RSS-210 A.1.5 requirement:

Unwanted emissions shall be 10 times below the fundamental emissions field strength limits in table A2 or comply with the general field strength limits specified in RSS-Gen, whichever is less stringent.

Table A2: Reduced field strength limits for momentarily operated devices

Fundamental frequency (MHz), excluding restricted frequency bands specified in RSS-Gen	Field strength of the fundamental emissions ($\mu\text{V}/\text{m}$ at 3 m)
70-130	500
130-174	500 to 1,500*
174-260**	1,500
260-470**	1,500 to 5,000*
Above 470	5,000

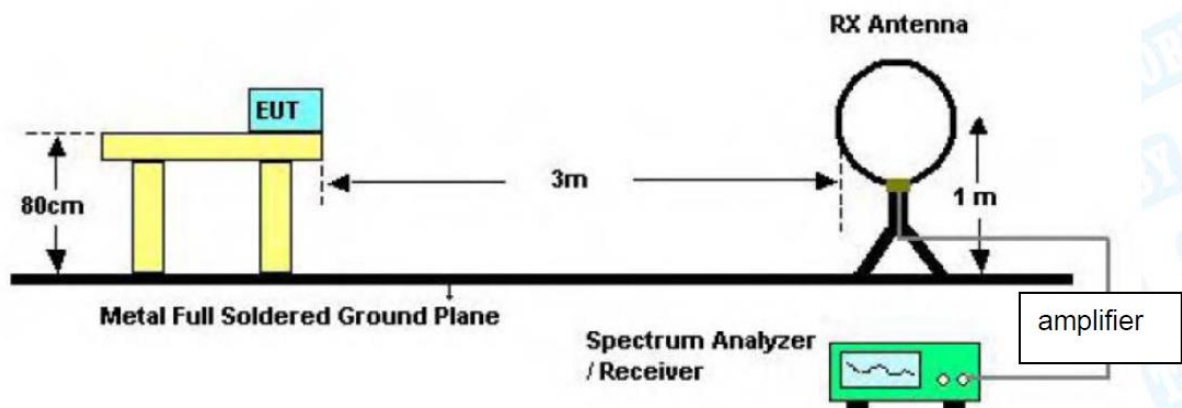
*Linear interpolation with frequency, f , in MHz:

- for 130-174 MHz: field strength ($\mu\text{V}/\text{m}$) = $(22.72727 \times f) - 2454.545$
- for 260-470 MHz: field strength ($\mu\text{V}/\text{m}$) = $(16.6667 \times f) - 2833.3333$

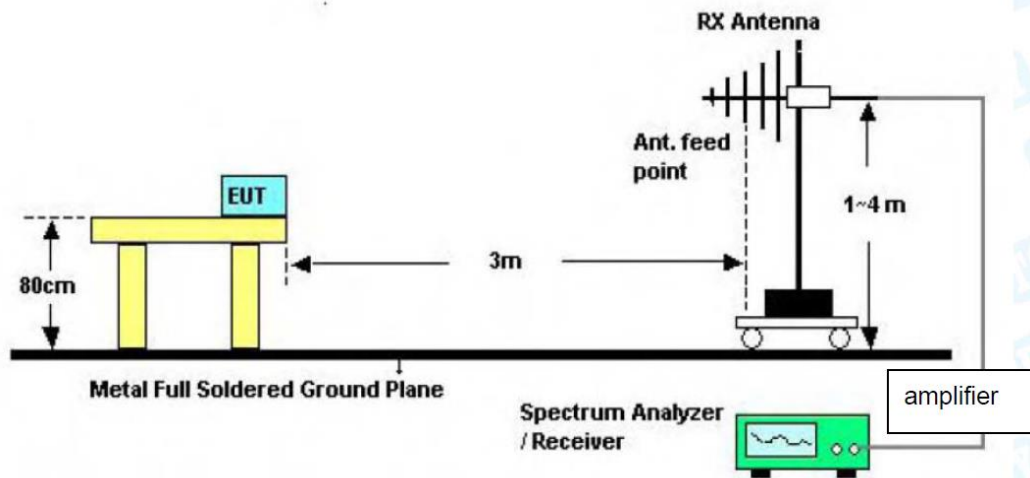
**Frequency bands 225-328.6 MHz and 335.4-399.9 MHz are designated for use by the Government of Canada. Manufacturers should be aware of possible harmful interference and degradation of their licence-exempt radio equipment in these frequency bands.

So the field strength of emission limits have been calculated in below table.

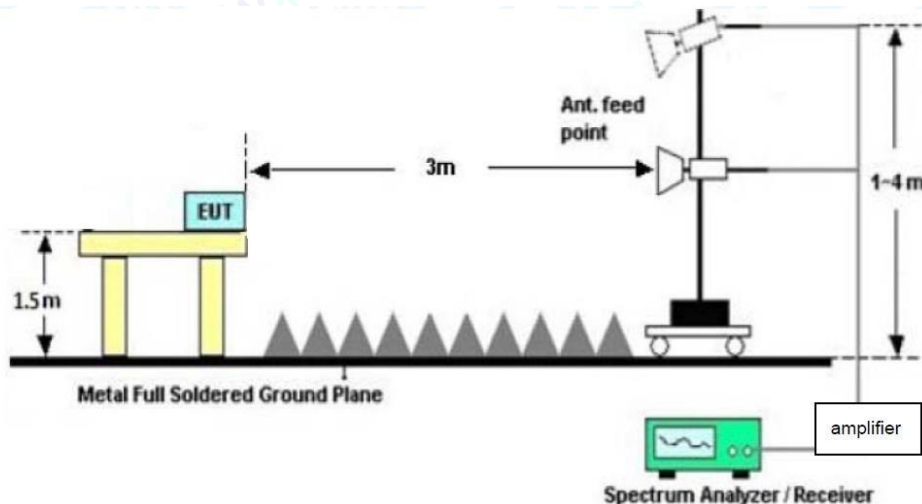
Fundamental Frequency (MHz)	Field Strength of Fundamental (microvolt/meter) at 3m
433.92MHz	72.87 (Average)
433.92MHz	92.87 (Peak)

6.2 Test Setup**Radiated measurement**

Below 30MHz Test Setup



Below 1000MHz Test Setup



Above 1GHz Test Setup

6.3 Test Procedure

---Radiated measurement

● The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1 GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.

● Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.

● The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.

● The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

● If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Below 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with



applicable limit above 1 GHz.

- Testing frequency range 30MHz-1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection. Testing frequency range 9KHz-150Hz the measuring instrument use VBW=200Hz with Quasi-peak detection. Testing frequency range 9KHz-30MHz the measuring instrument use VBW=9kHz with Quasi-peak detection.

- Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and for Average Values: Average=Peak Value+20log (Duty Cycle).

- For the actual test configuration, please see the test setup photo.

6.4 Deviation From Test Standard

No deviation

6.5 EUT Operating Mode

Please refer to the description of test mode.

6.6 Test Data

Please refer to the Attachment A inside test report.



7. -20dB and 99% Bandwidth Test

7.1 Test Standard and Limit

7.1.1 Test Standard

FCC 15.231(c)
RSS-210 A.1.4

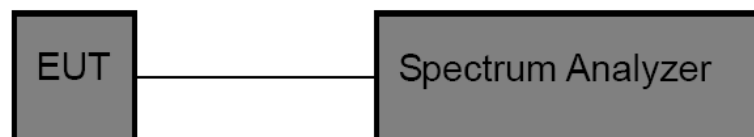
7.1.2 Test Limit

For 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. 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.

For RSS-210 A.1.4 (c): The occupied bandwidth of momentarily operated devices shall be less than or equal to 0.25% of the centre frequency for devices operating between 70 MHz and 900 MHz. For devices operating above 900 MHz, the occupied bandwidth shall be less than or equal to 0.5% of the centre frequency.

7.2 Test Setup

Conducted measurement



7.3 Test Procedure

Test	Span	RBW	VBW	Sweep	Detector	Trace	Instrument used
-20 dB Bandwidth / 99% emission bandwidth	Enough width to display emission skirts	1 to 5 % of OBW	Three times of RBW	Auto	Peak *1)	Max Hold *1)	Spectrum Analyzer

*1) Peak hold was applied as Worst-case measurement.

7.4 Deviation From Test Standard

No deviation

7.5 EUT Operating Mode

Please refer to the description of test mode.

7.6 Test Data

Please refer to the Attachment B inside test report.



8. Automatically Deactivate Test

8.1 Test Standard and Limit

8.1.1 Test Standard

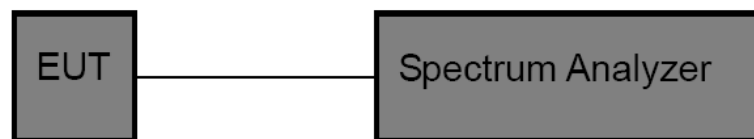
FCC 15.231(e)
RSS-210 A.1.5(b)

8.1.2 Test Limit

According to FCC 15.231(e): In addition, devices operated under the provisions of this paragraph shall be provided with a means for automatically limiting operation so that the duration of each transmission shall not be greater than one second and the silent period between transmissions shall be at least 30 times the duration of the transmission but in no case less than 10 seconds.

According to RSS-210 A.1.5(b): In addition, devices operated under the provisions of this section shall be capable of automatically limiting their operation so that the duration of each transmission is not greater than 1 second and the silent period between transmissions is at least 30 times the duration of the transmission, but not less than 10 seconds under any circumstances. However, devices that are designed for limited use for the purpose of initial programming, reprogramming or installing, and not for regular operations, may operate for up to 5 seconds provided such devices are used only occasionally in connection with each unit being programmed or installed.

8.2 Test Setup



8.3 Test Procedure

- (1) Setup the EUT as show in the block diagram above.
- (2) Set Spectrum Analyzer Center Frequency= Fundamental Frequency, RBW=3MHz, VBW= 50MHz, Span= 0Hz.
- (3) Setup the EUT as normal operation and press Transmitter button.
- (4) Set Spectrum Analyzer View, Delta Mark time.

8.4 Deviation From Test Standard

No deviation

8.5 EUT Operating Mode

Please refer to the description of test mode.

8.6 Test Data

Please refer to the Attachment C inside test report.



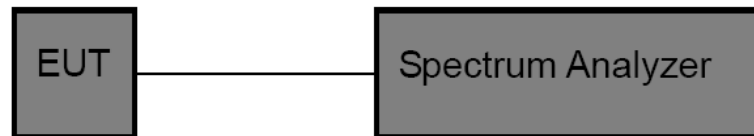
9. Duty Cycle

9.1 Test Standard and Limit

9.1.1 Test Standard

/

9.2 Test Setup



9.3 Test Procedure

- (1) Setup the EUT as show in the block diagram above.
- (2) Set EUT operating in continuous transmitting mode.
- (3) Set the Spectrum Analyzer to the transmitter carrier frequency, and set the spectrum analyzer resolution bandwidth (RBW) to 1MHz and video bandwidth (VBW) to 1MHz, Span was set to 0Hz.
- (4) The Duty Cycle was measured and recorded.

9.4 Deviation From Test Standard

No deviation

9.5 EUT Operating Mode

Please refer to the description of test mode.

9.6 Test Data

Please refer to the Attachment D inside test report.



10. Antenna Requirement

11.1 Test Standard and Limit

11.1.1 Test Standard

FCC Part 15.203

RSS-Gen 6.8

11.1.2 Requirement

FCC Part 15.203

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 shall be considered sufficient to comply with the provisions of this Section. 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.

RSS-Gen 6.8

The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

For expediting the testing, measurements may be performed using only the antenna with highest gain of each combination of transmitter and antenna type, with the transmitter output power set at the maximum level. However, the transmitter shall comply with the applicable requirements under all operational conditions and when in combination with any type of antenna from the list provided in the test report (and in the notice to be included in the user manual, provided below).

11.2 Deviation From Test Standard

No deviation

11.3 Antenna Connected Construction

The gains of the antenna used for transmitting is -7.31dBi, and the antenna de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.



11.4 Test Data

The EUT antenna is a PCB Antenna. It complies with the standard requirement.

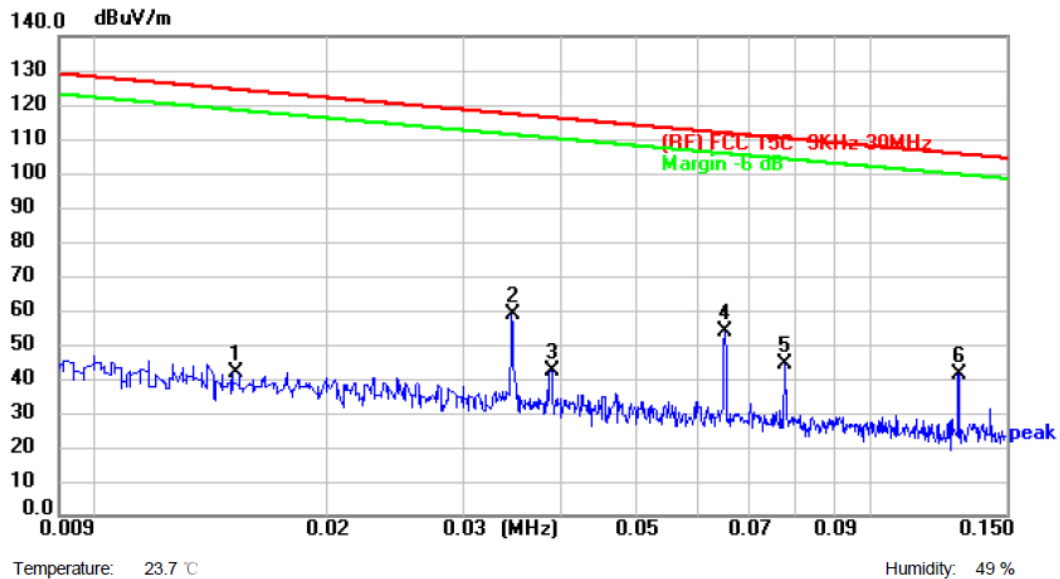
Antenna Type
☒ Permanent attached antenna
☐ Unique connector antenna
☐ Professional installation antenna



Attachment A--Unwanted Emissions Data

---Radiated Unwanted Emissions
9 KHz~30 MHz

Test Voltage:	DC 3V
Test Mode:	TX 433.92MHz
Remark:	Only showed the worst mode test data.

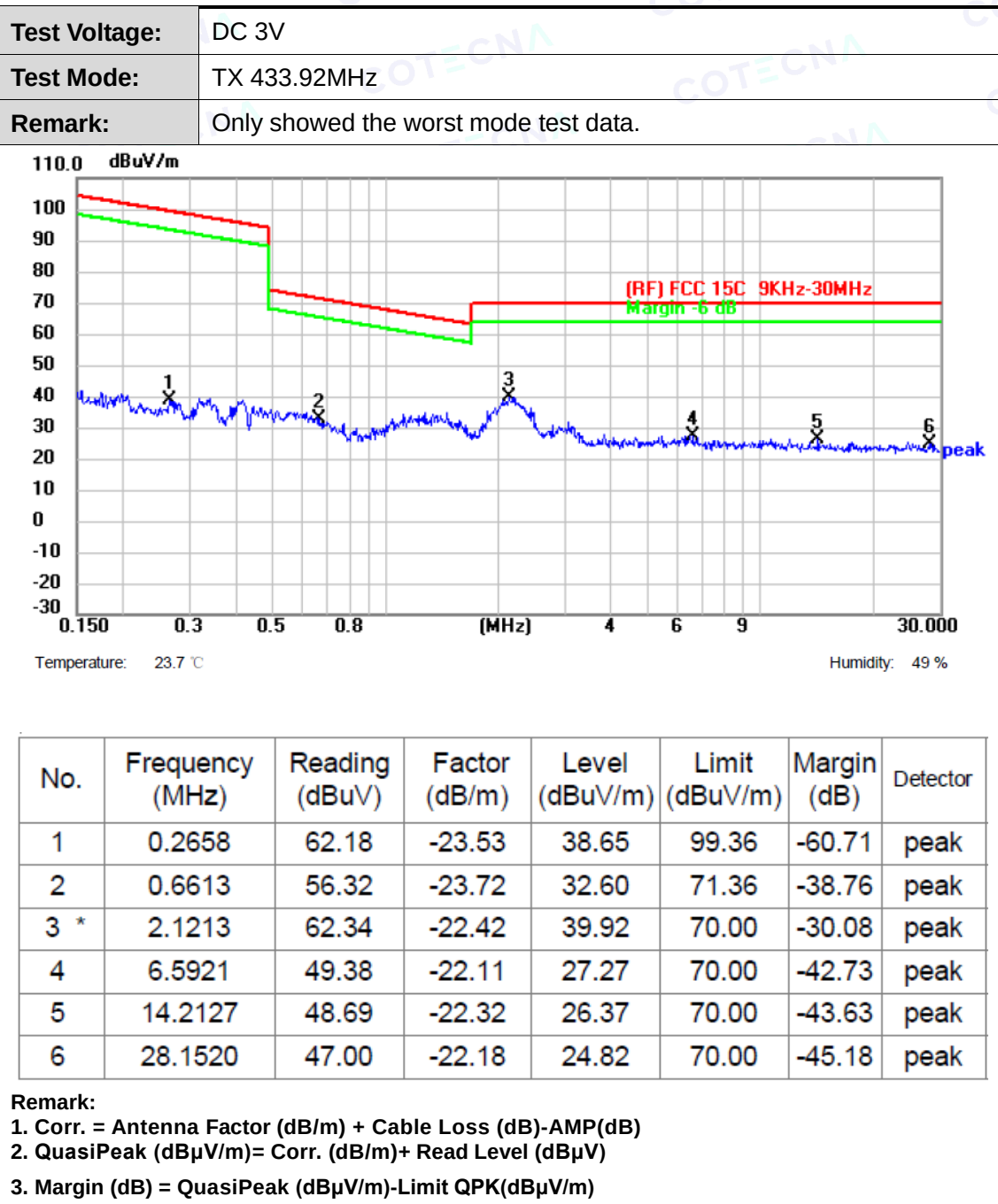


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0152	65.03	-23.17	41.86	124.41	-82.55	peak
2	0.0346	82.15	-23.36	58.79	117.21	-58.42	peak
3	0.0388	65.64	-23.31	42.33	116.21	-73.88	peak
4 *	0.0650	76.75	-23.08	53.67	111.69	-58.02	peak
5	0.0778	67.28	-22.96	44.32	110.11	-65.79	peak
6	0.1303	63.81	-22.72	41.09	105.60	-64.51	peak

Remark:

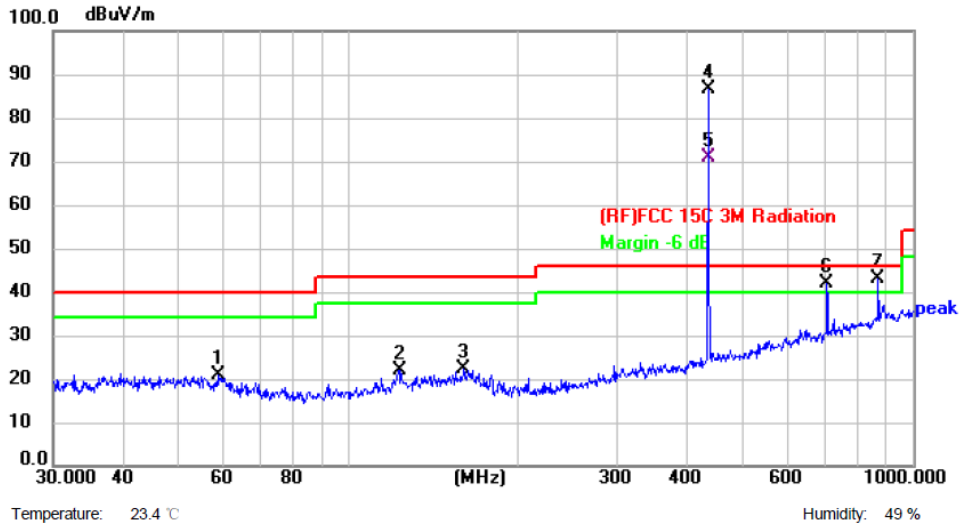
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)-AMP(dB)
2. QuasiPeak (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = QuasiPeak (dBμV/m)-Limit QPK(dBμV/m)





30MHz~1GHz

Test Voltage:	DC 3V
Ant. Pol.	Horizontal
Test Mode:	TX 433.92MHz
Remark:	No report for the emission which more than 10 dB below the prescribed limit.



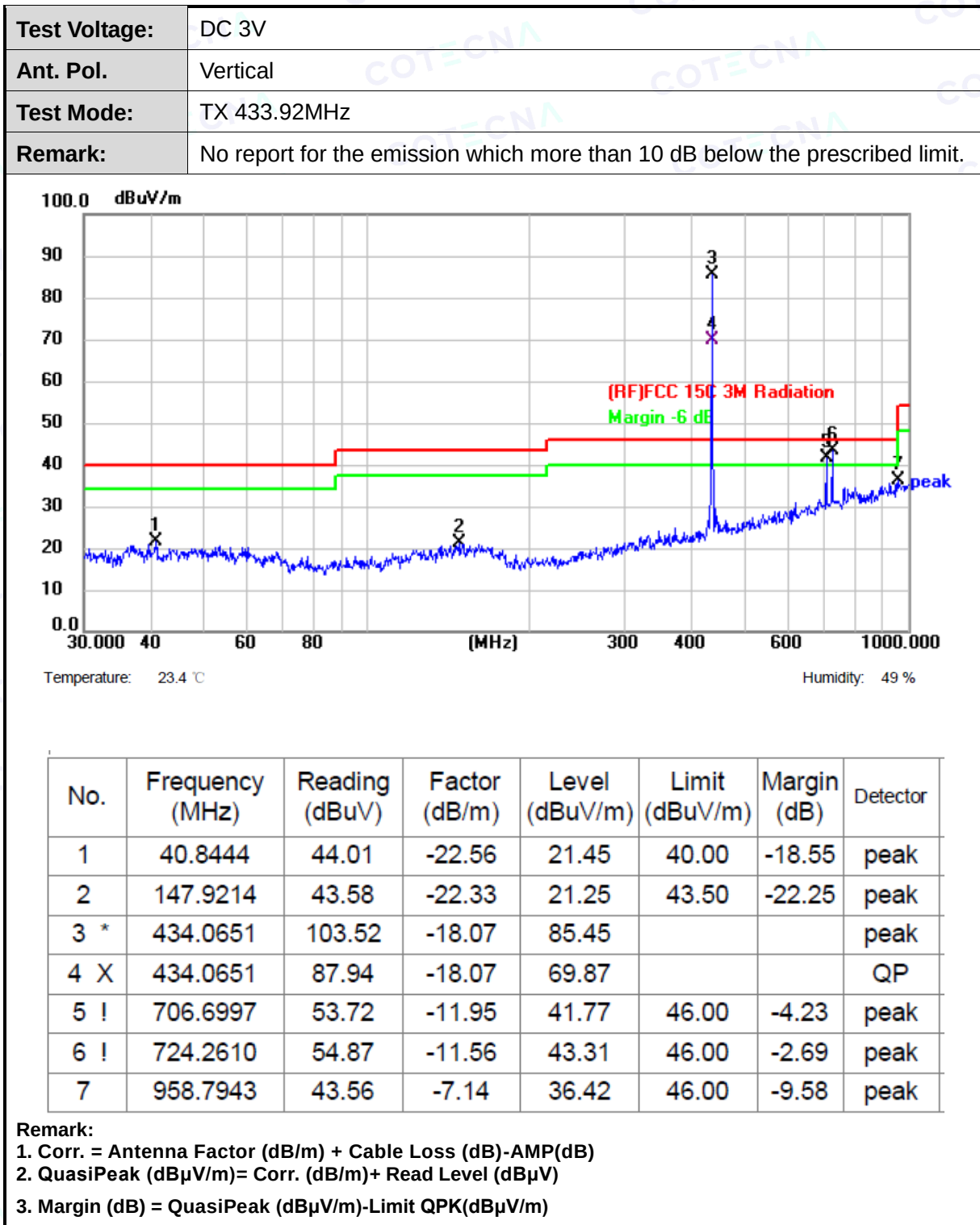
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	58.8185	43.55	-22.74	20.81	40.00	-19.19	peak
2	123.2653	44.87	-22.85	22.02	43.50	-21.48	peak
3	160.3455	43.97	-21.53	22.44	43.50	-21.06	peak
4 *	434.0651	104.74	-18.07	86.67			peak
5 X	434.0651	89.12	-18.07	71.05			QP
6 !	704.2260	54.14	-12.02	42.12	46.00	-3.88	peak
7 !	869.1301	52.85	-9.88	42.97	46.00	-3.03	peak

Remark:

1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)-AMP(dB)
2. QuasiPeak (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = QuasiPeak (dBμV/m)-Limit QPK(dBμV/m)

Fundamental and Harmonics Result					
Freq(MHz)	Peak Level (dBμV/m)	QP Level (dBμV/m)	Limit(dBμV/m) (QP)	Limit(dBμV/m) (Peak)	Conclusion
434.0651	86.67	71.05	72.87	92.87	PASS
869.1301	42.97	/	52.87	72.87	PASS

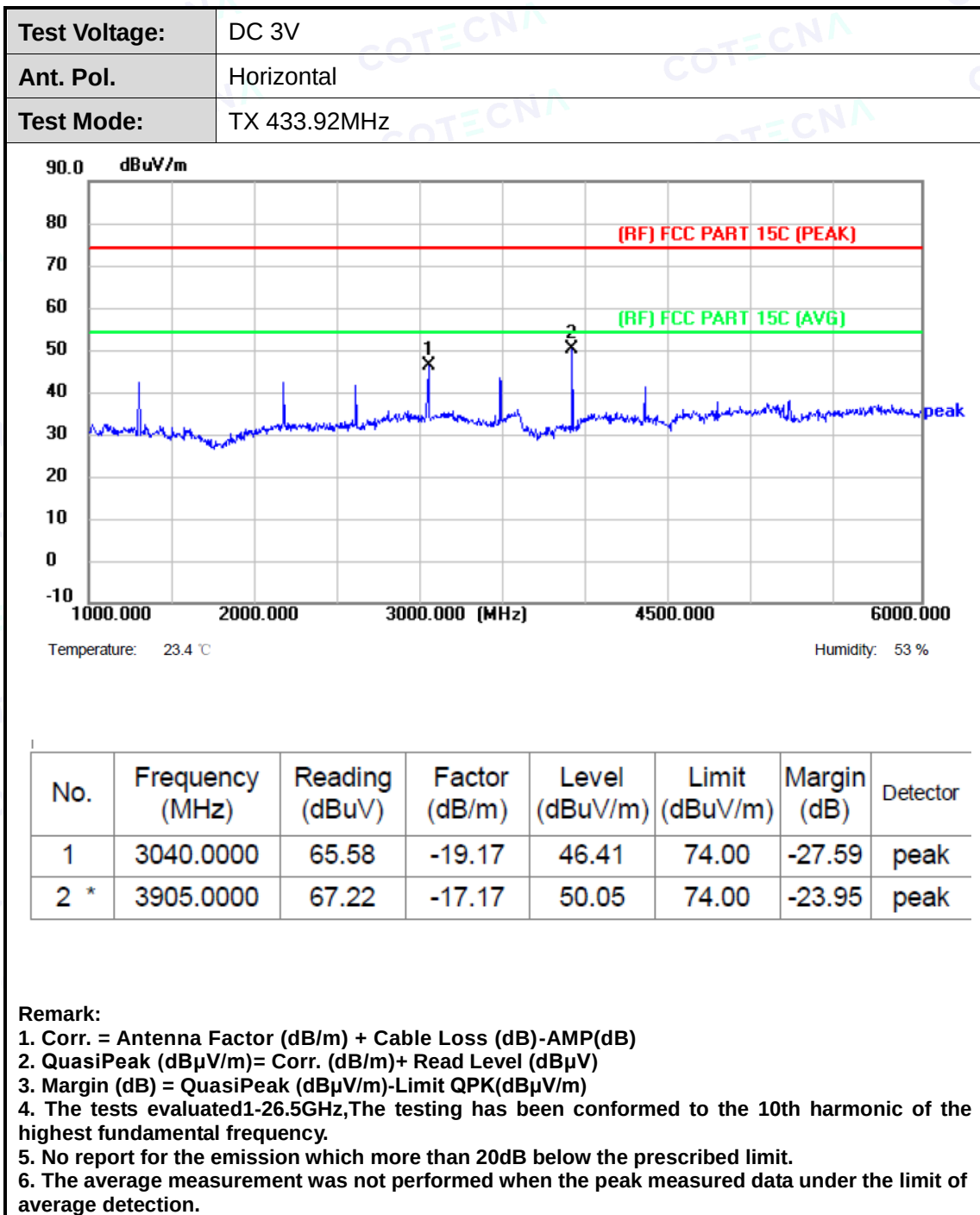


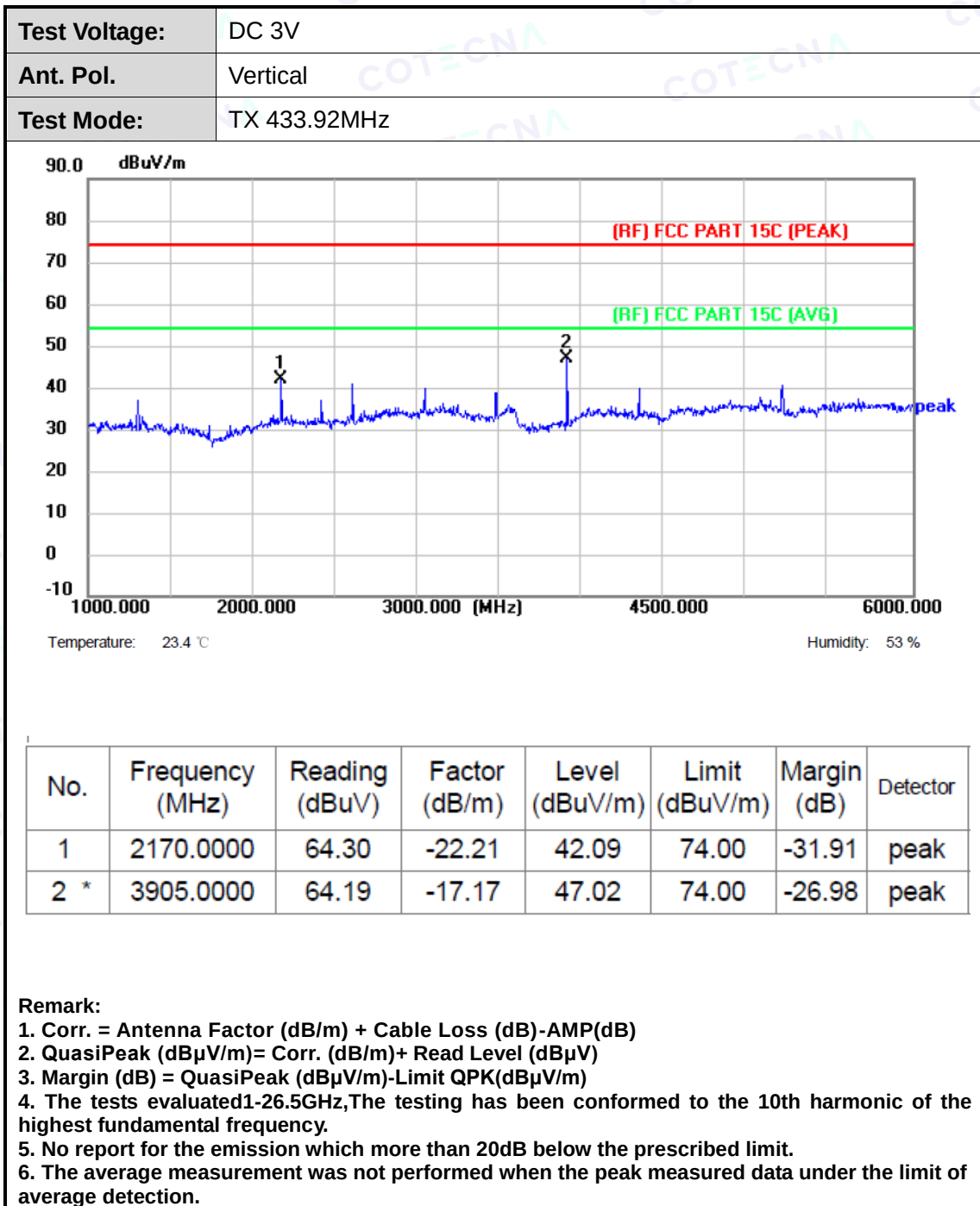


Fundamental and Harmonics Result					
Freq(MHz)	Peak Level (dBμV/m)	QP Level (dBμV/m)	Limit(dBμV/m) (QP)	Limit(dBμV/m) (Peak)	Conclusion
434.0651	85.45	69.87	72.87	92.87	PASS



Above 1GHz

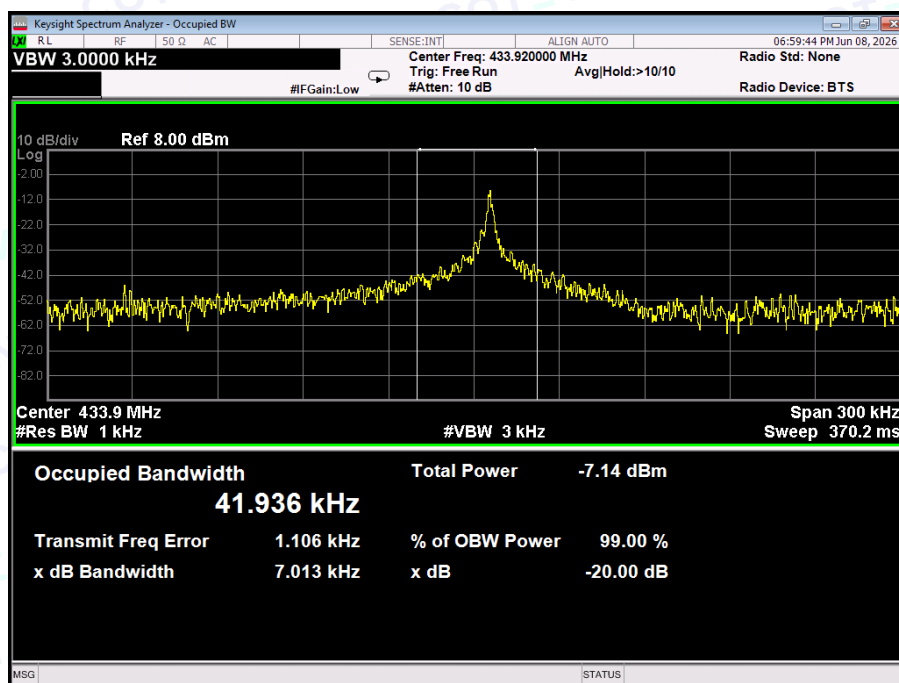




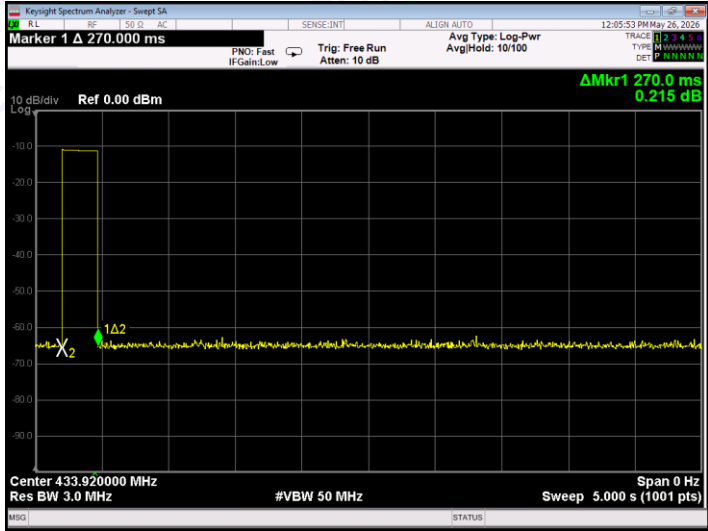
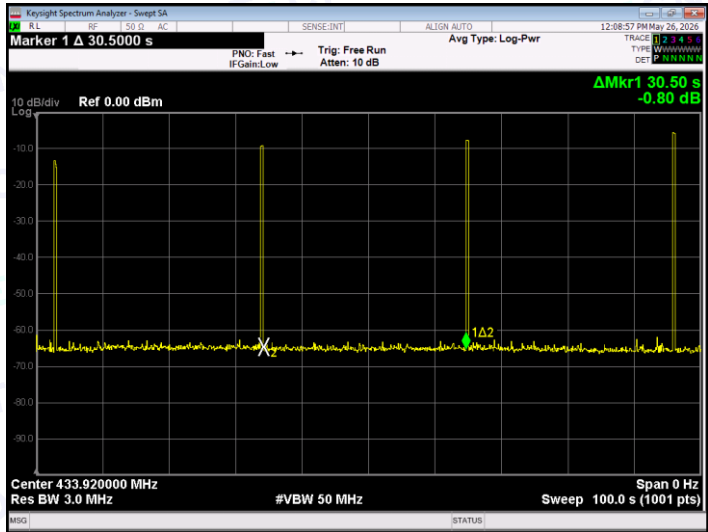
Attachment B---20dB and 99% Bandwidth Data

Temperature	:	24.3 °C
Relative Humidity	:	52.4 %
Pressure	:	1020hPa
Test Power	:	DC 3V

Frequency (MHz)	20dBc Bandwidth (kHz)	99% Bandwidth (kHz)	Limit (kHz)	Result
433.92	7.013	41.936	1085	PASS



Attachment C-- Release Time Measurement Data

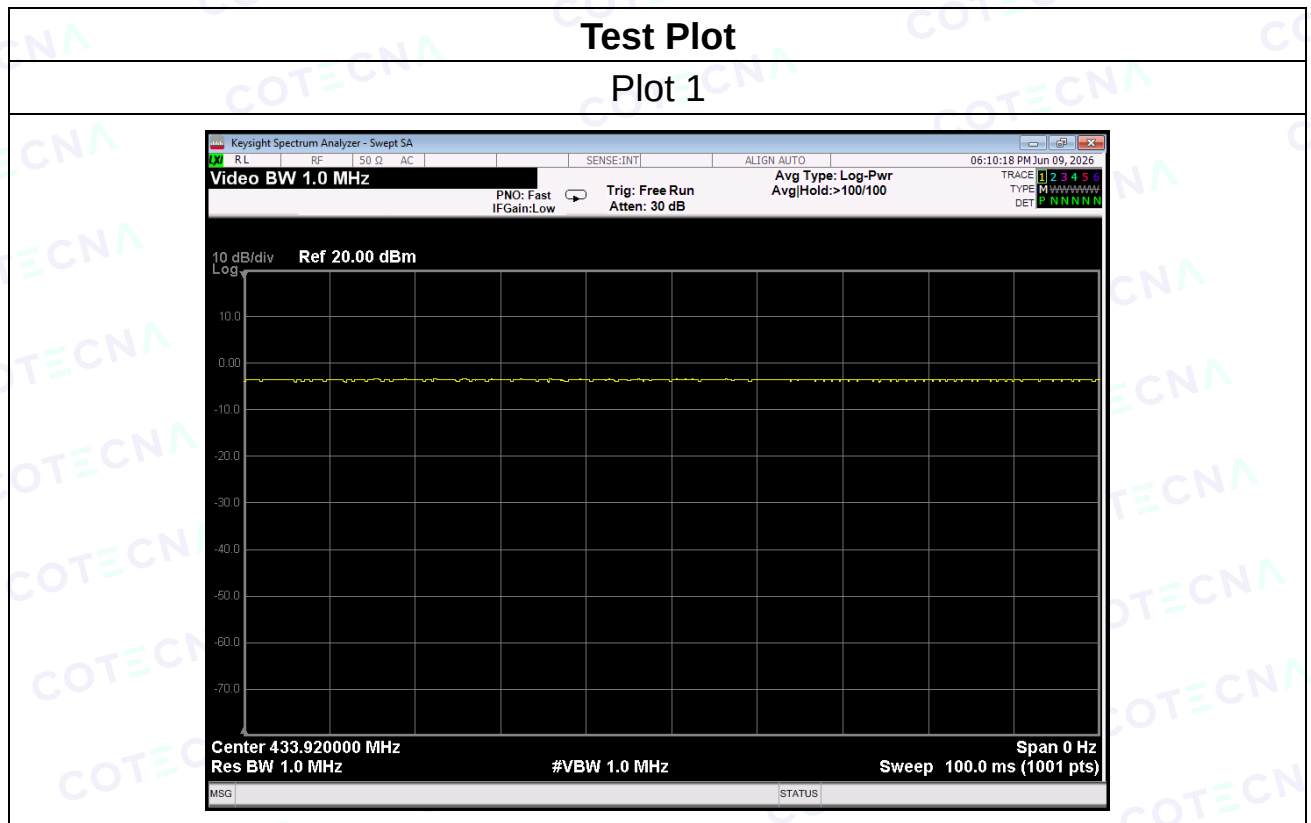
Temperature	:	24.3 °C
Relative Humidity	:	52.4 %
Pressure	:	1020hPa
Test Power	:	DC 3V
Release Time(s)	Limit (s)	Result
0.27	1	PASS
		
Silent period (s)	Limit (s)	Result
30.50	>10s >30* Release Time	PASS
Note: 30* Release Time=8.1s		
		



Attachment D--Duty Cycle Data

Plot 1: each cycle is 100ms there are One kinds of pulse in each cycle, Duty Cycle is 100% launch

Average=Peak Value+20log(Duty Cycle), AV=PK-0



-----END OF THE REPORT-----

