

JAPAN SPECIFIED RADIO EQUIPMENT

TEST REPORT

For

Radio Frequency Transmitter (Keyfob)

Model: TXPZ4

Trade Name: Continental

Issued to

Continental Automotive Technologies GmbH

Siemensstrasse 12 , 93055 Regensburg, Germany

Issued by

Compliance Certification Services Inc.

Wugu Laboratory

**No.11, Wugong 6th Rd., Wugu Dist.,
New Taipei City, Taiwan.**

Issue Date: November 11, 2025

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	November 6, 2025	Initial Issue	ALL	Peggy Tsai
01	November 11, 2025	See the following Note Rev. (01)	P.5, 6, 22, 23, 29-31	Peggy Tsai

Note:**Rev. (01)**

1. Modify rated antenna power in section 2.
2. Modify test conditions in 3.1.
3. Modify antenna power (conducted) measurement and dwell time measurement in section 5.4 and 5.6.

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1. TEST RESULT CERTIFICATION

Applicant: Continental Automotive Technologies GmbH
Siemensstrasse 12 , 93055 Regensburg, Germany

Manufacturer: Continental Automotive Technologies GmbH
Siemensstrasse 12 , 93055 Regensburg, Germany

Equipment Under Test: Radio Frequency Transmitter (Keyfob)

Trade Name: Continental

Model Number: TXPZ4

Detailed EUT Description: See Item 3 of this report

EUT Receive Date: October 20, 2025

Date of Test: October 21 ~ 22, 2025

APPLICABLE STANDARDS	
CLASSIFICATION	TEST RESULT
Article 2-1-8	Compliance
Statements of Conformity	
Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.	

The above equipment was tested by Compliance Certification Services Inc. for compliance with the requirements set forth in Article 2-1-8. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Measurement was conducted by the following test method: the test method of Ordinance Concerning Technical Regulations Conformity Certification etc. of Specified Radio Equipment in Annex 1, the Ministry of Internal Affairs and Communication notification in Annex 22 of Article 88, the Paragraph 1 test method more than equivalent.

Approved by:



Shawn Wu
Supervisor
Compliance Certification Services Inc.

2. EUT DESCRIPTION

Product	Radio Frequency Transmitter (Keyfob)		
Trade Name	Continental		
Model Number	TXPZ4		
Power Supply	Power from Battery: DC 3V		
Frequency Range	TX: 315MHz RX: 125kHz		
Rated Antenna Power	25 μ W (EIRP)		
Measured Antenna Power	DC 3V:	0.030130 μ W (EIRP)	
	DC 2.7V:	0.026546 μ W (EIRP)	
	DC 3.3V:	0.029512 μ W (EIRP)	
Modulation Technique	TX: FSK RX: ASK		
Number of Channels	1 channel		
Antenna Specification	Loop Antenna / Gain: -20.00 dBi		
H/W Version	02		
S/W Version	21.00		

Remark:

1. For more details, please refer to the User's manual of the EUT.
2. Disclaimer: Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.

3. TEST METHODOLOGY & CONDITIONS

3.1 TEST CONDITIONS

Temperature: 20.6 ~ 21.4°C

Test date: October 21 ~ 22, 2025

Humidity: 61 ~ 66% RH

Tested by: Marco Chan

Peak Antenna Gain	-20.00	dBi
E.I.R.P	0.00250	W
E.I.R.P	-16.02	dBm
Input Power Voltage	2.7 / 3.0 / 3.3	VDC

Voltage Fluctuation Test	Normal Voltage	High Voltage + 10% of Normal Voltage	Low Voltage - 10% of Normal Voltage
Input DC Power	3	3.3	2.7
Output DC Power	3	3.3	2.7

Note: Voltage Variation (%) = (Output High or Low Voltage - Output Normal Voltage)/Output Normal Voltage X 100

During the input supply voltage to the EUT from the external power source is varied by +/- 10%, if output voltage had been confirmed that the fluctuation of power supply to the RF circuit of EUT (excluding power source) is equal to or less than +/- 1%. Exempt extremely high and low supply voltage condition tests, EUT only operated in normal voltage to test all regulations.

3.2 DESCRIPTION OF TEST MODES

The EUT (Model: TXPZ4) had been tested under operating condition.
Software used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

3.3 TESTING APPLIED STANDARDS

MIC Notice No.88 Appendix No.22
MIC Notice No.88 Appendix No.1
MIC Certification Rule, Article 2 Paragraph 1 Item 8

3.4 RF SHIELDING METHOD

Supersonic sealing method is used to seal the case for preventing direct access to the RF parts.



3.5 SETUP OF EQUIPMENT UNDER TEST

Setup Diagram

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

Support Equipment

Conducted TELECOM (All)						
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due	Remark
DC Power Cable	MISUMI	MCR3S-RE	N/A	N/A	N/A	1

4. INSTRUMENT AND CALIBRATION

4.1 MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated once a year or in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2 TEST AND MEASUREMENT EQUIPMENT

The following list contains measurement equipment used for testing. The equipment conforms to the requirement of Article 2 Paragraph 1 Item 8.

Calibration of all test and measurement, including any accessories that may effect such calibration, is checked frequently to ensure the accuracy. Adjustments are made and correction factors are applied in accordance with the instructions contained in the respective manual.

Equipment Used for Emission Measurement

Conducted TELEC (All)								
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due	Calibration Lab	Accreditation Organization of the-Cal. Lab	Calibration Method
PXA Signal Analyzer	Keysight	N9030B	MY62291089	2025/09/24	2026/09/23	ETC	TAF	c
DC Blocks	Marvelous Microwave	MVE6411	MVE-001	2025/08/06	2026/08/05	ETC	TAF	c
DC Power Source	GWINSTEK	SPS-3610	GPE880163	2024/11/06	2025/11/05	ETC	TAF	c
Software	N/A							

Remark:

- Each piece of equipment is scheduled for calibration once a year.
- Calibration Method:
 - Calibration conducted by the National Institute of Information and Communications Technology (NICT) (hereinafter referred to as "NICT") or a designated calibration agency under Article 102-18 paragraph (1)
 - Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992)
 - Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1)
 - Calibration conducted by using measuring instruments and other equipment listed in the right column of Table No. 3 attached hereto, which shall have been given any of calibration, etc. listed above from a) to c)

4.3 MEASUREMENT UNCERTAINTY

For the test methods, according to the present document, the measurement uncertainty figures shall be calculated in accordance with TR 100 028-1 [2] and shall correspond to an expansion factor (coverage factor) $k = 1,96$ or $k = 2$ (which provide confidence levels of respectively 95 % and 95,45 % in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)).

Table 6 is based on such expansion factors.

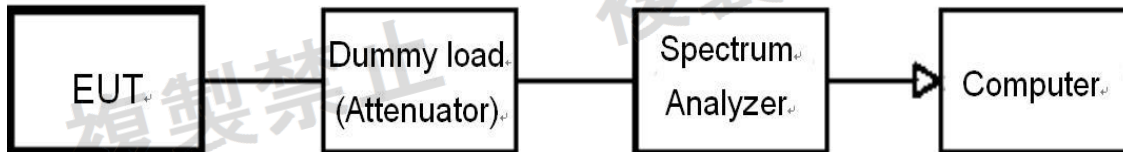
Table: Maximum measurement uncertainty

PARAMETER	UNCERTAINTY
Frequency error measurement	$\pm 1.890\text{dB}$
occupied bandwidth measurement (99%)	$\pm 1.971\text{dB}$
antenna power (Conducted) measurement	$\pm 1.871\text{dB}$
Unwanted emission strength measurement	$\pm 1.871\text{dB}$
Limitation of collateral emissions of receiver	$\pm 1.870\text{dB}$

5. SUMMARY OF TEST RESULTS

MIC Notice No.88, 2004, Appendix No.22 Article 2, Paragraph 1, Item 8 Rules Section	Report Section	Description of Test	Result
2	5.1	Frequency Tolerance	Compliance
2	5.2	Permissible Values for occupied frequency bandwidth	Compliance
3	5.3	Permissible Values of Unwanted Emission Intensity	Compliance
4	5.4	Antenna Output Power and Output Power Tolerance	Compliance
5	5.5	Secondary Radiated Emission Strength	Compliance
6	5.6	Transmission Time Restricting Device	Compliance

5.1 FREQUENCY TOLERANCE



LIMIT

Frequency Tolerance: $312 \text{ MHz} \leq f \leq 315.25 \text{ MHz}$.

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Temperature: 20.6 ~ 21.4°C

Test date: October 21 ~ 22, 2025

Humidity: 61 ~ 66% RH

Tested by: Marco Chan

TEST RESULT

DC 3V:

Measured Frequency	MHz	315	Result
Lower Frequency	MHz	314.938600	PASS
Upper Frequency	MHz	315.064409	PASS

DC 2.7V:

Measured Frequency	MHz	315	Result
Lower Frequency	MHz	314.938854	PASS
Upper Frequency	MHz	315.064338	PASS

DC 3.3V:

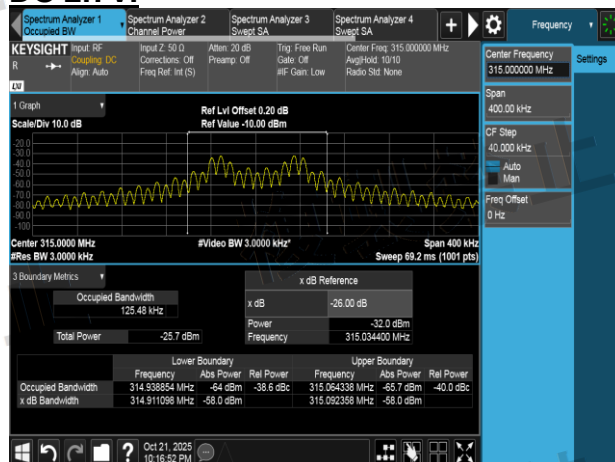
Measured Frequency	MHz	315	Result
Lower Frequency	MHz	314.938938	PASS
Upper Frequency	MHz	315.064816	PASS

TEST PLOTS

DC 3V:



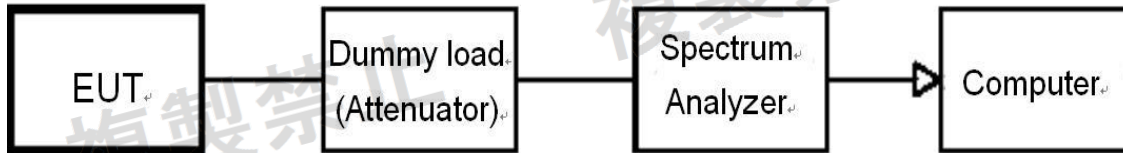
DC 2.7V:



DC 3.3V:



5.2 OCCUPIED BANDWIDTH MEASUREMENT (99%)



LIMIT

Max. Occupied Bandwidth: 1000 kHz.

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Temperature: 20.6 ~ 21.4°C
Humidity: 61 ~ 66% RH

Test date: October 21 ~ 22, 2025
Tested by: Marco Chan

TEST RESULT

DC 3V:

Measured Frequency	MHz	315	Result
Occupied Bandwidth	kHz	125.81	PASS

DC 2.7V:

Measured Frequency	MHz	315	Result
Occupied Bandwidth	kHz	125.48	PASS

DC 3.3V:

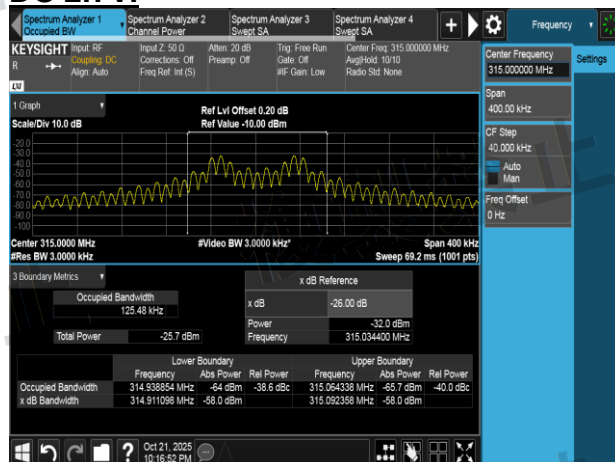
Measured Frequency	MHz	315	Result
Occupied Bandwidth	kHz	125.88	PASS

TEST PLOTS

DC 3V:



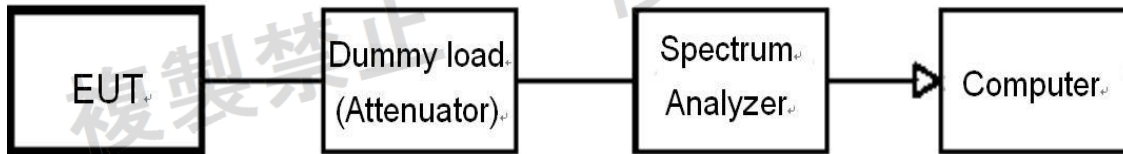
DC 2.7V:



DC 3.3V:



5.3 UNWANTED EMISSION STRENGTH MEASUREMENT



LIMIT

Frequency (MHz)	Limit
Under 1GHz (30MHz-312MHz, 315.25MHz-1GHz)	$\leq 250\text{nW} (-36 \text{ dBm}) / 100\text{kHz}$
1GHz to 3GHz	$\leq 1\mu\text{W} (-30 \text{ dBm})/\text{MHz}$

Temperature: 20.6 ~ 21.4°C
Humidity: 61 ~ 66% RH

Test date: October 21 ~ 22, 2025
Tested by: Marco Chan

TEST RESULT

DC 3V:

Measured Frequency		MHz	315	Result
Unwanted Emission Strength (E.I.R.P.)	30MHz-312MHz	310.5618	-91.7600	PASS
		-72.2500	310.5618	-----
	315.25MHz to1GHz	315.250	-72.2500	PASS
		-78.5800	315.250	-----
	1GHz to 3GHz	2425.73	-78.5800	PASS
		-91.7600	2425.73	-----

DC 2.7V:

Measured Frequency		MHz	315	Result
Unwanted Emission Strength (E.I.R.P.)	30MHz-312MHz	dBm/100kHz	-91.9200	PASS
		MHz	298.9434	-----
	315.25MHz to1GHz	dBm/100kHz	-72.0600	PASS
		MHz	315.25	-----
	1GHz to 3GHz	dBm/MHz	-79.0000	PASS
		MHz	2623.07	-----

DC 3.3V:

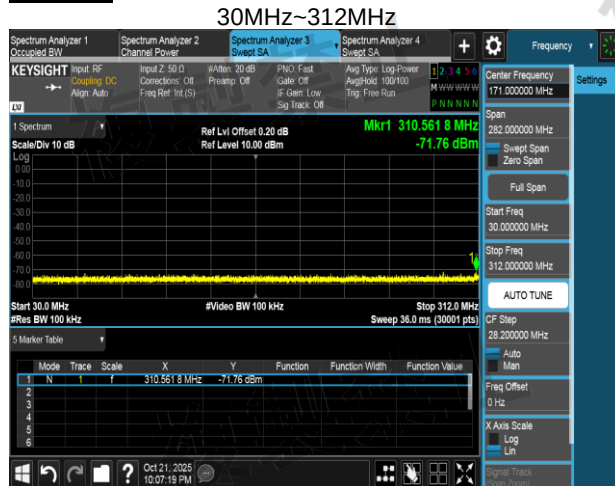
Measured Frequency		MHz	315	Result
Unwanted Emission Strength (E.I.R.P.)	30MHz-312MHz	dBm/100kHz	-92.4400	PASS
		MHz	291.2072	-----
	315.25MHz to1GHz	dBm/100kHz	-72.2600	PASS
		MHz	315.25	-----
	1GHz to 3GHz	dBm/MHz	-79.4700	PASS
		MHz	2678.8	-----

Note:

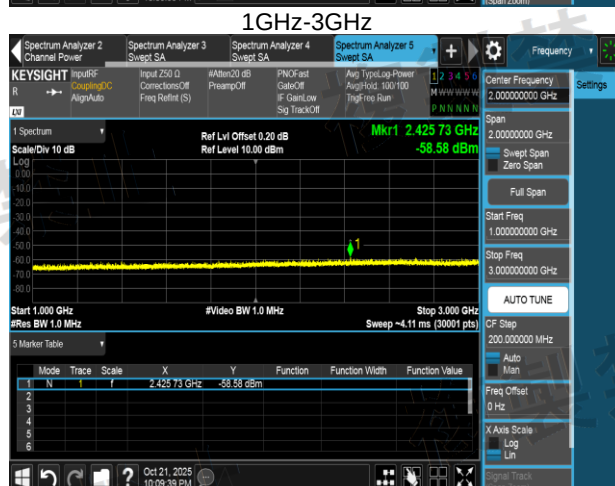
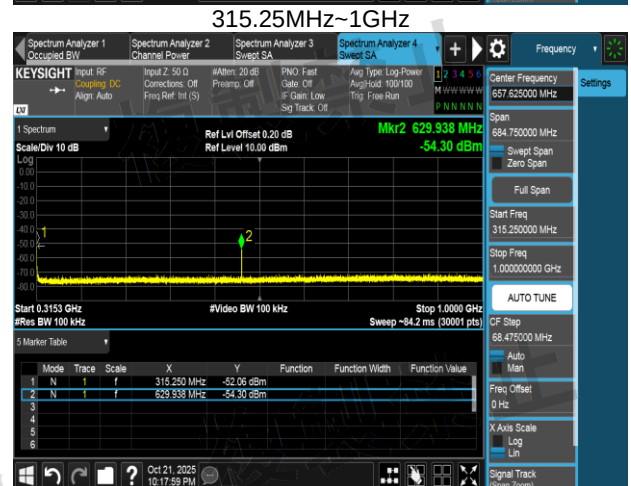
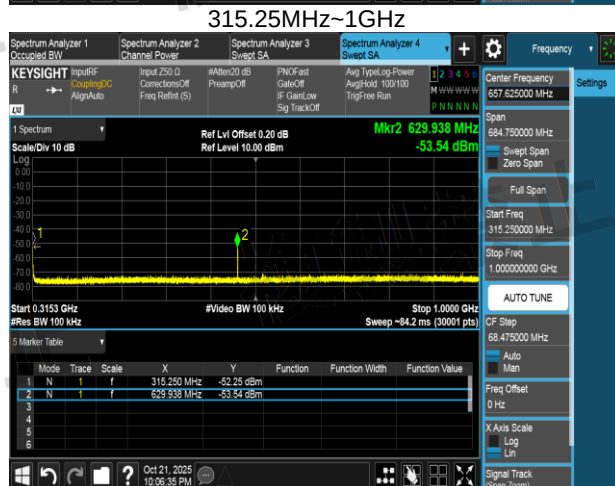
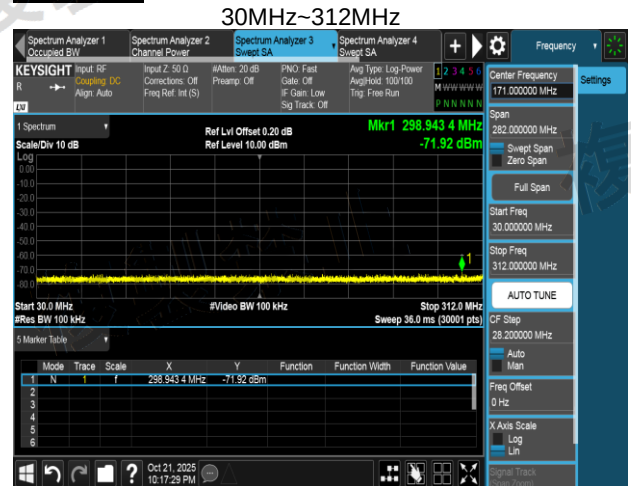
EIRP result value = measured value + antenna gain

TEST PLOTS

DC 3V:

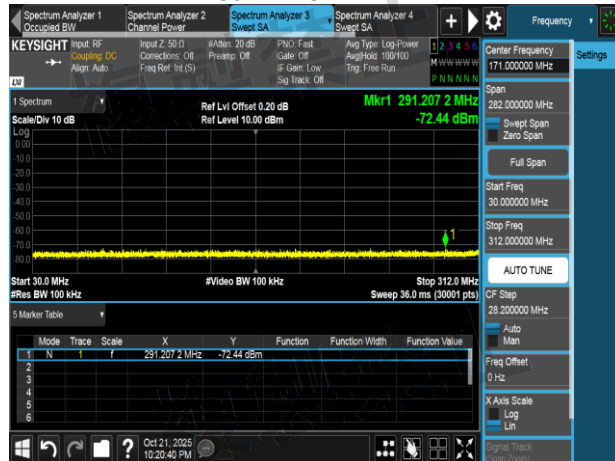


DC 2.7V:



DC 3.3V:

30MHz~312MHz



315.25MHz~1GHz



1GHz-3GHz



5.4 ANTENNA POWER (CONDUCTED) MEASUREMENT



LIMIT

RF Output Power (E.I.R.P.) $\leq 25 \mu\text{W}$.

RF Output Power Tolerance $\leq 20\%$.

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Temperature: 20.6 ~ 21.4°C
Humidity: 61 ~ 66% RH

Test date: October 21 ~ 22, 2025
Tested by: Marco Chan

TEST RESULT

DC 3V:

Measured Frequency	MHz	315	Result
RF Output Power	μW	3.013006	reference
RF Output Power (E.I.R.P.)	μW	0.030130	PASS
RF Output Power Tolerance	%	-99.88	PASS
Real Output Power (E.I.R.P.)	dBm	-45.21	reference

DC 2.7V:

Measured Frequency	MHz	315	Result
RF Output Power	μW	2.654606	reference
RF Output Power (E.I.R.P.)	μW	0.026546	PASS
RF Output Power Tolerance	%	-99.89	PASS
Real Output Power (E.I.R.P.)	dBm	-45.76	reference

DC 3.3V:

Measured Frequency	MHz	315	Result
RF Output Power	μW	2.951209	reference
RF Output Power (E.I.R.P.)	μW	0.029512	PASS
RF Output Power Tolerance	%	-99.88	PASS
Real Output Power (E.I.R.P.)	dBm	-45.3	reference

5.5 SECONDARY RADIATED EMISSION STRENGTH



LIMIT

Frequency (MHz)	Limit
30 ~ 1000MHz	$\leq 4\text{nW} (-54\text{dBm}) / 100\text{kHz}$ (E.I.R.P)
1 ~ 3GHz	$\leq 4\text{nW} (-54\text{dBm}) / \text{MHz}$ (E.I.R.P)

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Temperature: 20.6 ~ 21.4°C
Humidity: 61 ~ 66% RH

Test date: October 21 ~ 22, 2025
Tested by: Marco Chan

TEST RESULT

DC 3V:

Measured Frequency		MHz	315	Result
Secondarily Emitted Radio Wave Strength (E.I.R.P.)	Under 1GHz	nW/100kHz	0.00000009	PASS
		MHz	947.98	-----
	1GHz to 3GHz	nW/MHz	0.00003090	PASS
		MHz	2437	-----

DC 2.7V:

Measured Frequency		MHz	315	Result
Secondarily Emitted Radio Wave Strength (E.I.R.P.)	Under 1GHz	nW/100kHz	0.00000010	PASS
		MHz	777.03	-----
	1GHz to 3GHz	nW/MHz	0.00000925	PASS
		MHz	2479.73	-----

DC 3.3V:

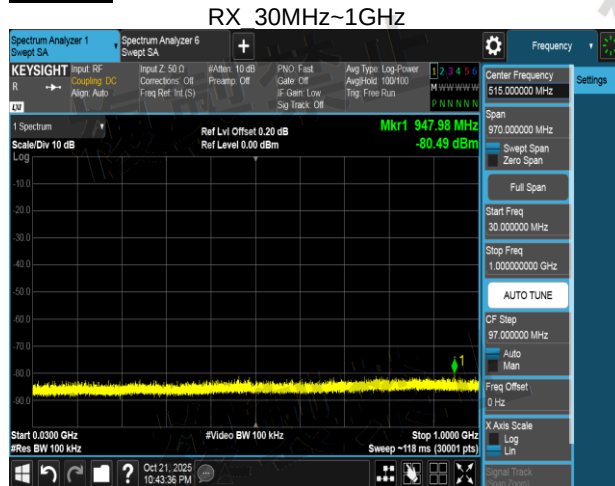
Measured Frequency		MHz	315	Result
Secondarily Emitted Radio Wave Strength (E.I.R.P.)	Under 1GHz	nW/100kHz	0.00000011	PASS
		MHz	910.02	-----
	1GHz to 3GHz	nW/MHz	0.00002553	PASS
		MHz	2402.47	-----

Note:

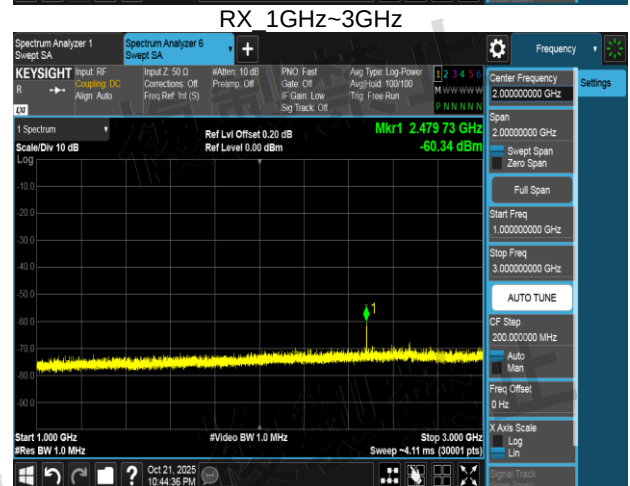
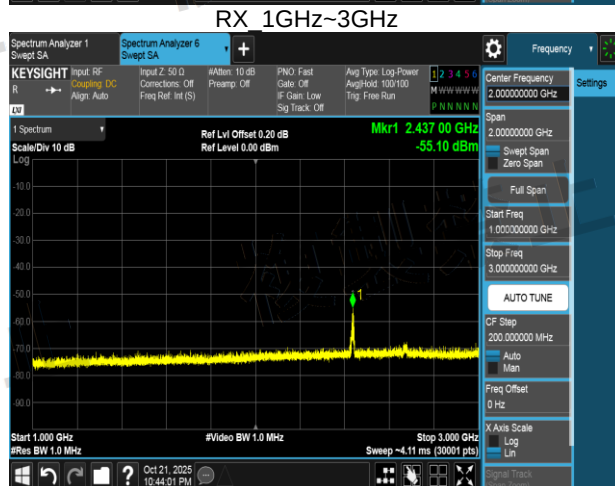
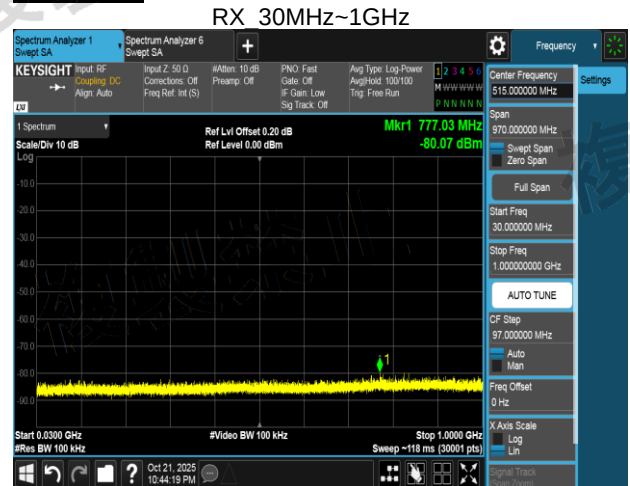
EIRP result value = measured value + antenna gain

TEST PLOTS

DC 3V:



DC 2.7V:

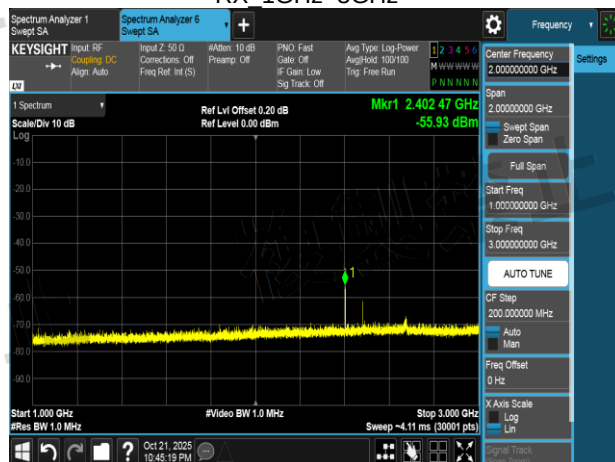


DC 3.3V:

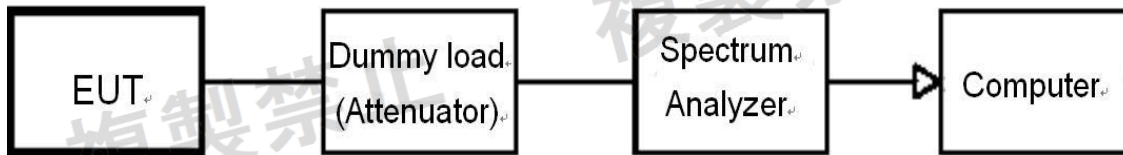
RX 30MHz~1GHz



RX 1GHz~3GHz



5.6 DWELL TIME MEASUREMENT



LIMIT

Not transmit cyclically:

No cyclical transmission: < 5 sec

Manual transmission: < 90 sec

Transmit cyclically:

One transmission ON time < 1 sec.

Transmission OFF time : 10 sec. or > 30 time's "Transmission ON Time"

Temperature: 20.6 ~ 21.4°C

Test date: October 21 ~ 22, 2025

Humidity: 61 ~ 66% RH

Tested by: Marco Chan

TEST RESULT

The sample can be switched between two modes through the switch.

Manual transmission**DC 3V:**

Measured Frequency		MHz	315	Result
Restriction Function of Transmission Time	ON time	ms	170.60	-----
	Off time	ms	425.00	-----

Note: Total transmission time=45(ms)*2+30.3(ms)*2+20(ms)=170.6(ms)**DC 2.7V:**

Measured Frequency		MHz	315	Result
Restriction Function of Transmission Time	ON time	ms	170.50	-----
	Off time	ms	426.00	-----

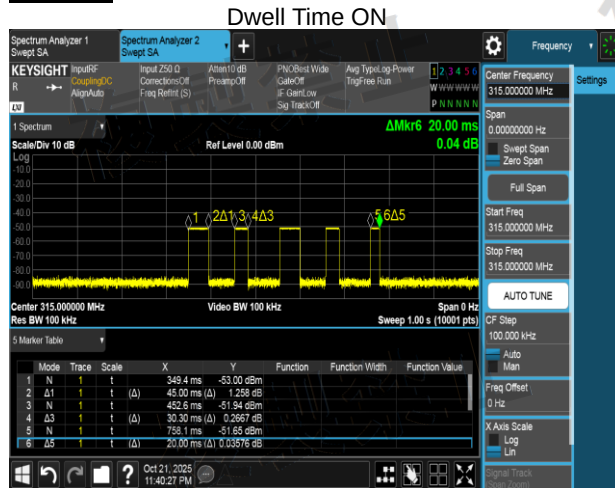
Note: Total transmission time=44.9(ms)*2+30.3(ms)*2+20.1(ms)=170.5(ms)**DC 3.3V:**

Measured Frequency		MHz	315	Result
Restriction Function of Transmission Time	ON time	ms	170.50	-----
	Off time	ms	426.00	-----

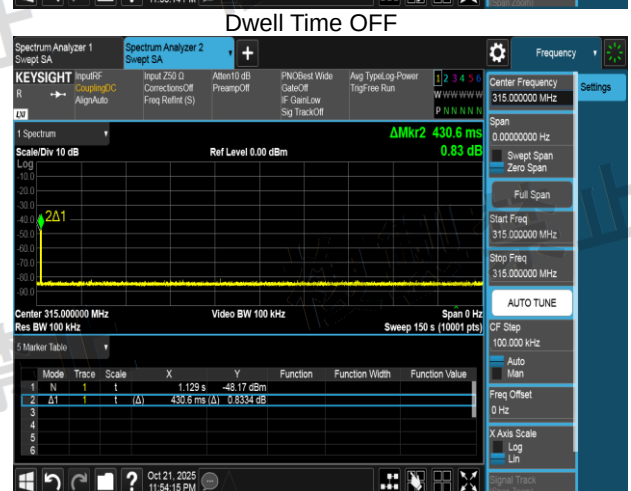
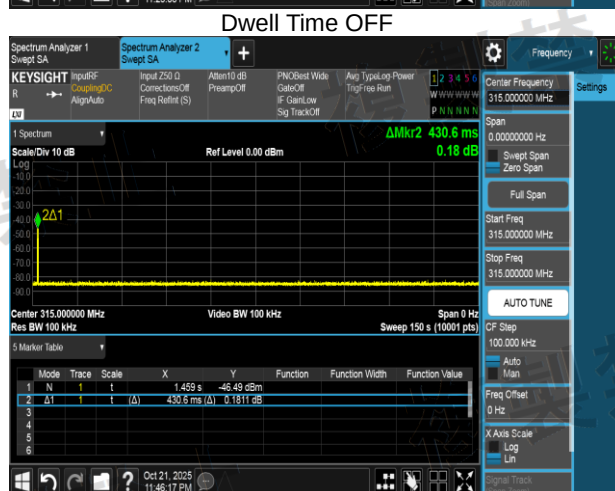
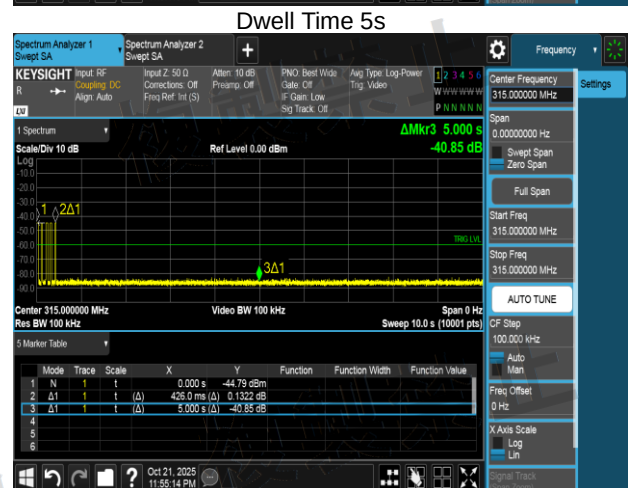
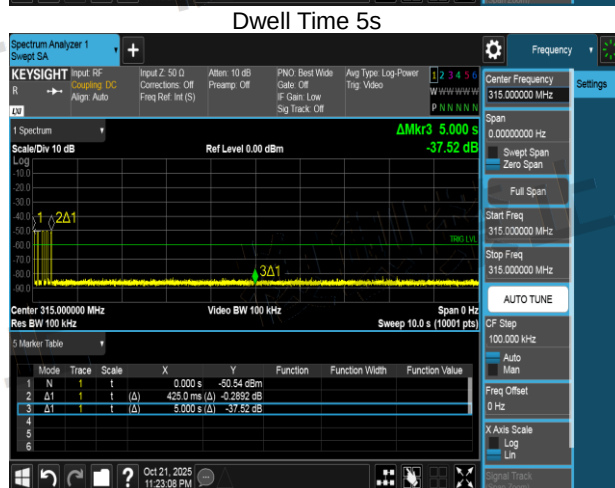
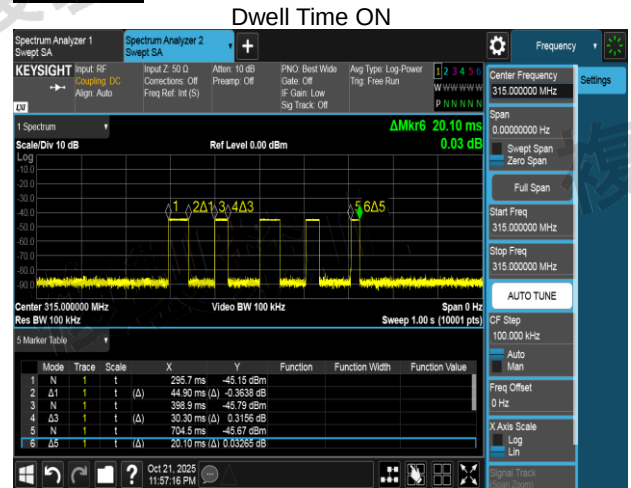
Note: Total transmission time=44.9(ms)*2+30.3(ms)*2+20.1(ms)=170.5(ms)

TEST PLOTS

DC 3V:

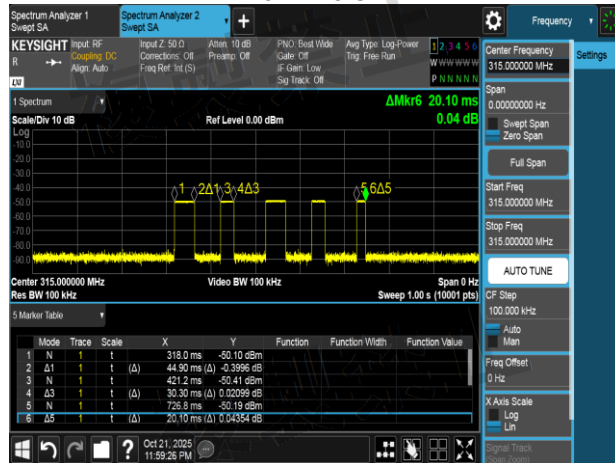


DC 2.7V:



DC 3.3V:

Dwell Time ON



Dwell Time 5s



Dwell Time OFF



--End of Test Report--