

1 Cover Page

TEST REPORT

Application No.: KSCR2607001838AU
Applicant: JIANGSU MINDCRUISE TECHNOLOGY CO.,LTD
Address of Applicant: 1-4 FLOORS ON THE NORTH SIDE OF THE NO. 3 FACTORY BUILDING OF GAOCHUANG PARK, HIGH-TECH ZONE, YANDU DISTRICT, YANCHENG CITY (D), JIANGSU PROVINCE,China
Manufacturer: JIANGSU MINDCRUISE TECHNOLOGY CO.,LTD
Address of Manufacturer: 1-4 FLOORS ON THE NORTH SIDE OF THE NO. 3 FACTORY BUILDING OF GAOCHUANG PARK, HIGH-TECH ZONE, YANDU DISTRICT, YANCHENG CITY (D), JIANGSU PROVINCE,China
Equipment Under Test (EUT):
EUT Name: Automotive Radar
Model No.: V2
Standard(s) : Item 8 of Article 2-1
Test Method: Test method temporarily determined by TAC
Date of Receipt: 2026-07-28
Date of Test: 2026-07-29 to 2026-08-19
Date of Issue: 2026-08-20

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Revision Record			
Version	Description	Date	Remark
00	Original	2026-08-20	/

Authorized for issue by:			
Tested By		Maker Qi	
		Maker_Qi/Project Engineer	
Approved By		Terry Hou	
		Terry Hou /Reviewer	

2 Test Summary

Test	Test Requirement	Limit/Severity	Result
Antenna Requirement	Item 8 of Article 2-1	/	PASS
Assigned Frequency Tolerance of Frequency		57.0GHz-64.0GHz	PASS
Occupied bandwidth		7GHz	PASS
Antenna Power		10mW or less	PASS
Spurious Emission of Tx		Below 55.62GHz: -30dBm/MHz 55.62GHz-57GHz: -26dBm/MHz 64GHz-67.5GHz: -26dBm/MHz Above 67.5GHz: -30dBm/MHz	PASS
Spurious Emission of Rx		Below 55.62GHz: -30dBm/MHz 55.62GHz-57GHz: -26dBm/MHz 64GHz-67.5GHz: -26dBm/MHz Above 67.5GHz: -30dBm/MHz	PASS
Transmission Time		Sum of transmission time per 33 ms less than 3.3 ms	PASS
RF accessibility		/	PASS

Remark: EUT: In this whole report EUT means Equipment Under Test.

Tx: In this whole report Tx (or tx) means Transmitter.

Rx: In this whole report Rx (or rx) means Receiver.

RF: In this whole report RF means Radio Frequency.

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4 General Information

4.1 Details of E.U.T.

Power supply:	DC 9-16V
Test Voltage:	DC 12V
Operation Frequency:	57GHz-64GHz
Modulation:	FMCW
Antenna Type:	Integrated Patch Antenna
Antenna Gain:	5.6dBi(Provided by the manufacturer)

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Notebook	LENOVO	T14	/
USB to CAN(FD)-bus Interface	/	/	/
DC Power Supply	Agilent	E3632A	/

4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4×10^{-8}
2	Timeout	2s
3	Duty Cycle	0.37%
4	Occupied Bandwidth	3%
5	RF Conducted Power	0.6dB
6	RF Power Density	2.9dB
7	Conducted Spurious Emissions	0.75dB
8	RF Radiated Power	5.2dB (Below 1GHz) 5.9dB (Above 1GHz)
9	Radiated Spurious Emission Test	4.2dB (Below 30MHz) 4.5dB (30MHz-1GHz) 5.1dB (1GHz-18GHz) 5.4dB (Above 18GHz)
10	Temperature Test	1°C
11	Humidity Test	3%
12	Supply Voltages	1.5%
13	Time	3%

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

4.4 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888

Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

- 1.SGS is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc) is provided by the applicant. (if applicable).
- 2.SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable).
3. Sample source: sent by customer.

4.5 Test Facility

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

- **A2LA**

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

- **FCC**

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

- **ISED**

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

- **VCCI**

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

5 Equipment List

Item	Equipment	Manufacturer	Model	Serial Number	Cal Date	Cal. Due Date	Cal body	Certifier
1	Spectrum Analyzer	Keysight	N9020A	MY55370209	07/07/2026	07/06/2027	SGS	(c)
2	Spectrum Analyzer	Keysight	N9020A	MY53420174	07/07/2026	07/06/2027	SGS	(c)
3	Spectrum Analyzer	Keysight	N9030B	MY61330164	12/17/2025	12/16/2026	SGS	(c)
4	Signal Generator	R&S	SMBV100B	103571	12/17/2025	12/16/2026	SGS	(c)
5	Signal Generator	R&S	SMW200A	110074	07/07/2026	07/06/2027	SGS	(c)
6	Signal Generator	Agilent	N5182A	MY50142015	07/07/2026	07/06/2027	SGS	(c)
7	Radio Communication Test Station	Anritsu	MT8000A	6262012849	07/07/2026	07/06/2027	SGS	(c)
8	Radio Communication Analyzer	Anritsu	MT8821C	6201692222	12/17/2025	12/16/2026	SGS	(c)
9	Universal Radio Communication Tester	R&S	CMW500	159275	07/07/2026	07/06/2027	SGS	(c)
10	Switcher	TST	FY562	/	12/17/2025	12/16/2026	SGS	(c)
11	Temp. / Humidity Chamber	TERCHY	MHK-120AK	X30109	07/07/2026	07/06/2027	SGS	(c)
12	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	1032844	12/30/2025	12/29/2026	SGS	(c)
13	Software	BST	TST-PASS	/	NCR	NCR	N/A	/

Remark:

- (a) Calibration conducted by the National Institute of Information and Communications Technology (NICT) in Japan (hereinafter referred to as "NICT") or a designated calibration agency under Article 102-18 paragraph (1) in JRL.
- (b) Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Act (Act No. 51 of 1992).
- (c) Calibration conducted in countries except Japan, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1).
- (d) Calibration, etc. conducted by using measuring instruments and other equipment listed in the right column of appended table No. 3, which shall have been given any type of calibration, etc. listed above from (a) to (c).

From JRL Article 24-2, paragraph 4, Item 2

Notice: Calibration duration for above equipments is 1 year.

6 Test Results

6.1 Radio Technical Requirements Specification

Table 1: Radio Technical Requirements Specification for 60-64GHzband specific low-power system
(Item 8 of Article 2-1)

Items	Technical standard
Assigned frequency (Frequency range)	60.5GHz (57GHz-64GHz)
Tolerance of frequency	57GHz-64GHz
Tolerance of occupied bandwidth	7GHz
Tolerance of spurious emission intensity	Below 55.62GHz: -30dBm/MHz 55.62GHz-57GHz: -26dBm/MHz 64GHz-67.5GHz: -26dBm/MHz Above 67.5GHz: -30dBm/MHz
Antenna power	10mW or less Tolerance:+50%,-70%
Limit of secondary radiated emissions	Below 55.62GHz: -30dBm/MHz 55.62GHz-57GHz: -26dBm/MHz 64GHz-67.5GHz: -26dBm/MHz Above 67.5GHz: -30dBm/MHz
Transmission Time	Sum of transmission time per 33 ms less than 3.3 ms

6.2 E.U.T. test conditions

Environment:	Temperature:	20.0 -25.0 °C	
	Humidity:	51 % RH	
	Atmospheric Pressure:	99.2 -102.0 kPa	
	Operating Environment:	Temperature: 25.2 °C Humidity: 48.3 % RH Atmospheric Pressure: 101.3 kPa	
Power supply:	Test Voltage: rated voltage and ±10% of the rated voltage. The product is supplied by DC 12V. The fluctuation of input voltage to the circuit of RF unit of test equipment is under ±1%, when input voltage to the test equipment is fluctuated by ±10%. So, all measurement has been conducted by only rated voltage DC 12V.		
	Test Mode Classify	Power Supply	Measured Value
	TM 1	DC 12V	DC 3.3V
	TM 2	DC 10.8V	DC 3.3V
	TM 3	DC 13.2V	DC 3.3V
Test frequencies:	If the EUT can be set to 3 of more different (carrier) frequencies in 1 allocated band, testing shall be performed using the Lowest, Middle and the Highest frequency (L, M and H). If there are 2 or fewer frequencies, testing shall be performed with the available frequencies.		

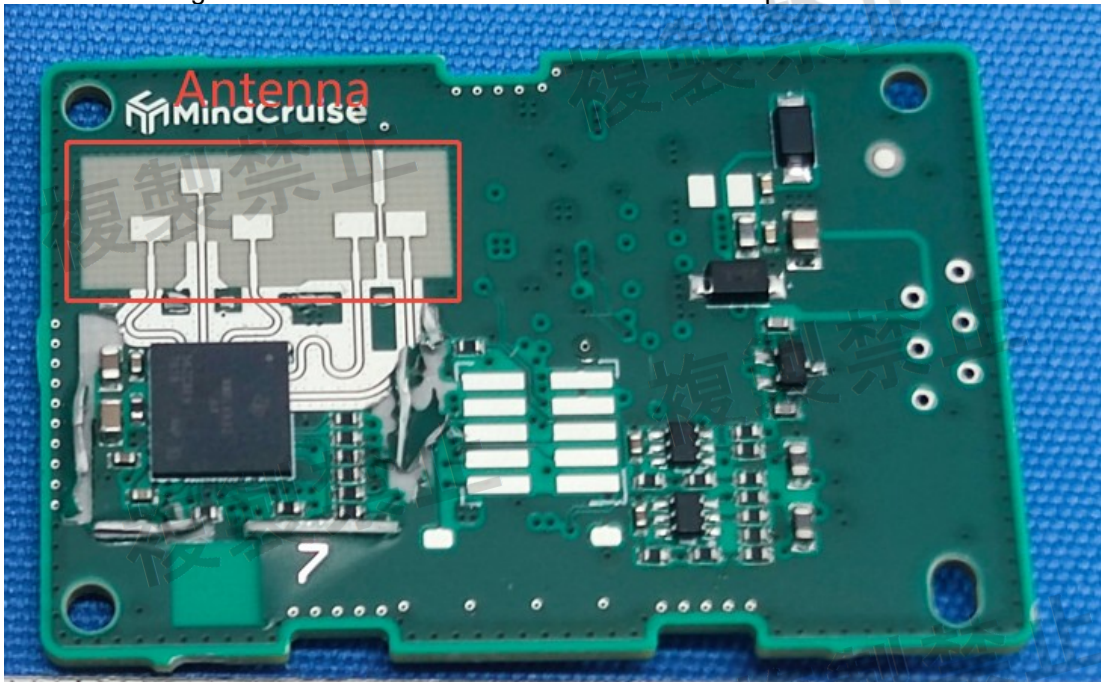
6.3 Antenna Requirement

Standard requirement

Applicable for equipment with an antenna terminal, including testing terminals) If an antenna connector is available, all relevant tests will be carried out conducted. If not, tests will be carried out in an anechoic room or with a suitable test-fixture.

EUT Antenna

The antenna is Integrated Patch Antenna and no consideration of replacement.



6.4 Assigned Frequency and Tolerance of Frequency

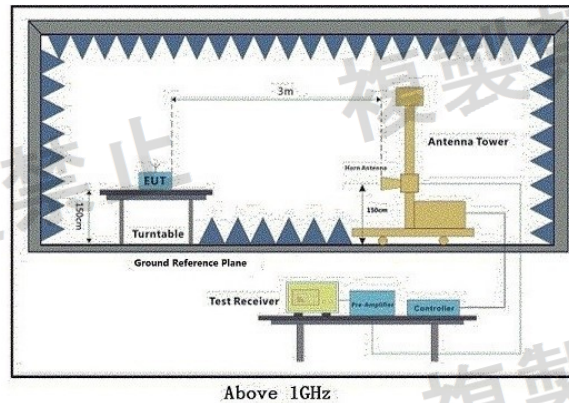
Test Requirement: Item 8 of Article 2-1

Frequency Range: 57.0GHz-64.0GHz

Text Method: Test method temporarily determined by TAC

Test Status: Test the EUT in transmitting mode without modulation.

Test Configuration:



Test Procedure:

- 1) Test Conditions:
Spectrum Analyzer is used for measurement.
- 2) EUT Conditions:
CW Tx
- 3) Spectrum Analyzer conditions:
Frequency: Test Frequency
Span: 4.5GHz
RBW: 8MHz
VBW: 8MHz
Sweep Time: Auto
Detector mode: Positive Peak
Sweep mode: Max Hold

Test Data:

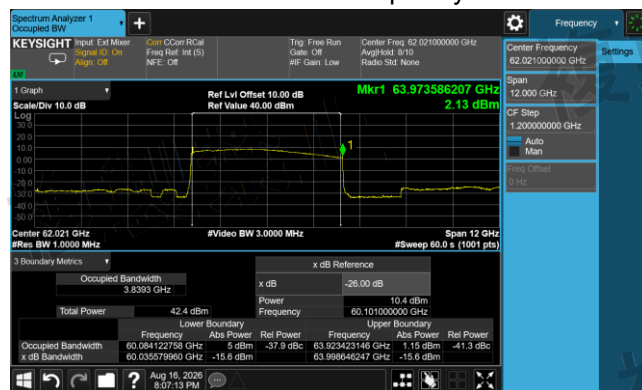
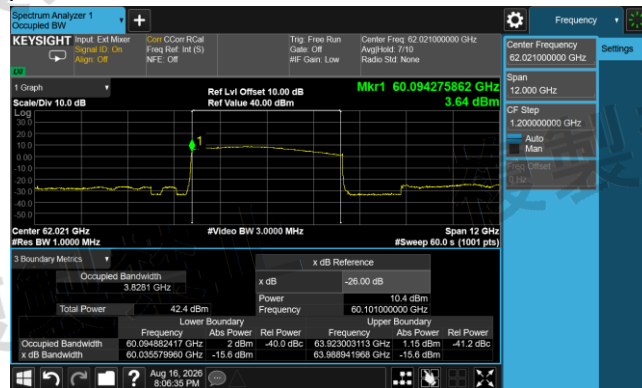
Test Frequency (GHz)	Frequency Range (GHz)			Limit	Result
	TM 1	TM 2	TM 3		
57-64	60.09427~63.97358	/	/	57-64GHz	Pass

Test Frequency (GHz)	Error(ppm)			Limit (ppm)	Result
	TM 1	TM 2	TM 3		
57-64	208.39*10 ⁻⁶	/	/	±500*10 ⁻⁶	Pass

Note: The nominal frequency shall be confirmed by the applicant and test lab.

Test plots as below:

Test mode: TM 1



6.5 Occupied Bandwidth (99%)

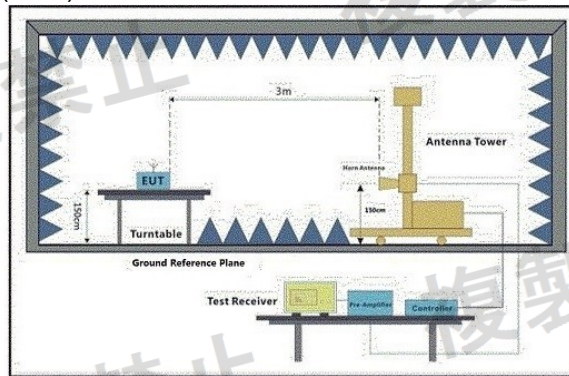
Test Requirement: Item 8 of Article 2-1

7GHz

Test Method: Test method temporarily determined by TAC

Test Status: Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.

Test Configuration:



Above 1GHz

Test Procedure:

1) Test Conditions:

Spectrum Analyzer is used for measurement.

2) EUT conditions:

CW Tx

3) Spectrum Analyzer conditions:

Frequency: Test Frequency

Span: $2 \sim 3 \times \text{OBW}$

RBW: $\sim 1\% \text{OBW}$

VBW: $\sim 1\% \text{OBW}$

Sweep Time: Auto

Detector mode: Positive Peak

Sweep mode: Max Hold

6.6 Antenna Power

Test Requirement: Item 8 of Article 2-1

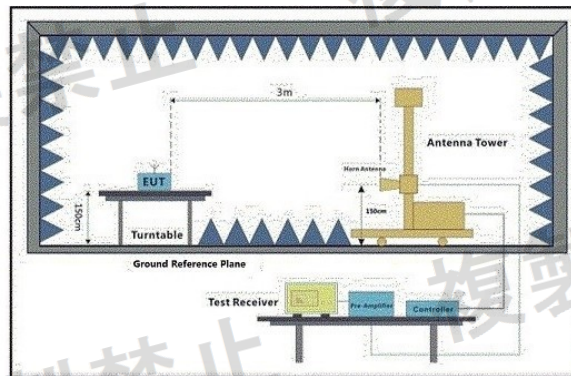
10mW or less

Text Method: Test method temporarily determined by TAC

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Test Status: Following channel(s) was (were) selected for the final test as listed below.

Test Configuration:



Test Procedure:

- 1) Test Conditions:
Power sensor is used for measurement.
- 2) EUT conditions:
CW Tx
- 3) Power sensor conditions:
Searching the frequency the frequency that gives maximum antenna power
Frequency: Test Frequency
Measure the Peak power of the transmitter.

6.7 Spurious Emissions of TX

Test Requirement: Item 8 of Article 2-1

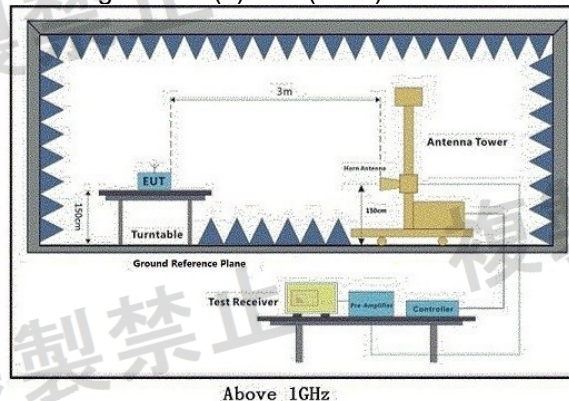
Text Method: Test method temporarily determined by TAC

Below 55.62GHz: -30dBm/MHz
55.62GHz-57GHz: -26dBm/MHz
64GHz-67.5GHz: -26dBm/MHz
Above 67.5GHz: -30dBm/MHz

Test Status: Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Following channel(s) was (were) selected for the final test as listed below.

Test Configuration:



Test Procedure:

1) Test Conditions:

Spectrum Analyzer is used for measurement.

2) EUT conditions:

CW Tx

3) Spectrum Analyzer conditions:

Step 1: All spurious are measured from 30 MHz to 67.5 GHz by peak mode.

Step 2: If the value measured by Step 1 is 2 dB or less, measure in average mode.

Test setup for Step 1:

Frequency: 30MHz-1GHz, 1GHz-67.5GHz

RBW 100 kHz (30-1GHz), 1 MHz (over 1GHz)

VBW 100 kHz (30-1GHz), 1 MHz (over 1GHz)

Sweep Time Auto

detector mode Positive peak

Indication mode Max hold

Test setup for Step 2:

Frequency: Spurious Frequency

RBW 100 kHz (30-1GHz), 1 MHz (over 1GHz)

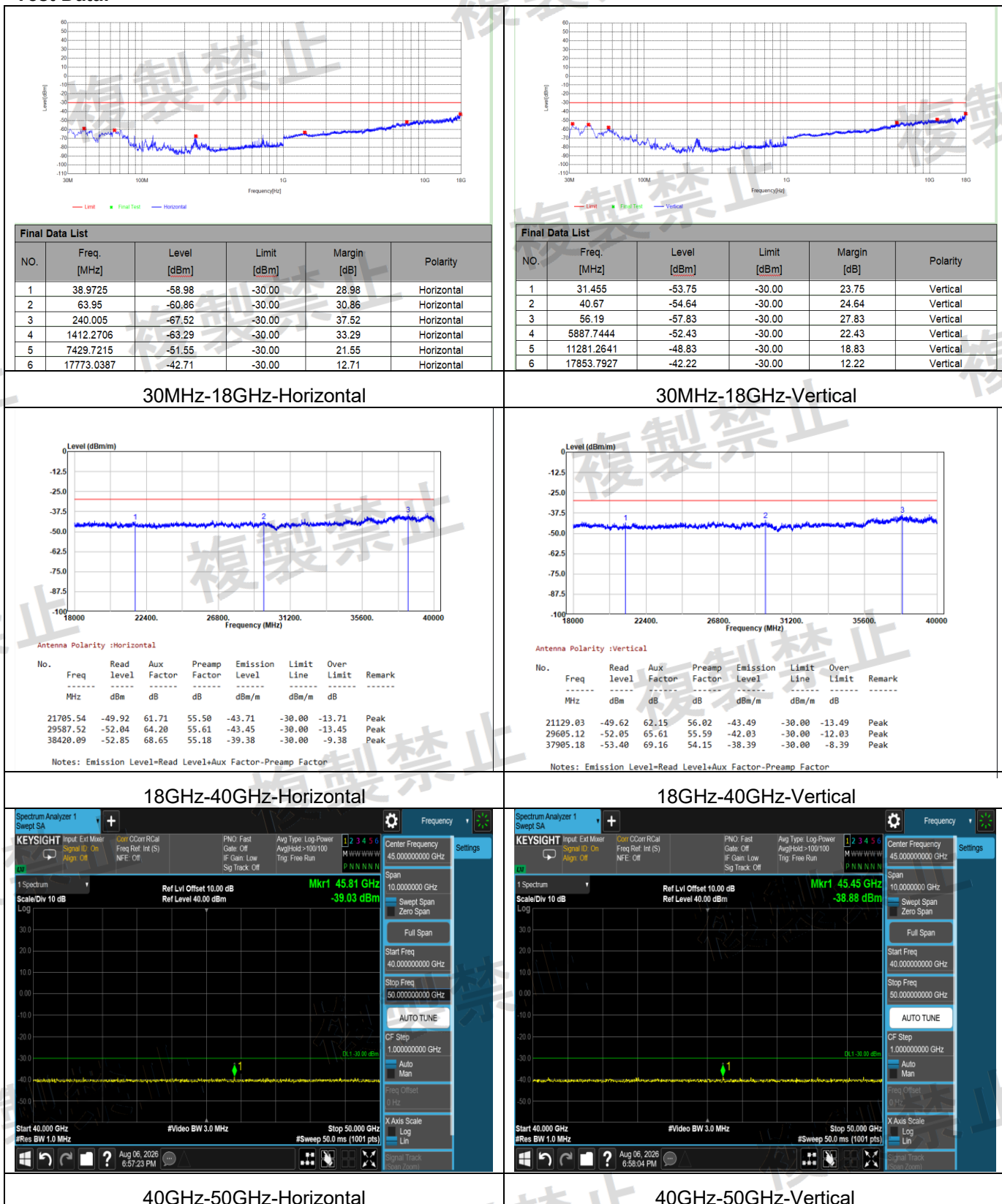
VBW 100 kHz (30-1GHz), 1 MHz (over 1GHz)

Sweep Time Auto

detector mode Sample

Indication mode Max hold

Test Data:

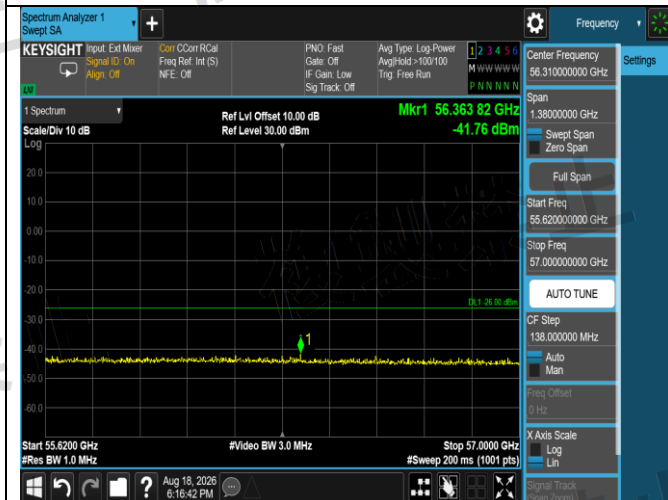




50GHz-55.62GHz-Horizontal



50GHz-55.62GHz-Vertical



55.62GHz-57GHz-Horizontal



55.62GHz-57GHz-Vertical



64GHz-67.5GHz-Horizontal



64GHz-67.5GHz-Vertical



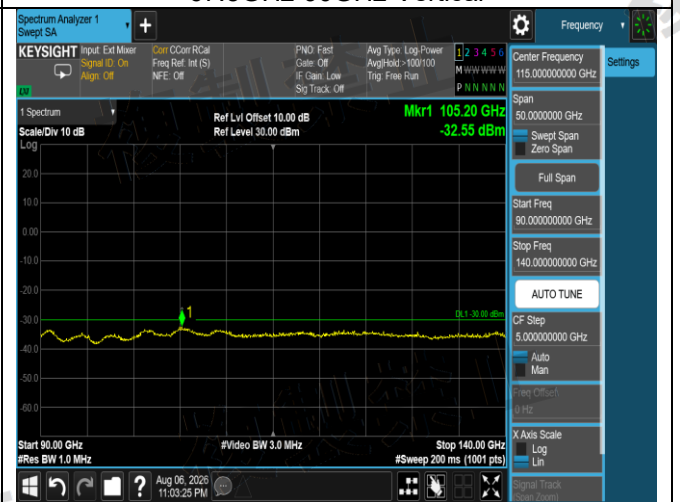
67.5GHz-90GHz-Horizontal



67.5GHz-90GHz-Vertical



90GHz-140GHz-Horizontal



90GHz-140GHz-Vertical

6.8 Spurious Emissions of Rx

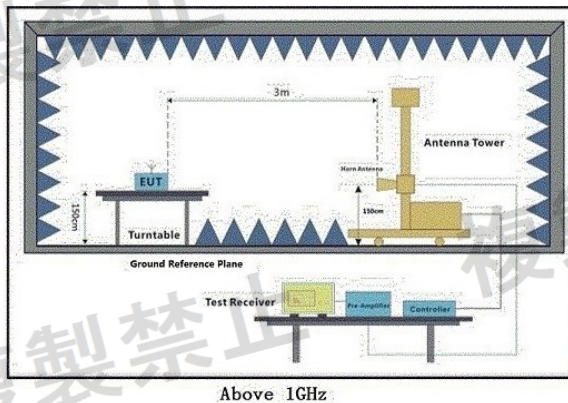
Test Requirement: Item 8 of Article 2-1

Text Method: Test method temporarily determined by TAC

Below 55.62GHz: -30dBm/MHz
55.62GHz-57GHz: -26dBm/MHz
64GHz-67.5GHz: -26dBm/MHz
Above 67.5GHz: -30dBm/MHz

Test Status: Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.

Test Configuration:



Test Procedure:

1) Test Conditions:

Spectrum Analyzer is used for measurement.

2) EUT conditions:

CW Tx

3) Spectrum Analyzer conditions:

Step 1

All spurious are measured from 30 MHz to 67.5 GHz by peak mode.

Step 2

IF the value measured by Step1 is 2 dB or less, measure in average mode.

Test setup for Step 1:

Frequency: 30MHz – 1GHz , 1GHz –67.5GHz

RBW 100 kHz (30 – 1GHz) , 1 MHz (over 1GHz)

VBW 100 kHz (30 – 1GHz) , 1 MHz (over 1GHz)

Sweep Time Auto

detector mode Positive peak

Indication mode Max hold

Test setup for Step 2:

Frequency: Spurious Frequency

RBW 100kHz (30–1GHz) , 1 MHz (over 1GHz)

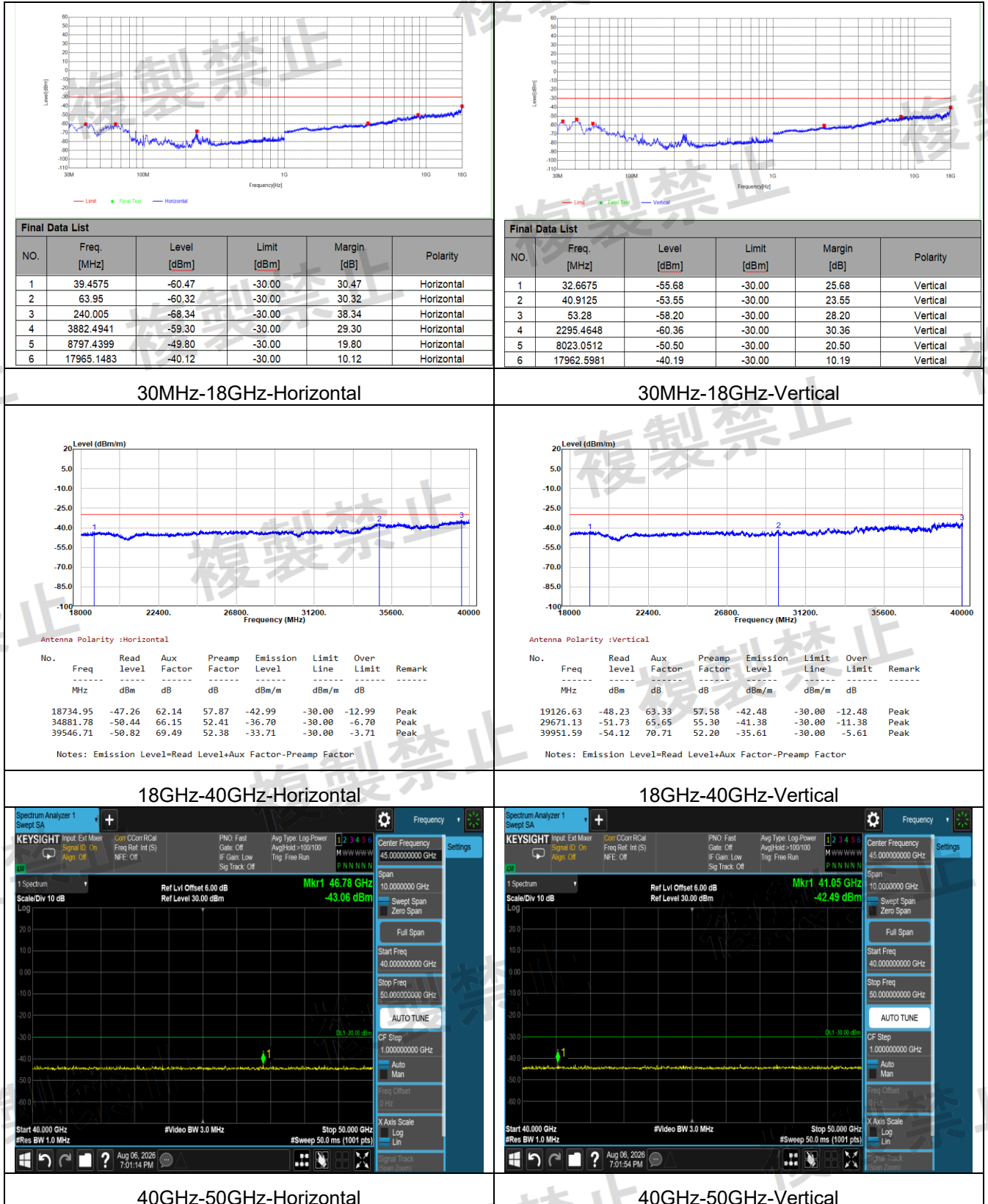
VBW 100kHz (30–1GHz) , 1 MHz (over 1GHz)

Sweep Time Auto

detector mode Sample

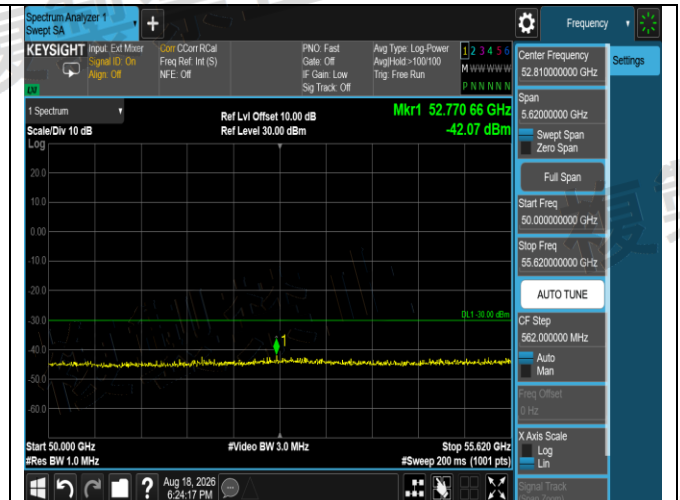
Indication mode Max hold

Test Data:

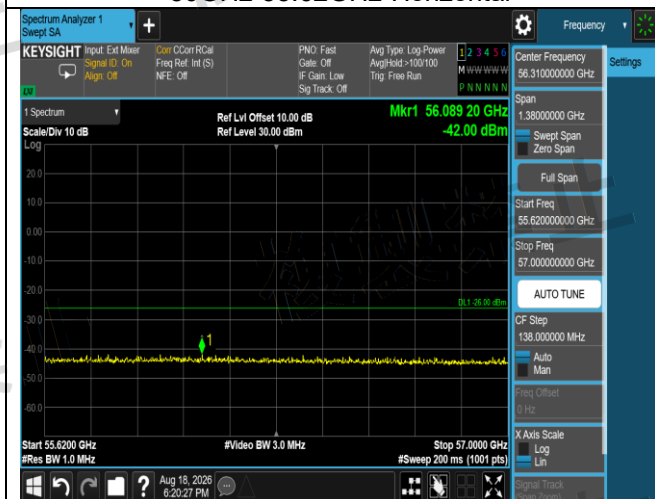




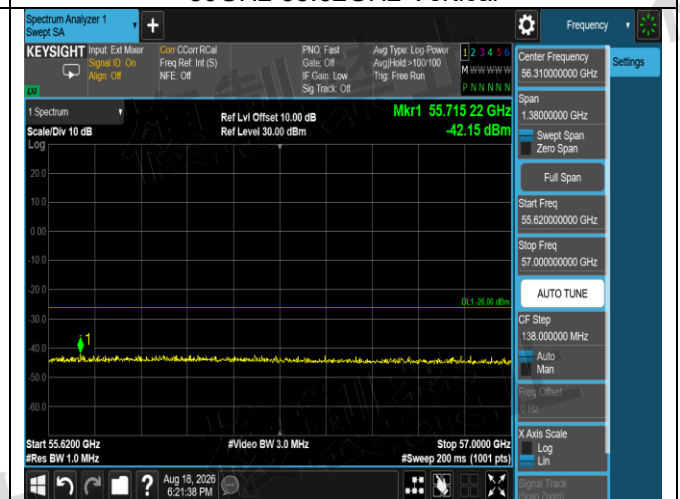
50GHz-55.62GHz-Horizontal



50GHz-55.62GHz-Vertical



55.62GHz-57GHz-Horizontal



55.62GHz-57GHz-Vertical



64GHz-67.5GHz-Horizontal



64GHz-67.5GHz-Vertical



67.5GHz-90GHz-Horizontal



67.5GHz-90GHz-Vertical



90GHz-140GHz-Horizontal



90GHz-140GHz-Vertical

6.9 Transmission time

Test Requirement: Item 8 of Article 2-1

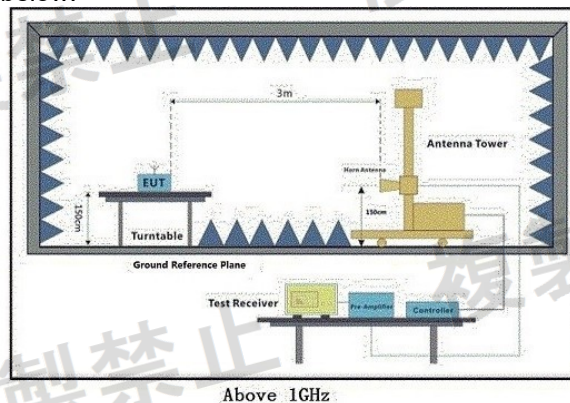
Sum of transmission time per 33 ms less than 3.3 ms

Text Method: Test method temporarily determined by TAC

Test Status:

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
Following channel(s) was (were) selected for the final test as listed below.

Test Configuration:



Test Procedure:

1) Test Conditions:

Spectrum Analyzer is used for measurement.

2) EUT conditions:

CW Tx

3) Spectrum Analyzer conditions:

Frequency: Test Frequency

Span: 0Hz

RBW: set as large as possible to Spectrum Analyzer

VBW: as same with RBW

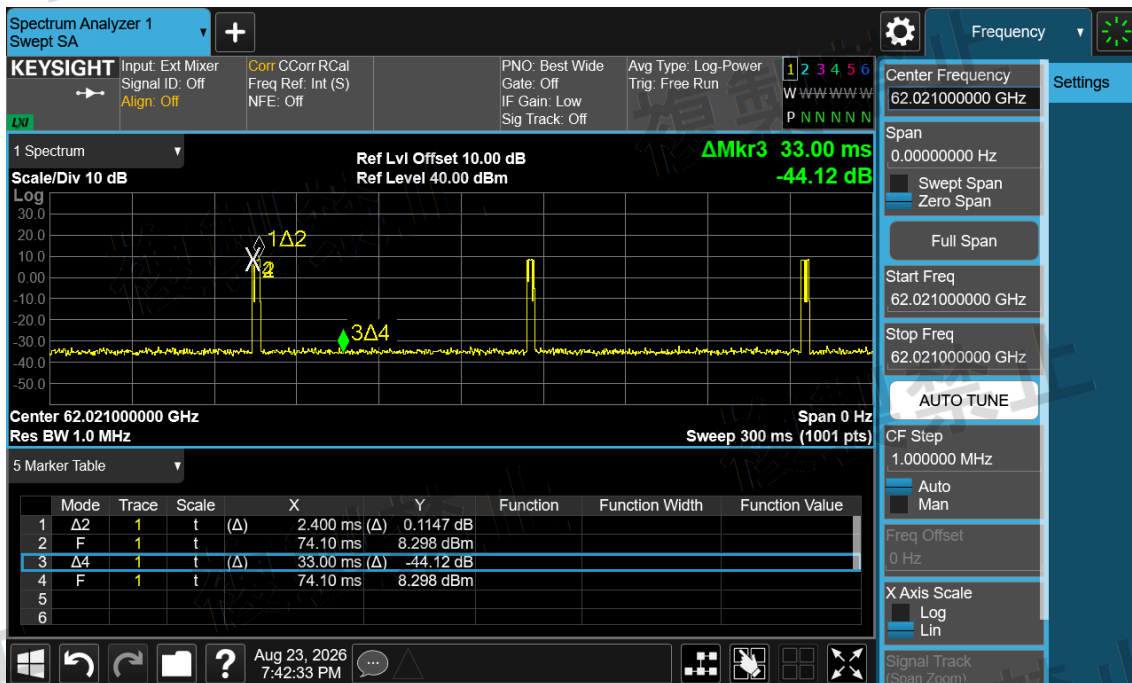
Sweep Time: more than 33ms

Detector mode: Positive Peak

Sweep mode: Max Hold

Test Data:

Test Item	Record data	Limit	Result
Transmission time	2.4ms	Sum of transmission time per 33 ms less than 3.3 ms	Pass



6.10 RF accessibility

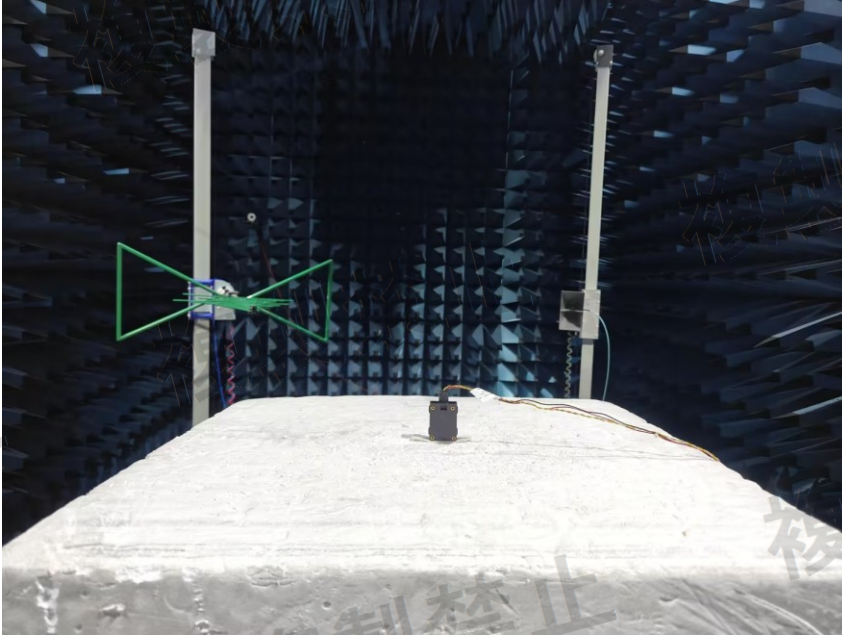
The EUT shall be constructed in such a way that sensitive RF parts, (like modulation and oscillator parts) cannot be reached easily by the user. These parts shall be covered by soldered metal caps or glue or by other mechanical covers. If the covers are fixed with screws, these shall be not the common type(s) like a Phillips, but special versions like Torx, so that the user cannot open the device with common tools.

The outer casing of the EUT consists of two parts: the housing and the radome, which are fixed together by laser welding.

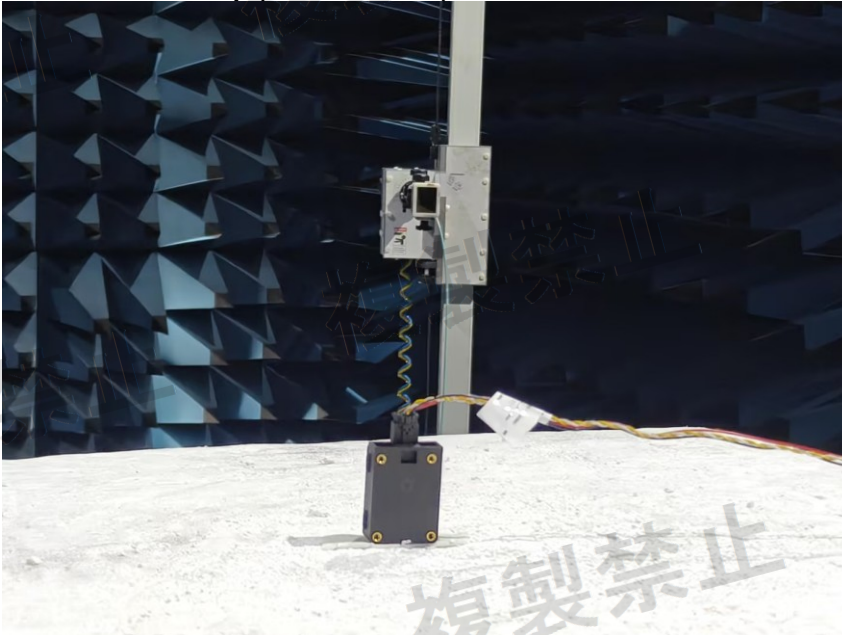


7 Test Setup Photo

Radiated test setup (30MHz-18GHz)



Radiated test setup (18GHz-40GHz)



Radiated test setup (Above 40GHz)



8 EUT Constructional Details (EUT Photos)

Refer to Appendix - Photographs of EUT Constructional Details for KSCR2607001838AU

--End of the Report--