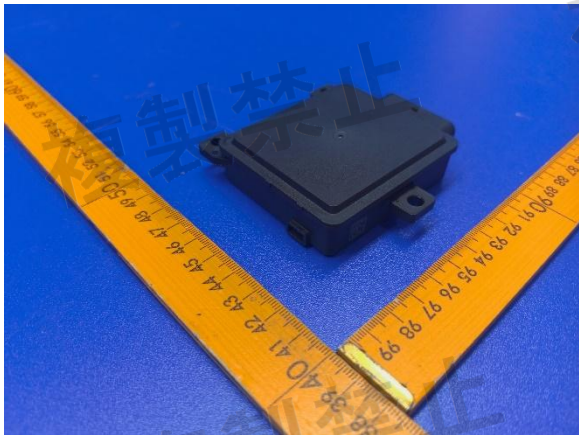


Prüfbericht-Nr.: Test report no.:	CN26MGXJ 001	Auftrags-Nr.: Order no.:	27227047	Seite 1 von 21 Page 1 of 21
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2026-04-01	
Auftraggeber: Client:	Bosch Automotive Products (Suzhou) Co., Ltd. 126 Su Hong Xi Road, Suzhou 215021, Jiangsu, P.R. CHINA			
Prüfgegenstand: Test item:	CR60 Light			
Bezeichnung / Typ-Nr.: Identification / Type no.:	C6AH0			
Auftrags-Inhalt: Order content:	Test Report			
Prüfgrundlage: Test specification:	Article 2 Paragraph 1 of Item 8			
Wareneingangsdatum: Date of sample receipt:	2026-03-26			
Prüfmuster-Nr.: Test sample no.:	A004230551-001~002			
Prüfzeitraum: Testing period:	2026-04-02 - 2026-04-11			
Ort der Prüfung: Place of testing:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: Test result*:	Pass			
geprüft von: tested by:			genehmigt von: authorized by:	
Datum: Date:	2026-04-15	Signed by: Lin Lin	Ausstellungsdatum: Issue date:	2026-04-15
Stellung / Position:	Sachverständige(r)/Expert		Stellung / Position:	Sachverständige(r)/Expert
Sonstiges / Other:				
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:	Prüfmuster vollständig und unbeschädigt Test item complete and undamaged			
* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n)	F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
* Legend:	P(ass) = passed a.m. test specification(s)	F(ail) = failed a.m. test specification(s)	N/A = not applicable	N/T = not tested
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

Prüfbericht-Nr.: CN26MGXJ 001
Test report no.:

Seite 2 von 21
Page 2 of 21

Anmerkungen
Remarks

1	Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben. Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden. <i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i>
2	Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben. Informationen zur Verifizierung der Authentizität unserer Dokumente erhalten Sie auf folgender Webseite: go.tuv.com/digital-signature <i>As contractually agreed, this document has been signed digitally only. TUV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TUV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged. For information on verifying the authenticity of our documents, please visit the following website: go.tuv.com/digital-signature</i>
3	Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt. <i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.</i> <i>Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i>
4	Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2023, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019. <i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2023, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i>

Prüfbericht - Nr.: CN26MGXJ 001
Test Report No.:

Seite 3 von 21
Page 3 of 21

Contents

1	GENERAL REMARKS	5
1.1	COMPLEMENTARY MATERIALS	5
2	TEST SITES	6
2.1	TEST FACILITIES	6
2.2	LIST OF TEST AND MEASUREMENT INSTRUMENTS.....	6
2.3	UNCERTAINTY OF MEASUREMENT	7
3	GENERAL PRODUCT INFORMATION	8
3.1	PRODUCT FUNCTION AND INTENDED USE.....	8
3.2	RATINGS AND SYSTEM DETAILS	8
3.3	ANTENNA PATTERN	9
3.4	PRODUCT HOUSING	9
3.5	DUTY CYCLE	9
3.6	NOISE GENERATING AND NOISE SUPPRESSING PARTS.....	9
3.7	SUBMITTED DOCUMENTS.....	10
4	TEST SET-UP AND OPERATION MODES	11
4.1	PRINCIPLE OF CONFIGURATION SELECTION	11
4.2	TEST OPERATION AND TEST SOFTWARE.....	11
4.3	SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT	11
4.4	COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE.....	11
5	TEST RESULTS	12
5.1	ANTENNA REQUIREMENT	12
5.1.1	Limit of Antenna	12
5.1.2	Test Results	12
5.2	ASSIGNED FREQUENCY AND FREQUENCY TOLERANCE.....	13
5.2.1	Limits of Assigned Frequency and Frequency Tolerance.....	13
5.2.2	Test Setup	13
5.2.3	Test Procedure.....	13
5.2.4	Test Results	13
5.3	OCCUPIED BANDWIDTH (99%OBW).....	14
5.3.1	Limits of Occupied Bandwidth (99%OBW).....	14
5.3.2	Test Setup	14
5.3.3	Test Procedure.....	14
5.3.4	Test Results	14
5.4	SPURIOUS EMISSION OR UNWANTED EMISSION INTENSITY OF TX.....	15
5.4.1	Limits of Spurious Emissions of Tx	15
5.4.2	Test Setup	15
5.4.3	Test Procedure.....	15
5.4.4	Test Results	15
5.5	LIMIT OF INCIDENTALLY PRODUCED EMISSIONS OF RX	16
5.5.1	Limits of Spurious Emissions of Rx.....	16

Prüfbericht - Nr.: CN26MGXJ 001
Test Report No.:

Seite 4 von 21
Page 4 of 21

5.5.2	Test Setup	16
5.5.3	Test Procedure	16
5.5.4	Test Results	16
5.6	ANTENNA POWER AND ANTENNA POWER TOLERANCE	17
5.6.1	Limits of Antenna Power and Antenna Power Tolerance	17
5.6.2	Test Setup	17
5.6.3	Test Procedure	17
5.6.4	Test Results	17
5.7	STOP OF TRANSMISSION AT TIMES OTHER THAN MEASUREMENT	18
5.7.1	Limits of Stop of Transmission at Times other than Measurement	18
5.7.2	Test Results	18
5.8	INTERFERENCE PREVENTION FUNCTION	19
5.8.1	Limits of Interference Prevention Function	19
5.8.2	Test Setup	19
5.8.3	Test Procedure	19
5.8.4	Test Results	19
6	PHOTOGRAPHS OF THE TEST SET-UP	20
7	LIST OF TABLES	21
8	LIST OF PHOTOGRAPHS	21

Prüfbericht - Nr.: CN26MGXJ 001
Test Report No.:

Seite 5 von 21
Page 5 of 21

1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:
Appendix A: Test result of 76.5GHz Radar.

Prüfbericht - Nr.: CN26MGXJ 001
Test Report No.:

Seite 6 von 21
Page 6 of 21

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.

2-3F, 101 & 102, No.2, Nuclear Power Industrial Park, Fuming Community, Fucheng Street, Longhua District, Shenzhen 518000, People's Republic of China

A2LA Certificate Number: 5162.01

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

JRF Test facility							
Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. until	Calibration Body	Calibration Method*
Wireless Connectivity Tester	R&S	CMW270	101375	2025-09-23	2026-09-22	GRGTEST	c
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY60241175	2025-09-23	2026-09-22	GRGTEST	c
Power Meter	R&S	NRP2	107105	2025-10-30	2026-10-29	GRGTEST	c
Power Sensor	R&S	NRP-Z81	105677	2025-09-23	2026-09-22	GRGTEST	c
DC Power Supply	KIKUSUI	PAN35-5A	YM002997	2026-02-02	2027-02-01	GRGTEST	c
Digital Multi Meter	FLUKE	F15B	44350844WS	2026-02-02	2027-02-01	GRGTEST	c
MM-Wave Frequency Conversion Receiving Unit	Tonscend	MMFC-R190-L0F0	202305240001	2024-09-13	2027-09-12	Tonscend	c
MM-Wave Frequency Conversion Receiving Unit	Tonscend	MMFC-R150-L0F0	202305240001	2024-09-02	2027-09-01	Tonscend	c
MM-Wave Frequency Conversion Receiving Unit	Tonscend	MMFC-R100-L0F0	202305240001	2024-08-29	2027-08-28	Tonscend	c
MM-Wave Frequency Conversion Receiving Unit	Tonscend	MMFC-R060-L0F0	202305240001	2024-08-30	2027-08-29	Tonscend	c
MM-Wave Frequency Conversion Transmitting Unit	Tonscend	MMFC-T120-A1	202305240001	2024-09-11	2027-09-10	Tonscend	c
MM-Wave Frequency Conversion Receiving Unit	Tonscend	MMFC-R040-L0F0	202305240001	2023-11-01	2026-10-31	Tonscend	c
High Low Temperature Test Chamber	Cavendi	CATT-150C	231020001	2024-05-17	2026-05-16	Tonscend	c
Control PC	Lenovo	M4000q-00IRB	YLX3LXKQ	N/A	N/A	N/A	N/A

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)

Prüfbericht - Nr.: **CN26MGXJ 001**
Test Report No.:

Seite 7 von 21
Page 7 of 21

2.3 Uncertainty of Measurement

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

Table 2: Measurement Uncertainty

Parameter	Uncertainty
Occupied Bandwidth	$\pm 2.08 \%$
Spurious emissions	$\pm 3.68 \text{ dB}$
Output power density	$\pm 0.99 \text{ dB}$
Antenna Power	$\pm 0.99 \text{ dB}$
Frequency Tolerance	0.104 ppm

Prüfbericht - Nr.: **CN26MGXJ 001**
Test Report No.:

Seite 8 von 21
Page 8 of 21

3 General Product Information

3.1 Product Function and Intended Use

The EUT is 76.5GHz mmWave Radar, which operation frequency range is 76GHz to 77GHz.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment:	CR60 Light
Type Designation:	C6AH0 Note: This product have two version of PCB, there are minor difference in the digital circuit, one with LED and the other without LED.
Operating Voltage:	7Vdc to 16Vdc
Test voltage:	14Vdc
Operating Temperature Range	-40°C ~ +85 °C
Hardware release No.:	PCB with LED: 02033BB0VV-01 PCB without LED: 02033BB0WF-01
Software release No.:	RSP 3.1
Technical Specification of 76GHz Radar	
Assigned Band:	76GHz to 77GHz
Operation Frequency Range:	76GHz to 77GHz
Type of Modulation:	FMCW
Duty cycle:	DMP1: 17.10% DMP2: 11.78% (Provided by the Client)
Antenna Type:	Waveguide antenna
Antenna Gain:	Tx1:13.5dBi Tx2:13.7dBi Tx3:13.5dBi Tx4:13.5dBi Total gain of Tx: 19.5dBi (Provided by the Client)

Note: The correctness of all data provided by customer in the test report is ensured and responsible of the customer. Any misjudgment of the test results caused by the use of incorrect data provided by customer shall be borne by the customer.

Note 1: The power table as below table:

Radar				
Test mode	Rated Antenna Power (mW)	Antenna Power Limit (mW)	Max. EIRP	
			dBm	W
76GHz Radar (DMP1)	10	10	21.458	0.140
76GHz Radar (DMP2)	10	10	21.550	0.143

Prüfbericht - Nr.: CN26MGXJ 001
Test Report No.:

Seite 9 von 21
Page 9 of 21

Table 4: Antenna Gain

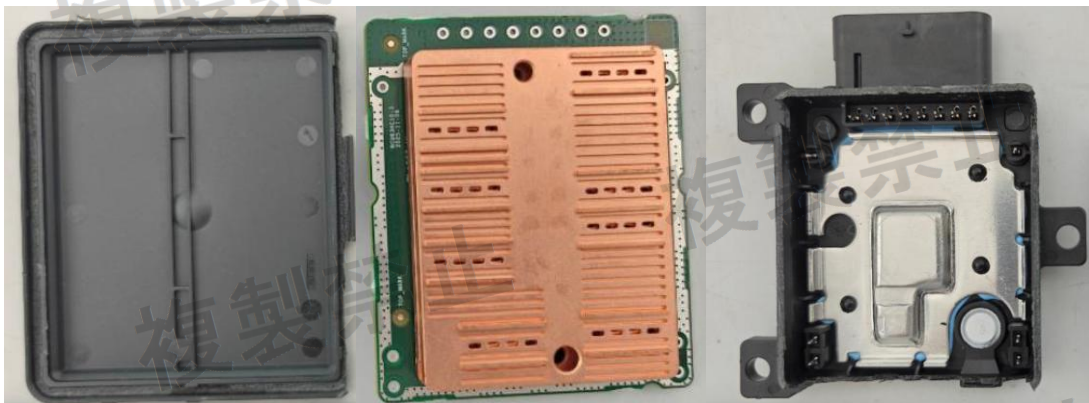
Ant. Type	Connector Type	Highest Peak Gain (dBi)
Integral Antenna	Soldered on PCB	19.5dBi

3.3 Antenna Pattern

Please refer to the product antenna report.

3.4 Product Housing

The RF circuits are located inside of the EUT. As the RF circuit was sutured by ultrasound, it won't be easy to open. Frequency Band, operation channels and modulation parameters are fixed inside the wireless module. So, they cannot be easily edited or modified by end-user.



3.5 Duty Cycle

The total duration of a single C6AH0 cycle is always 66ms. During this time, the sensor transmits a single pulse for a duration that degrades in mode.

$$\text{burst_length} = 384 \times \text{ramp_length}$$

$$\text{Duty_cycle} = \frac{\text{burst_length}}{\text{cycle_length}} \times 100$$

Modulation mode	Pulse length	Duty cycle
DMP#1	11.328 ms	17.2 per cent
DMP#2	11.328 ms	17.2 per cent

3.6 Noise Generating and Noise Suppressing Parts

For details refer to the Circuit Diagram.

Prüfbericht - Nr.: CN26MGXJ 001
Test Report No.:

Seite 10 von 21
Page 10 of 21

3.7 Submitted Documents

- Application Form
- User Manual
- Rating Label
- Operation Description

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5 and chapter 6.

According to clause 3.1, all tests were performed on model C6AH0 in this report.

Table 5: Test Conditions

Test conditions	Value
Voltage _{normal}	14V dc
Voltage _{max}	15.4V dc
Voltage _{min}	12.6V dc
Temperature	25 °C
Temperature _{max}	85°C
Temperature _{min}	-40°C
Vibration	*Vibration conditions

*Note: The product is a wireless digital product, in which all components are welded together with PCB. The product wireless operation will not fail due to product under vibration. If there is poor contact with the product components, the product will also stop RF operation due to self-inspection, detail refer to manufacturer's documentation, so only tests were conducted under extreme conditions.

4.3 Special Accessories and Auxiliary Equipment

Table 6: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N
Laptop	Lenovo	T480	PF-16A6N8
DC power Supply	KIKUSUI	PAN35-5A	YM002997

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

Prüfbericht - Nr.: **CN26MGXJ 001**
Test Report No.:

Seite 12 von 21
Page 12 of 21

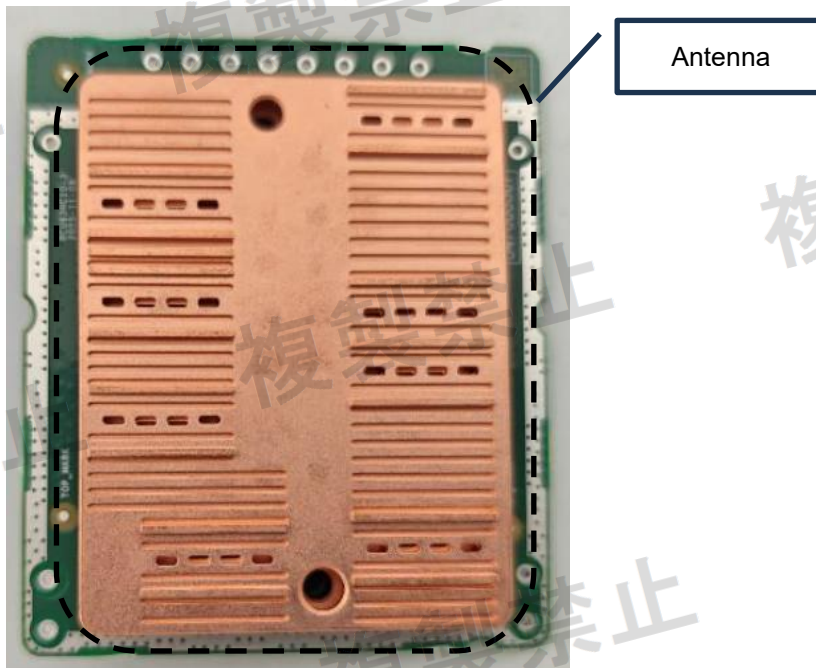
5 Test Results

5.1 Antenna Requirement

5.1.1 Limit of Antenna

- 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.
- The Transmitter antenna gain is limited to max. 40dBi.

5.1.2 Test Results



- Due to the characteristics of the product's mmWave radio, all tests are conducted in the anechoic room.
- The Max antenna gain is 19.5dBi.

Result

PASS

Prüfbericht - Nr.: **CN26MGXJ 001**
Test Report No.:

Seite 13 von 21
Page 13 of 21

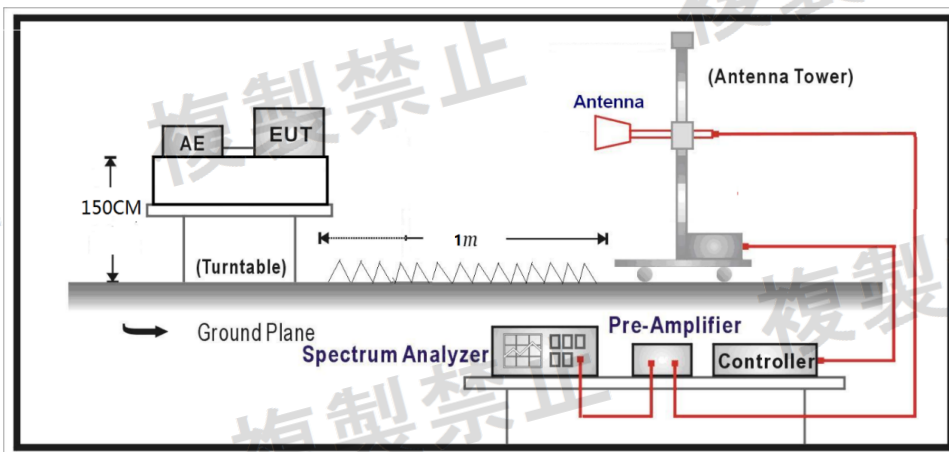
5.2 Assigned Frequency and Frequency Tolerance

5.2.1 Limits of Assigned Frequency and Frequency Tolerance

The frequency shall be within the designated frequency band.

Designated Frequency	Designated frequency band
60.5 GHz	60.0 GHz – 61.0 GHz
76.5 GHz	76.0 GHz – 77.0 GHz

5.2.2 Test Setup



5.2.3 Test Procedure

- Test Conditions
Spectrum Analyzer is used for measurement.
- EUT Conditions
FMCW Tx
- Spectrum Analyzer conditions
Frequency: Test Frequency
Span: Lower/Higher than the lower edge of the operating frequency range.
RBW: 1MHz
VBW: 3MHz
Sweep Time: 2s
Detector mode: Positive Peak
Sweep mode: Max Hold

5.2.4 Test Results

Result **PASS**

For the measurement records, refer to appendix A.

Prüfbericht - Nr.: CN26MGXJ 001
Test Report No.:

Seite 14 von 21
Page 14 of 21

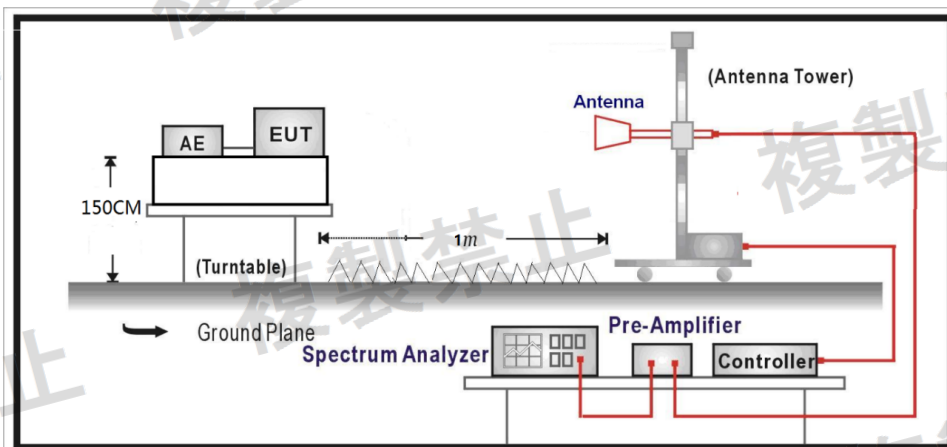
5.3 Occupied Bandwidth (99%OBW)

5.3.1 Limits of Occupied Bandwidth (99%OBW)

The lower and upper frequency limits of the operating frequency range shall meet the following conditions:

Radio Equipment for Specified Low Power Radio Station	Permissible Value of Occupied Bandwidth
Radio equipment using 60 – 61 GHz frequency band	500 MHz
Radio equipment using 76 – 77 GHz frequency band	1 GHz

5.3.2 Test Setup



5.3.3 Test Procedure

- Test Conditions
Spectrum Analyzer is used for measurement.
- EUT Conditions
FMCW Tx
- Spectrum Analyzer conditions
Frequency: Test Frequency
Span: Lower/Higer than the lower edge of the operating frequency range.
RBW: 1MHz
VBW: 3MHz
Sweep Time: 2s
Detector mode: Positive Peak
Sweep mode: Max Hold

5.3.4 Test Results

Result **PASS**

For the measurement records, refer to appendix A.

Prüfbericht - Nr.: **CN26MGXJ 001**
Test Report No.:

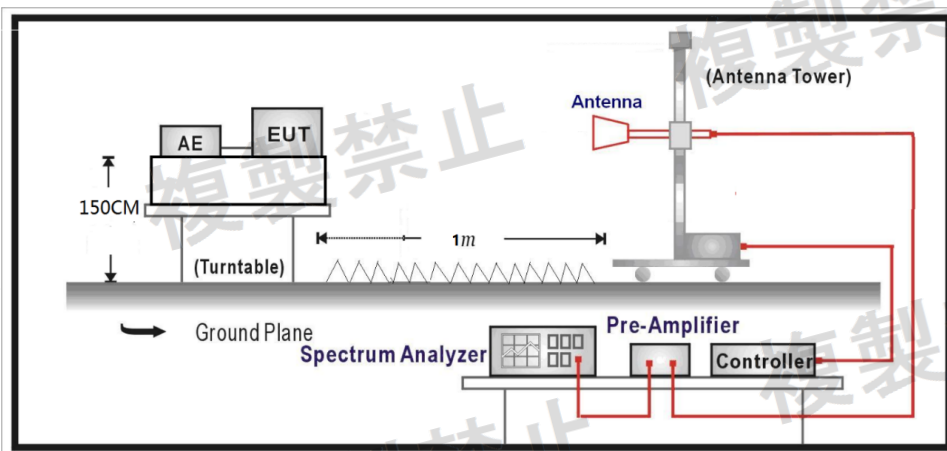
Seite 15 von 21
Page 15 of 21

5.4 Spurious Emission or Unwanted Emission Intensity of Tx

5.4.1 Limits of Spurious Emissions of Tx

Permissible level of spurious emission in out-of-band domain	Permissible level of unwanted emission in spurious domain
equal to or less than 100 μ W	equal to or less than 50 μ W

5.4.2 Test Setup



5.4.3 Test Procedure

- Test Conditions
Spectrum Analyzer is used for measurement.

- EUT conditions

FMCW Tx

- Spectrum Analyzer conditions

Step 1

All spurious are measured by peak mode.

Test setup for Step 1:

Sweep Time: Auto

Detector mode: Positive peak

Indication mode: Max hold

Step 2

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

Test setup for Step 2:

Frequency: Spurious Frequency

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

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

Sweep Time: Auto

Detector mode: RMS

Indication mode: Max hold

5.4.4 Test Results

Result **PASS**

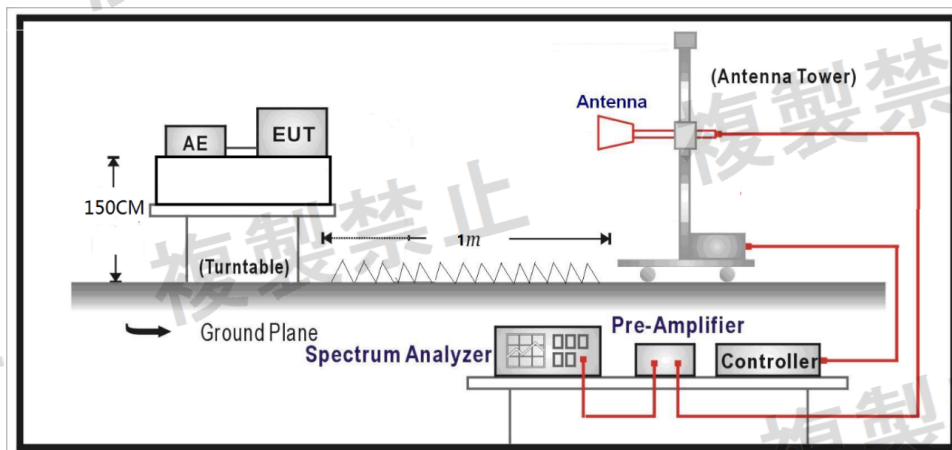
For the measurement records, refer to the appendix A.

5.5 Limit of Incidentally Produced Emissions of Rx

5.5.1 Limits of Spurious Emissions of Rx

The limit of incidentally produced emissions radiated from the receiving equipment which does not impair other radio equipment performance shall be, in case of measuring using a dummy antenna circuit that has the same electrical characteristic as the receiving antenna, equal to or less than 100µW.

5.5.2 Test Setup



5.5.3 Test Procedure

- Test Conditions
Spectrum Analyzer is used for measurement.

- EUT conditions

FMCW Rx

- Spectrum Analyzer conditions

Step 1

All spurious are measured by peak mode.

Test setup for Step 1:

Sweep Time: Auto

Detector mode: Positive peak

Indication mode: Max hold

Step 2

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

Test setup for Step 2:

Frequency: Spurious Frequency

Sweep Time: Auto

Detector mode: RMS

Indication mode: Max hold

5.5.4 Test Results

*N/A

*Note: The Spurious Emissions of Rx are emissions at any frequency when the equipment is in receive mode. Consequently, Spurious Emissions of Rx testing applies only when the equipment can work in a receive-only mode or is a receive only device. In cases where receivers are used in combination with permanently co-located transmitters the receivers will be tested together with the transmitter in operating mode as part of the Spurious Emissions of Tx.

Prüfbericht - Nr.: **CN26MGXJ 001**
Test Report No.:

Seite 17 von 21
Page 17 of 21

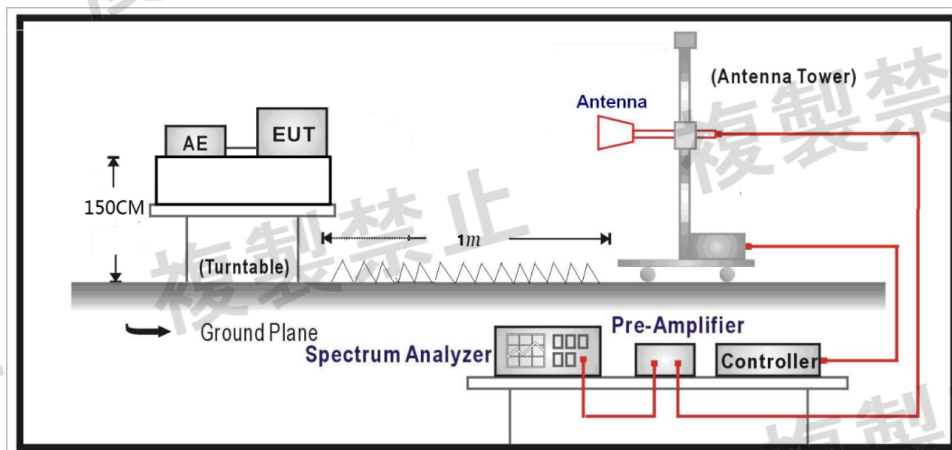
5.6 Antenna Power and Antenna Power Tolerance

5.6.1 Limits of Antenna Power and Antenna Power Tolerance

The antenna power shall be 10 mW or less.

The antenna power shall be 50% in the upper limit and 70% in the lower limit.

5.6.2 Test Setup



5.6.3 Test Procedure

- Test Conditions
Spectrum Analyzer is used for measurement.
- EUT conditions
FMCW Tx
- Spectrum Analyzer conditions:
Searching the frequency the frequency that gives maximum antenna power
Frequency: Test Frequency
Measure the Peak power of the transmitter

5.6.4 Test Results

Result **PASS**

For the measurement records, refer to the appendix A.

Prüfbericht - Nr.: CN26MGXJ 001
Test Report No.:

Seite 18 von 21
Page 18 of 21

5.7 Stop of Transmission at Times other than Measurement

5.7.1 Limits of Stop of Transmission at Times other than Measurement

The radio equipment shall have a function of stopping transmission at times other than measurement.

5.7.2 Test Results

Result ***PASS**

*Note1: EUT may cease transmissions (if supported by EUT) or reduce the transmitter power when the car is moving less than e.g. 5 km/h or stops moving.

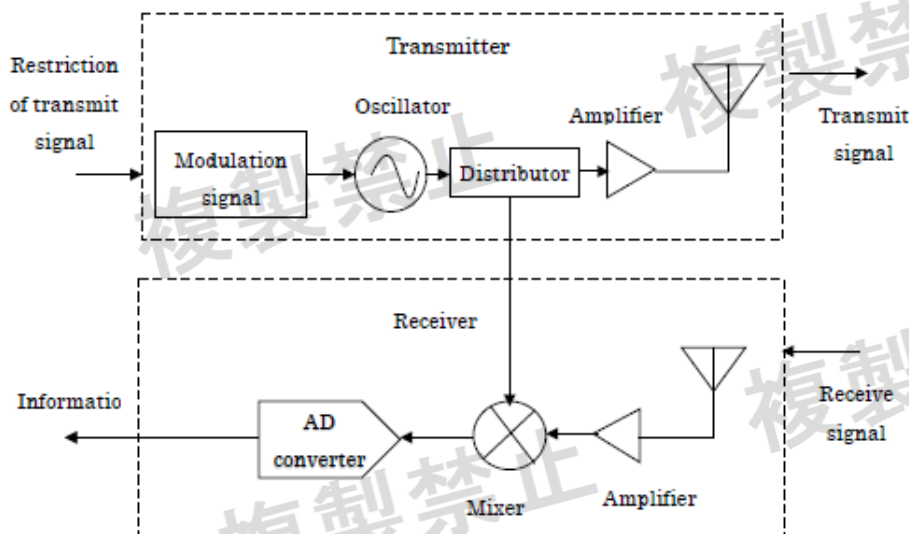
Note2: Please refer to Manufacturer's documentation.

5.8 Interference Prevention Function

5.8.1 Limits of Interference Prevention Function

The radio equipment shall have a function to distinguish the reflected signals of its own transmitting signals from radio waves transmitted by other radio stations by identifying the modulation methods or other characteristics of receiving radio waves.

5.8.2 Test Setup



Measurement system diagram

- (1) When sending an identification code
- (2) When receiving an identification code

5.8.3 Test Procedure

- (1) When EUT has a function to automatically transmit an identification code
 - a) Transmit the identification code specified in the Equipment Regulations from the test equipment.
 - b) Check the identification code sent by the demodulator.
- (2) When the test equipment has a function to automatically receive the identification code
 - a) Transmit the identification code specified in the Equipment Regulations from the counterpart device.
 - b) Confirm that communication is performed with the EUT using the dedicated jig.
 - c) Transmit a code different from the identification code specified in the Equipment Regulations from the counterpart device.
 - d) Confirm that EUT stops transmission or displays that the identification code is different.

5.8.4 Test Results

Result

***PASS**

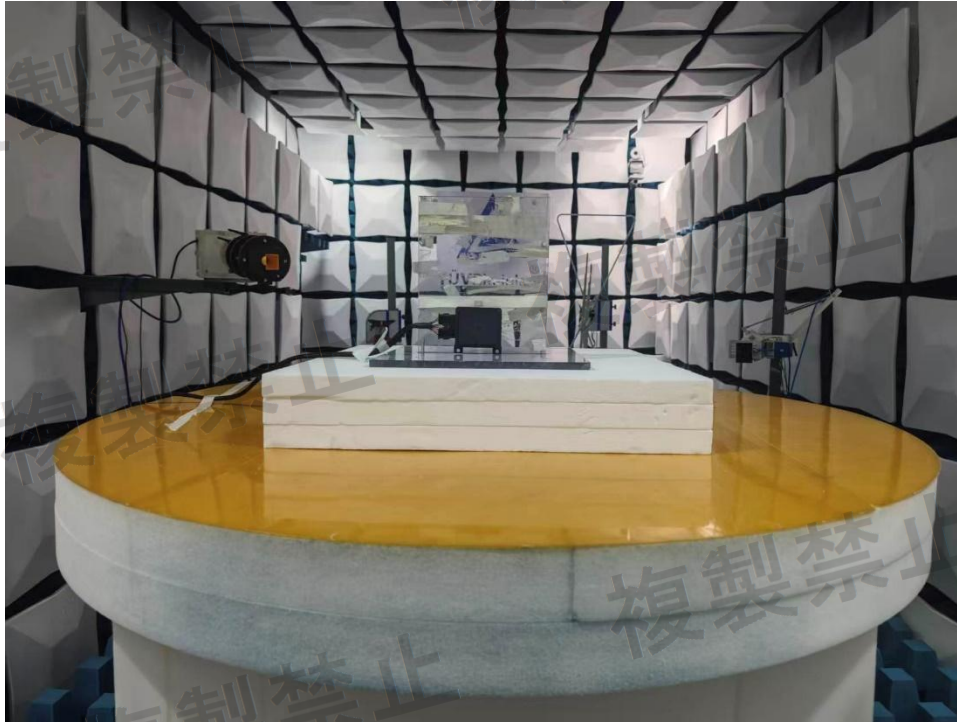
*Note: It verified that the product is able to identify the reflected wave of the radio waves.

Prüfbericht - Nr.: CN26MGXJ 001
Test Report No.:

Seite 20 von 21
Page 20 of 21

6 Photographs of the Test Set-Up

Photograph 1: Set-up for Radio Spectrum Testing



Prüfbericht - Nr.: CN26MGXJ 001
Test Report No.:

Seite 21 von 21
Page 21 of 21

7 List of Tables

Table 1: List of Test and Measurement Equipment.....	6
Table 2: Measurement Uncertainty.....	7
Table 3: Technical Specification of EUT.....	8
Table 4: Antenna Gain.....	9
Table 5: Test Conditions.....	11
Table 6: List of Accessories and Auxiliary Equipment.....	11

8 List of Photographs

Photograph 1: Set-up for Radio Spectrum Testing	20
---	----

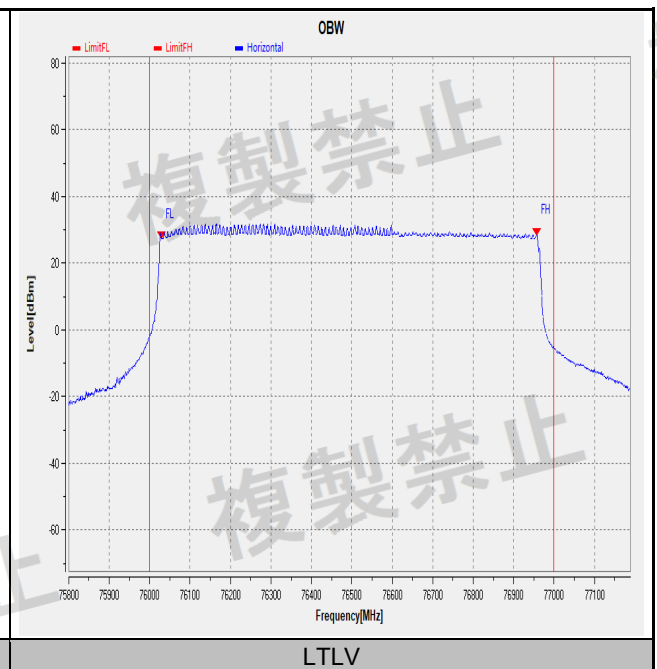
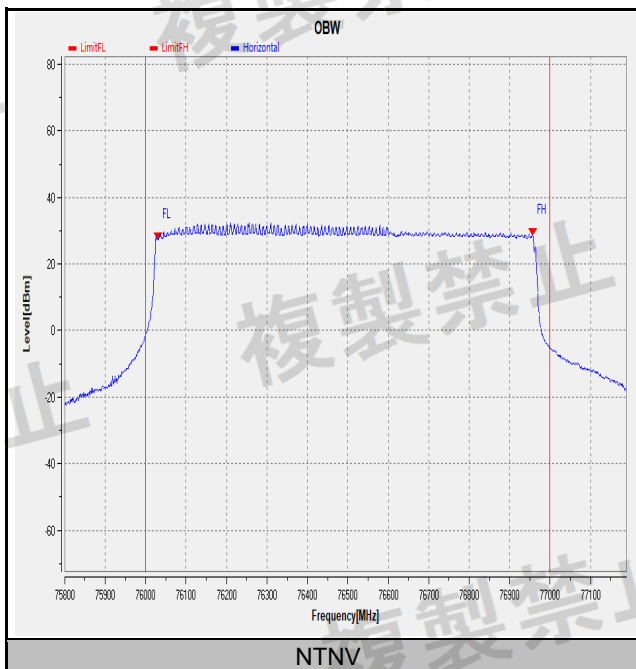
Appendix A: Test Results of 76.5GHz Radar

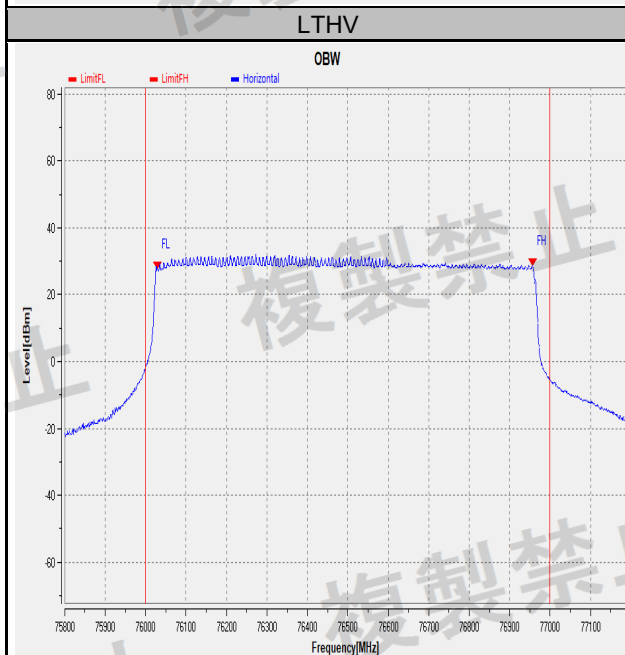
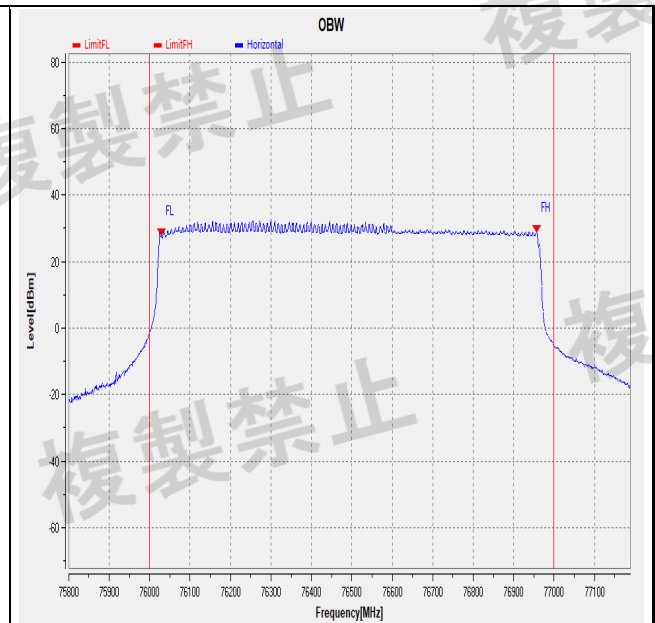
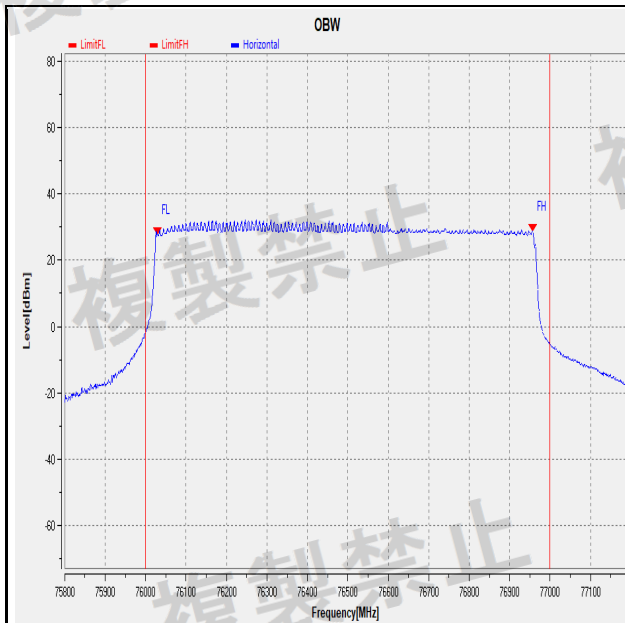
APPENDIX A: TEST RESULTS OF 76.5GHZ RADAR	1
APPENDIX A.1: TEST RESULTS OF FREQUENCY TOLERANCE & OCCUPIED CHANNEL BANDWIDTH (99%)	2
DMP1	2
DMP2	4
APPENDIX A.2: TEST RESULTS OF ANTENNA POWER	6
DMP1	6
DMP2	6
APPENDIX A.3: TEST RESULTS OF SPURIOUS EMISSIONS	7
DMP1	7
DMP2	11

Appendix A.1: Test Results of Frequency Tolerance & Occupied Channel Bandwidth (99%)

DMP1

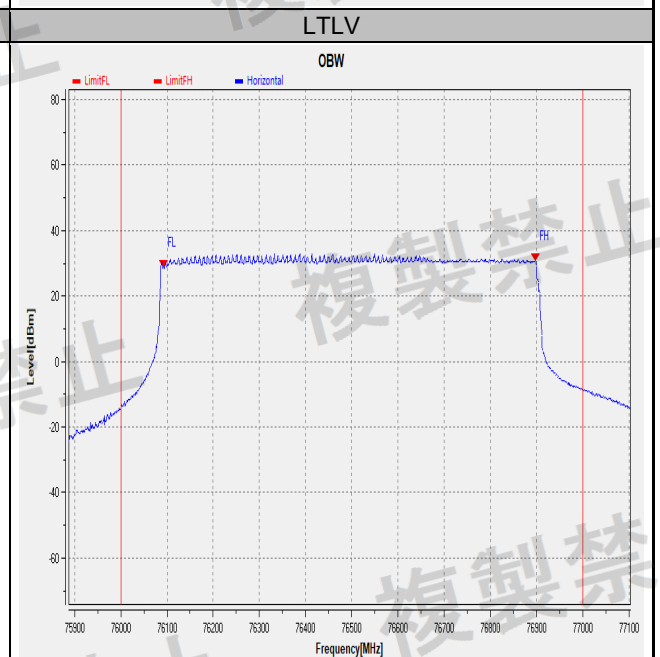
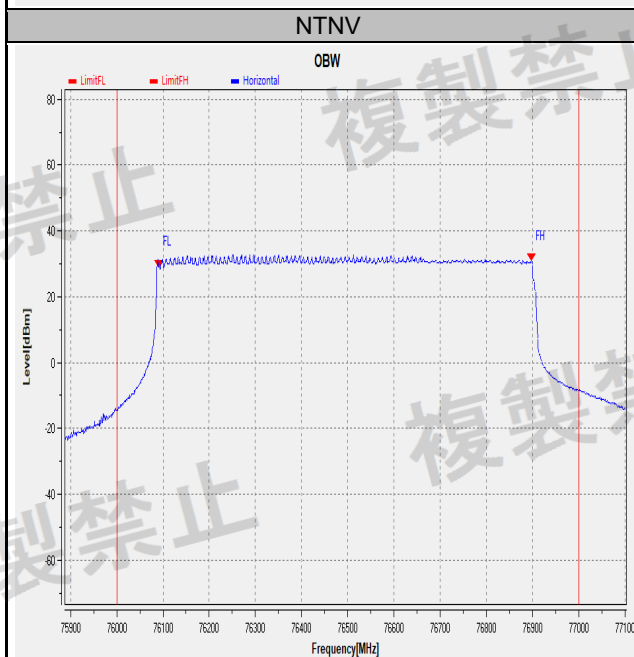
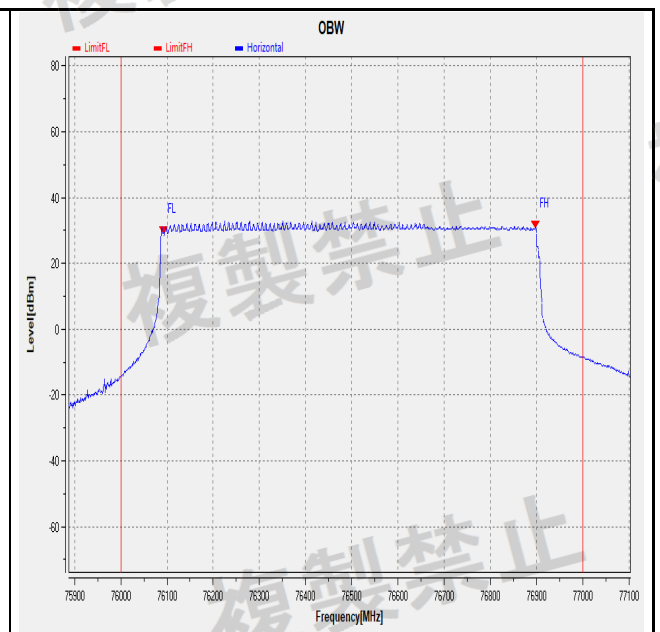
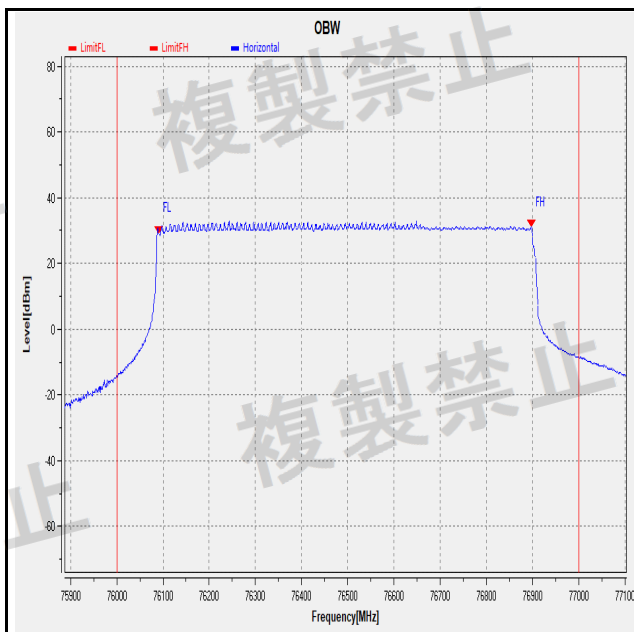
Test Condition			Frequency (GHz)	
			Lowest	Highest
T _{Normal} (°C)	25	V _{nomal} (v)	76.029	76.956
T _{low} (°C)	-40	V _{max} (v)	76.028	76.956
		V _{min} (v)	76.029	76.955
T _{High} (°C)	85	V _{max} (v)	76.029	76.956
		V _{min} (v)	76.030	76.956
Measured frequency (lowest and highest)			76.028	76.956
Limit			F _L ≥ 76	F _H ≤ 77





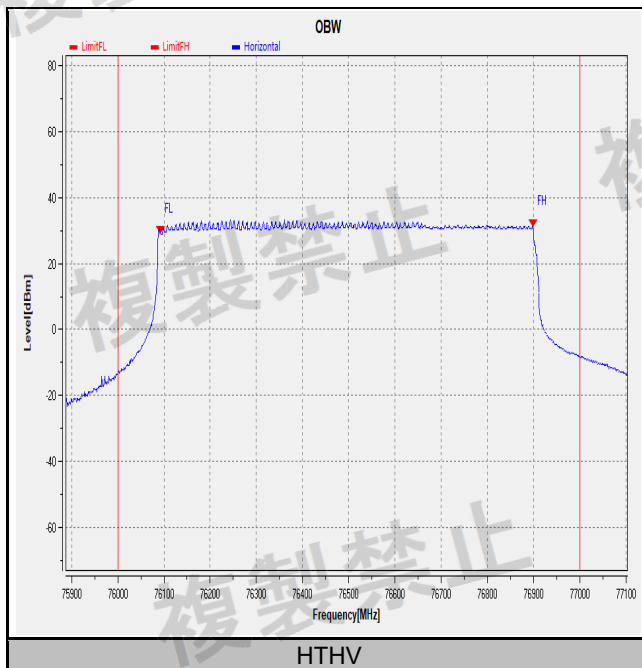
DMP2

Test Condition			Frequency (GHz)	
			Lowest	Highest
T _{Normal} (°C)	25	V _{nomal} (v)	76.091	76.897
T _{low} (°C)	-40	V _{max} (v)	76.092	76.897
		V _{min} (v)	76.091	76.897
T _{High} (°C)	85	V _{max} (v)	76.092	76.897
		V _{min} (v)	76.092	76.898
Measured frequency (lowest and highest)			76.091	76.898
Limit			F _L ≥ 76	F _H ≤ 77



LTHV

HTLV



Appendix A.2: Test Results of Antenna Power

DMP1

Condition	Mode	Det	RBW (MHz)	VBW (MHz)	EIRP (dBm)	Antenna Gain (dBi)	Duty cycle correction factor (dB)	Antenna Power (dBm)	Test Distance	Limit (dBm)	Verdict
NTNV	TM1	RMS	1	3	21.250	19.5	7.64	9.39	1m	<= 10	PASS
LTLV	TM1	RMS	1	3	21.203	19.5	7.64	9.35	1m	<= 10	PASS
LTHV	TM1	RMS	1	3	21.458	19.5	7.64	9.60	1m	<= 10	PASS
HTLV	TM1	RMS	1	3	21.171	19.5	7.64	9.32	1m	<= 10	PASS
HTHV	TM1	RMS	1	3	21.323	19.5	7.64	9.47	1m	<= 10	PASS

DMP2

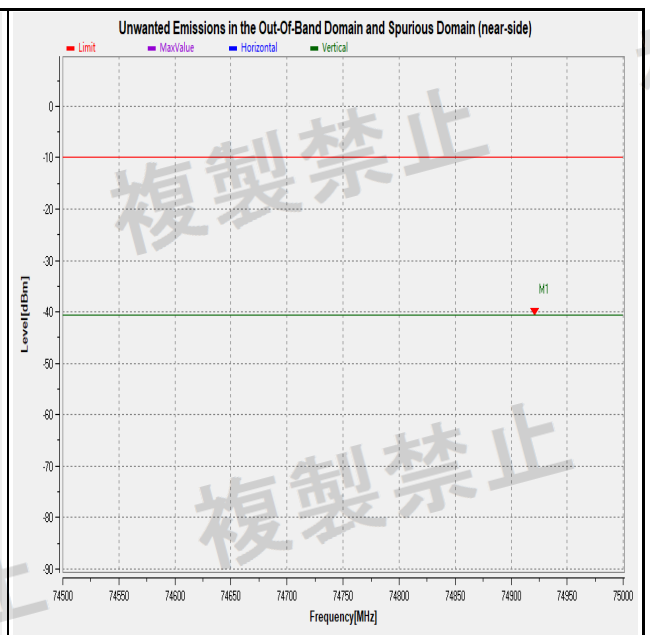
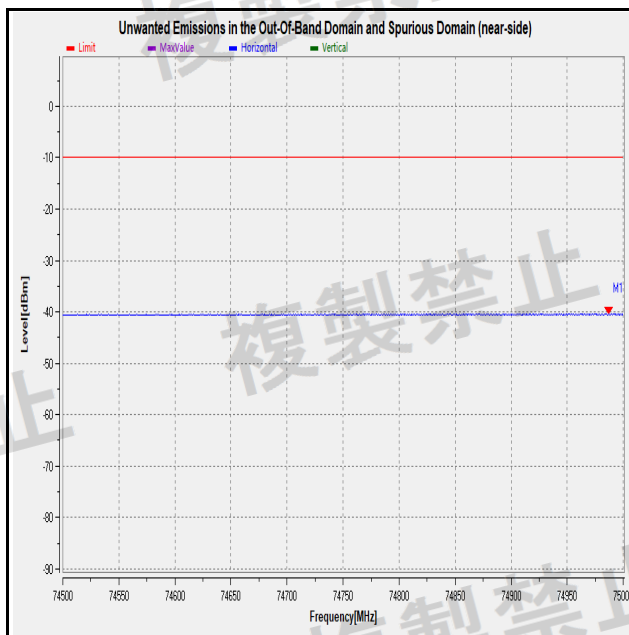
Condition	Mode	Det	RBW (MHz)	VBW (MHz)	EIRP (dBm)	Antenna Gain (dBi)	Duty cycle correction factor (dB)	Antenna Power (dBm)	Test Distance	Limit (dBm)	Verdict
NTNV	TM1	RMS	1	3	21.293	19.5	7.64	9.44	1m	<= 10	PASS
LTLV	TM1	RMS	1	3	21.195	19.5	7.64	9.34	1m	<= 10	PASS
LTHV	TM1	RMS	1	3	21.550	19.5	7.64	9.69	1m	<= 10	PASS
HTLV	TM1	RMS	1	3	21.181	19.5	7.64	9.33	1m	<= 10	PASS
HTHV	TM1	RMS	1	3	21.450	19.5	7.64	9.59	1m	<= 10	PASS

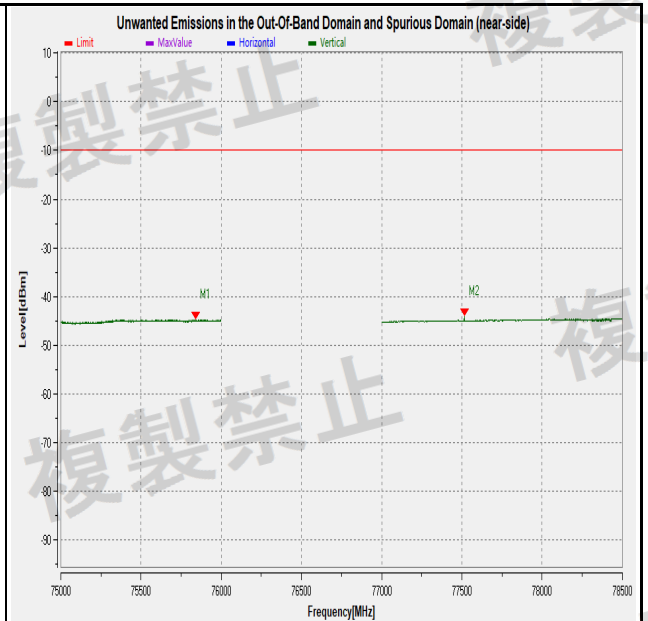
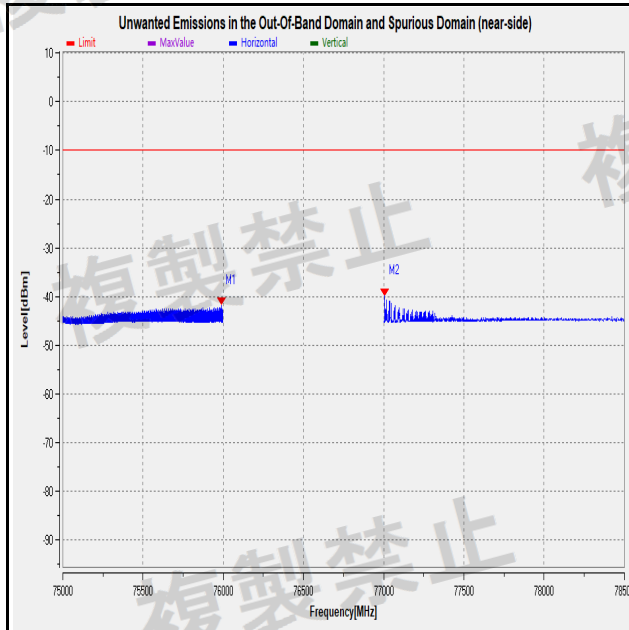
Appendix A.3: Test Results of Spurious Emissions

DMP1

Out Of Band Emissions and Near Spurious Emissions

Range (GHz)	Det	Frequency (GHz)	RBW (MHz)	VBW (MHz)	Measurement Distance (m)	Measured Power (dBm)	Limit (dBm/MHz)	Ant. Polarity (H/V)	Verdict
74.500~75.000	RMS	74987.000	1	3	1	-40.355	-10.0	H	PASS
74.500~75.000	RMS	74821.000	1	3	1	-40.531	-10.0	V	PASS
75.000~78.500	RMS	75988.900	1	3	1	-41.634	-10.0	H	PASS
75.000~78.500	RMS	77007.500	1	3	1	-39.729	-10.0	H	PASS
75.000~78.500	RMS	75838.500	1	3	1	-44.675	-10.0	V	PASS
75.000~78.500	RMS	77516.000	1	3	1	-43.934	-10.0	V	PASS

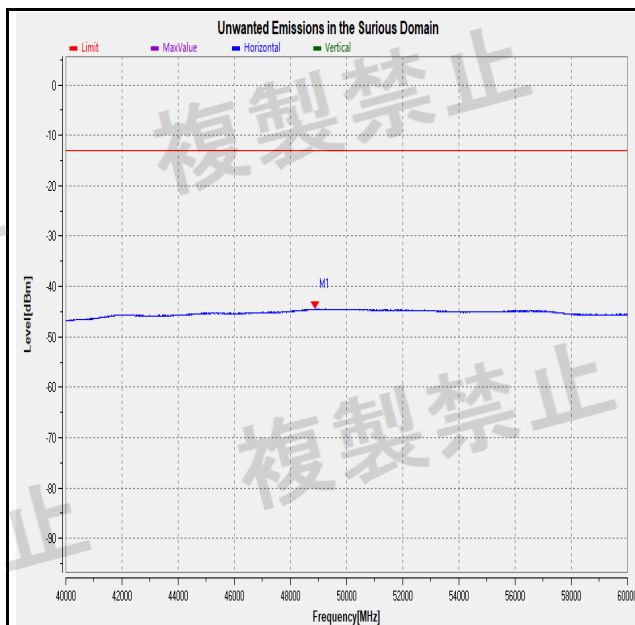




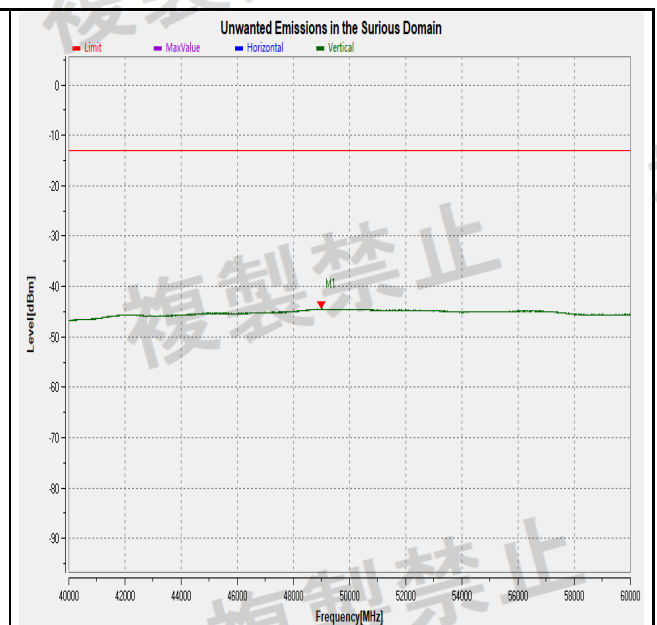
Transmitter Spurious Emissions

Above 40GHz:

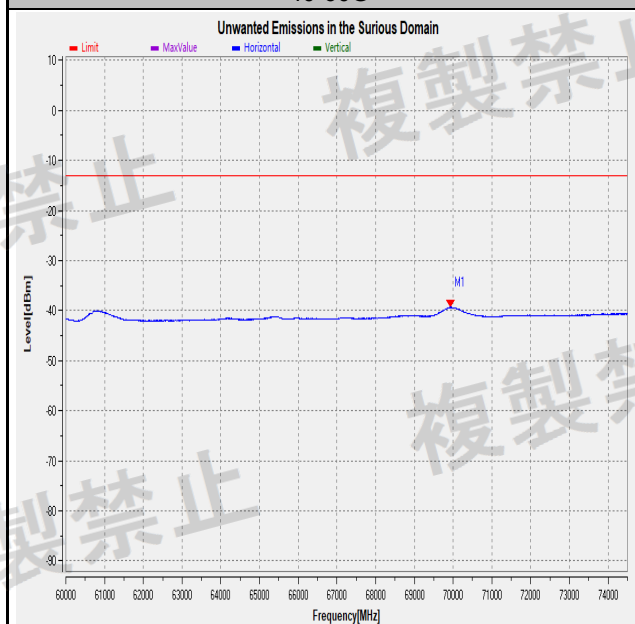
Condition	Mk No.	Det	Frequency (MHz)	RBW (MHz)	VBW (MHz)	Level (dBm)	Ant. Polarity (H/V)	Ant. Height (m)	Test Distance	Limit (dBm)	Verdict
NTNV	M1	RMS	48864.000	1	3	-44.412	H	1.5	1m	-13.0	PASS
NTNV	M1	RMS	49000.000	1	3	-44.389	V	1.5	1m	-13.0	PASS
NTNV	M1	RMS	69931.050	1	3	-39.274	H	1.5	1m	-13.0	PASS
NTNV	M1	RMS	69968.750	1	3	-39.287	V	1.5	1m	-13.0	PASS
NTNV	M1	RMS	85867.850	1	3	-43.177	H	1.5	1m	-13.0	PASS
NTNV	M1	RMS	82204.400	1	3	-43.328	V	1.5	1m	-13.0	PASS



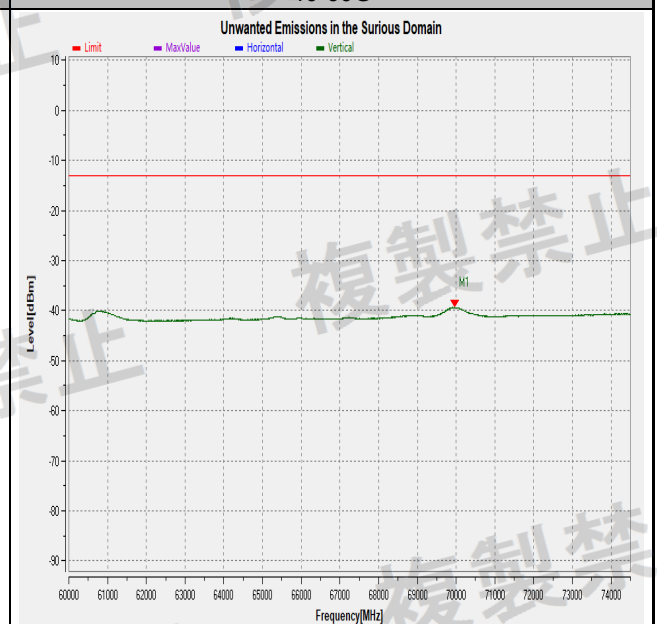
40-60G



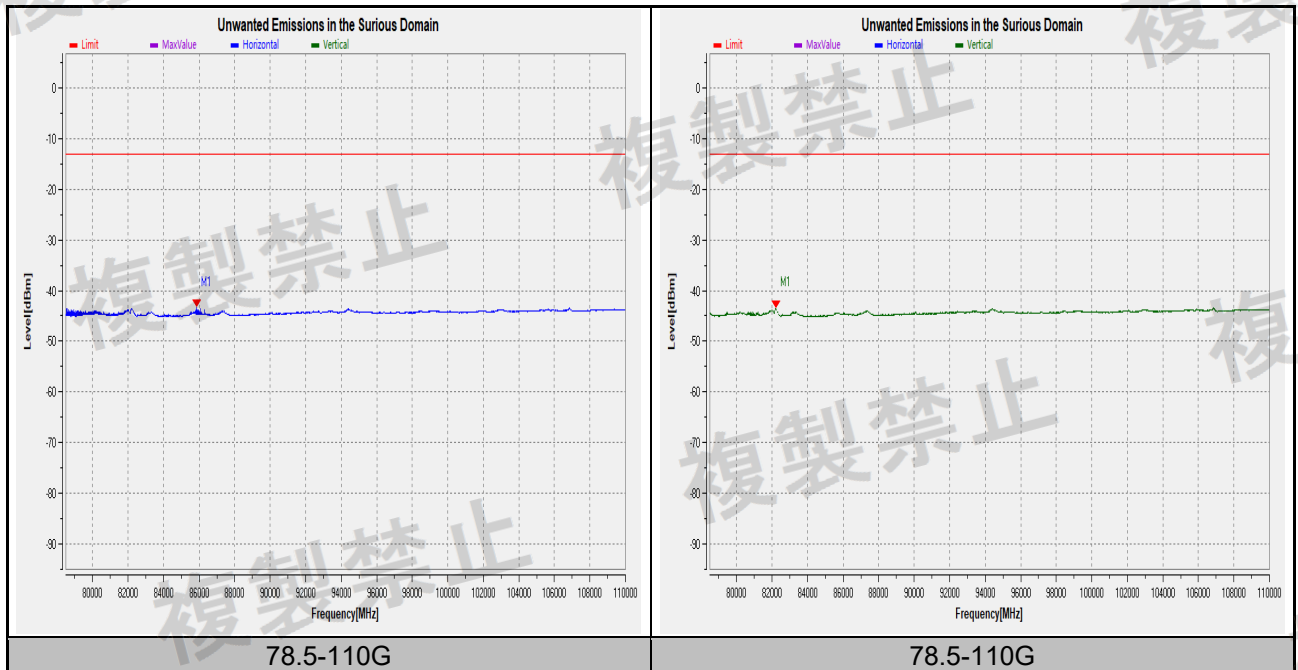
40-60G



60-74.5G



60-74.5 G

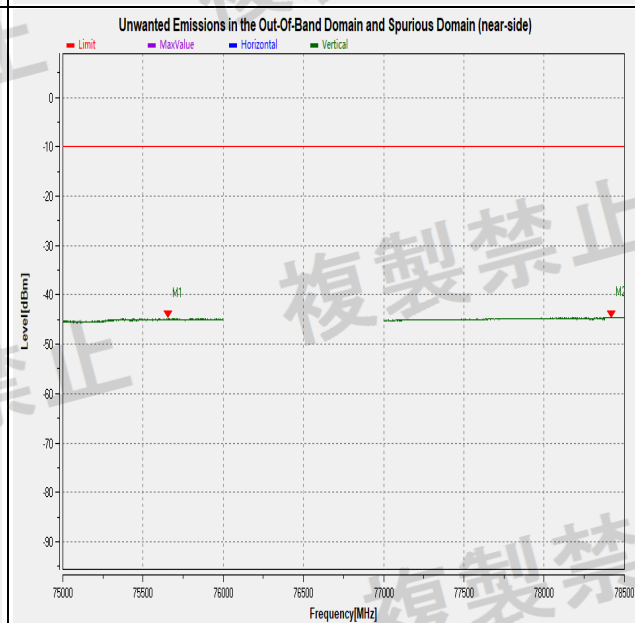
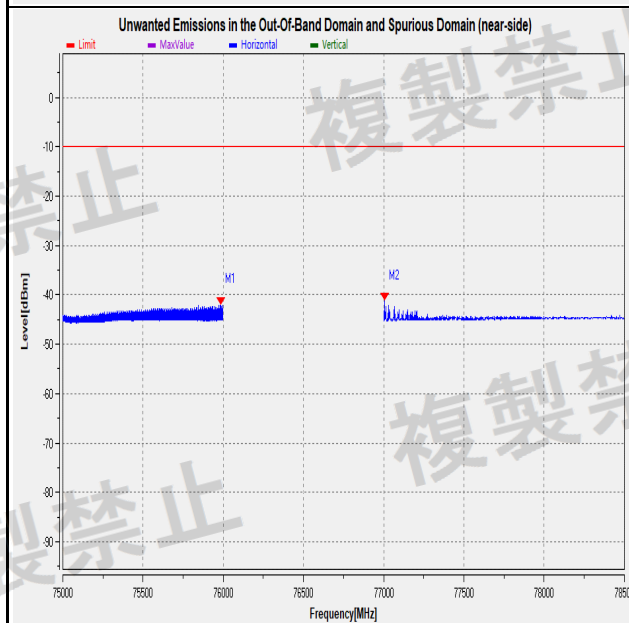
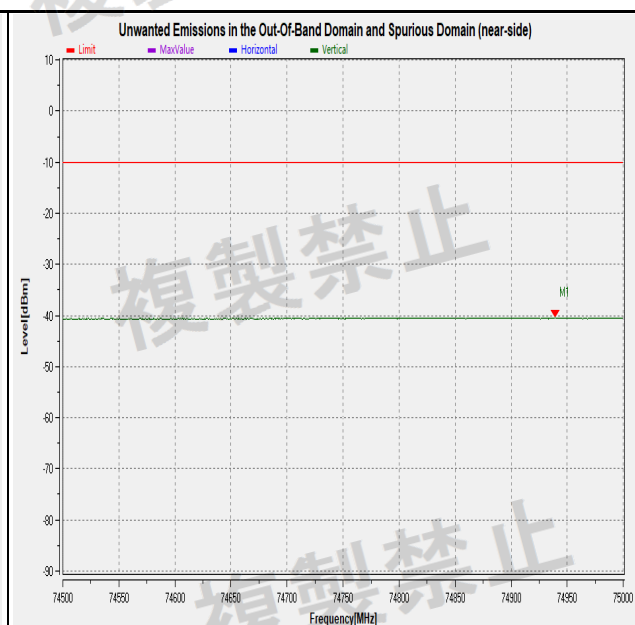
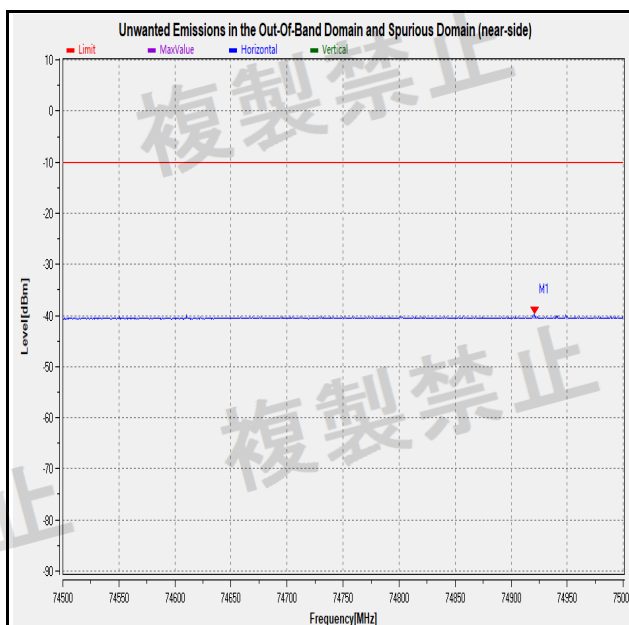


Note: As the spurious emissions below 40GHz, all emissions are far below the limits, thus no records and listed.

DMP2

Out Of Band Emissions and Near Spurious Emissions

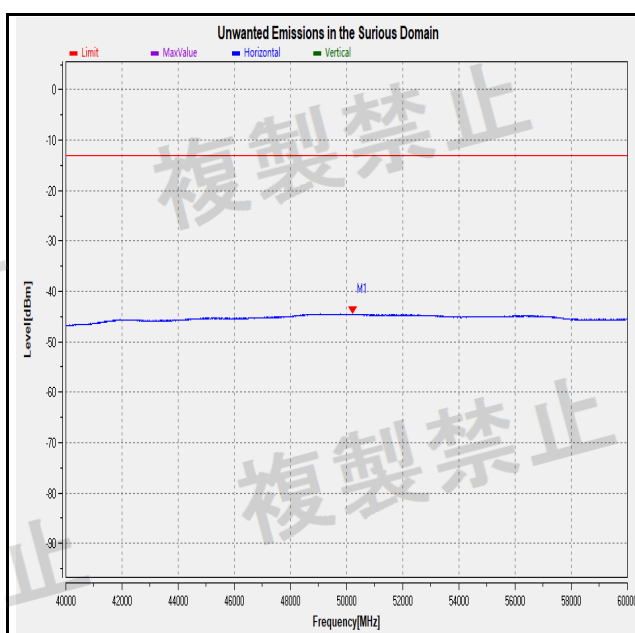
Range (GHz)	Det	Frequency (GHz)	RBW (MHz)	VBW (MHz)	Measurement Distance (m)	Measured Power (dBm)	Limit (dBm/MHz)	Ant. Polarity (H/V)	Verdict
74.500~75.000	RMS	74921.000	1	3	1	-39.743	-10.0	H	PASS
74.500~75.000	RMS	74939.000	1	3	1	-40.331	-10.0	V	PASS
75.000~78.500	RMS	75.983.700	1	3	1	-41.860	-10.0	H	PASS
75.000~78.500	RMS	77004.500	1	3	1	-41.135	-10.0	H	PASS
75.000~78.500	RMS	75655.000	1	3	1	-44.686	-10.0	V	PASS
75.000~78.500	RMS	78420.500	1	3	1	-44.535	-10.0	V	PASS



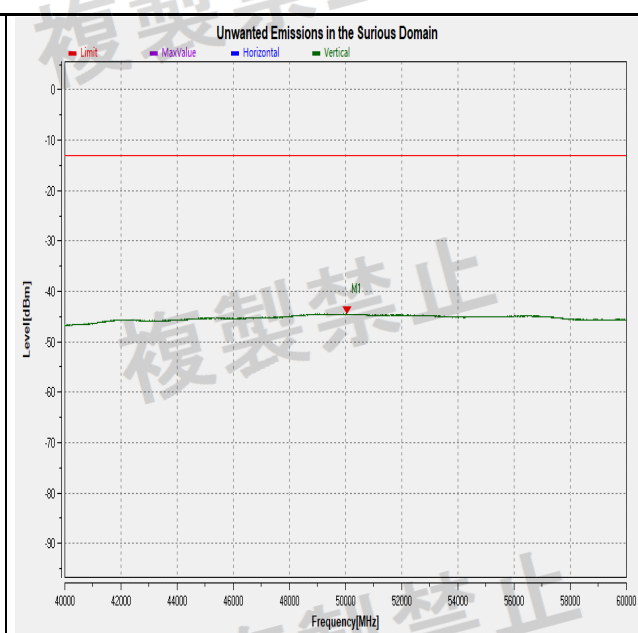
Transmitter Spurious Emissions

Above 40GHz:

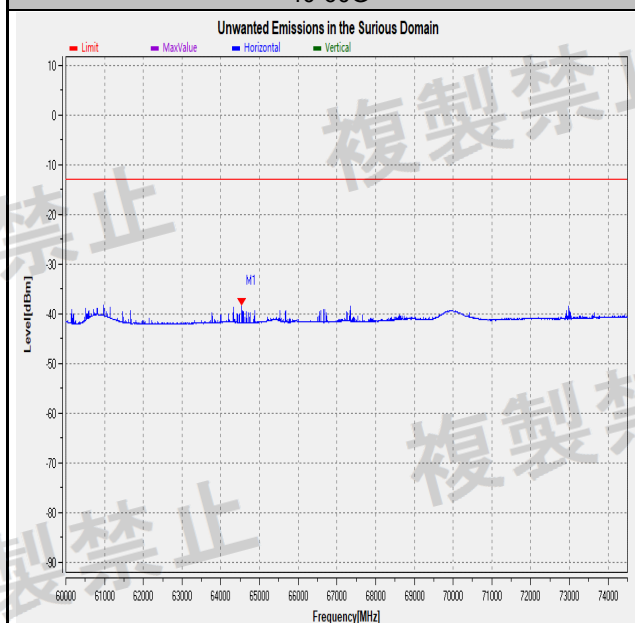
Condition	Mk No.	Det	Frequency (MHz)	RBW (MHz)	VBW (MHz)	Level (dBm)	Ant. Polarity (H/V)	Ant. Height (m)	Test Distance	Limit (dBm)	Verdict
NTNV	M1	RMS	50220.000	1	3	-44.452	H	1.5	1m	-13.0	PASS
NTNV	M1	RMS	50052.000	1	3	-44.425	V	1.5	1m	-13.0	PASS
NTNV	M1	RMS	64531.250	1	3	-38.261	H	1.5	1m	-13.0	PASS
NTNV	M1	RMS	69906.400	1	3	-39.285	V	1.5	1m	-13.0	PASS
NTNV	M1	RMS	82188.650	1	3	-43.429	H	1.5	1m	-13.0	PASS
NTNV	M1	RMS	82207.550	1	3	-43.439	V	1.5	1m	-13.0	PASS



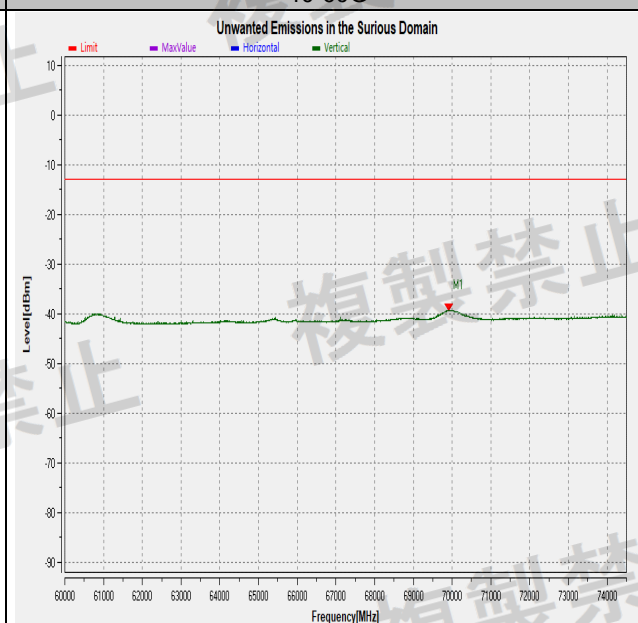
40-60G



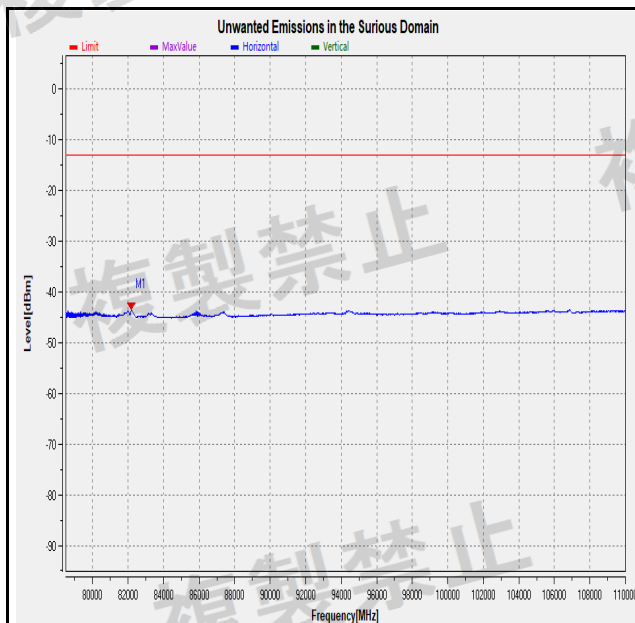
40-60G



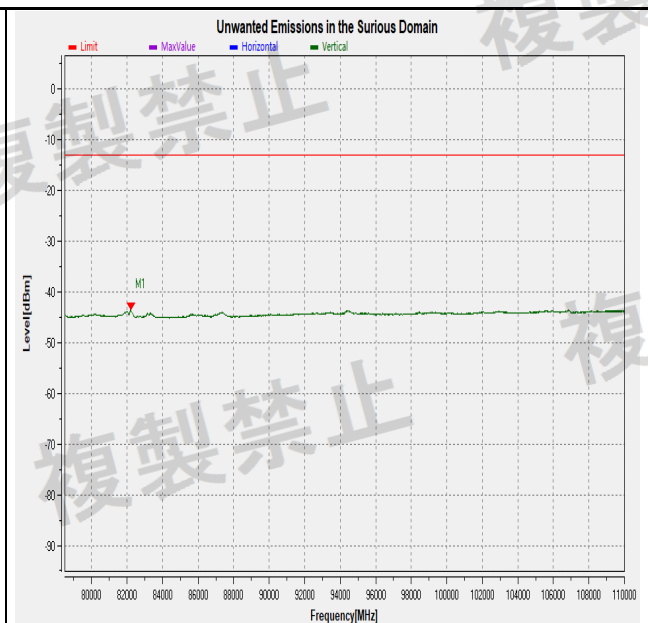
60-74.5G



60-74.5 G



78.5-110G



78.5-110G

Note: As the spurious emissions below 40GHz, all emissions are far below the limits, thus no records and listed.