

<b>Prüfbericht-Nr.:</b> <i>Test report no.:</i>	<b>CN25IK74 001</b>	<b>Auftrags-Nr.:</b> <i>Order no.:</i>	168512858	Seite 1 von 18 <i>Page 1 of 18</i>
<b>Kunden-Referenz-Nr.:</b> <i>Client reference no.:</i>	N/A	<b>Auftragsdatum:</b> <i>Order date:</i>	2024-11-11	
<b>Auftraggeber:</b> <i>Client:</i>	SZ DJI TECHNOLOGY CO., LTD Lobby of T2, DJI Sky City, No. 53 Xianyuan Road, Xili Community, Xili Street, Nanshan District, 518055 Shenzhen, China.			
<b>Prüfgegenstand:</b> <i>Test item:</i>	DJI Matrice 4 Obstacle Sensing Module			
<b>Bezeichnung / Typ-Nr.:</b> <i>Identification / Type no.:</i>	LR-01 (Trademark: DJI)			
<b>Auftrags-Inhalt:</b> <i>Order content:</i>	Test Report			
<b>Prüfgrundlage:</b> <i>Test specification:</i>	CFR Title 47 FCC Part 15: Subpart C Section 15.255			
<b>Wareneingangsdatum:</b> <i>Date of sample receipt:</i>	2025-03-17	Please refer to Photo Document		
<b>Prüfmuster-Nr.:</b> <i>Test sample no.:</i>	A003882058-003			
<b>Prüfzeitraum:</b> <i>Testing period:</i>	2025-03-18 - 2025-04-28			
<b>Ort der Prüfung:</b> <i>Place of testing:</i>	Refer to section 2.1			
<b>Prüflaboratorium:</b> <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
<b>Prüfergebnis*:</b> <i>Test result*:</i>	Pass			
<b>geprüft von:</b> <i>tested by:</i>	<u>X Bell Hu</u>	<b>genehmigt von:</b> <i>authorized by:</i>	<u>X Jonathan Li</u>	
<b>Datum:</b> <i>Date:</i>	2025-06-30 <small>Signed by: Bell Hu</small>	<b>Ausstellungsdatum:</b> <i>Issue date:</i>	2025-06-30 <small>Signed by: Jonathan Li</small>	
<b>Stellung / Position:</b>	Sachverständige(r)/Expert	<b>Stellung / Position:</b>	Sachverständige(r)/Expert	
<b>Sonstiges /</b> <i>Other:</i>	FCC ID: SS3-LR012502  This report is for 60GHz SDR.			
<b>Zustand des Prüfgegenstandes bei Anlieferung:</b> <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
<small>* Legende: P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet</small>				
<small>* 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</small>				
<b>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.</b> <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.: CN25IK74 001  
Test report no.:

Seite 2 von 18  
Page 2 of 18

**Anmerkungen**  
Remarks

- |   |  |
|---|--|
| 1 | <p>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.<br/>Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</p> <p><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></p>   |
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| 3 | <p>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben.<br/>Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</p> <p><i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.<br/>Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i></p>  |
| 4 | <p>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 115:2021, 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.</p> <p><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 115:2021, 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></p>   |

## ***Test Summary***

**5.1.1 ANTENNA REQUIREMENT**

*RESULT: Pass*

**5.1.2 EIRP POWER AND TRANSMITTER OFF-TIMES MEASUREMENT**

*RESULT: Pass*

**5.1.3 FREQUENCY STABILITY**

*RESULT: Pass*

**5.1.4 99% BANDWIDTH**

*RESULT: Pass*

**5.1.5 RADIATED SPURIOUS EMISSION**

*RESULT: Pass*

## Contents

<b>1</b>	<b>GENERAL REMARKS .....</b>	<b>5</b>
<b>1.1</b>	<b>COMPLEMENTARY MATERIALS.....</b>	<b>5</b>
<b>2</b>	<b>TEST SITES.....</b>	<b>6</b>
<b>2.1</b>	<b>TEST FACILITIES .....</b>	<b>6</b>
<b>2.2</b>	<b>LIST OF TEST AND MEASUREMENT INSTRUMENTS .....</b>	<b>6</b>
<b>2.3</b>	<b>TRACEABILITY .....</b>	<b>8</b>
<b>2.4</b>	<b>CALIBRATION.....</b>	<b>8</b>
<b>2.5</b>	<b>MEASUREMENT UNCERTAINTY.....</b>	<b>8</b>
<b>2.6</b>	<b>LOCATION OF ORIGINAL DATA.....</b>	<b>8</b>
<b>2.7</b>	<b>STATUS OF FACILITY USED FOR TESTING .....</b>	<b>8</b>
<b>3</b>	<b>GENERAL PRODUCT INFORMATION .....</b>	<b>9</b>
<b>3.1</b>	<b>PRODUCT FUNCTION AND INTENDED USE .....</b>	<b>9</b>
<b>3.2</b>	<b>RATINGS AND SYSTEM DETAILS.....</b>	<b>9</b>
<b>3.3</b>	<b>INDEPENDENT OPERATION MODES.....</b>	<b>9</b>
<b>3.4</b>	<b>NOISE GENERATING AND NOISE SUPPRESSING PARTS .....</b>	<b>9</b>
<b>3.5</b>	<b>SUBMITTED DOCUMENTS.....</b>	<b>10</b>
<b>4</b>	<b>TEST SET-UP AND OPERATION MODES.....</b>	<b>11</b>
<b>4.1</b>	<b>PRINCIPLE OF CONFIGURATION SELECTION .....</b>	<b>11</b>
<b>4.2</b>	<b>TEST OPERATION AND TEST SOFTWARE .....</b>	<b>11</b>
<b>4.3</b>	<b>SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT .....</b>	<b>11</b>
<b>4.4</b>	<b>COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE .....</b>	<b>11</b>
<b>4.5</b>	<b>TEST SETUP DIAGRAM .....</b>	<b>12</b>
<b>5</b>	<b>TEST RESULTS .....</b>	<b>13</b>
<b>5.1</b>	<b>TRANSMITTER REQUIREMENT &amp; TEST SUITES.....</b>	<b>13</b>
<b>5.1.1</b>	<i>Antenna Requirement.....</i>	<i>13</i>
<b>5.1.2</b>	<i>EIRP POWER and Transmitter off-times MEASUREMENT.....</i>	<i>14</i>
<b>5.1.3</b>	<i>Frequency Stability .....</i>	<i>15</i>
<b>5.1.4</b>	<i>99% Bandwidth.....</i>	<i>16</i>
<b>5.1.5</b>	<i>Radiated Spurious Emission .....</i>	<i>17</i>
<b>6</b>	<b>PHOTOGRAPHS OF THE TEST SET-UP .....</b>	<b>18</b>
<b>7</b>	<b>LIST OF TABLES.....</b>	<b>18</b>

# 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 Results of 60GHz Radar

Appendix B: Photographs of the Test Set-up.

## 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 Cert. No.: 5162.01

### 2.2 List of Test and Measurement Instruments

**Table 1: List of Test and Measurement Equipment**

<b>Radio Spectrum Testing (SRD-Tonscend)</b>					
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model</b>	<b>Serial No.</b>	<b>Cal. Date</b>	<b>Cal. until</b>
Wireless Connectivity Tester	R&S	CMW270	101375	2024-09-26	2025-09-25
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY60241175	2024-09-26	2025-09-25
Power Meter	Rohde & Schwarz	NRP2	107105	2024-10-31	2025-10-30
Power Sensor	Rohde & Schwarz	NRP-Z81	105677	2024-09-26	2025-09-25
DC Power Supply	KIKUSUI	PAN35-5A	YM002997	2024-03-01	2025-02-28
Digital Multi Meter	FLUKE	F15B	44350844WS	2024-03-04	2025-03-03
MM-Wave Frequency Conversion Receiving Unit	Tonscend	MMFC-R190-L0F0	202305240001	2024-09-13	2027-09-12
MM-Wave Frequency Conversion Receiving Unit	Tonscend	MMFC-R150-L0F0	202305240001	2024-09-02	2027-09-01
MM-Wave Frequency Conversion Receiving Unit	Tonscend	MMFC-R100-L0F0	202305240001	2024-08-29	2027-08-28
MM-Wave Frequency Conversion Receiving Unit	Tonscend	MMFC-R060-L0F0	202305240001	2024-08-30	2027-08-29
MM-Wave Frequency Conversion Transmitting Unit	Tonscend	MMFC-T120-A1	202305240001	2024-09-11	2027-09-10
MM-Wave Frequency Conversion Receiving Unit	Tonscend	MMFC-R040-L0F0	202305240001	2023-11-01	2026-10-31
High Low Temperature Test Chamber	Cavendi	CATT-150C	231020001	2023-05-17	2026-05-16
Control PC	Lenovo	M4000q-00IRB	YLX3LXKQ	N/A	N/A
<b>Unwanted Emission Testing (TS9975)</b>					
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model</b>	<b>Serial No.</b>	<b>Cal. Date</b>	<b>Cal. until</b>
EMI Test Receiver	R&S	ESR 7	102021	2024-09-29	2025-09-28
Signal Analyzer	R&S	FSV 40	101439	2024-09-29	2025-09-28
System Controller Interface	R&S	SCI-100	S10010038	N/A	N/A

Filterbank	R&S	Wlan	100759	2024-09-29	2025-09-28
OSP	R&S	OSP 120	102040	N/A	N/A
Pre-amplifier	R&S	SCU08F1	08320031	2024-09-29	2025-09-28
Amplifier	R&S	SCU-18F	180070	2024-09-29	2025-09-28
Amplifier	R&S	SCU40A	100475	2024-09-29	2025-09-28
Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	2024-09-28	2025-09-27
Double-Ridged Antenna (1 - 18 GHz)	ETS-LINDGREN	3117	00218717	2024-09-28	2025-09-27
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	2024-09-28	2025-09-27
Active Loop Antenna	Schwarzbeck	FMZB 1513	302	2024-09-28	2025-09-27
Test software	R&S	EMC32 (V10.60.10)	N/A	N/A	N/A
Control PC	Dell	OptiPlex 7050	36NV9P2	N/A	N/A
3m Semi-Anechoic Chamber	Albatross	SAC-3m	APC17151-SAC	2024-09-14	2027-09-13
Wireless Connectivity Tester	R&S	CMW270	101375	2024-09-26	2025-09-25
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY60241175	2024-09-26	2025-09-25
Power Meter	Rohde & Schwarz	NRP2	107105	2024-10-31	2025-10-30
Power Sensor	Rohde & Schwarz	NRP-Z81	105677	2024-09-26	2025-09-25
DC Power Supply	KIKUSUI	PAN35-5A	YM002997	2024-03-01	2025-02-28
Digital Multi Meter	FLUKE	F15B	44350844WS	2024-03-04	2025-03-03
MM-Wave Frequency Conversion Receiving Unit	Tonscend	MMFC-R190-L0F0	202305240001	2024-09-13	2027-09-12
MM-Wave Frequency Conversion Receiving Unit	Tonscend	MMFC-R150-L0F0	202305240001	2024-09-02	2027-09-01
MM-Wave Frequency Conversion Receiving Unit	Tonscend	MMFC-R100-L0F0	202305240001	2024-08-29	2027-08-28
MM-Wave Frequency Conversion Receiving Unit	Tonscend	MMFC-R060-L0F0	202305240001	2024-08-30	2027-08-29
MM-Wave Frequency Conversion Transmitting Unit	Tonscend	MMFC-T120-A1	202305240001	2024-09-11	2027-09-10
MM-Wave Frequency Conversion Receiving Unit	Tonscend	MMFC-R040-L0F0	202305240001	2023-11-01	2026-10-31
High Low Temperature Test Chamber	Cavendi	CATT-150C	231020001	2023-05-17	2026-05-16
Control PC	Lenovo	M4000q-00IRB	YLX3LXKQ	N/A	N/A

## 2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

## 2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

## 2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

**Table 2: Measurement Uncertainty**

Parameter	Uncertainty
Occupied Bandwidth	± 2.08 %
Spurious emissions	± 3.68 dB
Output power density	± 0.99 dB
Antenna Power	± 0.99 dB
Frequency Tolerance	0.104 ppm

## 2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

## 2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at 2-3F, 101 & 102, No.2, Nuclear Power Industrial Park, Fuming Community, Fucheng Street, Longhua District, Shenzhen 518000, People's Republic of China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

## 3 General Product Information

### 3.1 Product Function and Intended Use

The Product is DJI Matrice 4 Obstacle Sensing Module which supports 60GHz Radar function. It will be installed on the DJI Matrice 4D series aircraft when in normal use.

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	DJI Matrice 4 Obstacle Sensing Module
Type Designation	LR-01
Trademark	DJI
FCC	SS3-LR012502
Testing Voltage	22.14V DC via the Type-C port from the DJI Aircraft (DJI Matrice 4D)
Extreme Temperature Range	-20°C ~ +50 °C
<b>Technical Specification of 60GHz Radar</b>	
Frequency band(s) of operation:	60 - 64 GHz (Radar devices deployed on unmanned aircraft may operate within the frequency band 60-64 GHz. Operation shall be limited to a maximum of 121.92 meters (400 feet) above ground level.)
Operating frequency:	60- 63.9 GHz
Type of Modulation:	FMCW
Antenna Gain:	5 dBi Max (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.

### 3.3 Independent Operation Modes

The basic operation modes are:

- A. On, 60GHz Radar wireless transmitting mode
- B. Off

### 3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

### 3.5 Submitted Documents

- Application Form
- ID Label and Location Info
- User Manual
- Operation Description

## 4 Test Set-up and Operation Modes

### 4.1 Principle of Configuration Selection

**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.

**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.

### 4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.10: 2013.

According to clause 3.1, all tests were performed on model LR-01 in this report.

### 4.3 Special Accessories and Auxiliary Equipment

Table 4: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N	Rating
Laptop	Lenovo	T480	PF-16A6N8	/
DC power Supply	Topward	3303D	809332	0-30 Volts, 0-3 Amps
DJI Matrice 4TD	DJI	M4TD	/	/

### 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.

## 4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

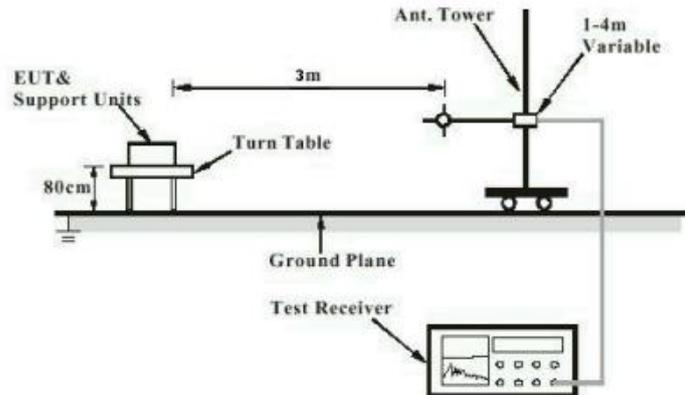


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

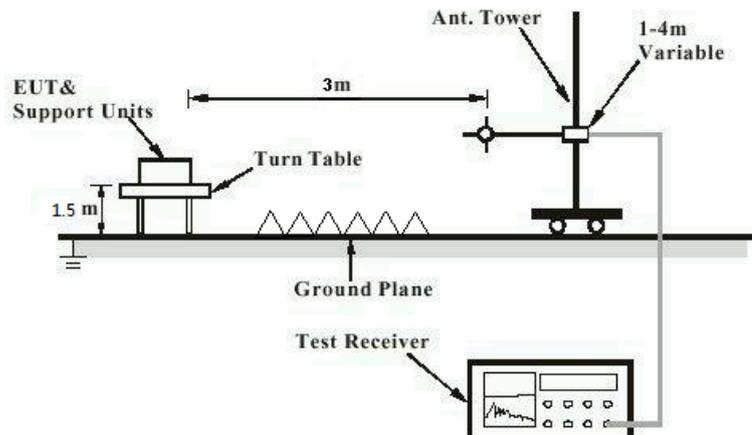
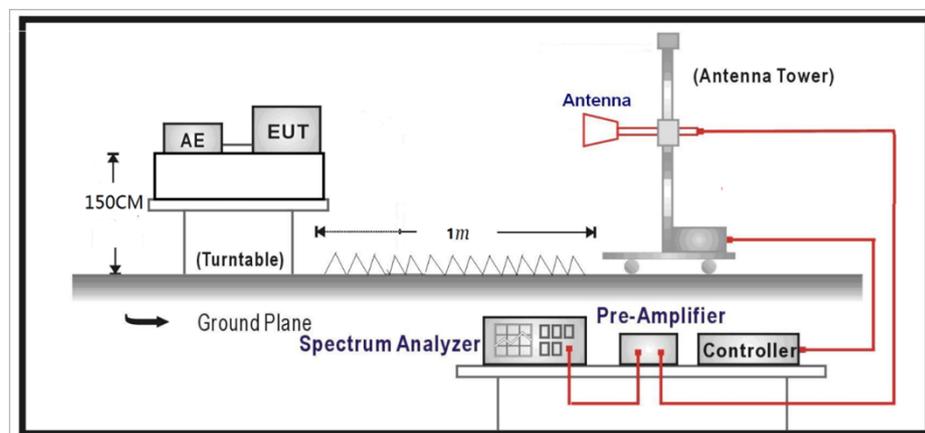


Diagram of Measurement Configuration for Radiation Test (Above 40GHz)



## 5 Test Results

### 5.1 Transmitter Requirement & Test Suites

#### 5.1.1 Antenna Requirement

**RESULT:****Pass****Test Specification**

Test standard : FCC Part 15.203

Limit : the use of antennas with directional gains that do not exceed 6 dBi

According to the manufacturer declared, the EUT have Integral Antennas, permanent attachment and no consideration of replacement, refer to section 3.2 for details.

Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

## 5.1.2 EIRP POWER and Transmitter off-times MEASUREMENT

**RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.255 clause (b)(3)
Basic standard	: ANSI C63.10: 2013
Limits	: Peak EIRP: <0.1W (20dBm) The sum of continuous transmitter off-times of at least two milliseconds shall equal at least 16.5 milliseconds within any contiguous interval of 33 milliseconds.
Kind of test site	: Shielded Room

**Test Setup**

Date of testing	: 2025-03-21 to 2025-04-07
Input voltage	: 22.14
Operation mode	: A
Ambient temperature	: 25 °C
Relative humidity	: 45 %
Atmospheric pressure	: 101 kPa

For details refer to following test result.

For the measurement records, refer to the appendix A.

### 5.1.3 Frequency Stability

**RESULT:****Pass****Test Specification**

Test standard : FCC Part 15.255(f)  
Basic standard : ANSI C63.10: 2013  
Limits : Within assigned bands (60-64GHz)  
Kind of test site : Shielded Room

**Test Setup**

Date of testing : 2025-03-21 to 2025-04-07  
Input voltage : 22.14  
Operation mode : A  
Ambient temperature : 25 °C  
Relative humidity : 45 %  
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix A.

Prüfbericht - Nr.: **CN25IK74 001**  
Test Report No.:Seite 16 von 18  
Page 16 of 18

### 5.1.4 99% Bandwidth

**RESULT:****Pass****Test Specification**

Test standard : FCC Part 15.215  
Basic standard : ANSI C63.10: 2013  
Limits : Within assigned bands (60-64GHz)  
Kind of test site : Shielded Room

**Test Setup**

Date of testing : 2025-03-21 to 2025-04-07  
Input voltage : 22.14  
Operation mode : A  
Ambient temperature : 25 °C  
Relative humidity : 45 %  
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix A.

## 5.1.5 Radiated Spurious Emission

**RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.255 (d)
Basic standard	: ANSI C63.10: 2013 Radiated emissions below 40 GHz shall not exceed the general limits in § 15.209.
Limits	: 90 pW/cm <sup>2</sup> peak at a distance of 3 m for emissions between 40 GHz and 200 GHz The levels of the spurious emissions shall not exceed the level of the fundamental emission.
Kind of test site	: 3m Semi-anechoic Chamber

**Test Setup**

Date of testing	: 2025-03-21 to 2025-04-07
Input voltage	: 22.14
Operation mode	: A
Ambient temperature	: Refer to test result
Relative humidity	: Refer to test result
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix A.

## 6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix B.

## 7 List of Tables

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

# APPENDIX A: TEST RESULTS

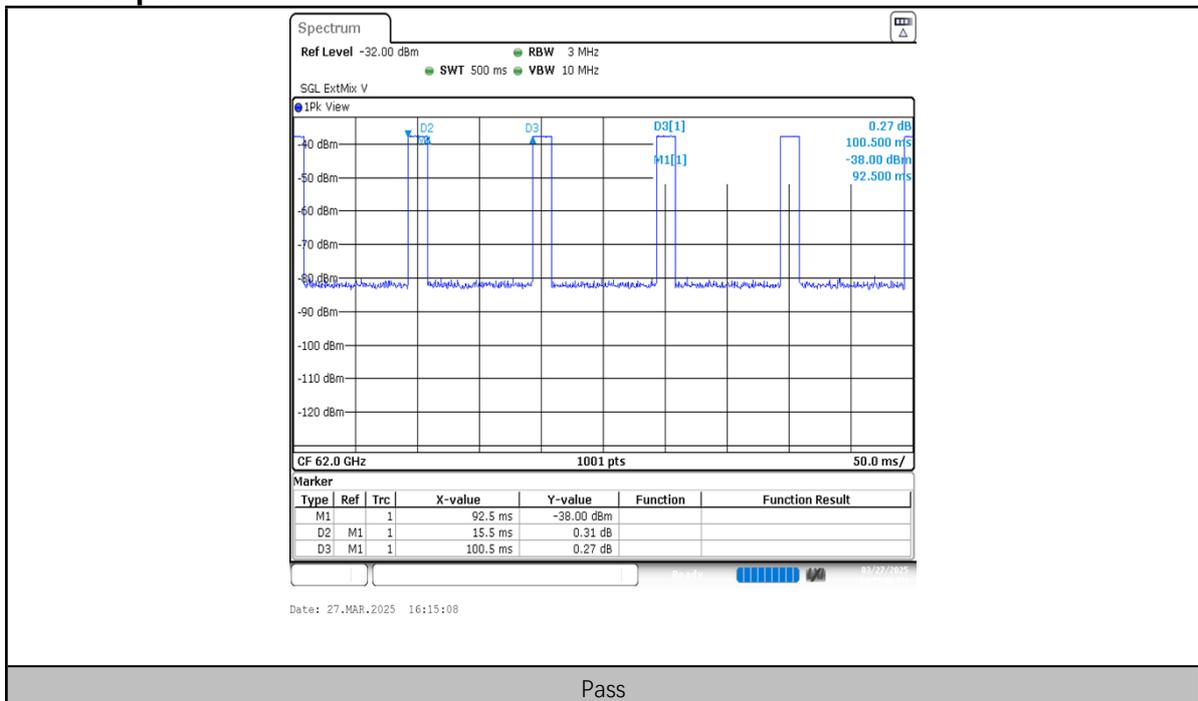
<b>APPENDIX A.1: THE SUM OF CONTINUOUS TRANSMITTER OFF-TIMES .....</b>	<b>2</b>
Test Results .....	2
Test Graphs .....	2
<b>APPENDIX A.2: 99% OCCUPIED BANDWIDTH.....</b>	<b>3</b>
Test Results .....	3
Test Graphs .....	3
<b>APPENDIX A.3: PEAK FUNDAMENTAL RADIATED EMISSION .....</b>	<b>4</b>
Test Results .....	4
Test Graphs .....	4
<b>APPENDIX A.4: SPURIOUS EMISSIONS .....</b>	<b>5</b>
Test Results (Below 1GHz).....	5
Test Results (1-40GHz) .....	7
Test Results (Above 40GHz) .....	13
<b>APPENDIX A.5: FREQUENCY STABILITY .....</b>	<b>17</b>

## APPENDIX A.1: THE SUM OF CONTINUOUS TRANSMITTER OFF-TIMES

### Test Results

ON-Time(ms) within any contiguous interval of 33 ms	Measured Off-Time(ms)	Limit Off-Time(ms)	Verdict
	within any contiguous interval of 33 ms		
15.5	17.5	≥ 16.5	Pass

### Test Graphs



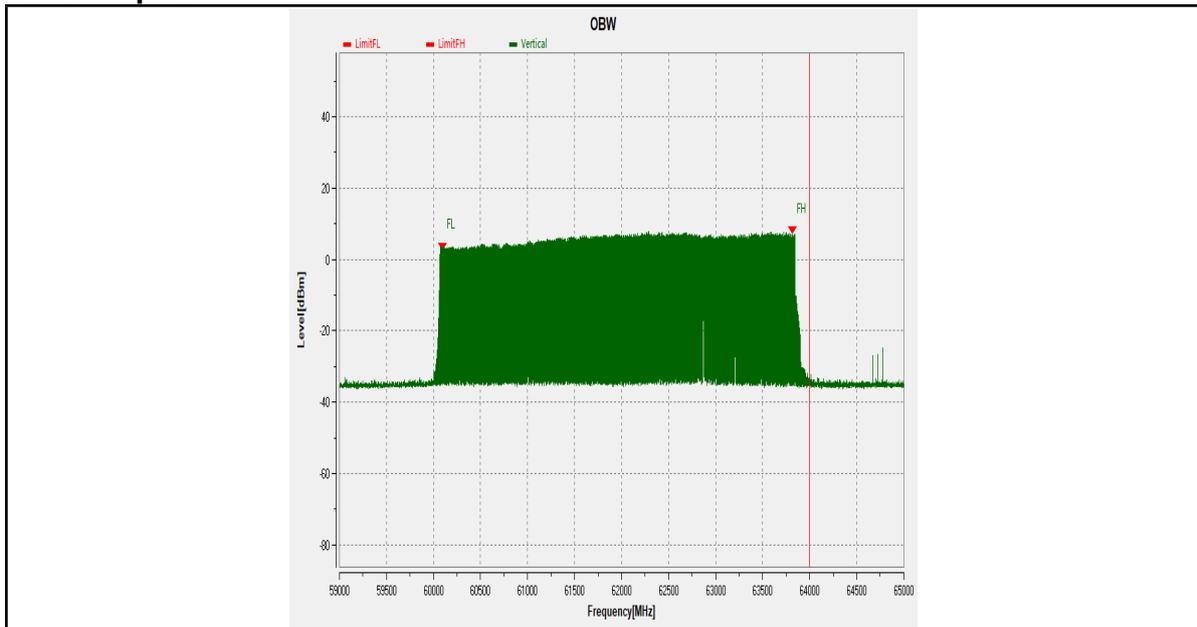
Pass

## APPENDIX A.2: 99% OCCUPIED BANDWIDTH

### Test Results

Condition	Mode	F <sub>L</sub> (GHz)	F <sub>H</sub> (GHz)	OBW(GHz)	Limit [GHz]	Verdict
NTNV	TM1	60.092	63.8168	3.725	60 - 64GHz	Pass

### Test Graphs



### SPA setting:

#### Measurement

Setting	Instrument Value	Target Value
RBW	1 MHz	1 MHz
VBW	3MHz	3MHz

Pass

## APPENDIX A.3: PEAK FUNDAMENTAL RADIATED EMISSION

### Test Results

Condition	Mode	Det	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Verdict
NTNV	TM1	PK	62522.06	8.34	20	11.66	PASS

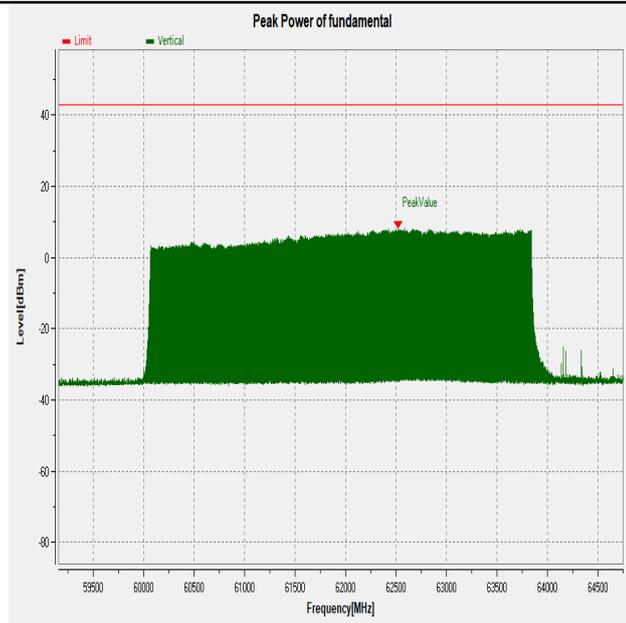
Note: The desensitization factor has been compensated to the peak value in above table.  
 Refer to C63.10 Annex L Desensitization factor and sweep time considerations for measurements of FMCW signals

$$\alpha = \frac{1}{\sqrt{1 + \left(\frac{2 \ln(2)}{\pi}\right)^2 \left(\frac{BW_{\text{Chirp}}}{T_{\text{Chirp}} B^2}\right)^2}} \quad (\text{L.1})$$

where

- $\alpha$  is the reduction in amplitude
- $BW_{\text{Chirp}}$  is the FMCW Chirp Bandwidth
- $T_{\text{Chirp}}$  is the FMCW Chirp Time
- $B$  is the 3 dB IF Bandwidth = RBW

### Test Graphs



#### SPA setting: Measurement

Setting	Instrument Value	Target Value
RBW	3 MHz	3 MHz
VBW	10MHz	10MHz

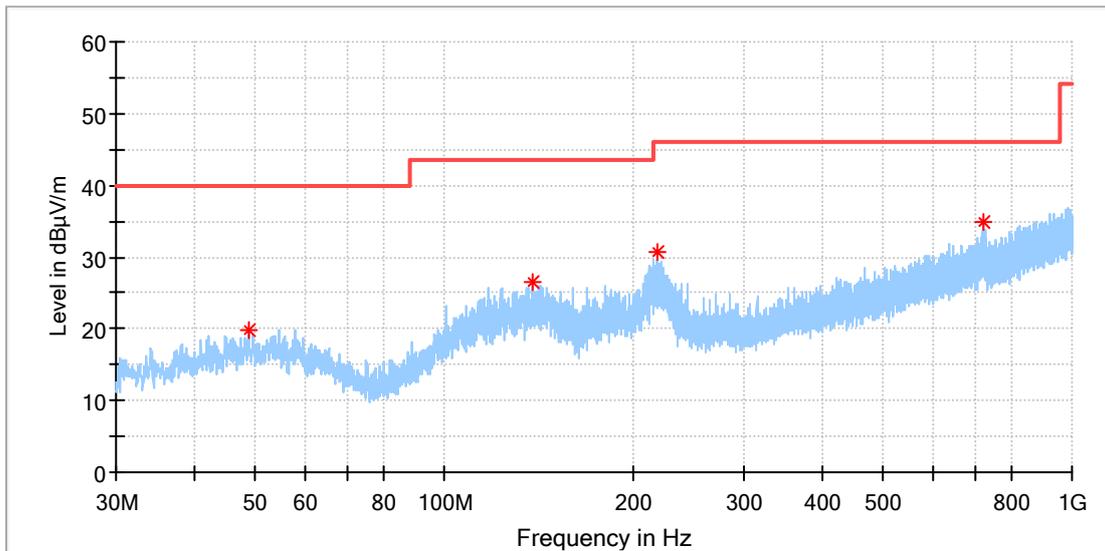
PASS

## APPENDIX A.4: SPURIOUS EMISSIONS

### Test Results (Below 1GHz)

#### EUT Information

EUT Name:	DJI Matrice 4 Obstacle Sensing Module
Model:	LR-01
Test Mode:	60GHz Radar
Order No/Sample No:	168512858/A003882058-003
Test Voltage::	25.6V DC
Remark:	Temp 23 Humi:58%
Test Standard:	RSS-GEN
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



#### Critical\_Freqs

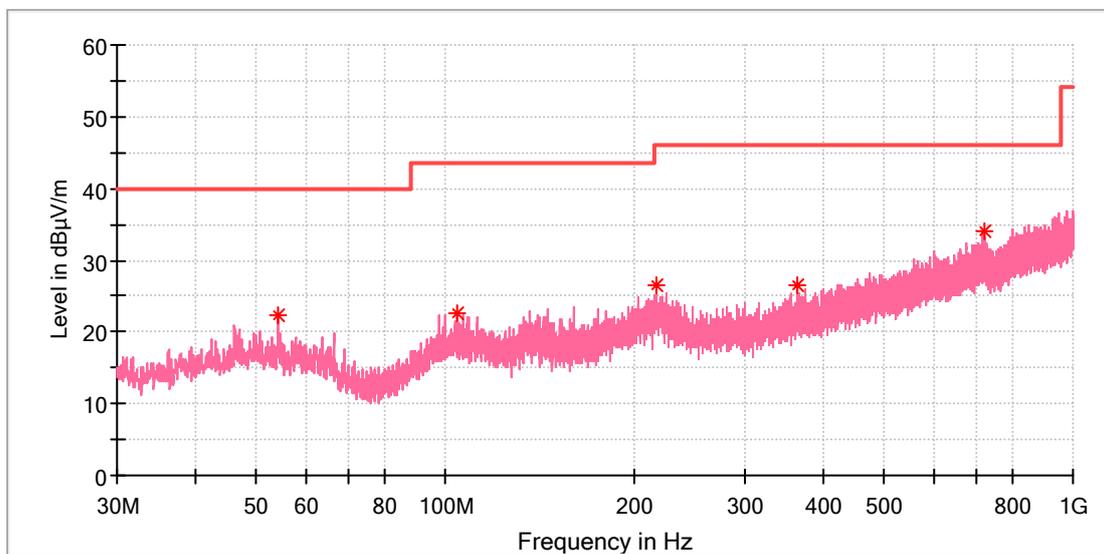
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
48.765769	19.95	40.00	20.05	100.0	H	196.0	-18.5
138.155000	26.56	43.50	16.94	100.0	H	263.0	-22.3
217.956154	30.62	46.00	15.38	100.0	H	204.0	-18.7
720.043077	34.81	46.00	11.19	100.0	H	246.0	-7.6

#### Final\_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

## EUT Information

EUT Name:	DJI Matrice 4 Obstacle Sensing Module
Model:	LR-01
Test Mode:	60GHz Radar
Order No/Sample No:	168512858/A003882058-003
Test Voltage::	25.6V DC
Remark:	Temp 23 Humi:58%
Test Standard:	RSS-GEN
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



## Critical\_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
54.063462	22.42	40.00	17.58	100.0	V	21.0	-18.5
104.690000	22.51	43.50	20.99	100.0	V	63.0	-18.9
216.351923	26.40	46.00	19.60	100.0	V	137.0	-18.7
363.381539	26.64	46.00	19.36	100.0	V	153.0	-14.6
720.005769	34.12	46.00	11.88	100.0	V	29.0	-7.6

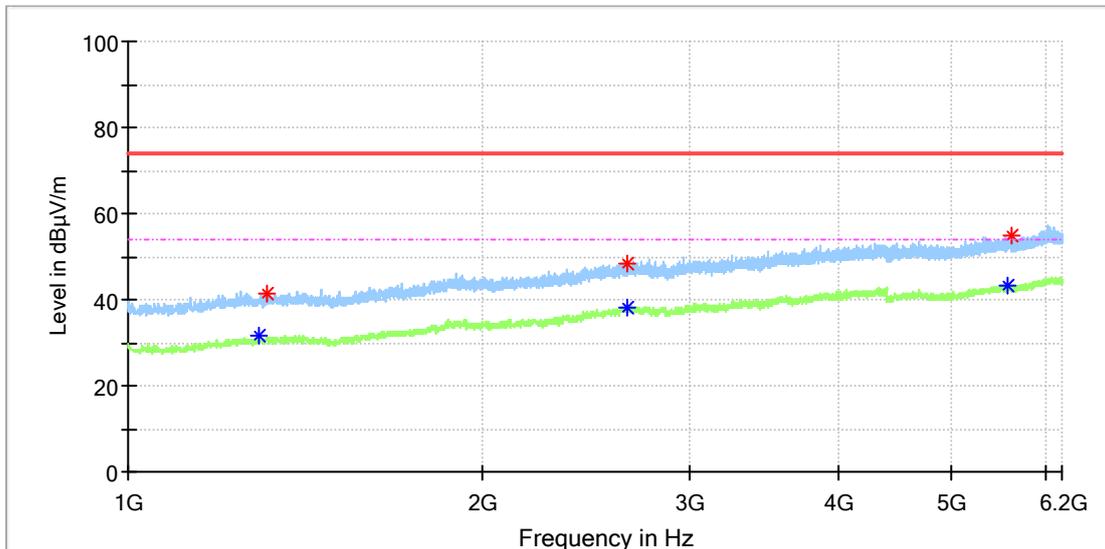
## Final\_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

### Test Results (1-40GHz)

#### EUT Information

EUT Name:	DJI Matrice 4 Obstacle Sensing Module
Model:	LR-01
Test Mode:	60GHz Radar
Order No/Sample No:	168512858/A003882058-003
Test Voltage::	25.6V DC
Remark:	Temp 23 Humi:58%
Test Standard:	RSS-GEN
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



#### Critical Freqs

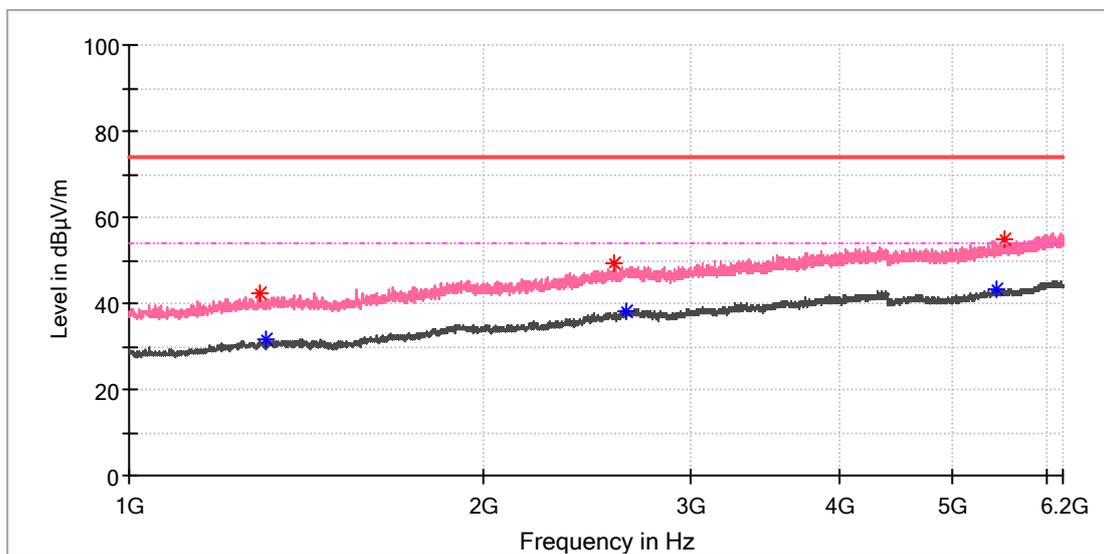
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1292.500000	---	31.59	54.00	22.41	150.0	H	57.0	2.7
1311.500000	41.18	---	74.00	32.82	150.0	H	9.0	2.8
2647.500000	---	38.34	54.00	15.66	150.0	H	150.0	10.1
2656.000000	48.51	---	74.00	25.49	150.0	H	15.0	10.2
5584.000000	---	43.37	54.00	10.63	150.0	H	130.0	15.3
5617.500000	54.92	---	74.00	19.08	150.0	H	243.0	15.3

#### Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

## EUT Information

EUT Name:	DJI Matrice 4 Obstacle Sensing Module
Model:	LR-01
Test Mode:	60GHz Radar
Order No/Sample No:	168512858/A003882058-003
Test Voltage:::	25.6V DC
Remark:	Temp 23 Humi:58%
Test Standard:	RSS-GEN
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



## Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1291.500000	42.20	---	74.00	31.80	150.0	V	170.0	2.7
1306.500000	---	31.78	54.00	22.22	150.0	V	226.0	2.8
2582.000000	49.23	---	74.00	24.77	150.0	V	60.0	9.5
2641.000000	---	38.32	54.00	15.68	150.0	V	201.0	10.0
5454.500000	---	43.09	54.00	10.91	150.0	V	231.0	15.0
5531.000000	54.88	---	74.00	19.12	150.0	V	242.0	15.3

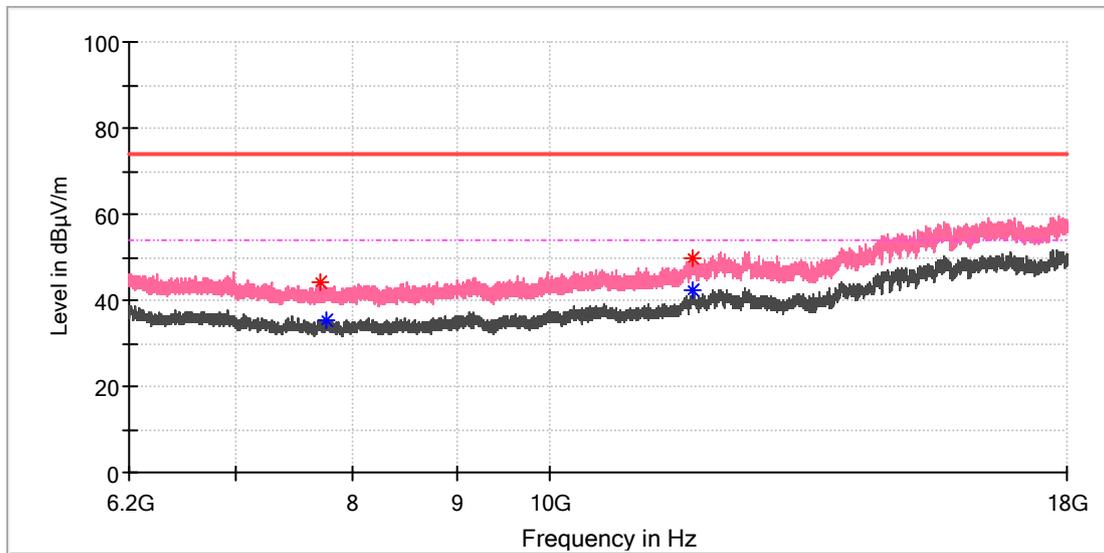
## Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---



## EUT Information

EUT Name:	DJI Matrice 4 Obstacle Sensing Module
Model:	LR-01
Test Mode:	60GHz Radar
Order No/Sample No:	168512858/A003882058-003
Test Voltage::	25.6V DC
Remark:	Temp 23 Humi:58%
Test Standard:	RSS-GEN
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



## Critical\_Freqs

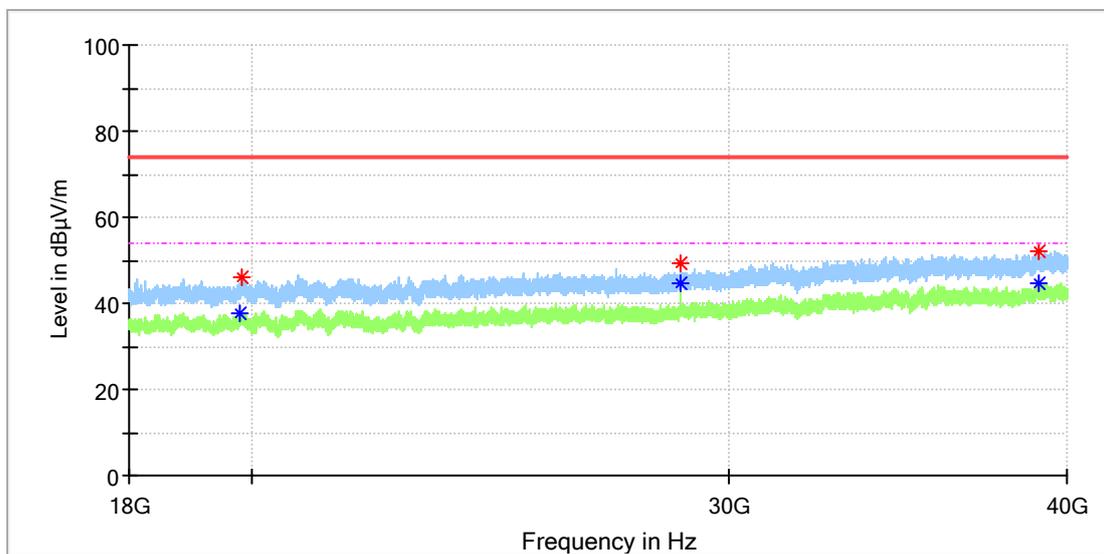
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7712.366667	44.05	---	74.00	29.95	150.0	V	143.0	8.7
7756.616667	---	35.55	54.00	18.45	150.0	V	191.0	8.8
11764.683333	---	42.44	54.00	11.56	150.0	V	32.0	15.3
11774.516667	49.91	---	74.00	24.09	150.0	V	0.0	15.2

## Final\_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

## EUT Information

EUT Name:	DJI Matrice 4 Obstacle Sensing Module
Model:	LR-01
Test Mode:	60GHz Radar
Order No/Sample No:	168512858/A003882058-003
Test Voltage:::	25.6V DC
Remark:	Temp 23 Humi:58%
Test Standard:	RSS-GEN
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



## Critical Freqs

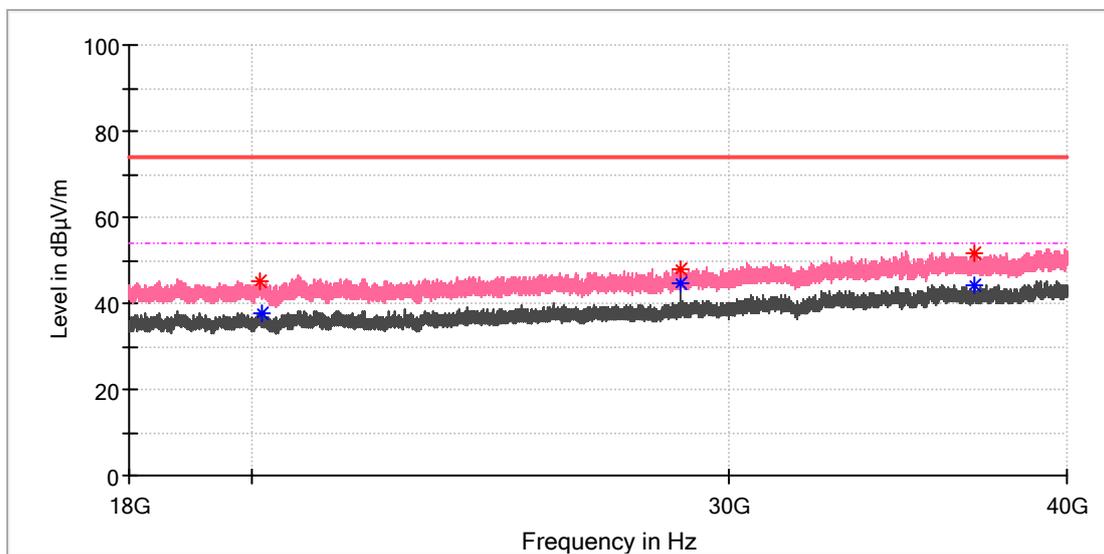
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
19771.000000	---	37.87	54.00	16.13	150.0	H	146.0	-11.4
19815.687500	46.16	---	74.00	27.84	150.0	H	31.0	-11.5
28799.937500	---	44.81	54.00	9.19	150.0	H	100.0	-8.9
28799.937500	49.21	---	74.00	24.79	150.0	H	100.0	-8.9
39019.625000	52.20	---	74.00	21.80	150.0	H	158.0	-5.1
39058.125000	---	44.50	54.00	9.50	150.0	H	170.0	-5.0

## Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

## EUT Information

EUT Name:	DJI Matrice 4 Obstacle Sensing Module
Model:	LR-01
Test Mode:	60GHz Radar
Order No/Sample No:	168512858/A003882058-003
Test Voltage:::	25.6V DC
Remark:	Temp 23 Humi:58%
Test Standard:	RSS-GEN
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



## Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
20118.875000	45.01	---	74.00	28.99	150.0	V	199.0	-11.3
20162.187500	---	37.65	54.00	16.35	150.0	V	100.0	-11.4
28799.937500	48.10	---	74.00	25.90	150.0	V	270.0	-8.9
28799.937500	---	44.62	54.00	9.38	150.0	V	270.0	-8.9
36948.187500	51.77	---	74.00	22.23	150.0	V	0.0	-7.1
36955.750000	---	44.28	54.00	9.72	150.0	V	150.0	-7.1

## Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

Appendix A  
**CN25IK74 001**

Test Report - Products

Page 13 of 17

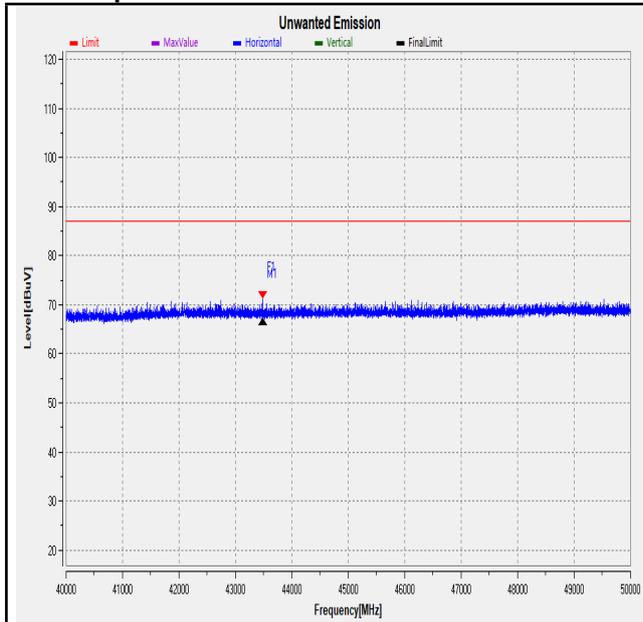
**Test Results (Above 40GHz)**

Condition	Mode	Mk No.	Det	RBW (MHz)	VBW (MHz)	Test Distance (m)	Frequency (MHz)	Power Density@3m (pW/cm <sup>2</sup> )	Ant. Polarity (H/V)	Limit@3m (pW/cm <sup>2</sup> )	Verdict
NTNV	TM1	M1	PK	1	3	1m	43480.000	0.396	H	90.0	PASS
NTNV	TM1	F1	PK	1	3	1m	43480.000	0.155	H	90.0	PASS
NTNV	TM1	M1	PK	1	3	1m	49618.000	0.419	V	90.0	PASS
NTNV	TM1	F1	PK	1	3	1m	49618.000	0.187	V	90.0	PASS
NTNV	TM1	M1	PK	1	3	1m	54528.000	0.417	H	90.0	PASS
NTNV	TM1	F1	PK	1	3	1m	54528.000	0.068	H	90.0	PASS
NTNV	TM1	M2	PK	1	3	1m	65245.320	1.965	H	90.0	PASS
NTNV	TM1	F2	PK	1	3	1m	65245.320	0.438	H	90.0	PASS
NTNV	TM1	M1	PK	1	3	1m	50237.000	0.384	V	90.0	PASS
NTNV	TM1	F1	PK	1	3	1m	50237.000	0.068	V	90.0	PASS
NTNV	TM1	M2	PK	1	3	1m	64736.940	2.879	V	90.0	PASS
NTNV	TM1	F2	PK	1	3	1m	64736.940	0.179	V	90.0	PASS
NTNV	TM1	M1	PK	1	3	1m	82280.000	0.856	H	90.0	PASS
NTNV	TM1	F1	PK	1	3	1m	82280.000	0.383	H	90.0	PASS
NTNV	TM1	M1	PK	1	3	1m	98719.500	0.836	V	90.0	PASS
NTNV	TM1	F1	PK	1	3	1m	98719.500	0.185	V	90.0	PASS
NTNV	TM1	M1	PK	1	3	1m	154652.000	2.390	H	90.0	PASS
NTNV	TM1	F1	PK	1	3	1m	154652.000	0.460	H	90.0	PASS
NTNV	TM1	M1	PK	1	3	1m	165710.000	2.099	V	90.0	PASS
NTNV	TM1	F1	PK	1	3	1m	165710.000	0.450	V	90.0	PASS
NTNV	TM1	M1	PK	1	3	1m	198155.000	4.467	H	90.0	PASS
NTNV	TM1	F1	PK	1	3	1m	198155.000	0.944	H	90.0	PASS
NTNV	TM1	M1	PK	1	3	1m	173816.000	3.832	V	90.0	PASS
NTNV	TM1	F1	PK	1	3	1m	173816.000	0.856	V	90.0	PASS

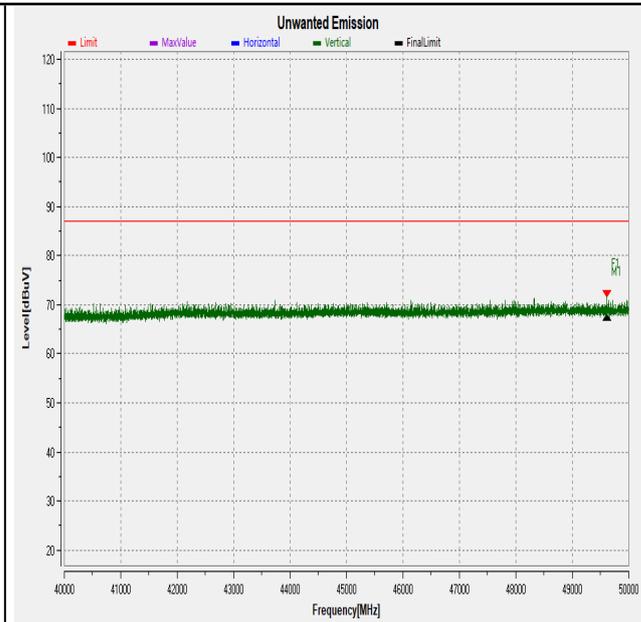
Note: \*The convert factor  $20 \cdot \log(3m/1m)$  was compensated for 1m to 3m distance.

\*\*EIRP (dBm)=E(dBuV/m@3m)-95.3, MPE= EIRP/(4\*PI\*R^2), R=3m

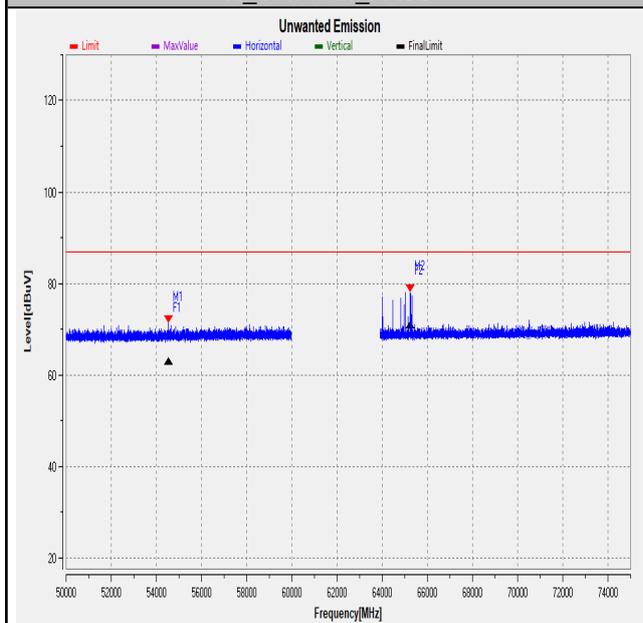
Test Graphs for above 40GHz at 1m test distance



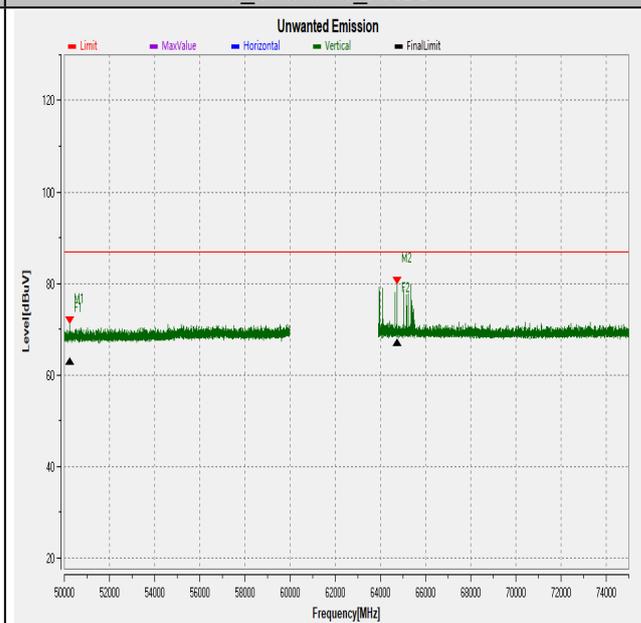
H\_40G-50G\_PASS



V\_40G-50G\_PASS



H\_50G-75G\_PASS

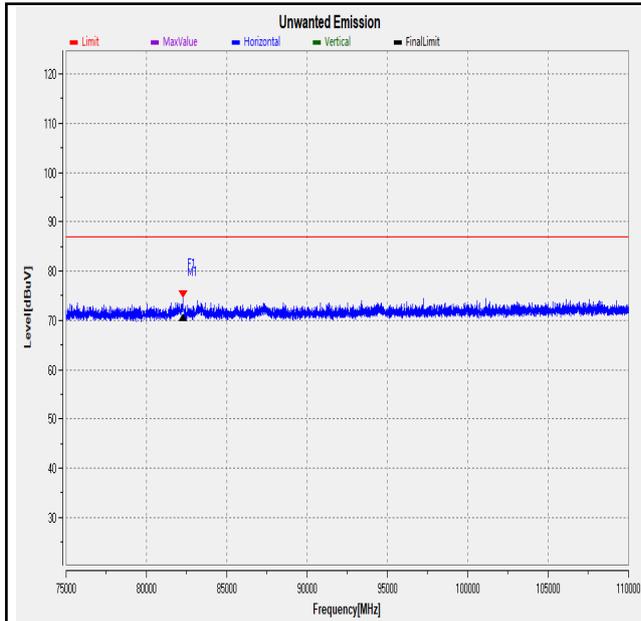


V\_50G-75G\_PASS

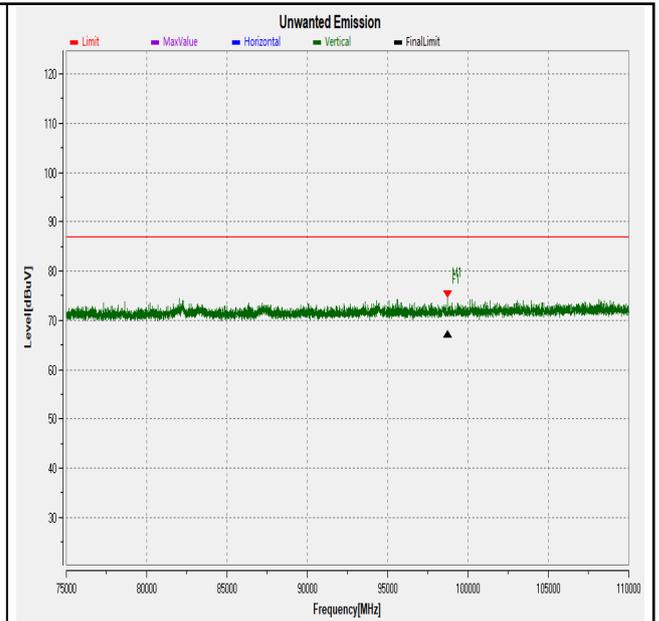
Appendix A  
CN25IK74 001

Test Report - Products

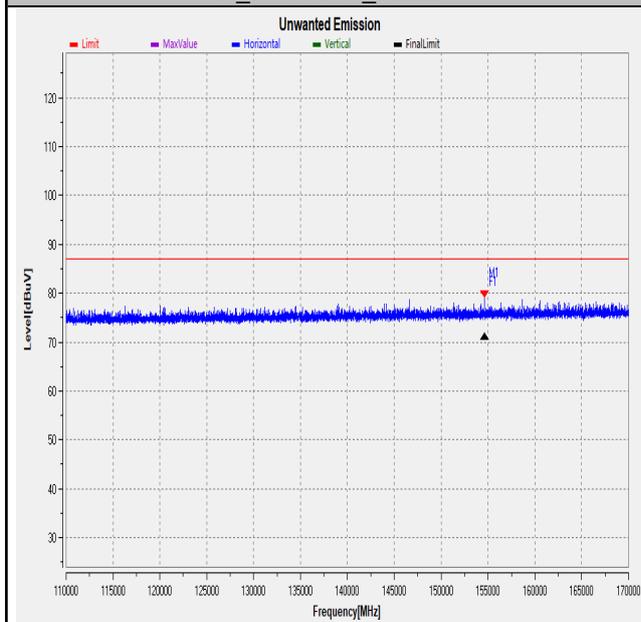
Page 15 of 17



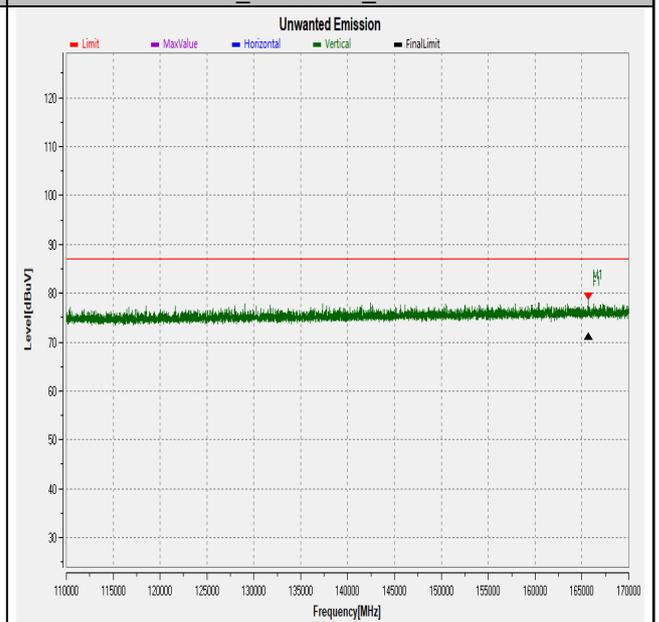
H\_75G-110G\_PASS



V\_75G-110G\_PASS



H\_110G-170G\_PASS

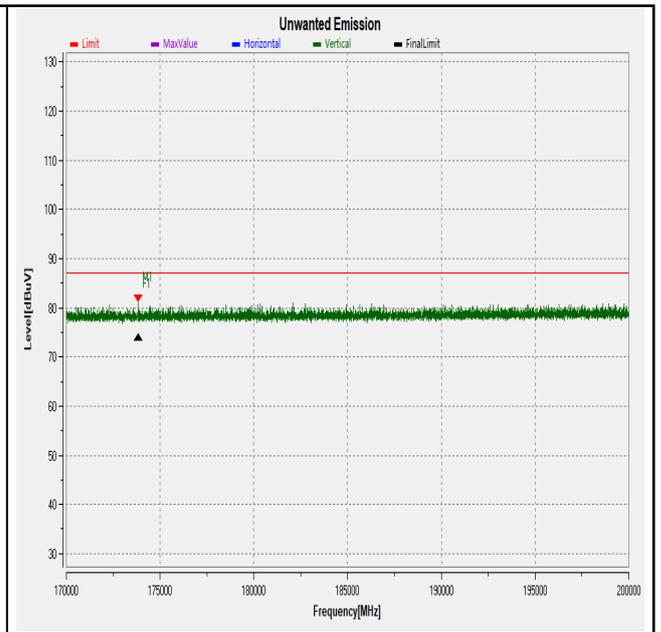
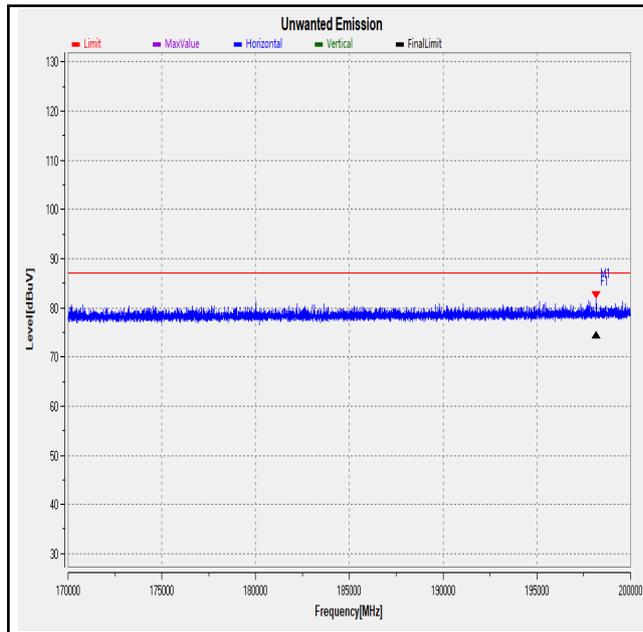


V\_110G-170G\_PASS

Appendix A  
CN25IK74 001

Test Report - Products

Page 16 of 17



**APPENDIX A.5: FREQUENCY STABILITY**

FREQUENCY STABILITY						
Temperature (°C)	Voltage (Volt)	FL (GHz)	FH (GHz)	Limit (GHz)	Result	
50	Normal Voltage	60.0661	63.7872	60-64GHz	PASS	
40		60.0534	63.7895			
30		60.1097	63.8051			
20		60.0478	63.7855			
10		60.0666	63.8000			
0		60.1055	63.8268			
-10		60.0681	63.8287			
-20		60.0960	63.7967			
-30		60.0659	63.7642			
25.6		115%	60.0738			63.8235
25.6		85%	60.0430			63.8188

===== THE END =====