



**中认信通**  
CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)



## TEST REPORT

**Applicant:** ZHEJIANG NVC LAMPS CO.,LTD

**Address:** No.21, Kaiyuan Road, Shanhai Xiezuo Area, Economic Development Zone, Jiangshan, Zhejiang, China

**FCC ID:** VVO-DSDYKQ

**Product Name:** Remote Control

**Model:** NVC-DSDYKQ

**Standard(s):** 47 CFR Part 15, Subpart C(15.249)  
ANSI C63.10-2013

The above device has been tested and found compliant with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

**Report Number:** CR230530545-00

**Date Of Issue:** 2024/3/7

**Reviewed By:** Calvin Chen

**Title:** RF Engineer

**Approved By:** Sun Zhong

**Title:** Manager

**Test Laboratory:** China Certification ICT Co., Ltd (Dongguan)

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## Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

## Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol “▲”. Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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## CONTENTS

<b>DOCUMENT REVISION HISTORY .....</b>	<b>4</b>
<b>1. GENERAL INFORMATION .....</b>	<b>5</b>
<b>1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT) .....</b>	<b>5</b>
<b>1.2 DESCRIPTION OF TEST CONFIGURATION.....</b>	<b>6</b>
1.2.1 EUT Operation Condition:.....	6
1.2.2 Support Equipment List and Details .....	6
1.2.3 Support Cable List and Details .....	6
1.2.4 Block Diagram of Test Setup.....	6
<b>1.3 MEASUREMENT UNCERTAINTY .....</b>	<b>7</b>
<b>2. SUMMARY OF TEST RESULTS .....</b>	<b>8</b>
<b>3. REQUIREMENTS AND TEST PROCEDURES .....</b>	<b>9</b>
<b>3.1 AC LINE CONDUCTED EMISSIONS.....</b>	<b>9</b>
3.1.1 Applicable Standard.....	9
3.1.2 EUT Setup.....	10
3.1.3 EMI Test Receiver Setup .....	10
3.1.4 Test Procedure .....	11
3.1.5 Corrected Amplitude & Margin Calculation.....	11
<b>3.2 RADIATED EMISSIONS .....</b>	<b>12</b>
3.2.1 Applicable Standard.....	12
3.2.2 EUT Setup.....	12
3.2.3 EMI Test Receiver & Spectrum Analyzer Setup .....	14
3.2.4 Test Procedure .....	14
3.2.5 Corrected Amplitude & Margin Calculation.....	14
<b>3.3 20 dB EMISSION BANDWIDTH: .....</b>	<b>15</b>
3.3.1 Applicable Standard.....	15
3.3.2 EUT Setup.....	15
3.3.3 Test Procedure .....	15
<b>3.4 ANTENNA REQUIREMENT.....</b>	<b>16</b>
3.4.1 Applicable Standard.....	16
3.4.2 Judgment.....	16
<b>4. Test DATA AND RESULTS.....</b>	<b>17</b>
<b>4.1 AC LINE CONDUCTED EMISSIONS.....</b>	<b>17</b>
<b>4.2 RADIATION SPURIOUS EMISSIONS.....</b>	<b>18</b>
<b>4.3 20 dB EMISSION BANDWIDTH: .....</b>	<b>35</b>
<b>5. RF EXPOSURE EVALUATION .....</b>	<b>37</b>
<b>5.1 APPLICABLE STANDARD.....</b>	<b>37</b>
<b>6. EUT PHOTOGRAPHS .....</b>	<b>38</b>
<b>7. TEST SETUP PHOTOGRAPHS .....</b>	<b>39</b>

## DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR230530545-00	Original Report	2024/3/7

## 1. GENERAL INFORMATION

### 1.1 Product Description for Equipment under Test (EUT)

<b>EUT Name:</b>	Remote Control
<b>EUT Model:</b>	NVC-DSDYKQ
<b>Operation Frequency:</b>	2452 MHz
<b>Modulation Type:</b>	ASK
<b>Rated Input Voltage:</b>	3Vdc from battery
<b>Serial Number:</b>	26EG-1
<b>EUT Received Date:</b>	2023/6/2
<b>EUT Received Status:</b>	Good

#### Antenna Information Detail▲:

Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain
PCB	50	2.4~2.5GHz	0dBi

The Method of §15.203 Compliance:

- ☒ Antenna was permanently attached to the unit.
- ☐ Antenna use a unique type of connector to attach to the EUT.
- ☐ Unit was professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

#### Accessory Information:

No Accessory.

## 1.2 Description of Test Configuration

### 1.2.1 EUT Operation Condition:

<b>EUT Operation Mode:</b>	The system was configured for testing in Engineering Mode, which was provided by the manufacturer.
<b>Equipment Modifications:</b>	No
<b>EUT Exercise Software:</b>	No
Engineering Mode was provided by manufacturer▲. The maximum power was configured default setting.	

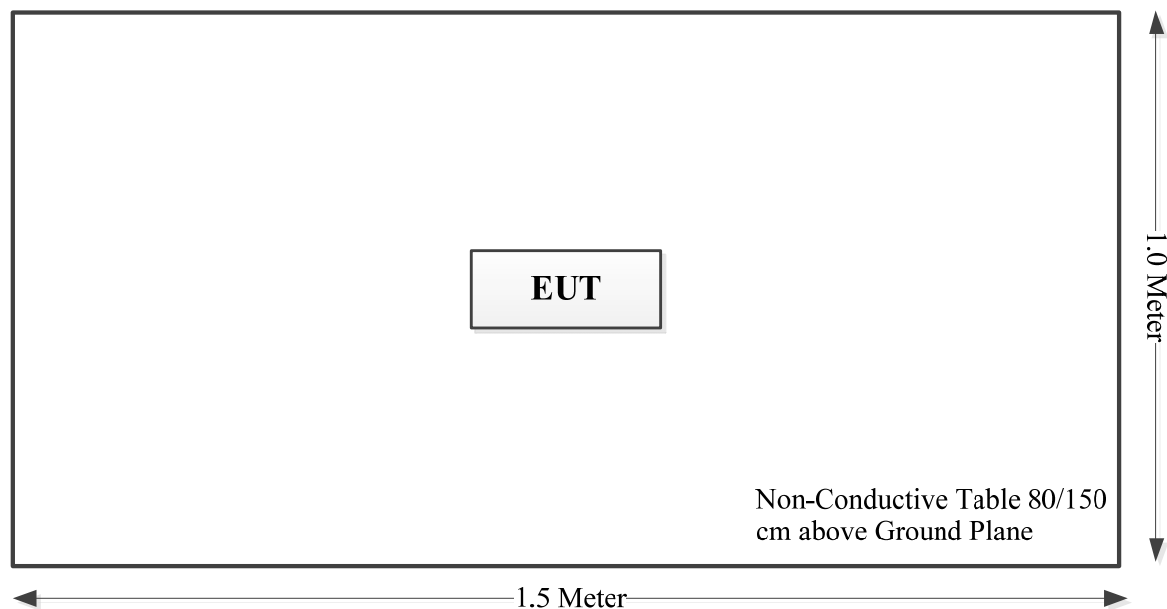
### 1.2.2 Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
/	/	/	/

### 1.2.3 Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
/	/	/	/	/	/

### 1.2.4 Block Diagram of Test Setup



### 1.3 Measurement Uncertainty

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	$\pm 5\%$
Unwanted Emissions, radiated	9kHz~30MHz: 4.12dB 30M~200MHz: 4.15 dB, 200M~1GHz: 5.61 dB, 1G~6GHz: 5.14 dB, 6G~18GHz: 5.93 dB, 18G~26.5G: 5.47 dB, 26.5G~40G: 5.63 dB
Temperature	$\pm 1^{\circ}\text{C}$
Humidity	$\pm 5\%$
DC and low frequency voltages	$\pm 0.4\%$
Duty Cycle	1%
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)

## 2. SUMMARY OF TEST RESULTS

Standard(s)/Rule(s)	Description of Test	Result
§15.203	Antenna Requirement	Compliant
§15.207(a)	Conduction Emissions	Not applicable
15.205, §15.209, §15.249	Radiated Emissions	Compliant
§15.215 (c)	20 dB Bandwidth	Compliant
§1.1310	RF Exposure Evaluation	Compliant



### 3. REQUIREMENTS AND TEST PROCEDURES

#### 3.1 AC Line Conducted Emissions

##### 3.1.1 Applicable Standard

FCC§15.207(a).

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of emission (MHz)	Conducted limit (dB $\mu$ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

\*Decreases with the logarithm of the frequency.

(b) The limit shown in paragraph (a) of this section shall not apply to carrier current systems operating as intentional radiators on frequencies below 30 MHz. In lieu thereof, these carrier current systems shall be subject to the following standards:

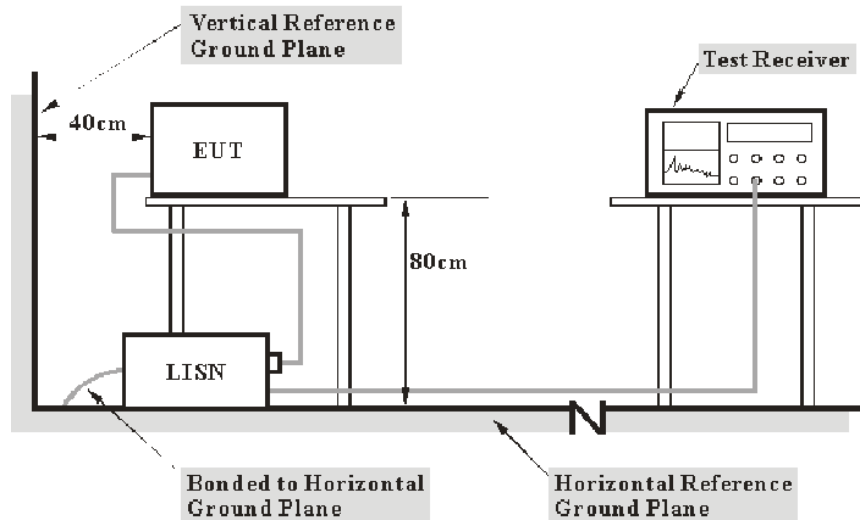
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000  $\mu$ V within the frequency band 535-1705 kHz, as measured using a 50  $\mu$ H/50 ohms LISN.

(3) Carrier current systems operating below 30 MHz are also subject to the radiated emission limits in §15.205, §15.209, §15.221, §15.223, or §15.227, as appropriate.

(c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, AC adapters or battery eliminators or that connect to the AC power lines indirectly, obtaining their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

### 3.1.2 EUT Setup



Note: 1. Support units were connected to second LISN.  
 2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

### 3.1.3 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

### 3.1.4 Test Procedure

During the conducted emission test, the EUT was connected to the outlet of the first LISN.

The frequency and amplitude of the six highest ac power-line conducted emissions relative to the limit, measured over all the current-carrying conductors of the EUT power cords, and the operating frequency or frequency to which the EUT is tuned (if appropriate), should be reported, unless such emissions are more than 20 dB below the limit. AC power-line conducted emissions measurements are to be separately carried out only on each of the phase (“hot”) line(s) and (if used) on the neutral line(s), but not on the ground [protective earth] line(s). If less than six emission frequencies are within 20 dB of the limit, then the noise level of the measuring instrument at representative frequencies should be reported. The specific conductor of the power-line cord for each of the reported emissions should be identified. Measure the six highest emissions with respect to the limit on each current-carrying conductor of each power cord associated with the EUT (but not the power cords of associated or peripheral equipment that are part of the test configuration). Then, report the six highest emissions with respect to the limit from among all the measurements identifying the frequency and specific current-carrying conductor identified with the emission. The six highest emissions should be reported for each of the current-carrying conductors, or the six highest emissions may be reported over all the current-carrying conductors.

### 3.1.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor

Factor = attenuation caused by cable loss + voltage division factor of AMN

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

## 3.2 Radiated Emissions

### 3.2.1 Applicable Standard

As per FCC§15.249 (a), except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

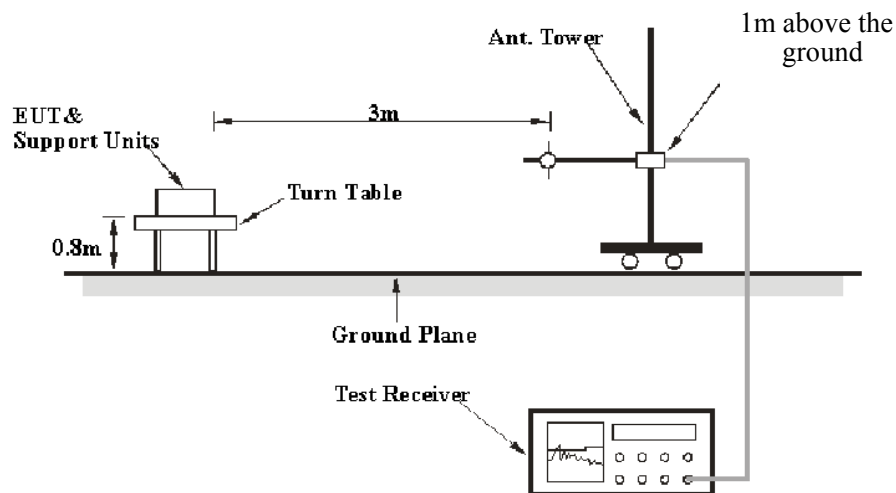
Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

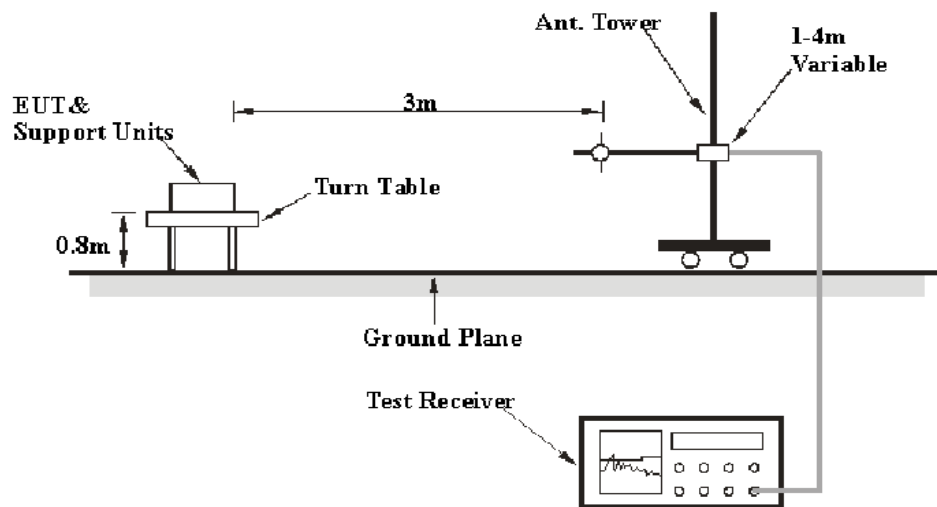
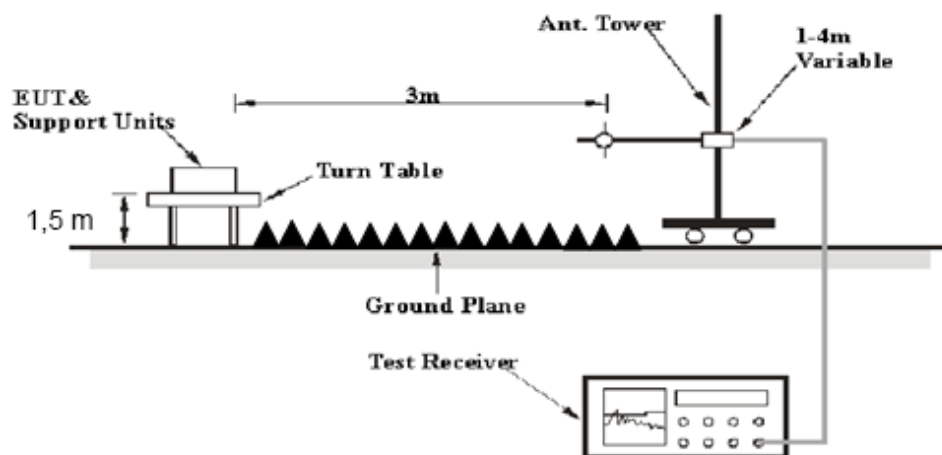
As per FCC§15.249 (c), Field strength limits are specified at a distance of 3 meters.

(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

### 3.2.2 EUT Setup

9kHz~30MHz:



**30MHz-1GHz:****Above 1GHz:**

The radiated emissions were performed in the 3 meters distance, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.249 limits.

For 9kHz-30MHz test, the lowest height of the magnetic antenna shall be 1 m above the ground and three antenna orientations (parallel, perpendicular, and ground-parallel) shall be measured.

### 3.2.3 EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9 kHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
9 kHz – 150 kHz	200 Hz	1 kHz	/	PK
	/	/	200 Hz	QP/AV
150 kHz – 30 MHz	9 kHz	30 kHz	/	PK
	/	/	9 kHz	QP/AV
30 MHz – 1000 MHz	100 kHz	300 kHz	/	PK
	/	/	120 kHz	QP
Above 1 GHz	1MHz	3 MHz	/	PK
	1MHz	10 Hz	/	AV

If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

### 3.2.4 Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 9 kHz-1 GHz except 9 – 90 kHz, 110 – 490 kHz, employing an average detector, peak and Average detection modes for frequencies above 1 GHz.

### 3.2.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor

Factor = Antenna Factor + Cable Loss- Amplifier Gain

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

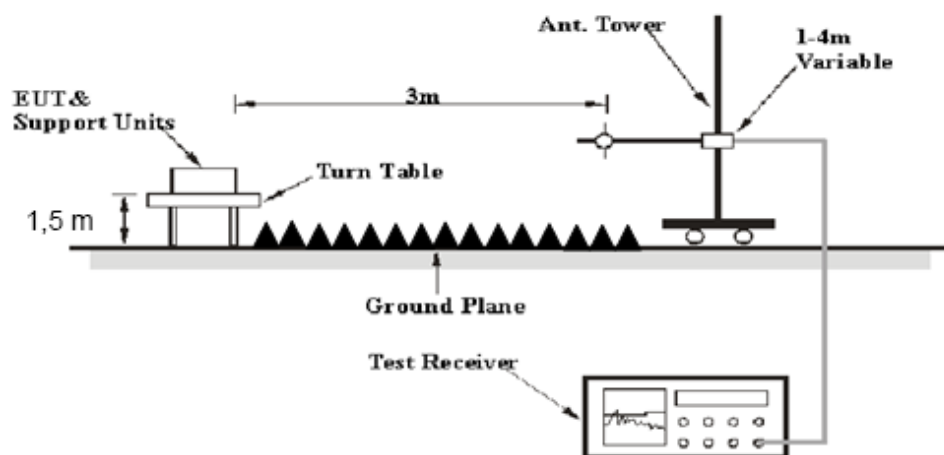
### 3.3 20 dB Emission Bandwidth:

#### 3.3.1 Applicable Standard

FCC §15.215

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

#### 3.3.2 EUT Setup



#### 3.3.3 Test Procedure

1. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
2. Repeat above procedures until all frequencies measured were complete.

### **3.4 Antenna Requirement**

#### **3.4.1 Applicable Standard**

FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.
- c. Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

#### **3.4.2 Judgment**

Please refer to the Antenna Information detail in Section 1.



## 4. Test DATA AND RESULTS

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### 4.1 AC Line Conducted Emissions

Not Applicable. The device is powered by battery.

## 4.2 Radiation Spurious Emissions

Serial Number:	26EG-1	Test Date:	Below 1GHz: 2023/6/9, 2024/3/7 Above 1GHz: 2023/6/7
Test Site:	966-1, 966-2	Test Mode:	Transmitting
Tester:	Carl Xue, Jeff Luo, coco Tian	Test Result:	Pass

### Environmental Conditions:

Temperature: (°C)	21.6~27	Relative Humidity: (%)	57~67	ATM Pressure: (kPa)	99.9~100.9
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### Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Below 1GHz:					
BACL	Loop Antenna	1313-1A	3110611	2023/12/4	2026/12/3
Daruikang	Coaxial Cable	BNC-JJ-RG58	C-0300-01	2024/1/11	2025/1/10
Daruikang	Coaxial Cable	BNC-JJ-RG58	C-0500-01	2024/1/11	2025/1/10
Sunol Sciences	Antenna	JB6	A082520-5	2020/10/19	2023/10/18
R&S	EMI Test Receiver	ESR3	102724	2023/03/31	2024/03/30
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2022/07/17	2023/07/16
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2022/07/17	2023/07/16
Sonoma	Amplifier	310N	186165	2022/07/17	2023/07/16
Audix	Test Software	E3	201021 (V9)	N/A	N/A
Above 1GHz:					
ETS-Lindgren	Horn Antenna	3115	9912-5985	2020/10/13	2023/10/12
R&S	Spectrum Analyzer	FSV40	101591	2022/07/15	2023/07/14
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2022/08/07	2023/08/06
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2022/08/07	2023/08/06
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2022/11/09	2023/11/08
PASTERNAK	Horn Antenna	PE9852/2F-20	112002	2021/02/05	2024/02/04
Quinstar	Preamplifier	QLW-18405536-JO	15964001005	2022/09/16	2023/09/15
MICRO-COAX	Coaxial Cable	UFB142A-1-2362-200200	235772-001	2022/08/07	2023/08/06
E-Microwave	Band Rejection Filter	2400-2483.5MHz	OE01902424	2022/08/07	2023/08/06
Mini Circuits	High Pass Filter	VHF-6010+	31119	2022/08/07	2023/08/06
Audix	Test Software	E3	201021 (V9)	N/A	N/A

\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

**Test Data:**

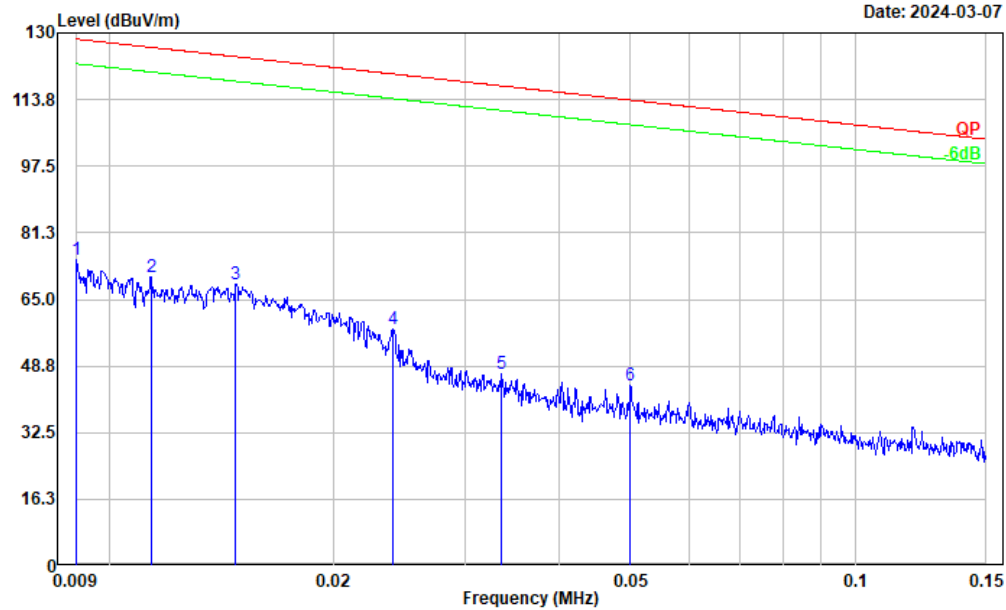
Please refer to the below table and plots.

After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

## 1) 9kHz-30MHz:

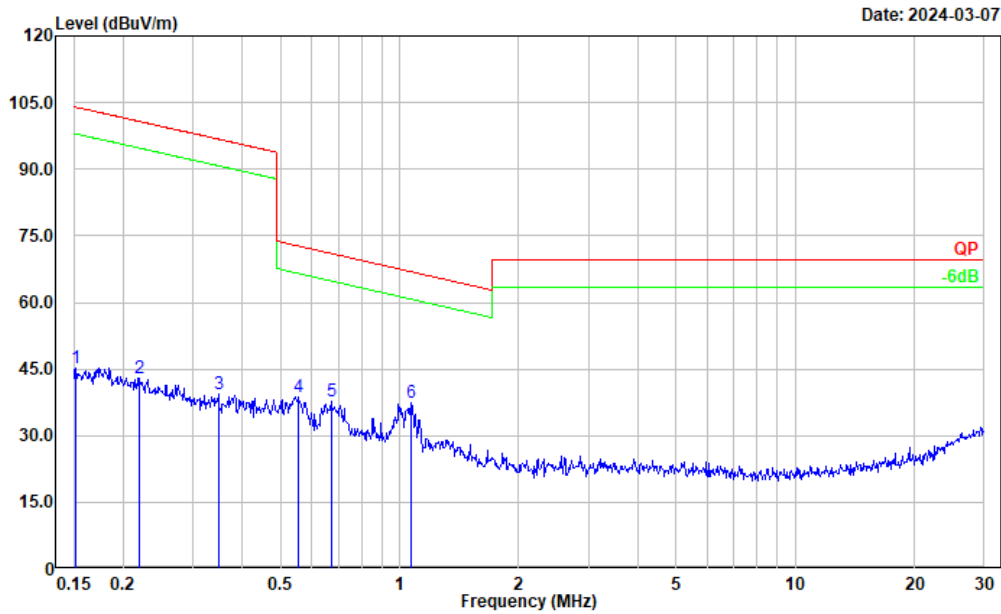
Project No.: CR230530545-RF  
Tester: Jeff Luo  
Polarization: Ground-parallel  
Note:

Date: 2024-03-07



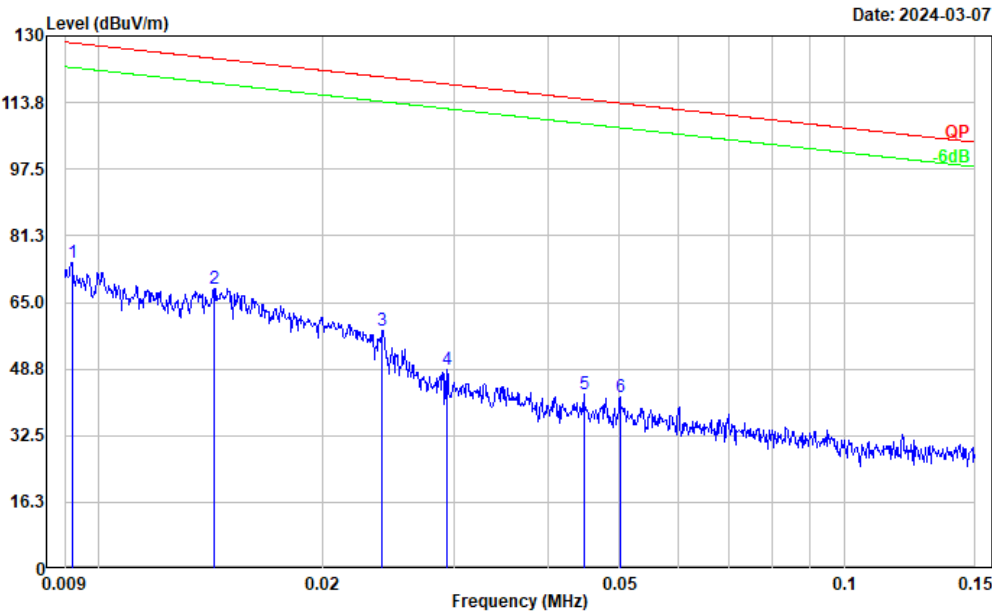
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.009	38.94	35.73	74.67	128.52	53.85	Peak
2	0.011	36.84	33.76	70.60	126.49	55.89	Peak
3	0.015	36.60	32.09	68.69	124.22	55.53	Peak
4	0.024	30.33	27.59	57.92	120.02	62.10	Peak
5	0.034	23.08	23.88	46.96	117.08	70.12	Peak
6	0.050	23.69	20.45	44.14	113.64	69.50	Peak

Project No.: CR230530545-RF  
Tester: Jeff Luo  
Polarization: Parallel  
Note:



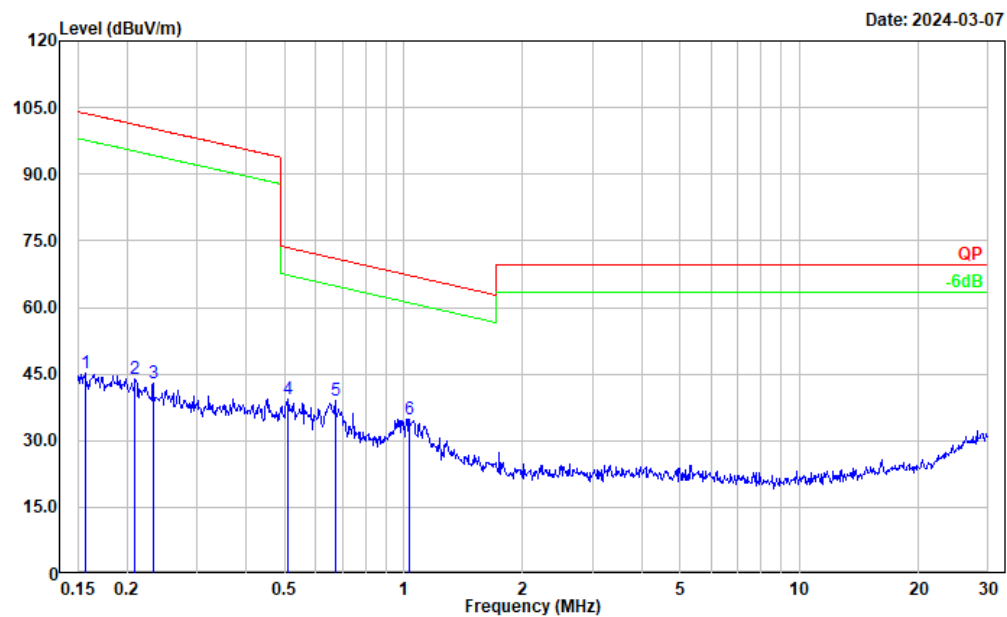
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.152	33.07	12.24	45.31	103.99	58.68	Peak
2	0.220	33.95	9.08	43.03	100.77	57.74	Peak
3	0.348	35.22	4.29	39.51	96.76	57.25	Peak
4	0.555	38.39	0.33	38.72	72.69	33.97	Peak
5	0.672	38.89	-1.04	37.85	71.00	33.15	Peak
6	1.065	41.94	-4.45	37.49	66.91	29.42	Peak

Project No.: CR230530545-RF  
Tester: Jeff Luo  
Polarization: Parallel  
Note:



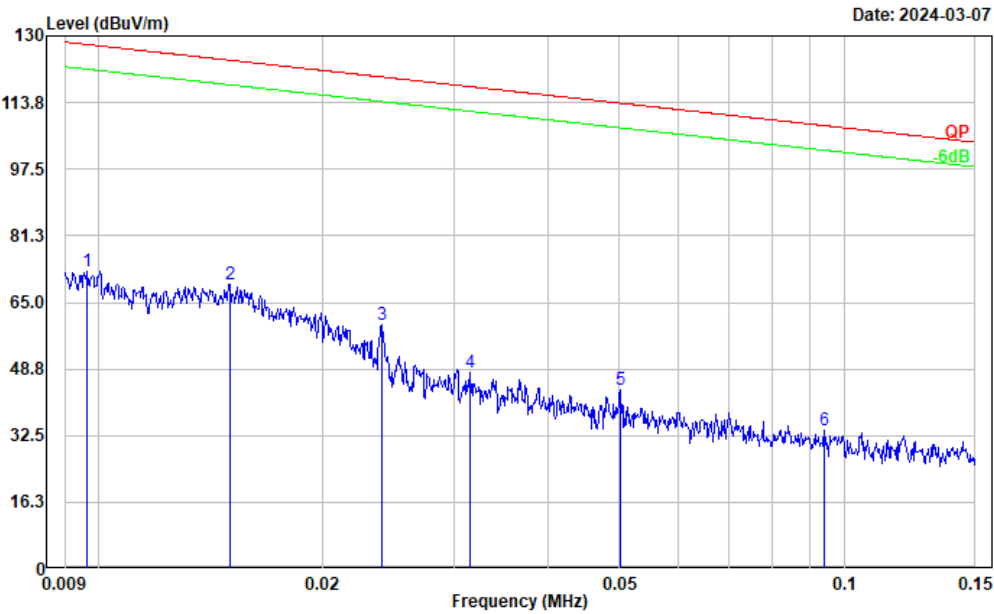
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.009	39.16	35.46	74.62	128.32	53.70	Peak
2	0.014	36.17	32.33	68.50	124.51	56.01	Peak
3	0.024	30.63	27.56	58.19	119.99	61.80	Peak
4	0.029	23.61	24.95	48.56	118.26	69.70	Peak
5	0.045	20.99	21.53	42.52	114.59	72.07	Peak
6	0.050	21.46	20.42	41.88	113.61	71.73	Peak

Project No.: CR230530545-RF  
Tester: Jeff Luo  
Polarization: Perpendicular  
Note:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.156	33.35	12.01	45.36	103.71	58.35	Peak
2	0.209	34.43	9.55	43.98	101.18	57.20	Peak
3	0.233	34.45	8.46	42.91	100.26	57.35	Peak
4	0.510	38.62	0.84	39.46	73.44	33.98	Peak
5	0.672	39.95	-1.04	38.91	71.00	32.09	Peak
6	1.037	39.21	-4.34	34.87	67.15	32.28	Peak

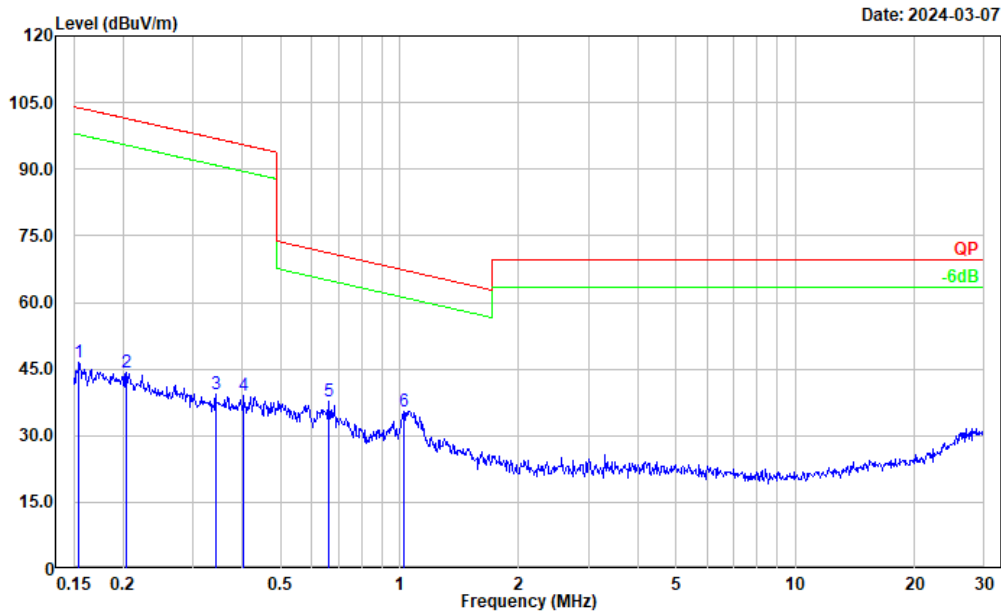
Project No.: CR230530545-RF  
Tester: Jeff Luo  
Polarization: Perpendicular  
Note:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.010	37.65	34.91	72.56	127.93	55.37	Peak
2	0.015	37.49	31.99	69.48	124.10	54.62	Peak
3	0.024	32.00	27.59	59.59	120.02	60.43	Peak
4	0.031	23.48	24.32	47.80	117.65	69.85	Peak
5	0.050	23.33	20.42	43.75	113.61	69.86	Peak
6	0.094	18.70	15.11	33.81	108.11	74.30	Peak



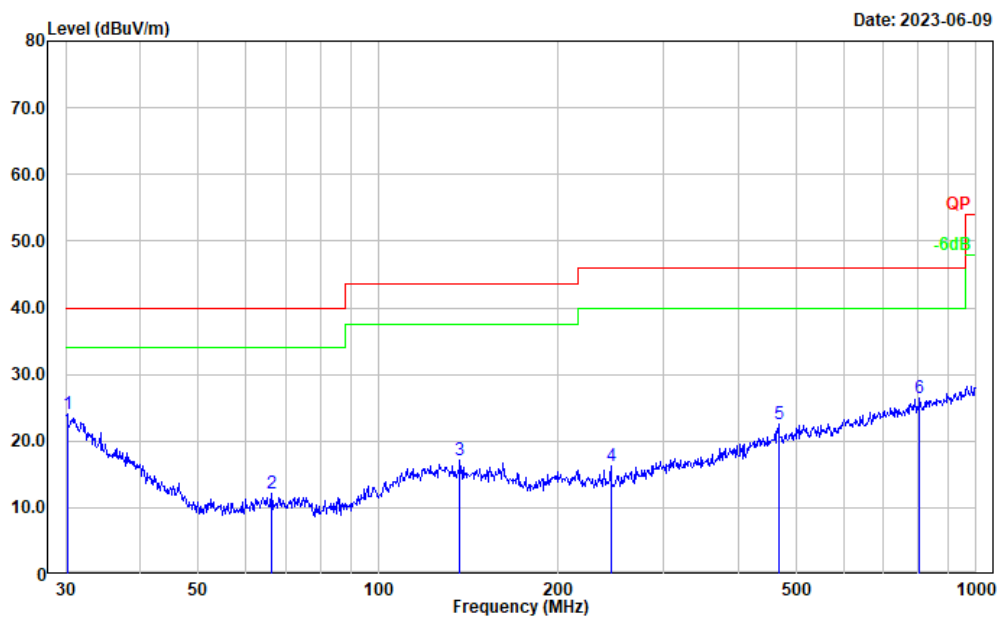
Project No.: CR230530545-RF  
Tester: Jeff Luo  
Polarization: Ground-parallel  
Note:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.155	34.53	12.09	46.62	103.81	57.19	Peak
2	0.204	34.33	9.81	44.14	101.41	57.27	Peak
3	0.343	35.00	4.41	39.41	96.90	57.49	Peak
4	0.404	36.01	3.06	39.07	95.48	56.41	Peak
5	0.661	38.73	-0.91	37.82	71.14	33.32	Peak
6	1.021	39.84	-4.29	35.55	67.29	31.74	Peak

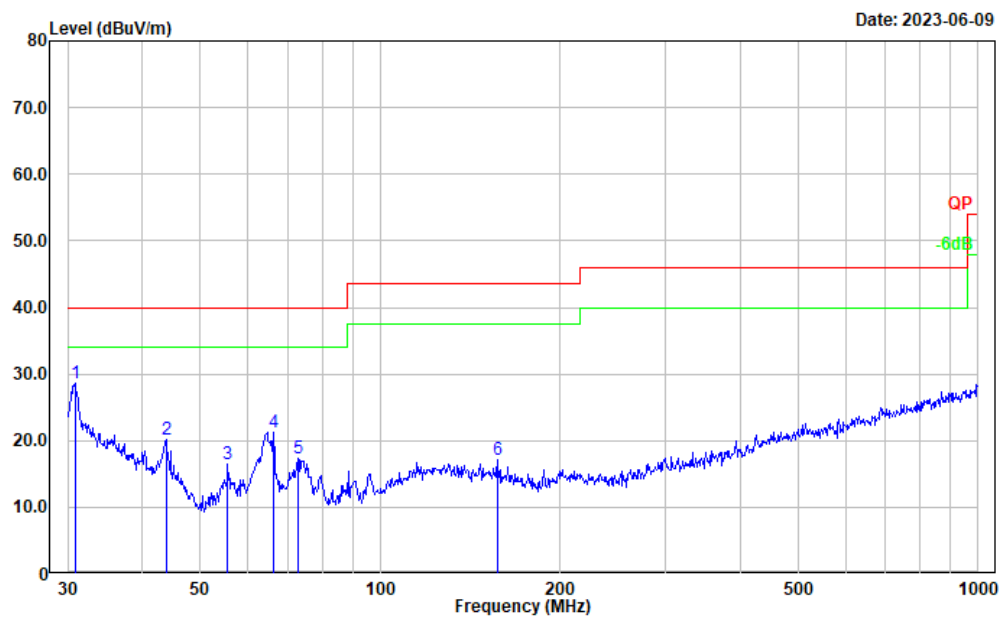
## 2) 30MHz-1GHz:

Project No.: CR230530545-RF  
Tester: Carl Xue  
Polarization: horizontal  
Note:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	30.211	27.81	-3.76	24.05	40.00	15.95	Peak
2	66.266	29.06	-16.84	12.22	40.00	27.78	Peak
3	136.939	28.82	-11.70	17.12	43.50	26.38	Peak
4	245.090	29.33	-12.97	16.36	46.00	29.64	Peak
5	467.235	28.92	-6.41	22.51	46.00	23.49	Peak
6	804.603	28.50	-2.13	26.37	46.00	19.63	Peak

Project No.: CR230530545-RF  
Tester: Carl Xue  
Polarization: vertical  
Note:

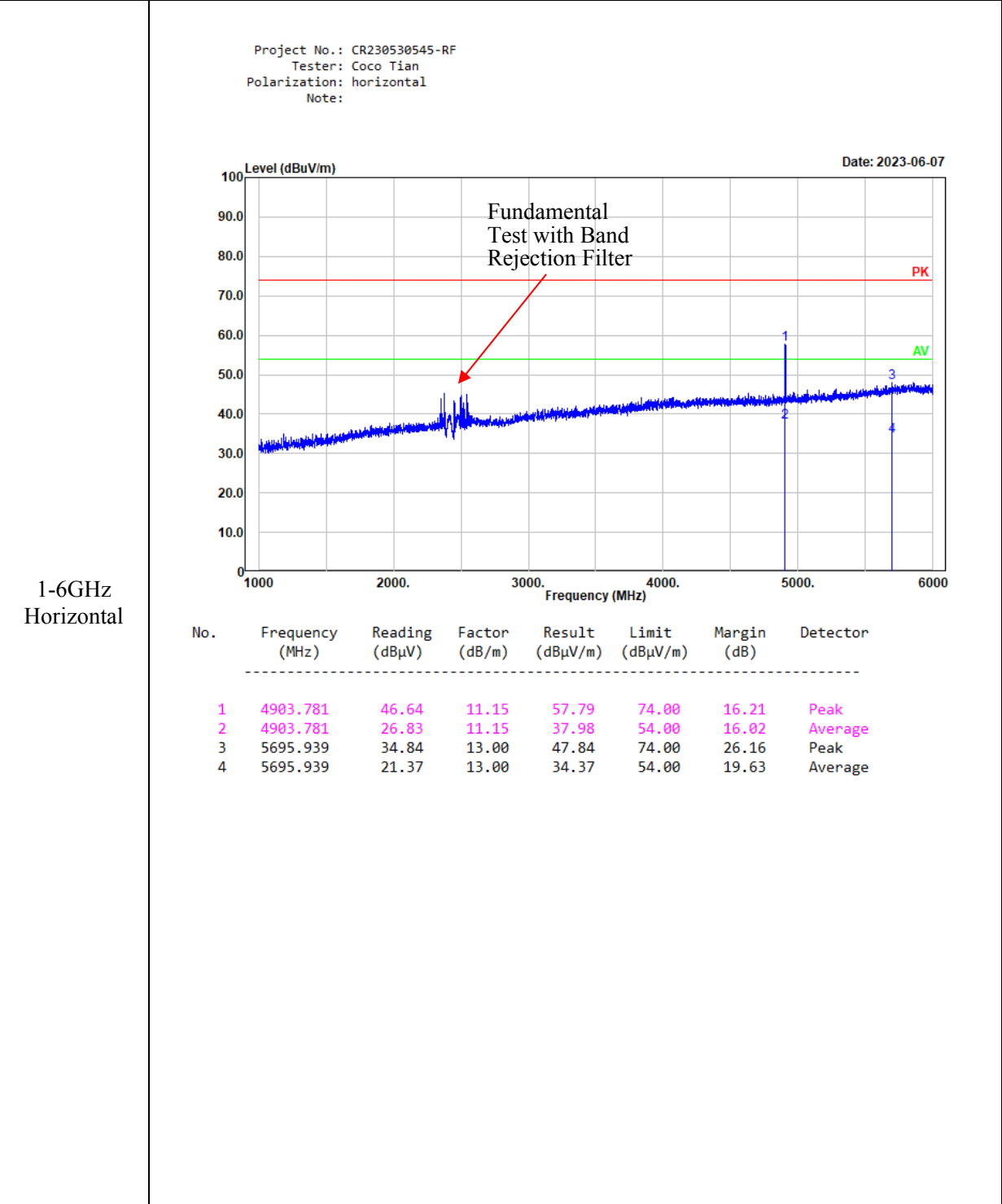


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.853	32.88	-4.26	28.62	40.00	11.38	Peak
2	43.812	33.75	-13.56	20.19	40.00	19.81	Peak
3	55.609	33.84	-17.31	16.53	40.00	23.47	Peak
4	66.266	38.17	-16.84	21.33	40.00	18.67	Peak
5	72.847	34.02	-16.72	17.30	40.00	22.70	Peak
6	157.007	29.07	-12.04	17.03	43.50	26.47	Peak

**3) 1GHz-25GHz:**

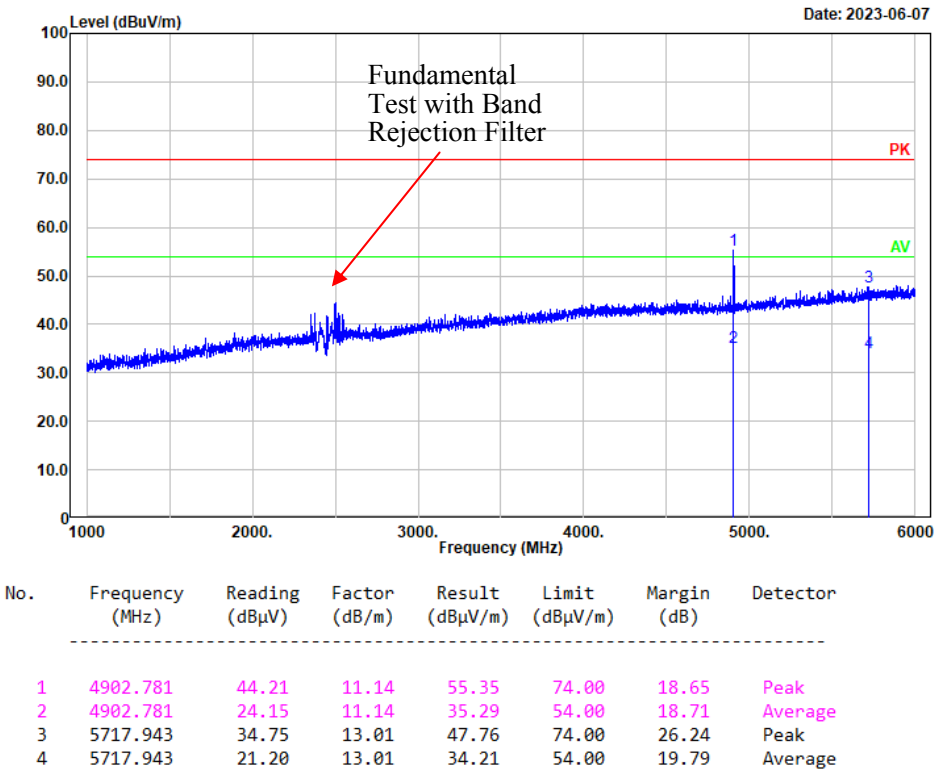
Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Test Frequency: 2452 MHz							
2452.000	67.96	PK	H	31.63	99.59	113.98	14.39
2452.000	57.92	AV	H	31.63	89.55	93.98	4.43
2452.000	64.18	PK	V	31.63	95.81	113.98	18.17
2452.000	54.25	AV	V	31.63	85.88	93.98	8.10
2400.000	26.47	PK	H	31.50	57.97	74.00	16.03
2400.000	13.52	AV	H	31.50	45.02	54.00	8.98
2483.500	26.58	PK	H	31.64	58.22	74.00	15.78
2483.500	13.61	AV	H	31.64	45.25	54.00	8.75

Test Plots:



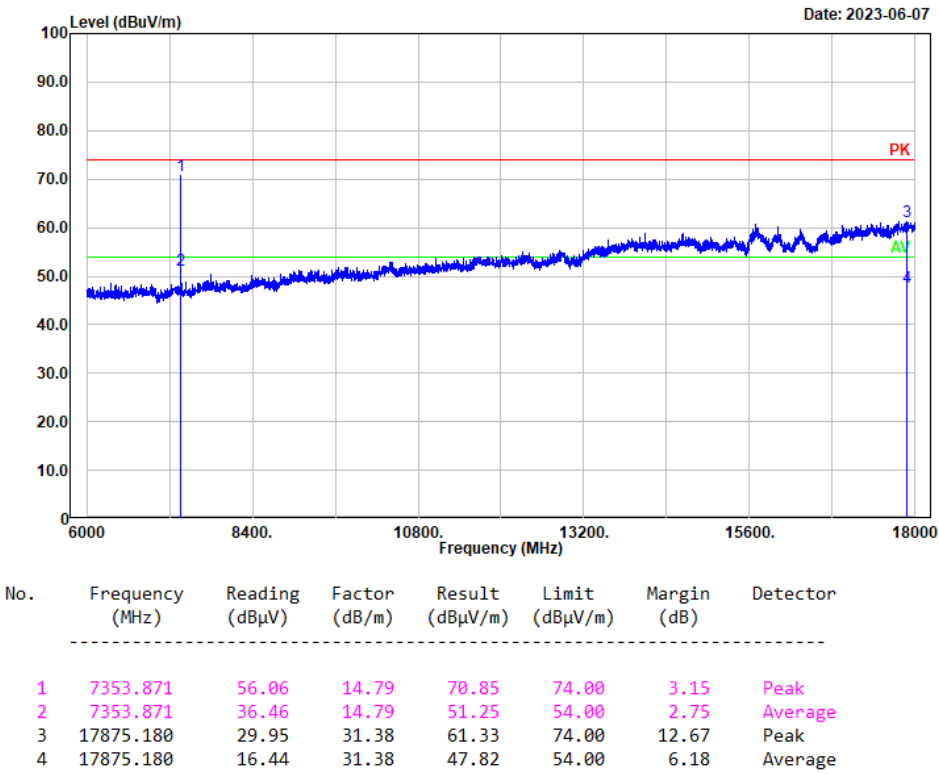
1-6GHz  
Vertical

Project No.: CR230530545-RF  
Tester: Coco Tian  
Polarization: vertical  
Note:



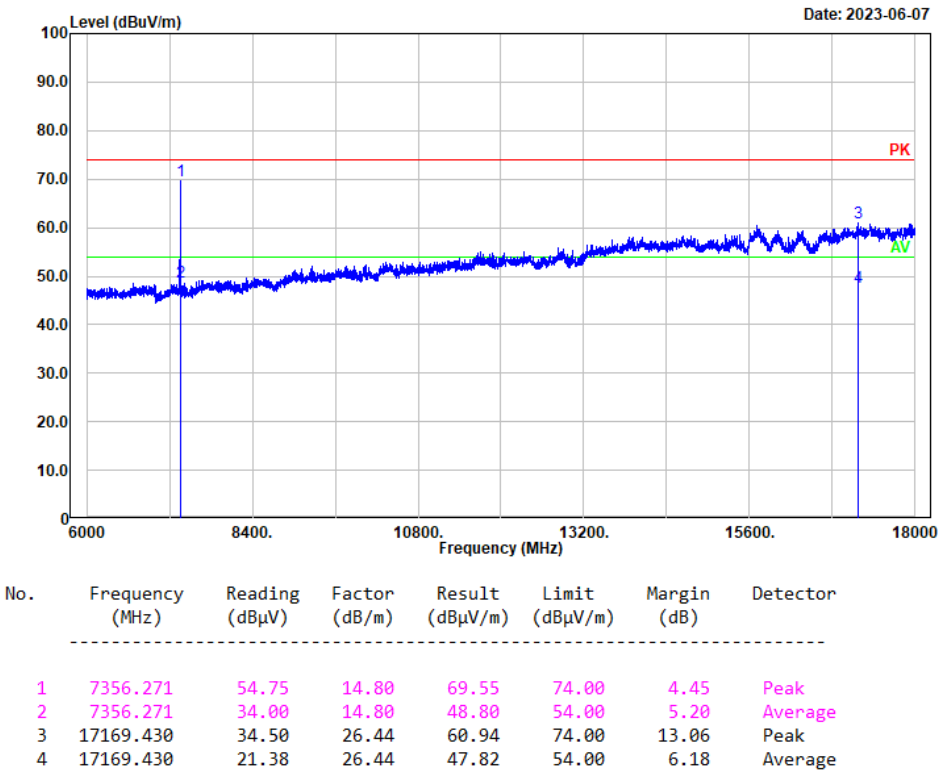
6-18GHz  
Horizontal

Project No.: CR230530545-RF  
Tester: Coco Tian  
Polarization: horizontal  
Note:



6-18GHz  
Vertical

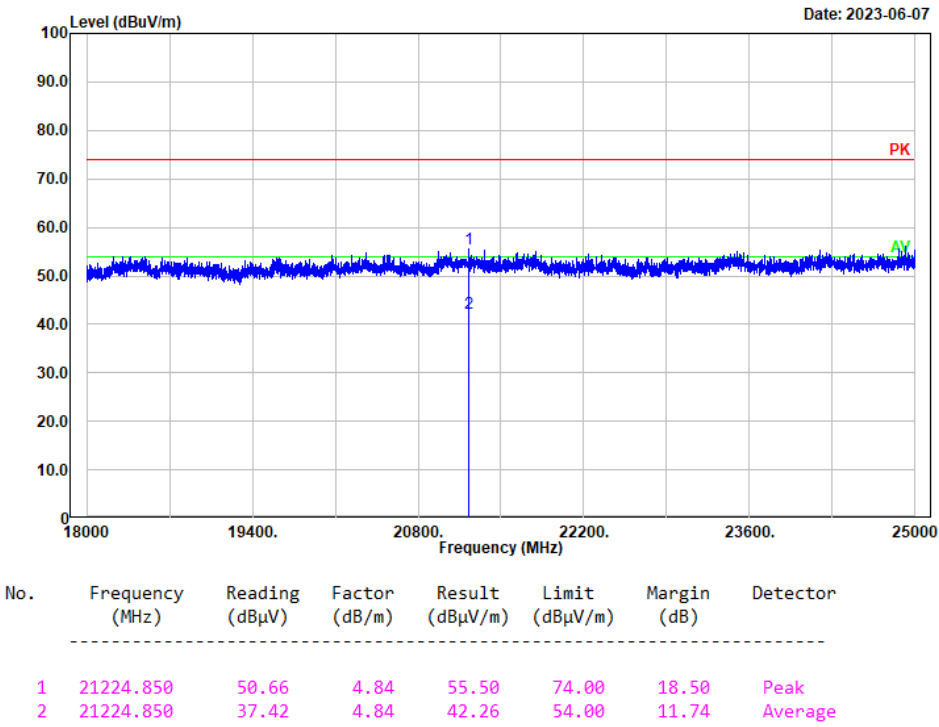
Project No.: CR230530545-RF  
Tester: Coco Tian  
Polarization: vertical  
Note:





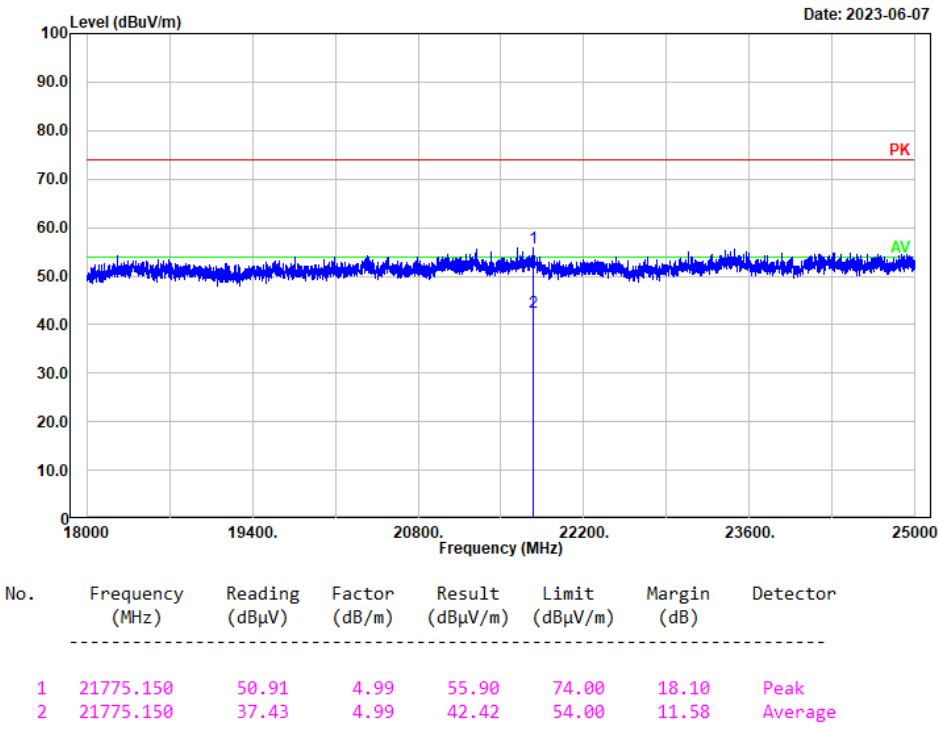
18-25GHz  
Horizontal

Project No.: CR230530545-RF  
Tester: Coco Tian  
Polarization: Horizontal  
Note:



18-26.5GHz  
Vertical

Project No.: CR230530545-RF  
Tester: Coco Tian  
Polarization: vertical  
Note:



**4.3 20 dB Emission Bandwidth:**

Serial Number:	26EG-1	Test Date:	2023/6/7
Test Site:	966-1	Test Mode:	Transmitting
Tester:	coco Tian	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	21.6	Relative Humidity: (%)	57	ATM Pressure: (kPa)	100.2
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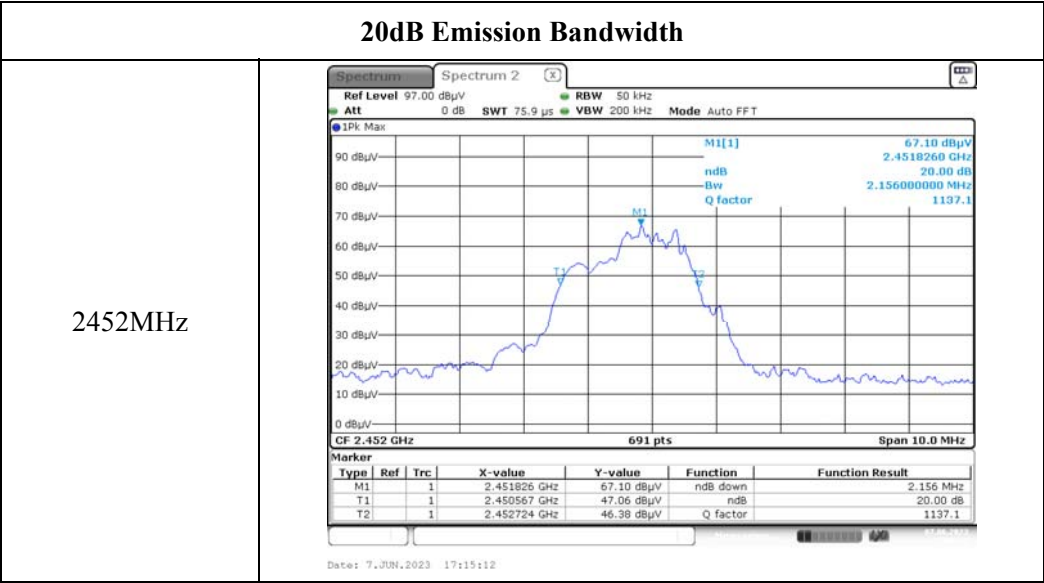
**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
ETS-Lindgren	Horn Antenna	3115	9912-5985	2020/10/13	2023/10/12
R&S	Spectrum Analyzer	FSV40	101591	2022/07/15	2023/07/14
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2022/08/07	2023/08/06
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2022/08/07	2023/08/06
Audix	Test Software	E3	201021 (V9)	N/A	N/A

*\* **Statement of Traceability:** China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

**Test Data:**

Test Frequency (MHz)	20 dB Bandwidth (MHz)
2452	2.156



## 5. RF EXPOSURE EVALUATION

### 5.1 Applicable Standard

According to §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

According to KDB447498 D01 General RF Exposure Guidance v06:

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where

- $f(\text{GHz})$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

### 5.2 Measurement Result

The max Field Strength of Fundamental is 99.59 dB $\mu$ V/m at 3m,  
EIRP (dBm)=Field Strength of Fundamental(dBuV/m)-95.2 = 99.59 -95.2 =4.39 dBm.  
Conducted power (dBm) = EIRP –Antenna gain(dBi) = 4.39-0=4.39 dBm.

So the max conducted power including tune-up tolerance is 5 dBm (3.16 mW).  
 $[(\text{max. power of channel, mW})/(\text{min. test separation distance, mm})][\sqrt{f(\text{GHz})}]$   
 $=3.16/5 \cdot (\sqrt{2.452}) = 1.0 < 3.0$

**Result: Compliant. The stand-alone SAR test is not necessary.**

## **6. EUT PHOTOGRAPHS**

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Please refer to the attachment CR230530545-EXP EUT EXTERNAL PHOTOGRAPHS and CR230530545-INP EUT INTERNAL PHOTOGRAPHS

## **7. TEST SETUP PHOTOGRAPHS**

Please refer to the attachment CR230530545-00-TSP TEST SETUP PHOTOGRAPHS.

**===== END OF REPORT =====**