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CNAS L5662



ETSI EN 301 489-1 V2.2.3 (2019-11)
ETSI EN 301 489-17 V3.3.1 (2024-09)

TEST REPORT

For

SHENZHEN TENDA TECHNOLOGY CO., LTD.

6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052

Tested Model: CP3
Multiple Models: RP3

Report Type: Amended Report	Product Type: 3MP Security Pan/Tilt Camera
Report Number:	2402T75014E-02A1
Report Date:	2025/5/19
Reviewed By:	Ivy Tang Project Engineer <i>Ivy Tang</i>
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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2402T75014E-02	Original Report	2024/6/11
2.0	2402T75014E-02A1	Amended Report	2025/5/19

Note: This is the amended report application which was based on the original report. The differences between them as following:

1. Add an adapter (Adapter 3#);
2. Upgrade the test standard to ETSI EN 301 489-17 V3.3.1 (2024-09).

The change between the previous equipment and the current equipment is stated and guaranteed by the applicant. The difference between them will affect the test results, we will change the test data, test photos, update the EUT photos.

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

EUT Name:		3MP Security Pan/Tilt Camera
EUT Model:		CP3
Multiple Model:		RP3
Model Difference:		Please refer to the DoS
Rated Input Voltage:		5Vdc from adapter
Adapter 1#	Model:	GQ12-050100-ZB
	Input:	100-240Vac 50/60Hz 0.4A MAX
	Output:	5.0Vdc 1.0A 5.0W
Adapter 2#	Model:	GQ12-050100-ZG
	Input:	100-240Vac 50/60Hz 0.4A MAX
	Output:	5.0Vdc 1.0A 5.0W
Adapter 3#	Model:	SW-050100
	Input:	100-240Vac 50/60Hz 0.5A
	Output:	5.0Vdc 1.0A 5.0W
Serial Number:		2L4E-3 3250-1
EUT Received Date:		2024/5/10(2L4E-3) 2025/4/30(3250-1)
EUT Received Status:		Good

Objective

This report is prepared on behalf of **SHENZHEN TENDA TECHNOLOGY CO., LTD.** in accordance with ETSI EN 301 489-1 V2.2.3 (2019-11) ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements; Harmonised Standard for ElectroMagnetic Compatibility;

ETSI EN 301 489-17 V3.3.1 (2024-09) ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband and Wideband Data Transmission Systems; Harmonised Standard for ElectroMagnetic Compatibility;

The objective is to determine the compliance of EUT with: ETSI EN 301 489-1 V2.2.3 (2019-11), ETSI EN 301 489-17 V3.3.1 (2024-09).

Test Methodology

All measurements contained in this report were conducted with ETSI EN 301 489-1 V2.2.3 (2019-11) ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements; Harmonised Standard for ElectroMagnetic Compatibility.

Test Facility

The test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China.

Declarations

The information marked ▲ is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report.

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

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Each test item follows the test standard(s) without deviation.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in a typical fashion (as normally used by a typical user).

Test mode:

M1: Operating & WIFI Link

Equipment Modifications

No modification was made to the EUT.

EUT Exercise Software

Software "TDSEE.app" & "Tenda Security.app" were used.

Support Equipment List and Details

2L4E-3

Manufacturer	Description	Model	Serial Number
ZIONCOM	Wireless Router	MB-R210-00	EMZBWR21103003
Huawei	Smartphone	EVR-AL00	A000009E3F501E
SanDisk	TF Card	UHS-I-16G	9292DVDSV0XZ

3250-1

Manufacturer	Description	Model	Serial Number
TENDA	Router	F6	E6895010048000097
Huawei	Smartphone	EVR-AL00	A000009E3F501E
SanDisk	TF Card	UHS-I-16G	9292DVDSV0XZ

Support Cable List and Details

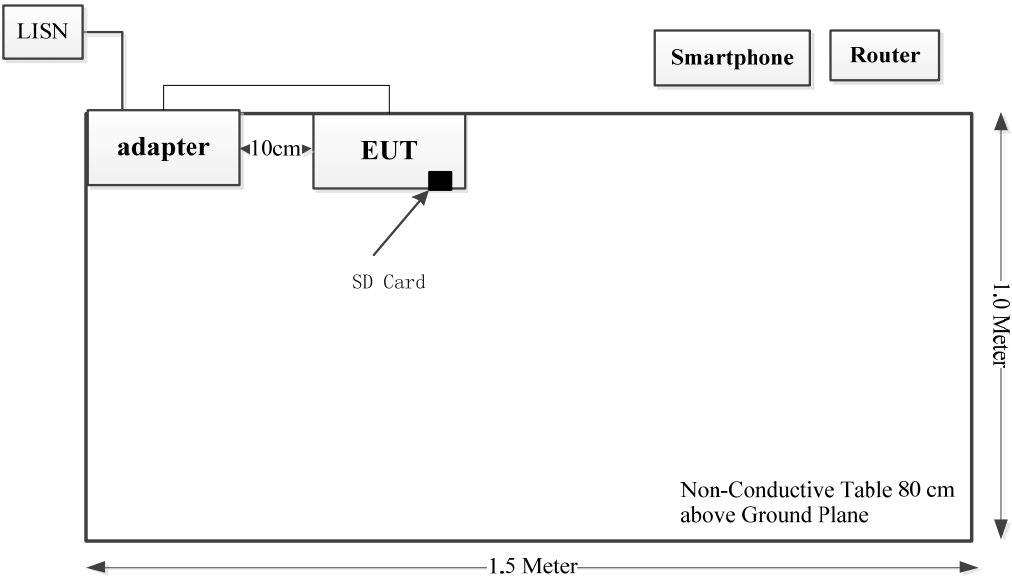
2L4E-3

Cable Description	Shielding Cable	Ferrite Core	Length (m)	From Port	To
USB Cable	no	no	1.5	Adapter	EUT

3250-1

Cable Description	Shielding Cable	Ferrite Core	Length (m)	From Port	To
USB Cable	no	no	2.0	Adapter	EUT

Block Diagram of Test Setup



Test Equipment List

2L4E-3

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted emission					
R&S	LISN	ENV216	101614	2023/10/18	2024/10/17
MICRO-COAX	Coaxial Cable	C-NJNJ-50	C-0200-01	2023/9/7	2024/9/6
R&S	EMI Test Receiver	ESCI	100035	2023/8/18	2024/8/17
R&S	Test Software	EMC32	V9.10.00	N/A	N/A
Radiated emissions below 1GHz					
Sunol Sciences	Hybrid Antenna	JB3	A060611-1	2023/9/6	2026/9/5
Narda	Coaxial Attenuator	779-6dB	04269	2023/9/6	2026/9/5
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2023/8/1	2024/7/31
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-04	2023/8/1	2024/7/31
Unknown	Coaxial Cable	C-NJNJ-50	C-0530-01	2023/8/1	2024/7/31
Sonoma	Amplifier	310N	185914	2023/8/1	2024/7/31
R&S	EMI Test Receiver	ESCI	100224	2023/8/18	2024/8/17
Farad	Test Software	EZ-EMC	V1.1.4.2	N/A	N/A
Radiated emissions above 1GHz					
ETS-Lindgren	Horn Antenna	3115	000 527 35	2023/9/7	2026/9/6
Xinhang Macrowave	Coaxial Cable	XH750A-N/J-SM A/J-10M	20231117004 #0001	2023/11/17	2024/11/16
AH	Preamplifier	PAM-0118P	469	2023/8/19	2024/8/18
R&S	Spectrum Analyzer	FSV40	101944	2023/10/18	2024/10/17
Audix	Test Software	E3	191218 V9	N/A	N/A
E-Microwave	Band Rejection Filter	OBSF-2400-2483.5-S	OE01601525	2024/2/21	2025/2/20
Flicker					
EVERFINE	Harmonic & Flicker Measurement System	HFM3000	P630850CD1411115	2023/10/18	2024/10/17
EVERFINE	Harmonic & Flicker Testing Power Source	HFS-4000	P624486CD1411122	2023/10/18	2024/10/17
CS					
HP	Signal Generator	8648A	3426A00831	2023/10/18	2024/10/17
AR	Power Amplifier	15A250	12934	N/A	N/A
Werlatone	Dual Directional Coupler	C5091-10	113192	N/A	N/A
NARDA	Coaxial Attenuator	769-6	02754	N/A	N/A
HP	Power Meter	EPM-441A	GB37481494	2023/10/19	2024/10/18
Agilent	Power sensor	8482A	US37296108	2023/10/19	2024/10/18
COM-POWER	CDN	M325E	521064	2023/8/18	2024/8/17
R&S	Audio Analyzer	UPV	103477	2023/11/27	2024/11/26
BK Precision	Sound Level meter	735	7350087310010020	2023/8/22	2024/8/21
EFT & Surge & Dips					
EM TEST	EMS Comprehensive Tester	Compact NX5	P1850225473	2023/9/4	2024/9/3
EM TEST	AC Autotransformer	MV2616	P1401128614	N/A	N/A
ESD					
TESEQ	ESD Generator	NSG 438	1019	2023/11/16	2024/11/15

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RS					
AR	Antenna	ATL80M1G	0351400	N/A	N/A
AR	Antenna	ATT700M12G	0349410	N/A	N/A
HP	Signal Generator	8665B	3438a00584	2023/10/18	2024/10/17
AR	Power Amplifier	500W1000C	0353561	N/A	N/A
AR	Power Amplifier	60S1G6	0348711	N/A	N/A
PASTERNAK	Dual Directional Coupler	PE2239-30	1711	N/A	N/A
Agilent	Power Meter	E4419B	MY45103907	2023/10/18	2024/10/17
Agilent	E-Series Avg Power Sensor	E9301A	MY41497625	2023/10/18	2024/10/17
Agilent	E-Series Avg Power Sensor	E9301A	MY41497628	2023/10/18	2024/10/17
R&S	Audio Analyzer	UPV	103477	2023/11/27	2024/11/26
BK Precision	Sound Level meter	735	7350087310010020	2023/8/22	2024/8/21

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Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted emission					
R&S	LISN	ENV216	101614	2024/9/5	2025/9/4
Unknown	Coaxial Cable	RG 142	C-0200-05	2025/5/6	2026/5/5
R&S	EMI Test Receiver	ESCI	101121	2024/9/5	2025/9/4
Audix	Test Software	E3	191218 V9	N/A	N/A
Radiated emissions below 1GHz					
Sunol Sciences	Hybrid Antenna	JB3	A060611-1	2023/9/6	2026/9/5
Narda	Coaxial Attenuator	779-6dB	04269	2023/9/6	2026/9/5
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-04	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0530-01	2024/7/1	2025/6/30
Sonoma	Amplifier	310N	185914	2024/8/26	2025/8/25
R&S	EMI Test Receiver	ESCI	100224	2024/8/26	2025/8/25
Audix	Test Software	E3	191218 V9	N/A	N/A
ESD					
TESEQ	ESD Generator	NSG 438	1019	2024/9/6	2025/9/5
EFT & Surge & Dips					
EM TEST	Single-phase Toroidal Transformer With Autowinding	V4780	0811-10	2025/5/15	2026/5/14
EM TEST	Ultra Compact Generator	UCS 500N5	V1204111721	2025/5/15	2026/5/14
Flicker					
EVERFINE	Harmonic & Flicker Measurement System	HFM3000	P630850CD1411115	2024/9/5	2025/9/4
EVERFINE	Harmonic & Flicker Testing Power Source	HFS-4000	P624486CD1411122	2024/9/5	2025/9/4
CS					
HP	Signal Generator	8648A	3426A00831	2025/3/28	2026/3/27
AR	Power Amplifier	15A250	12934	N/A	N/A
Werlatone	Dual Directional Coupler	C5091-10	113192	N/A	N/A
NARDA	Coaxial Attenuator	769-6	02754	N/A	N/A
HP	Power Meter	EPM-441A	GB37481494	2024/9/5	2025/9/4
Agilent	Power sensor	8482A	US37296108	2024/9/5	2025/9/4
COM-POWER	CDN	M325E	521064	2024/8/26	2025/8/25
R&S	Audio Analyzer	UPV	103477	2025/3/31	2026/3/30
BK Precision	Sound Level meter	735	7350087310010020	2024/9/6	2025/9/5
RS					
AR	Antenna	ATL80M1G	0351400	N/A	N/A
AR	Antenna	ATT700M12G	0349410	N/A	N/A
HP	Signal Generator	8665B	3438a00584	2024/9/5	2025/9/4
AR	Power Amplifier	500W1000C	0353561	N/A	N/A
AR	Power Amplifier	60S1G6	0348711	N/A	N/A
PASTERNAK	Dual Directional Coupler	PE2239-30	1711	N/A	N/A
Agilent	Power Meter	E4419B	MY45103907	2024/10/18	2025/10/17
Agilent	E-Series Avg Power Sensor	E9301A	MY41497625	2024/10/18	2025/10/17
Agilent	E-Series Avg Power Sensor	E9301A	MY41497628	2024/9/5	2025/9/4

R&S	Audio Analyzer	UPV	103477	2025/3/31	2026/3/30
BK Precision	Sound Level meter	735	7350087310010020	2024/9/6	2025/9/5

* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Environmental Conditions
2L4E-3

Test Item:	Conducted emission	Radiated emissions below 1GHz	Radiated emissions above 1GHz	EMS	Flicker
Temperature:	25.1~25.8℃	24.1~26℃	24.1℃	24.1~26.1℃	25.6℃
Relative Humidity:	56~64%	51~59%	61.0%	59~74%	74%
ATM Pressure:	100.3~100.8kPa	99.9~100.3kPa	100.9 kPa	100.1kPa	100.1kPa
Tester:	Lane Sun, Wright Lai	Zoo Zou, Leesin Xiang	Colin Yang	Arvin Chen	Arvin Chen
Test Date:	2024/5/15~2024/6/6	2024/5/20~2024/6/6	2024/6/7	2024/5/31	2024/5/31

Note: The relative humidity of ESD test site is 59%.

3250-1

Test Item:	Conducted emission	Radiated emissions below 1GHz	EMS*	Flicker
Temperature:	25.8℃	25.4℃	24.8~25.2℃	24.8℃
Relative Humidity:	68%	56%	54~69%	67%
ATM Pressure:	100.9kPa	100.9kPa	101.1kPa	101.1kPa
Tester:	Yolo Fan	Leesin Xiang	Arvin Chen	Arvin Chen
Test Date:	2025/5/8	2025/5/8	2025/5/15	2025/5/15

Note: The relative humidity of ESD test site is 54%.

SUMMARY OF TEST RESULTS

SN	Rule and Clause	Description of Test	Test Result
1	EN 301 489-1 Clause 8.2	Enclosure of ancillary equipment measured on a stand alone basis	Compliant*
2	EN 301 489-1 Clause 8.3	DC power input/output ports	Not applicable
3	EN 301 489-1 Clause 8.4	AC mains power input/output ports	Compliant**
4	EN 301 489-1 Clause 8.5	Harmonic current emissions (AC mains input port)	Not applicable
5	EN 301 489-1 Clause 8.6	Voltage fluctuations and flicker (AC mains input port)	Compliant**
6	EN 301 489-1 Clause 8.7	Wired network ports	Not applicable
7	EN 301 489-1 Clause 9.2	Radio frequency electromagnetic fields (80 MHz to 6 000 MHz)	Compliant**
8	EN 301 489-1 Clause 9.3	Electrostatic discharges	Compliant**
9	EN 301 489-1 Clause 9.4	Fast transients, common mode	Compliant**
10	EN 301 489-1 Clause 9.5	Radio frequency, common mode	Compliant**
11	EN 301 489-1 Clause 9.6*	Transients and surges in the vehicular environment	Not applicable (Note*)
12	EN 301 489-1 Clause 9.7	Voltage dips and short interruptions	Compliant**
13	EN 301 489-1 Clause 9.8	Surges	Compliant**

Note:

Not Applicable: Please refer to Applicability overview tables in sections 7.1 and 7.2 of EN 301 489-1 requirements for Radio and ancillary equipment.

Compliant*: The change of the product does not affect the test result of RE above 1GHz, test result for RE above 1GHz was copied from the original report. And the test data and test related information for adapter 1#&2#was copied from the original report.

Compliant**: The test data and test related information for adapter 1#&2#was copied from the original report.

Note*: This test item was not approved by CNAS.

1 - ENCLOSURE OF ANCILLARY EQUIPMENT MEASURED ON A STAND ALONE BASIS

Measurement Uncertainty

Compliance or non-compliance with a disturbance limit shall be determined in the following manner:

If U_{lab} is less than or equal to U_{cisp} of Table 1, then:

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

If U_{lab} is greater than U_{cisp} of Table 1, then:

- compliance is deemed to occur if no measured disturbance level, increased by $(U_{lab} - U_{cisp})$, exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level, increased by $(U_{lab} - U_{cisp})$, exceeds the disturbance limit.

Based on CISPR 16-4-2: 2011^{*}, measurement uncertainty of radiated emission at a distance of 10m at Bay Area Compliance Laboratories Corp. (Dongguan) is: 30M~200MHz: 4.55 dB for Horizontal, 4.57 dB for Vertical; 200M~1GHz: 4.66 dB for Horizontal, 4.56 dB for Vertical; measurement uncertainty of radiated emission at a distance of 3m at Bay Area Compliance Laboratories Corp. (Dongguan) is: 30M~200MHz: 4.58 dB for Horizontal, 4.59 dB for Vertical; 200M~1GHz: 4.83 dB for Horizontal, 5.85 dB for Vertical; 1G~6GHz: 4.45 dB, 6G~18GHz: 5.23 dB

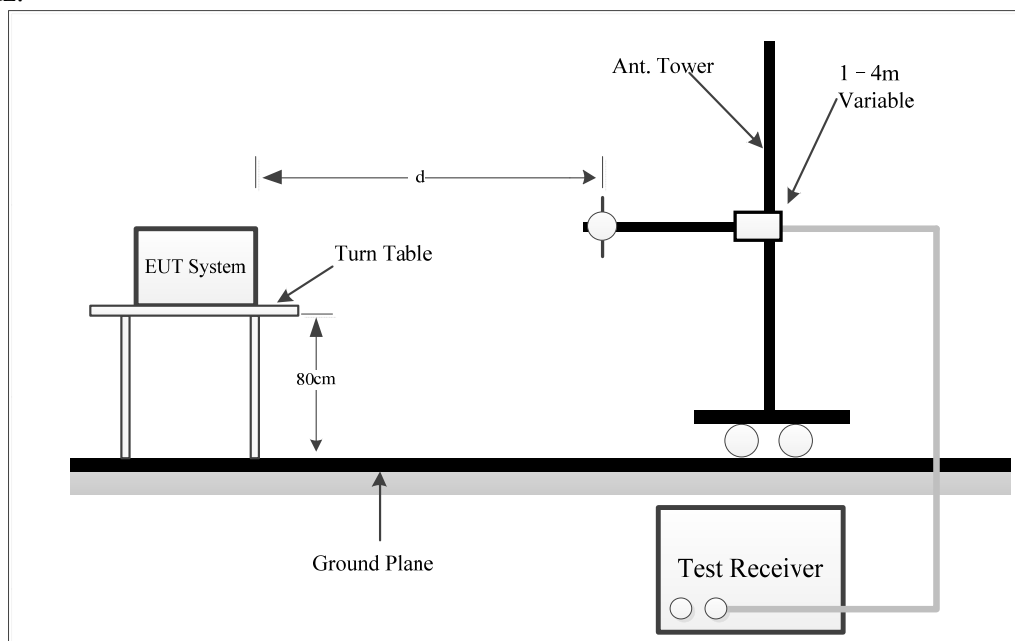
Table 1 - Values of U_{cisp}

Measurement	U_{cisp}
Radiated disturbance (electric field strength at an OATS or in a SAC)(30 MHz to 1000 MHz)	6.3 dB
Radiated disturbance (electric field strength in a FAR)(1 GHz to 6 GHz)	5.2 dB
Radiated disturbance (electric field strength in a FAR)(6 GHz to 18 GHz)	5.5 dB

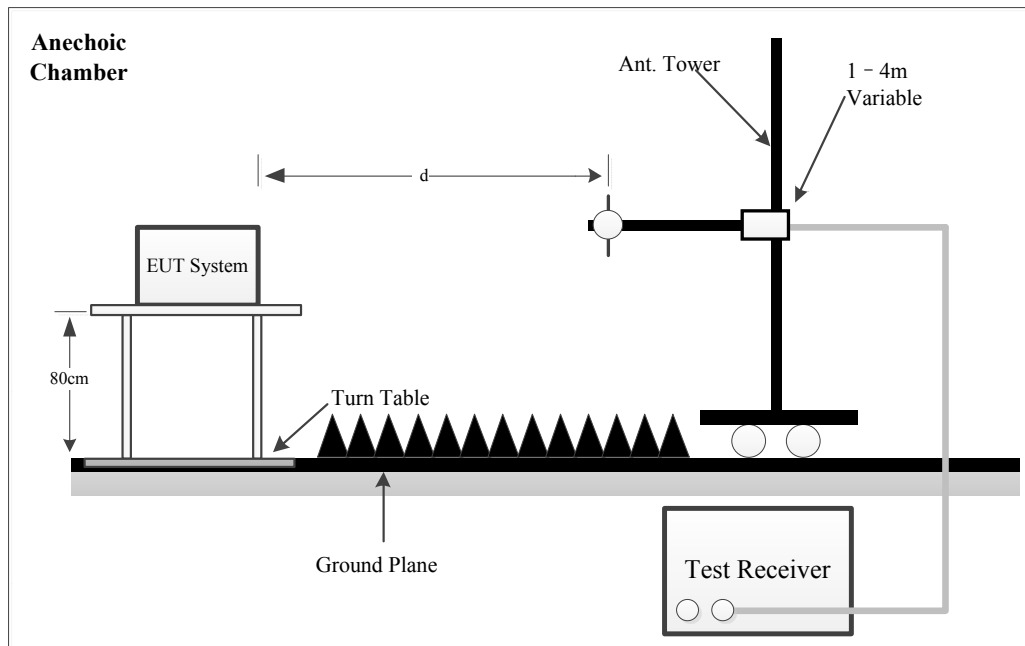
Note: Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Test System Setup

Below 1GHz:



Above 1GHz:



The radiated emission tests below 1GHz were performed in 3 meters, above 1GHz were performed in the 3 meters. The specification used was EN 55032 Class B limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40cm long in the middle. The spacing between the peripherals was 10cm.

EMI Test Receiver and Spectrum Analyzer Setup

The system was investigated from 30 MHz to 6 GHz.

During the radiated emission test, the EMI test receiver(Below 1GHz) and Spectrum Analyzer(Above 1GHz) were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Detector
30MHz - 1000 MHz	100 kHz	300 kHz	/	Peak
	/	/	120kHz	QP
Above 1 GHz	1MHz	3 MHz	/	Peak
	1MHz	10Hz	/	Average

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.

Test Procedure

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

All data was recorded in the Quasi-peak detection mode from 30MHz to 1GHz, Peak and average detection mode above 1GHz.

Corrected Amplitude & Margin Calculation

The basic equation is as follows: $\text{Result} = \text{Meter Reading} + \text{Corrected}$

Note:

$\text{Corrected} = \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$, or

$\text{Corrected} = \text{Antenna Factor} + \text{Cable Loss} + \text{Insertion loss of attenuator} - \text{Amplifier Gain}$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit.

For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows: $\text{Margin} = \text{Limit} - \text{Result}$

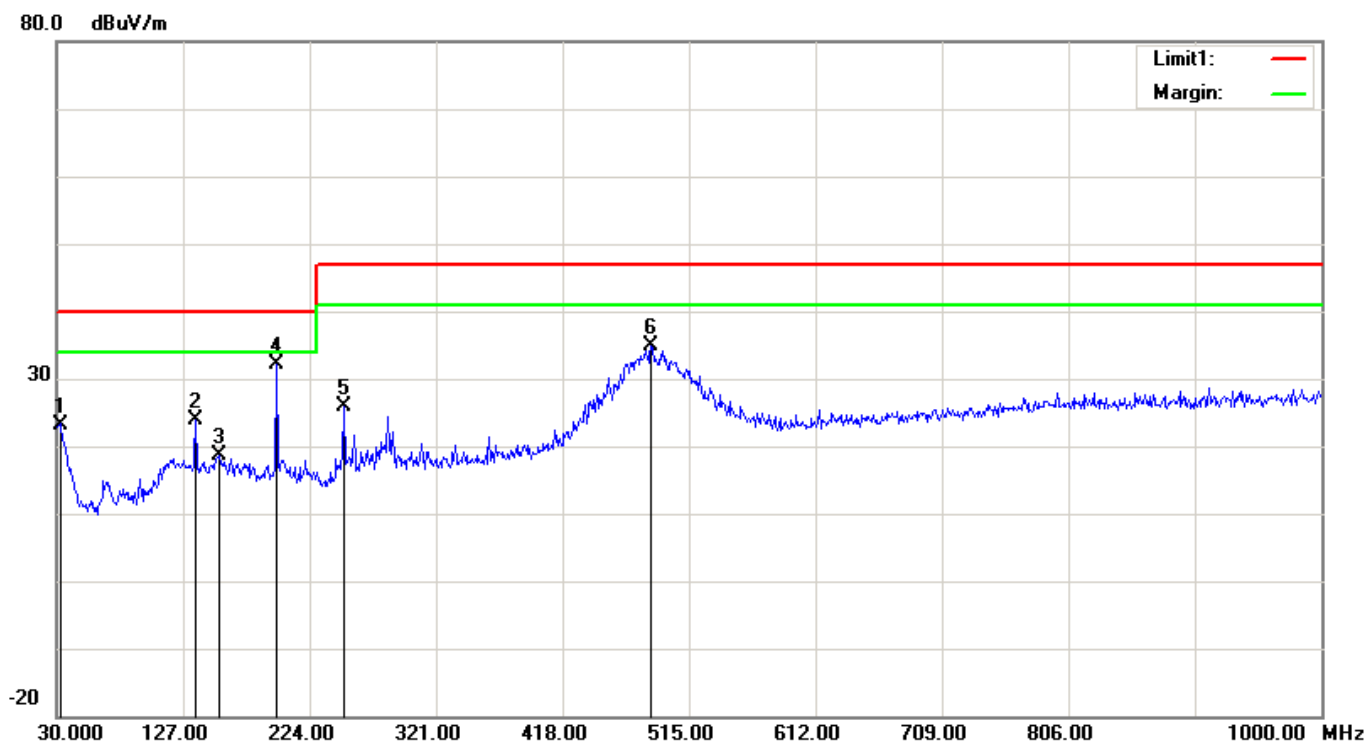
Test Data

Please refer to following table and plots:

**Below 1G
2L4E-3**

Condition: EN 301 489 Class B 3m Radiation
Test Mode: Operating & WIFI Link
Note:

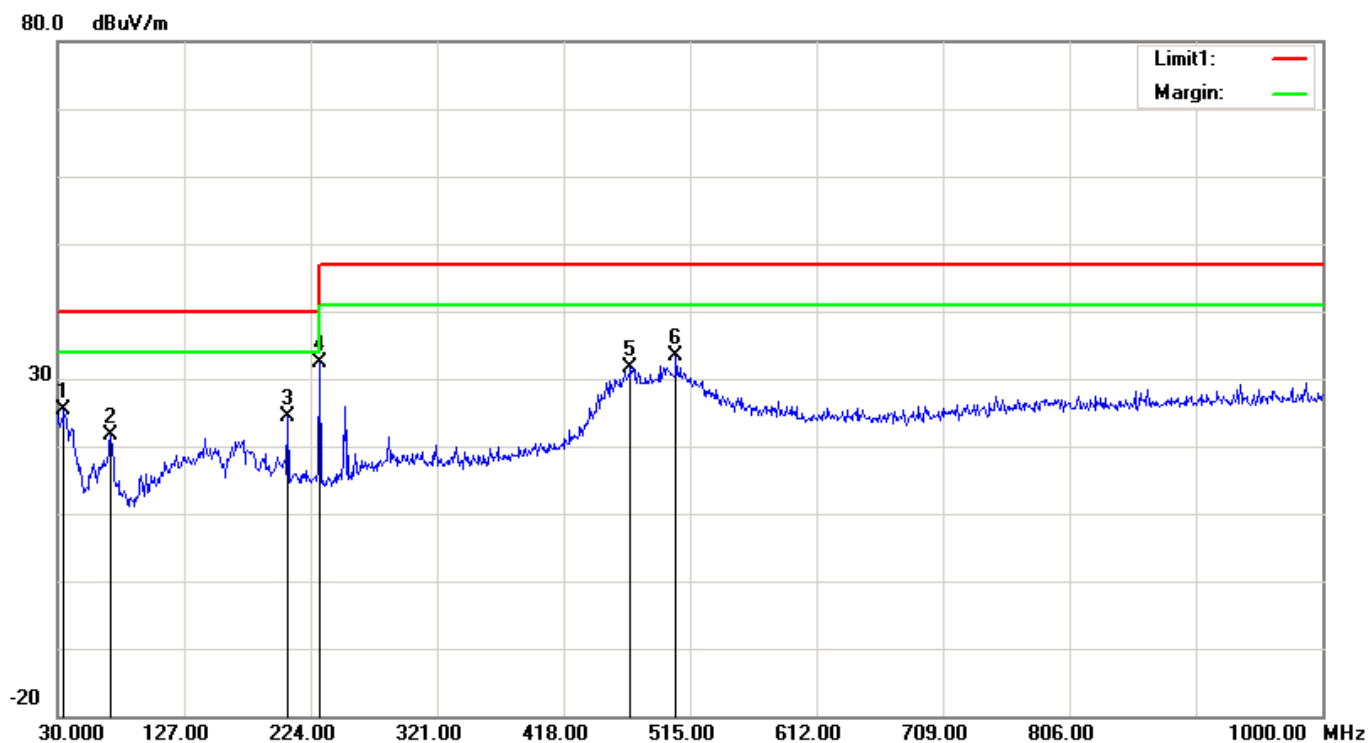
Polarization: Horizontal
Distance: 3m
Power: AC 230V/50Hz



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
	(MHz)	(dB μ V)		(dB/m)	(dB μ V/m)	(dB μ V/m)	(dB)
1	32.9100	28.72	peak	-5.47	23.25	40.00	16.75
2	136.7000	34.17	peak	-10.19	23.98	40.00	16.02
3	155.1300	29.70	peak	-11.01	18.69	40.00	21.31
4	198.7800	43.55	peak	-11.54	32.01	40.00	7.99
5	250.1900	37.42	peak	-11.43	25.99	47.00	21.01
6	485.9000	39.18	peak	-4.36	34.82	47.00	12.18

Condition: EN 301 489 Class B 3m Radiation
Test Mode: Operating & WIFI Link
Note:

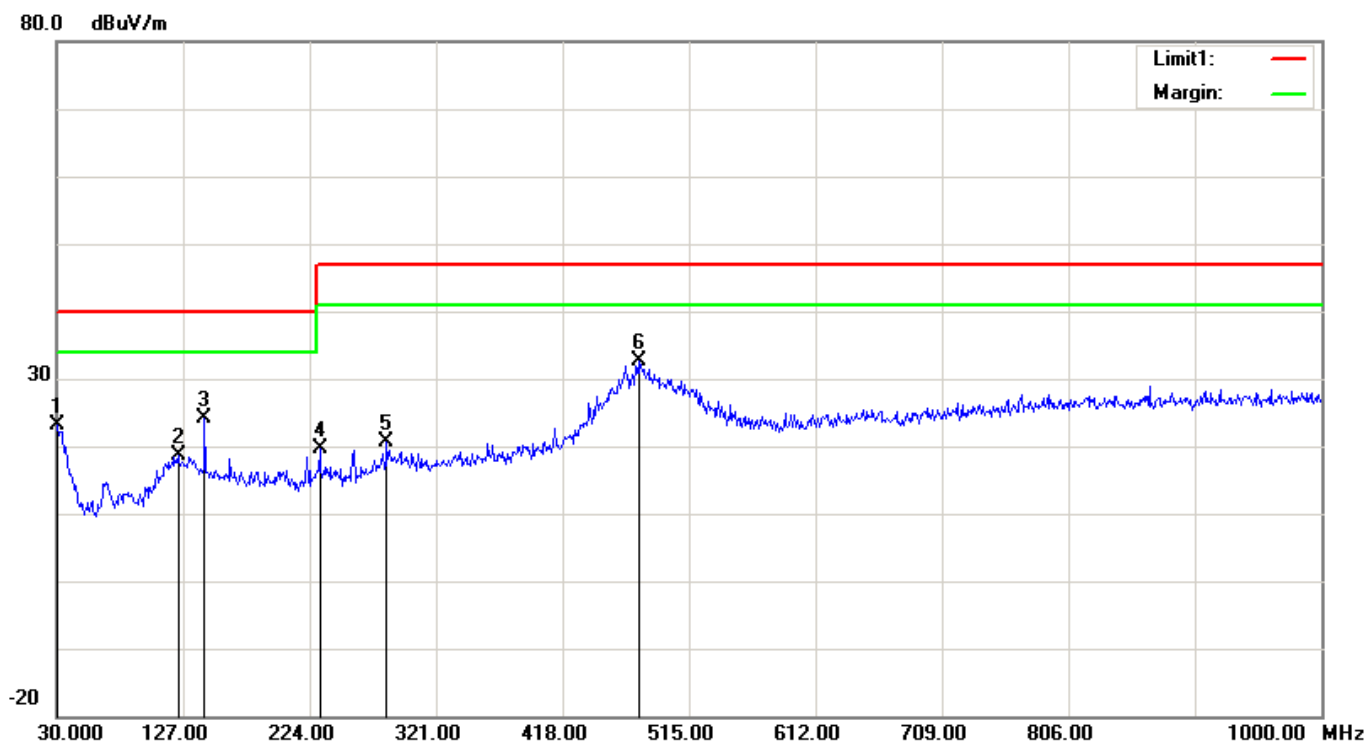
Polarization: Vertical
Distance: 3m
Power: AC 230V/50Hz



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
	(MHz)	(dB μ V)		(dB/m)	(dB μ V/m)	(dB μ V/m)	(dB)
1	34.8500	32.25	peak	-6.83	25.42	40.00	14.58
2	70.7400	37.98	peak	-16.27	21.71	40.00	18.29
3	206.5400	36.59	peak	-12.17	24.42	40.00	15.58
4	230.7900	44.70	peak	-12.20	32.50	47.00	14.50
5	469.4100	36.35	peak	-4.81	31.54	47.00	15.46
6	504.3300	37.60	peak	-4.24	33.36	47.00	13.64

Condition: EN 301 489 Class B 3m Radiation
Test Mode: Operating & WIFI Link
Note:

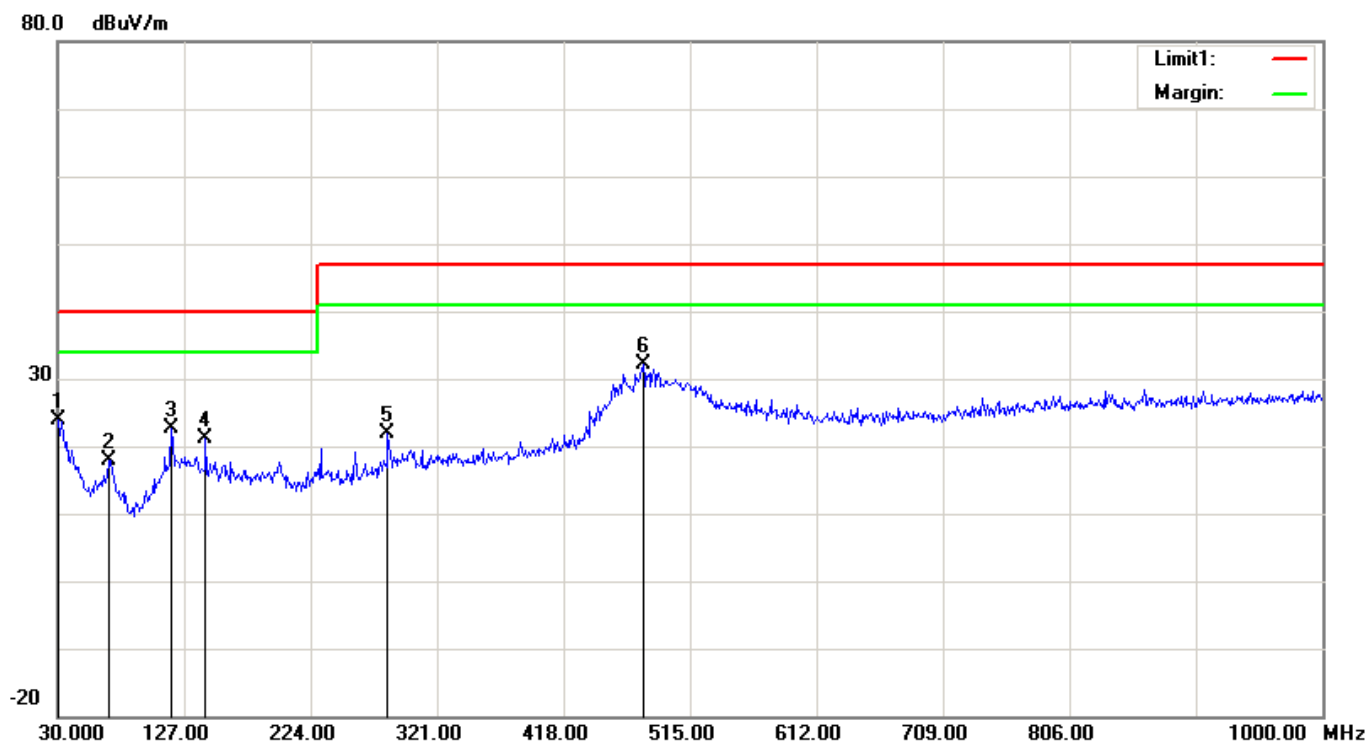
Polarization: Horizontal
Distance: 3m
Power: AC 110V/60Hz



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
	(MHz)	(dB μ V)		(dB/m)	(dB μ V/m)	(dB μ V/m)	(dB)
1	30.9700	27.44	peak	-4.31	23.13	40.00	16.87
2	123.1200	28.39	peak	-9.67	18.72	40.00	21.28
3	143.4900	34.93	peak	-10.73	24.20	40.00	15.80
4	231.7600	31.87	peak	-12.16	19.71	47.00	27.29
5	283.1700	30.26	peak	-9.65	20.61	47.00	26.39
6	476.2000	37.13	peak	-4.60	32.53	47.00	14.47

Condition: EN 301 489 Class B 3m Radiation
Test Mode: Operating & WIFI Link
Note:

Polarization: Vertical
Distance: 3m
Power: AC 110V/60Hz

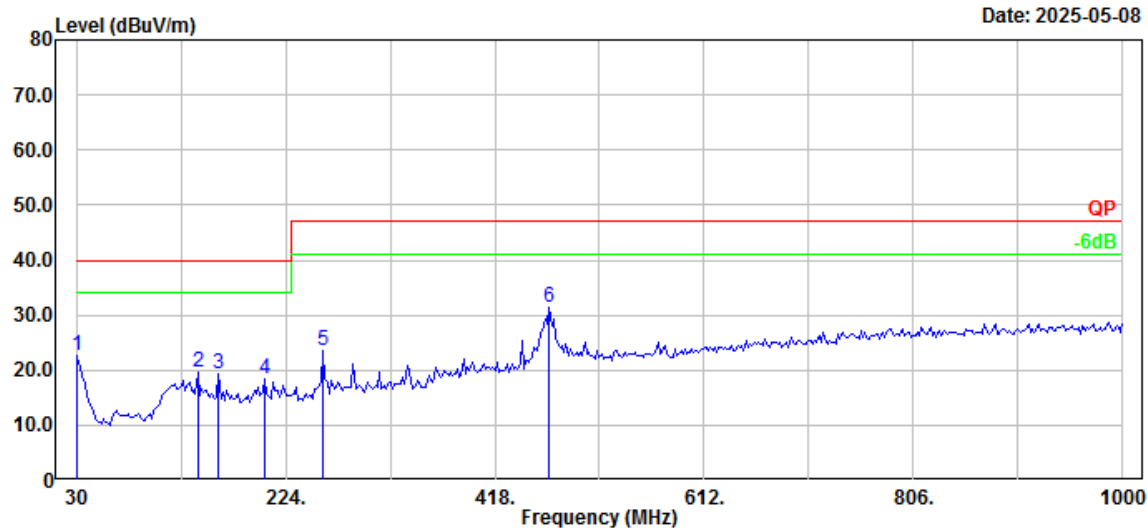


No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
	(MHz)	(dBμV)		(dB/m)	(dBμV/m)	(dBμV/m)	(dB)
1	30.9700	28.08	peak	-4.31	23.77	40.00	16.23
2	68.8000	34.23	peak	-16.28	17.95	40.00	22.05
3	117.3000	32.85	peak	-10.16	22.69	40.00	17.31
4	143.4900	31.90	peak	-10.73	21.17	40.00	18.83
5	283.1700	31.51	peak	-9.65	21.86	47.00	25.14
6	479.1100	36.61	peak	-4.55	32.06	47.00	14.94

3250-1

Project No.: 2402T75014E-RF-A1
Polarization: Horizontal
Test Mode: M1
Note: 110V

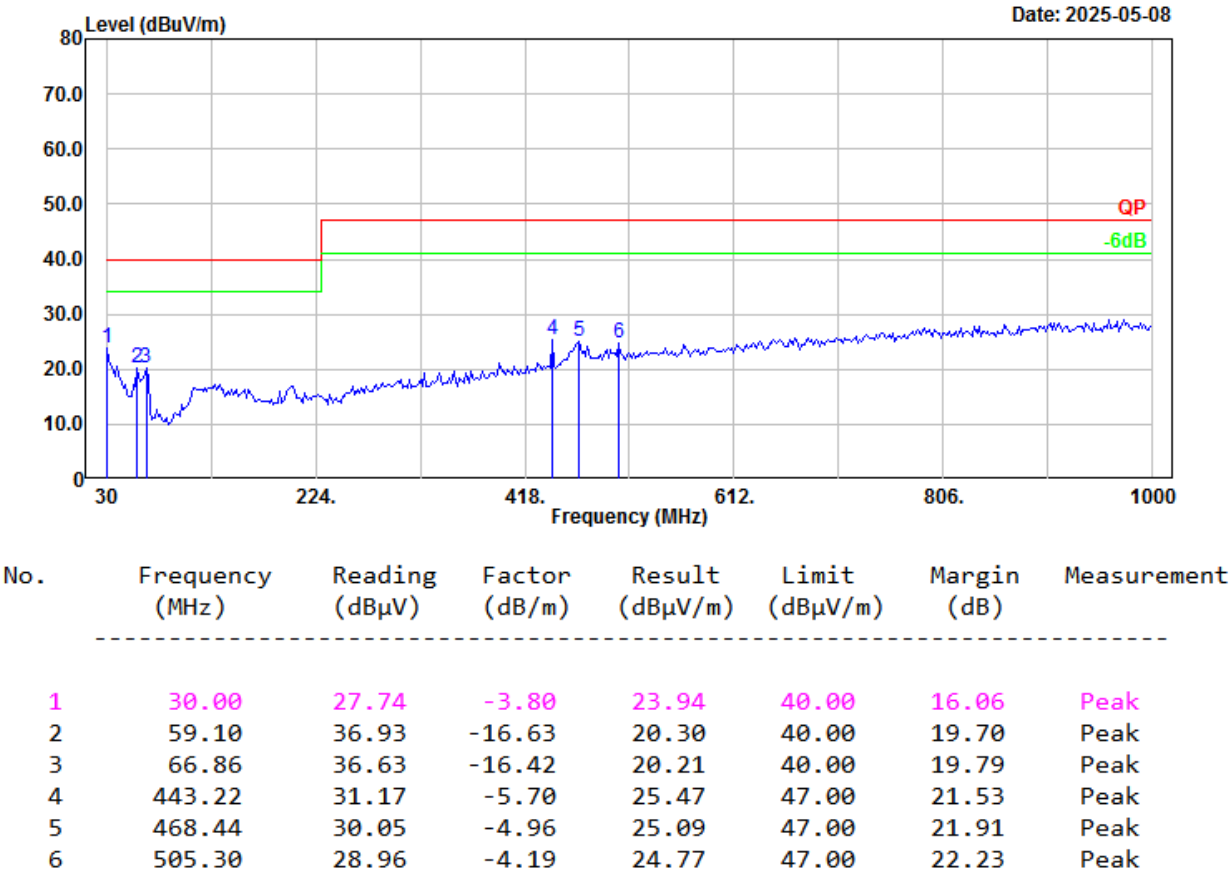
Serial No.: 3250-1
Tester: Leesin Xiang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Measurement
1	30.00	26.31	-3.80	22.51	40.00	17.49	Peak
2	142.52	30.22	-10.61	19.61	40.00	20.39	Peak
3	161.92	30.53	-11.27	19.26	40.00	20.74	Peak
4	204.60	30.33	-12.01	18.32	40.00	21.68	Peak
5	258.92	34.78	-11.15	23.63	47.00	23.37	Peak
6	468.44	36.39	-4.96	31.43	47.00	15.57	Peak

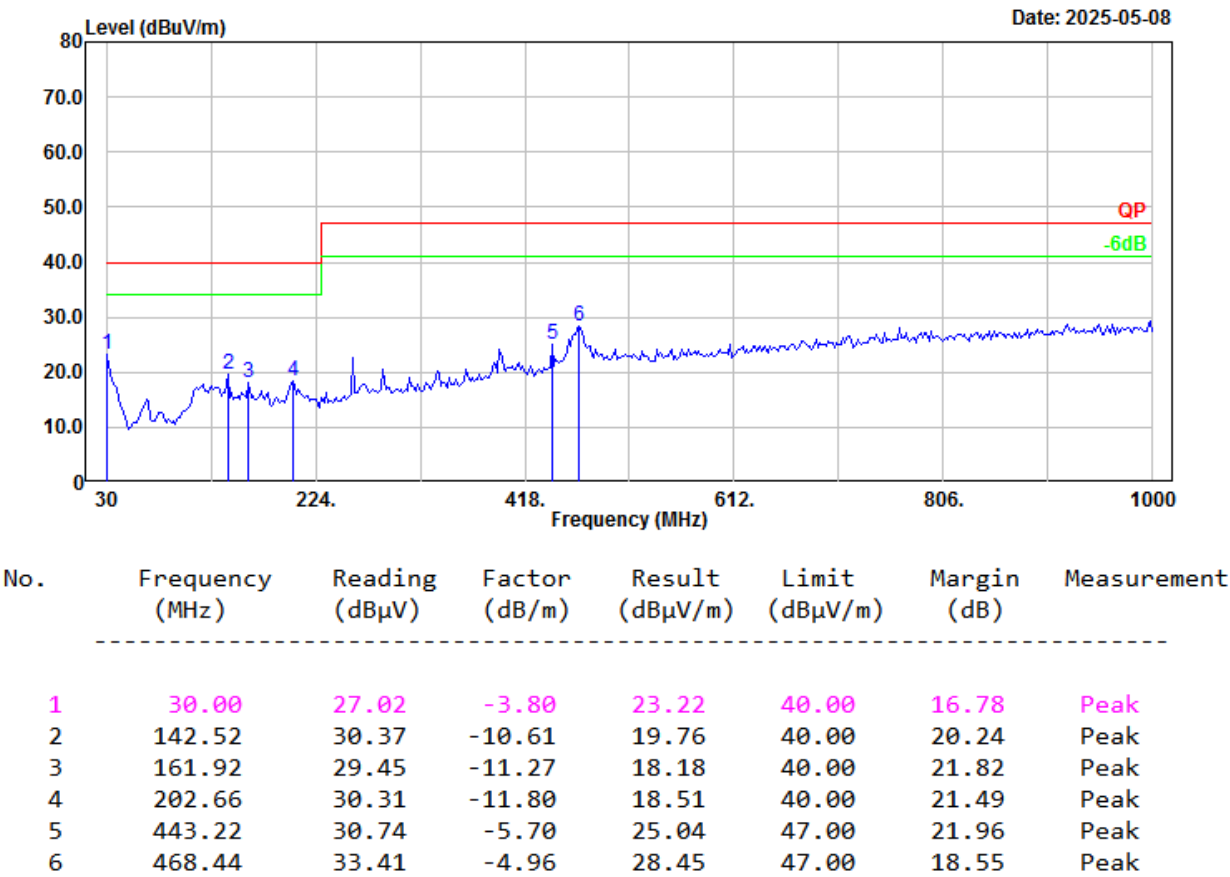
Project No.: 2402T75014E-RF-A1
Polarization: Vertical
Test Mode: M1
Note: 110V

Serial No.: 3250-1
Tester: Leesin Xiang



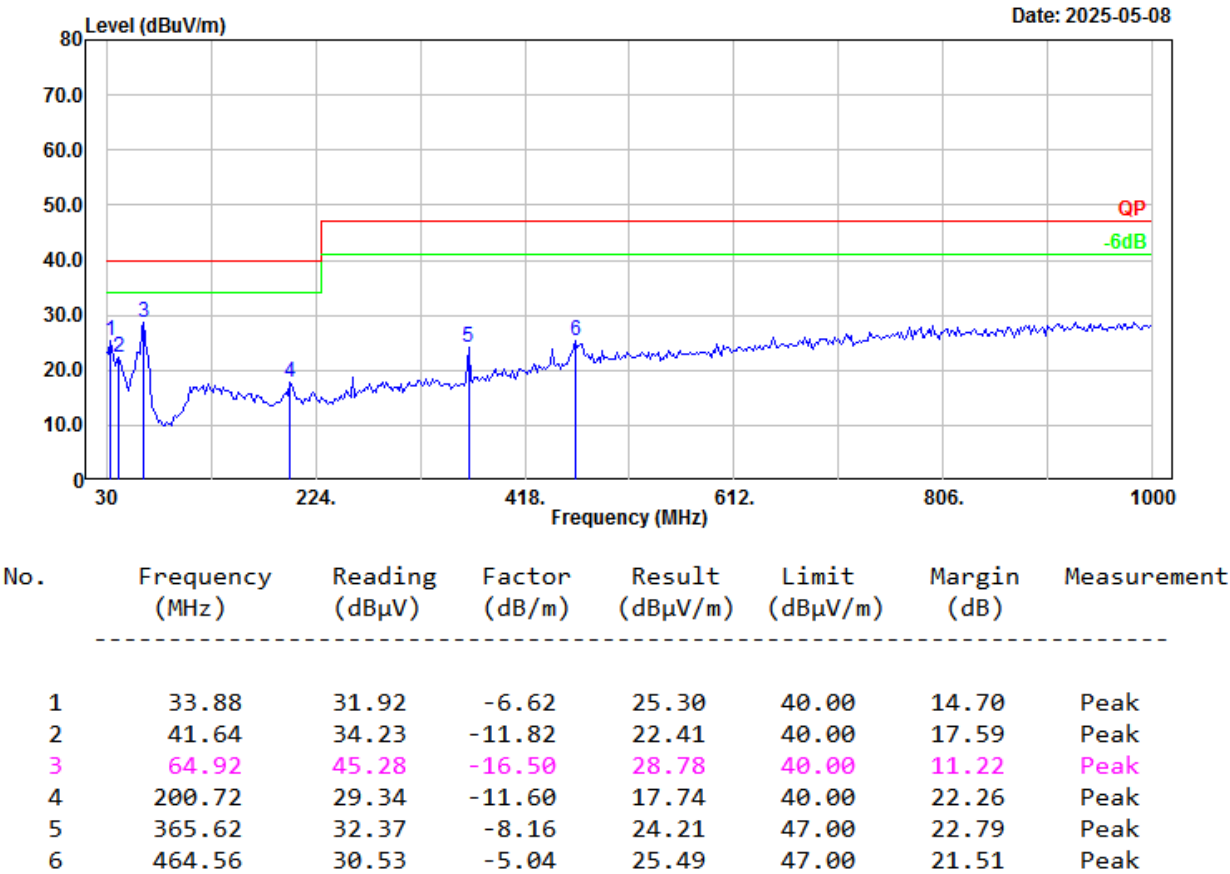
Project No.: 2402T75014E-RF-A1
Polarization: Horizontal
Test Mode: M1
Note: 230V

Serial No.: 3250-1
Tester: Leesin Xiang



Project No.: 2402T75014E-RF-A1
Polarization: Vertical
Test Mode: M1
Note: 230V

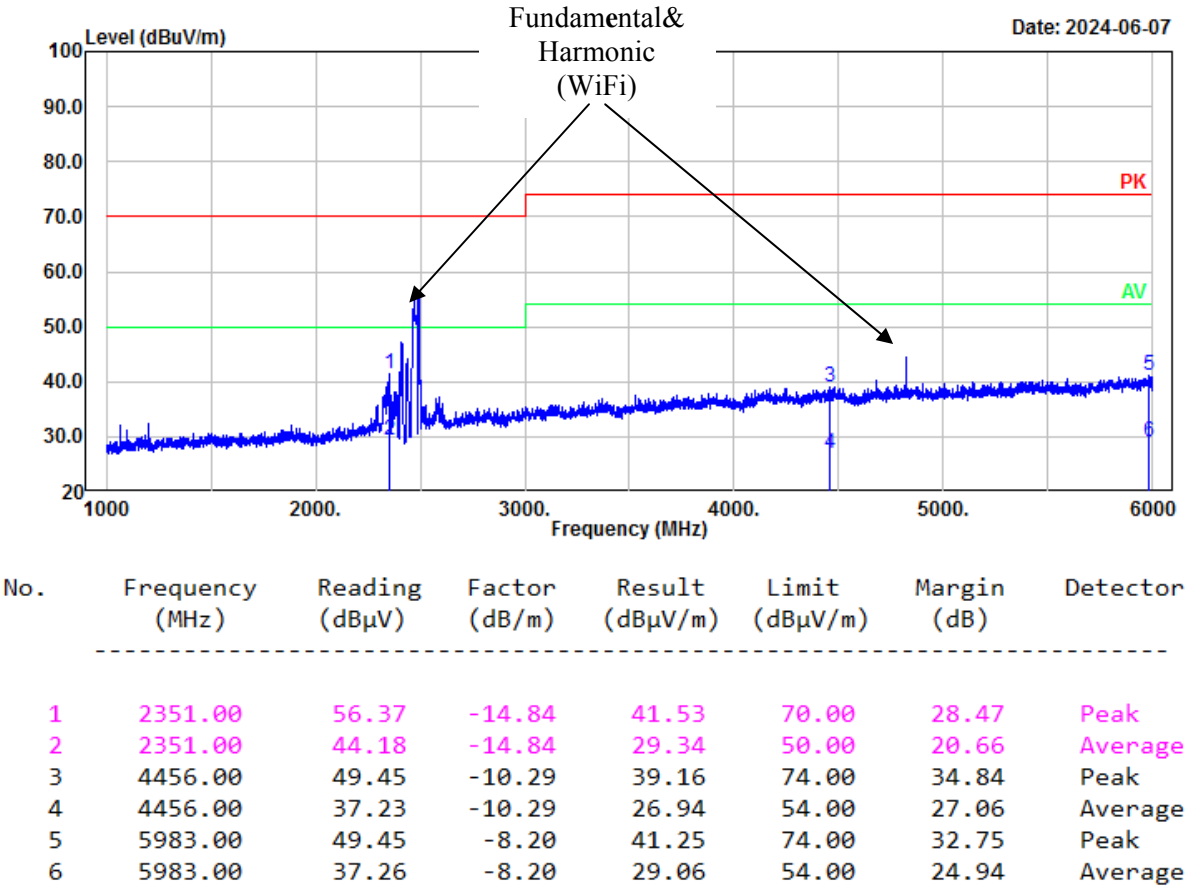
Serial No.: 3250-1
Tester: Leesin Xiang



Above 1G

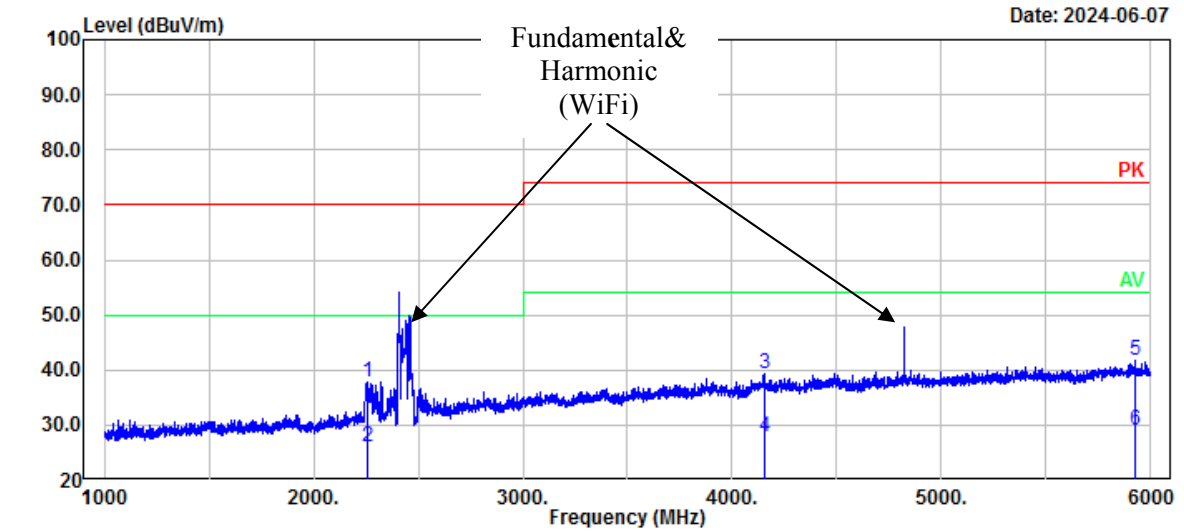
Project No.: 2402T75014E-RF
Polarization: Horizontal
Test Mode: Operating & WIFI Link
Note: 230V

Serial No.: 2L4E-3
Tester: Colin Yang



Project No.: 2402T75014E-RF
Polarization: Vertical
Test Mode: Operating & WIFI Link
Note: 230V

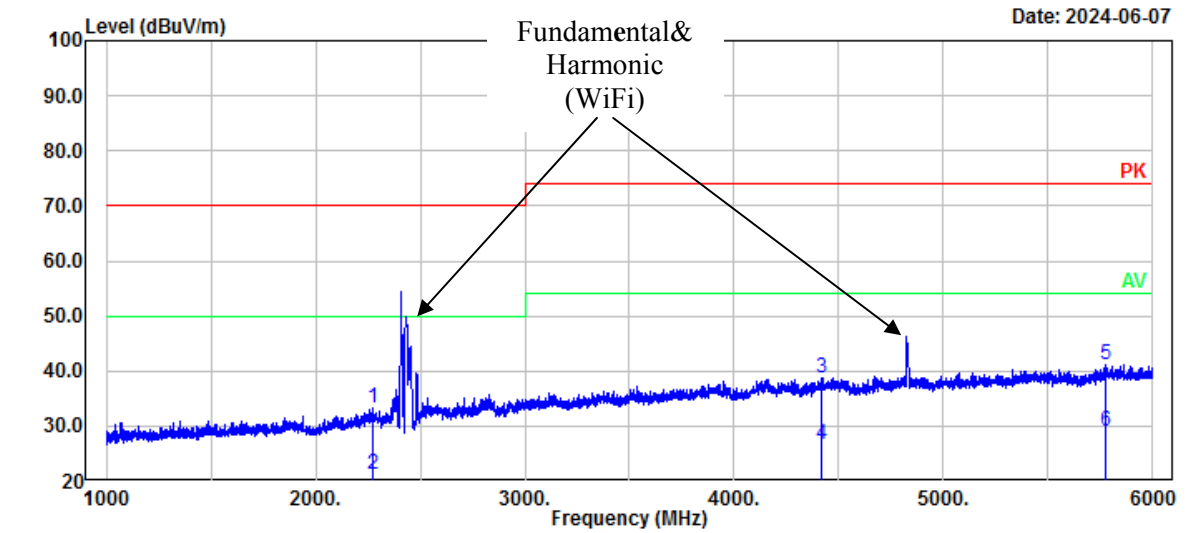
Serial No.: 2L4E-3
Tester: Colin Yang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	2254.00	53.10	-15.28	37.82	70.00	32.18	Peak
2	2254.00	41.25	-15.28	25.97	50.00	24.03	Average
3	4157.00	50.14	-10.71	39.43	74.00	34.57	Peak
4	4157.00	38.61	-10.71	27.90	54.00	26.10	Average
5	5929.00	49.86	-8.26	41.60	74.00	32.40	Peak
6	5929.00	37.30	-8.26	29.04	54.00	24.96	Average

Project No.: 2402T75014E-RF
Polarization: Horizontal
Test Mode: Operating & WIFI Link
Note: 110V

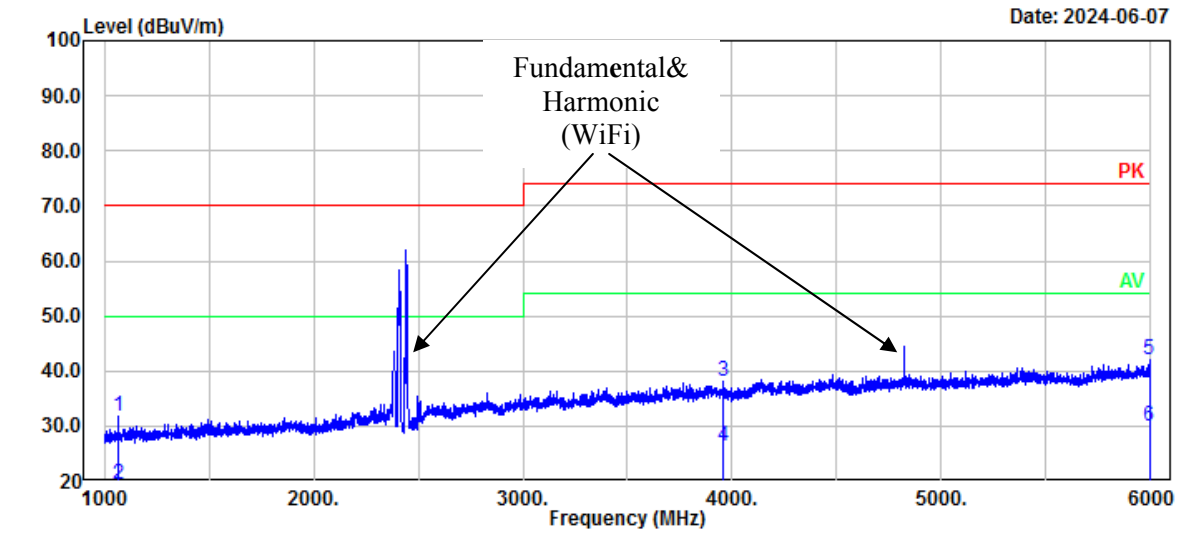
Serial No.: 2L4E-3
Tester: Colin Yang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	2270.00	48.44	-15.23	33.21	70.00	36.79	Peak
2	2270.00	36.41	-15.23	21.18	50.00	28.82	Average
3	4415.00	48.98	-10.29	38.69	74.00	35.31	Peak
4	4415.00	36.84	-10.29	26.55	54.00	27.45	Average
5	5775.00	49.67	-8.50	41.17	74.00	32.83	Peak
6	5775.00	37.58	-8.50	29.08	54.00	24.92	Average

Project No.: 2402T75014E-RF
Polarization: Vertical
Test Mode: Operating & WIFI Link
Note: 110V

Serial No.: 2L4E-3
Tester: Colin Yang



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	1066.00	49.78	-17.86	31.92	70.00	38.08	Peak
2	1066.00	37.34	-17.86	19.48	50.00	30.52	Average
3	3959.00	49.02	-11.05	37.97	74.00	36.03	Peak
4	3959.00	37.49	-11.05	26.44	54.00	27.56	Average
5	5993.00	50.22	-8.19	42.03	74.00	31.97	Peak
6	5993.00	38.22	-8.19	30.03	54.00	23.97	Average

3 - AC MAINS POWER INPUT/OUTPUT PORTS

Measurement Uncertainty

Compliance or non-compliance with a disturbance limit shall be determined in the following manner:

If U_{lab} is less than or equal to U_{cispr} of Table 1, then:

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

If U_{lab} is greater than U_{cispr} of Table 1, then:

- compliance is deemed to occur if no measured disturbance level, increased by $(U_{lab} - U_{cispr})$, exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level, increased by $(U_{lab} - U_{cispr})$, exceeds the disturbance limit.

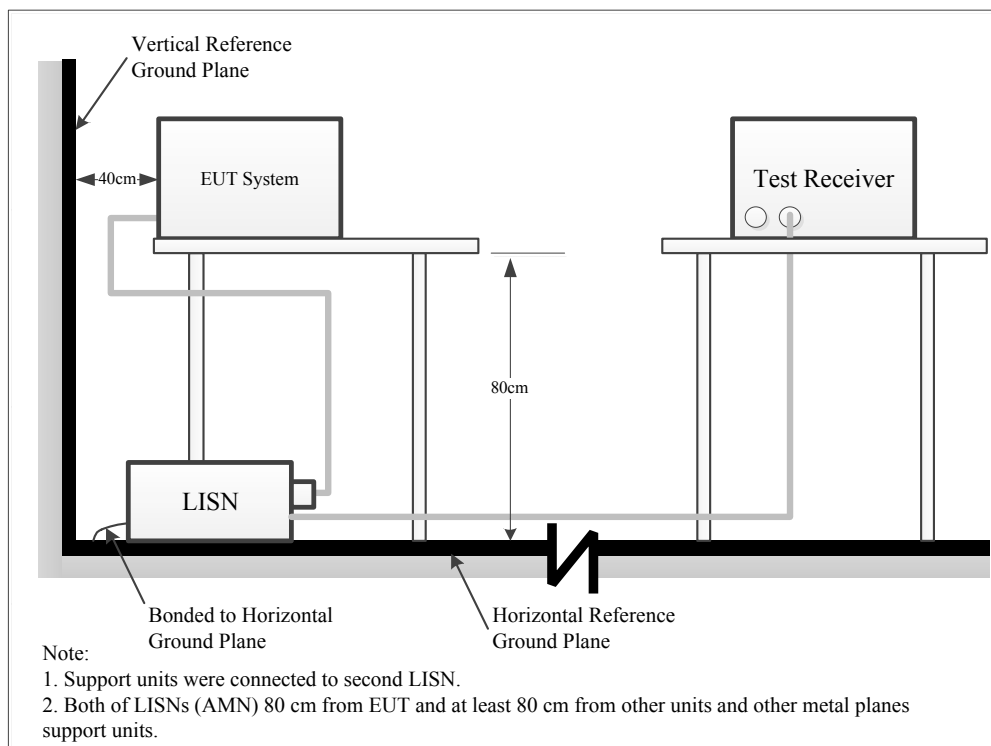
Based on CISPR 16-4-2-2011*, measurement uncertainty of conducted disturbance at mains port using AMN at Bay Area Compliance Laboratories Corp. (Dongguan) is 3.12 dB (150 kHz to 30 MHz), and conducted disturbance at telecommunication port using AAN is 5.0 dB (150 kHz to 30 MHz).

Table 1 - Values of U_{cispr}

Measurement	U_{cispr}
Conducted disturbance at mains port using AMN (9 kHz to 150 kHz)	3.8 dB
(150 kHz to 30 MHz)	3.4 dB
Conducted disturbance at mains port using voltage probe (9 kHz to 30 MHz)	2.9 dB
Conducted disturbance at telecommunication port using AAN (150 kHz to 30 MHz)	5.0 dB
Conducted disturbance at telecommunication port using CVP (150 kHz to 30 MHz)	3.9 dB
Conducted disturbance at telecommunication port using CP (150 kHz to 30 MHz)	2.9 dB

Note: 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.

Test System Setup



The setup of EUT is according with per EN 301 489-1 measurement procedures. The specification used was with the EN 301 489-1 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40cm long in the middle.

The spacing between the peripherals was 10cm.

The adapter was connected to AC230V/50Hz power source.

EMI Test Receiver Setup

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

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

Test Procedure

During the conducted emissions test, the adapter was connected to the main outlet of the first LISN and the other support equipments were connected to the outlet of the second LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

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:

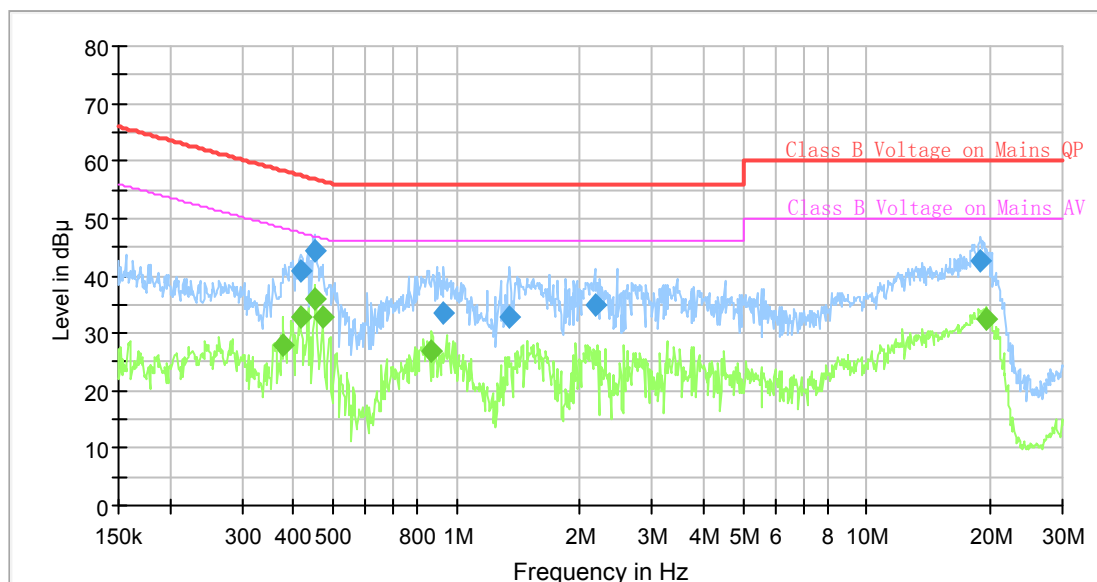
Margin = Limit – Result

Test Data

Please refer to following table and plots:

2L4E-3

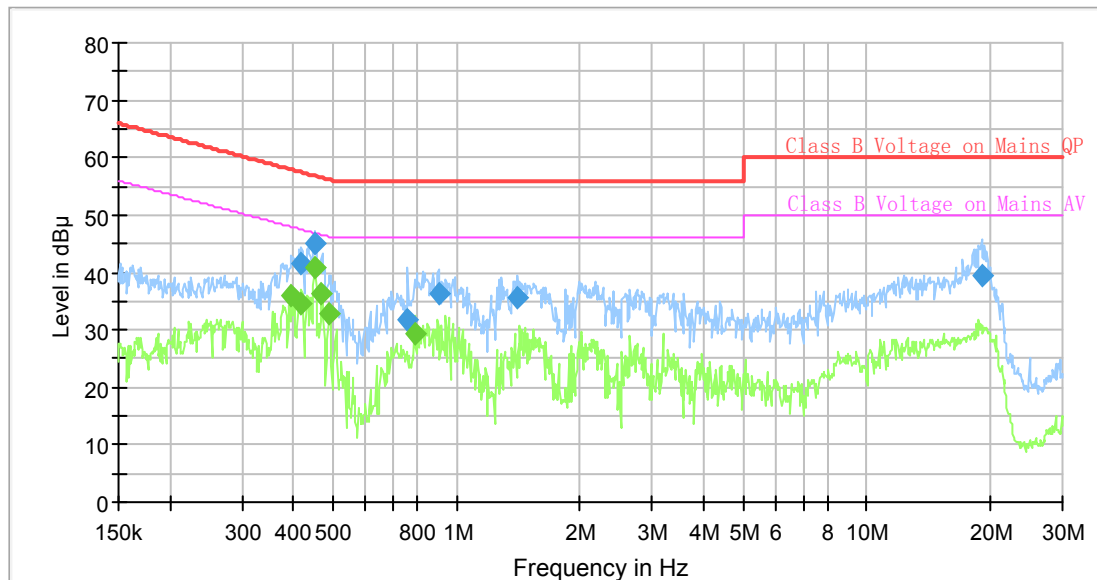
Port: L
 Test Mode: Operating & WIFI Link
 Power Source: AC 230V/50Hz
 Note: 2L4E-3



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.377409	---	28.00	48.34	20.34	9.000	L1	10.8
0.416998	---	32.98	47.51	14.53	9.000	L1	10.8
0.419083	40.95	---	57.47	16.52	9.000	L1	10.8
0.451638	---	35.83	46.84	11.01	9.000	L1	10.8
0.451638	44.42	---	56.84	12.42	9.000	L1	10.8
0.472373	---	32.88	46.47	13.59	9.000	L1	10.8
0.868051	---	26.81	46.00	19.19	9.000	L1	10.9
0.930829	33.47	---	56.00	22.53	9.000	L1	10.9
1.346351	32.81	---	56.00	23.19	9.000	L1	10.8
2.173203	34.79	---	56.00	21.21	9.000	L1	10.8
18.930896	42.61	---	60.00	17.39	9.000	L1	10.9
19.603499	---	32.42	50.00	17.58	9.000	L1	10.9

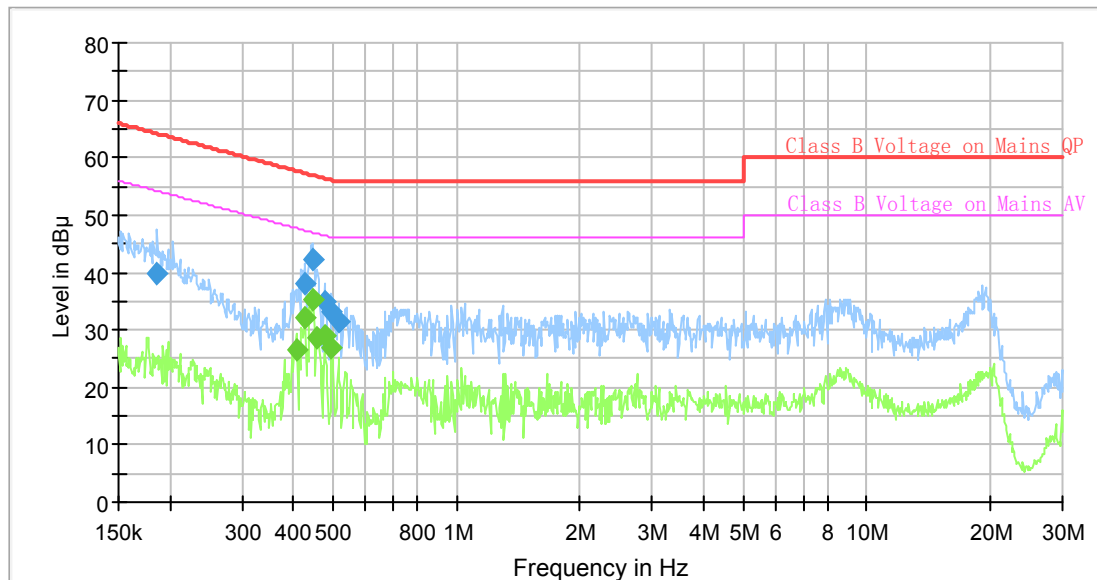
Port: N
 Test Mode: Operating & WIFI Link
 Power Source: AC 230V/50Hz
 Note: 2L4E-3



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.394736	---	35.83	47.96	12.13	9.000	N	10.8
0.419083	---	34.49	47.47	12.98	9.000	N	10.8
0.419083	41.51	---	57.47	15.96	9.000	N	10.8
0.451638	---	40.99	46.84	5.85	9.000	N	10.8
0.451638	44.92	---	56.84	11.92	9.000	N	10.8
0.467685	---	36.41	46.55	10.14	9.000	N	10.8
0.489157	---	32.76	46.18	13.42	9.000	N	10.7
0.758685	31.81	---	56.00	24.19	9.000	N	10.8
0.789569	---	29.39	46.00	16.61	9.000	N	10.8
0.903386	36.49	---	56.00	19.51	9.000	N	10.8
1.408163	35.50	---	56.00	20.50	9.000	N	10.9
19.025550	39.62	---	60.00	20.38	9.000	N	10.9

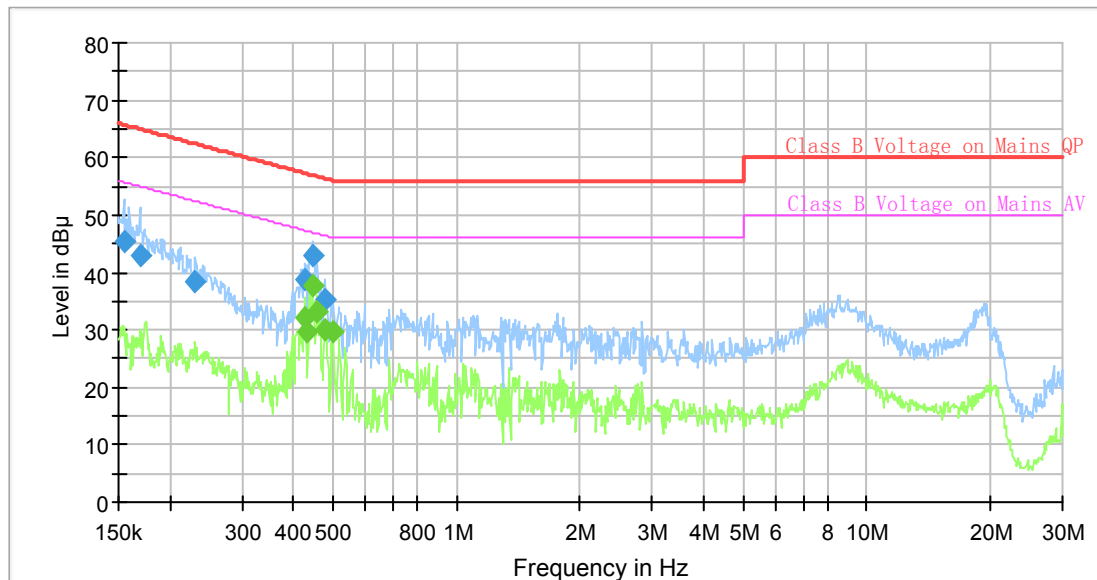
Port: L
Test Mode: Operating & WIFI Link
Power Source: AC 110V/60Hz
Note: 2L4E-3



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.185880	39.92	---	64.22	24.30	9.000	L1	10.8
0.406728	---	26.52	47.71	21.19	9.000	L1	10.8
0.427528	---	32.00	47.30	15.30	9.000	L1	10.8
0.427528	38.21	---	57.30	19.09	9.000	L1	10.8
0.444931	42.10	---	56.97	14.87	9.000	L1	10.8
0.447156	---	35.38	46.93	11.55	9.000	L1	10.8
0.458447	---	28.58	46.72	18.14	9.000	L1	10.8
0.477109	34.83	---	56.39	21.56	9.000	L1	10.8
0.477109	---	29.09	46.39	17.30	9.000	L1	10.8
0.496531	33.15	---	56.06	22.91	9.000	L1	10.8
0.496531	---	26.74	46.06	19.32	9.000	L1	10.8
0.516743	31.51	---	56.00	24.49	9.000	L1	10.8

Port: N
 Test Mode: Operating & WIFI Link
 Power Source: AC 110V/60Hz
 Note: 2L4E-3



Final Result

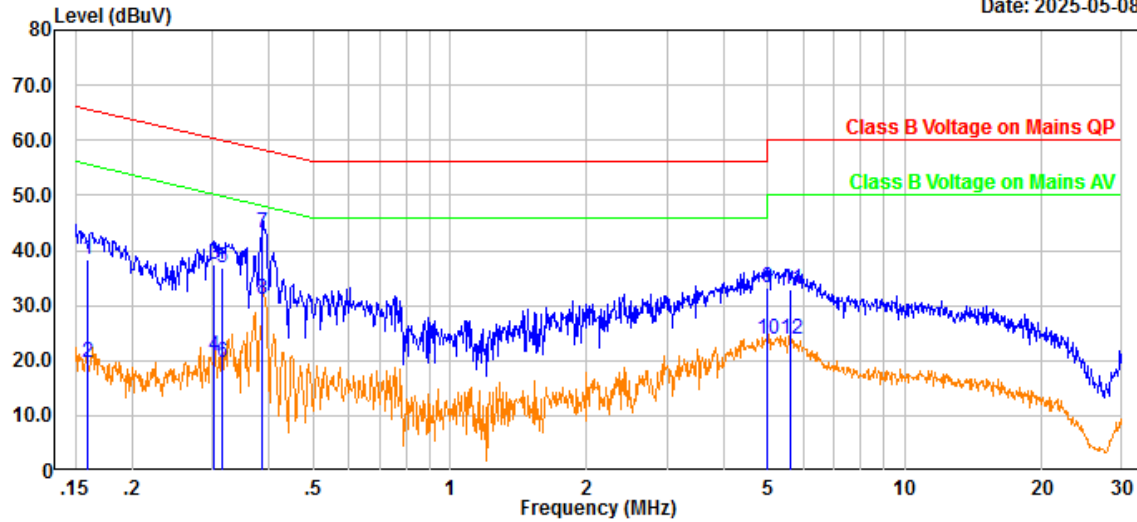
Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.154557	45.50	---	65.75	20.25	9.000	N	10.9
0.169074	43.05	---	65.01	21.96	9.000	N	10.9
0.230342	38.55	---	62.44	23.89	9.000	N	10.8
0.427528	---	32.27	47.30	15.03	9.000	N	10.8
0.427528	38.78	---	57.30	18.52	9.000	N	10.8
0.431814	---	29.77	47.22	17.45	9.000	N	10.8
0.444931	---	37.71	46.97	9.26	9.000	N	10.8
0.444931	43.07	---	56.97	13.90	9.000	N	10.8
0.458447	---	33.28	46.72	13.44	9.000	N	10.8
0.477109	35.44	---	56.39	20.95	9.000	N	10.7
0.479495	---	29.95	46.35	16.40	9.000	N	10.7
0.499013	---	29.58	46.02	16.44	9.000	N	10.7

3250-1

Project No.: 2402T75014E-RF-A1
Port: Line
Test Mode: M1

Serial No.: 3250-1
Tester: Yolo Fan
Note: 110V 60HZ

Date: 2025-05-08

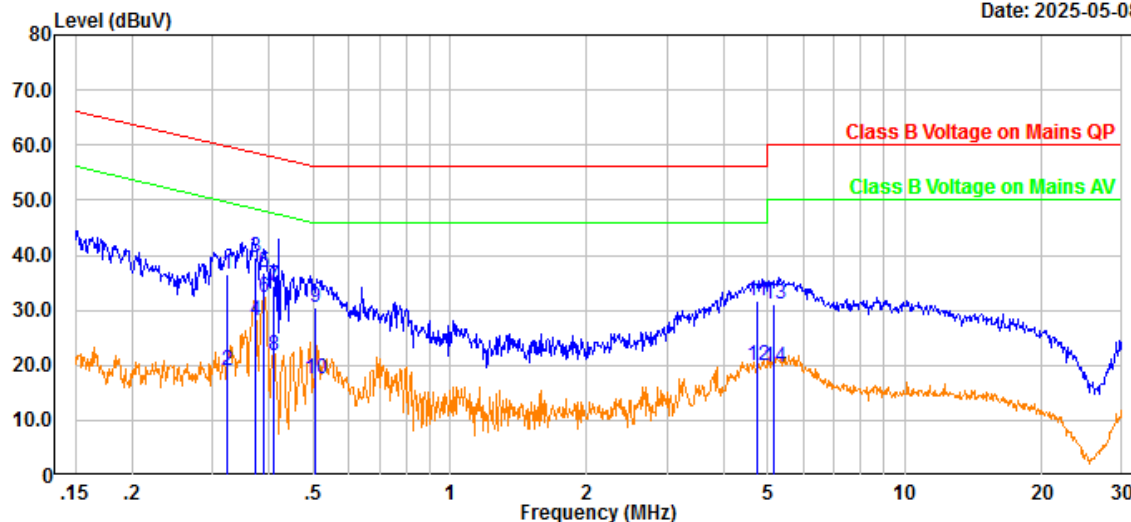


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Measurement
1	0.160	27.74	10.72	38.46	65.48	27.02	QP
2	0.160	8.78	10.72	19.50	55.48	35.98	Average
3	0.303	26.74	10.80	37.54	60.16	22.62	QP
4	0.303	9.93	10.80	20.73	50.16	29.43	Average
5	0.316	25.89	10.80	36.69	59.82	23.13	QP
6	0.316	8.81	10.80	19.61	49.82	30.21	Average
7	0.386	32.22	10.81	43.03	58.14	15.11	QP
8	0.386	20.16	10.81	30.97	48.14	17.17	Average
9	5.002	22.42	10.79	33.21	60.00	26.79	QP
10	5.002	13.16	10.79	23.95	50.00	26.05	Average
11	5.617	22.12	10.84	32.96	60.00	27.04	QP
12	5.617	12.91	10.84	23.75	50.00	26.25	Average

Project No.: 2402T75014E-RF-A1
 Port: neutral
 Test Mode: M1

Serial No.: 3250-1
 Tester: Yolo Fan
 Note: 110V 60HZ

Date: 2025-05-08

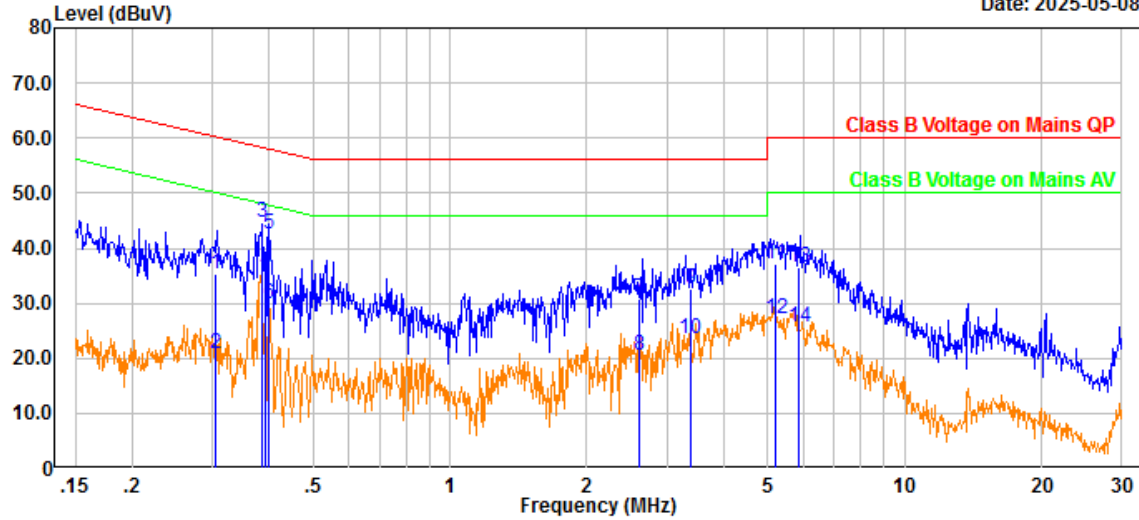


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Measurement
1	0.323	25.92	10.76	36.68	59.63	22.95	QP
2	0.323	8.13	10.76	18.89	49.63	30.74	Average
3	0.374	28.86	10.75	39.61	58.42	18.81	QP
4	0.374	17.25	10.75	28.00	48.42	20.42	Average
5	0.389	26.13	10.75	36.88	58.09	21.21	QP
6	0.389	21.63	10.75	32.38	48.09	15.71	Average
7	0.410	23.79	10.74	34.53	57.65	23.12	QP
8	0.410	11.11	10.74	21.85	47.65	25.80	Average
9	0.505	19.87	10.71	30.58	56.00	25.42	QP
10	0.505	6.67	10.71	17.38	46.00	28.62	Average
11	4.741	20.85	10.81	31.66	56.00	24.34	QP
12	4.741	9.19	10.81	20.00	46.00	26.00	Average
13	5.153	20.23	10.82	31.05	60.00	28.95	QP
14	5.153	8.80	10.82	19.62	50.00	30.38	Average

Project No.: 2402T75014E-RF-A1
 Port: Line
 Test Mode: M1

Serial No.: 3250-1
 Tester: Yolo Fan
 Note: 230V 50HZ

Date: 2025-05-08

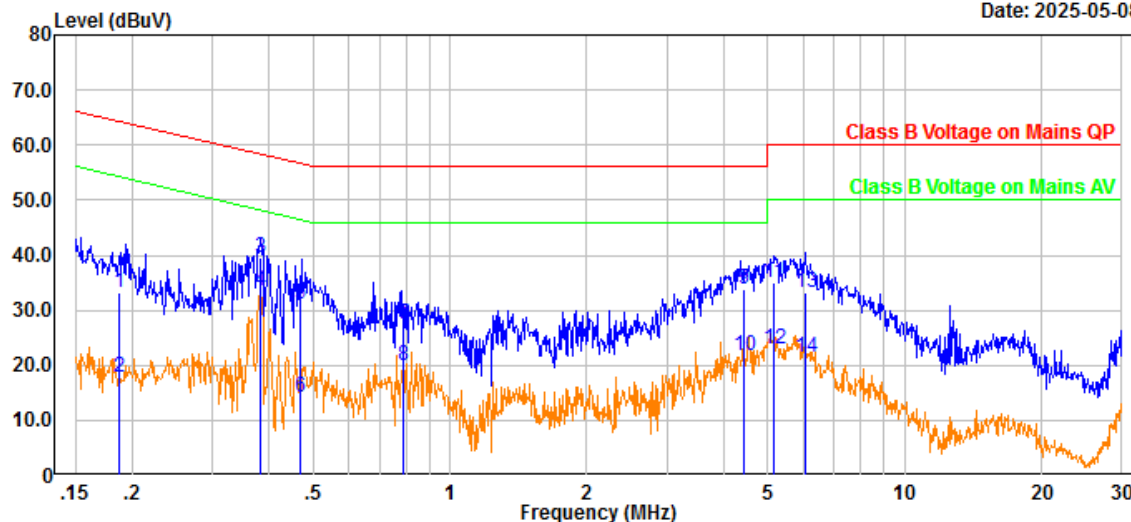


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Measurement
<hr/>							
1	0.305	24.61	10.80	35.41	60.10	24.69	QP
2	0.305	10.18	10.80	20.98	50.10	29.12	Average
3	0.387	33.82	10.81	44.63	58.12	13.49	Average
4	0.393	25.03	10.81	35.84	58.01	22.17	QP
5	0.398	31.73	10.81	42.54	57.89	15.35	QP
6	0.398	19.03	10.81	29.84	47.89	18.05	Average
7	2.604	19.92	10.78	30.70	56.00	25.30	QP
8	2.604	9.88	10.78	20.66	46.00	25.34	Average
9	3.371	21.99	10.74	32.73	56.00	23.27	QP
10	3.371	12.85	10.74	23.59	46.00	22.41	Average
11	5.185	26.39	10.80	37.19	60.00	22.81	QP
12	5.185	16.42	10.80	27.22	50.00	22.78	Average
13	5.847	25.63	10.85	36.48	60.00	23.52	QP
14	5.847	14.86	10.85	25.71	50.00	24.29	Average

Project No.: 2402T75014E-RF-A1
 Port: neutral
 Test Mode: M1

Serial No.: 3250-1
 Tester: Yolo Fan
 Note: 230V 50HZ

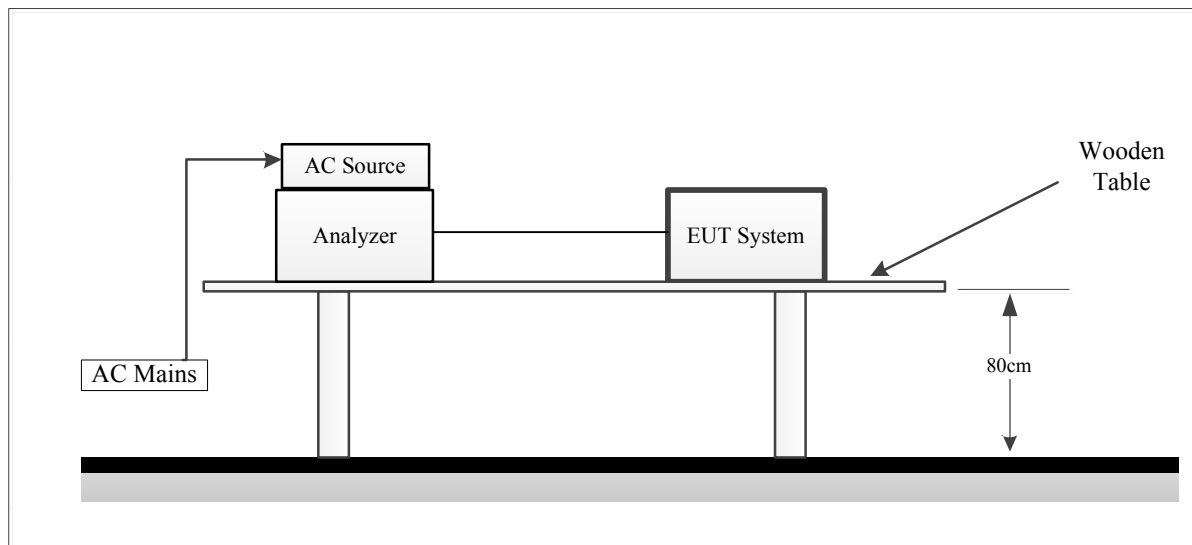
Date: 2025-05-08



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Measurement
1	0.188	22.30	10.80	33.10	64.12	31.02	QP
2	0.188	6.86	10.80	17.66	54.12	36.46	Average
3	0.383	28.85	10.75	39.60	58.21	18.61	QP
4	0.383	22.73	10.75	33.48	48.21	14.73	Average
5	0.469	20.39	10.72	31.11	56.53	25.42	QP
6	0.469	3.45	10.72	14.17	46.53	32.36	Average
7	0.787	16.73	10.74	27.47	56.00	28.53	QP
8	0.787	9.07	10.74	19.81	46.00	26.19	Average
9	4.416	22.93	10.81	33.74	56.00	22.26	QP
10	4.416	11.01	10.81	21.82	46.00	24.18	Average
11	5.145	24.10	10.82	34.92	60.00	25.08	QP
12	5.145	12.10	10.82	22.92	50.00	27.08	Average
13	6.028	22.48	10.83	33.31	60.00	26.69	QP
14	6.028	10.54	10.83	21.37	50.00	28.63	Average

5 - VOLTAGE FLUCTUATIONS AND FLICKER (AC MAINS INPUT PORT)

Test System Setup



Test Standard

EN 61000-3-3:2013+A1:2019+A2:2021

Flicker Test Limits:

The limits shall be applicable to voltage fluctuations and flicker at the supply terminals of the equipment under test, measured or calculated according to clause 4 under test conditions described in clause 6 and annex A. Tests made to prove compliance with the limits are considered to be type tests.

The following limits apply:

- the value of P_{st} shall not be greater than 1,0;
- the value of P_{lt} shall not be greater than 0,65;
- the value of $d(t)$ during a voltage change shall not exceed 3,3 % for more than 500 ms;
- the relative steady-state voltage change, d_c , shall not exceed 3,3 %;
- the maximum relative voltage change d_{max} , shall not exceed
 - a) 4 % without additional conditions;
 - b) 6 % for equipment which is:
 - switched manually, or
 - switched automatically more frequently than twice per day, and also has either a delayed restart (the delay being not less than a few tens of seconds), or manual restart, after a power supply interruption.

Note: The cycling frequency will be further limited by the P_{st} and P_{lt} limit. For example: a d_{max} of 6 % producing a rectangular voltage change characteristic twice per hour will give a P_{lt} of about 0,65.

- c) 7 % for equipment which is
 - attended whilst in use (for example: hair dryers, vacuum cleaners, kitchen equipment such as mixers, garden equipment such as lawn mowers, portable tools such as electric drills), or
 - switched on automatically, or is intended to be switched on manually, no more than twice per day, and also has either a delayed restart (the delay being not less than a few tens of seconds) or manual restart, after a power supply interruption.

In the case of equipment having several separately controlled circuits in accordance with 6.6, limits b) and c) shall apply only if there is delayed or manual restart after a power supply interruption; for all equipment with automatic switching which is energized immediately on restoration of supply after a power supply interruption, limits a) shall apply; for all equipment with manual switching, limits b) or c) shall apply depending on the rate of switching. P_{st} and P_{lt} requirements shall not be applied to voltage changes caused by manual switching. The limits shall not be applied to voltage changes associated with emergency switching or emergency interruptions.

Test Data

Please refer to following tables:

2L4E-3

Short time (Pst): 10 min
Observation time: 120 min (12 Flicker measurement)
Test Mode: M1: Operating & WIFI Link
Power Source: AC 230V/50Hz
Test Result: PASS

Maximum Flicker results M1 (EU Adapter)

	EUT values	Limit	Result
Pst	0.028	1.00	PASS
Plt	0.028	0.65	PASS
dc [%]	0.019	3.30	PASS
dmax [%]	0.213	4.00	PASS
dt [s]	0.000	0.50	PASS

3250-1

Short time (Pst): 10 min
Observation time: 120 min(12 Flicker measurement)
Test Mode: M1: Operating & WIFI Link
Power Source: AC 230V/50Hz
Test Result: PASS

Maximum Flicker results (M1)

	EUT values	Limit	Result
Pst	0.016	1.00	PASS
Plt	0.015	0.65	PASS
dc [%]	0.000	3.30	PASS
dmax [%]	0.000	4.00	PASS
dt [s]	0.000	0.50	PASS

7 - RADIO FREQUENCY ELECTROMAGNETIC FIELDS (80 MHZ TO 6 000 MHZ)

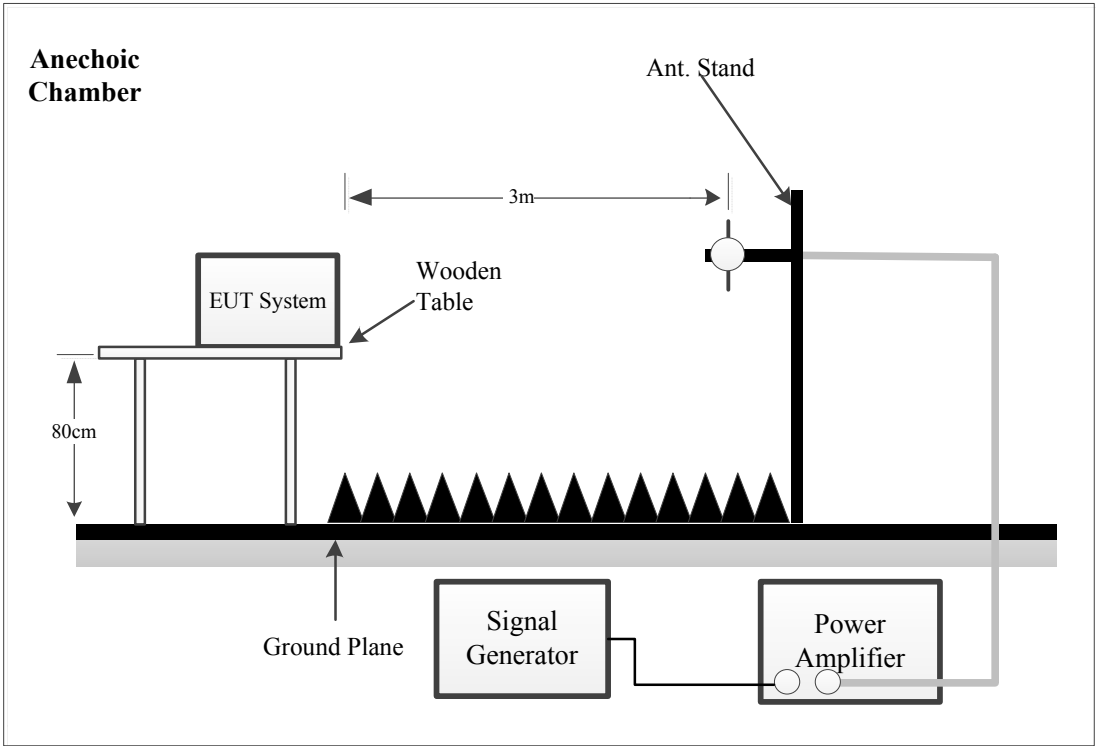
Measurement Uncertainty

U_{lab} (measurement uncertainty of lab) and U_{EN} (measurement uncertainty of EN 61000-4-3) please refer to the following:

Parameter	U_{EN}	U_{lab}
Calibration process	1.88 dB	1.88 dB
Level setting	2.19 dB	2.19 dB

Note: 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.

Test System Setup



Test Level

Level	Field Strength V/m
1.	1
2.	3
3.	10
X.	Special

Performance Criterion: A

General Performance Criteria:

- A. The apparatus shall continue to operate as intended during and after the test. The manufacturer specifies some minimum performance level. The performance level may be specified by the manufacture as a permissible loss of performance.
- B. The apparatus shall continue to operate as intended after the test. This indicates that the EUT does not need to function at normal performance levels during the test, but must recover. Again some minimal performance is defined by the manufacture. No change in operating state or loss or data is permitted.
- C. Temporary loss of function is allowed. Operation of the EUT may stop as long as it is either automatically reset or can be manually restored by operation of the controls.
- D. The apparatus is broken, cannot be normal operated.

Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above the ground. The EUT is set 3 meters away from the antenna which is mounted on an antenna tower. Both horizontal and vertical polarizations of the antenna are set on test. Each of the four sides of EUT must be faced this antenna and measured individually.

In order to judge the EUT performance, a CCD camera and Smartphone were used to monitor the EUT.

Test Data

Please refer to following tables:

Test Mode: M1: Operating & WIFI Link

Note: 2L4E-3

Condition of Test	Remarks
Field Strength	3 V/m
RF Signal	1 kHz, 80% AM, sine wave
Sweep Frequency Step	1 %, logarithmic
Dwell Time	1 Sec

Table 1: Radiated RF-Electromagnetic Field Immunity, Swept Test

Frequency Range (MHz)	Front Side		Rear Side		Left Side		Right Side		Top Side		Bottom Side	
	VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI
80-1000	A	A	A	A	A	A	A	A	A	A	A	A
1000-6000	A	A	A	A	A	A	A	A	A	A	A	A
Required Performance Criteria: A												
Description of Performance reduction: N/A												

Note: “A” stand for, during test, operate as intended no loss of function, no degradation of performance, no unintentional transmissions and after test, no degradation of performance, no loss of function, no loss of stored data or user programmable functions.

Test Mode: M1

Note: 3250-1

Condition of Test	Remarks
Field Strength	3 V/m
RF Signal	1 kHz, 80% AM, sine wave
Sweep Frequency Step	1 %, logarithmic
Dwell Time	1 Sec

Table 1: Radiated RF-Electromagnetic Field Immunity, Swept Test

Frequency Range (MHz)	Front Side		Rear Side		Left Side		Right Side		Top Side		Bottom Side	
	VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI
80-1000	A	A	A	A	A	A	A	A	A	A	A	A
1000-6000	A	A	A	A	A	A	A	A	A	A	A	A
Required Performance Criteria: A												
Description of Performance reduction: N/A												

Note: “A” stand for, during test, operate as intended no loss of function, no degradation of performance, no unintentional transmissions and after test, no degradation of performance, no loss of function, no loss of stored data or user programmable functions.

8 - ELECTROSTATIC DISCHARGES

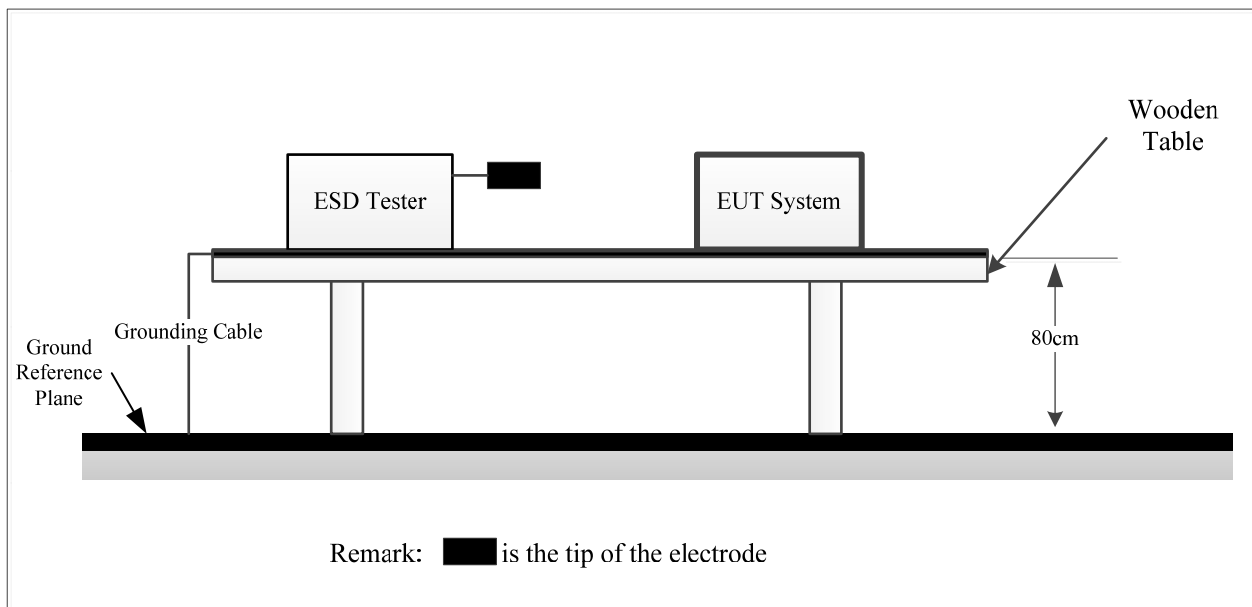
Measurement Uncertainty

U_{lab} (measurement uncertainty of lab) and U_{EN} (measurement uncertainty of EN 61000-4-2) please refer to the following:

Parameter	U_{EN}	U_{lab}
Rise time t_r	$\leq 15\%$	15%
Peak current I_p	$\leq 7\%$	6.3%
Current at 30 ns	$\leq 7\%$	6.3%
Current at 60 ns	$\leq 7\%$	6.3%

Note: 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.

Test System Setup



EN61000-4-2 specifies that a tabletop EUT shall be placed on a non-conducting table which is 80 centimeters above a ground reference plane and that floor mounted equipment shall be placed on a insulating support approximately 10 centimeters above a ground plane. During the tests, the EUT is positioned over a ground reference plane in conformance with this requirement.

For tabletop equipment, a 1.6 by 0.8-meter metal sheet (HCP) is placed on the table and connected to the ground plane via a metal strap with two 470 k Ohms resistors in series. The EUT and attached cables are isolated from this metal sheet by 0.5-millimeter thick insulating material. A Vertical Coupling Plane (VCP) grounded on the ground plane through the same configuration as in the HCP is used.

Test Level

Level	Test Voltage Contact Discharge (±kV)	Test Voltage Air Discharge (±kV)
1.	2	2
2.	4	4
3.	6	8
4.	8	15
X.	Special	Special

Performance criterion: B**Test Procedure****Air Discharge:**

This test is done on a non-conductive surface. The round discharge tip of the discharge electrode shall be approached as fast as possible to touch the EUT. After each discharge, the discharge electrode shall be removed from the EUT. The generator is then re-triggered for a new single discharge and repeated 10 times for each pre-selected test point. This procedure shall be repeated until all the air discharge completed.

Contact Discharge:

All the procedure shall be same as Section 8.3.1 of IEC 61000-4-2, except that the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.

Indirect discharge for horizontal coupling plane:

At least 10 single discharges shall be applied to the horizontal coupling plane, at points on each side of the EUT. The discharge electrode positions vertically at a distance of 0.1m from the EUT and with the discharge electrode touching the coupling plane.

Indirect discharge for vertical coupling plane:

At least 10 single discharges shall be applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions $0.5\text{m} \times 0.5\text{m}$, is placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges shall be applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated.

Test Data

Please refer to following tables:

Test Mode: M1: Operating & WIFI Link

Note: 2L4E-3

Table 1: Electrostatic Discharge Immunity (Air Discharge)

Test Points Location	Test Level							
	-2 kV	+2 kV	-4 kV	+4 kV	-8 kV	+8 kV	-15 kV	+15 kV
Non-metallic Shell	A	A	A	A	A	A	/	/
USB Port	A	A	A	A	A	A	/	/
Type-C Port	A	A	A	A	A	A	/	/
TF Card Port	A	A	A	A	A	A	/	/
Seam	A	A	A	A	A	A	/	/
Camera	A	A	A	A	A	A	/	/
Button	A	A	A	A	A	A	/	/
USB Cable	A	A	A	A	A	A	/	/
Adapter	A	A	A	A	A	A	/	/
Required Performance Criteria:B								
Description of Performance reduction: N/A								

Table 2: Electrostatic Discharge Immunity (Direct Contact)

Test Points Location	Test Level							
	-2 kV	+2 kV	-4 kV	+4 kV	-6 kV	+6 kV	-8 kV	+8 kV
/	/	/	/	/	/	/	/	/
Required Performance Criteria:B								
Description of Performance reduction: N/A								

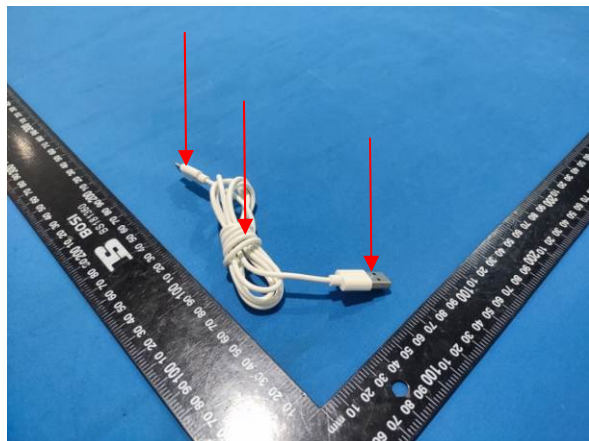
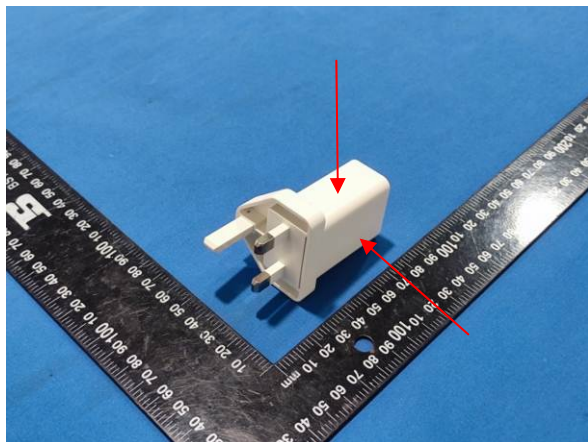
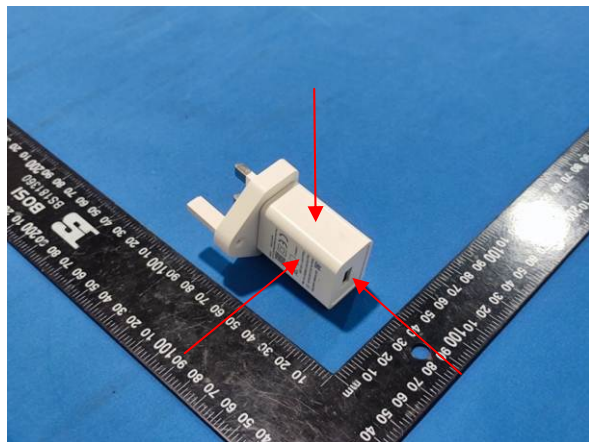
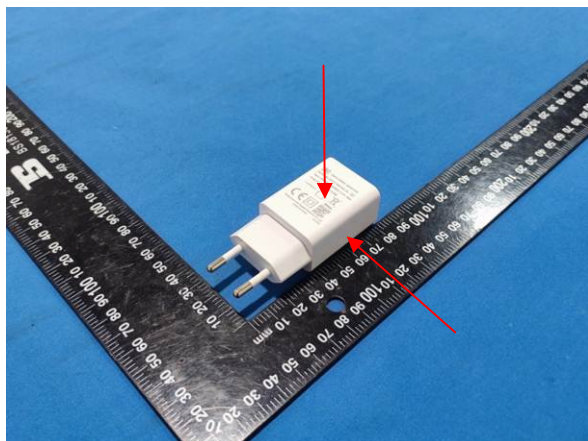
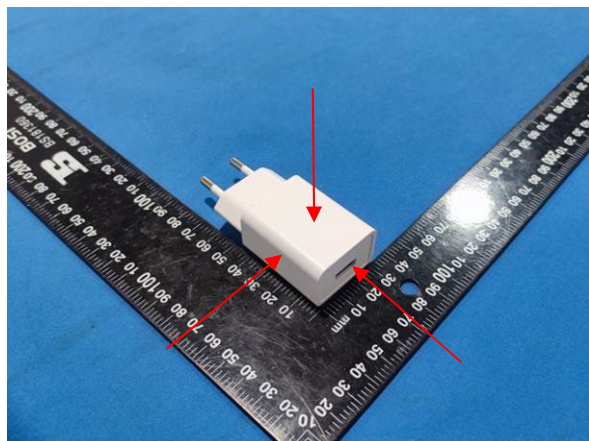
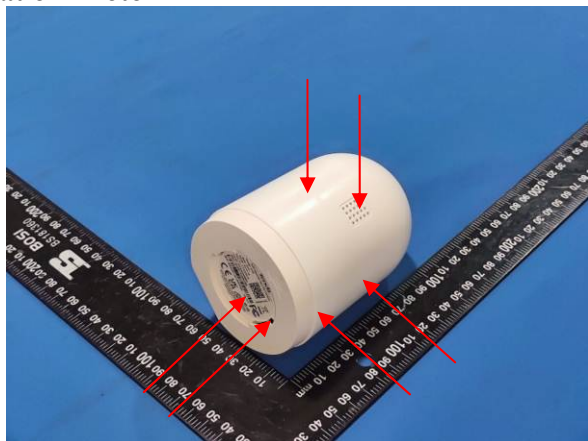
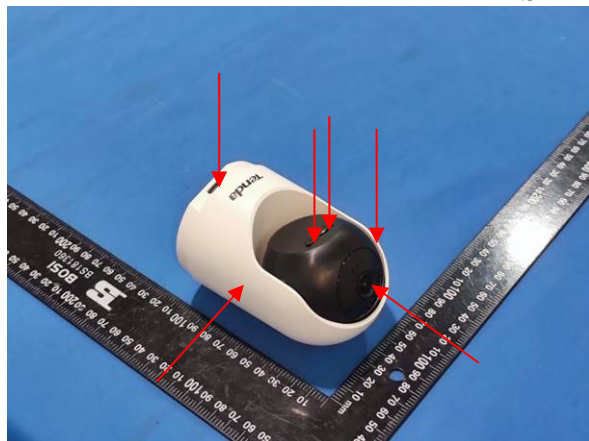
Table 3: Electrostatic Discharge Immunity (Indirect Contact HCP)

Test Points Location	Test Level							
	-2 kV	+2 kV	-4 kV	+4 kV	-6 kV	+6 kV	-8 kV	+8 kV
Front Side	A	A	A	A	/	/	/	/
Back Side	A	A	A	A	/	/	/	/
Left Side	A	A	A	A	/	/	/	/
Right Side	A	A	A	A	/	/	/	/
Top Side	A	A	A	A	/	/	/	/
Bottom Side	A	A	A	A	/	/	/	/
Required Performance Criteria:B								
Description of Performance reduction: N/A								

Table 4: Electrostatic Discharge Immunity (Indirect Contact VCP)

Test Points Location	Test Level							
	-2 kV	+2 kV	-4 kV	+4 kV	-6 kV	+6 kV	-8 kV	+8 kV
Front Side	A	A	A	A	/	/	/	/
Back Side	A	A	A	A	/	/	/	/
Left Side	A	A	A	A	/	/	/	/
Right Side	A	A	A	A	/	/	/	/
Required Performance Criteria:B								
Description of Performance reduction: N/A								

ESD Location Photo



Air Discharge:



Direct Contact:



Test Mode: M1
Note: 3250-1

Table 1: Electrostatic Discharge Immunity (Air Discharge)

Test Points Location	Test Level							
	-2 kV	+2 kV	-4 kV	+4 kV	-8 kV	+8 kV	-15 kV	+15 kV
Non-metallic Shell	A	A	A	A	A	A	/	/
USB Port	A	A	A	A	A	A	/	/
Type-C Port	A	A	A	A	A	A	/	/
TF Card Port	A	A	A	A	A	A	/	/
Seam	A	A	A	A	A	A	/	/
Camera	A	A	A	A	A	A	/	/
Button	A	A	A	A	A	A	/	/
USB Cable	A	A	A	A	A	A	/	/
Adapter	A	A	A	A	A	A	/	/
Required Performance Criteria:B Description of Performance reduction: N/A								

Table 2: Electrostatic Discharge Immunity (Direct Contact)

Test Points Location	Test Level							
	-2 kV	+2 kV	-4 kV	+4 kV	-6 kV	+6 kV	-8 kV	+8 kV
/	/	/	/	/	/	/	/	/
Required Performance Criteria:B Description of Performance reduction: N/A								

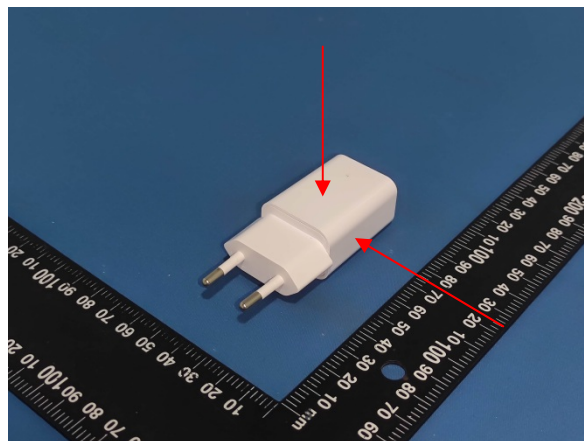
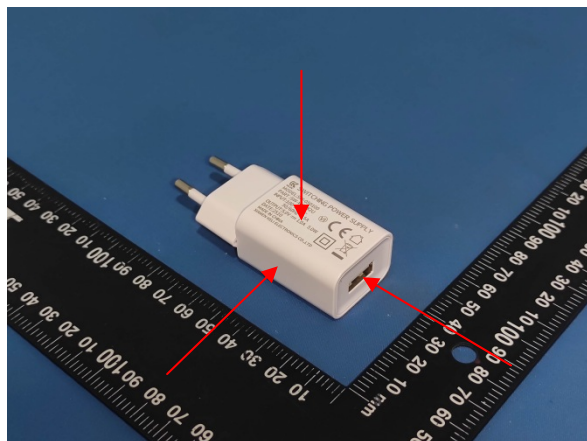
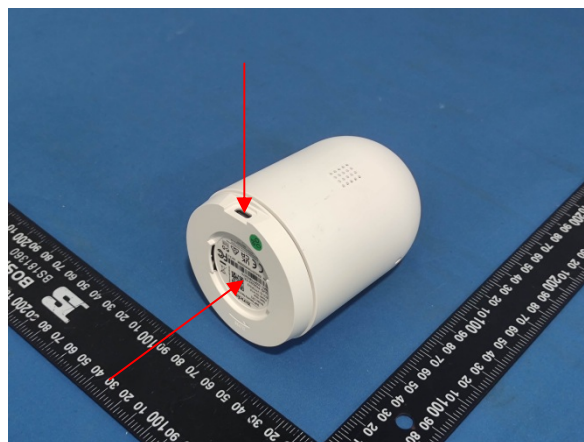
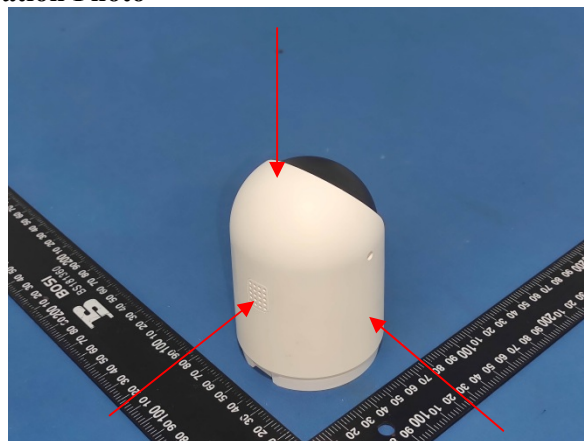
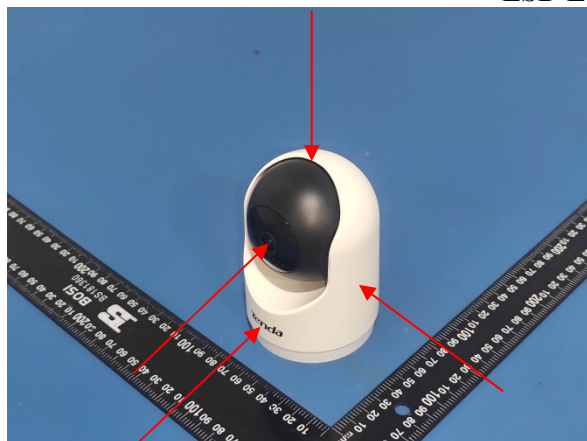
Table 3: Electrostatic Discharge Immunity (Indirect Contact HCP)

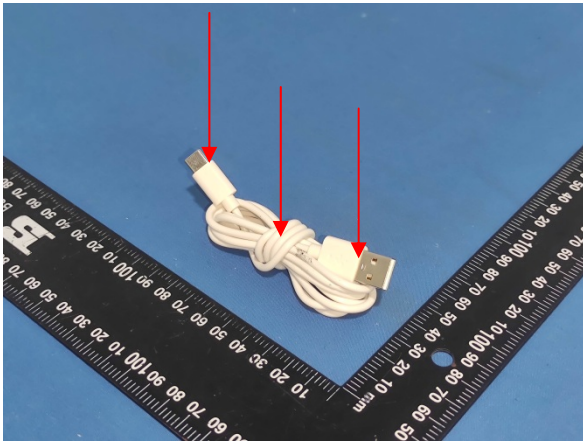
Test Points Location	Test Level							
	-2 kV	+2 kV	-4 kV	+4 kV	-6 kV	+6 kV	-8 kV	+8 kV
Front Side	A	A	A	A	/	/	/	/
Back Side	A	A	A	A	/	/	/	/
Left Side	A	A	A	A	/	/	/	/
Right Side	A	A	A	A	/	/	/	/
Top Side	A	A	A	A	/	/	/	/
Bottom Side	A	A	A	A	/	/	/	/
Required Performance Criteria:B Description of Performance reduction: N/A								

Table 4: Electrostatic Discharge Immunity (Indirect Contact VCP)

Test Points Location	Test Level							
	-2 kV	+2 kV	-4 kV	+4 kV	-6 kV	+6 kV	-8 kV	+8 kV
Front Side	A	A	A	A	/	/	/	/
Back Side	A	A	A	A	/	/	/	/
Left Side	A	A	A	A	/	/	/	/
Right Side	A	A	A	A	/	/	/	/
Required Performance Criteria:B								
Description of Performance reduction: N/A								

ESD Location Photo





Air Discharge:



Direct Contact:



9 - FAST TRANSIENTS, COMMON MODE

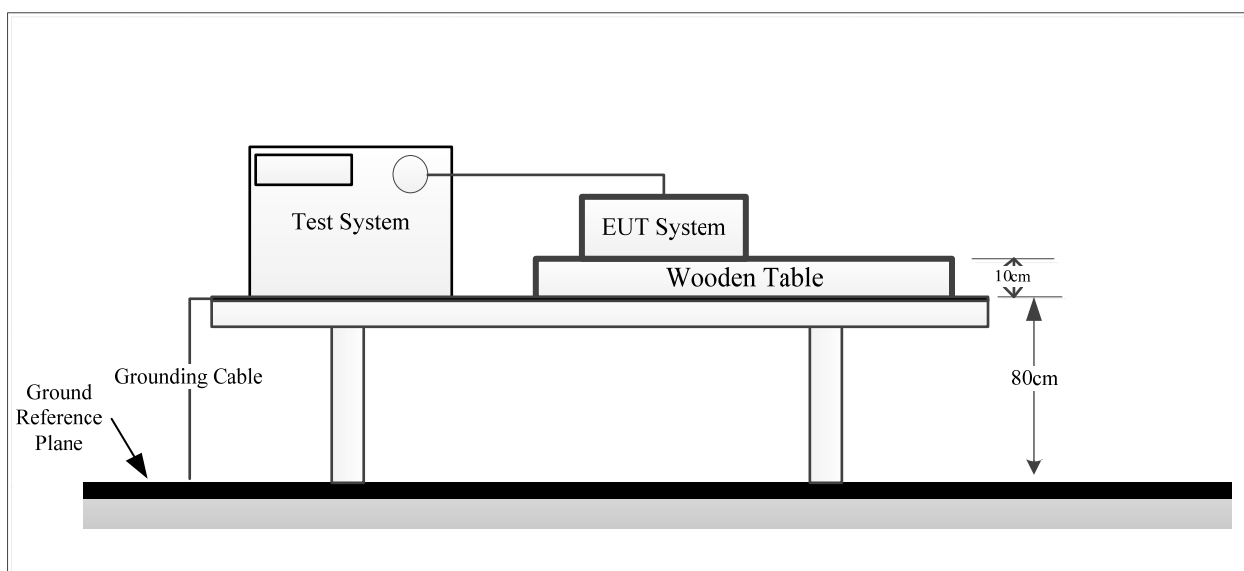
Measurement Uncertainty

U_{lab} (measurement uncertainty of lab) and U_{EN} (measurement uncertainty of EN 61000-4-4) please refer to the following:

Parameter	U_{EN}	U_{lab}
Rise time t_r	6.20%	6.20%
Peak voltage value V_p	8.60%	8.60%
Voltage pulse width t_w	5.90%	5.90%

Note: 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.

Test System Setup



Test Level

Open Circuit Output Test Voltage $\pm 10\%$		
Level	On Power Supply Lines	On I/O (Input/Output) Signal data and control lines
1	0.5 kV	0.25 kV
2	1 kV	0.5 kV
3	2 kV	1 kV
4	4 kV	2 kV
X	Special	Special

Performance Criterion: B

Test Procedure

The EUT was arranged for Power Line Coupling and for I/O Line Coupling through a capacitive clamp, where applicable. (Note: The I/O coupling test using a capacitive clamp is performed on the I/O interface cables that are longer in length than 3 meters.) A metal ground plane 2.4 meter by 2.0 meter was placed between the floor and the table and is connected to the earth by a 2.0 meter ground rod. The ground rod is connected to the test facility's electrical earth.

Test Data

Please refer to following tables:

Test Mode: M1: Operating & WIFI Link

Note: 2L4E-3

AC Mains Power Input Ports

Test Line	Test Level (kV)							
	+0.5	-0.5	+1.0	-1.0	+2.0	-2.0	+4.0	-4.0
L	A	A	A	A	/	/	/	/
N	A	A	A	A	/	/	/	/
Earth	/	/	/	/	/	/	/	/
L+N	A	A	A	A	/	/	/	/
L + Earth	/	/	/	/	/	/	/	/
N + Earth	/	/	/	/	/	/	/	/
L+N+Earth	/	/	/	/	/	/	/	/
Required Performance Criteria: B								
Description of Performance reduction: N/A								

Test Mode: M1

Note: 3250-1

AC Mains Power Input Ports

Test Line	Test Level (kV)							
	+0.5	-0.5	+1.0	-1.0	+2.0	-2.0	+4.0	-4.0
L	A	A	A	A	/	/	/	/
N	A	A	A	A	/	/	/	/
Earth	/	/	/	/	/	/	/	/
L+N	A	A	A	A	/	/	/	/
L + Earth	/	/	/	/	/	/	/	/
N + Earth	/	/	/	/	/	/	/	/
L+N+Earth	/	/	/	/	/	/	/	/
Required Performance Criteria: B								
Description of Performance reduction: N/A								

10 - RADIO FREQUENCY, COMMON MODE

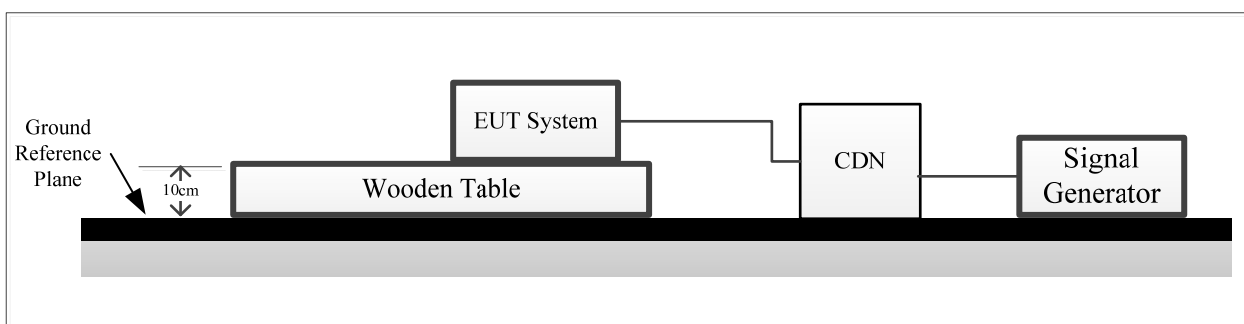
Measurement Uncertainty

U_{lab} (measurement uncertainty of lab) and U_{EN} (measurement uncertainty of EN 61000-4-6) please refer to the following:

Parameter	U_{EN}	U_{lab}
CDN calibration process	1.27 dB	1.27 dB
CDN test process	1.36 dB	1.36 dB

Note: 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.

Test System Setup



Test Level

Level	Voltage Level (r.m.s.) (U_0)
1	1
2	3
3	10
X	Special

Performance Criterion: A

Test Procedure

- 1) Let the EUT work in test mode and test it.
- 2) The EUT are placed on an insulating support 0.1 m high above a ground reference plane. CDN (coupling and decoupling device) is placed on the ground plane about 0.3 m from EUT. Cables between CDN and EUT are as short as possible, and their height above the ground reference plane shall be between 30 and 50 mm (where possible).
- 3) The disturbance signal described below is injected to EUT through CDN.
- 4) The EUT operates within its operational mode(s) under intended climatic conditions after power on.
- 5) The frequency range is swept from 150 kHz to 80 MHz using 3V signal level, and with the disturbance signal 80% amplitude modulated with a 1 kHz sine wave.
- 6) Where the frequency is swept incrementally, the step size shall not exceed 1 % of the preceding frequency value. The dwell time of the amplitude modulated carrier at each frequency shall not be less than the time necessary for the EUT to be exercised and to respond, but shall in no case be less than 0.5 s.
- 7) Recording the EUT operating situation during compliance testing and decide the EUT immunity criterion.

Test Data

Please refer to following tables:

Test Mode: M1: Operating & WIFI Link

Note: 2L4E-3

Table 1:AC mains power input port

Signal Type	Frequency Range (MHz)	Voltage Level (r.m.s.)	Perform Criterion
Modulation: Amplitude 80%, 1kHz sine wave Dwell Time 1 Sec	0.15-80	3V	A
Required Performance Criteria: A Description of Performance reduction: N/A			

Test Mode: M1

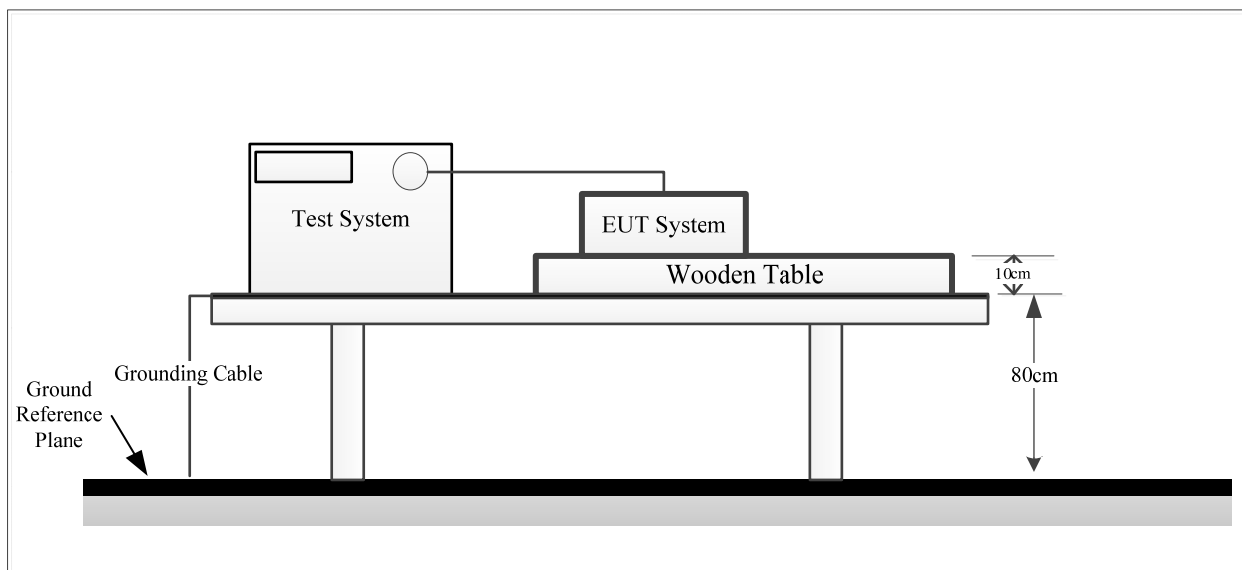
Note: 3250-1

Table 1:AC mains power input port

Signal Type	Frequency Range (MHz)	Voltage Level (r.m.s.)	Perform Criterion
Modulation: Amplitude 80%, 1kHz sine wave Dwell Time 1 Sec	0.15-80	3V	A
Required Performance Criteria: A Description of Performance reduction: N/A			

12 - VOLTAGE DIPS AND SHORT INTERRUPTIONS

Test System Setup



Test Level and Performance Criterion

Test Level	Voltage dip and short interruptions (%) Residual	Duration (in period)	Performance criterion
1	0	0.5	B
2	0	1	B
3	70	25	C
4	0	250	C

Test Procedure

- 1) The interruption is introduced at selected phase angles with specified duration.
- 2) Record any degradation of performance.

Test Data

Please refer to following tables:

Test Mode: M1: Operating & WIFI Link

Note: 2L4E-3

Table 1: Voltage Dips/Interruptions Test

Residual Voltage (%)	Td (Number of cycles)	Phase Angle (°)	N	Result	Required Performance Criteria
0	0.5	0/90/180/270	3	A	B
0	1	0/90/180/270	3	A	B
70	25	0/90/180/270	3	A	C
0	250	0/90/180/270	3	B	C
Description of Performance reduction: B indicates that the power supply of the EUT was interrupted during the test, and the EUT was restarted. After the test, it can automatically return to normal use.					

Test Mode: M1

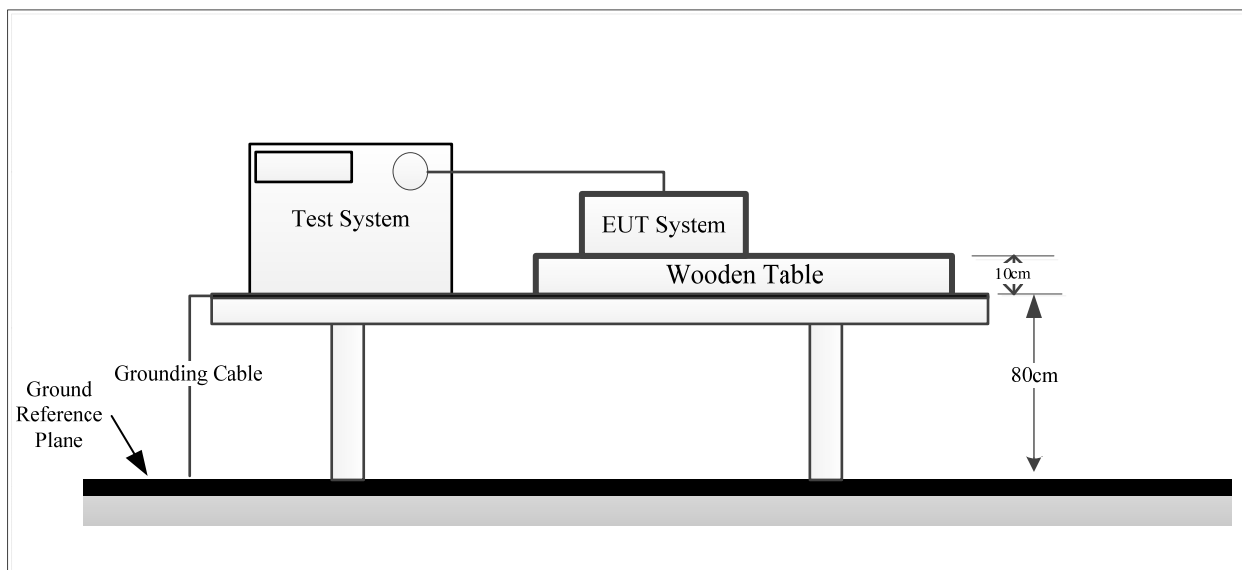
Note: 3250-1

Table 1: Voltage Dips/Interruptions Test

Residual Voltage (%)	Td (Number of cycles)	Phase Angle (°)	N	Result	Required Performance Criteria
0	0.5	0/90/180/270	3	A	B
0	1	0/90/180/270	3	A	B
70	25	0/90/180/270	3	A	C
0	250	0/90/180/270	3	B	C
Description of Performance reduction: B indicates that the power supply of the EUT was interrupted during the test, and the EUT was restarted. After the test, it can automatically return to normal use.					

13 - SURGES

Test System Setup



Test Level

Level	Open Circuit Output Test Voltage $\pm 10\%$
1	0.5 kV
2	1 kV
3	2 kV
4	4 kV
X	Special

Performance Criterion: B

Test Procedure

- 1) For line to line coupling mode, provide a 0.5 kV 1.2/50us voltage surge (at open-circuit condition).
- 2) At least 5 positive and 5 negative (polarity) tests with a maximum 1/min repetition rate are conducted during test.
- 3) Different phase angles are done individually.
- 4) Record the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test.

Test Data

Please refer to following tables:

Test Mode: M1: Operating & WIFI Link

Note: 2L4E-3

Table 1: AC mains power input port

No.	Voltage	Poll	Path	Phase Angle	Perform Criterion
1	0.5kV	+	L- N	0/90/180/270	A
1	0.5kV	-	L- N	0/90/180/270	A
2	1kV	+	L- N	0/90/180/270	A
2	1kV	-	L- N	0/90/180/270	A
Required Performance Criteria: B Description of Performance reduction: N/A					

Test Mode: M1

Note: 3250-1

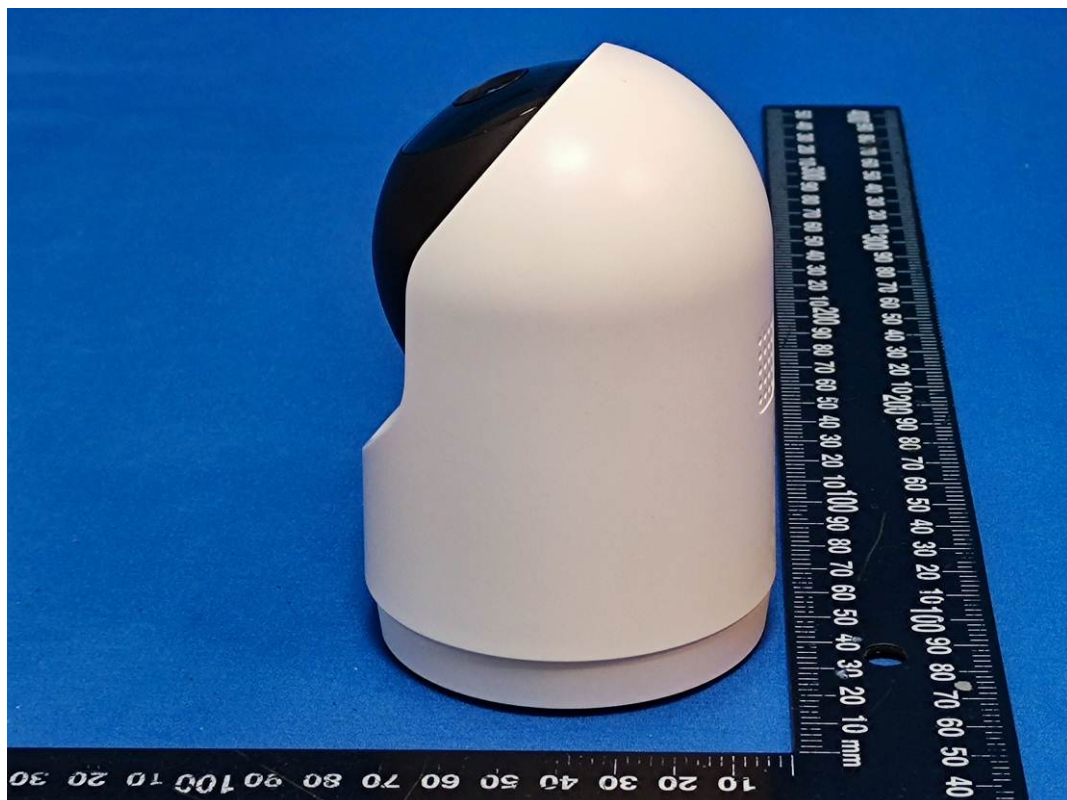
Table 1: AC mains power input port

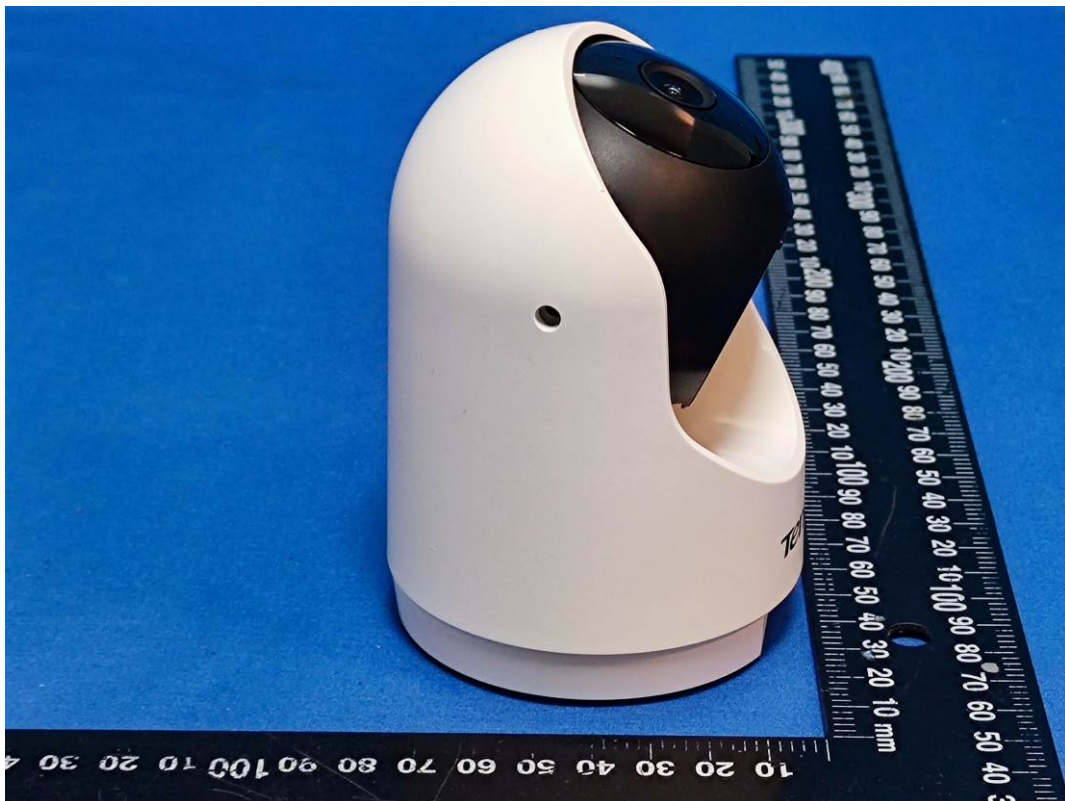
No.	Voltage	Poll	Path	Phase Angle	Perform Criterion
1	0.5kV	+	L- N	0/90/180/270	A
1	0.5kV	-	L- N	0/90/180/270	A
2	1kV	+	L- N	0/90/180/270	A
2	1kV	-	L- N	0/90/180/270	A
Required Performance Criteria: B Description of Performance reduction: N/A					

EXHIBIT A - EUT PHOTOGRAPHS

CP3

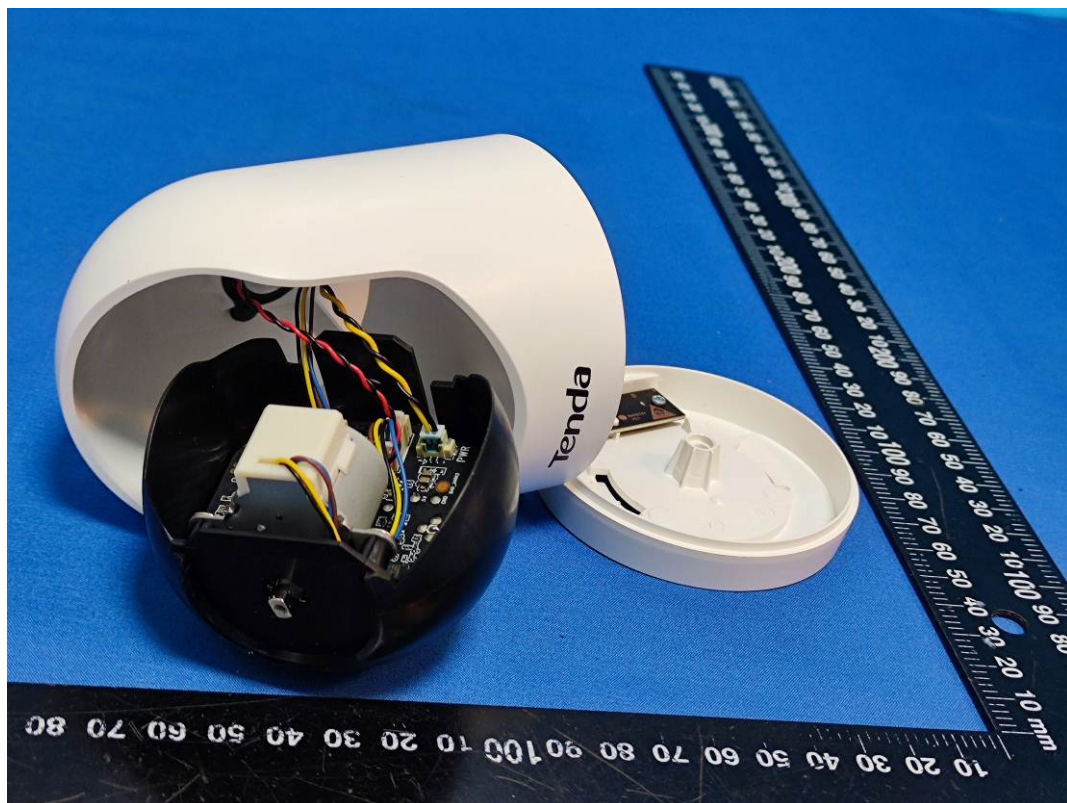
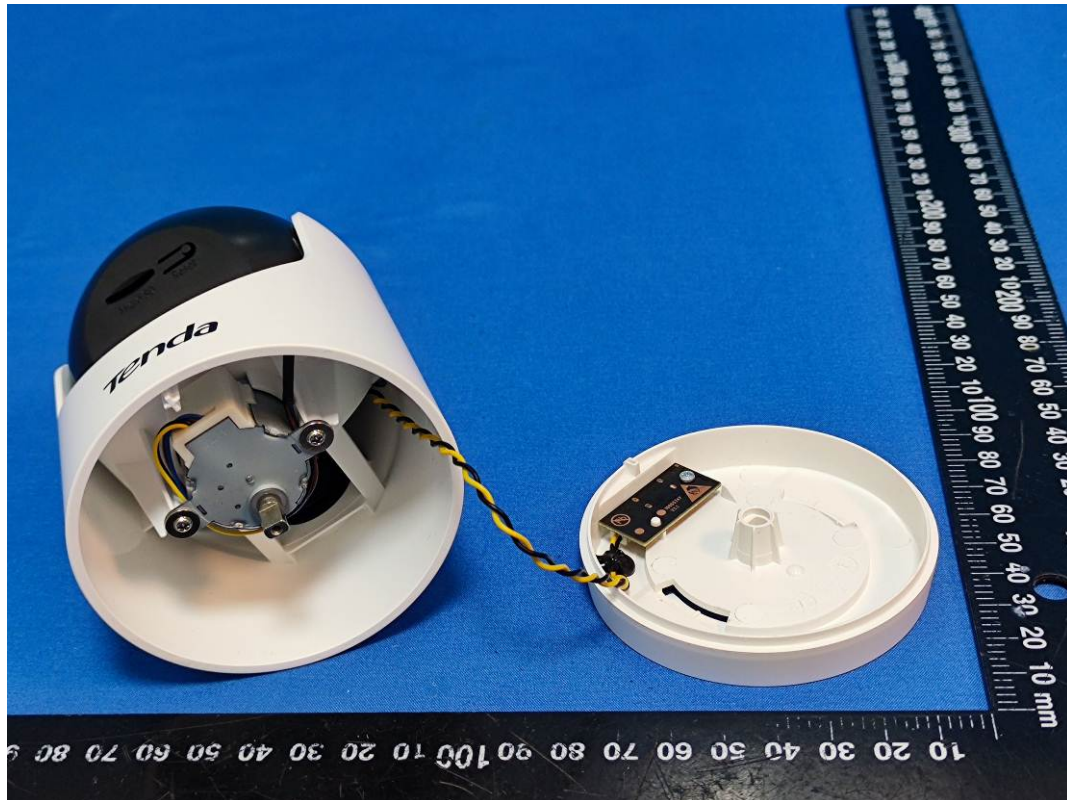


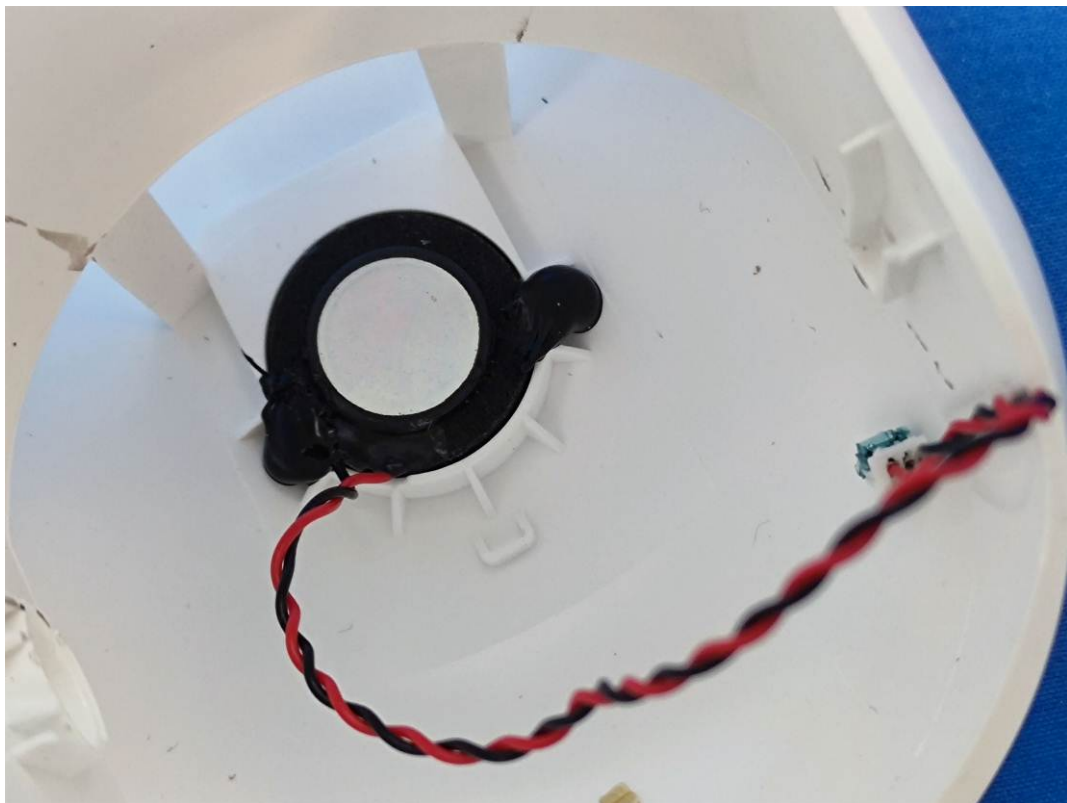
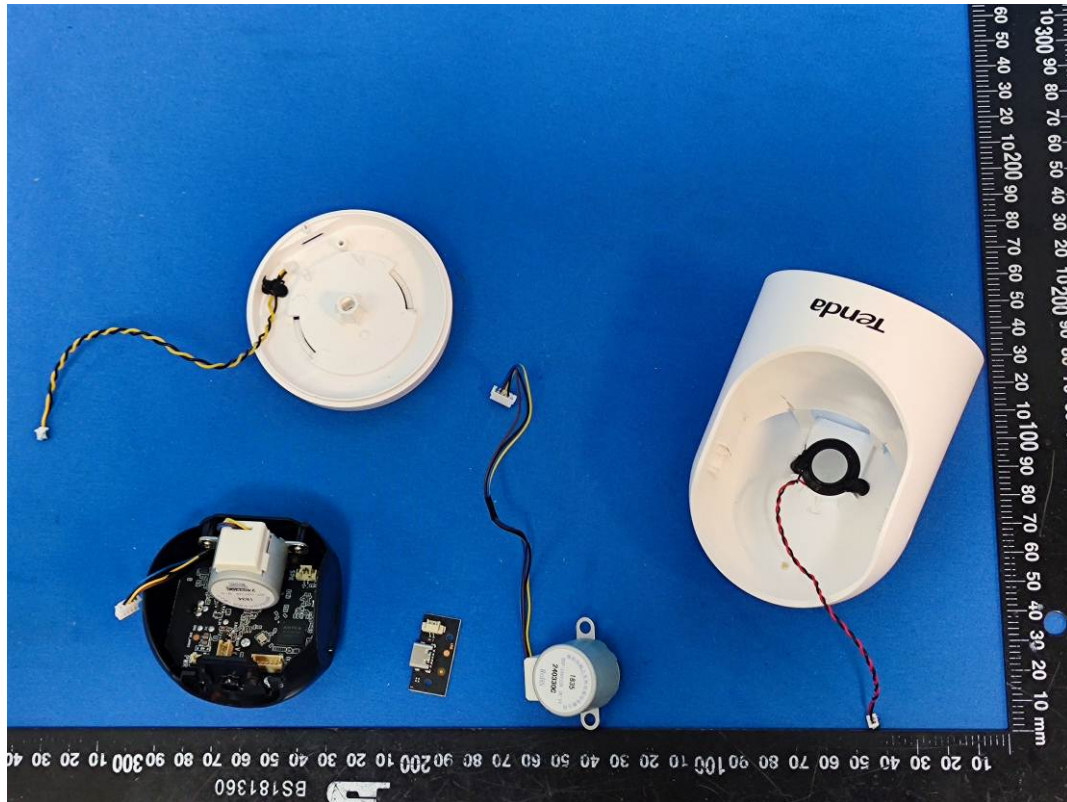


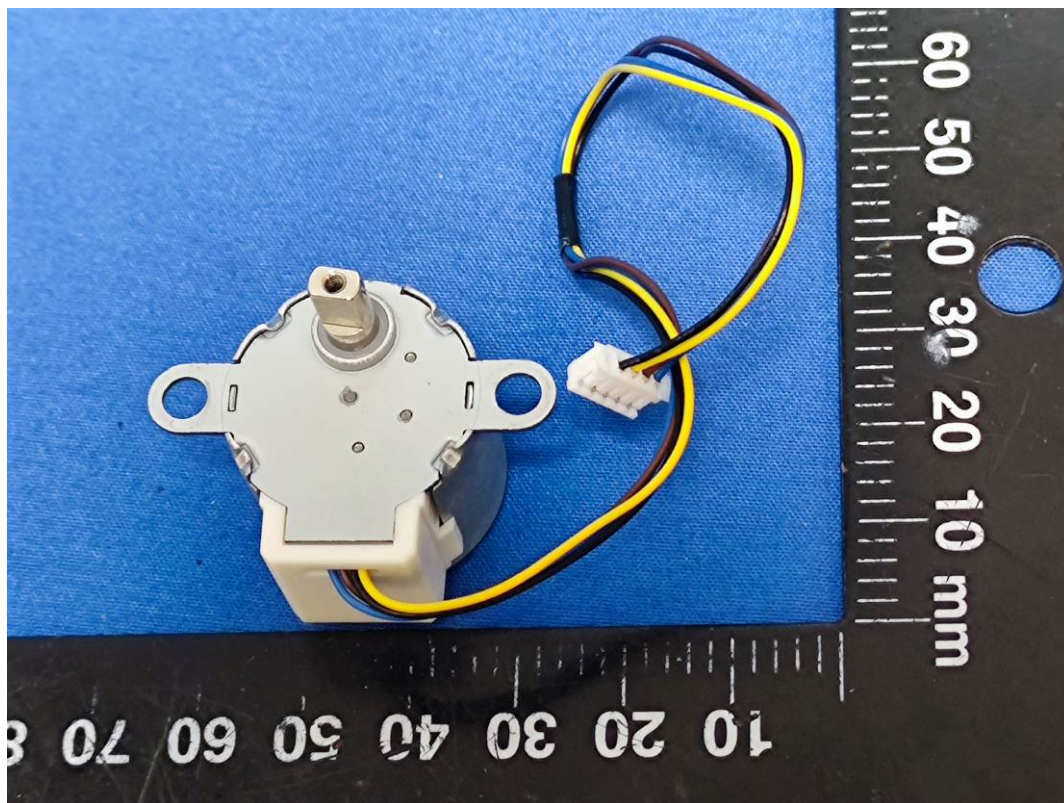
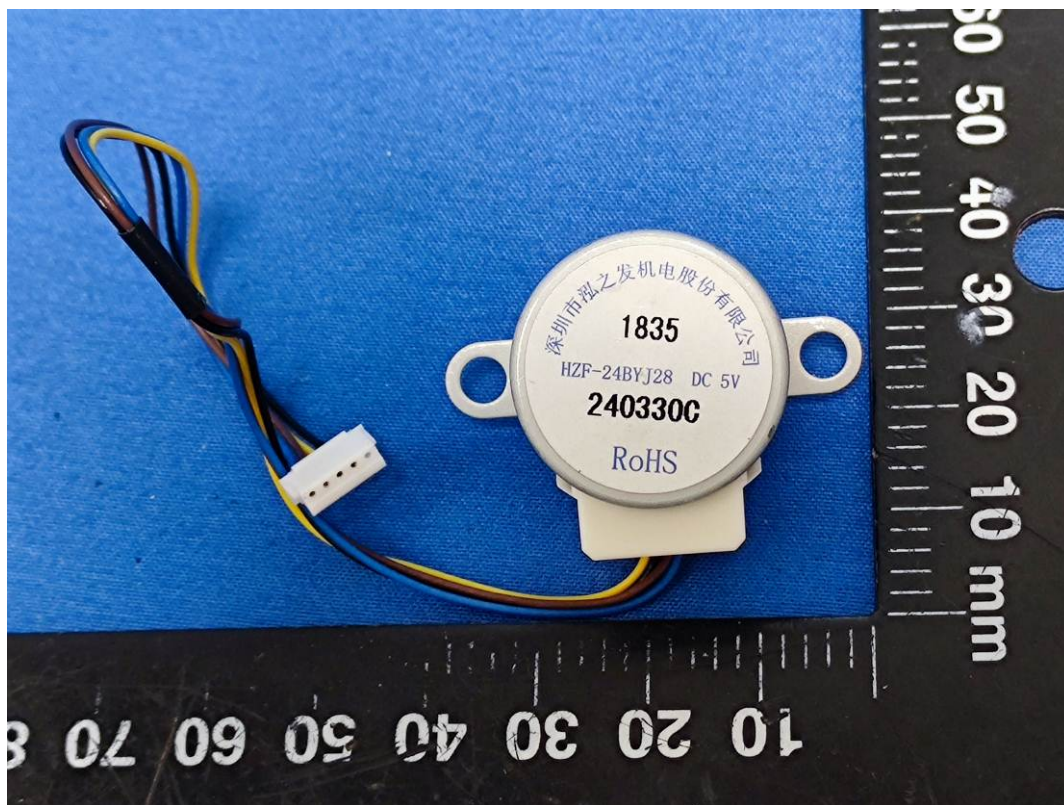


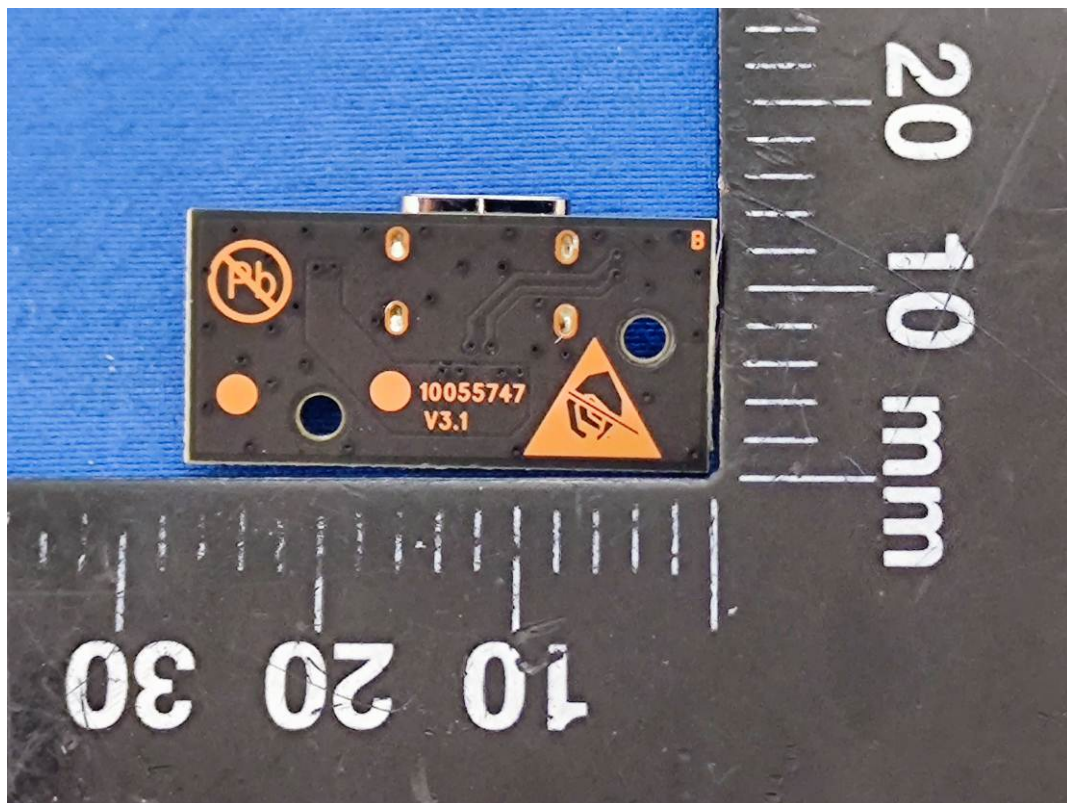
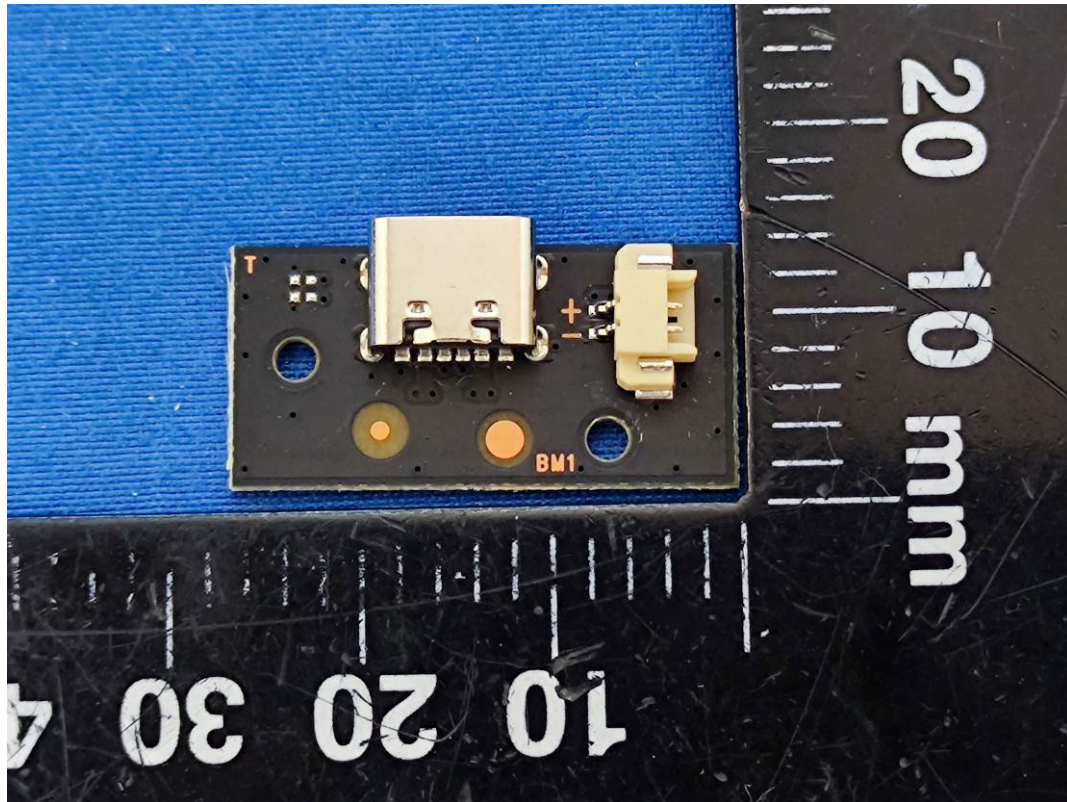


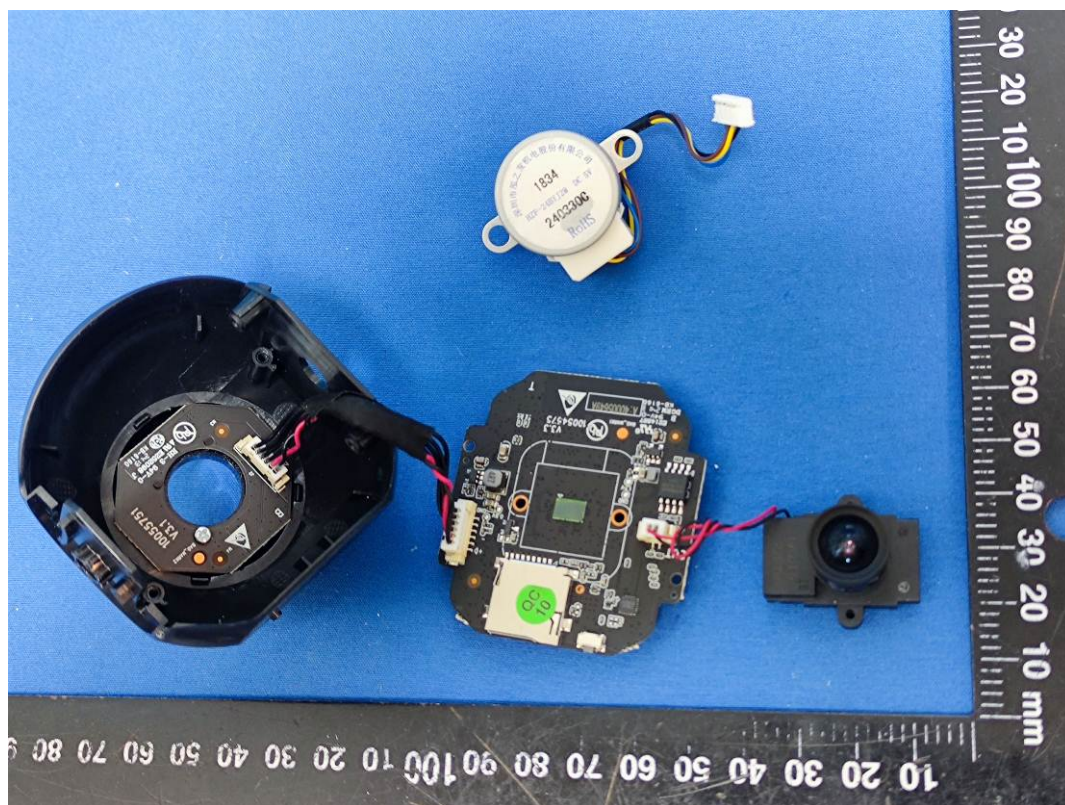
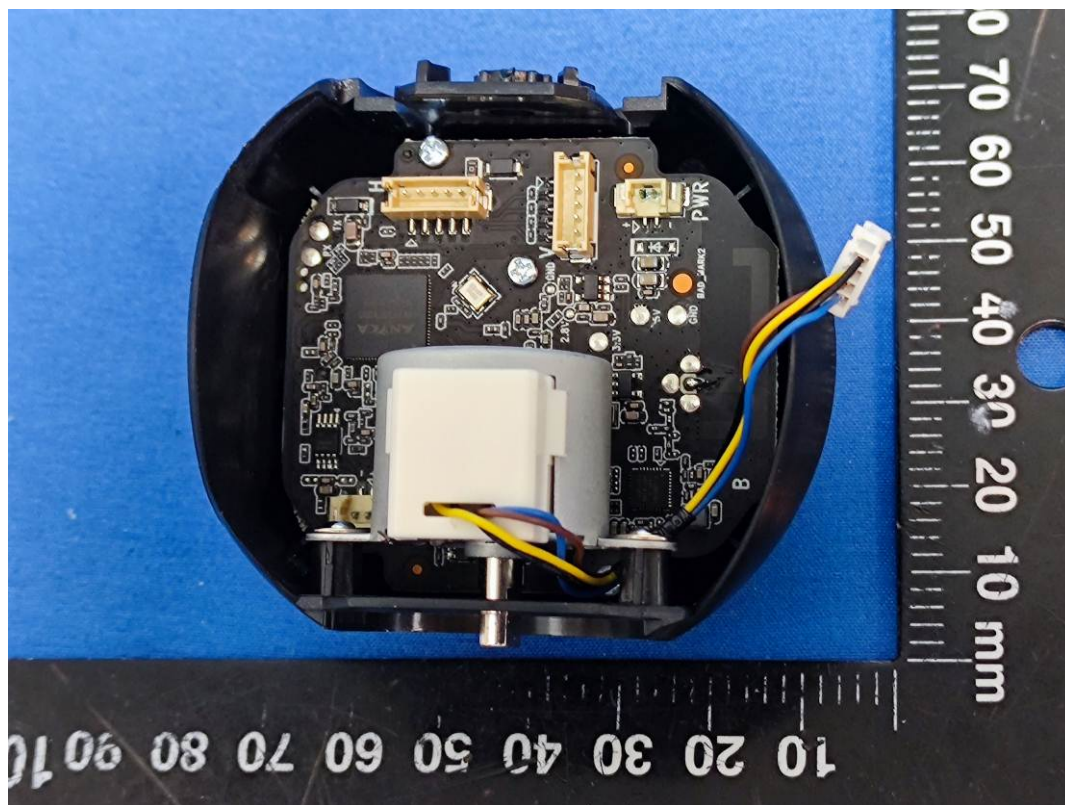


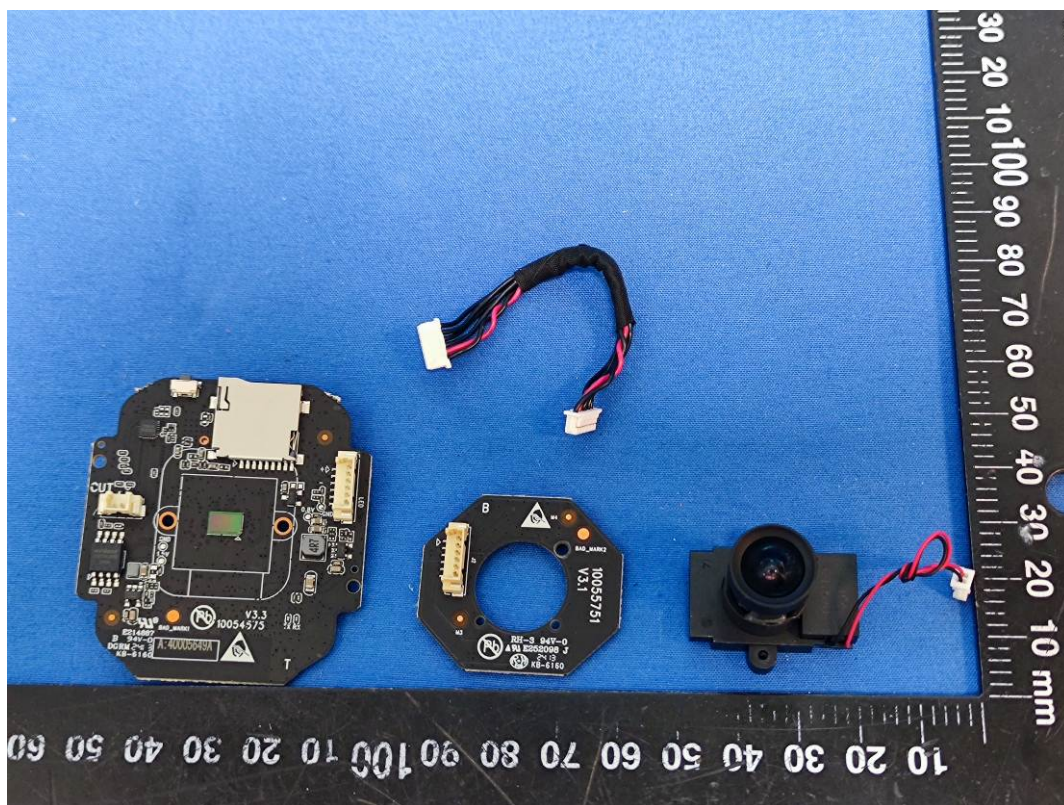
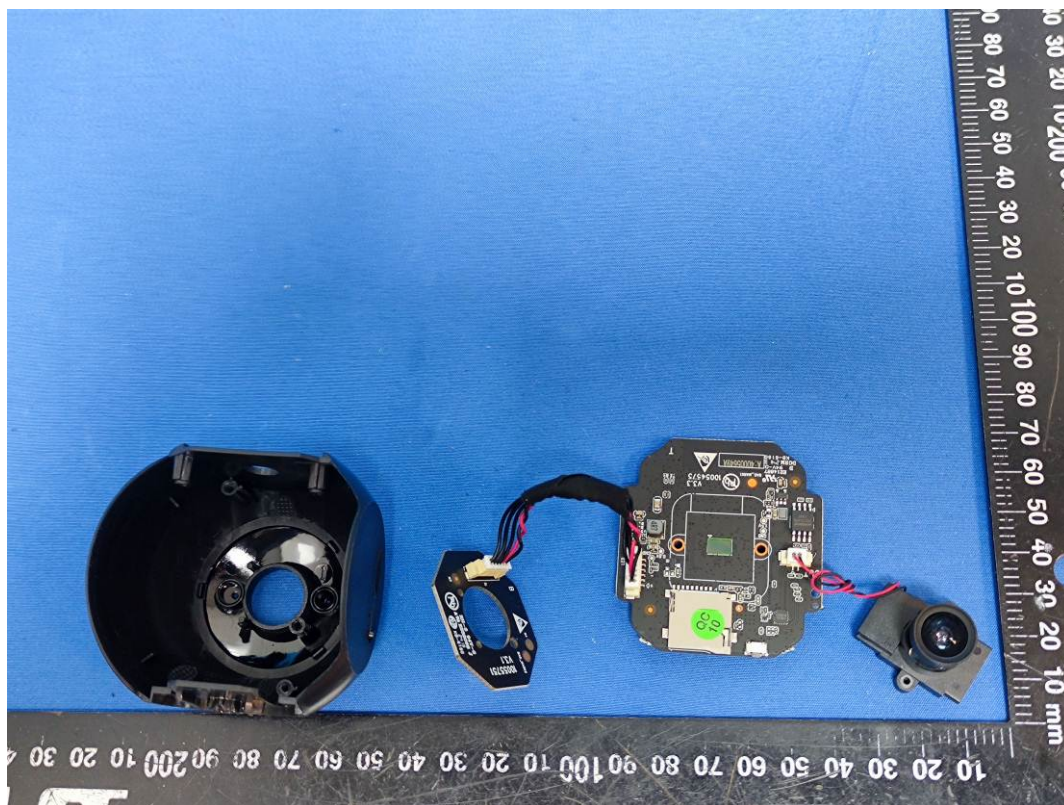


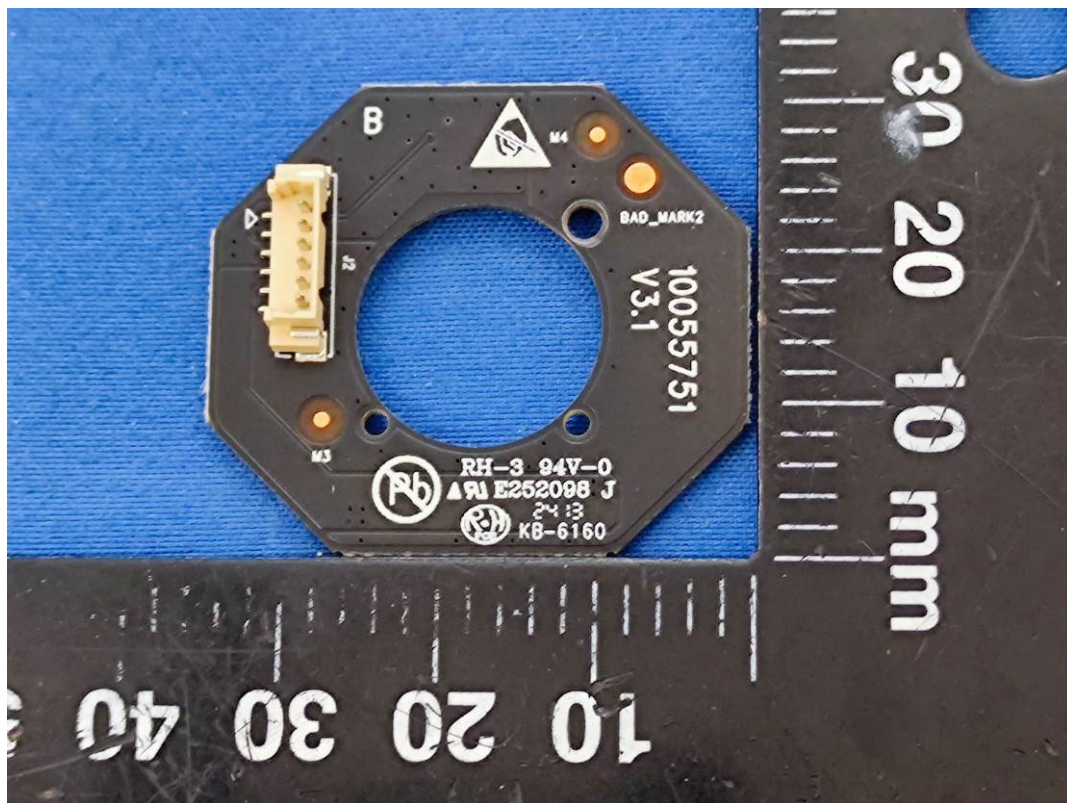
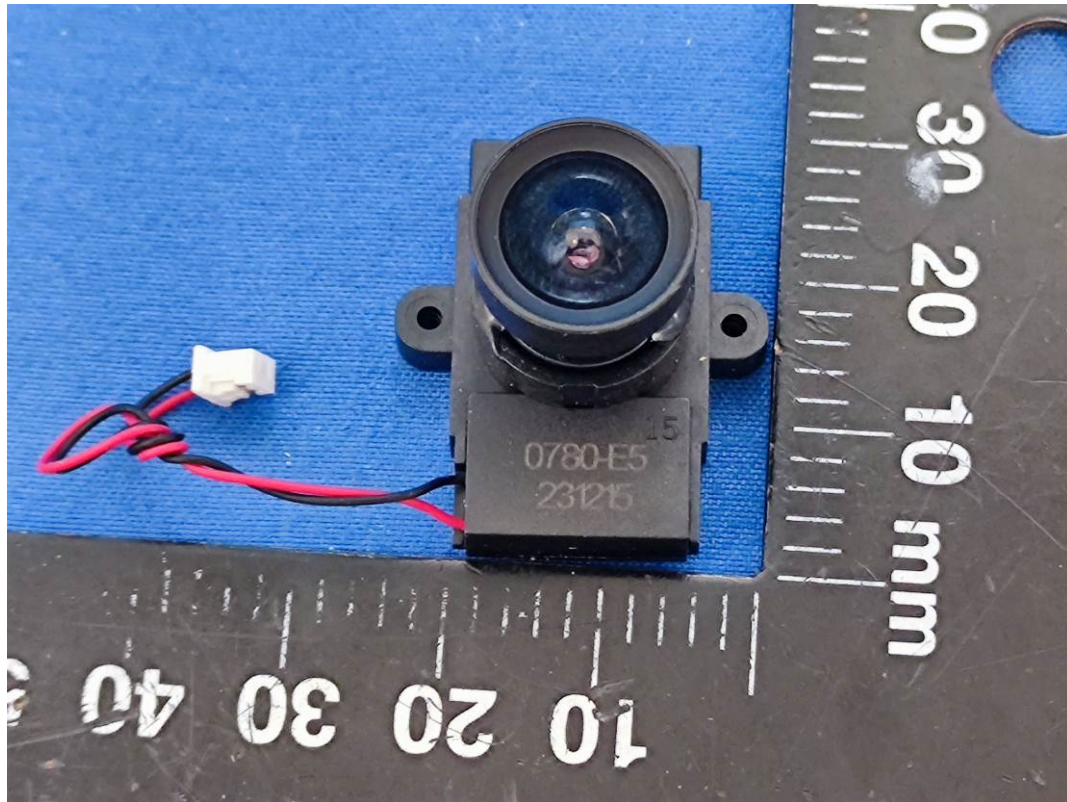


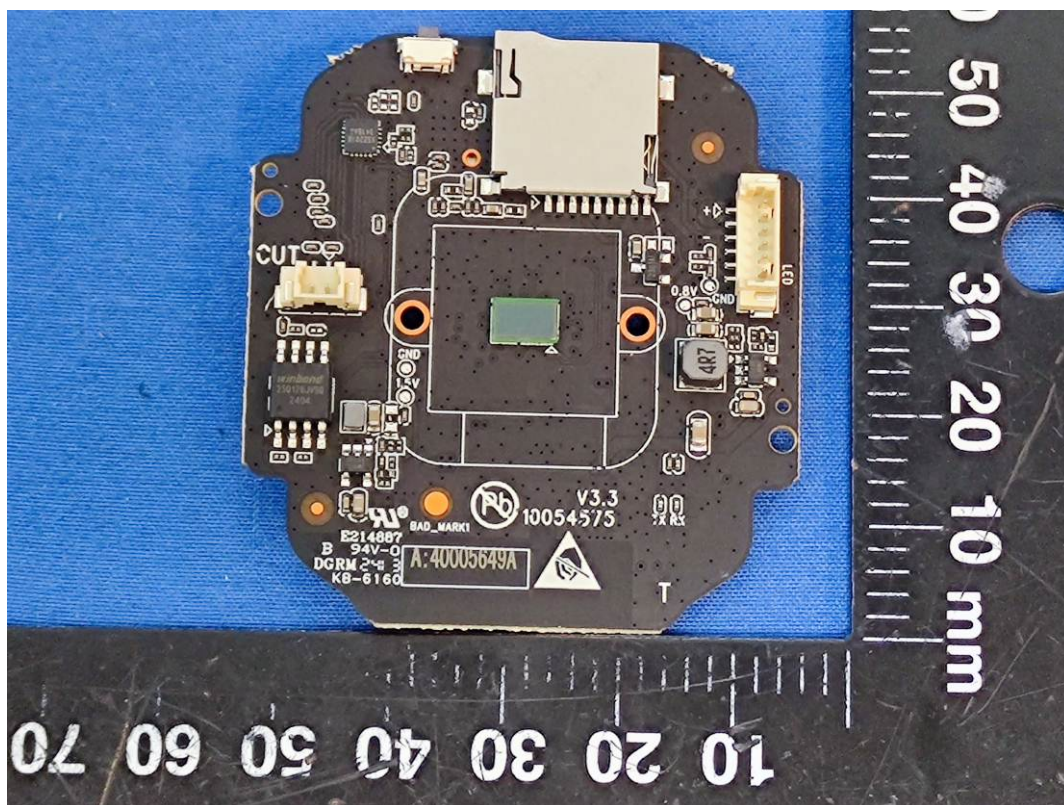
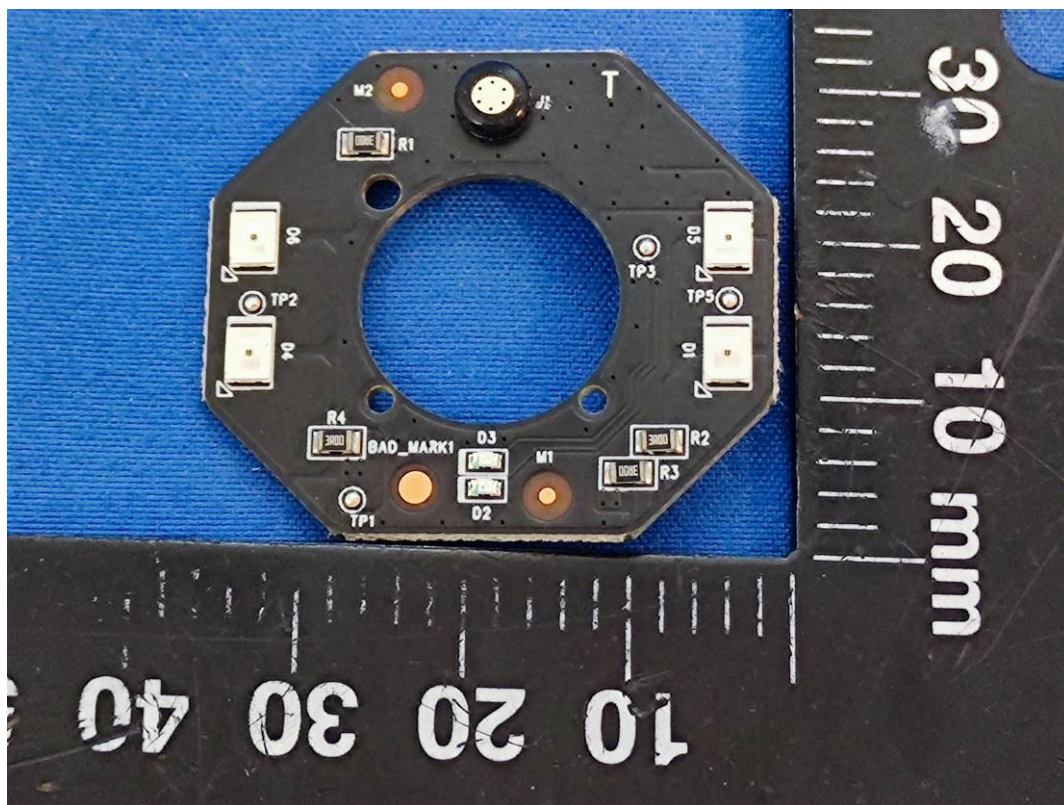


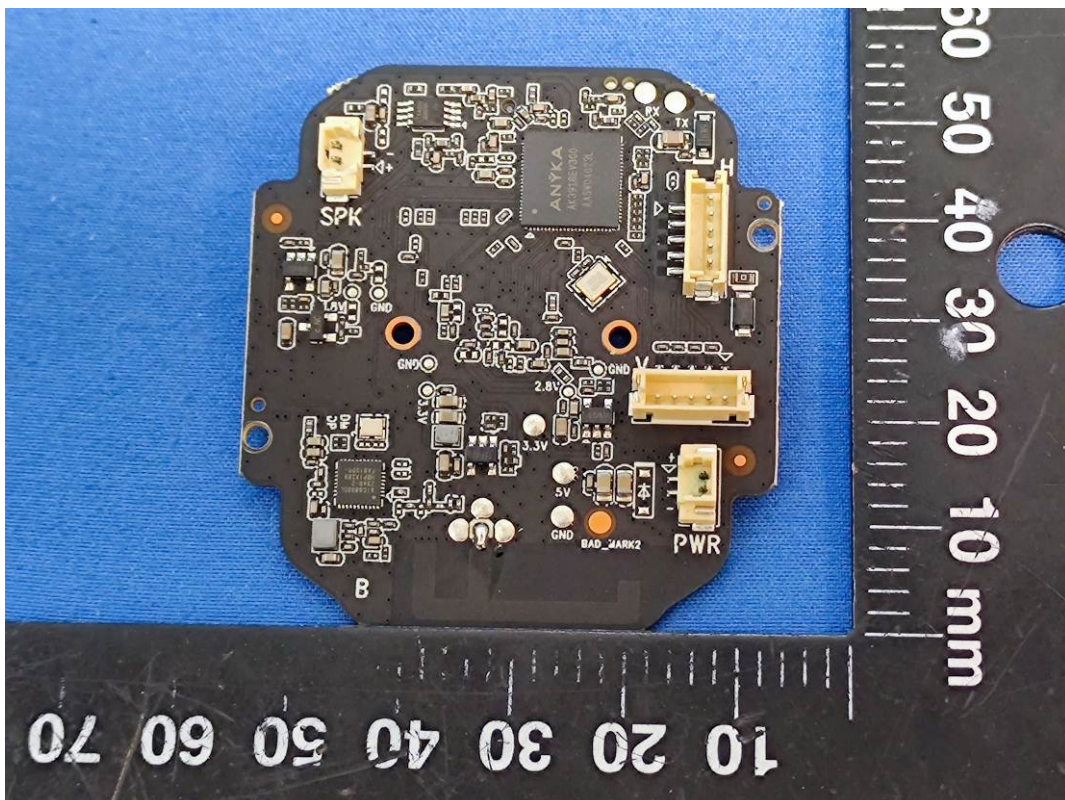
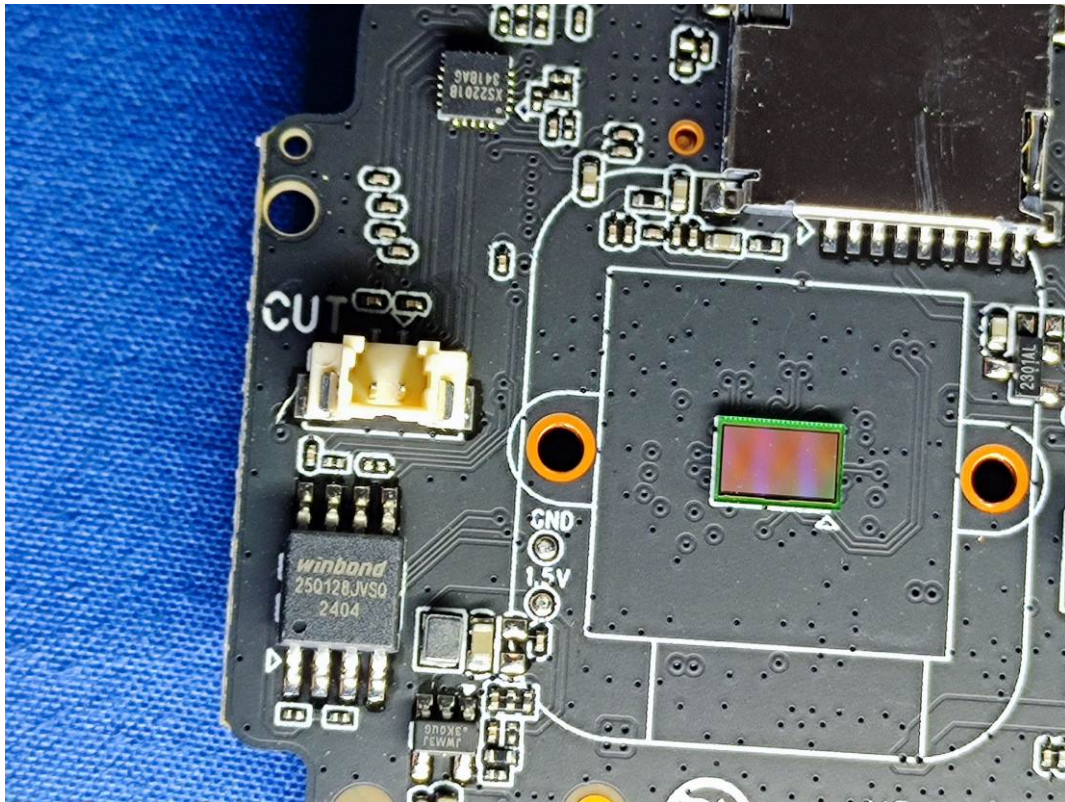


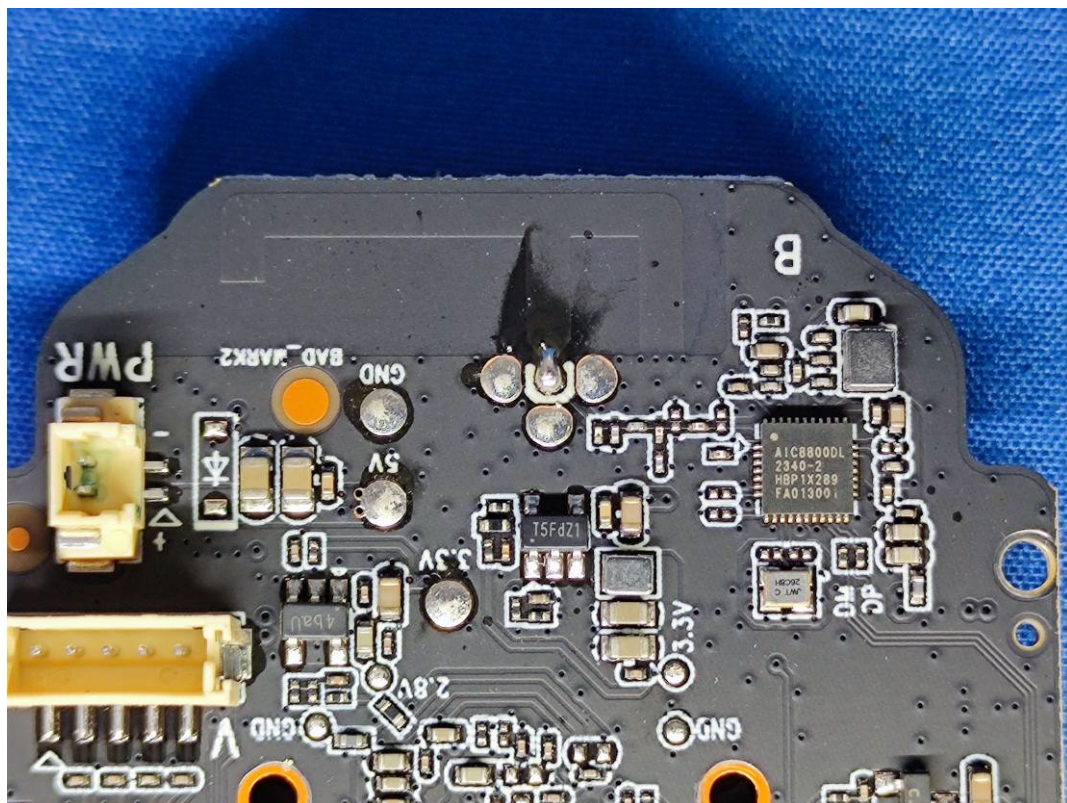
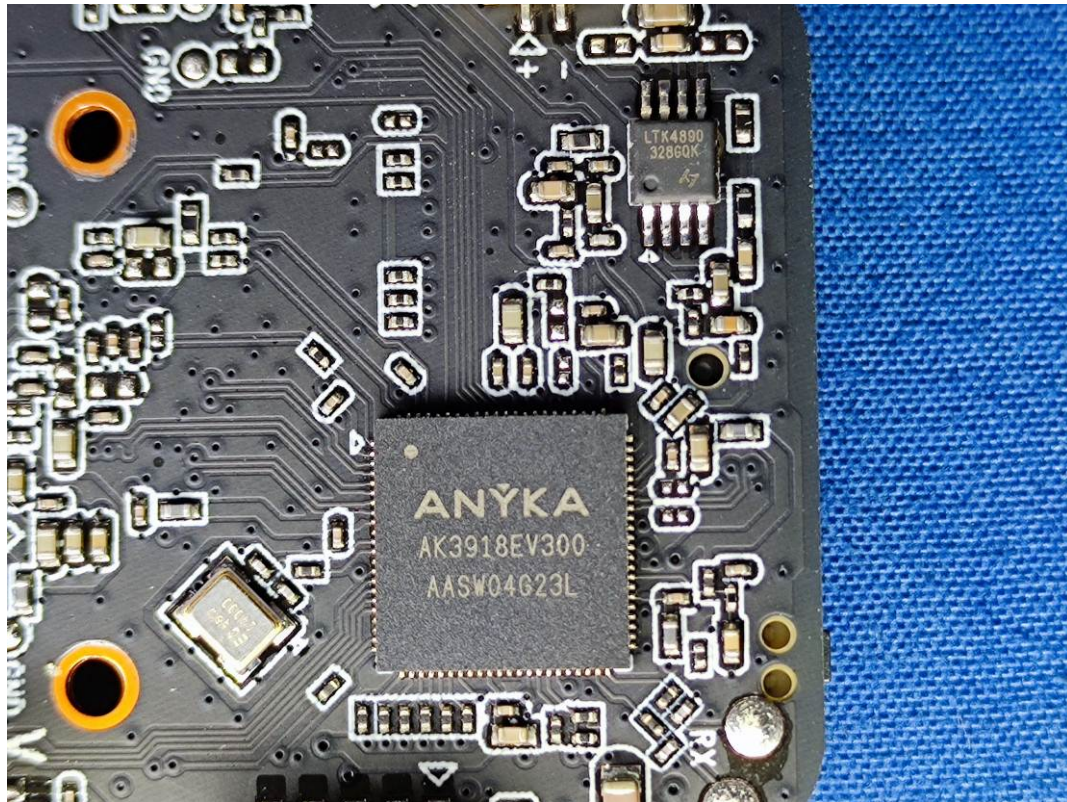




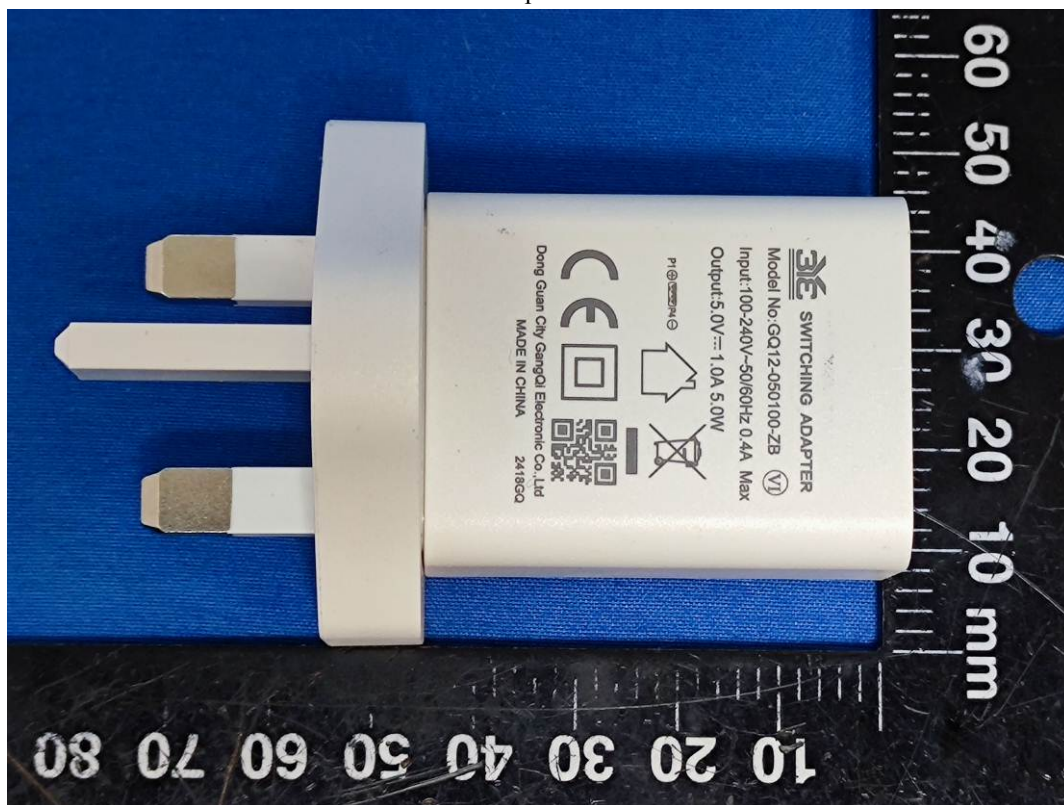




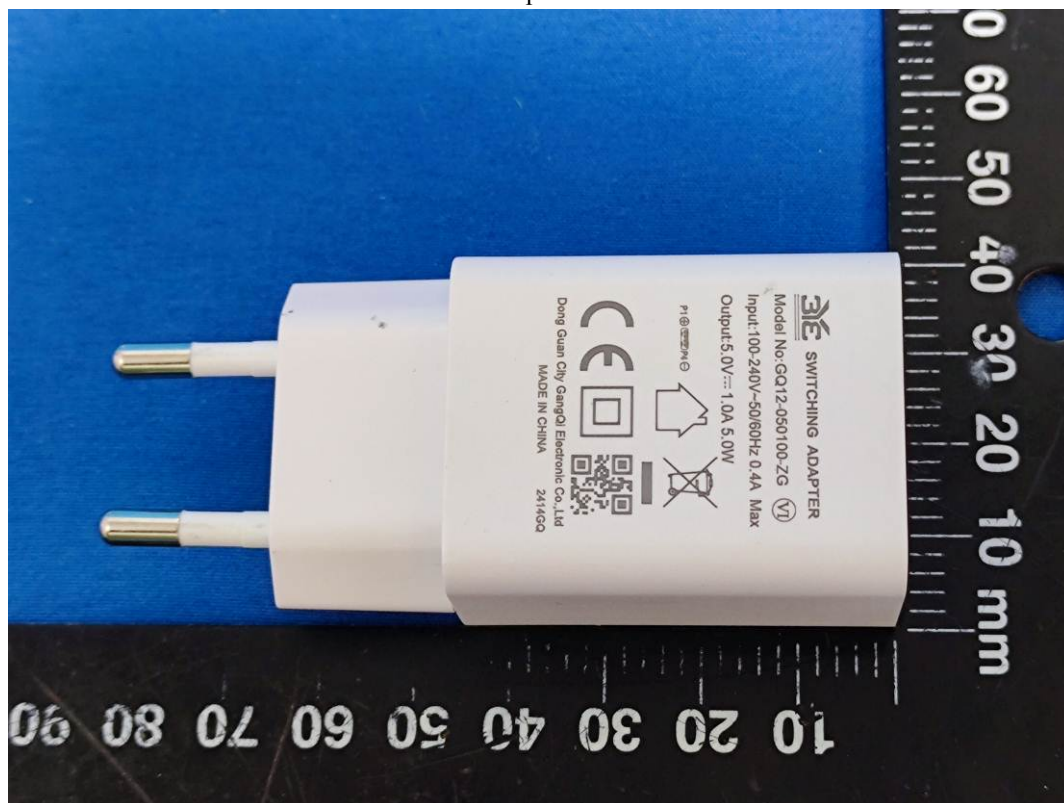




Adapter 1#



Adapter 2#



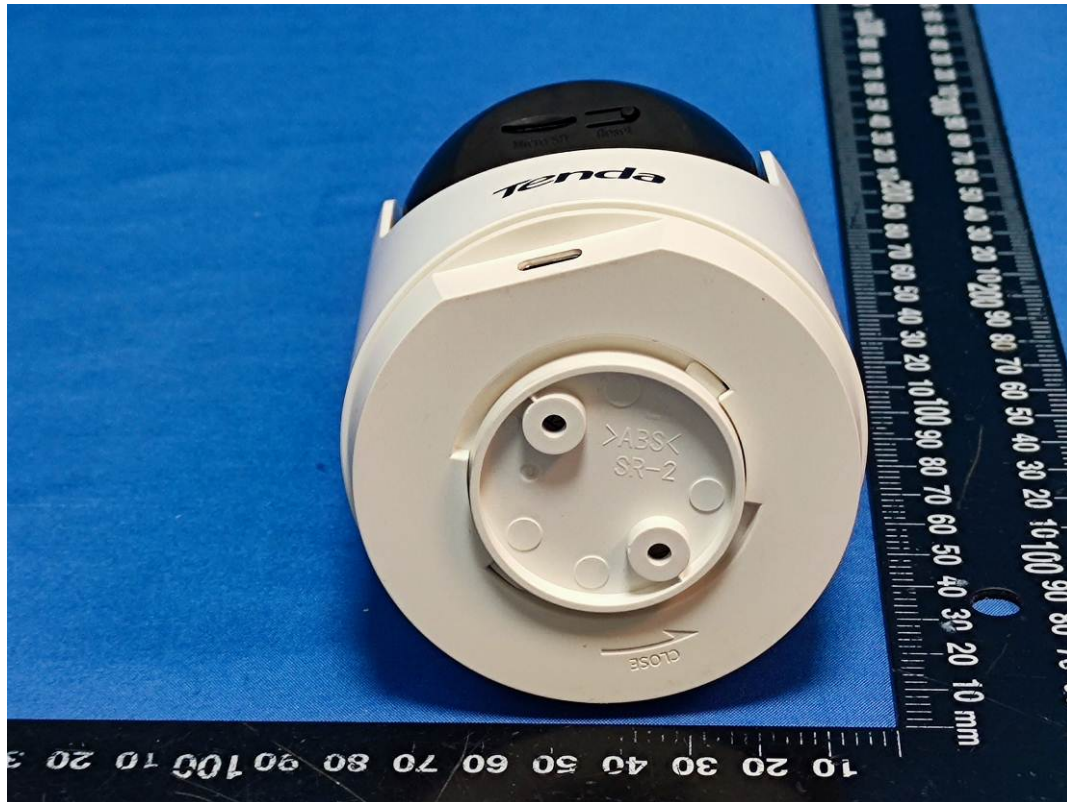


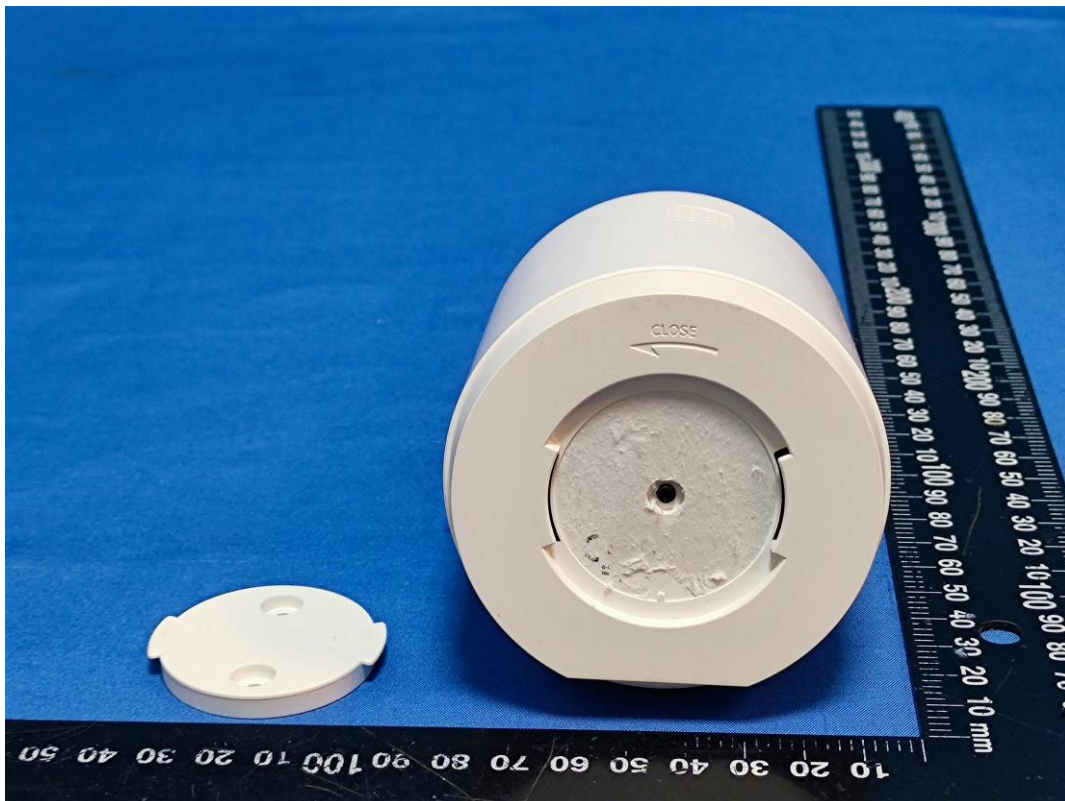
RP3

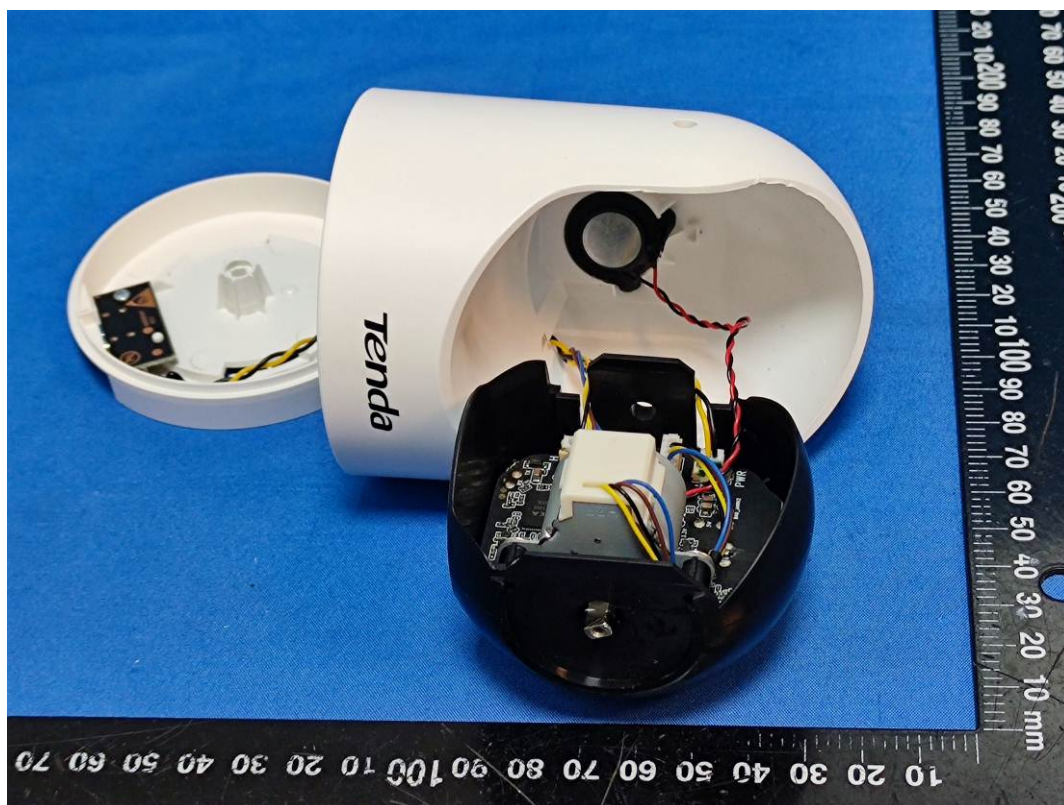
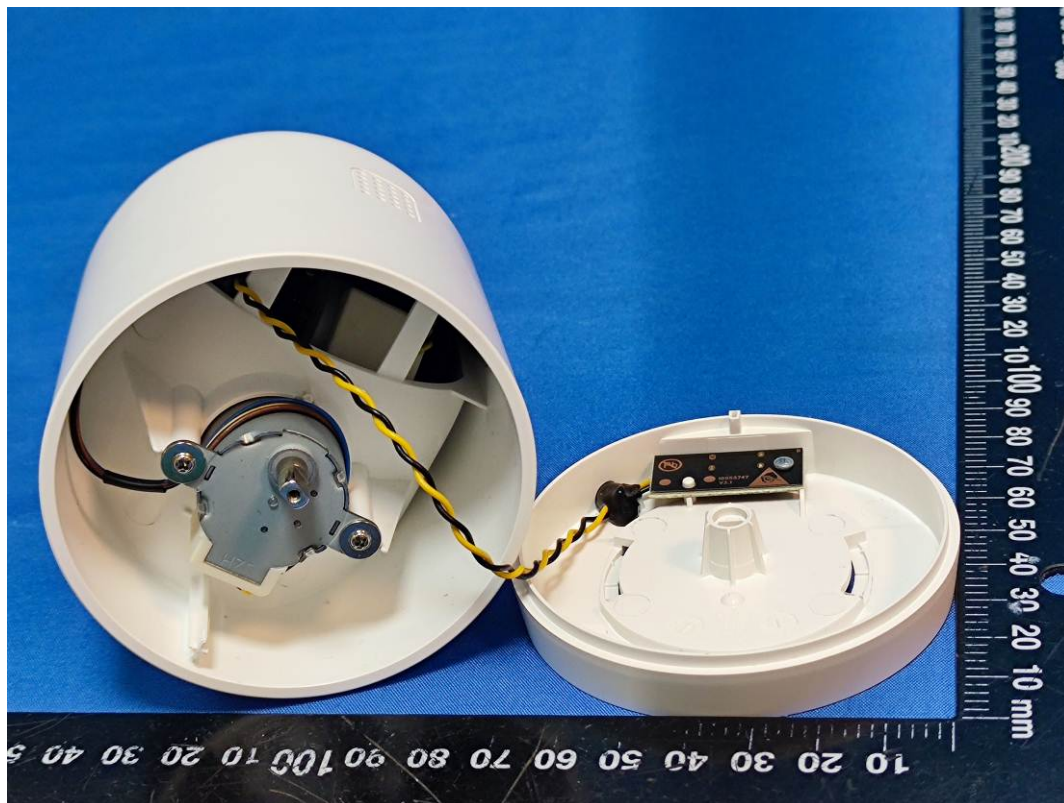


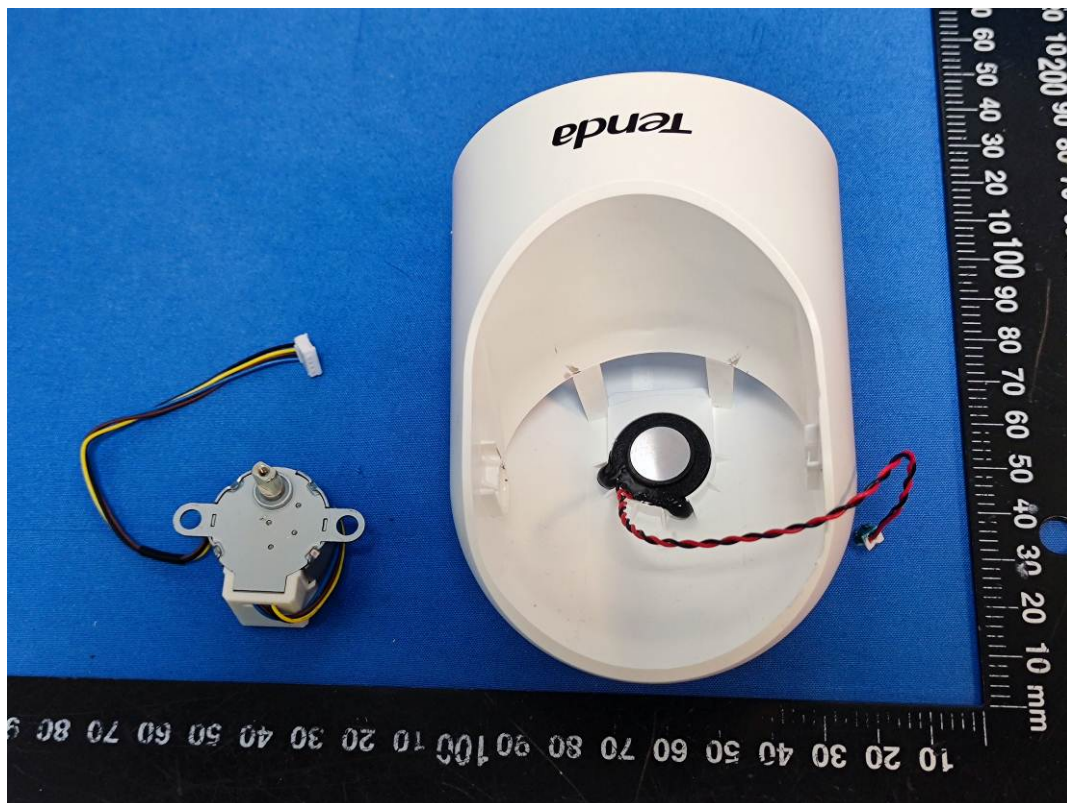
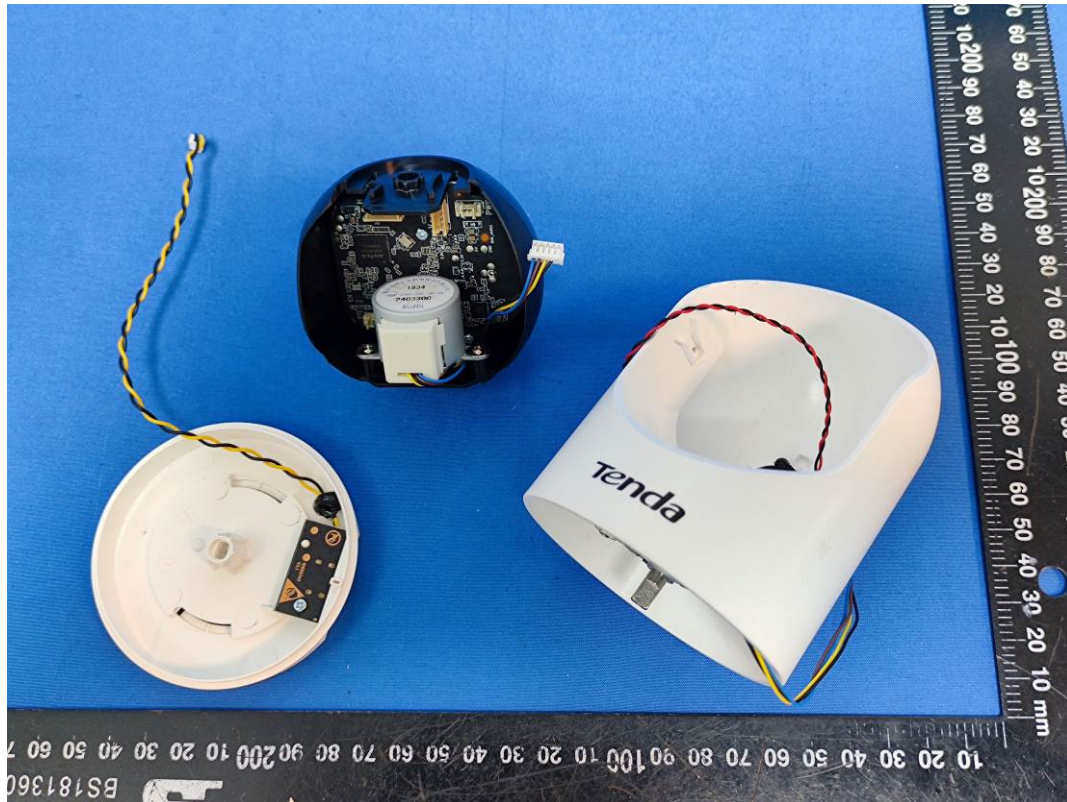


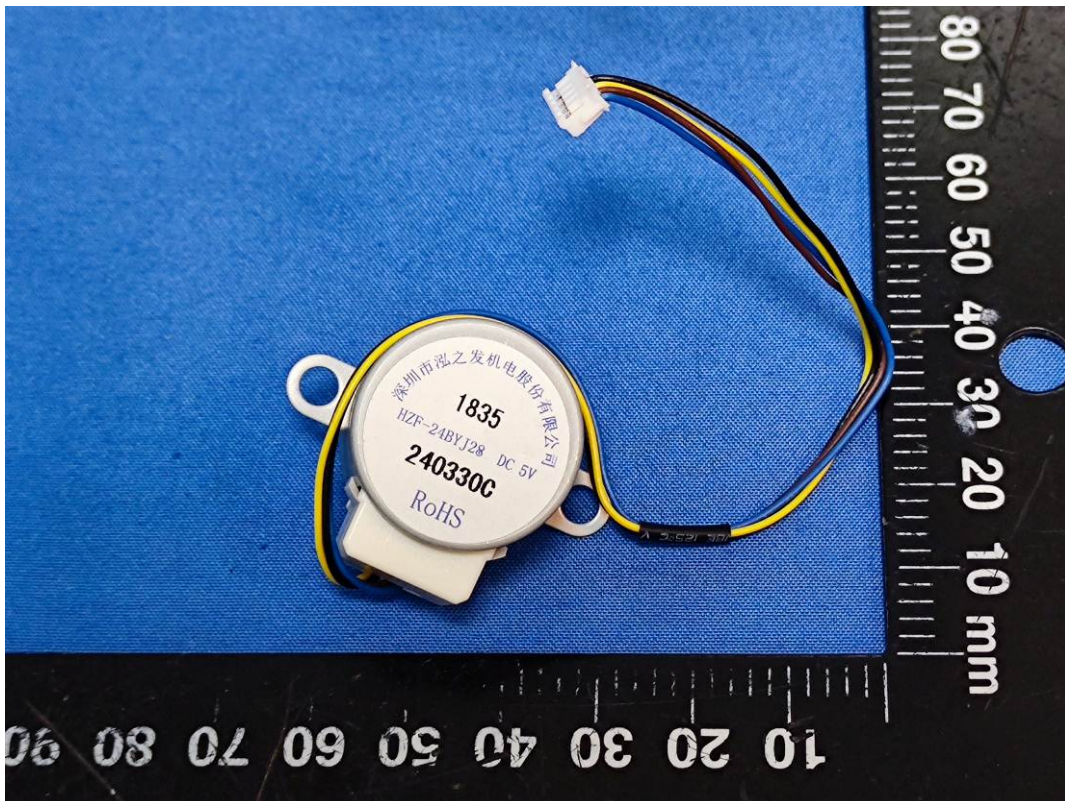


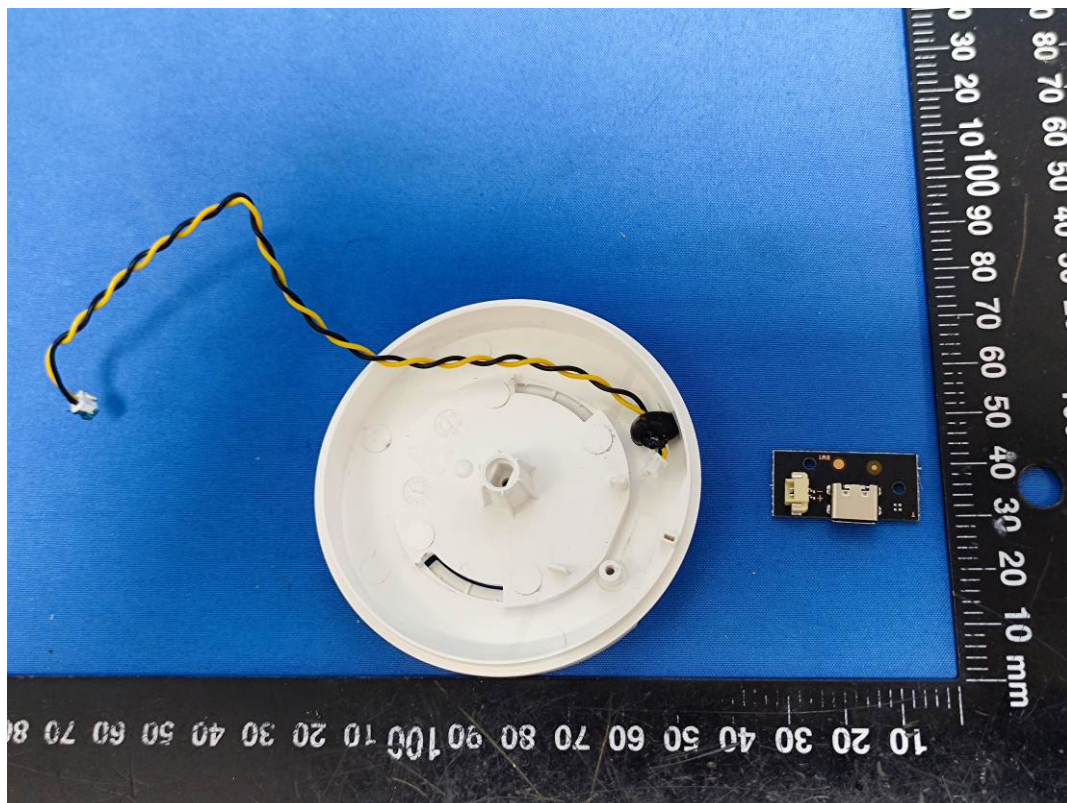
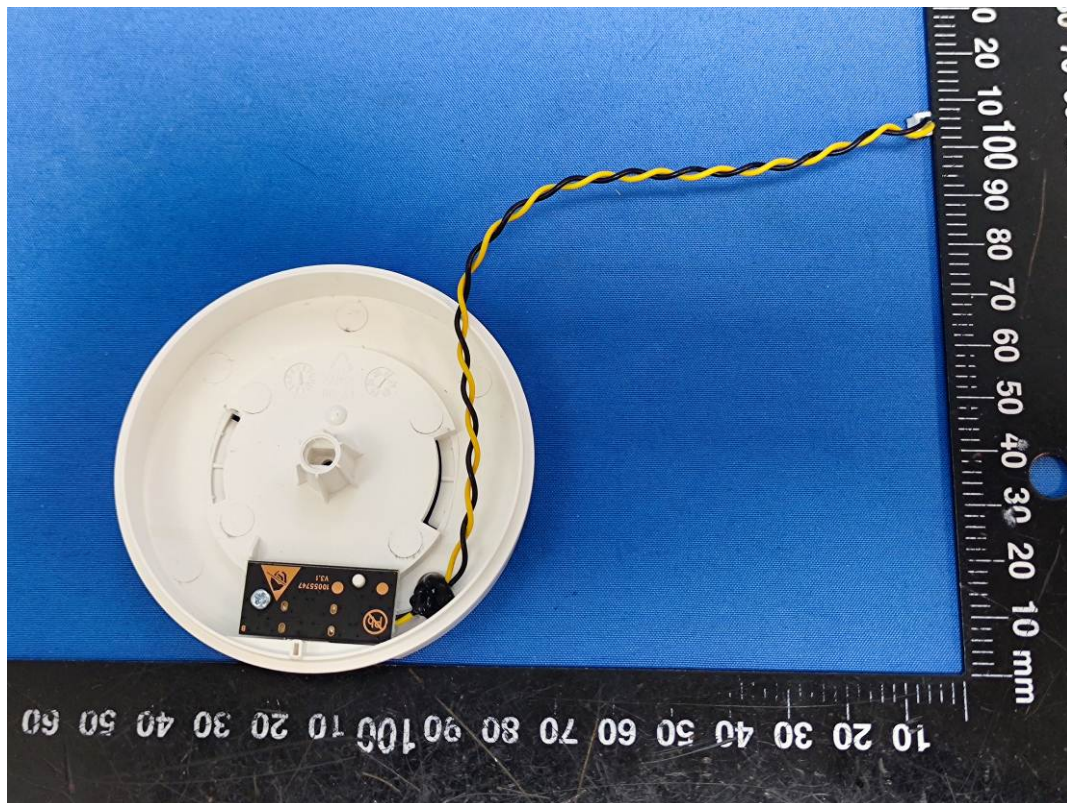


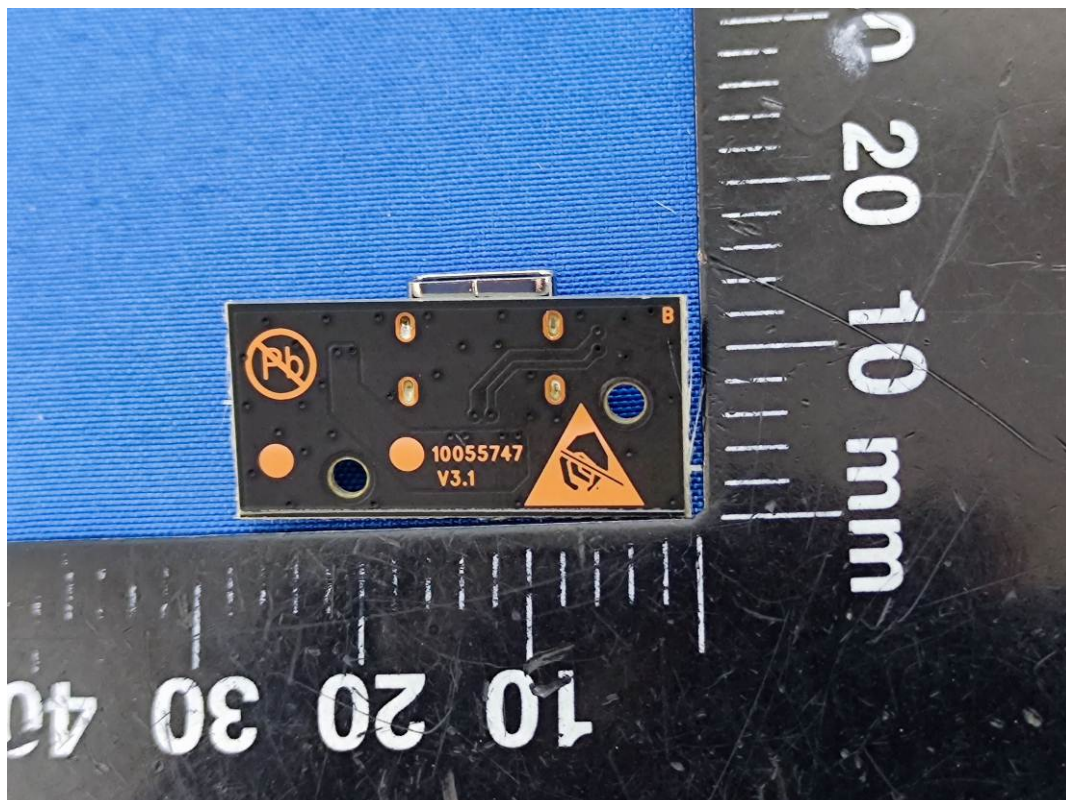
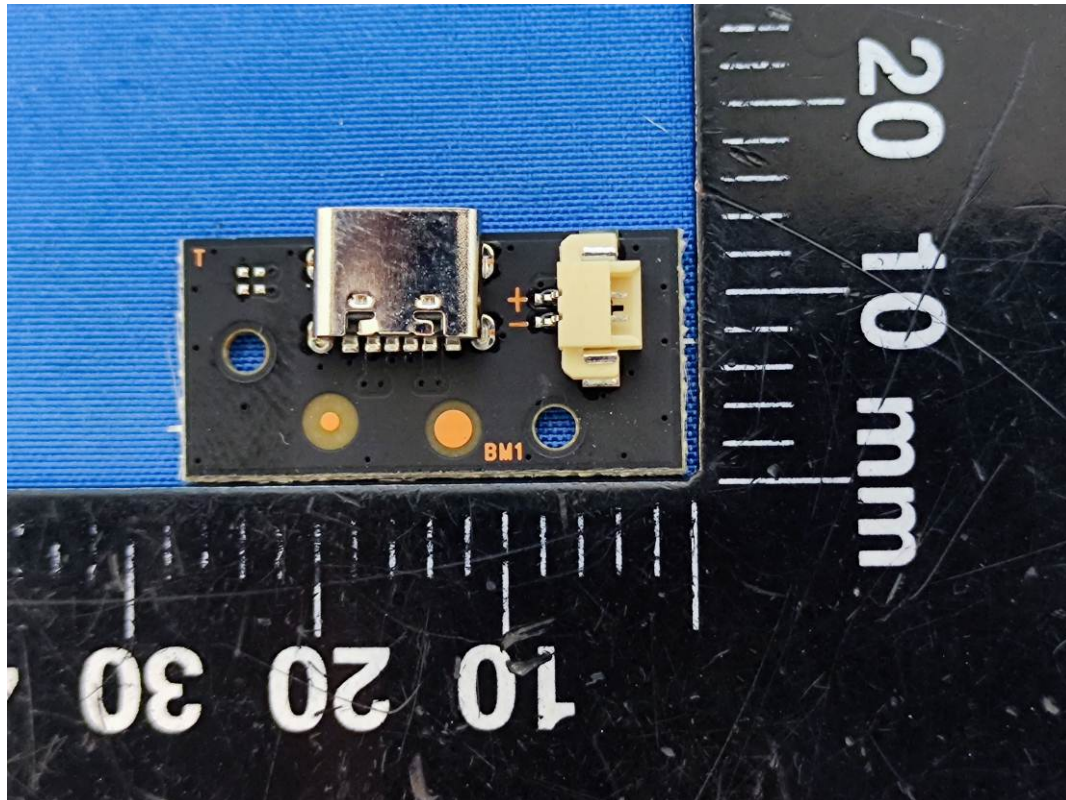


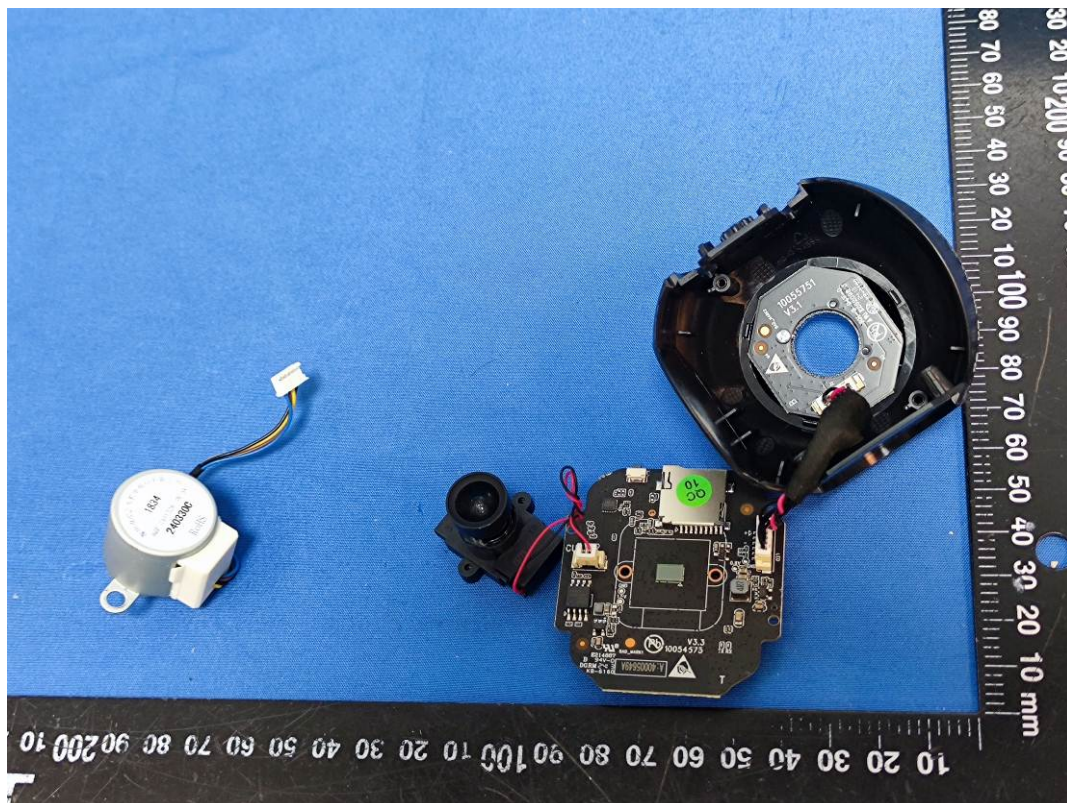
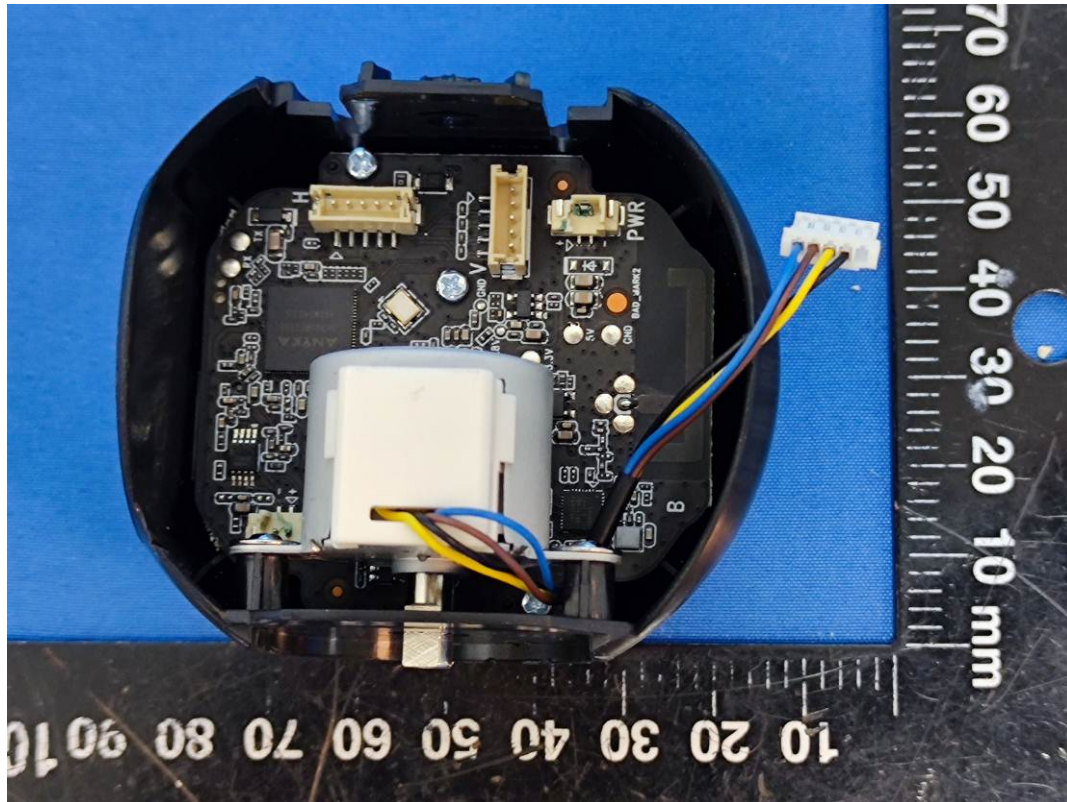


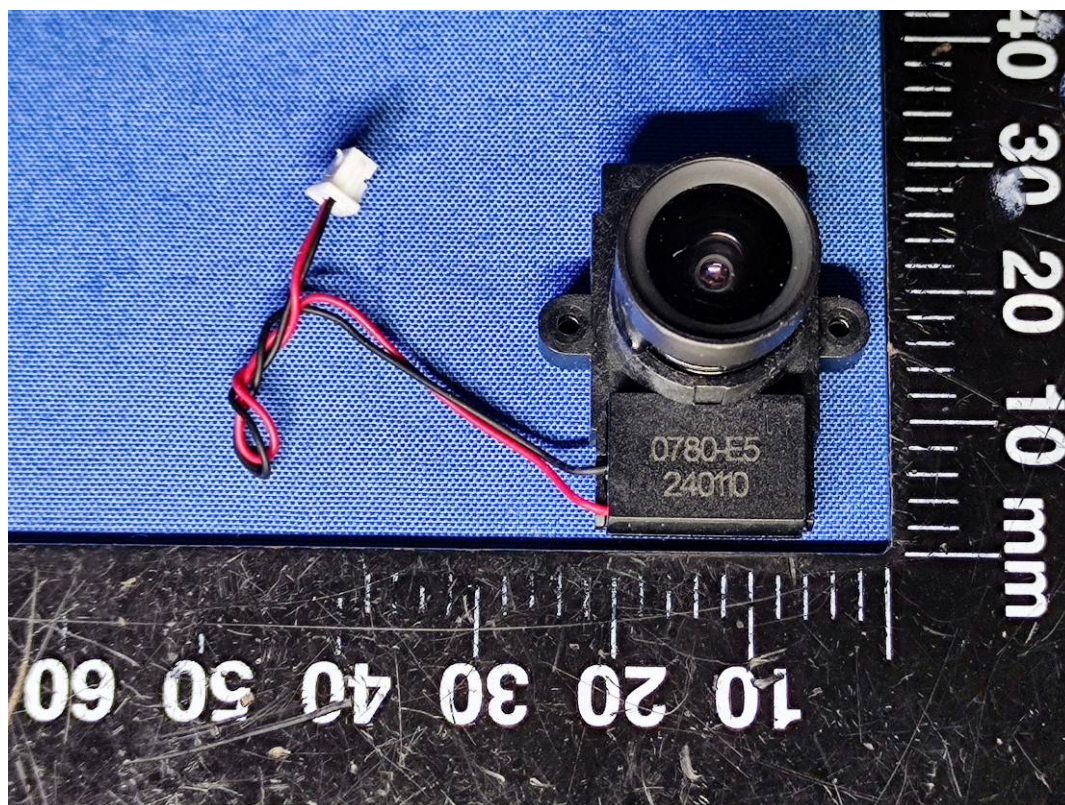
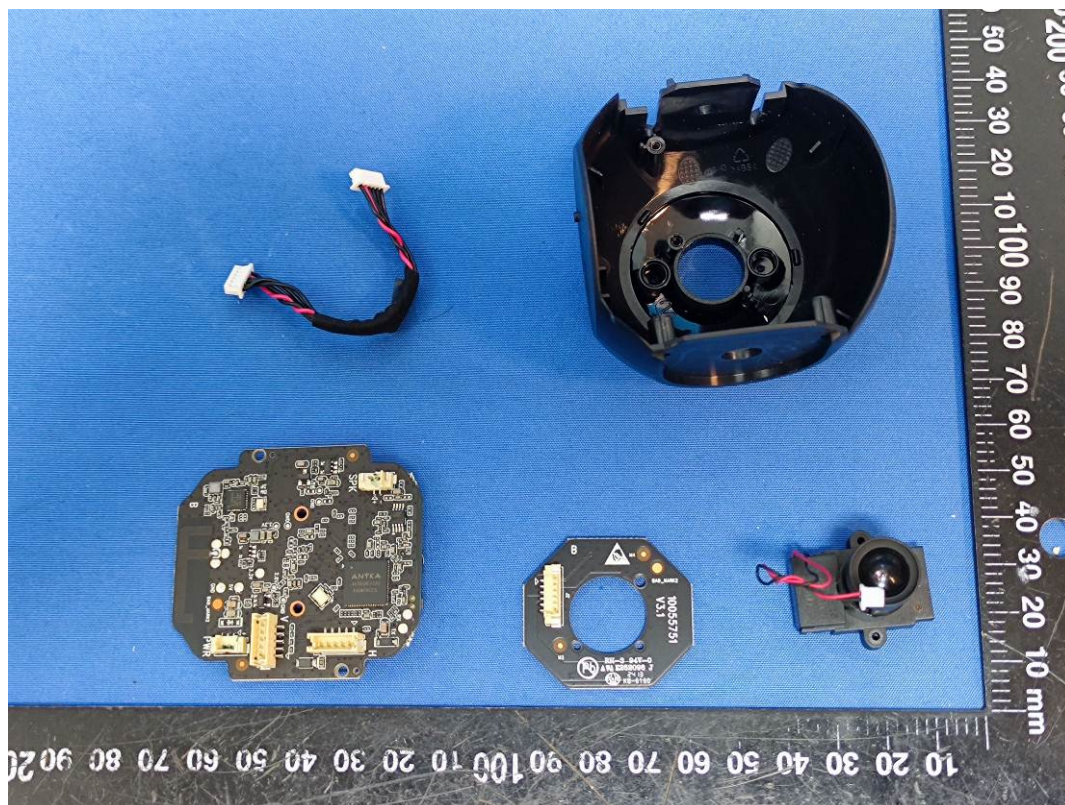


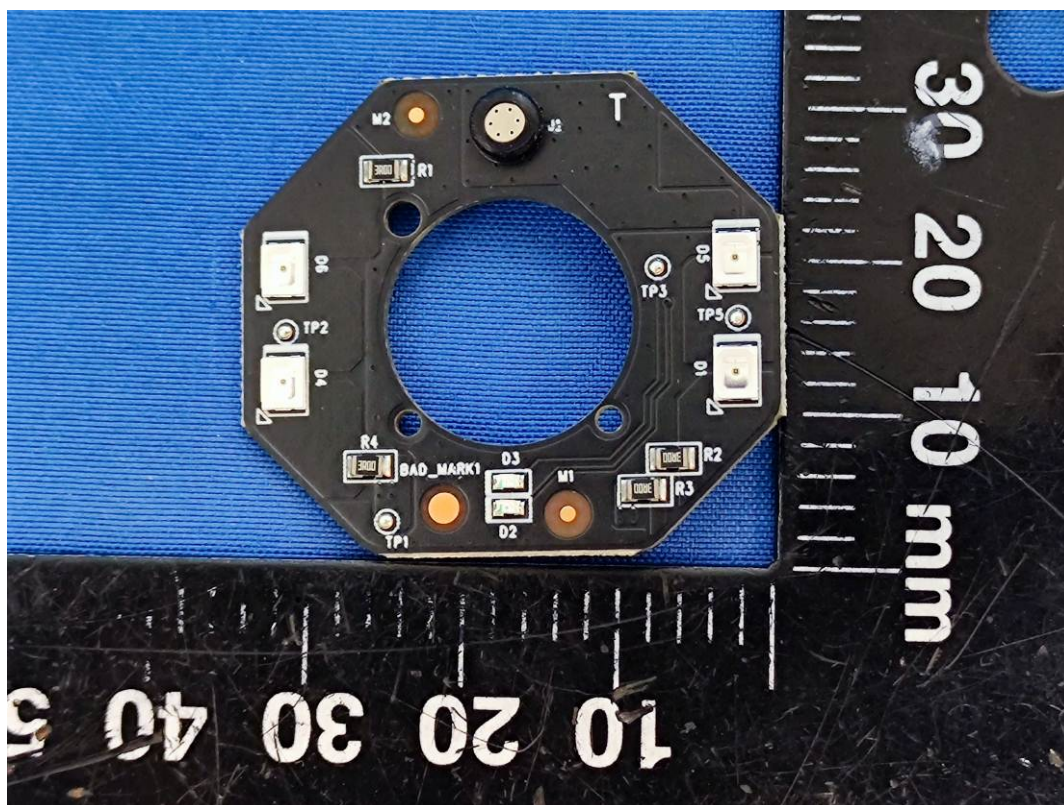
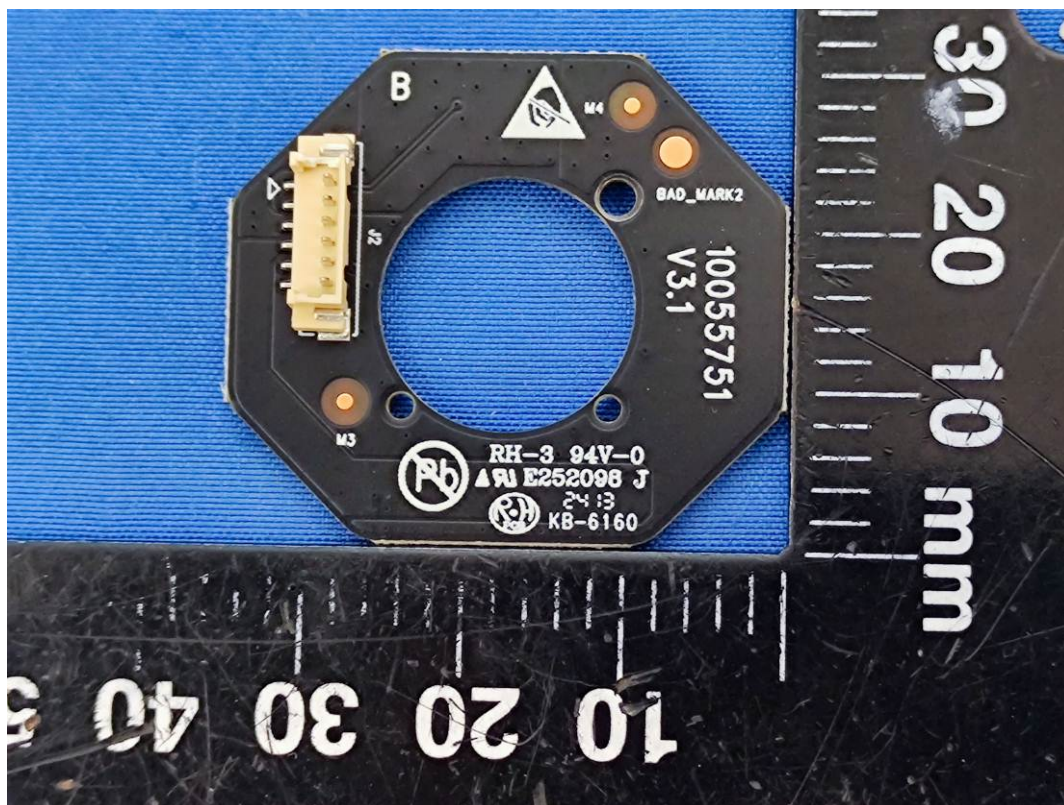


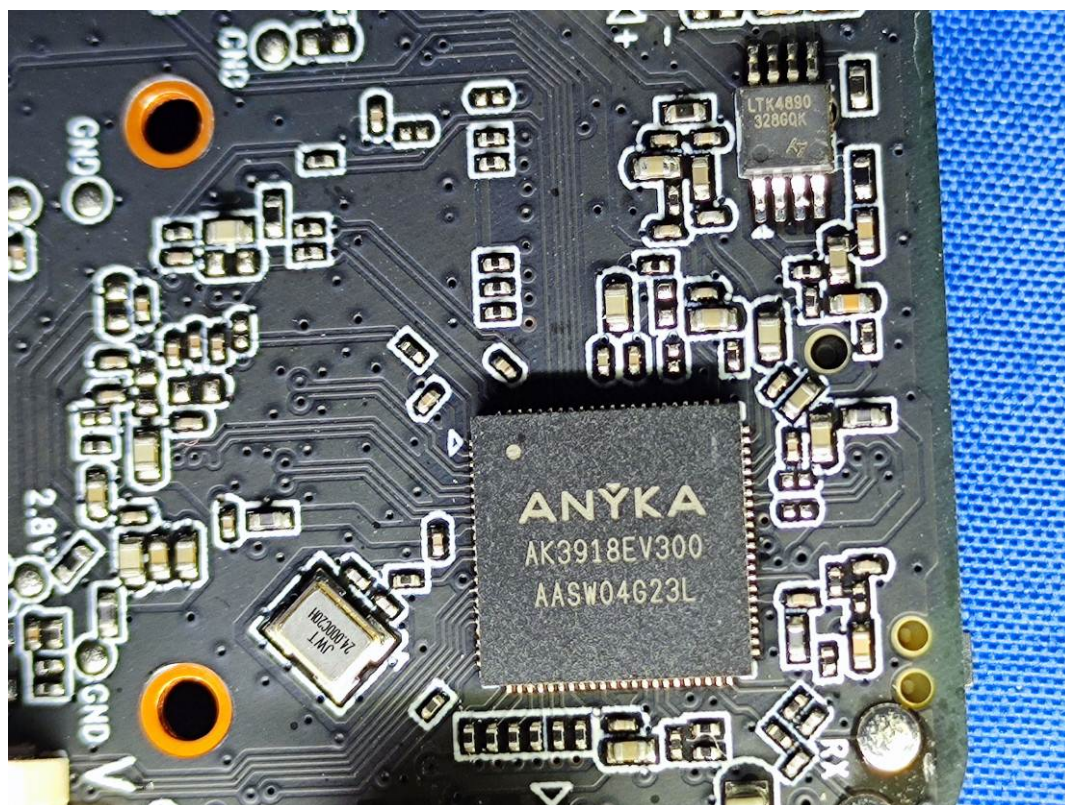
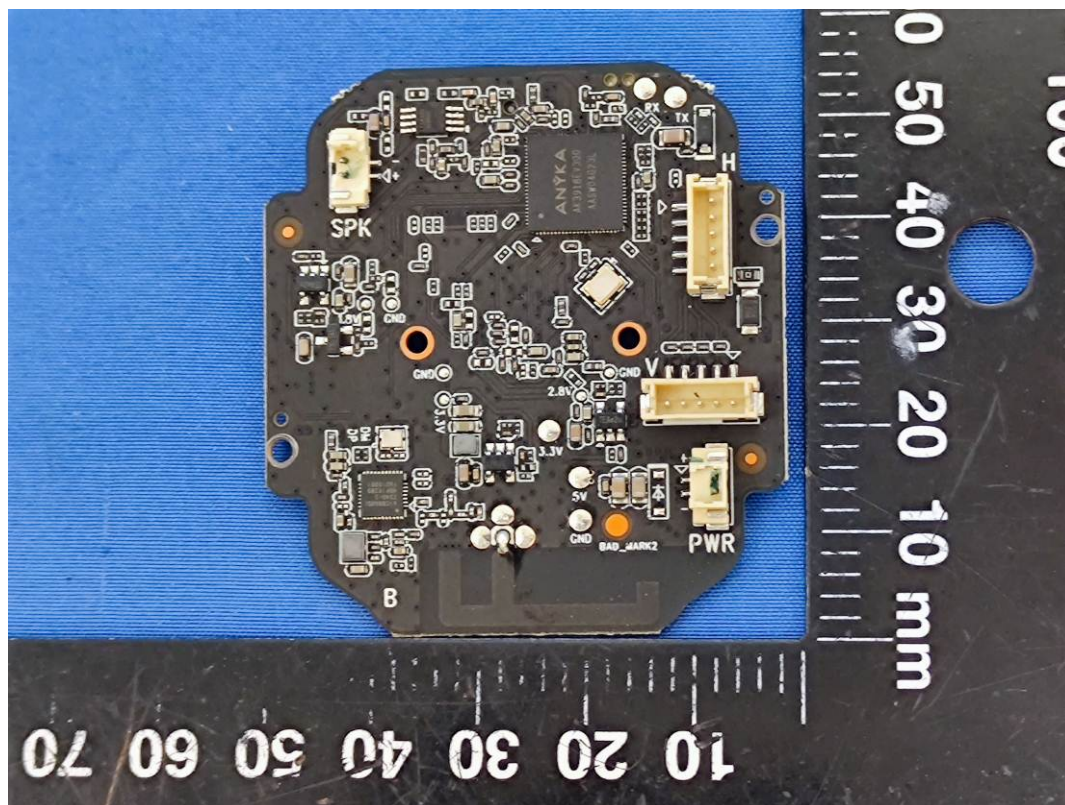


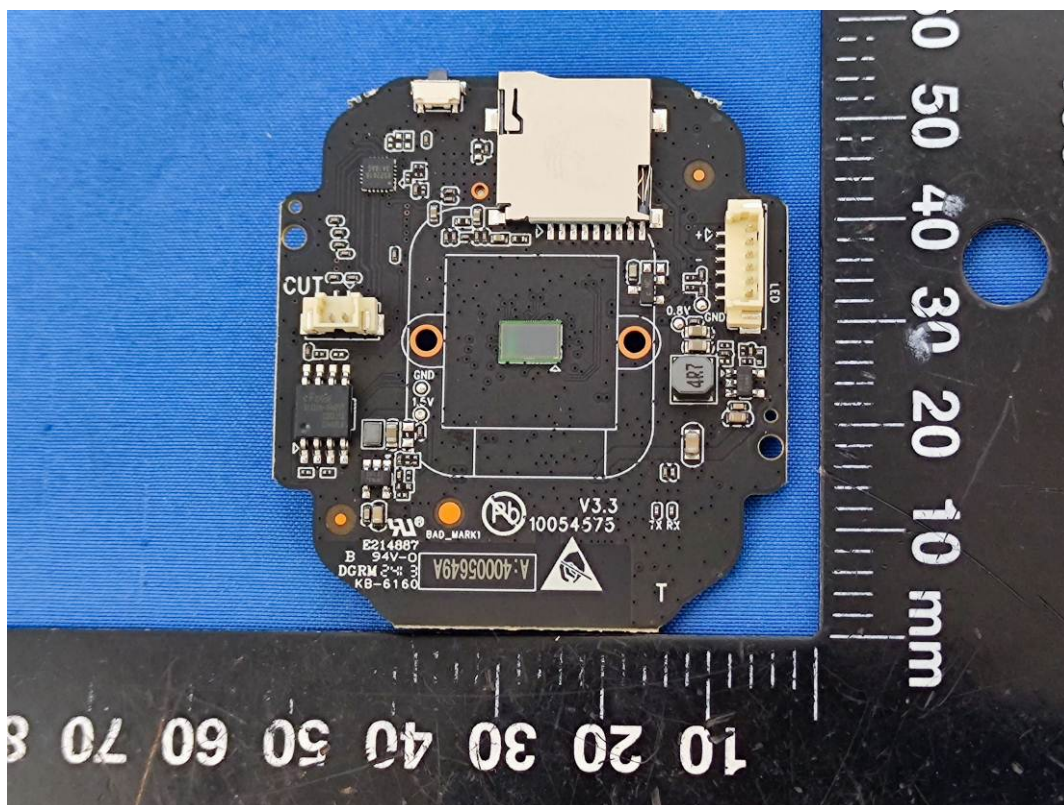
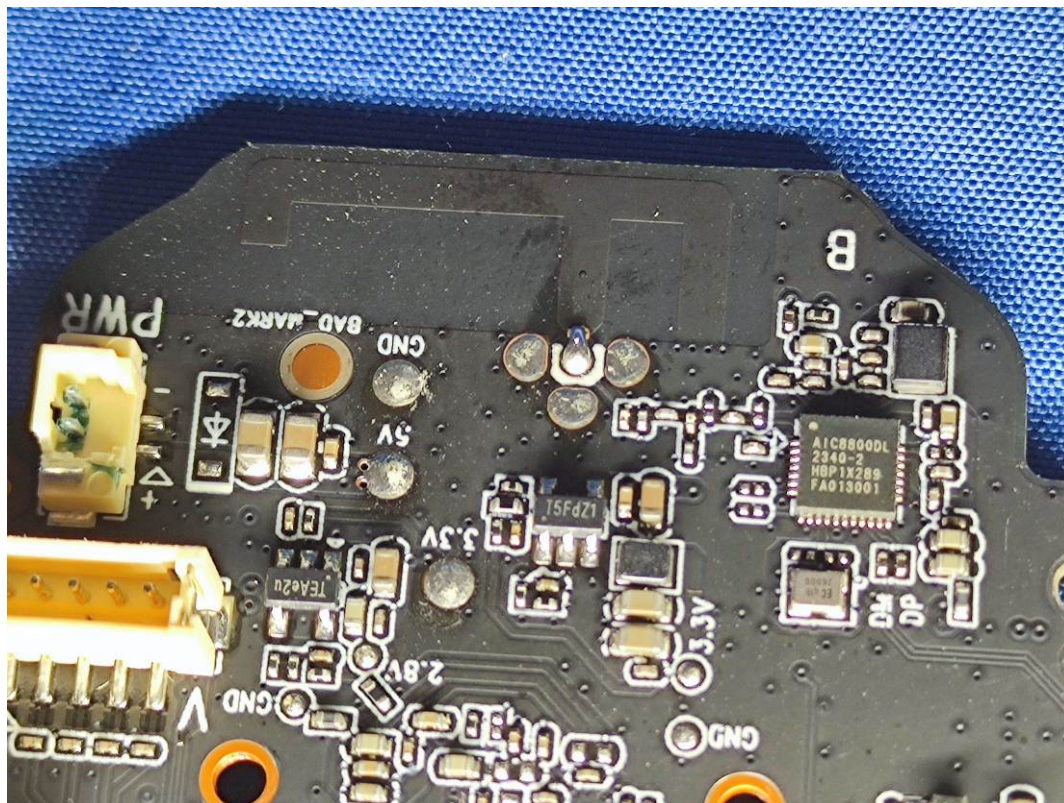


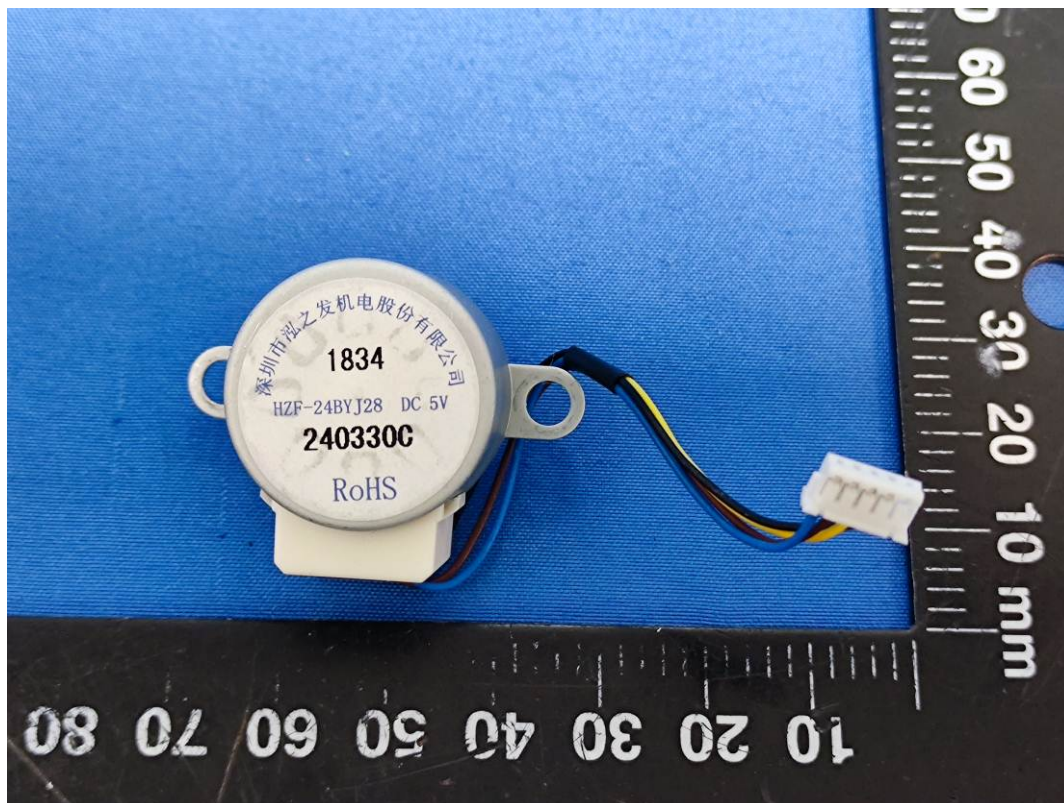
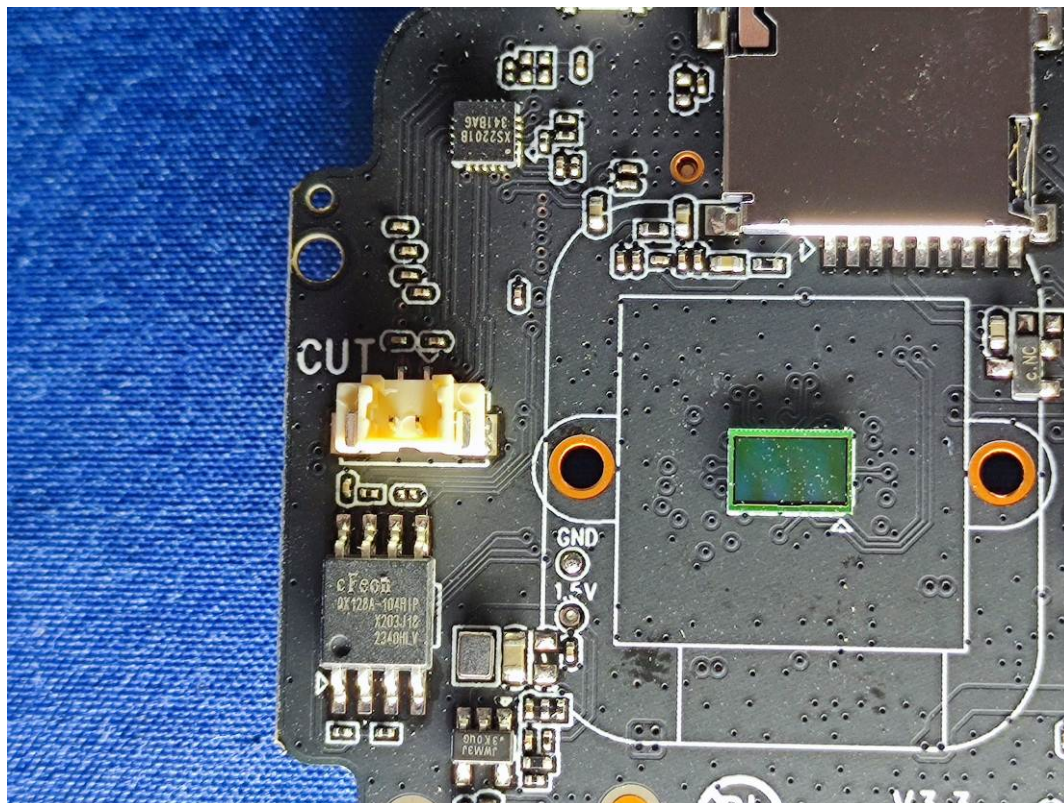


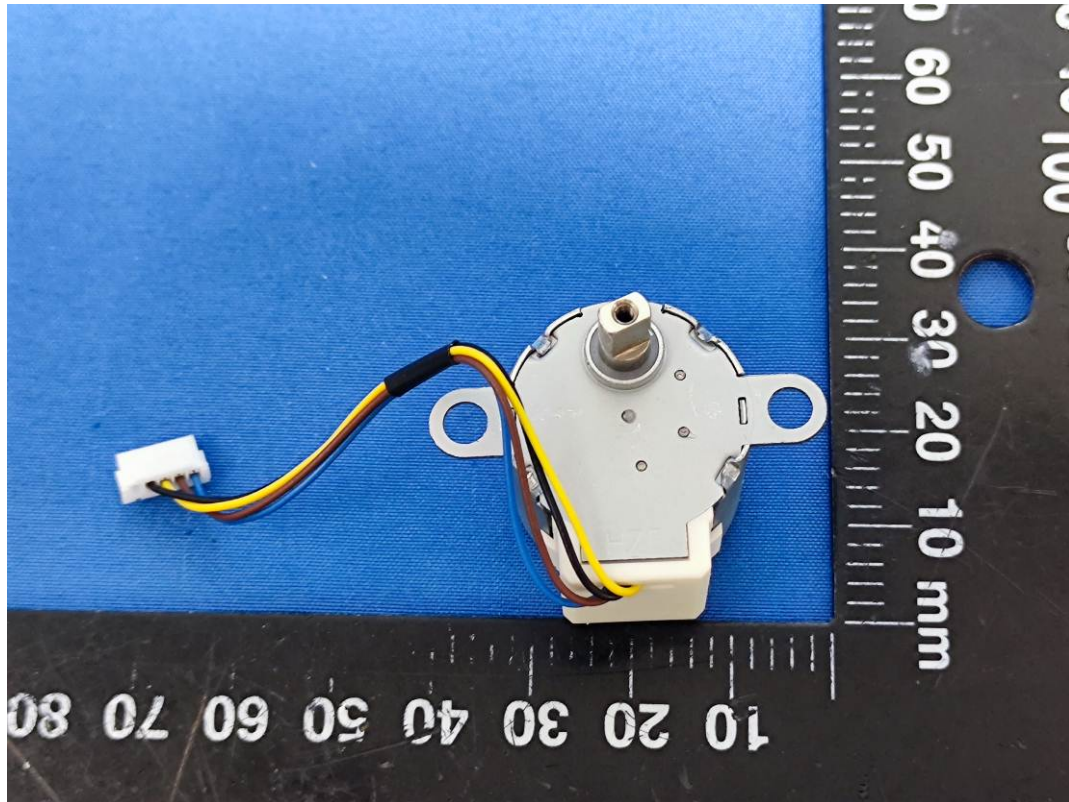












Adapter 3#

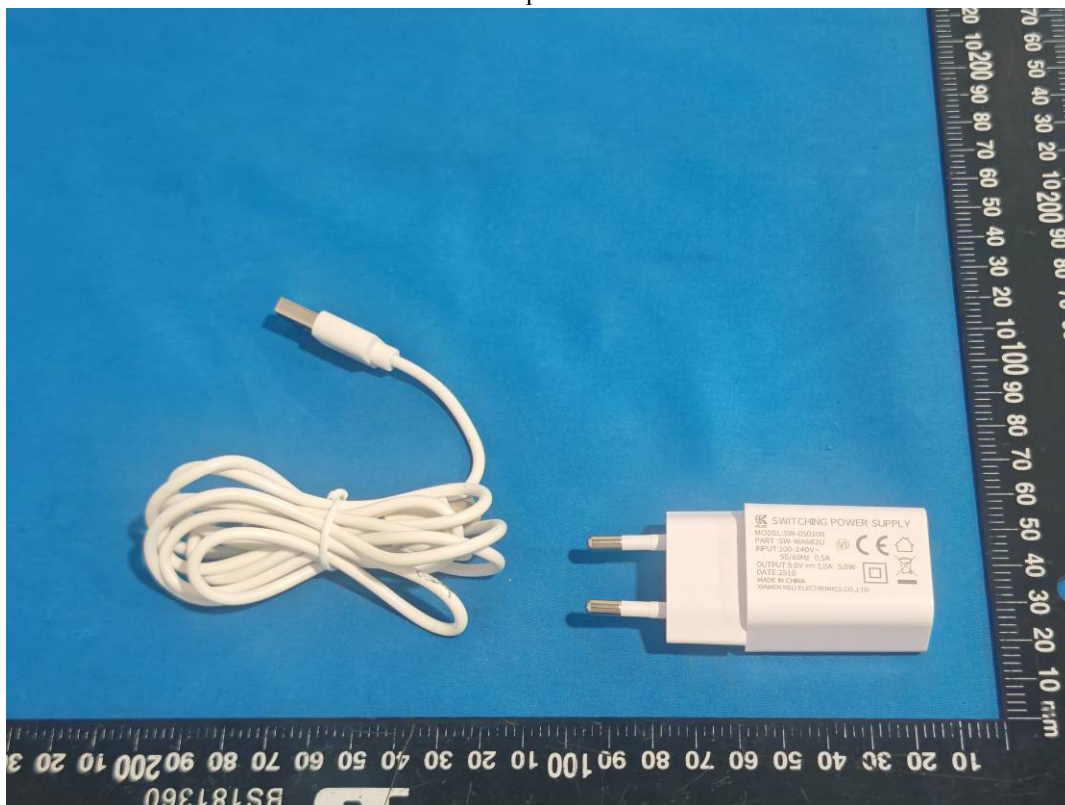
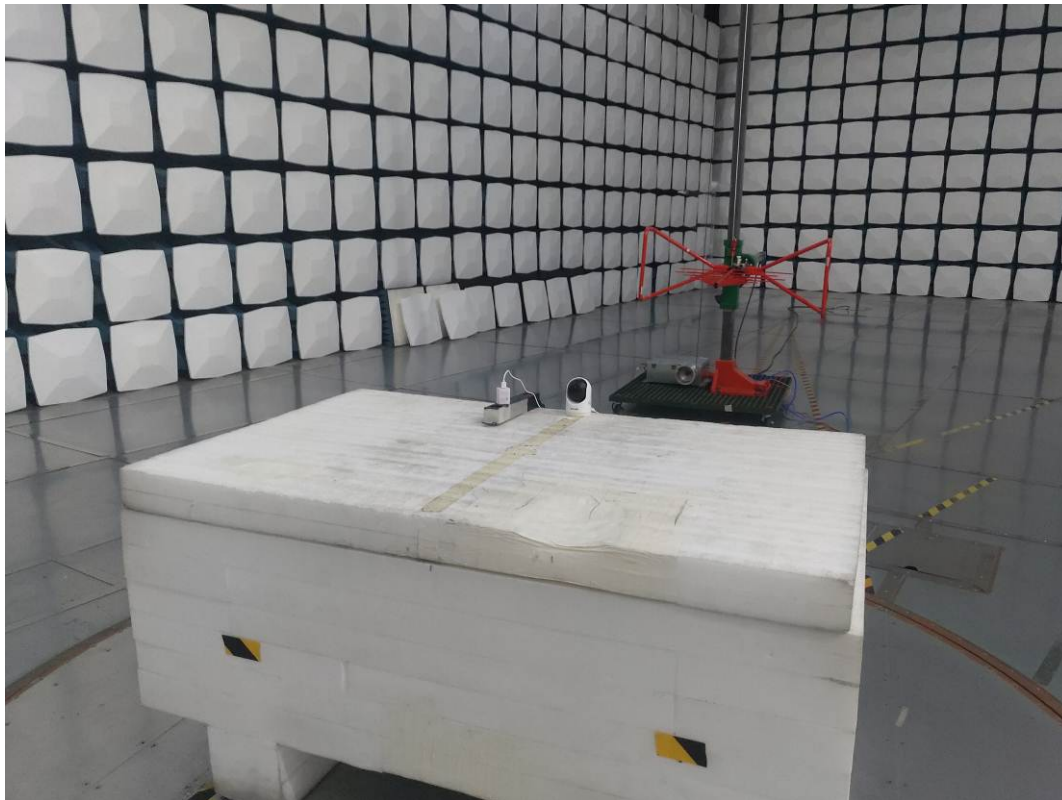


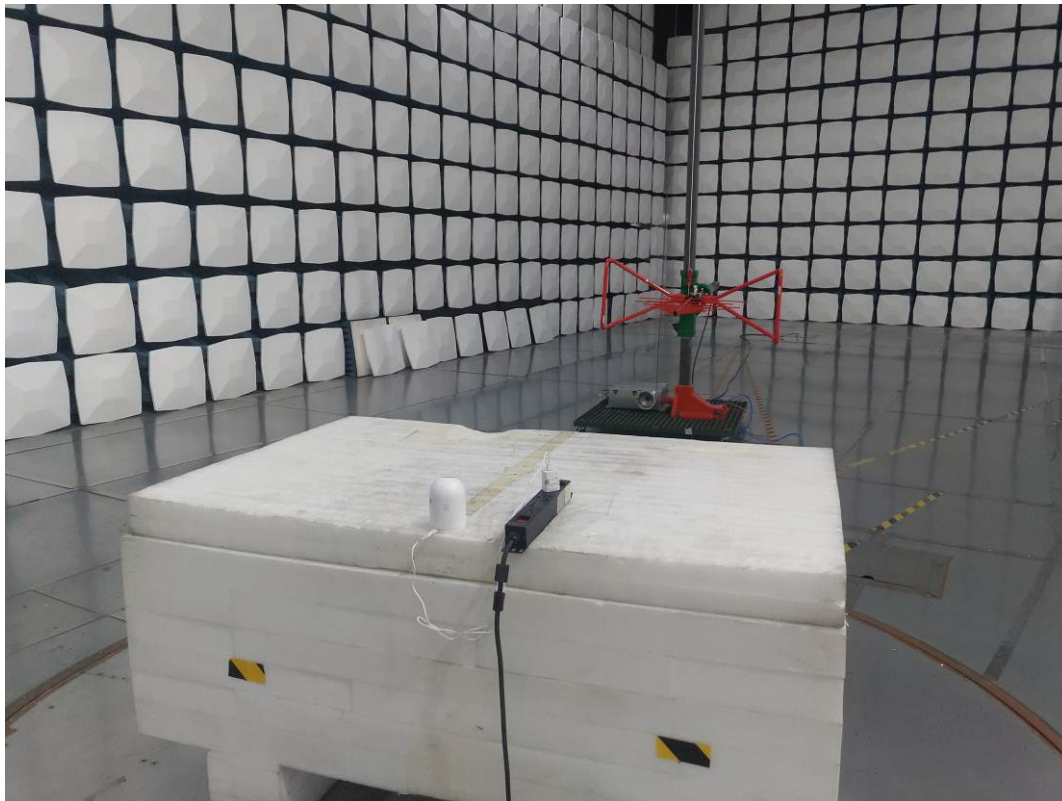
EXHIBIT B - TEST SETUP PHOTOGRAPHS

RE

RE Below 1GHz front View 2L4E-3



RE Below 1GHz rear View 2L4E-3



RE Below 1GHz front View 3250-1



RE Below 1GHz rear View 3250-1



RE Above 1GHz front View 2L4E-3



RE Above 1GHz rear View 2L4E-3



CE_AC

CE front View 2L4E-3



CE side View 2L4E-3



CE front View 3250-1



CE side View 3250-1



Flicker

Test Setup Photo View 2L4E-3

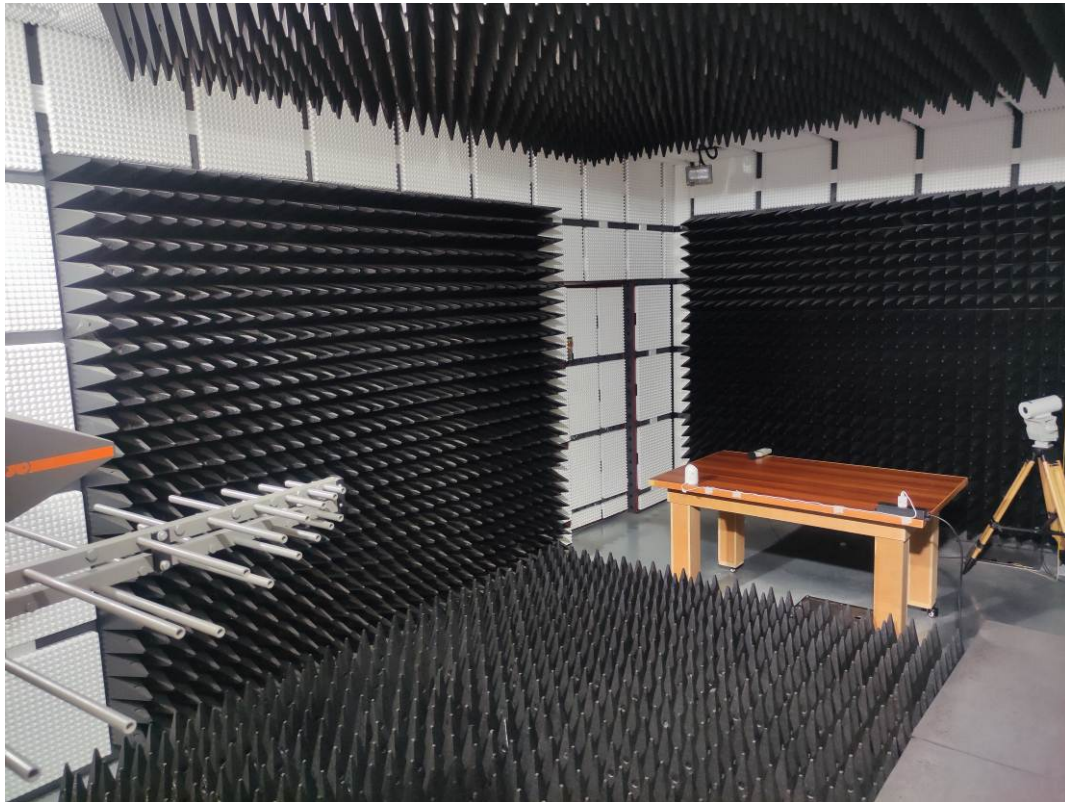


Test Setup Photo View 3250-1

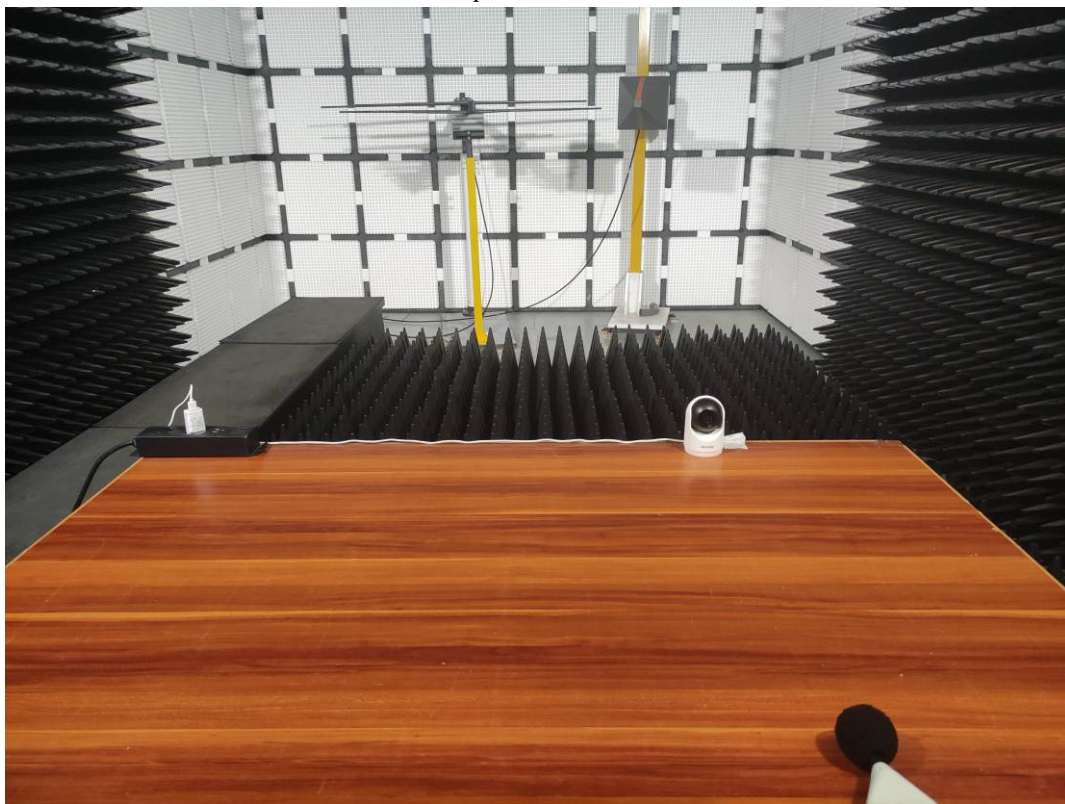


RS

Test Setup Photo View 2L4E-3



Test Setup Photo View 3250-1



ESD

Test Setup Photo View 2L4E-3



Test Setup Photo View 3250-1



EFT

Test Setup Photo View 2L4E-3



Test Setup Photo View 3250-1



Dips

Test Setup Photo View 2L4E-3



Test Setup Photo View 3250-1



Surge

Test Setup Photo View 2L4E-3



Test Setup Photo View 3250-1



CS

Test Setup Photo View 2L4E-3



Test Setup Photo View 3250-1



DECLARATION OF SIMILARITY LETTER

SHENZHEN TENDA TECHNOLOGY CO.,LTD.

Add: 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China.
518052

Tel: 86-755-27657098

Fax: 86-755-27657178

E-mail: cert@tenda.cn

DECLARATION OF SIMILARITY

Date: 2025-04-28

To whom it may concern

Dear Sir or Madam:

We, SHENZHEN TENDA TECHNOLOGY CO.,LTD., hereby declare that the product: 3MP Security Pan/Tilt Camera, model: RP3 is electrically identical with the model: CP3 which was tested by Bay Area Compliance Laboratories Corp. (Dongguan).

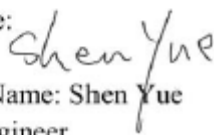
A description of the differences between those models and that are declared similar are as follows:

They are the same product, and just the different model name, the rest are the same.

Please contact me should there be need for any additional clarification or information.

Best Regards,

Signature:



Printed Name: Shen Yue

Title: Engineer

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