12. BAND EDGE EMISSION

12.1. MEASUREMENT PROCEDURE

Radiated restricted band edge measurements

The radiated restricted band edge measurements are measured with an EMI test receiver connected to the receive antenna while the EUT is transmitting

12.2. TEST SET-UP

same as 11.2

Note:

1. Factor=Antenna Factor + Cable loss - Amplifier gain. Field Strength=Factor + Reading level
2. The factor had been edited in the “Input Correction” of the Spectrum Analyzer. So the Amplitude of test plots is equal to Reading level plus the Factor in dB. Use the A dB(μV) to represent the Amplitude. Use the F dB(μV/m) to represent the Field Strength. So A=F.

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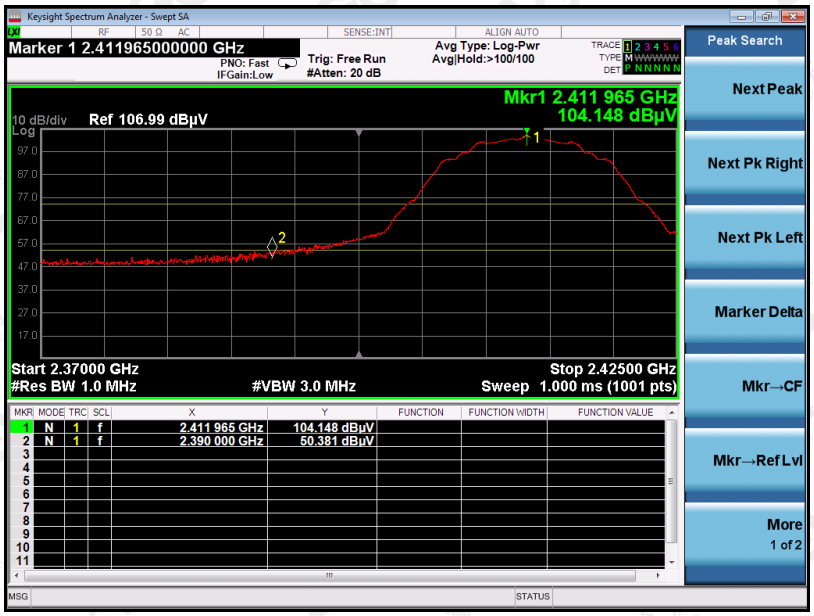
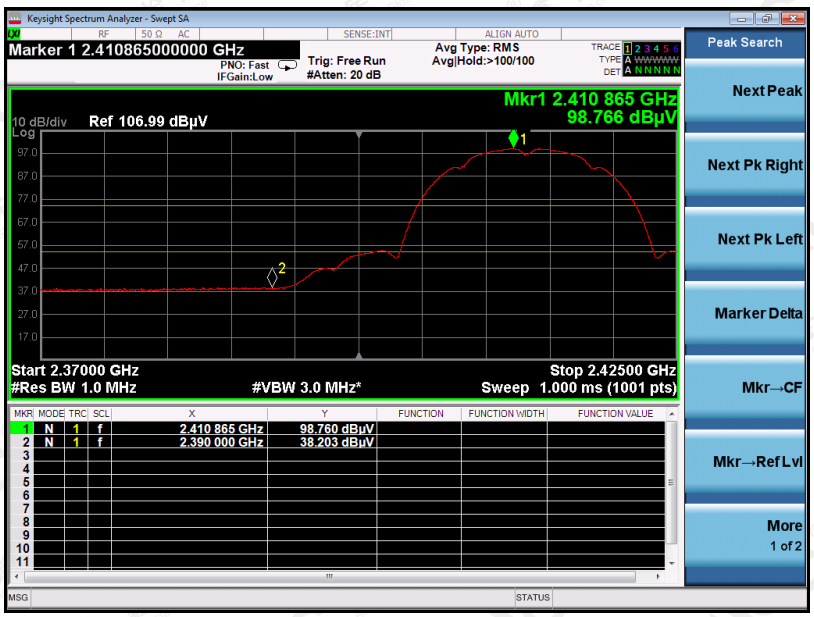
12.3. TEST RESULT

EUT	HD WiFi Camera	Model Name	T5886GAB
Temperature	25˚C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2412MHZ	Antenna	Horizontal

PK



AV



RESULT: PASS

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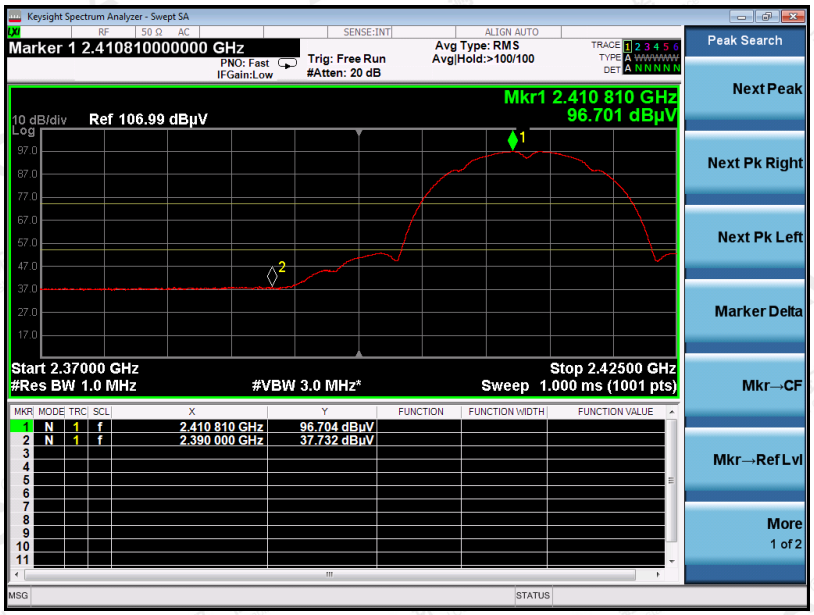
EUT	HD WiFi Camera	Model Name	T5886GAB
Temperature	25˚C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2412MHZ	Antenna	Vertical

PK

AV



RESULT: PASS

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EUT	HD WiFi Camera	**Model Name**	T5886GAB
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	802.11b with data rate 1 2462MHZ	**Antenna**	Horizontal

PK

AV

RESULT: PASS

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EUT	HD WiFi Camera	**Model Name**	T5886GAB
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	802.11b with data rate 1 2462MHZ	**Antenna**	Vertical

PK

AV

RESULT: PASS

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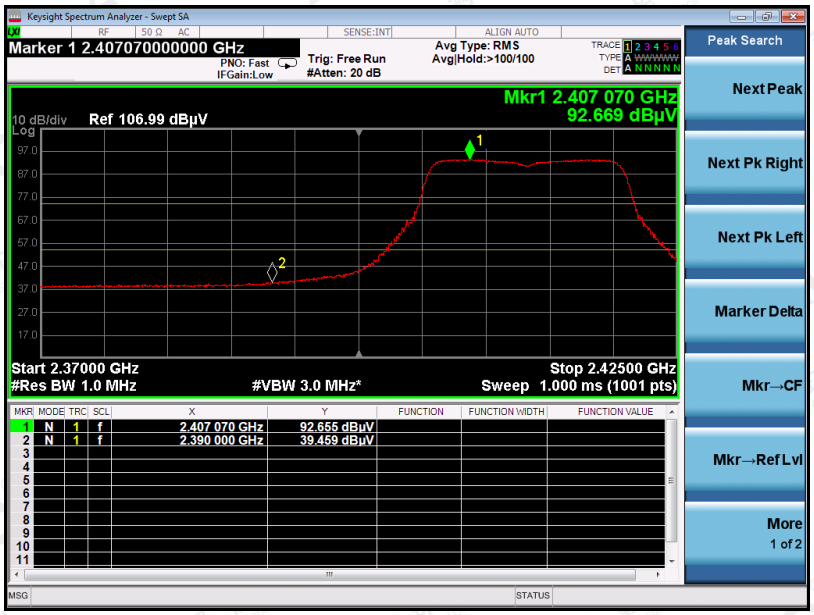
EUT	HD WiFi Camera	**Model Name**	T5886GAB
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	802.11g with data rate 6 2412MHZ	**Antenna**	Horizontal

PK

AV



RESULT: PASS

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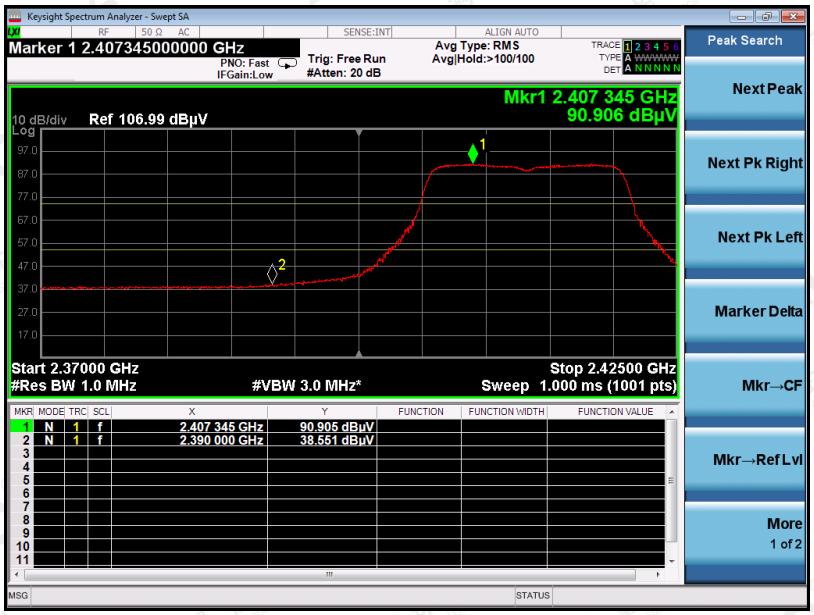
EUT	HD WiFi Camera	**Model Name**	T5886GAB
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	802.11g with data rate 6 2412MHZ	**Antenna**	Vertical

PK

AV



RESULT: PASS

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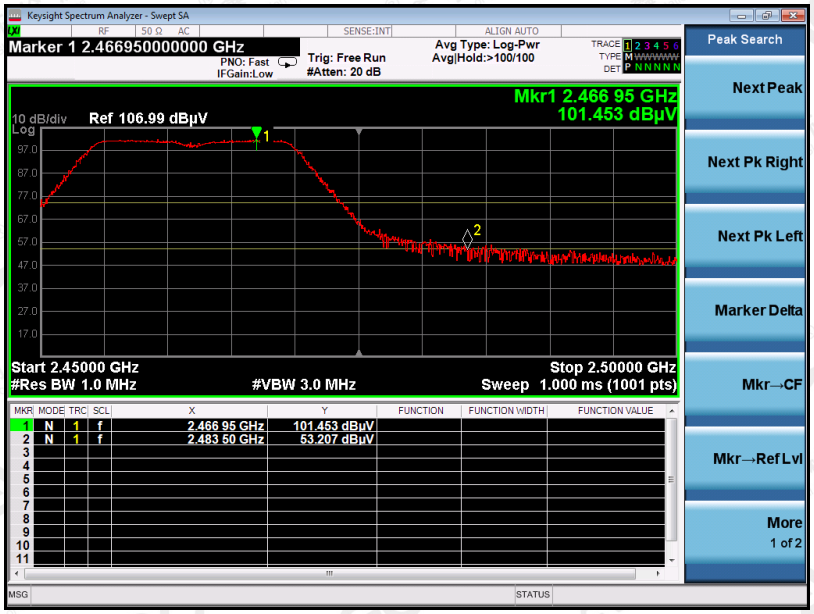
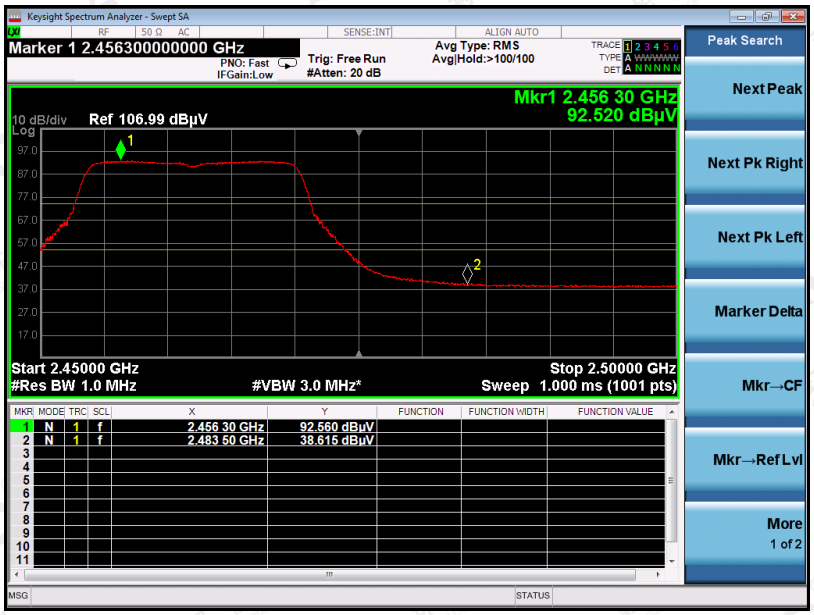
EUT	HD WiFi Camera	**Model Name**	T5886GAB
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	802.11g with data rate 6 2462MHZ	**Antenna**	Horizontal

PK



AV



RESULT: PASS

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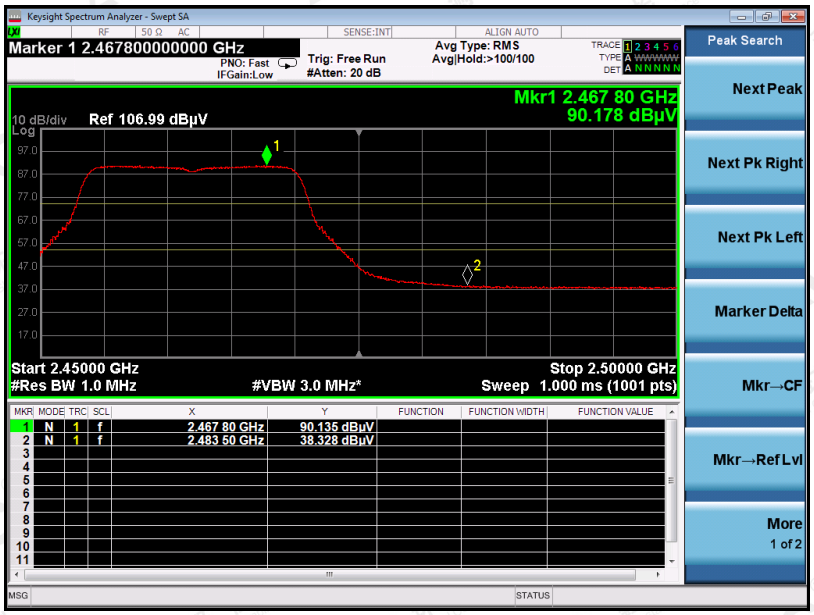
EUT	HD WiFi Camera	**Model Name**	T5886GAB
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	802.11g with data rate 6 2462MHZ	**Antenna**	Vertical

PK

AV



RESULT: PASS

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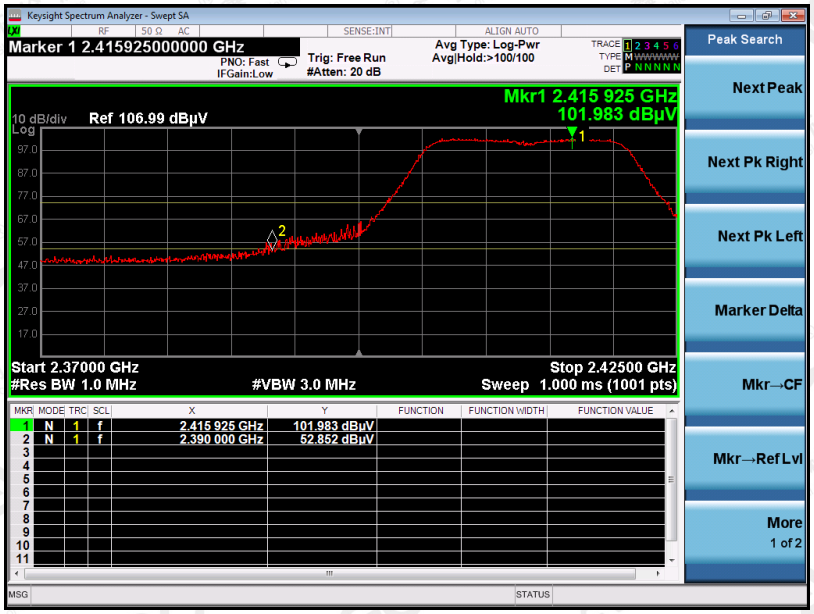
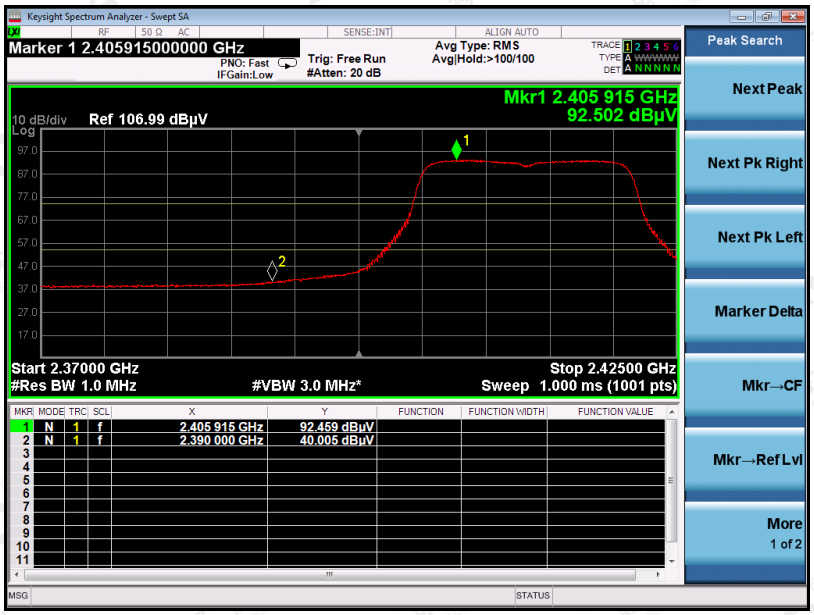
EUT	HD WiFi Camera	**Model Name**	T5886GAB
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	802.11n 20 with data rate 6.5 2412MHZ	**Antenna**	Horizontal

PK



AV



RESULT: PASS

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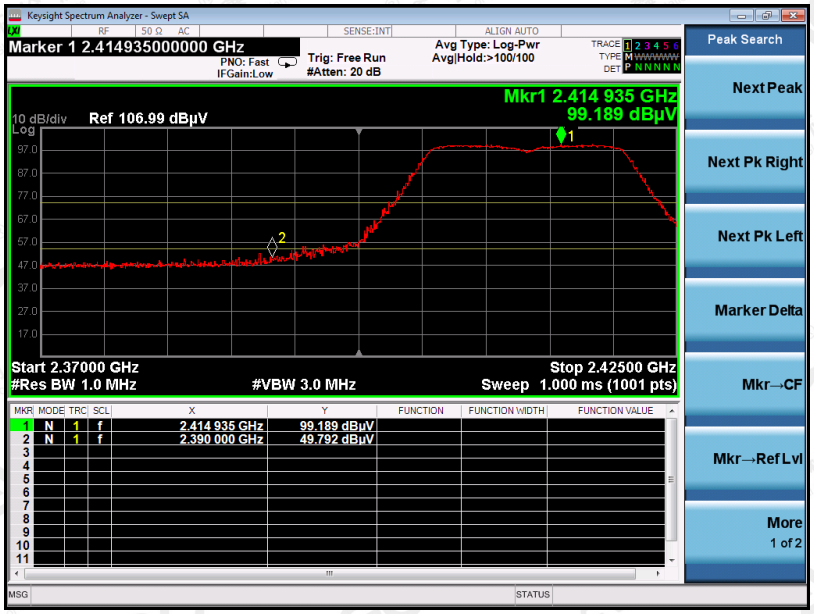
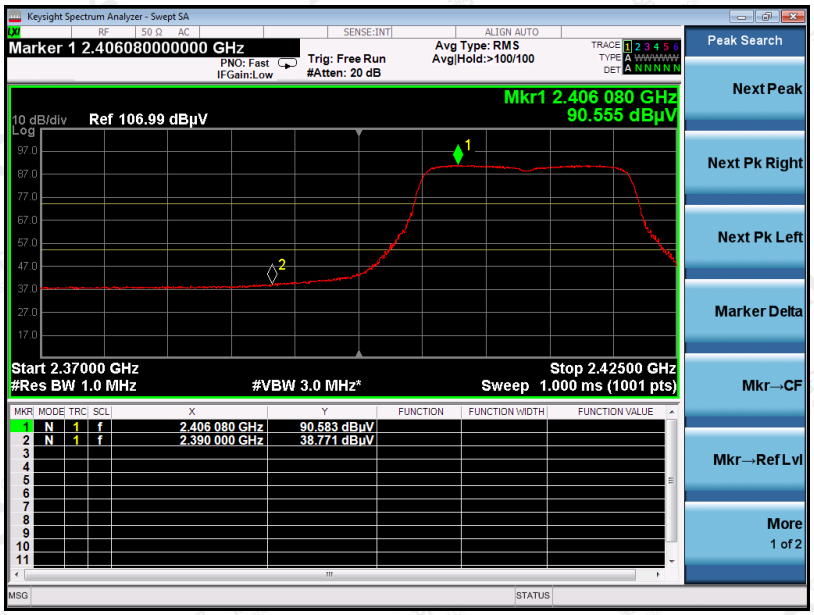
EUT	HD WiFi Camera	**Model Name**	T5886GAB
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	802.11n 20 with data rate 6.5 2412MHZ	**Antenna**	Vertical

PK



AV



RESULT: PASS

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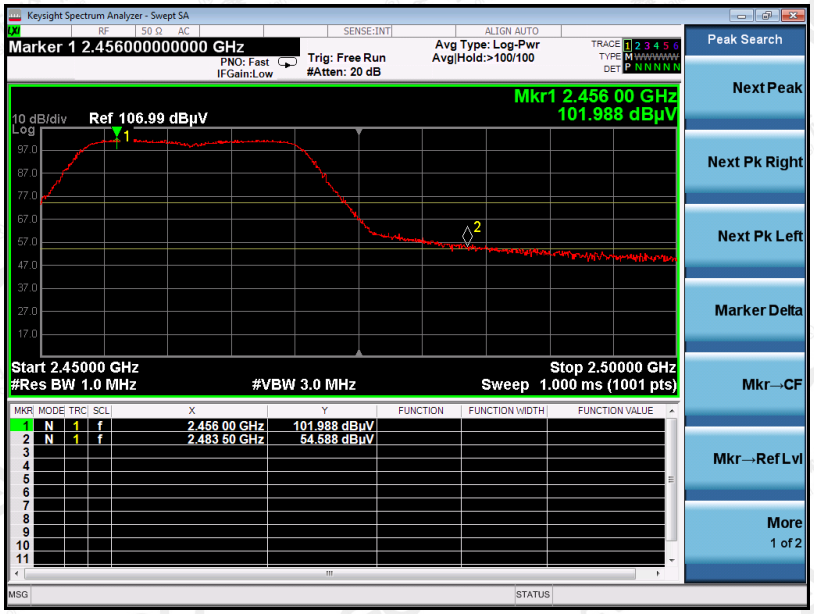
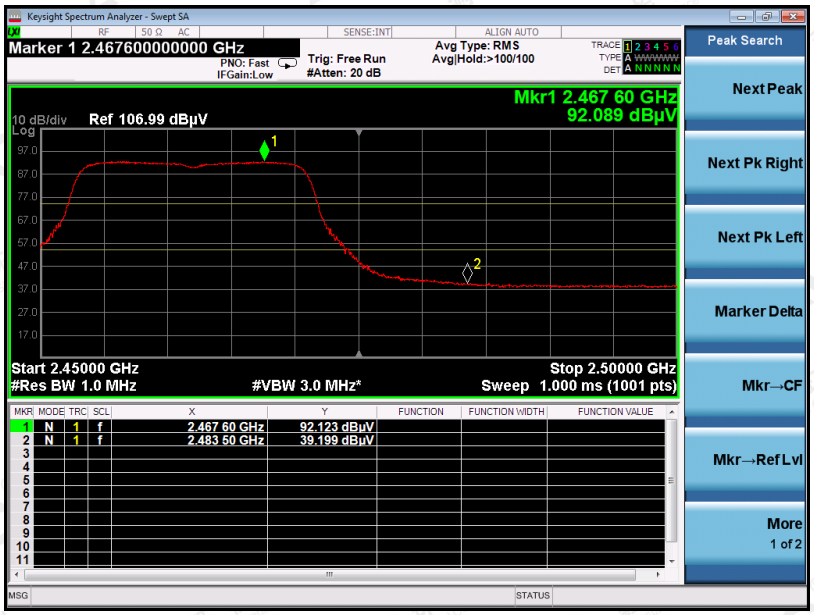
EUT	HD WiFi Camera	**Model Name**	T5886GAB
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	802.11n 20 with data rate 6.5 2462MHZ	**Antenna**	Horizontal

PK



AV



RESULT: PASS

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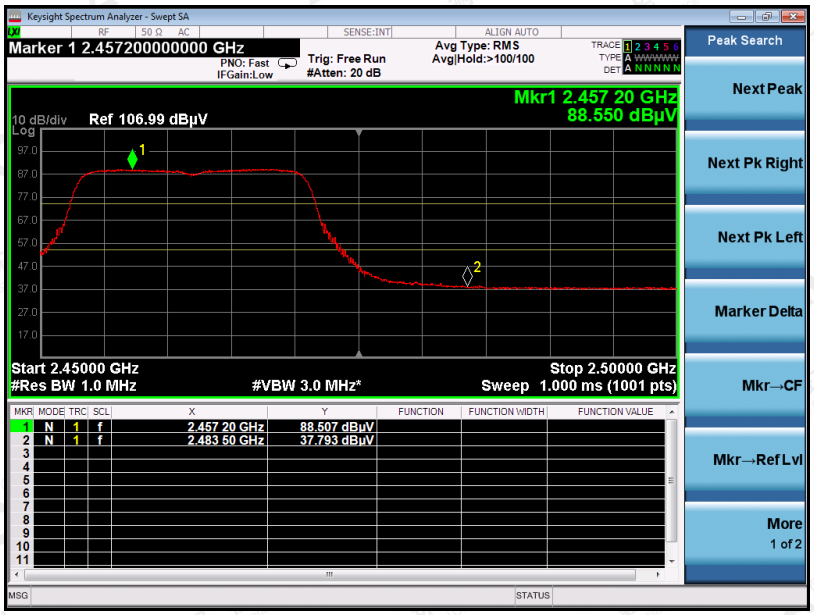
EUT	HD WiFi Camera	**Model Name**	T5886GAB
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	802.11n 20 with data rate 6.5 2462MHZ	**Antenna**	Vertical

PK

AV



RESULT: PASS

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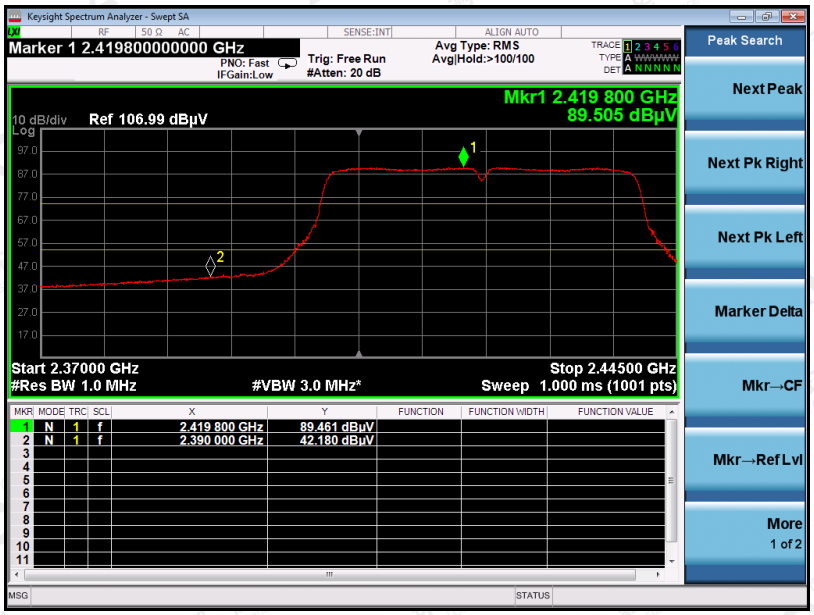
EUT	HD WiFi Camera	**Model Name**	T5886GAB
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	802.11n 40 with data rate 13.5 2422MHZ	**Antenna**	Horizontal

PK

AV



RESULT: PASS

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EUT	HD WiFi Camera	**Model Name**	T5886GAB
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	802.11n 40 with data rate 13.5 2422MHZ	**Antenna**	Vertical

PK

AV

RESULT: PASS

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EUT	HD WiFi Camera	**Model Name**	T5886GAB
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	802.11n 40with data rate 13.5 2452MHZ	**Antenna**	Horizontal

PK

AV

RESULT: PASS

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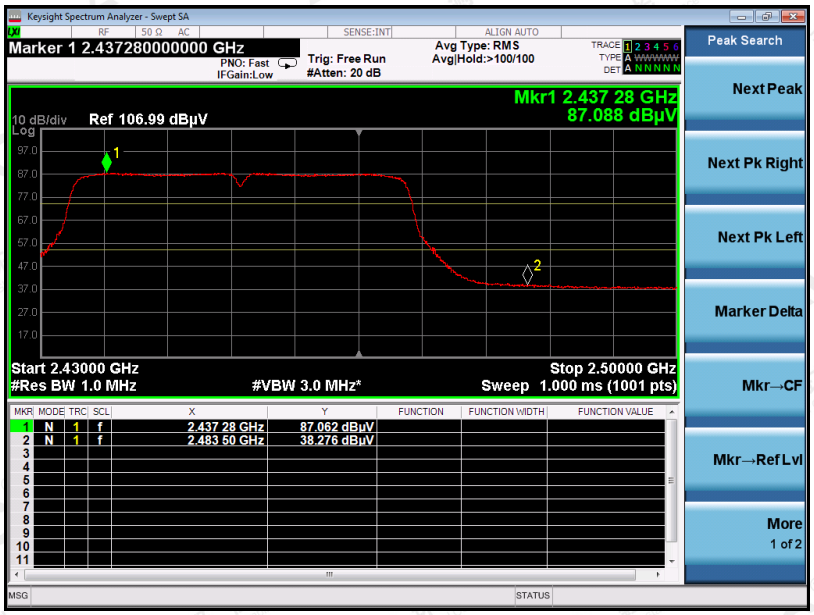
EUT	HD WiFi Camera	**Model Name**	T5886GAB
Temperature	25°C	**Relative Humidity**	55.4%
Pressure	960hPa	**Test Voltage**	Normal Voltage
Test Mode	802.11n 40 with data rate 13.5 2452MHZ	**Antenna**	Vertical

PK

AV



RESULT: PASS

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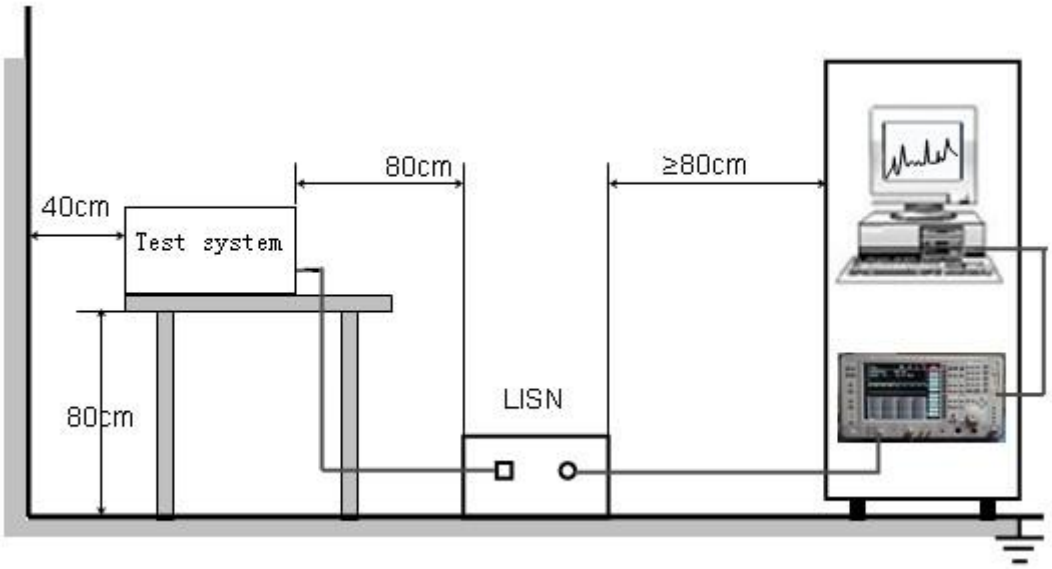
13. FCC LINE CONDUCTED EMISSION TEST

13.1. LIMITS OF LINE CONDUCTED EMISSION TEST

Frequency	Maximum RF Line Voltage	
	Q.P.(dBuV)	Average(dBuV)
150kHz-500kHz	66-56	56-46
500kHz-5MHz	56	46
5MHz-30MHz	60	50

Note:
1. The lower limit shall apply at the transition frequency.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50MHz.

13.2. BLOCK DIAGRAM OF TEST SETUP



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13.3. PROCEDURE OF LINE CONDUCTED EMISSION TEST

(1) The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.

(2) Support equipment, if needed, was placed as per ANSI C63.10.

(3) All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.

(4) The EUT received DC 5V power from pc which received AC120V/60Hz power from a LISN.

(5) The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.

(6) Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.

(7) During the above scans, the emissions were maximized by cable manipulation.

(8) A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions.

(9) Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less –2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.

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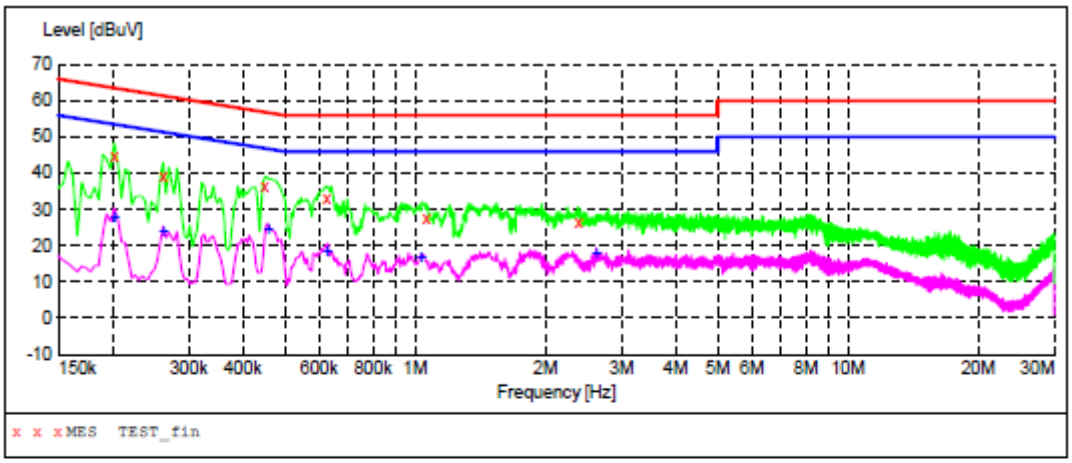
13.4. TEST RESULT OF LINE CONDUCTED EMISSION TEST

LINE CONDUCTED EMISSION TEST-L1



MEASUREMENT RESULT: "TEST_fin"

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.202000	44.70	10.1	64	18.8	QP	L1	FLO
0.262000	38.90	10.1	61	22.5	QP	L1	FLO
0.450000	36.40	10.1	57	20.5	QP	L1	FLO
0.626000	33.00	10.1	56	23.0	QP	L1	FLO
1.062000	27.30	10.2	56	28.7	QP	L1	FLO
2.386000	26.50	10.1	56	29.5	QP	L1	FLO

MEASUREMENT RESULT: "TEST_fin2"

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.202000	28.00	10.1	54	25.5	AV	L1	FLO
0.262000	24.00	10.1	51	27.4	AV	L1	FLO
0.458000	24.70	10.1	47	22.0	AV	L1	FLO
0.626000	18.90	10.1	46	27.1	AV	L1	FLO
1.034000	17.30	10.2	46	28.7	AV	L1	FLO
2.626000	18.30	10.0	46	27.7	AV	L1	FLO

RESULT: PASS

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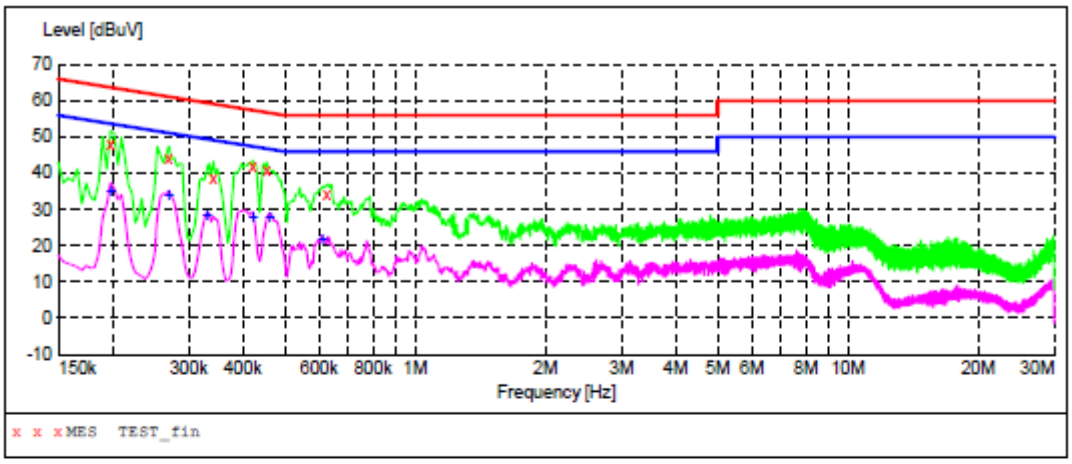
LINE CONDUCTED EMISSION TEST-N



MEASUREMENT RESULT: "TEST_fin"

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.198000	48.10	10.1	64	15.6	QP	N	FLO
0.270000	44.10	10.1	61	17.0	QP	N	FLO
0.342000	38.40	10.1	59	20.8	QP	N	FLO
0.422000	41.90	10.1	57	15.5	QP	N	FLO
0.454000	40.60	10.1	57	16.2	QP	N	FLO
0.626000	34.40	10.1	56	21.6	QP	N	FLO

MEASUREMENT RESULT: "TEST_fin2"

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.198000	35.50	10.1	54	18.2	AV	N	FLO
0.270000	34.10	10.1	51	17.0	AV	N	FLO
0.330000	28.50	10.1	50	21.0	AV	N	FLO
0.422000	28.20	10.1	47	19.2	AV	N	FLO
0.462000	28.20	10.1	47	18.5	AV	N	FLO
0.610000	21.90	10.1	46	24.1	AV	N	FLO

RESULT: PASS

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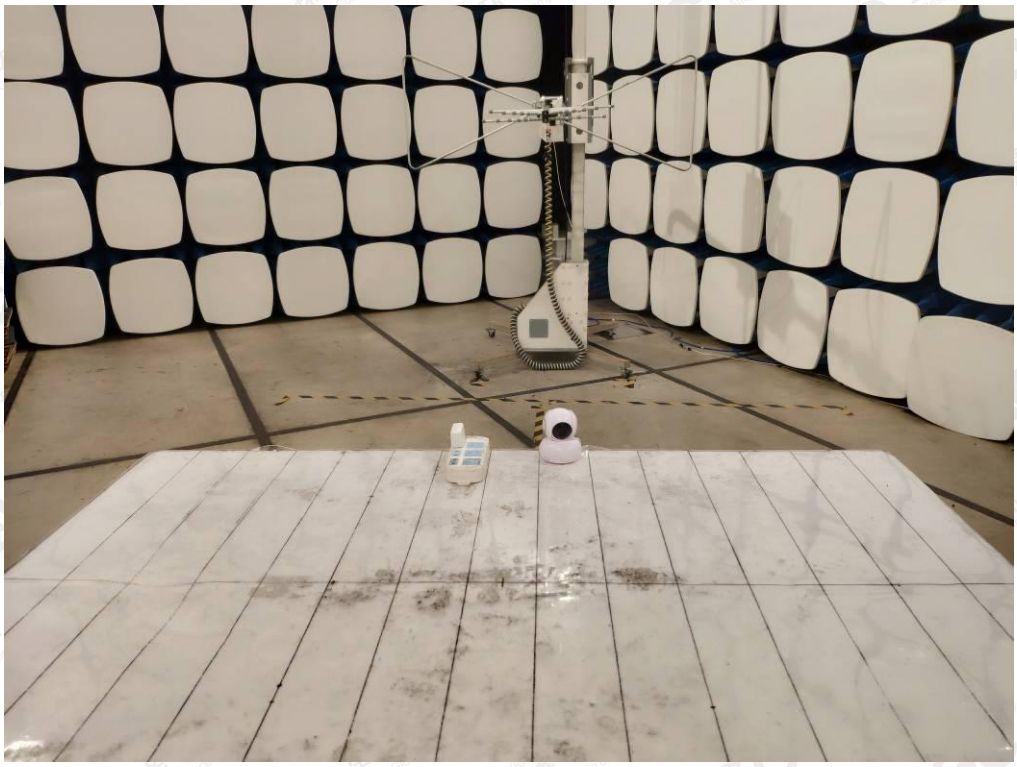
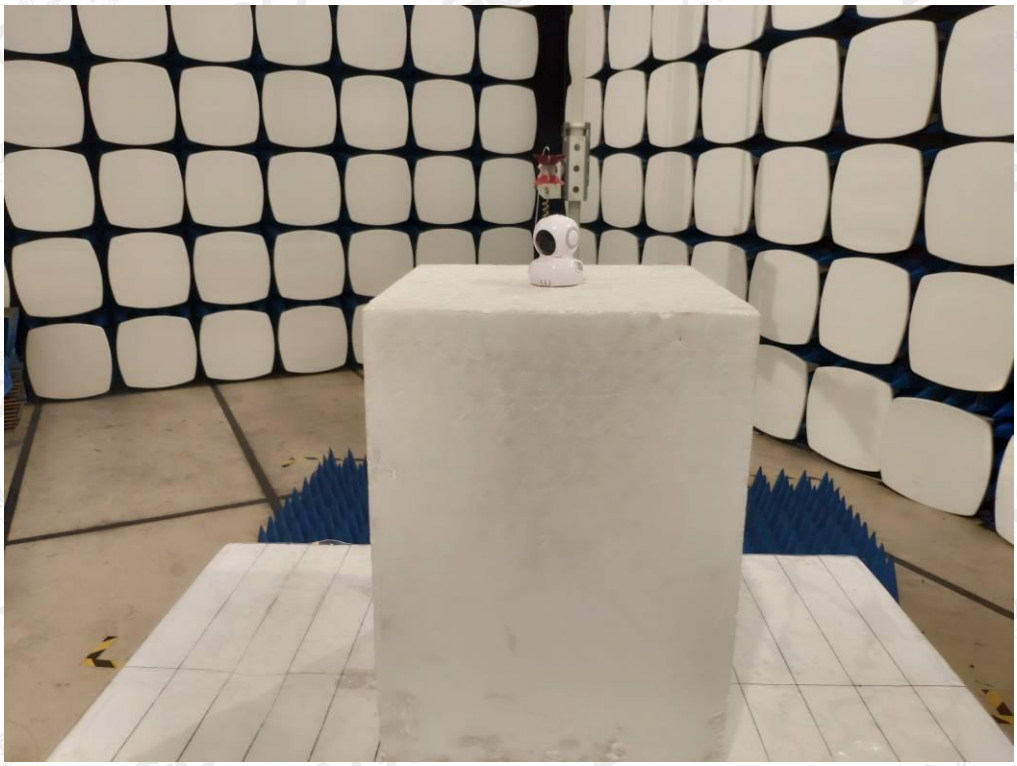
APPENDIX A: PHOTOGRAPHS OF TEST SETUP

FCC RADIATED EMISSION TEST SETUP BELOW 1GHZ



FCC RADIATED EMISSION TEST SETUP ABOVE 1GHZ



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FCC CONDUCTED EMISSION TEST SETUP

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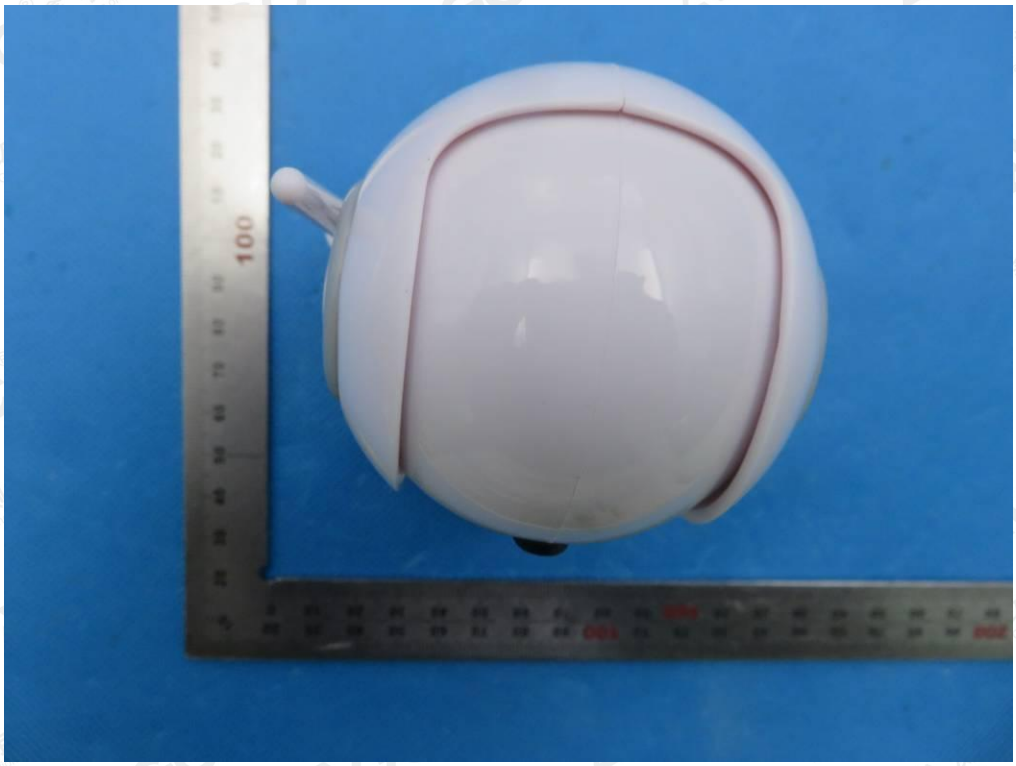
APPENDIX B: PHOTOGRAPHS OF EUT

ALL VIEW OF EUT

TOP VIEW OF EUT



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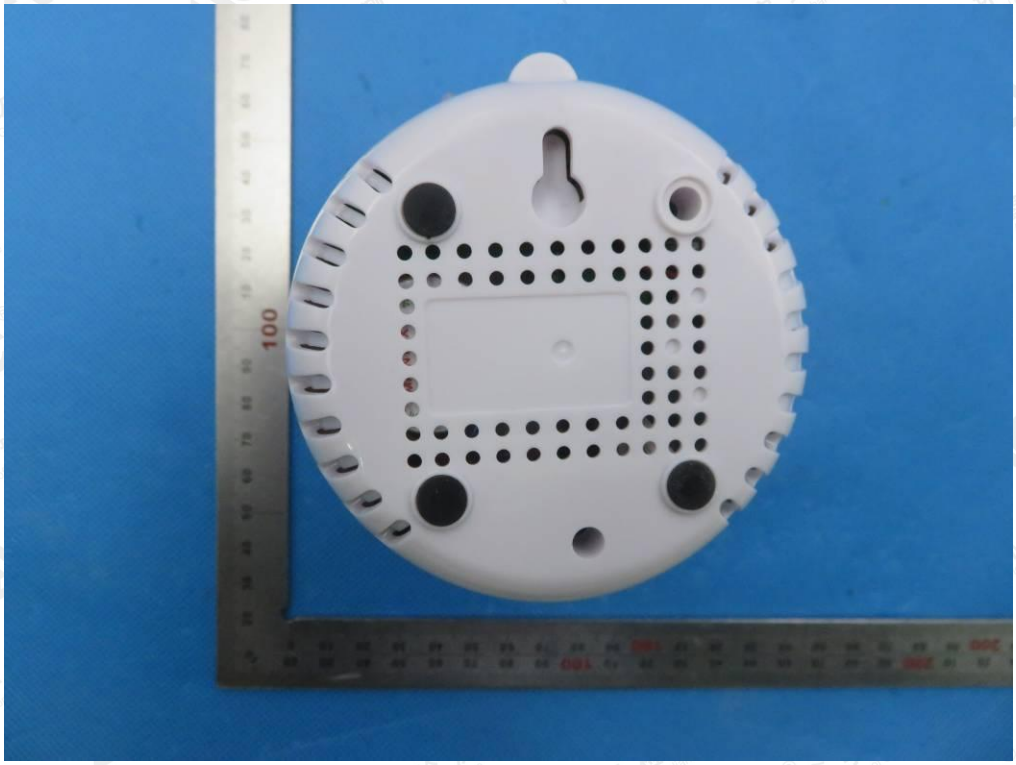
BOTTOM VIEW OF EUT



FRONT VIEW OF EUT

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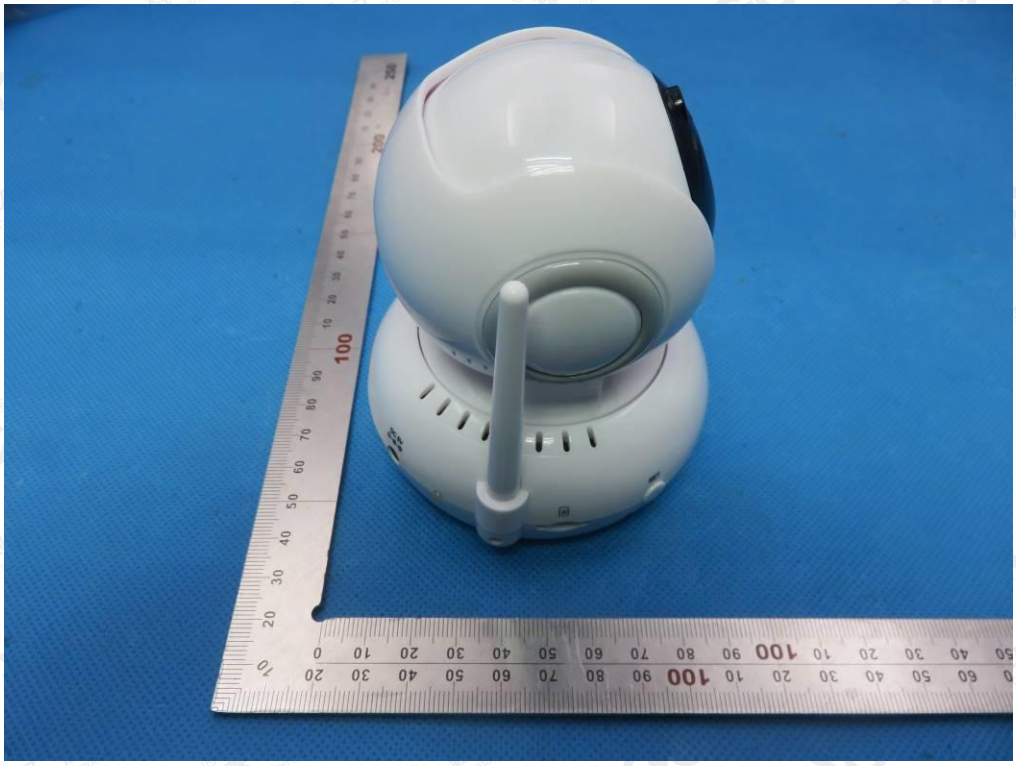
BACK VIEW OF EUT

LEFT VIEW OF EUT



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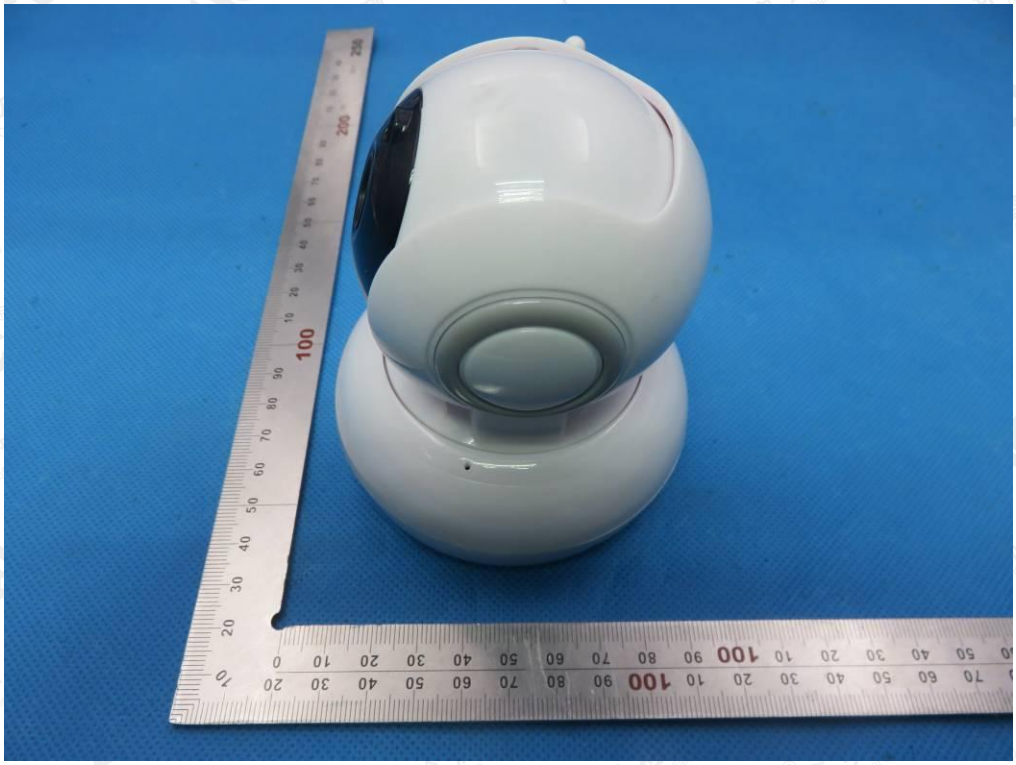
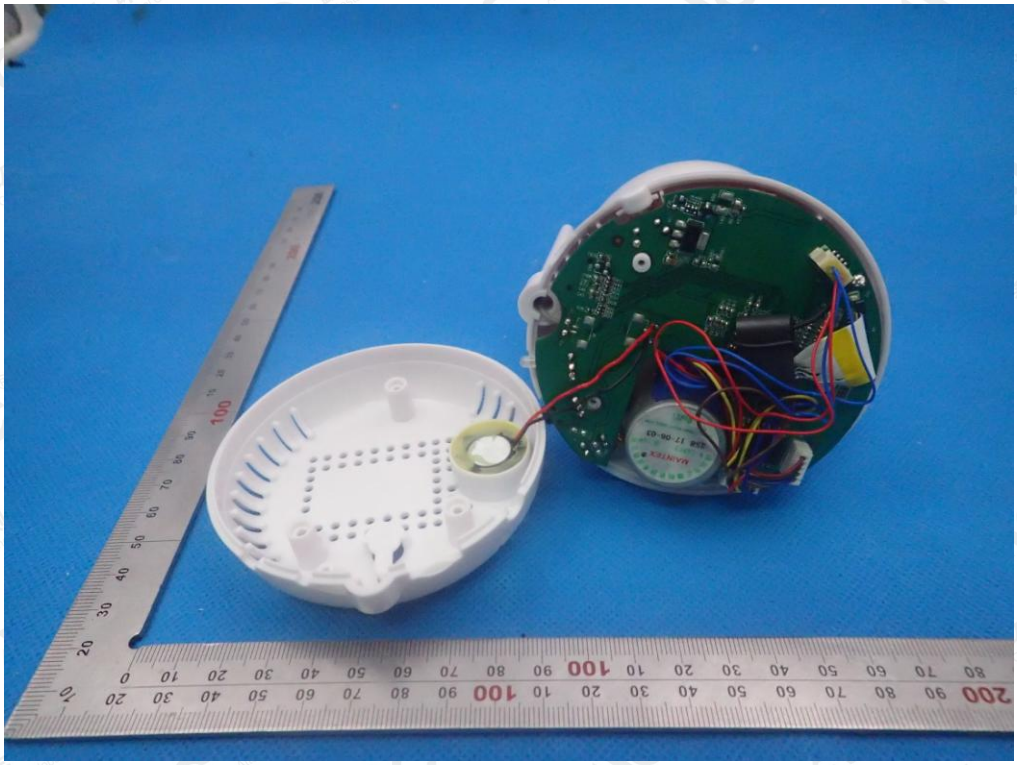
RIGHT VIEW OF EUT



OPEN VIEW-1 OF EUT



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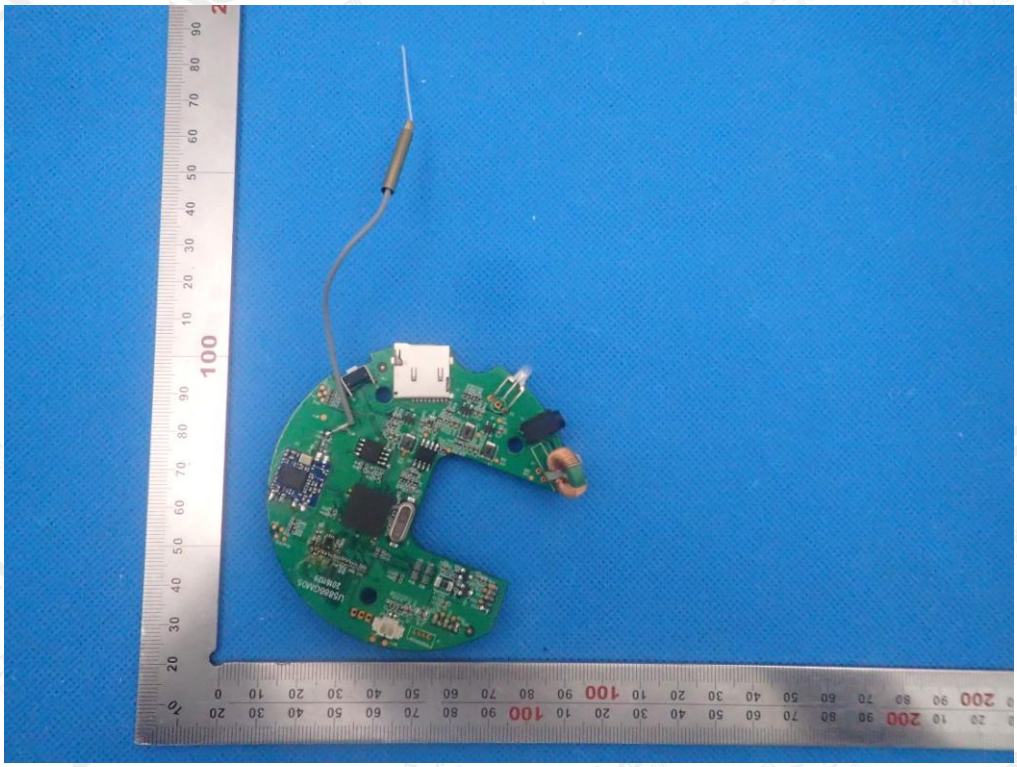
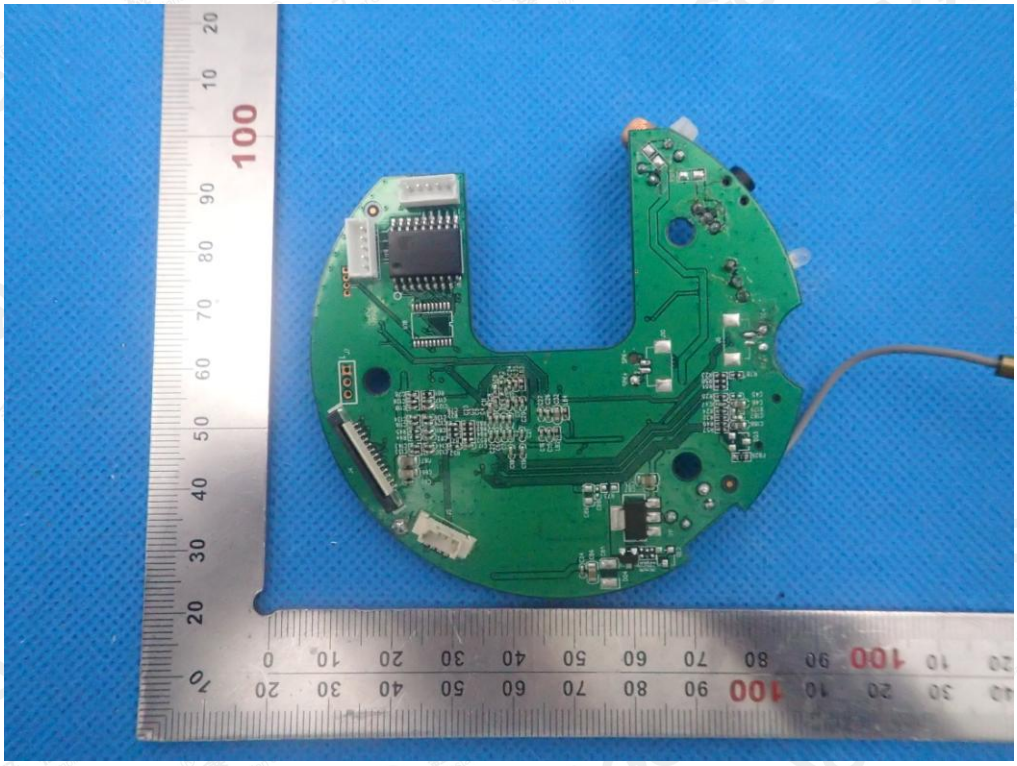
INTERNAL VIEW-1 OF EUT



INTERNAL VIEW-2 OF EUT



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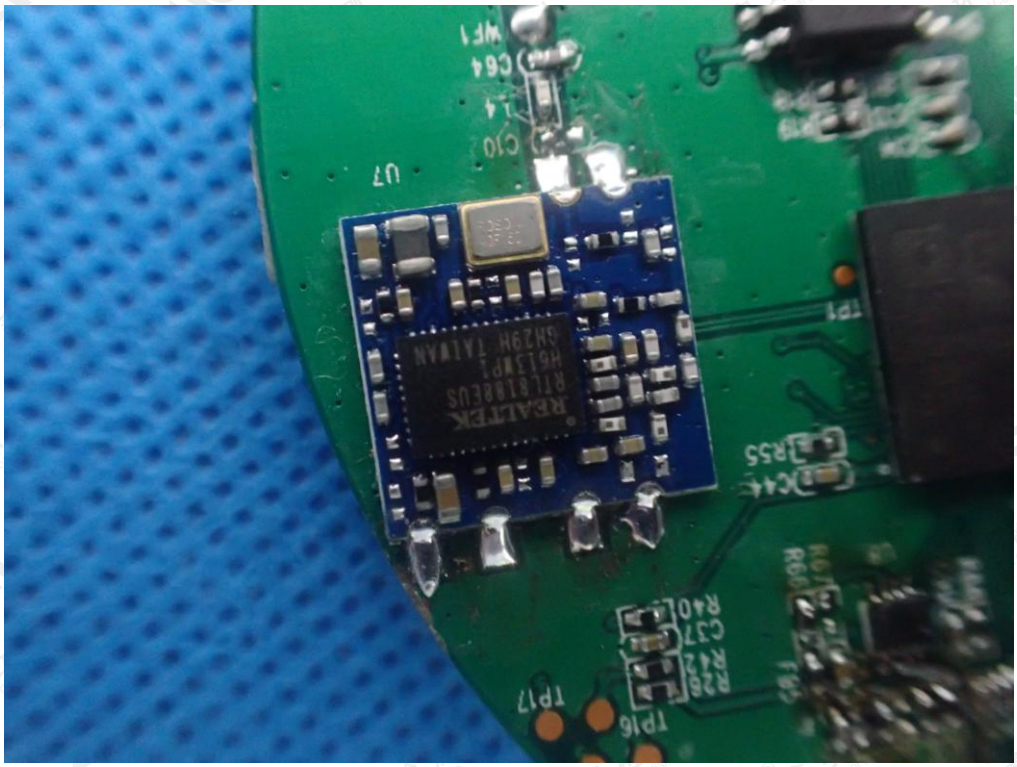
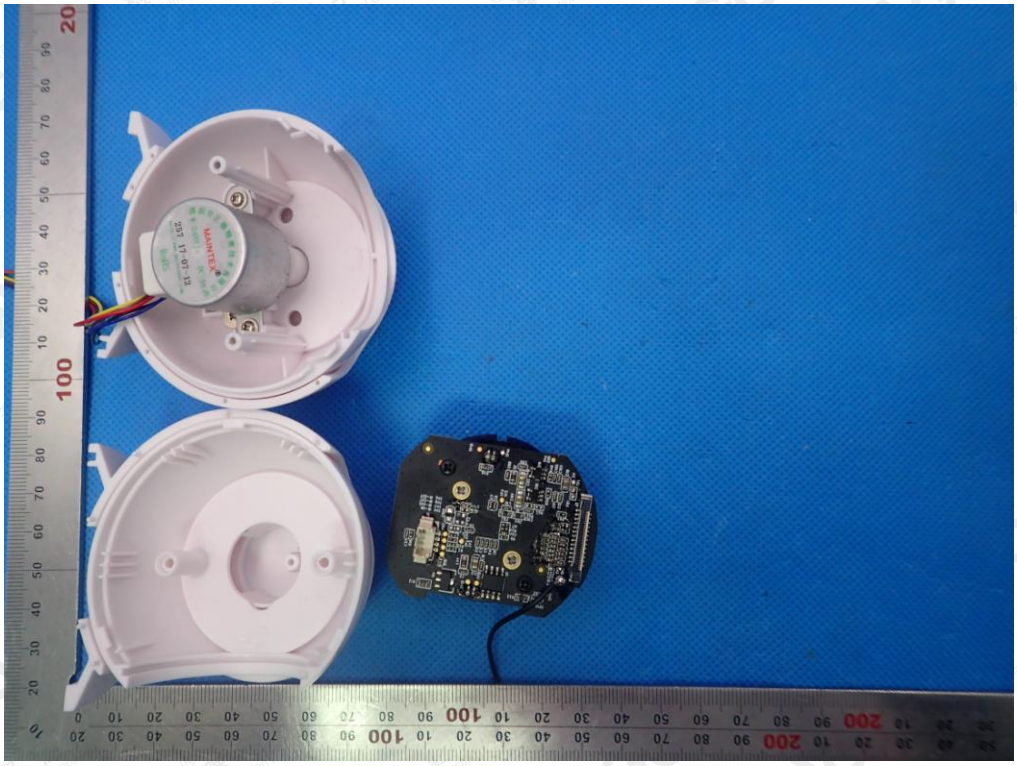
INTERNAL VIEW-3 OF EUT



INTERNAL VIEW-4 OF EUT



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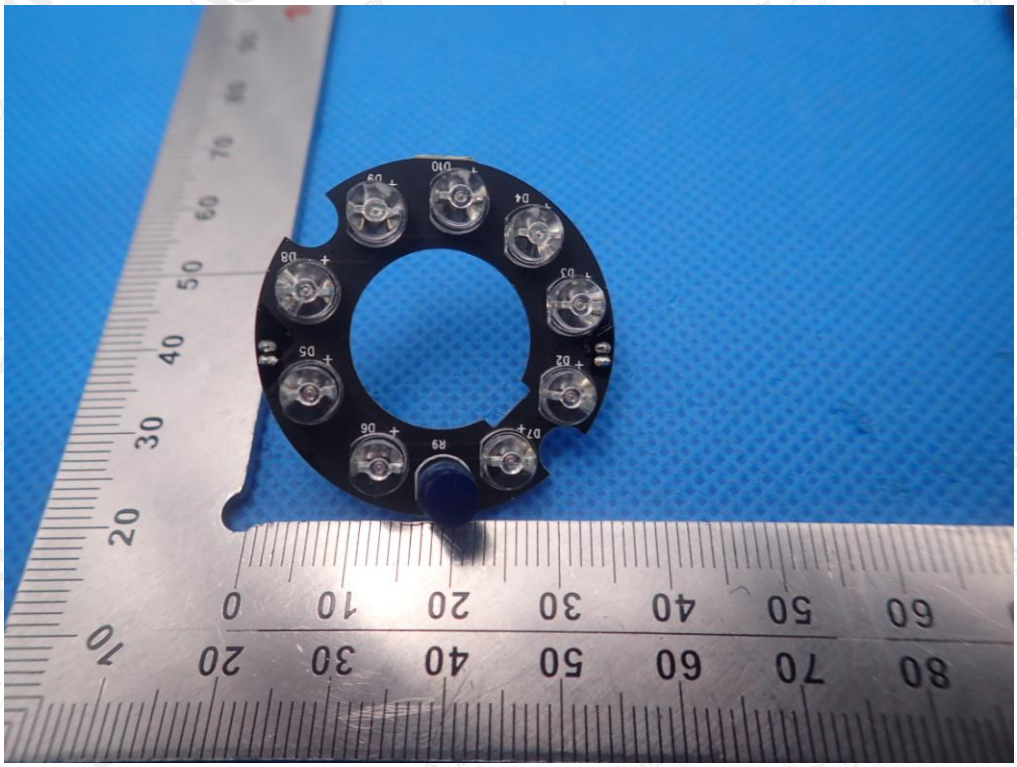
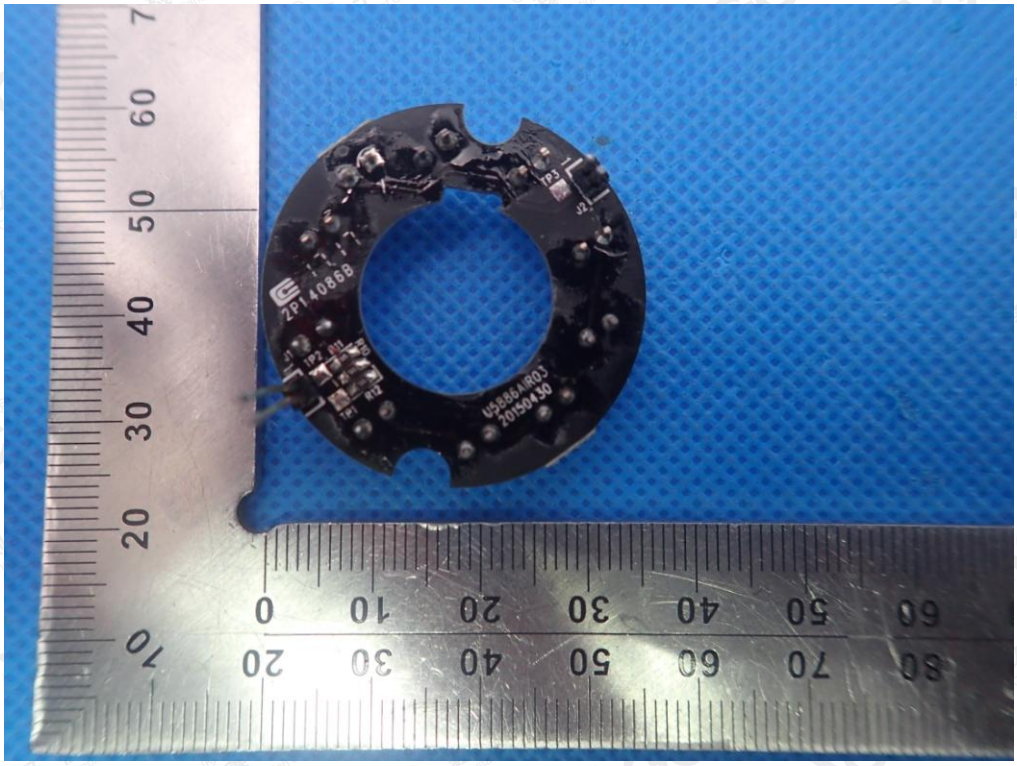
INTERNAL VIEW-5 OF EUT



INTERNAL VIEW-6 OF EUT



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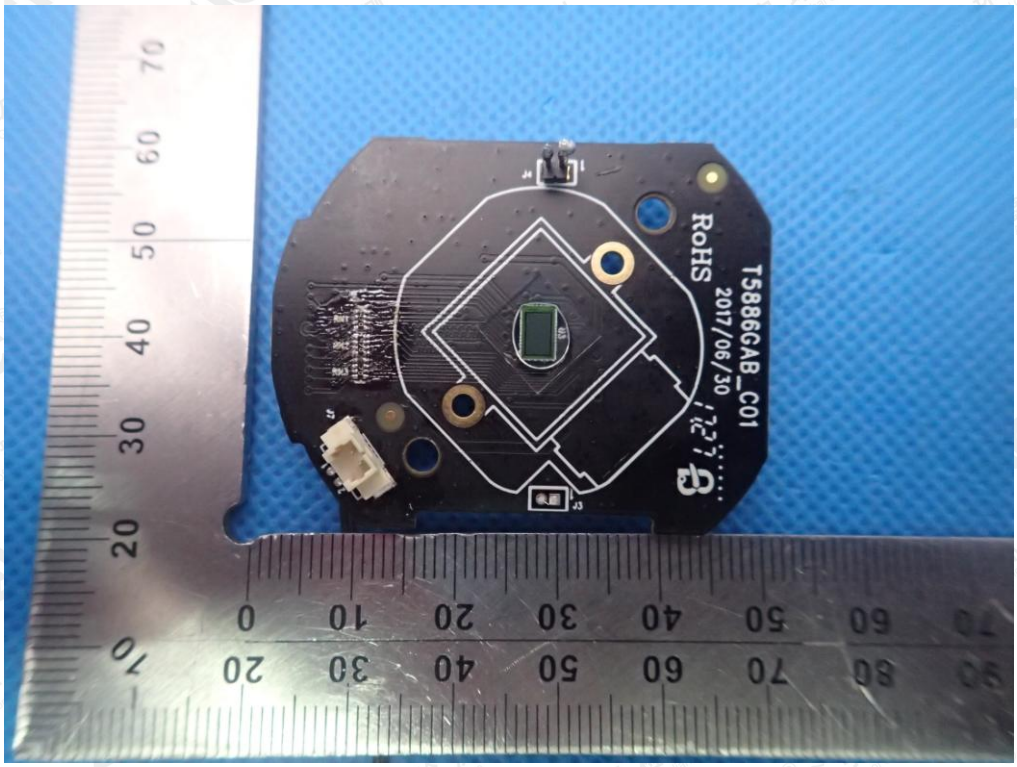
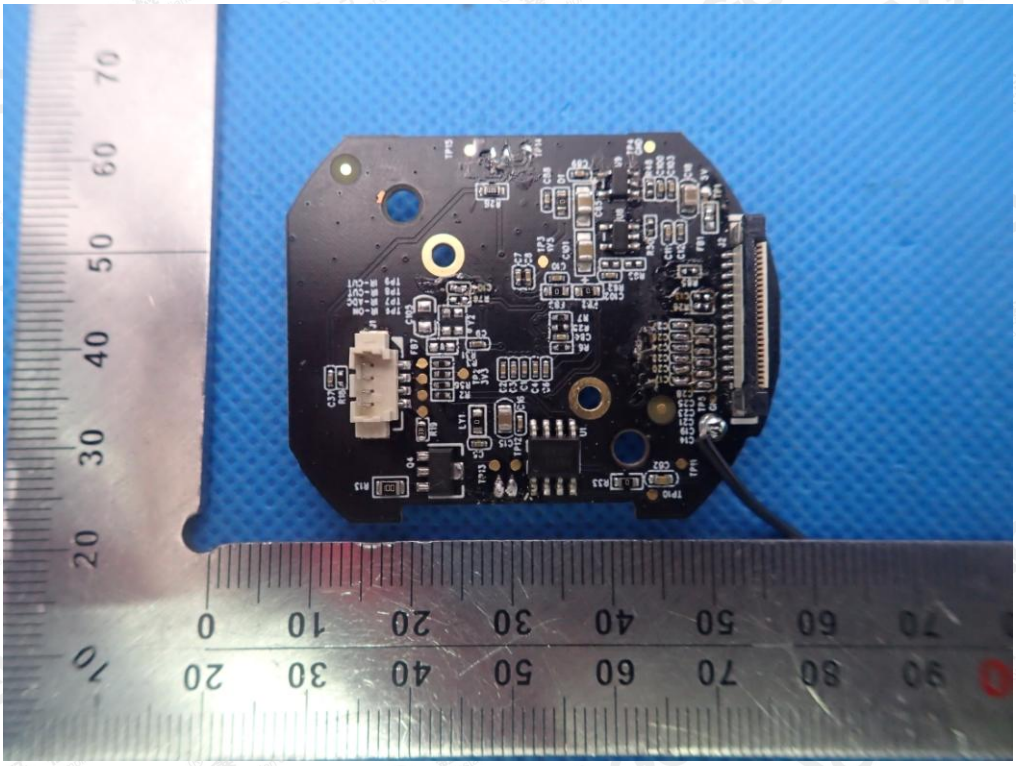
INTERNAL VIEW-7 OF EUT



INTERNAL VIEW-8 OF EUT



----END OF REPORT----

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