

RADIATED EMISSION ABOVE 1GHZ

EUT	Wireless Smart Battery Camera	Model Name	CG1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2412MHZ	Antenna	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
4824.000	52.97	0.08	53.05	74	-20.95	peak
4824.000	49.16	0.08	49.24	54	-4.76	AVG
7236.000	46.98	2.21	49.19	74	-24.81	peak
7236.000	42.32	2.21	44.53	54	-9.47	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

EUT	Wireless Smart Battery Camera	Model Name	CG1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2412MHZ	Antenna	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
4824.000	51.41	0.08	51.49	74	-22.51	peak
4824.000	47.04	0.08	47.12	54	-6.88	AVG
7236.000	43.55	2.21	45.76	74	-28.24	peak
7236.000	39.66	2.21	41.87	54	-12.13	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

EUT	Wireless Smart Battery Camera	Model Name	CG1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2437MHZ	Antenna	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
4874.000	52.11	0.14	52.25	74	-21.75	peak
4874.000	47.87	0.14	48.01	54	-5.99	AVG
7311.000	46.77	2.36	49.13	74	-24.87	peak
7311.000	41.89	2.36	44.25	54	-9.75	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

EUT	Wireless Smart Battery Camera	Model Name	CG1
Temperature	25°C	Relative Humidity	55.4%
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Test Mode	802.11b with date rate 1 2437MHZ	Antenna	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
4874.000	51.07	0.14	51.21	74	-22.79	peak
4874.000	45.89	0.14	46.03	54	-7.97	AVG
7311.000	45.13	2.36	47.49	74	-26.51	peak
7311.000	40.35	2.36	42.71	54	-11.29	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

EUT	Wireless Smart Battery Camera	Model Name	CG1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2462MHZ	Antenna	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
4924.000	51.71	0.22	51.93	74	-22.07	peak
4924.000	46.83	0.22	47.05	54	-6.95	AVG
7386.000	44.32	2.64	46.96	74	-27.04	peak
7386.000	40.51	2.64	43.15	54	-10.85	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

EUT	Wireless Smart Battery Camera	Model Name	CG1
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Test Mode	802.11b with data rate 1 2462MHZ	Antenna	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
4924.000	49.33	0.22	49.55	74	-24.45	peak
4924.000	44.79	0.22	45.01	54	-8.99	AVG
7386.000	42.11	2.64	44.75	74	-29.25	peak
7386.000	36.77	2.64	39.41	54	-14.59	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

RESULT: PASS

Note:

Other emissions from 1G to 25 GHz are considered as ambient noise. No recording in the test report.
Factor = Antenna Factor + Cable loss - Amplifier gain, Over=Measure-Limit.
The "Factor" value can be calculated automatically by software of measurement system.
All test modes had been pre-tested. The 802.11b mode is the worst case and recorded in the report.

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:

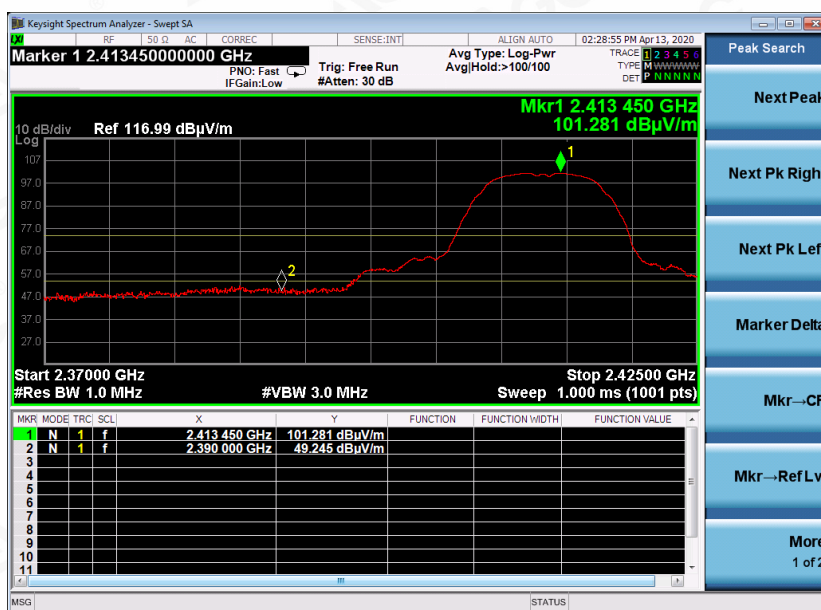
1. Factor=Antenna Factor + Cable loss - Amplifier gain. Field Strength=Factor + Reading level
2. The factor had been edited in the "Input Correction" of the Spectrum Analyzer. So the Amplitude of test plots is equal to Reading level plus the Factor in dB. Use the A dB(μ V) to represent the Amplitude.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



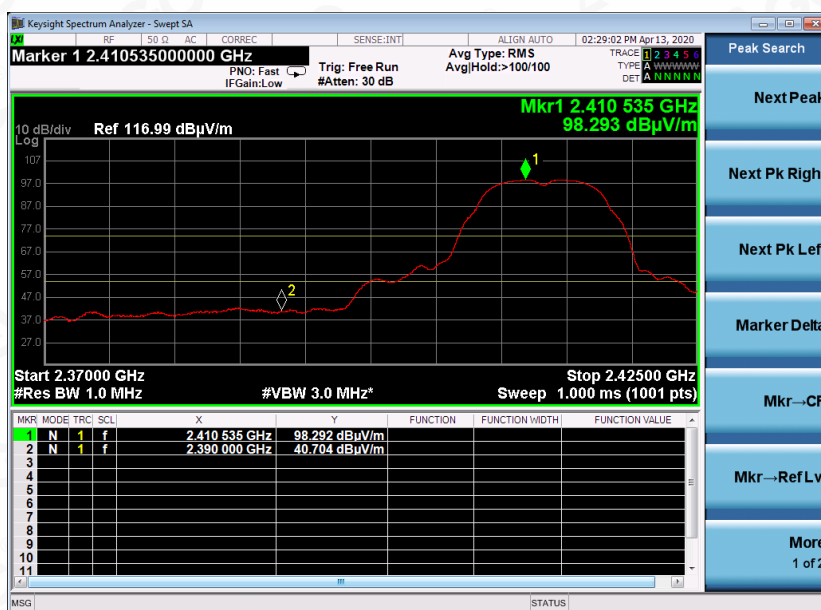
12.3. TEST RESULT

EUT	Wireless Smart Battery Camera	Model Name	CG1
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



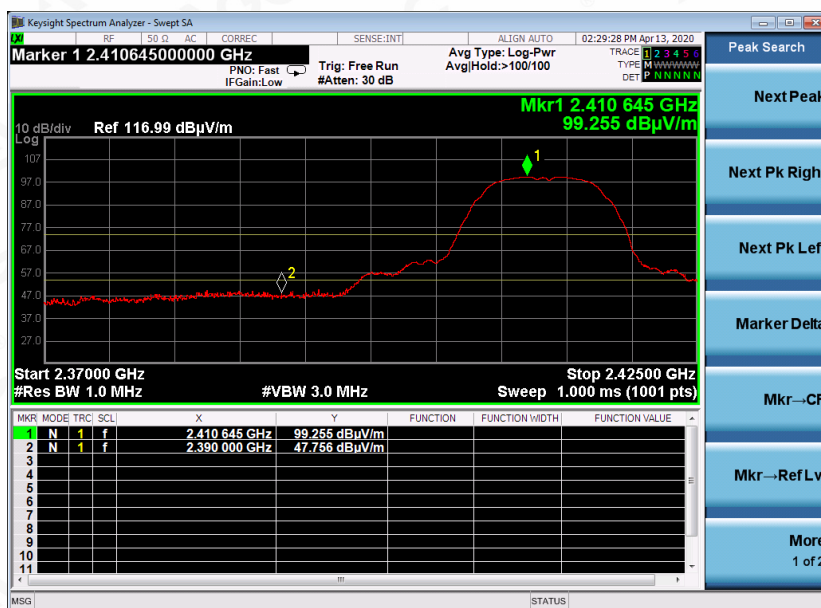
AV



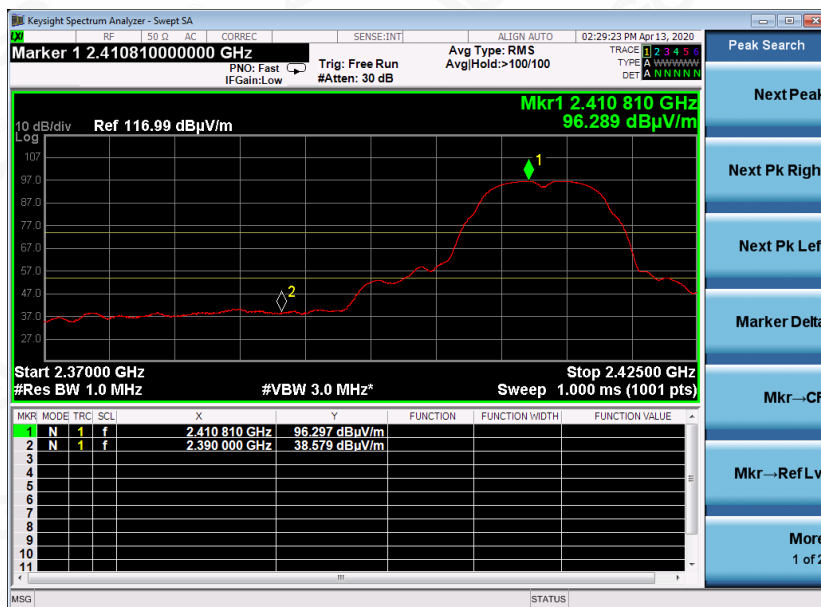
RESULT: PASS

EUT	Wireless Smart Battery Camera	Model Name	CG1
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

EUT	Wireless Smart Battery Camera	Model Name	CG1
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



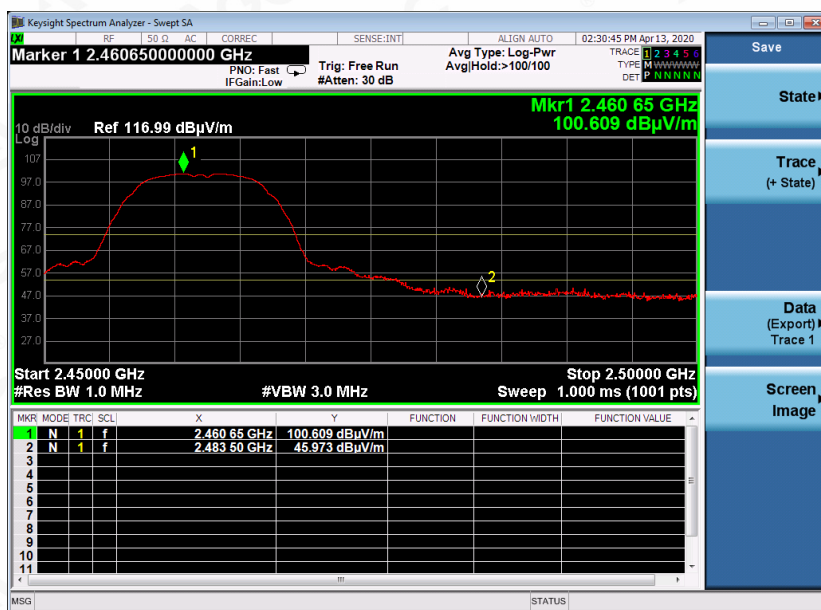
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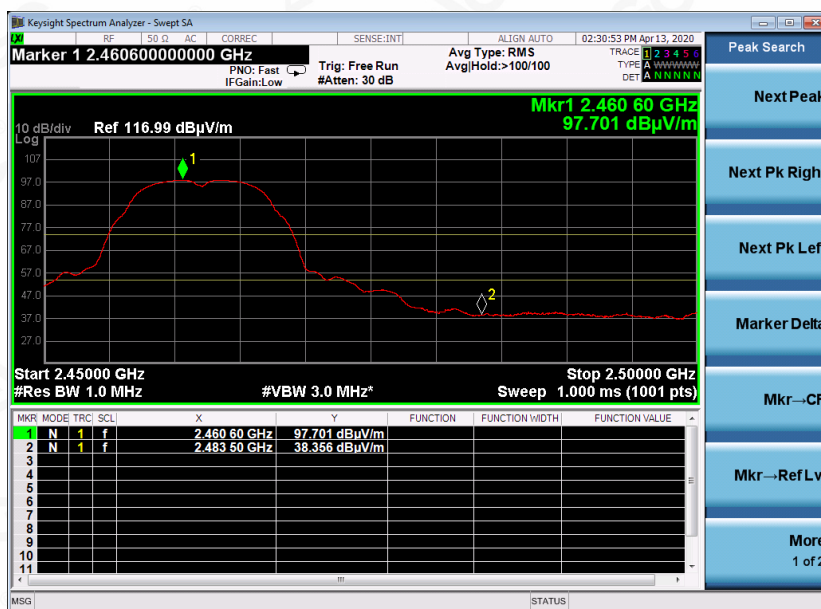
RESULT: PASS

EUT	Wireless Smart Battery Camera	Model Name	CG1
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

EUT	Wireless Smart Battery Camera	Model Name	CG1
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



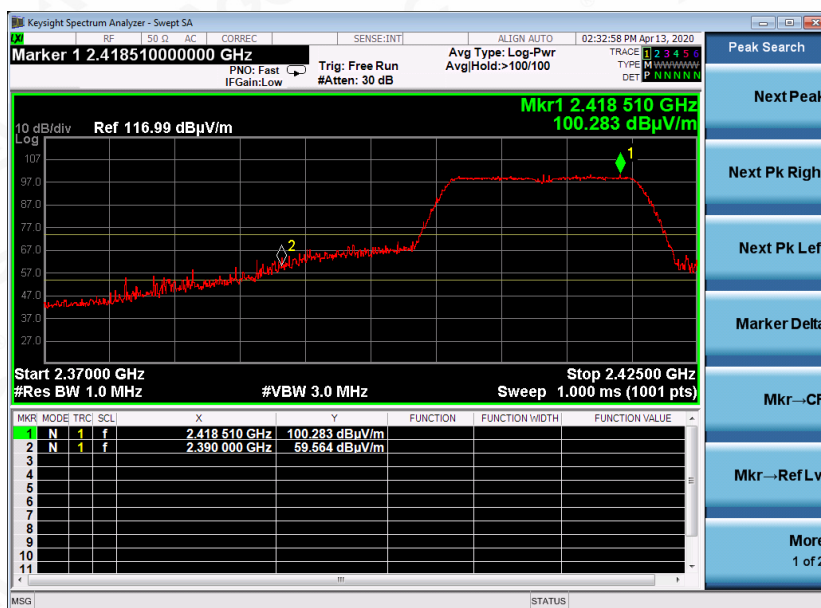
AV



RESULT: PASS

EUT	Wireless Smart Battery Camera	Model Name	CG1
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

EUT	Wireless Smart Battery Camera	Model Name	CG1
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

EUT	Wireless Smart Battery Camera	Model Name	CG1
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



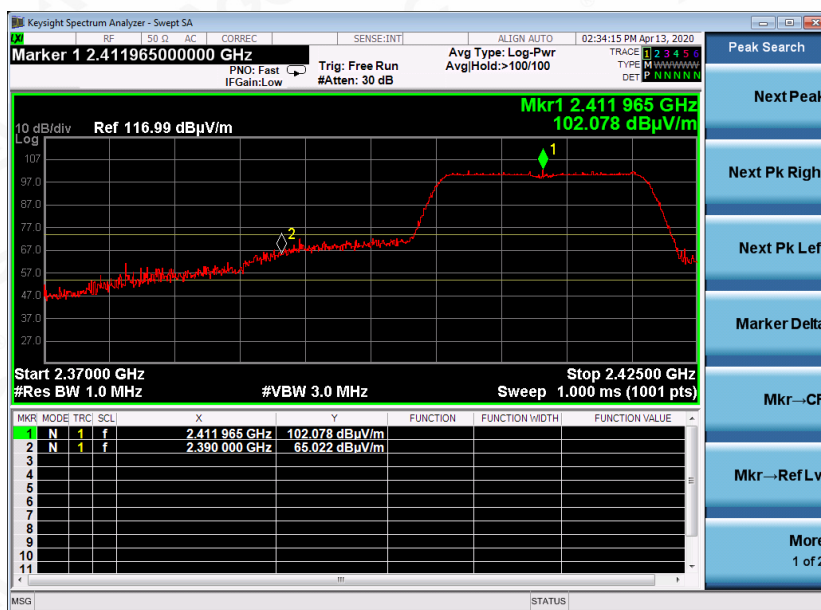
AV



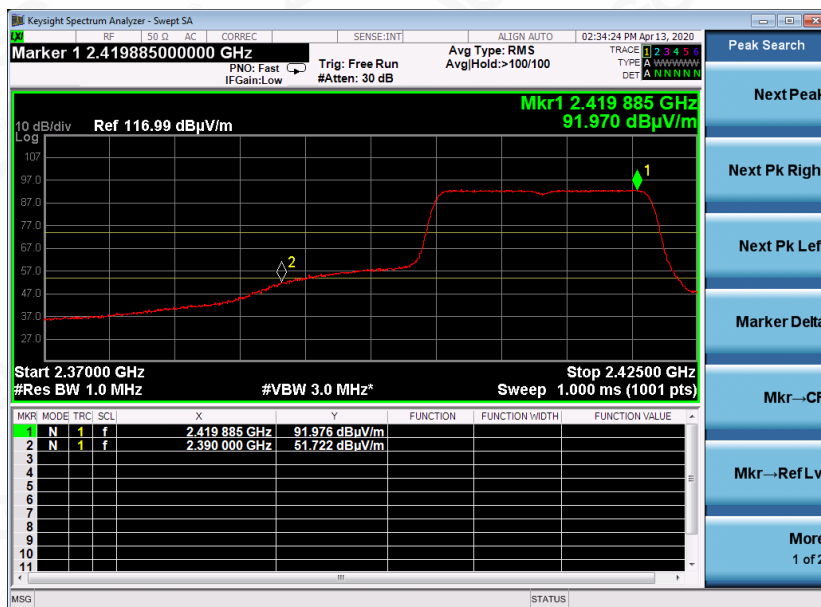
RESULT: PASS

EUT	Wireless Smart Battery Camera	Model Name	CG1
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



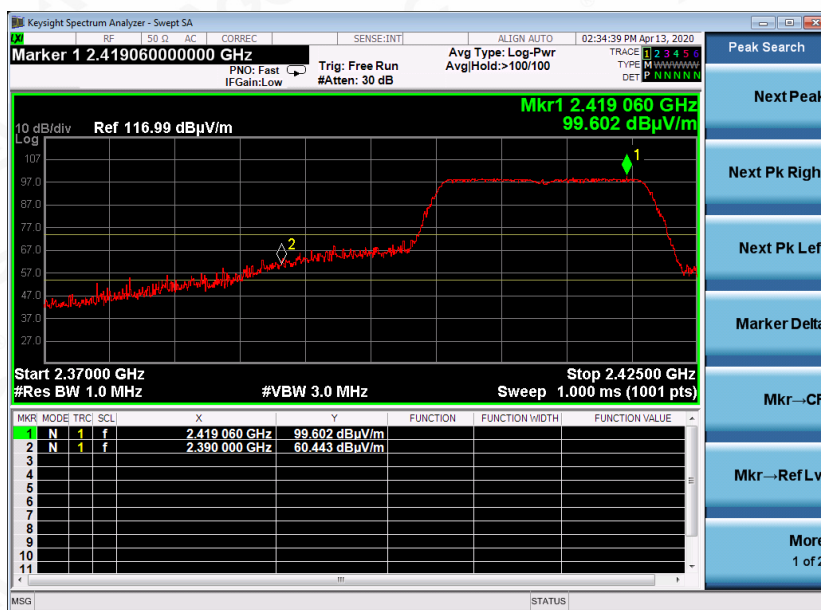
AV



RESULT: PASS

EUT	Wireless Smart Battery Camera	Model Name	CG1
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



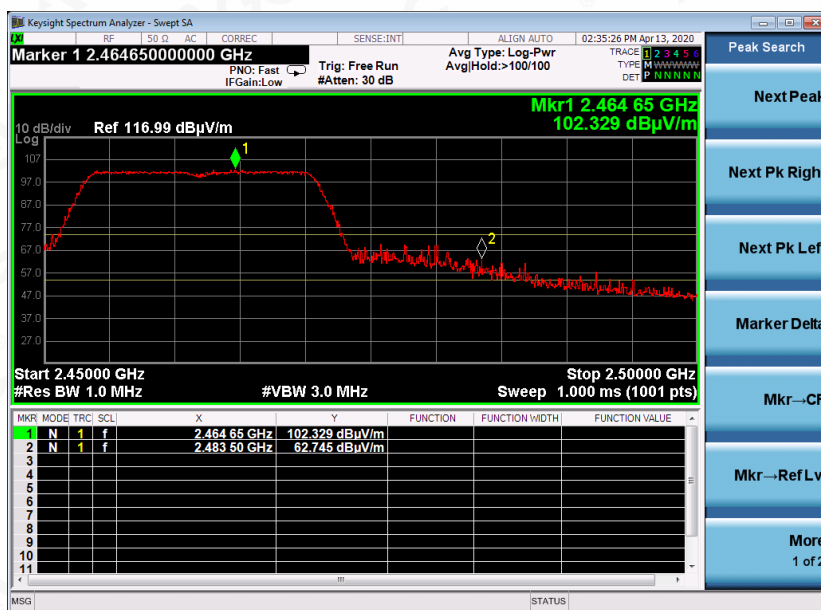
AV



RESULT: PASS

EUT	Wireless Smart Battery Camera	Model Name	CG1
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

EUT	Wireless Smart Battery Camera	Model Name	CG1
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



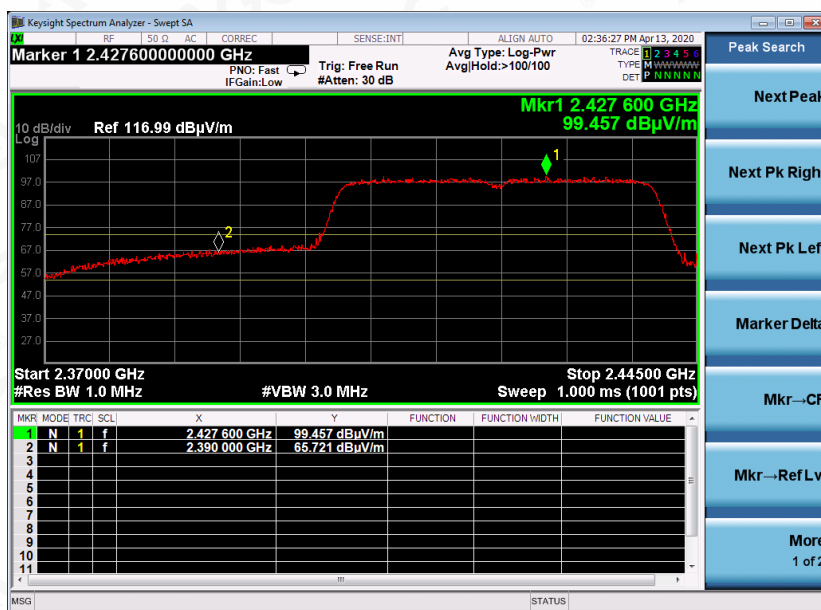
AV



RESULT: PASS

EUT	Wireless Smart Battery Camera	Model Name	CG1
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

EUT	Wireless Smart Battery Camera	Model Name	CG1
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



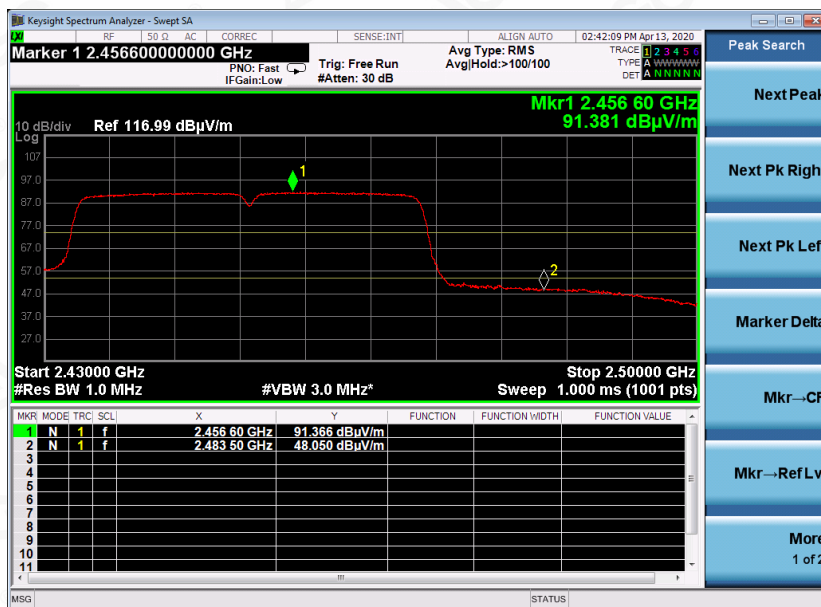
RESULT: PASS

EUT	Wireless Smart Battery Camera	Model Name	CG1
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

EUT	Wireless Smart Battery Camera	Model Name	CG1
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

13. FCC LINE CONDUCTED EMISSION TEST

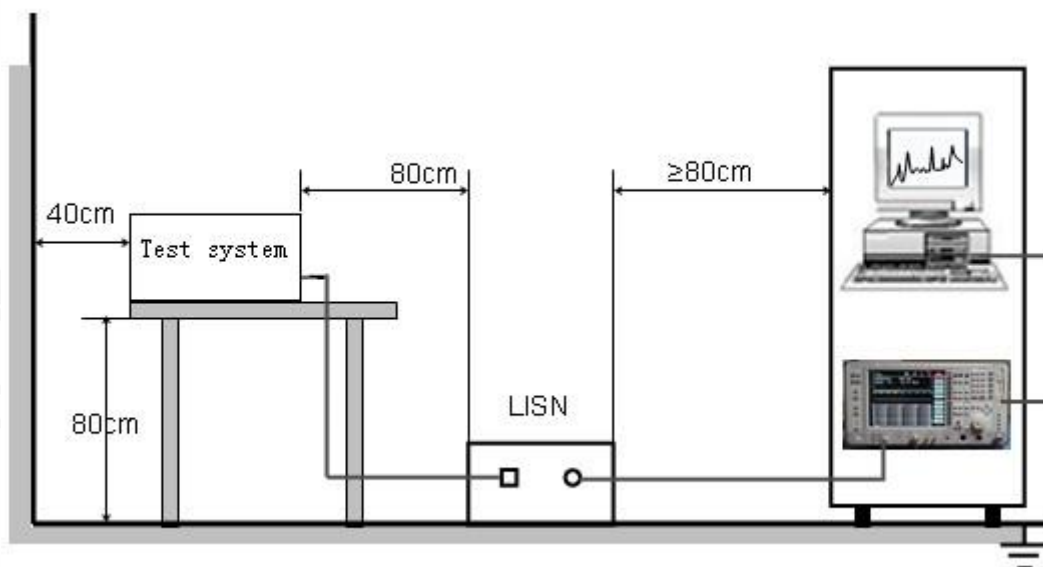
13.1. LIMITS OF LINE CONDUCTED EMISSION TEST

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



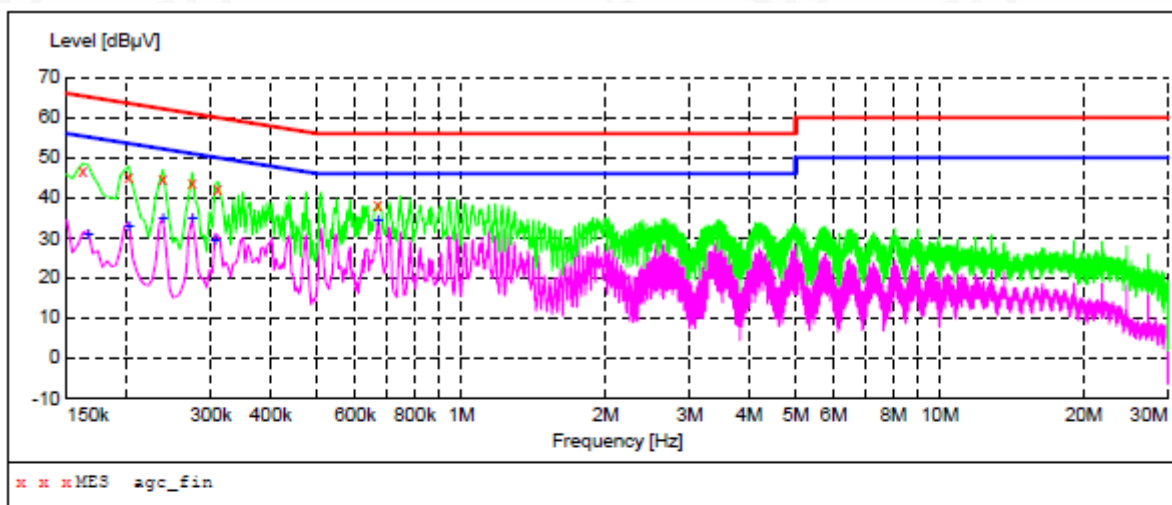
13.3. PROCEDURE OF LINE CONDUCTED EMISSION TEST

- (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 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.



13.4. TEST RESULT OF LINE CONDUCTED EMISSION TEST

LINE CONDUCTED EMISSION TEST-L1



MEASUREMENT RESULT: "agc_fin"

2020/4/8 17:50

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.162000	46.80	11.3	65	18.6	QP	L1	FLO
0.202000	45.20	11.3	64	18.3	QP	L1	FLO
0.238000	44.80	11.3	62	17.4	QP	L1	FLO
0.274000	43.90	11.3	61	17.1	QP	L1	FLO
0.310000	42.40	11.3	60	17.6	QP	L1	FLO
0.670000	38.00	11.3	56	18.0	QP	L1	FLO

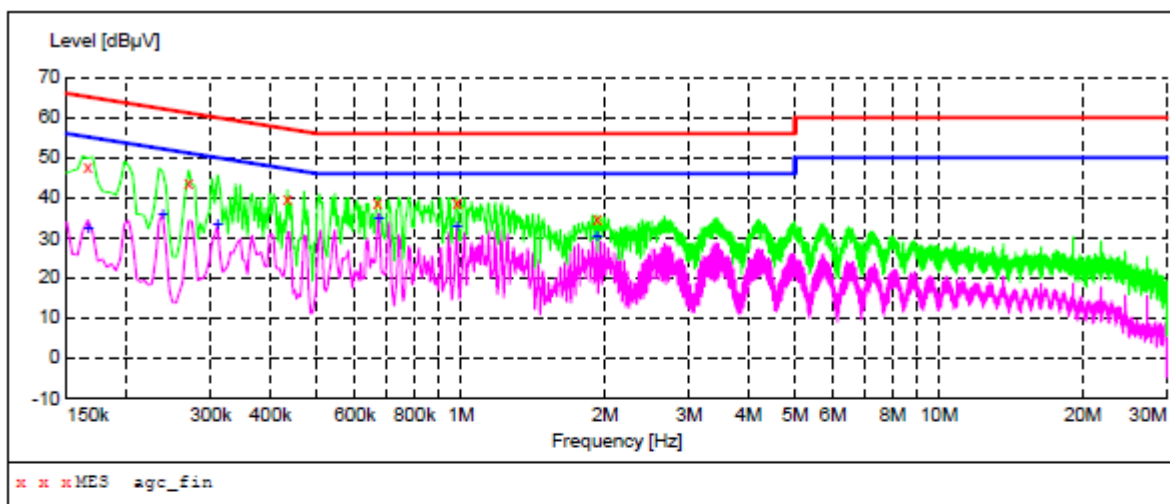
MEASUREMENT RESULT: "agc_fin2"

2020/4/8 17:50

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.166000	30.80	11.3	55	24.4	AV	L1	FLO
0.202000	32.60	11.3	54	20.9	AV	L1	FLO
0.238000	34.50	11.3	52	17.7	AV	L1	FLO
0.274000	34.50	11.3	51	16.5	AV	L1	FLO
0.306000	29.00	11.3	50	21.1	AV	L1	FLO
0.670000	34.00	11.3	46	12.0	AV	L1	FLO

RESULT: PASS

LINE CONDUCTED EMISSION TEST-N



MEASUREMENT RESULT: "agc_fin"

2020/4/8 17:46

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.166000	47.50	11.3	65	17.7	QP	N	FLO
0.270000	43.90	11.3	61	17.2	QP	N	FLO
0.434000	39.90	11.3	57	17.3	QP	N	FLO
0.670000	38.90	11.3	56	17.1	QP	N	FLO
0.982000	38.80	11.3	56	17.2	QP	N	FLO
1.926000	34.60	11.3	56	21.4	QP	N	FLO

MEASUREMENT RESULT: "agc_fin2"

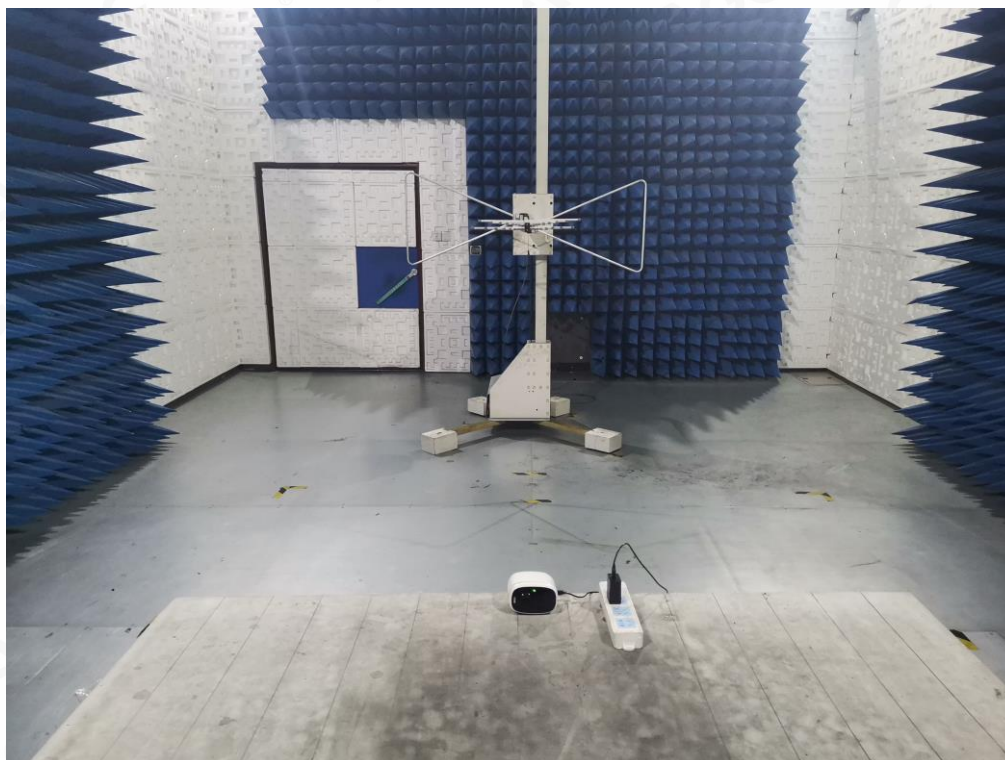
2020/4/8 17:46

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.166000	32.20	11.3	55	23.0	AV	N	FLO
0.238000	35.50	11.3	52	16.7	AV	N	FLO
0.310000	33.20	11.3	50	16.8	AV	N	FLO
0.674000	34.90	11.3	46	11.1	AV	N	FLO
0.982000	32.50	11.3	46	13.5	AV	N	FLO
1.926000	30.30	11.3	46	15.7	AV	N	FLO



APPENDIX A: PHOTOGRAPHS OF TEST SETUP

FCC RADIATED EMISSION TEST SETUP BELOW 1GHZ



FCC RADIATED EMISSION TEST SETUP ABOVE 1GHZ



FCC CONDUCTED EMISSION TEST SETUP



APPENDIX B: PHOTOGRAPHS OF EUT

TOP VIEW OF EUT



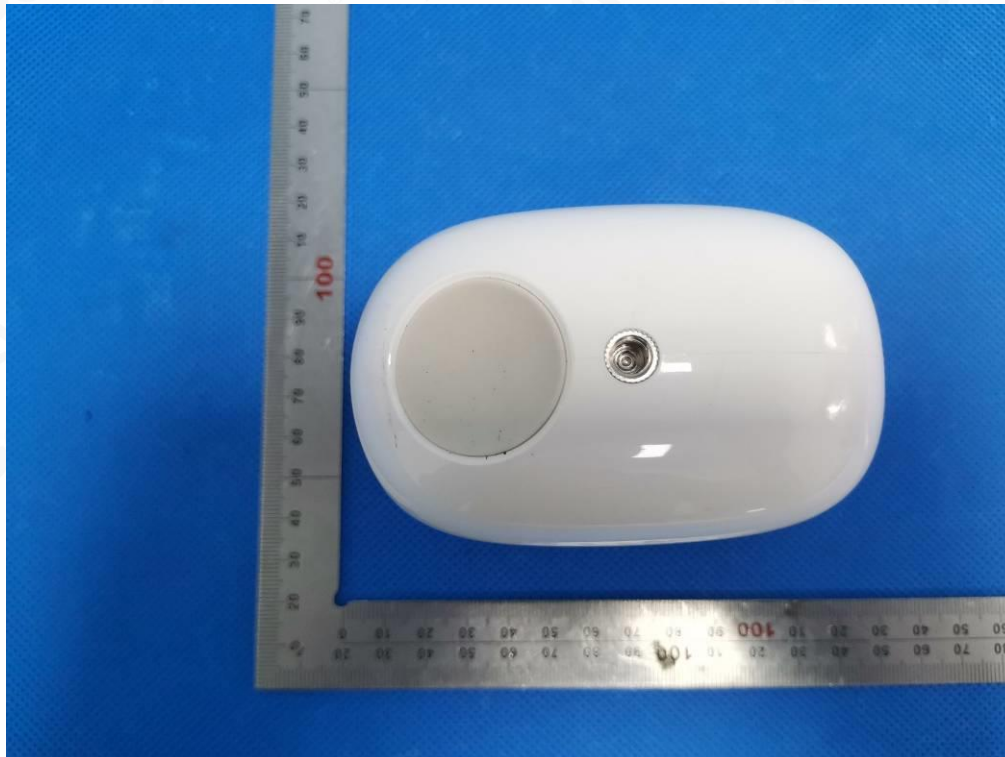
BOTTOM VIEW OF EUT



FRONT VIEW OF EUT



BACK VIEW OF EUT



LEFT VIEW OF EUT



RIGHT VIEW OF EUT



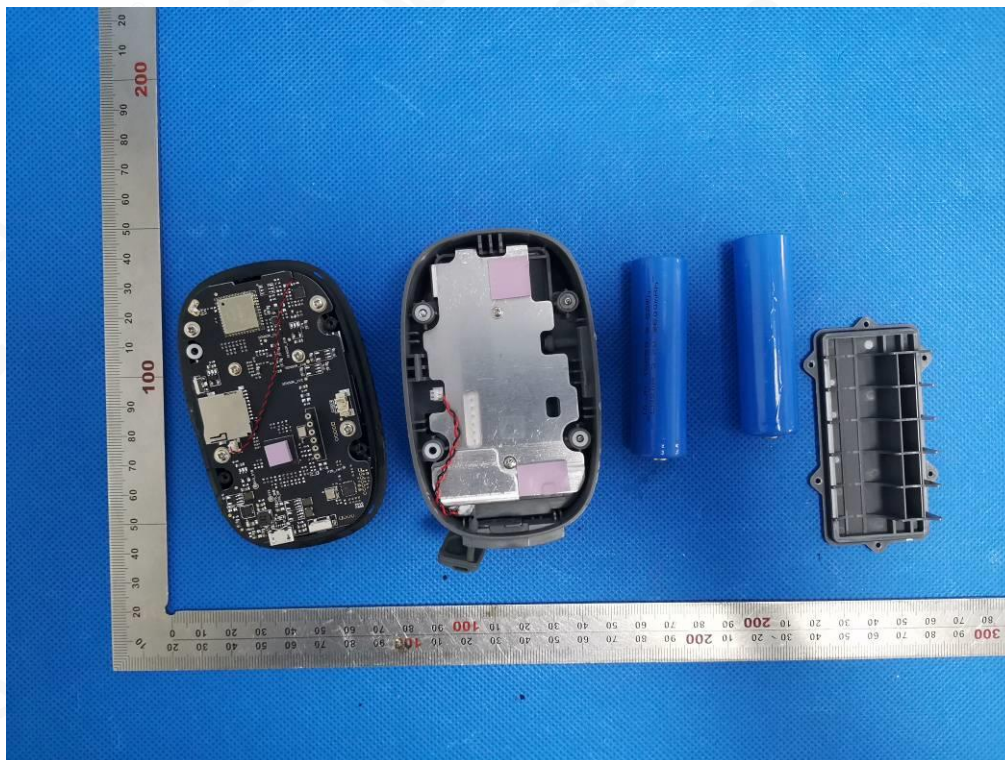
VIEW OF EUT(PORT)



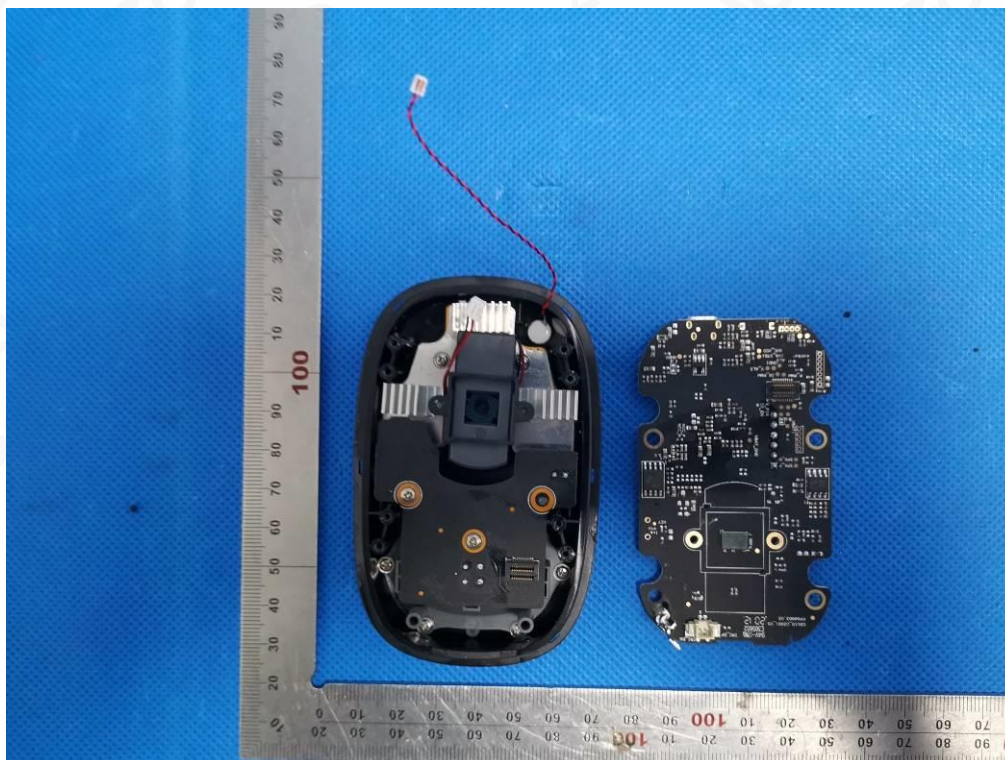
OPEN VIEW OF EUT-1



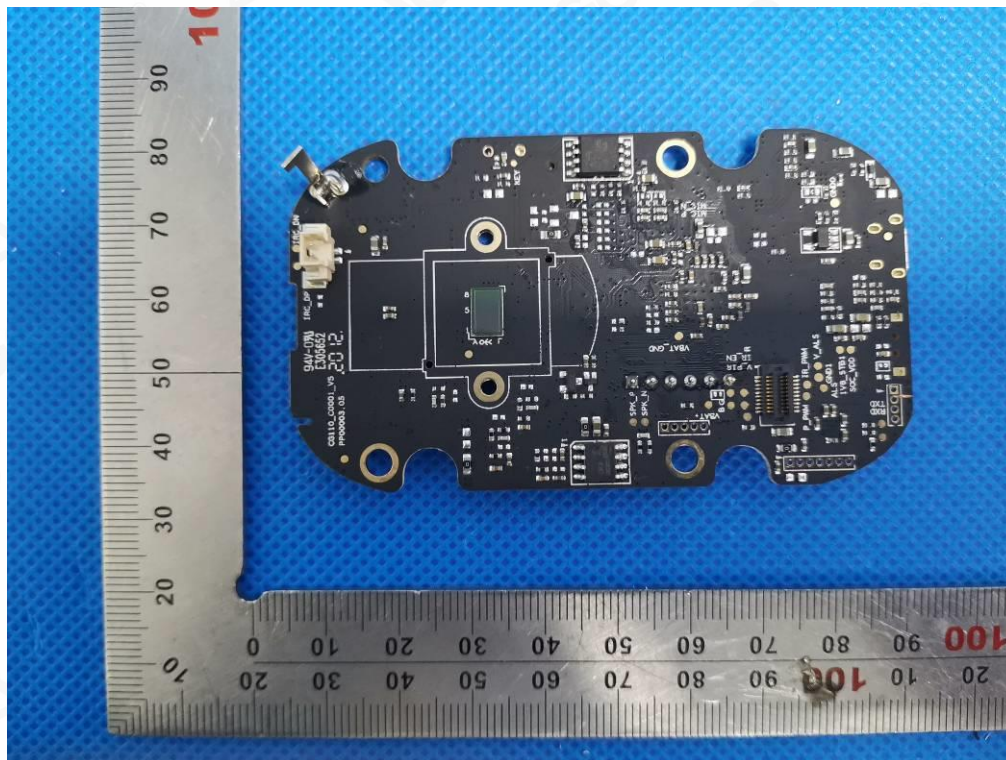
OPEN VIEW OF EUT-2



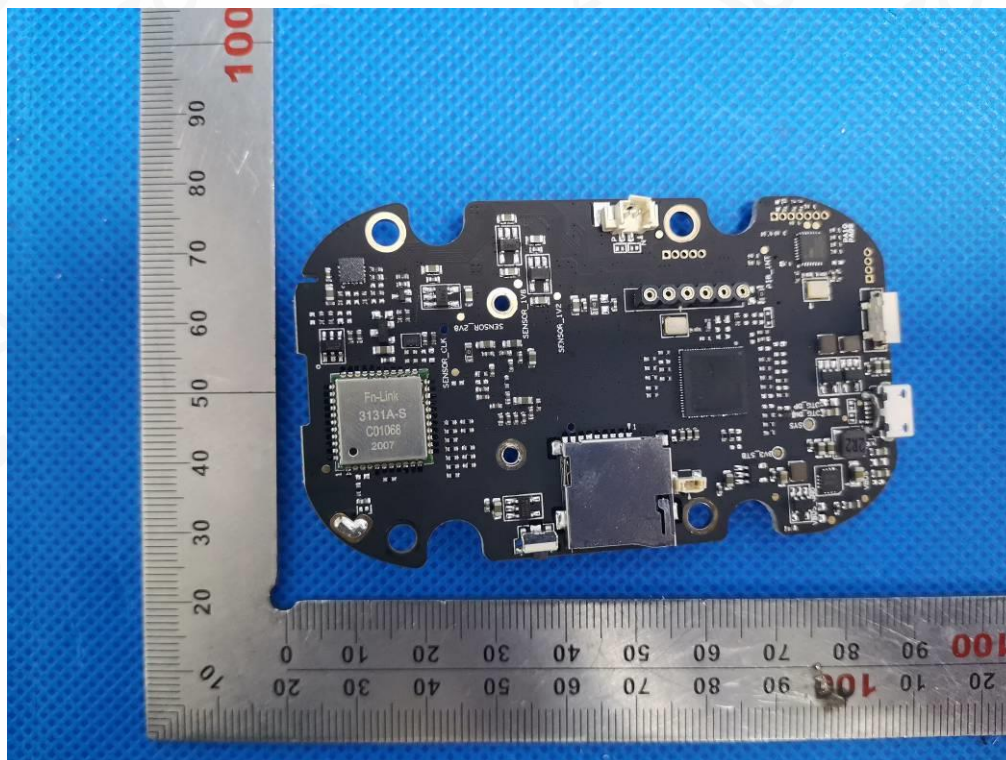
OPEN VIEW OF EUT-3



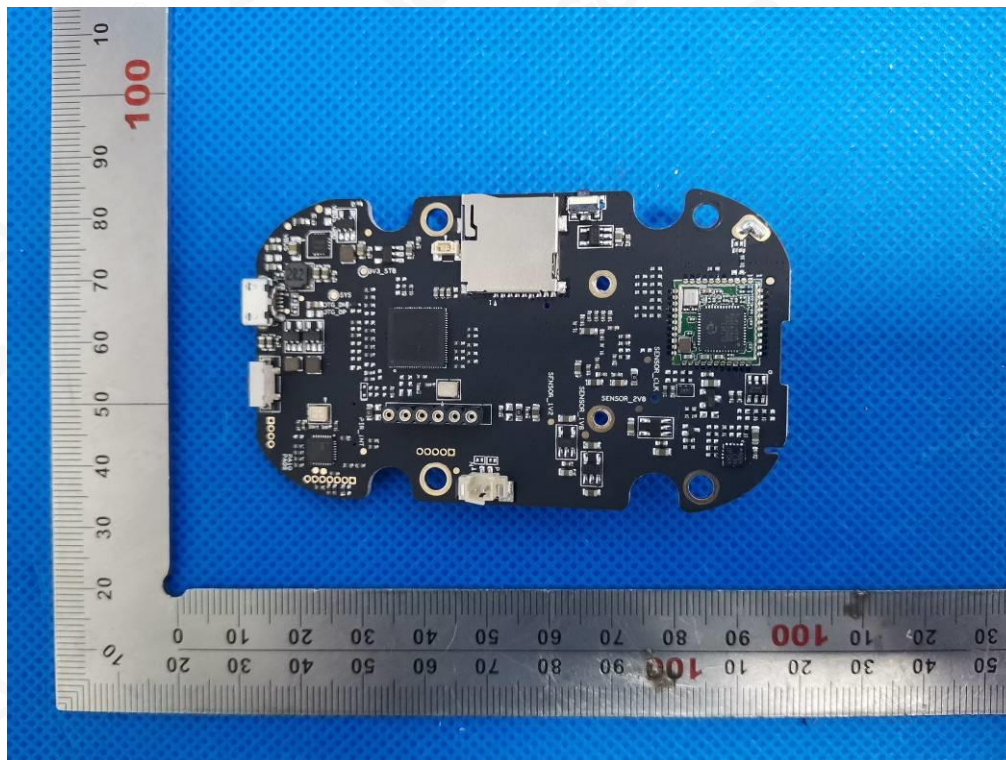
INTERNAL VIEW-1 OF EUT



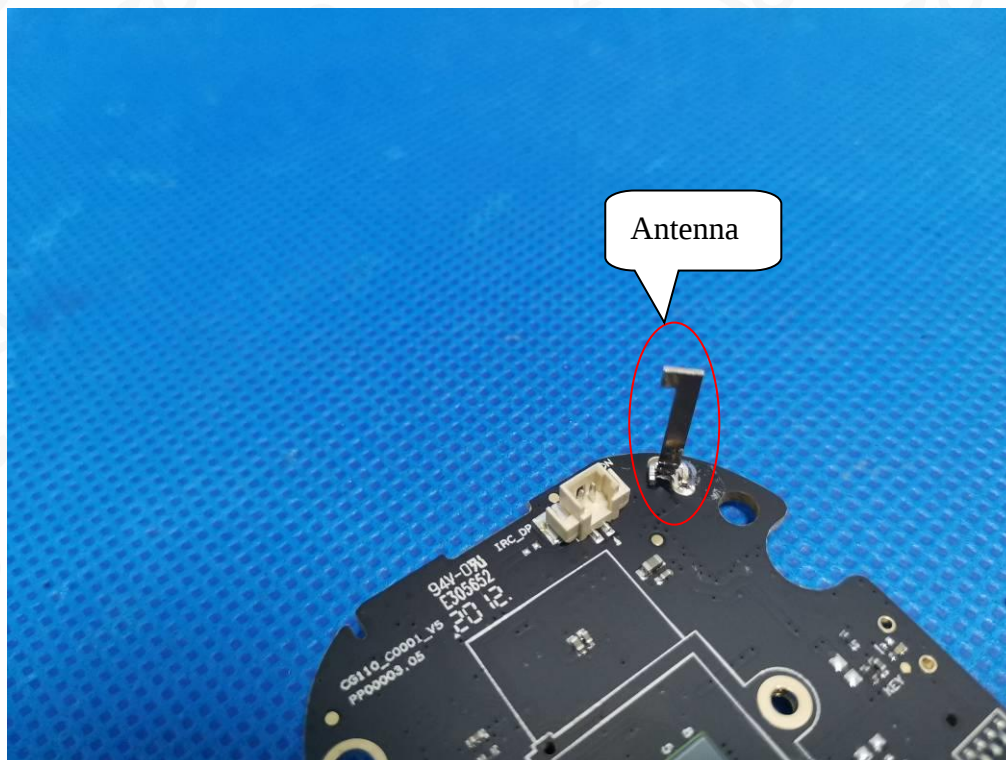
INTERNAL VIEW-2 OF EUT



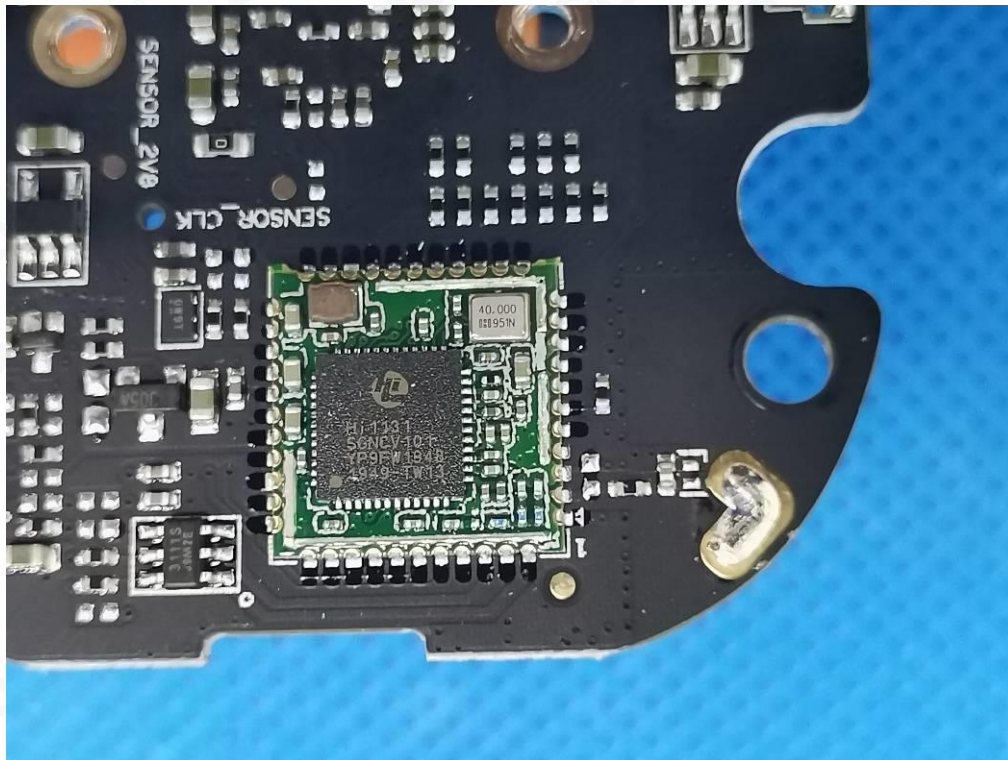
INTERNAL VIEW-3 OF EUT



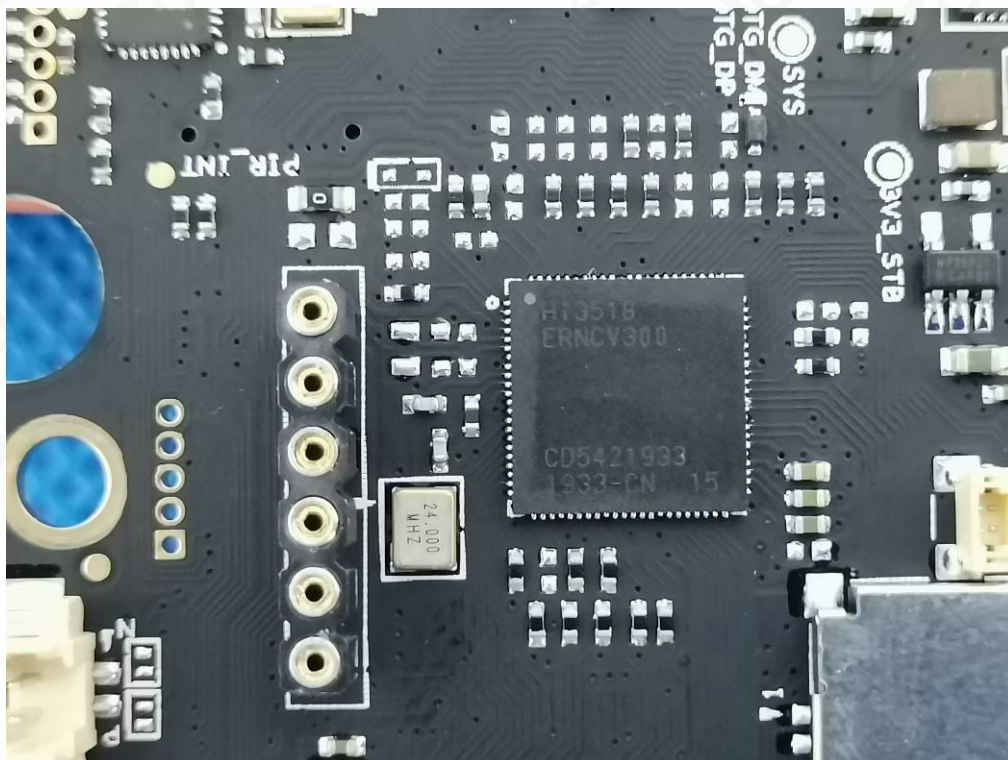
INTERNAL VIEW-4 OF EUT



INTERNAL VIEW-5 OF EUT



INTERNAL VIEW-6 OF EUT



VIEW OF BATTERY



----END OF REPORT----