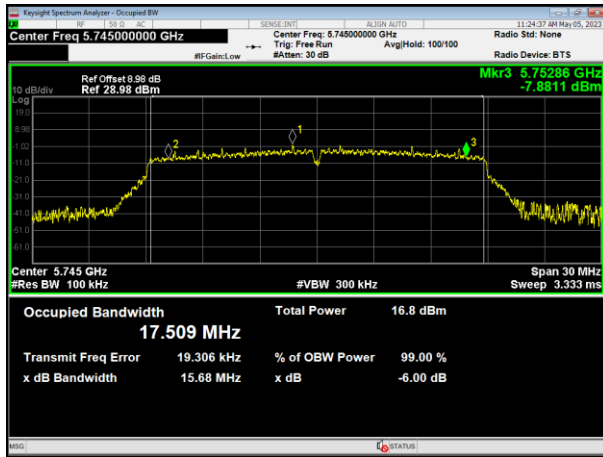
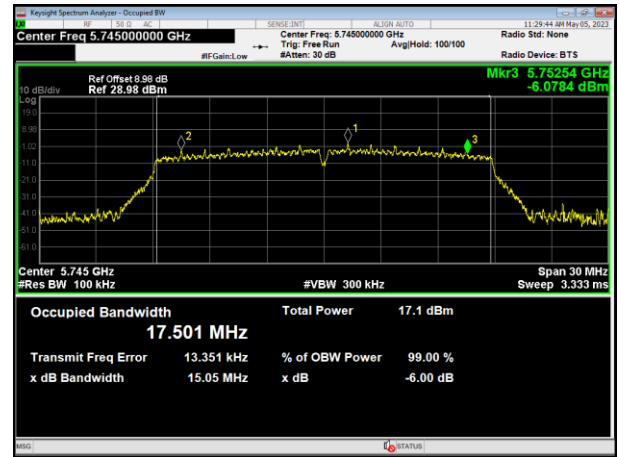




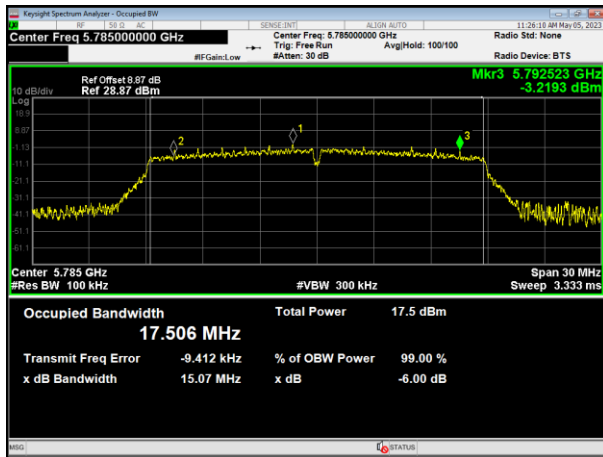
802.11a



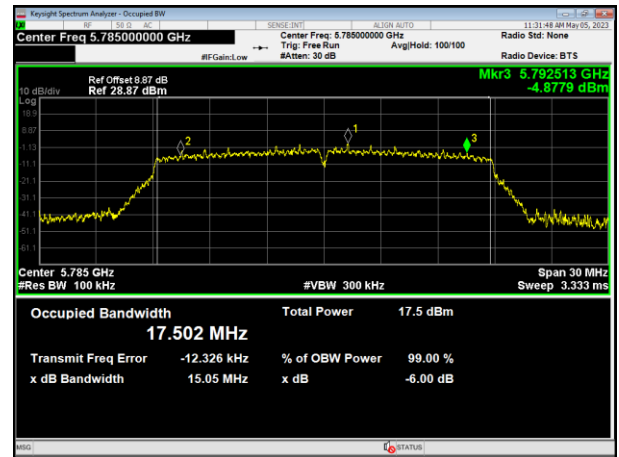
802.11n HT20



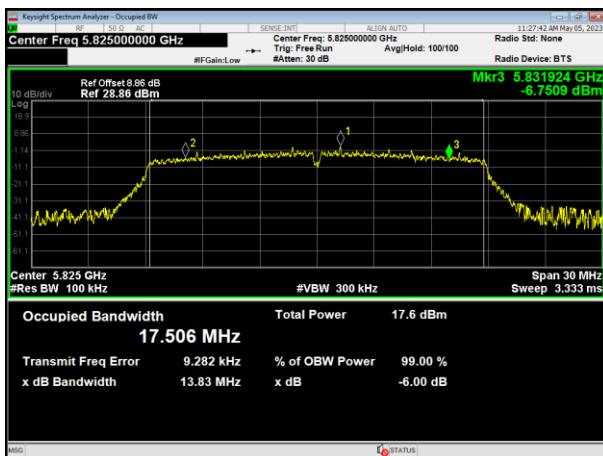
5745MHz



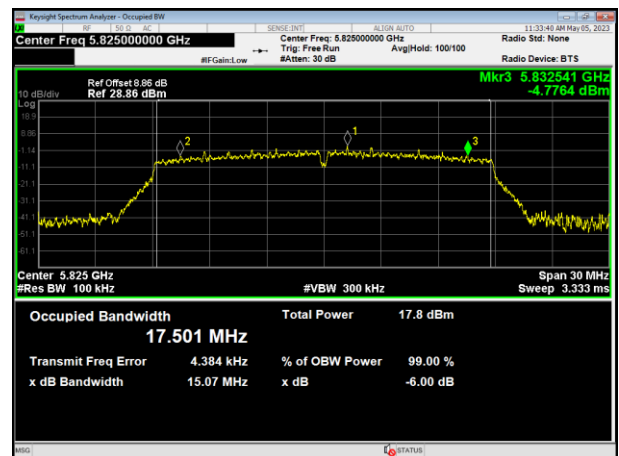
5745MHz



5785MHz



5785MHz

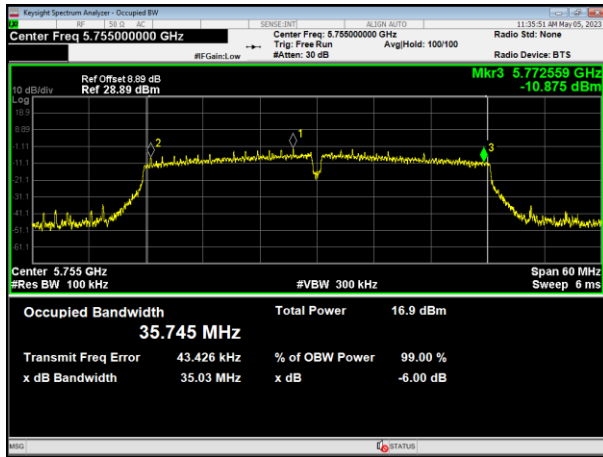


5825MHz

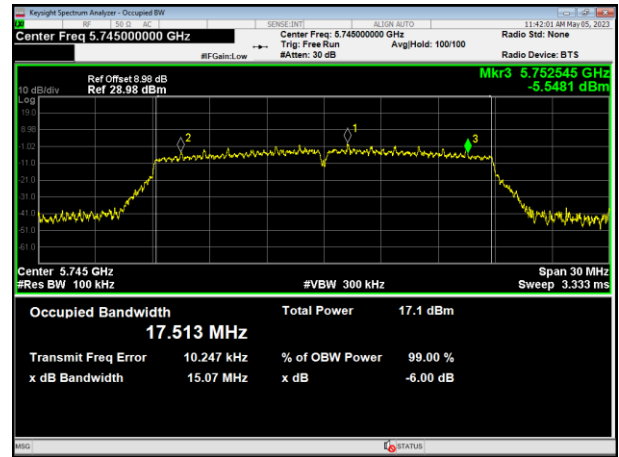
5825MHz



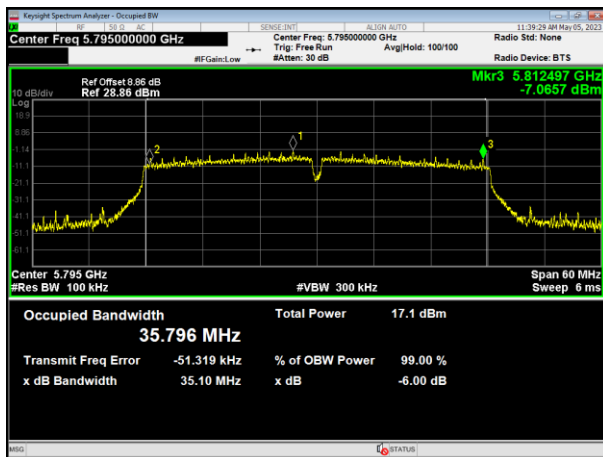
802.11n HT40



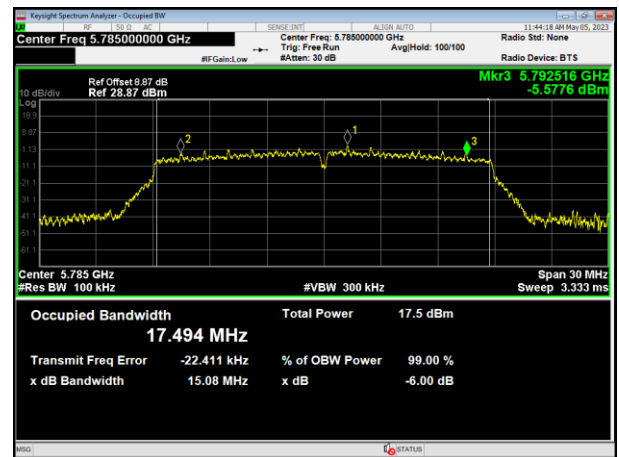
802.11ac HT20



5755MHz



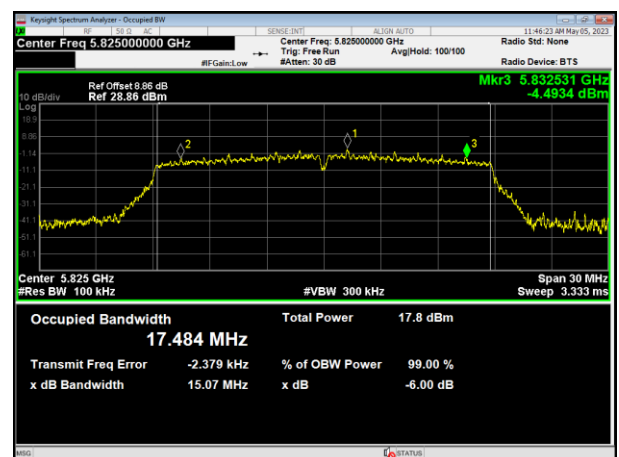
5745MHz



5795MHz



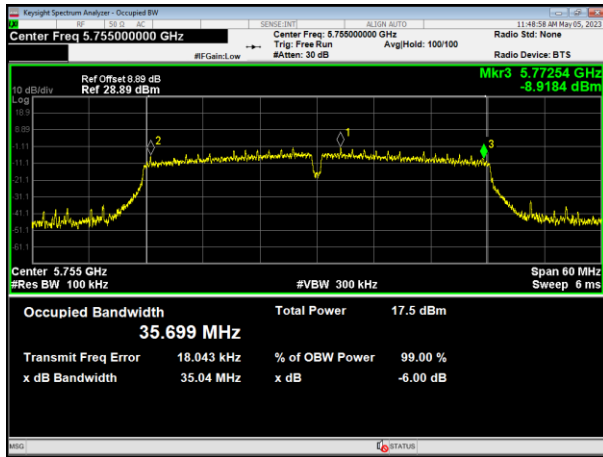
5785MHz



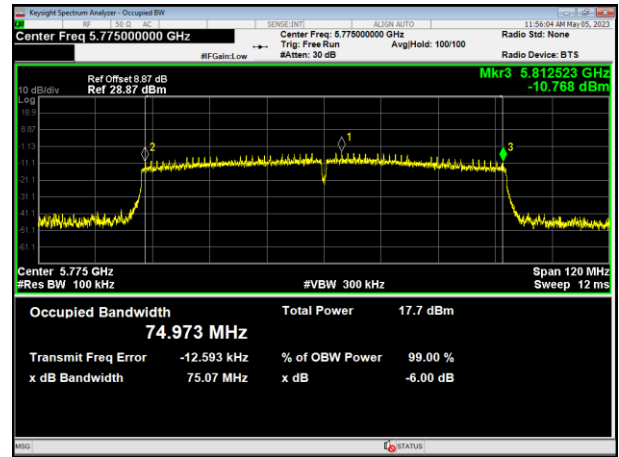
5825MHz



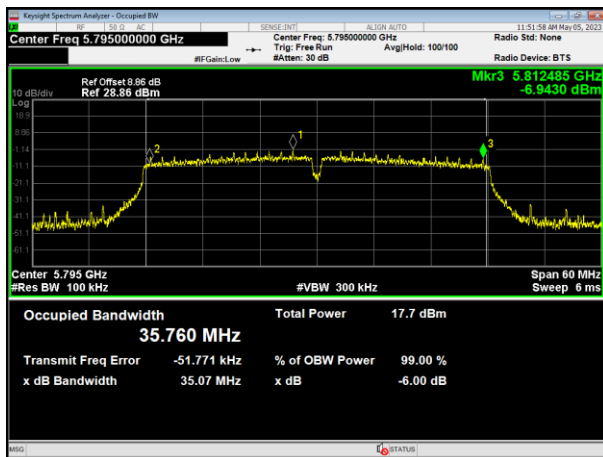
802.11ac HT40



802.11ac HT80



5755MHz



5775MHz



5795MHz



## 7. DUTY CYCLE TEST SIGNAL

### 7.1 APPLIED PROCEDURES / LIMIT

Pre-analysis Check: While conducting average power measurement, duty cycle of each mode shall be checked to ensure its duty cycle in order to compensate for the loss due to insufficient ratio of duty cycle. All duty cycle is pre-scanned, and result as obtained below shows only the most representative ones where duty cycle is conducted as the given transmission with given virtual operation that expresses the percentage.

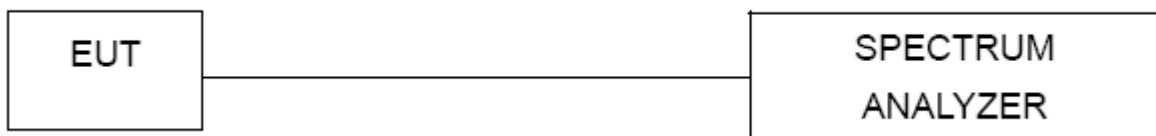
#### 7.1.1 TEST PROCEDURE

1. Set RBW = 1 MHz.
2. Set the video bandwidth (VBW)  $\geq$ RBW.
3. Detector = Peak.
4. Sweep = auto couple.
5. Allow the trace to stabilize.
6. Span=0

#### 7.1.2 DEVIATION FROM STANDARD

No deviation.

#### 7.1.3 TEST SETUP



#### 7.1.4 EUT OPERATION CONDITIONS

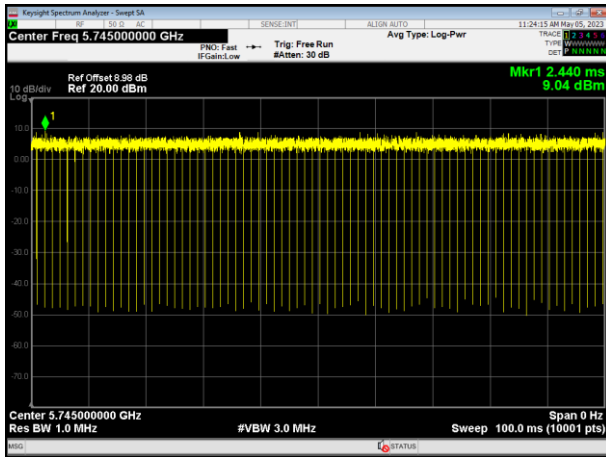
The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

**7.1.5 TEST RESULTS**

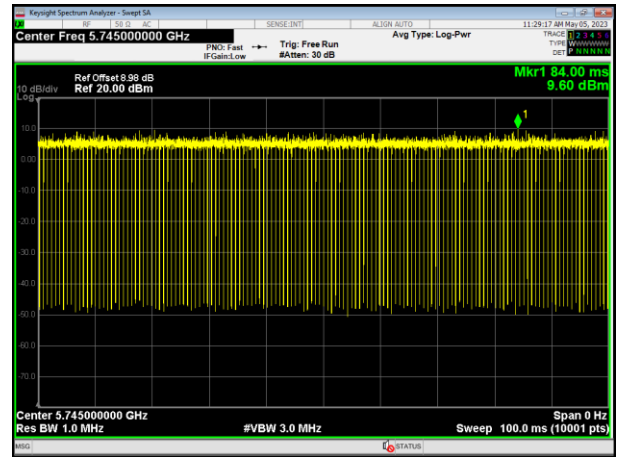
<b>Operation Mode</b>		<b>Duty Cycle(%)</b>	<b>Duty Fator (dB) 10 * log (1/ Duty cycle)</b>
Band 4	802.11a	97.57	0.11
	802.11n(HT20)	95.39	0.2
	802.11n(HT40)	91.42	0.39
	802.11ac(HT20)	93.65	0.28
	802.11ac(HT40)	88.78	0.52
	802.11ac(HT80)	82.15	0.85



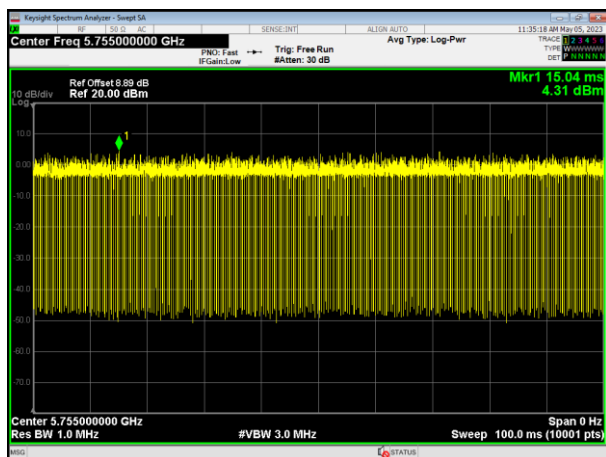
802.11a



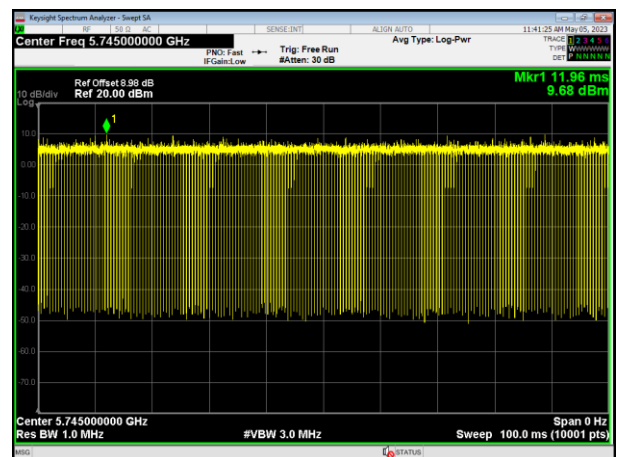
802.11n HT20



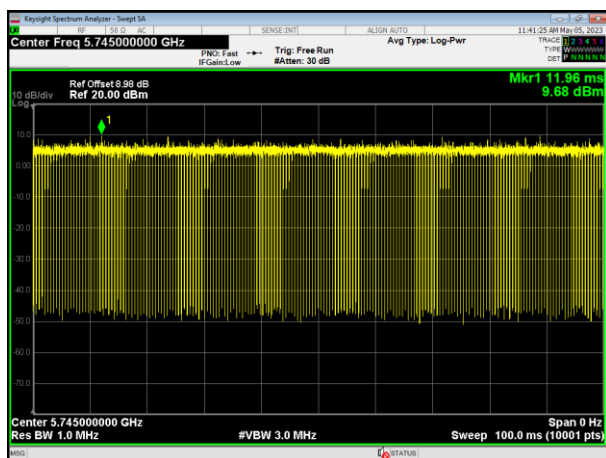
802.11n HT40



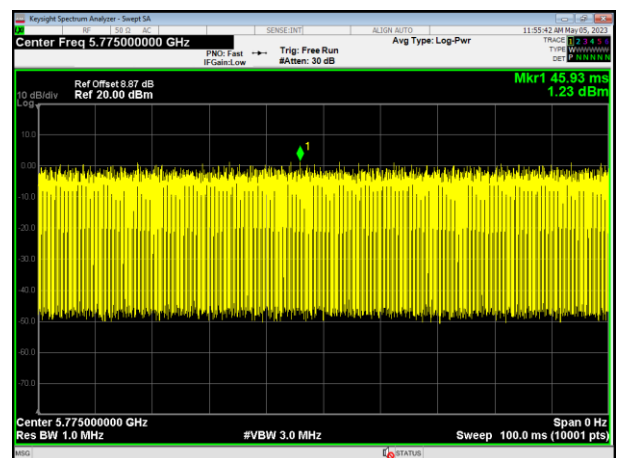
802.11ac HT20



802.11ac HT40



802.11ac HT80





## 8. FREQUENCY STABILITY

### 8.1 APPLIED PROCEDURES / LIMIT

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

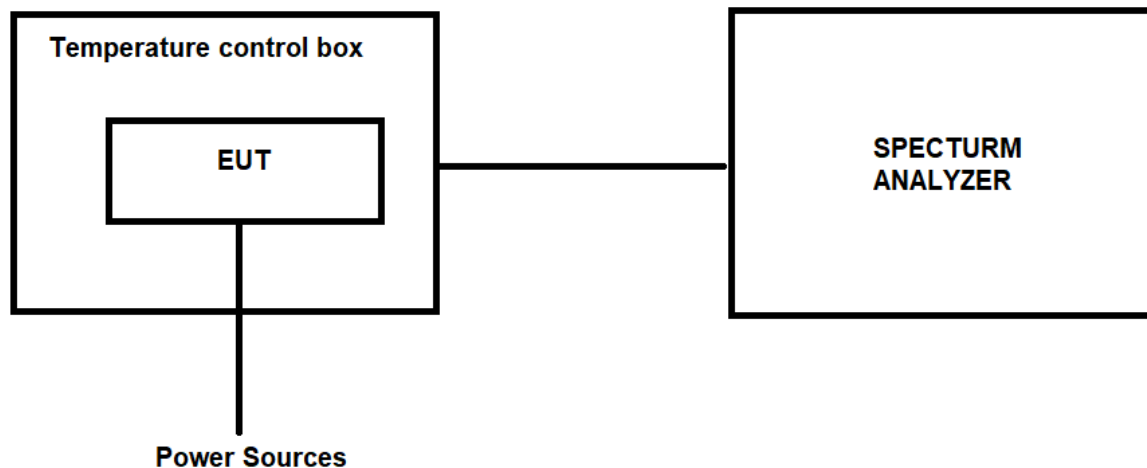
#### 8.1.1 TEST PROCEDURE

1. The EUT was placed inside temperature chamber and powered and powered by nominal DC voltage.
2. Set EUT as normal operation.
3. Turn the EUT on and couple its output to spectrum.
4. Turn the EUT off and set the chamber to the highest temperature specified.
5. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT and measure the operating frequency.
6. Repeat step with the temperature chamber set to the lowest temperature.

#### 8.1.2 DEVIATION FROM STANDARD

No deviation.

#### 8.1.3 TEST SETUP



#### 8.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.



**8.1.5 TEST RESULTS**

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)			Δ Frequency (MHz)		
			802.11a	802.11n HT20	802.11ac HT20	802.11a	802.11n HT20	802.11ac HT20
5.5V	-20°C	5745	5745.0333	5745.0329	5745.0311	-0.0333	-0.0329	-0.0311
		5785	5785.0354	5785.0324	5785.0316	-0.0354	-0.0324	-0.0316
		5825	5825.0316	5825.0313	5825.0329	-0.0316	-0.0313	-0.0329
4.5V		5745	5745.0228	5745.0526	5745.0267	-0.0228	-0.0526	-0.0267
		5785	5785.0354	5785.0318	5785.0324	-0.0354	-0.0318	-0.0324
		5825	5825.0433	5825.0432	5825.0432	-0.0433	-0.0432	-0.0432
5V	25°C	5745	5745.0358	5745.0346	5745.0343	-0.0358	-0.0346	-0.0343
		5785	5785.0416	5785.0424	5785.0426	-0.0416	-0.0424	-0.0426
		5825	5825.0224	5825.0219	5825.0227	-0.0224	-0.0219	-0.0227
5.5V	50°C	5745	5745.0669	5745.0668	5745.0615	-0.0669	-0.0668	-0.0615
		5785	5785.0446	5785.0443	5785.0426	-0.0446	-0.0443	-0.0426
		5825	5825.0667	5825.0617	5825.0634	-0.0667	-0.0617	-0.0634
4.5V	50°C	5745	5745.0479	5745.0433	5745.0426	-0.0479	-0.0433	-0.0426
		5785	5785.0239	5785.0249	5785.0227	-0.0239	-0.0249	-0.0227
		5825	5825.0764	5825.0716	5825.0734	-0.0764	-0.0716	-0.0734

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)		Δ Frequency (MHz)	
			802.11n HT40	802.11ac HT40	802.11n HT40	802.11ac HT40
5.5V	-20°C	5755	5755.0518	5755.0516	-0.0518	-0.0516
		5795	5795.0634	5795.0661	-0.0634	-0.0661
4.5V		5755	5755.0216	5755.0529	-0.0216	-0.0529
		5795	5795.0449	5795.0439	-0.0449	-0.0439
5V	25°C	5755	5755.0237	5755.0214	-0.0237	-0.0214
		5795	5795.0516	5795.0559	-0.0516	-0.0559
5.5V	50°C	5755	5755.0429	5755.0458	-0.0429	-0.0458
		5795	5795.0345	5795.0394	-0.0345	-0.0394
4.5V	50°C	5755	5755.0314	5755.0364	-0.0314	-0.0364
		5795	5795.0426	5795.0434	-0.0426	-0.0434





Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)	$\Delta$ Frequency (MHz)
			802.11ac HT80	802.11ac HT80
5.5V	-20°C	5775	5775.0151	-0.0151
4.5V		5775	5775.0312	-0.0312
5V	25°C	5775	5775.0466	-0.0466
5.5V	50°C	5775	5775.0227	-0.0227
4.5V	50°C	5775	5775.0531	-0.0531



## 9. TRANSMISSION IN THE ABSENCE OF DATA

### 9.1 STANDARD REQUIREMENT

According to §15.407(c)

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

### 9.2 TEST RESULT

No non-compliance noted:  
Refer to the theory of operation.

## 10. ANTENNA REQUIREMENT

### 10.1 STANDARD REQUIREMENT

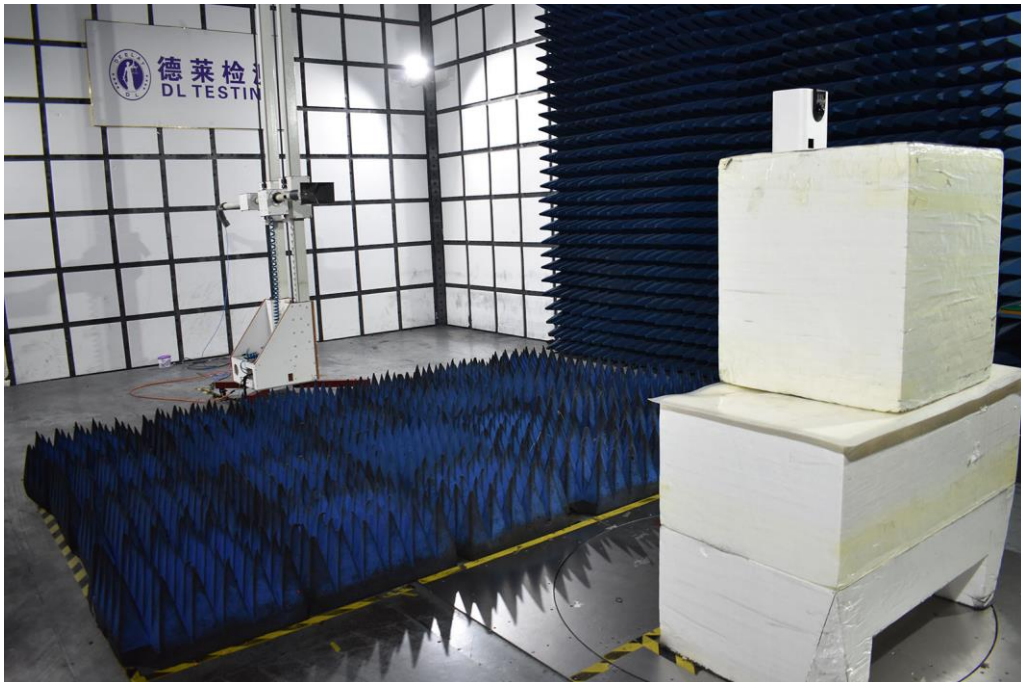
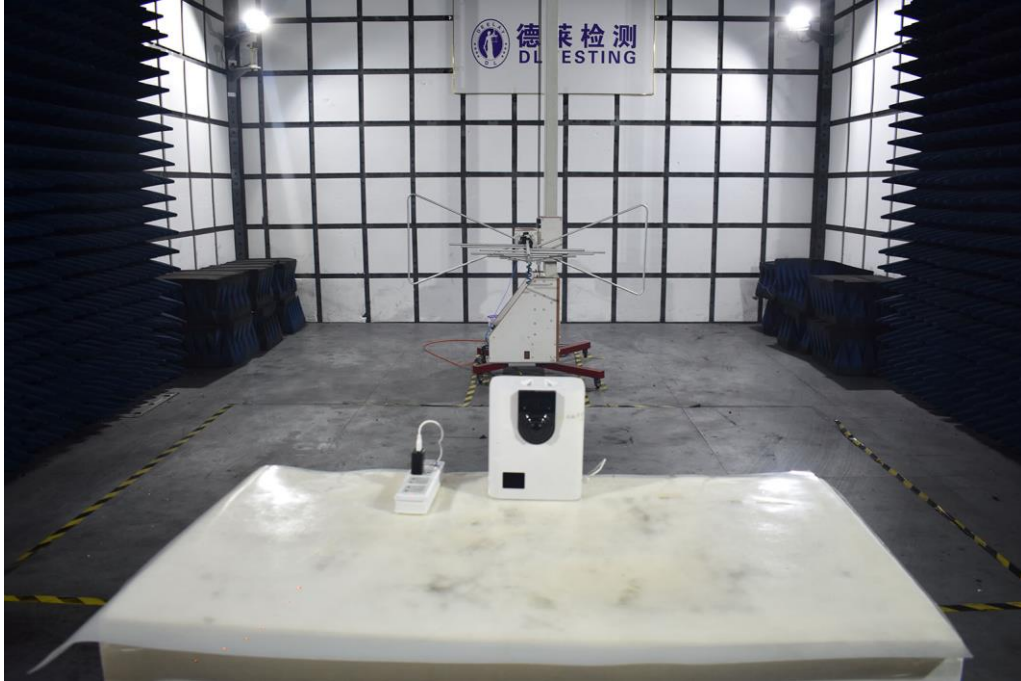
15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

### 10.2 EUT ANTENNA

The EUT antenna is Built-in antenna, It comply with the standard requirement.

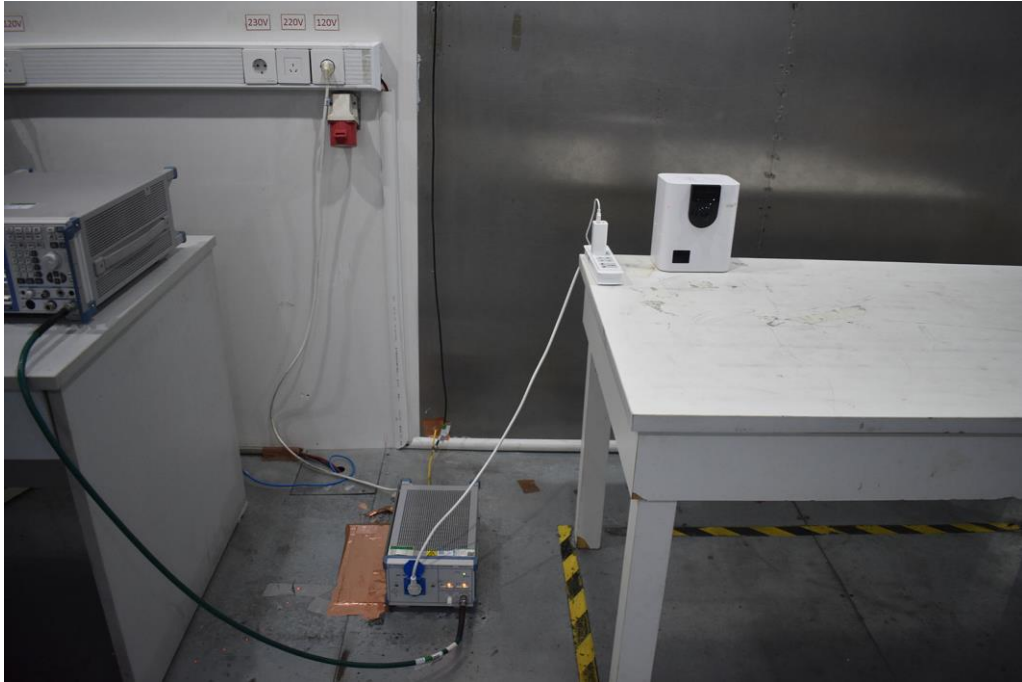
### 11. TEST SEUUP PHOTO

#### Radiated Measurement Photos





**Conducted Measurement Photos**

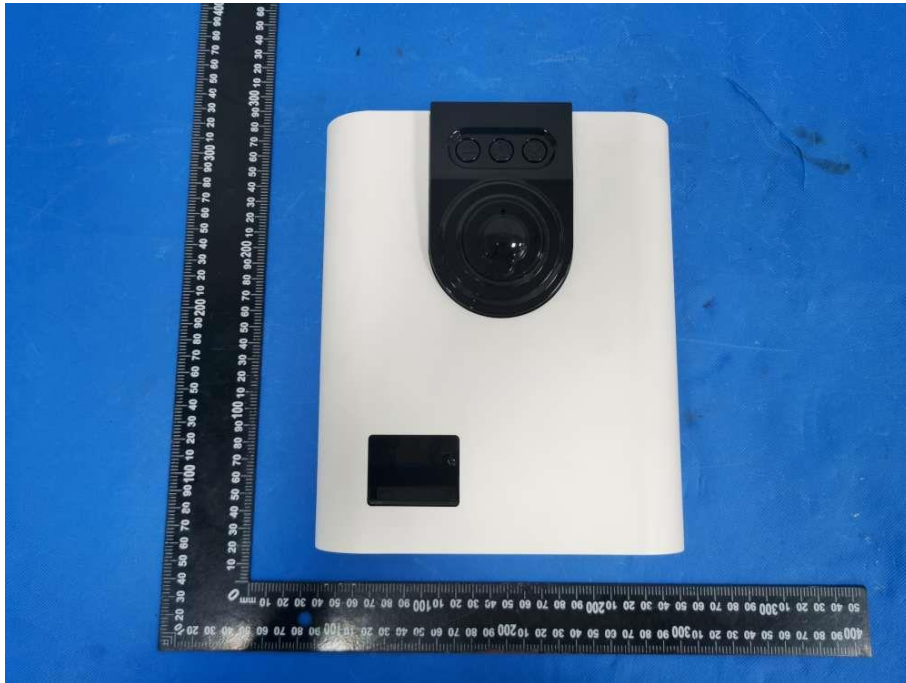


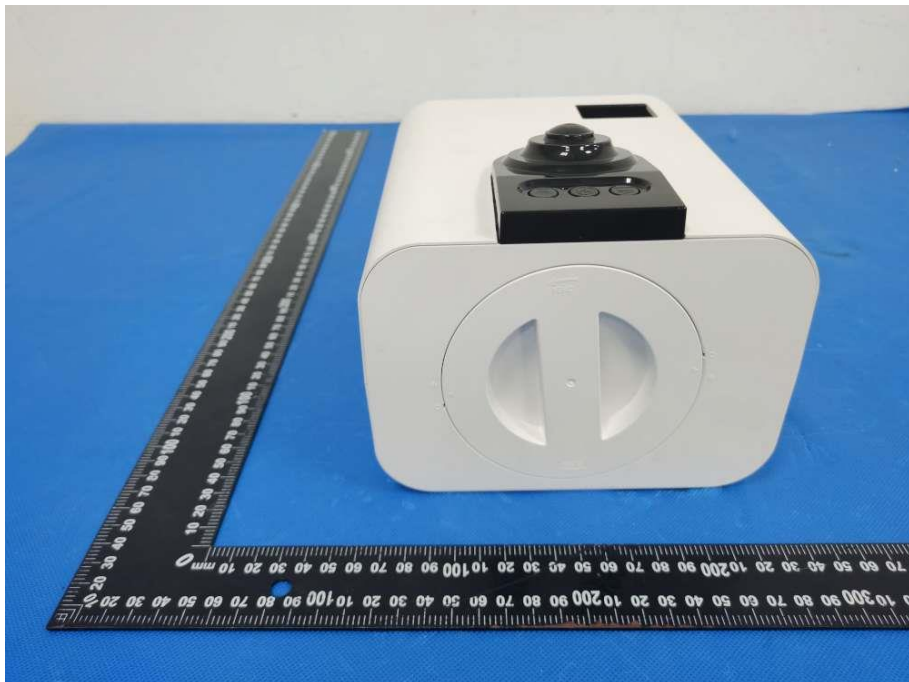


## 12. EUT PHOTO



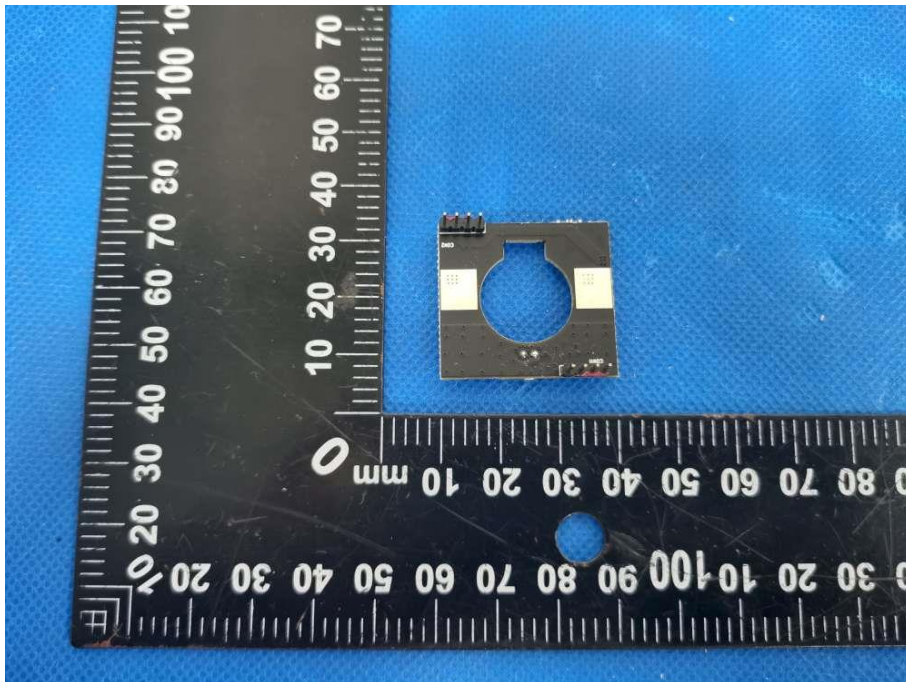
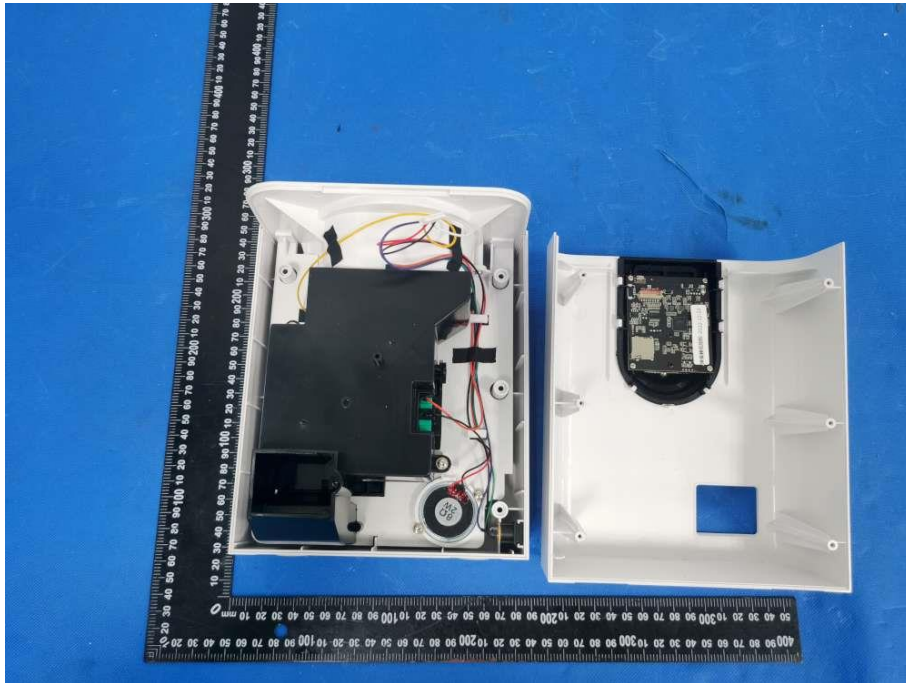


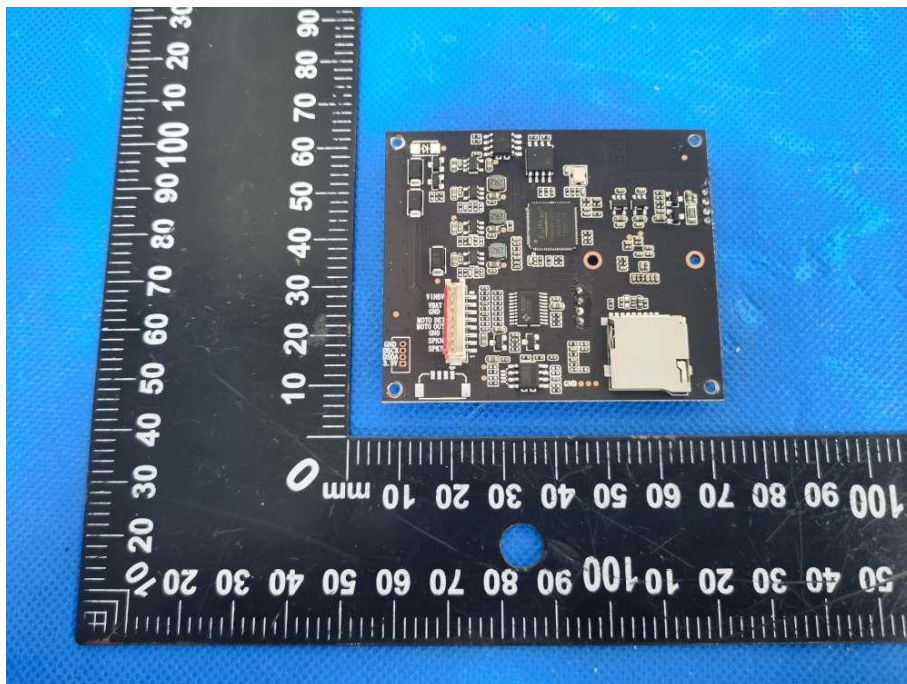
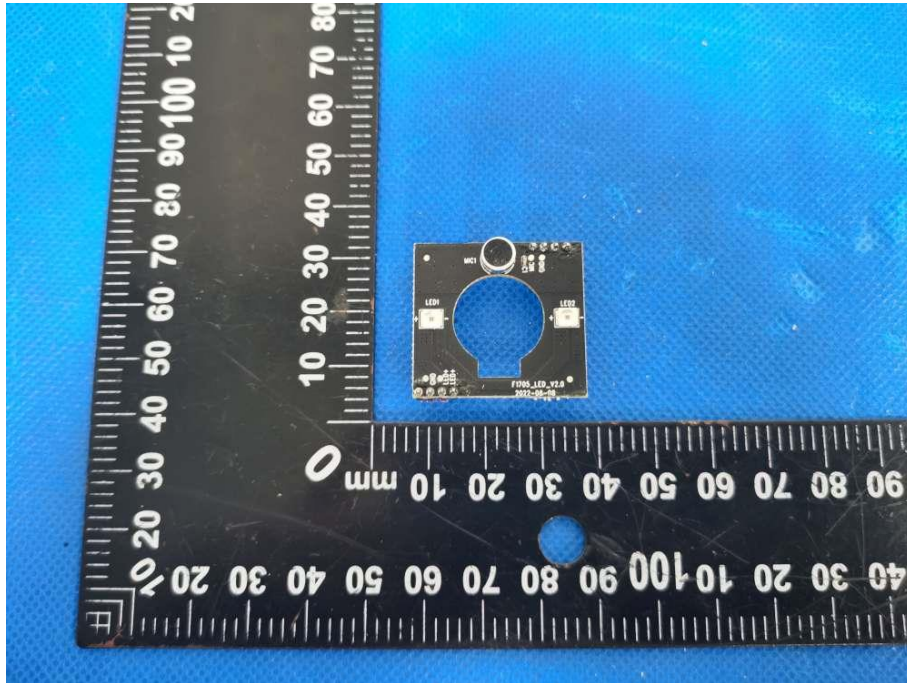




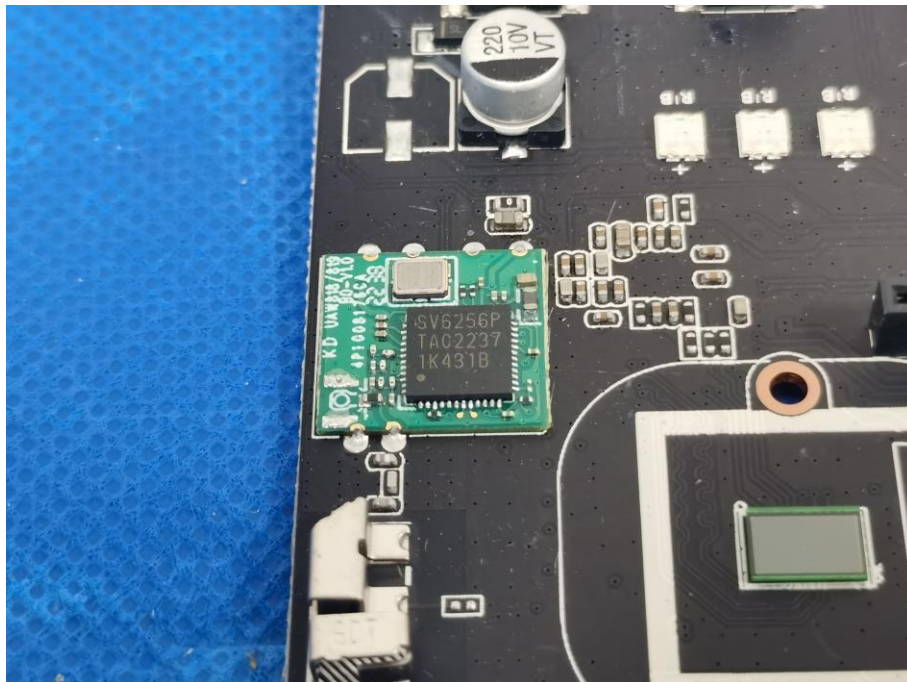
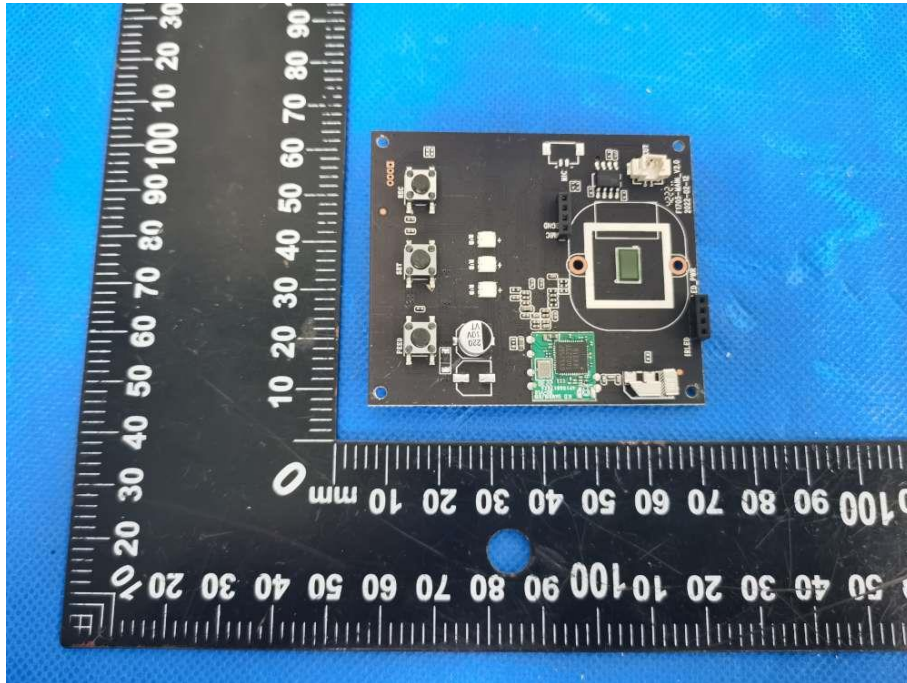












\*\*\*\*\* END OF REPORT \*\*\*\*\*