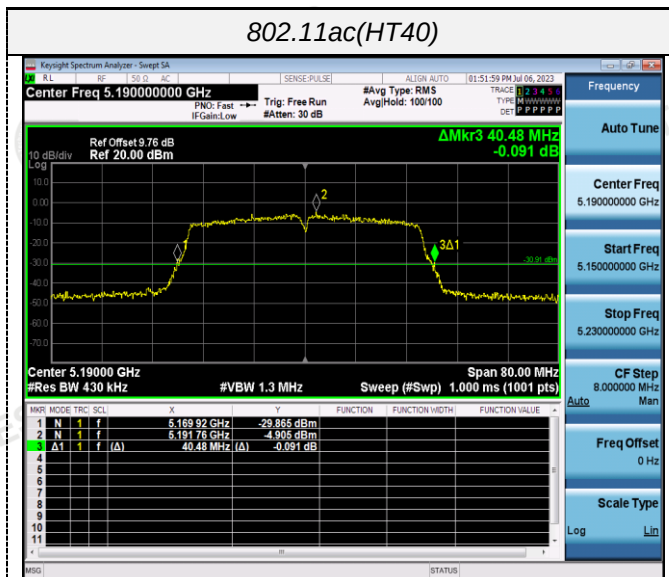
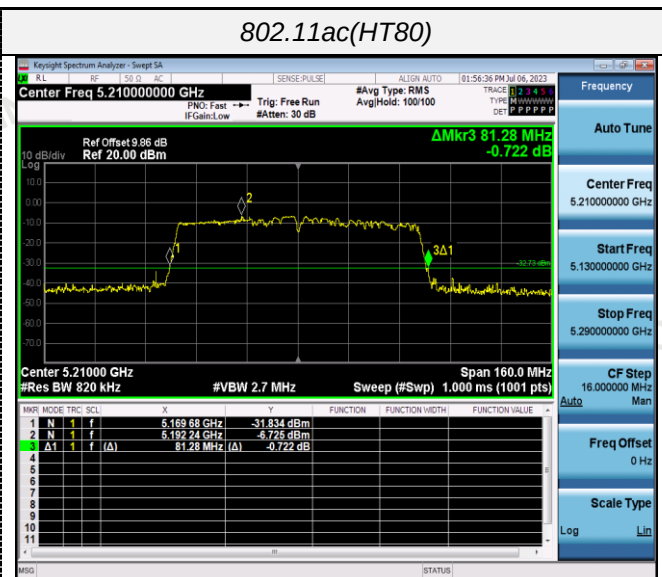


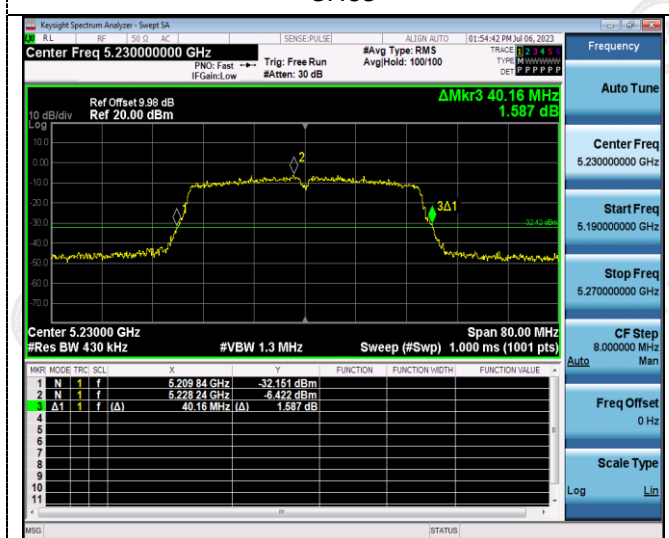
802.11ac(HT40)



802.11ac(HT80)



CH38

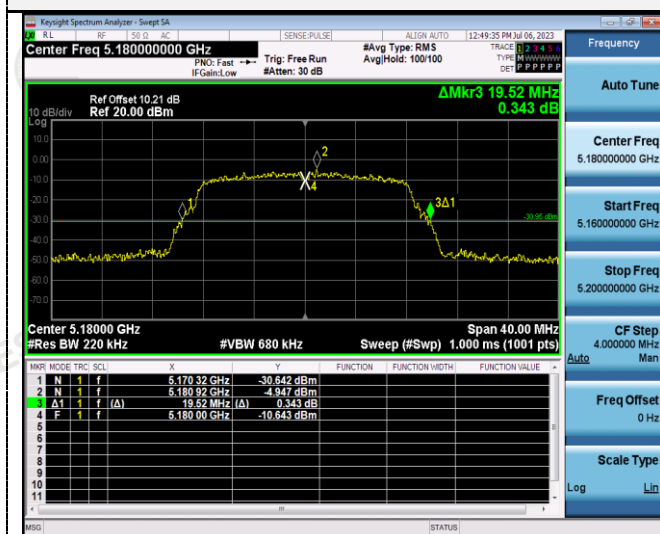


CH42

CH46

ANT 2

802.11a

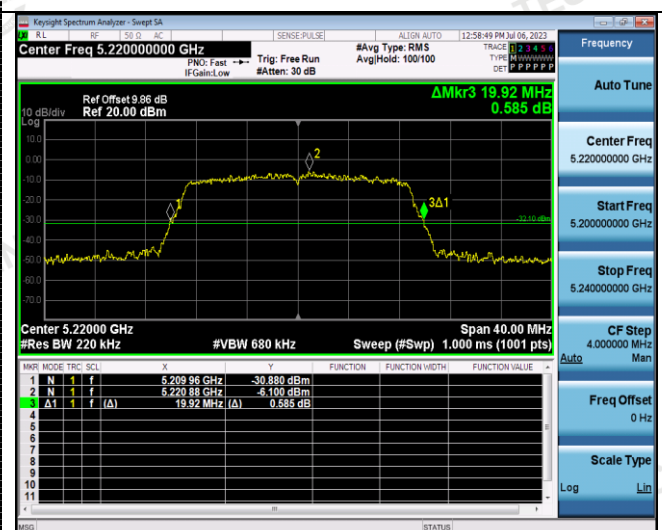


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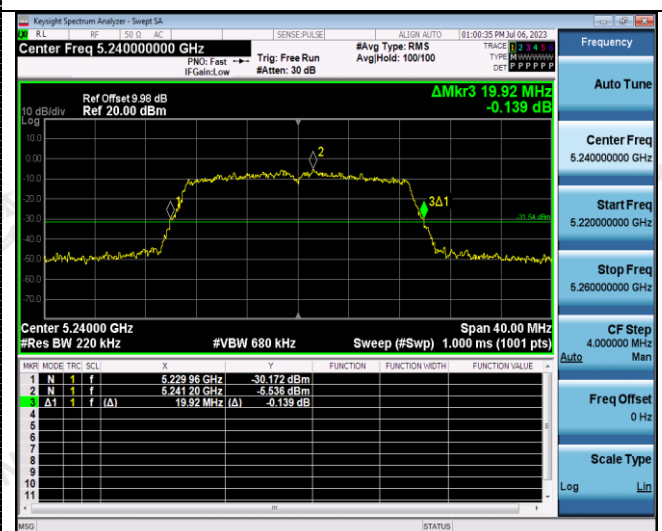
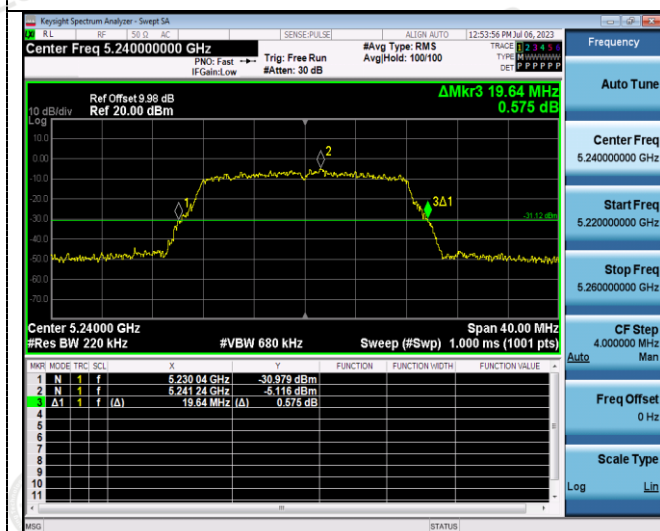
CH36

CH36



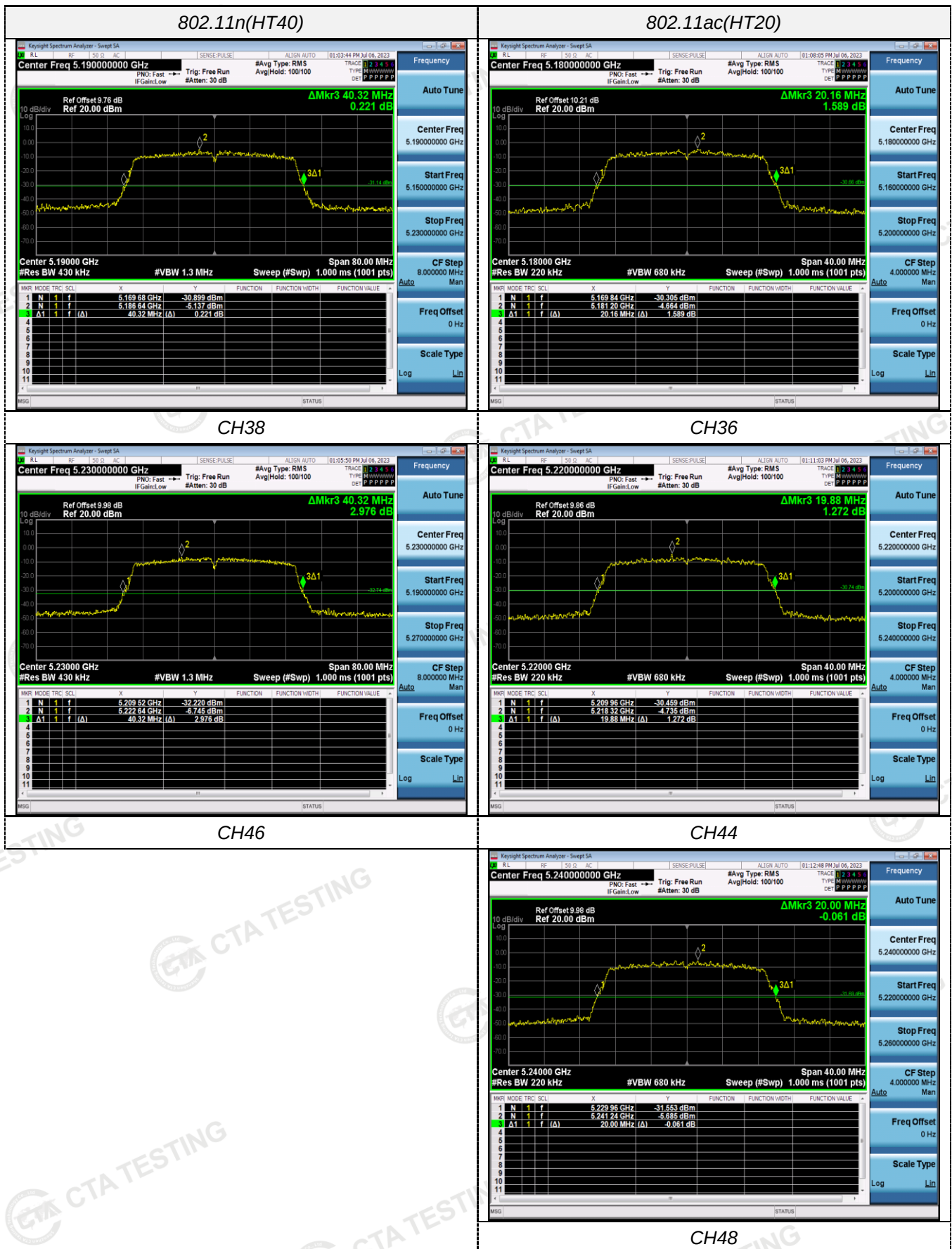
CH44

CH44

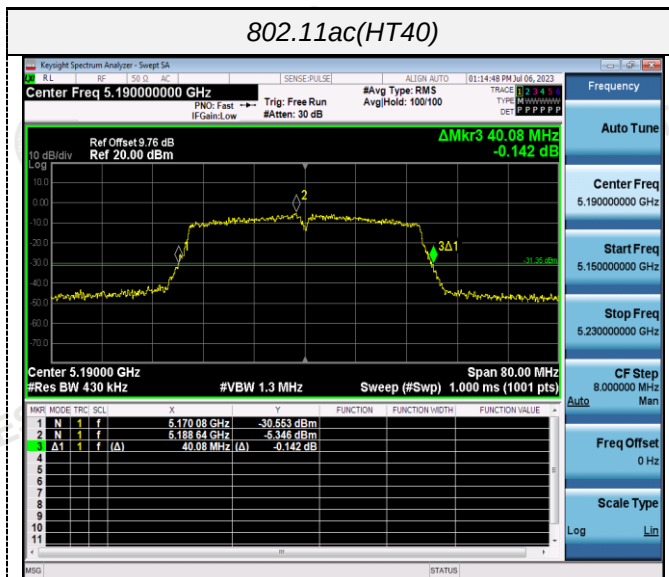


CH48

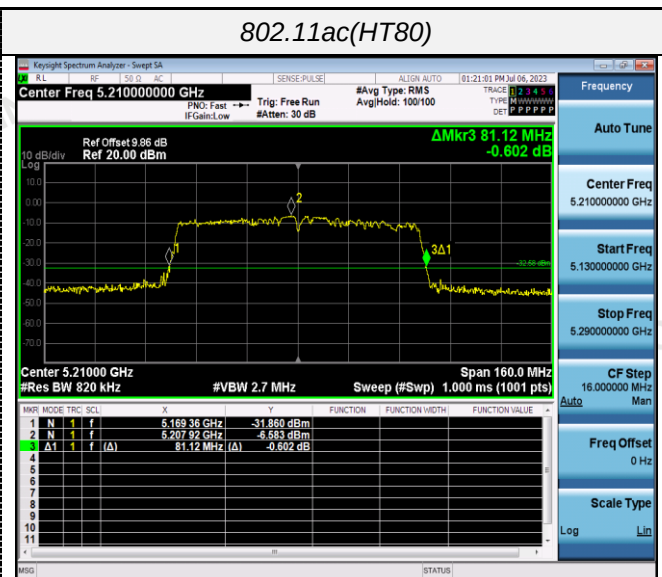
CH48



802.11ac(HT40)



802.11ac(HT80)



CH38



CH42



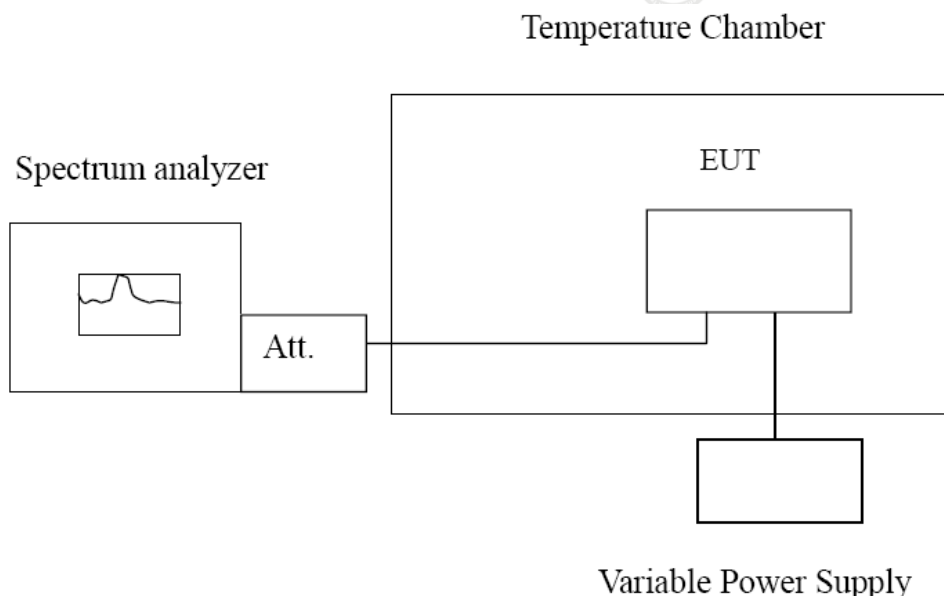
CH46

4.6 Frequency Stability

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 users manual.

TEST CONFIGURATION



TEST PROCEDURE

Frequency Stability under Temperature Variations:

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

Frequency Stability under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. Reduce the input voltage to specify extreme voltage variation ($\pm 15\%$) and endpoint, record the maximum frequency change.

TEST RESULTS

Record worst case as below:

Ant1

Reference Frequency: 802.11ac channel=36 frequency=5180MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
DC 3.6	-30	110.45	0.021322	Within the band of operation	Pass
	-20	173.71	0.033535		
	-10	145.34	0.028058		
	0	146.59	0.028299		
	10	145.62	0.028112		
	20	98.28	0.018973		
	30	167.07	0.032253		
	40	129.92	0.025081		
	50	128.63	0.024832		
DC 3.96	25	195.78	0.037795	Within the band of operation	Pass
DC 3.24	25	117.60	0.022703		

Ant2

Reference Frequency: 802.11ac channel=36 frequency=5180MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
DC 3.6	-30	110.82	0.021394	Within the band of operation	Pass
	-20	172.64	0.033328		
	-10	145.22	0.028035		
	0	146.53	0.028288		
	10	145.01	0.027994		
	20	97.76	0.018873		
	30	166.90	0.032220		
	40	129.74	0.025046		
	50	128.14	0.024737		
DC 3.96	25	196.29	0.037894	Within the band of operation	Pass
DC 3.24	25	117.74	0.022730		

5 Test Setup Photos of the EUT

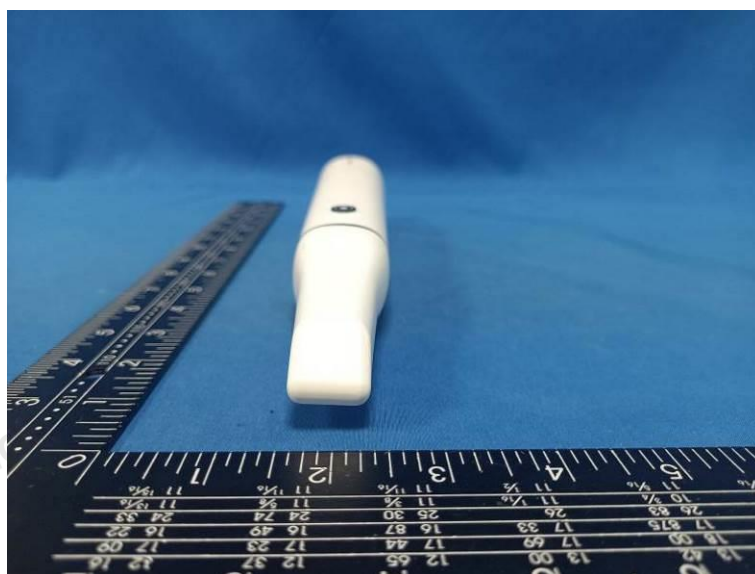
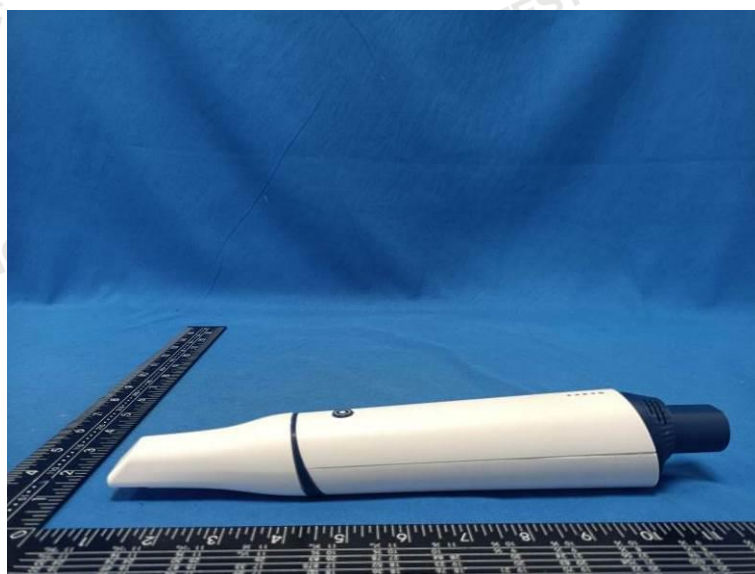
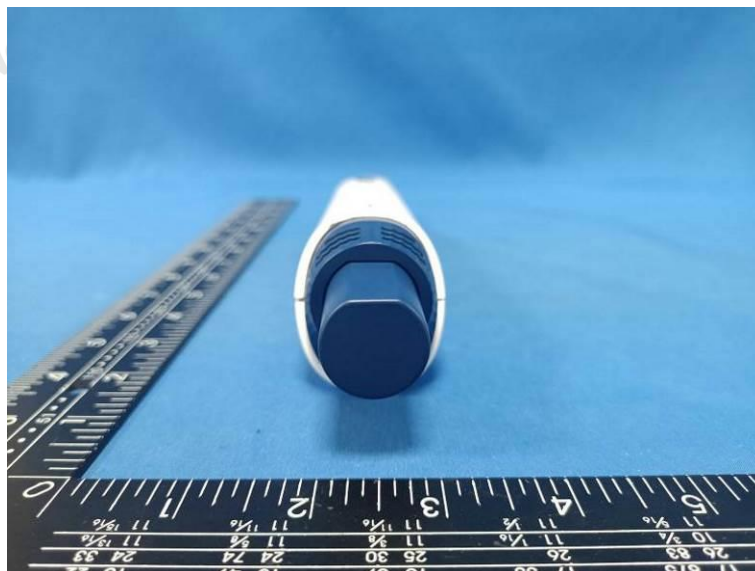


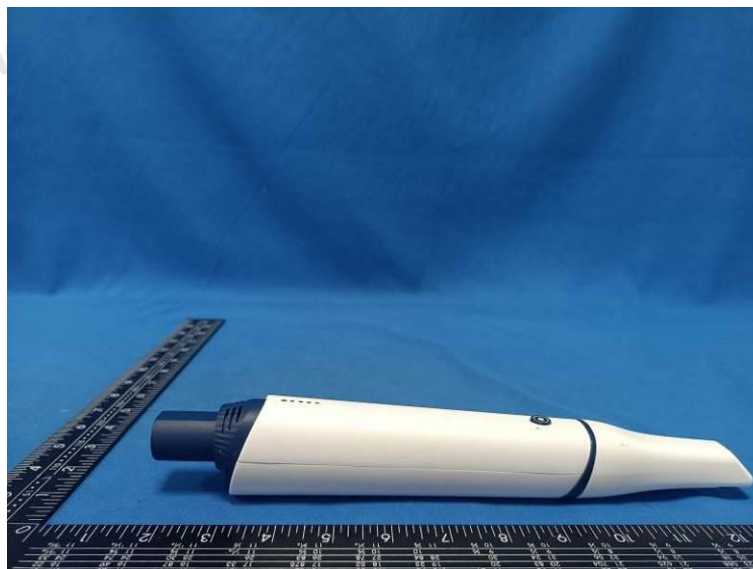
Shenzhen CTA Testing Technology Co., Ltd.

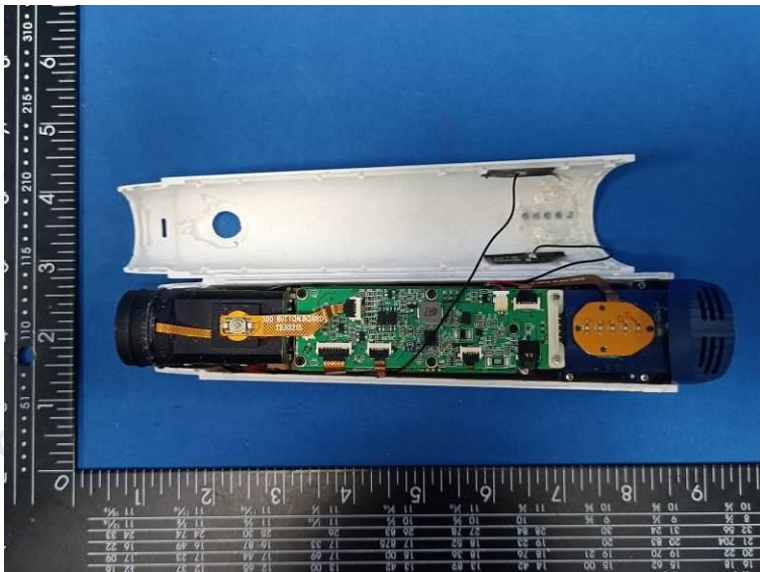
Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China
Tel: +86-755 2322 5875 E-mail: cta@cta-test.cn Web: <http://www.cta-test.cn>

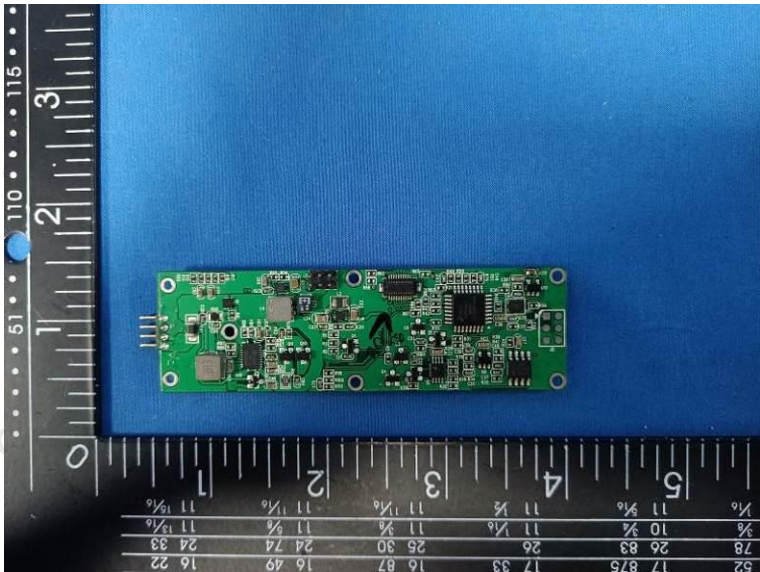
6 Photos of the EUT

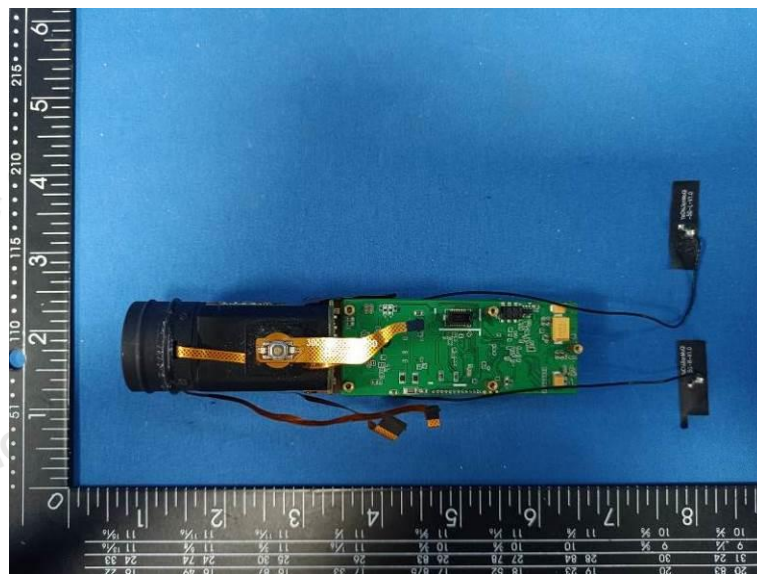
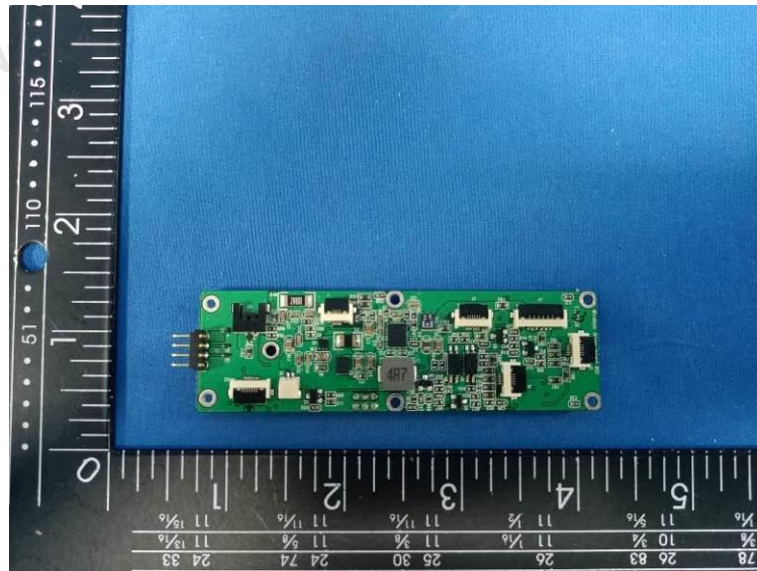


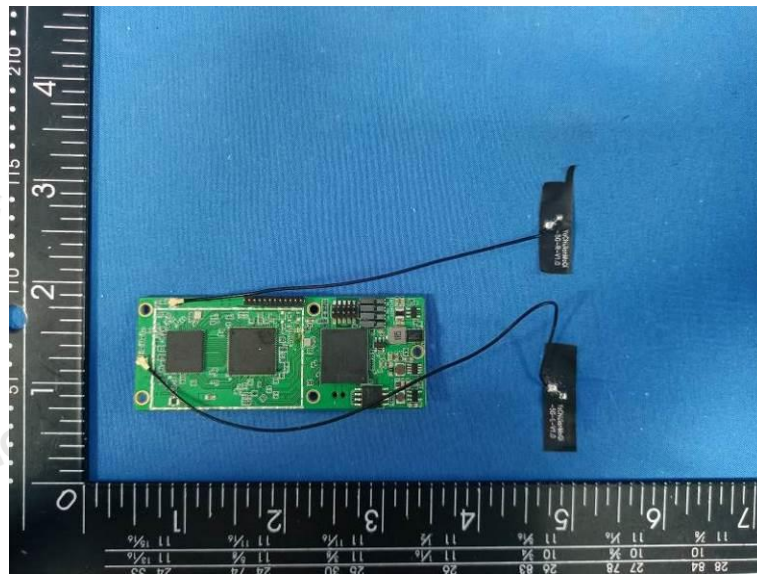
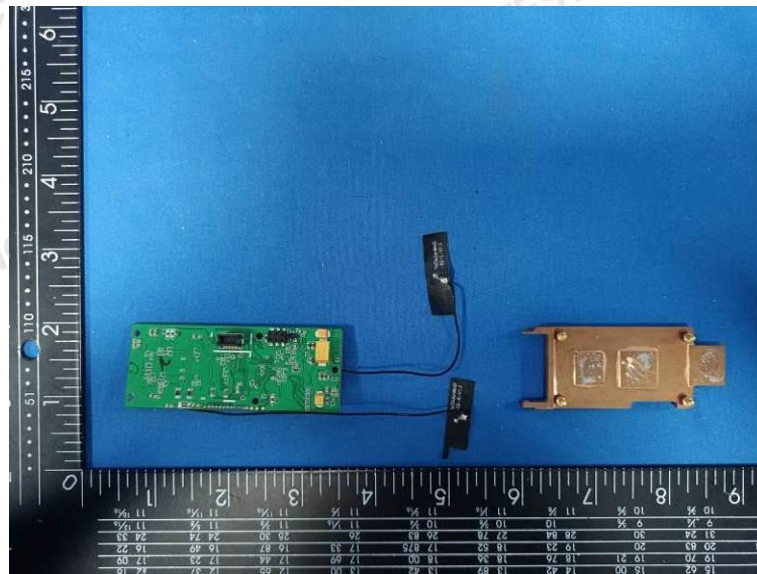
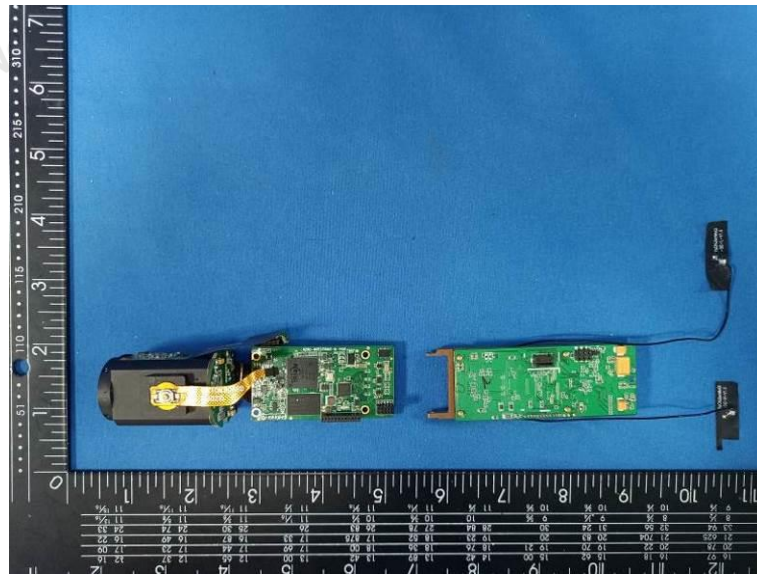


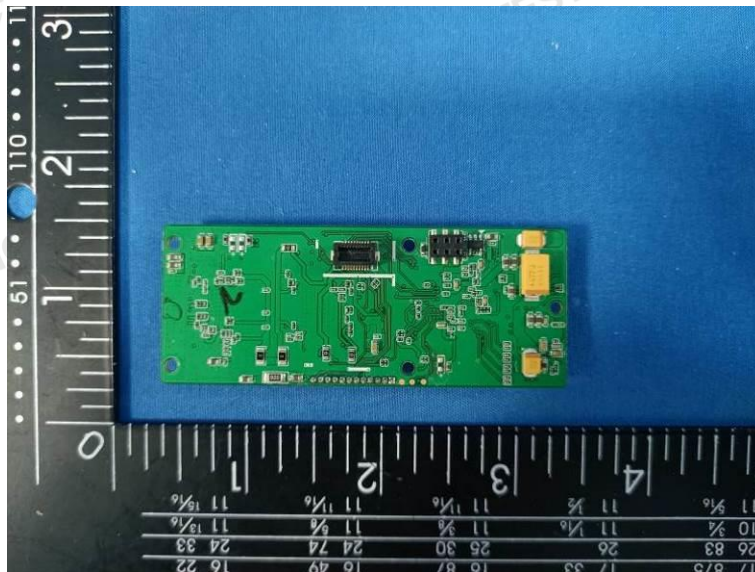
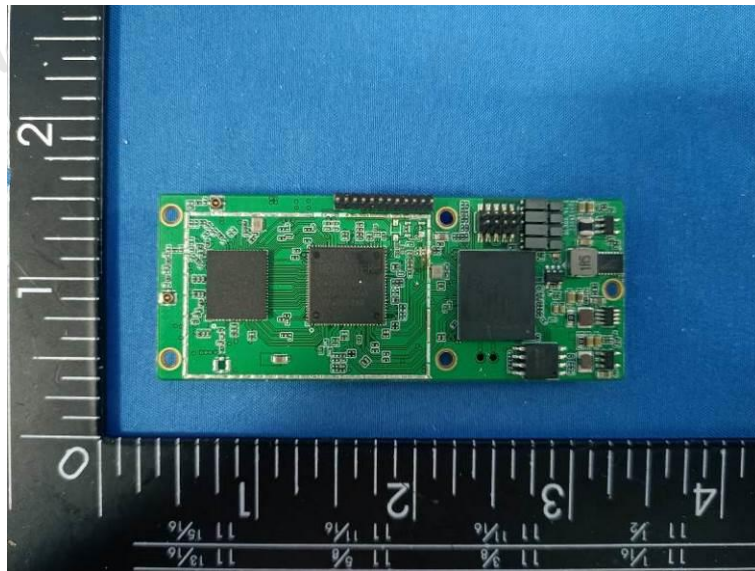


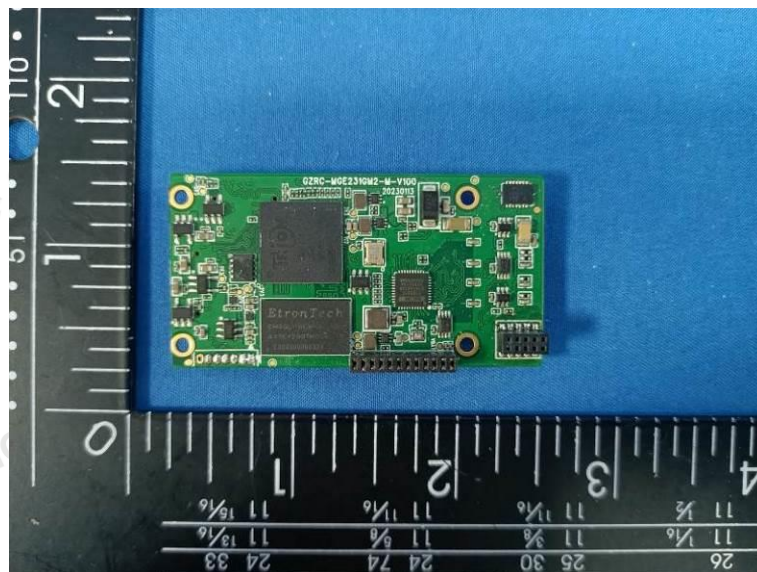
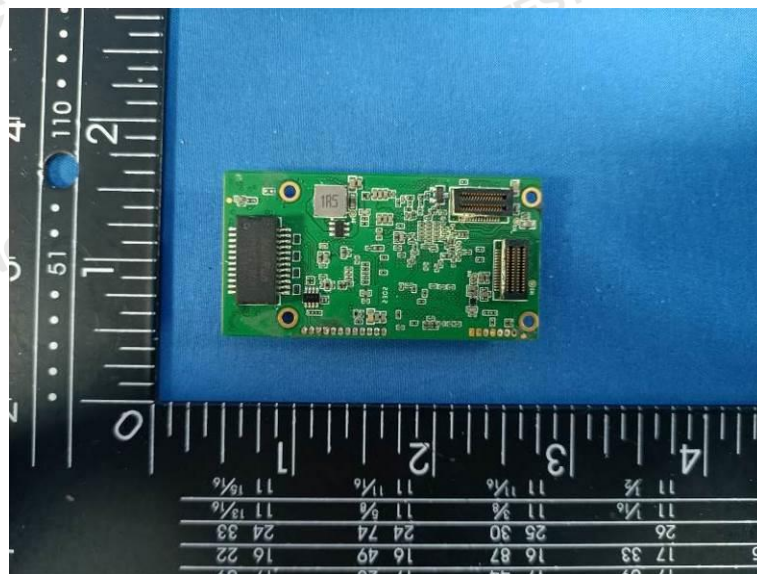
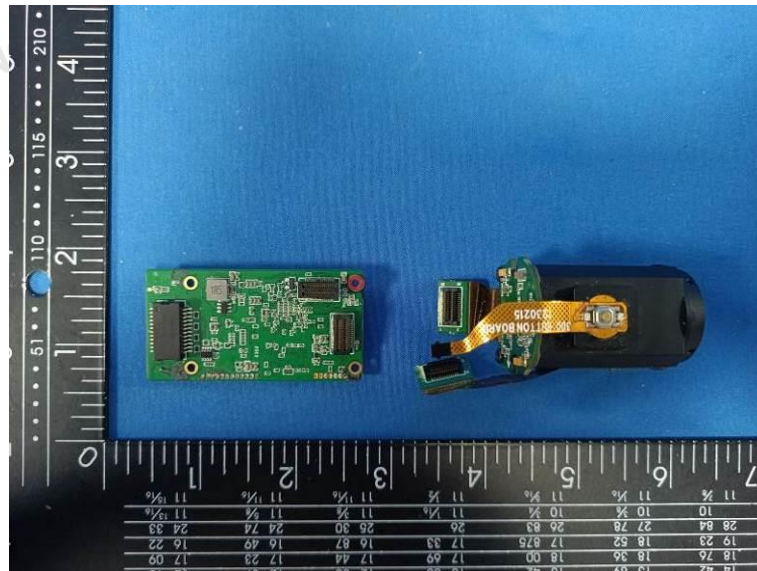


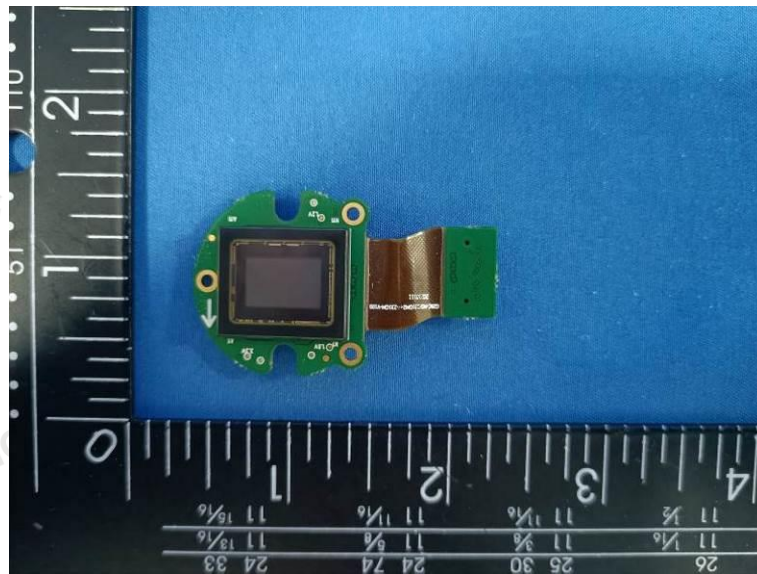
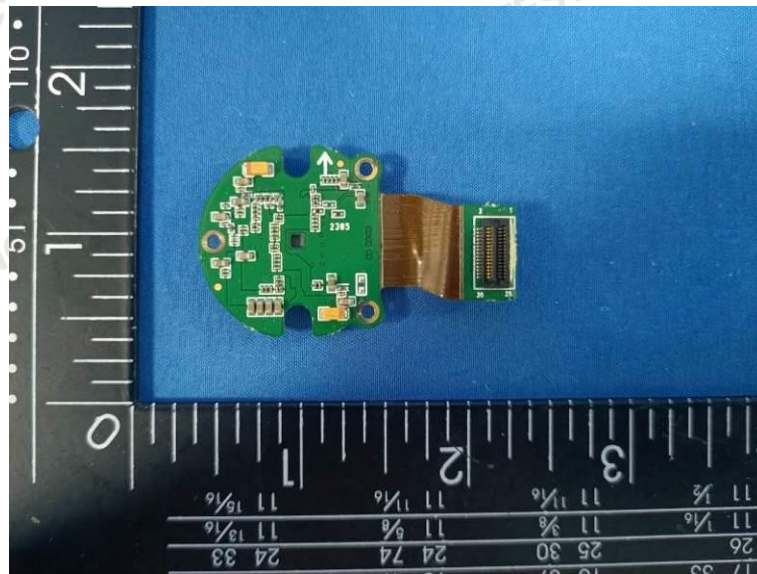
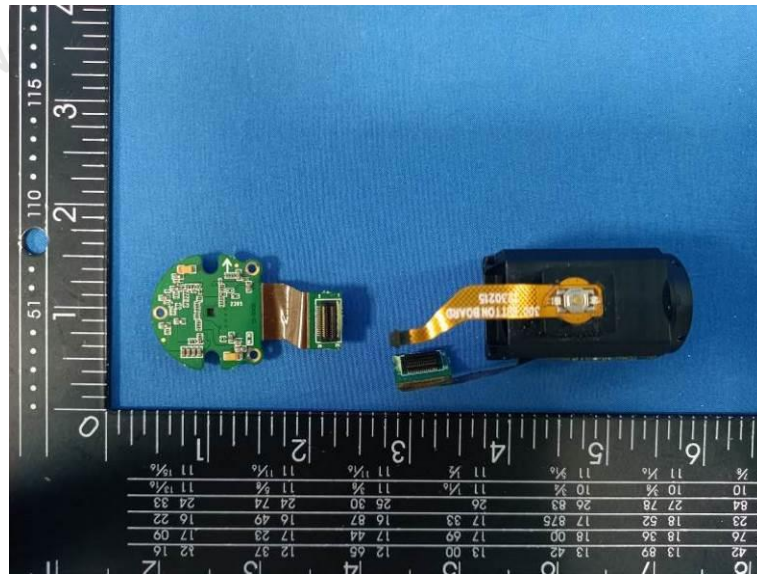


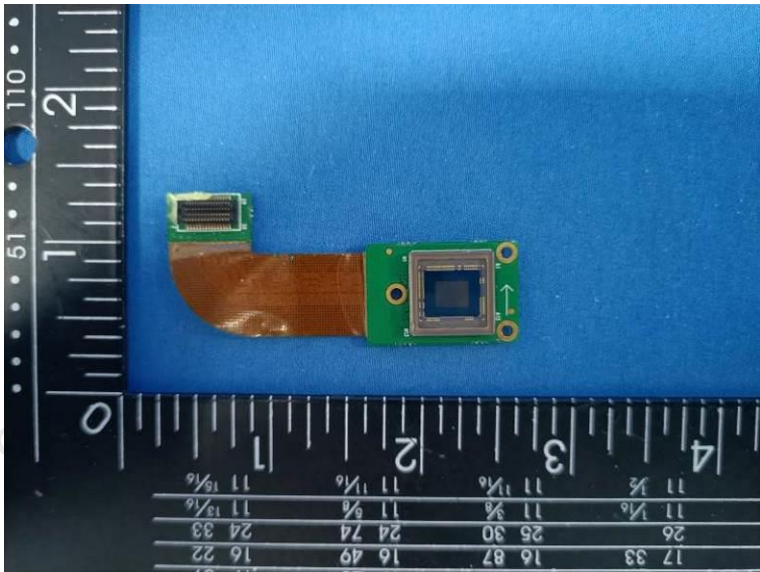
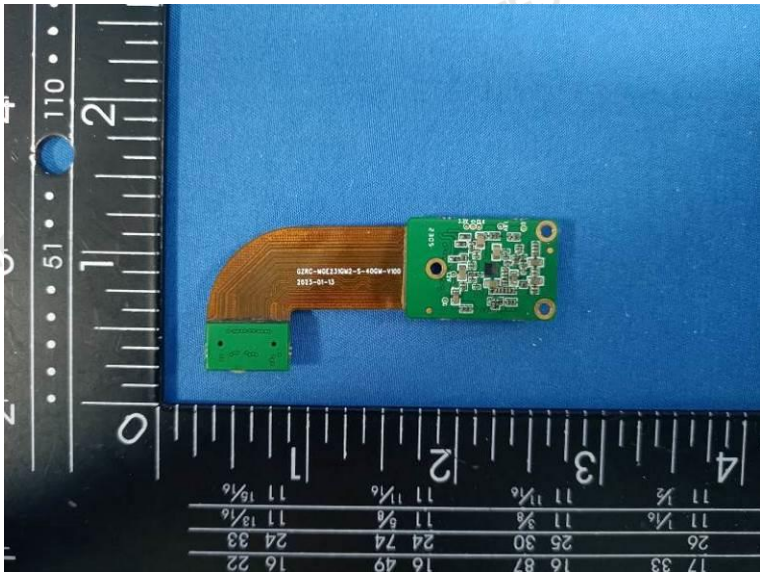
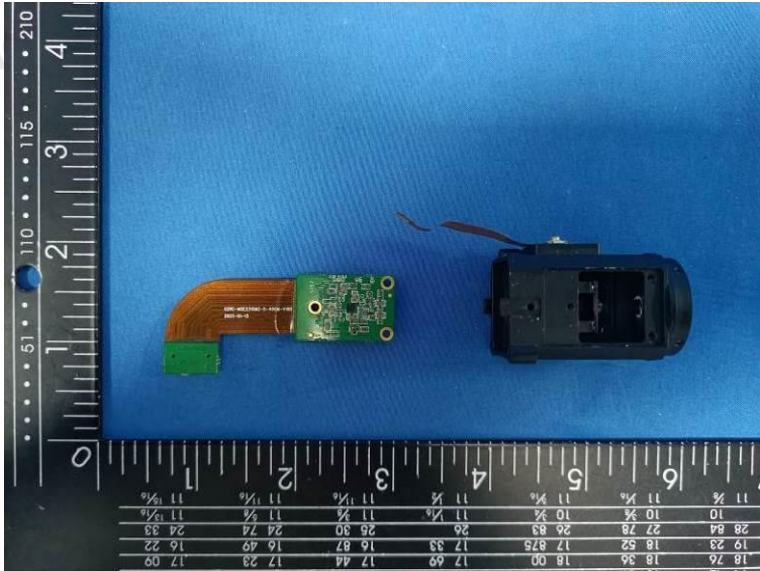


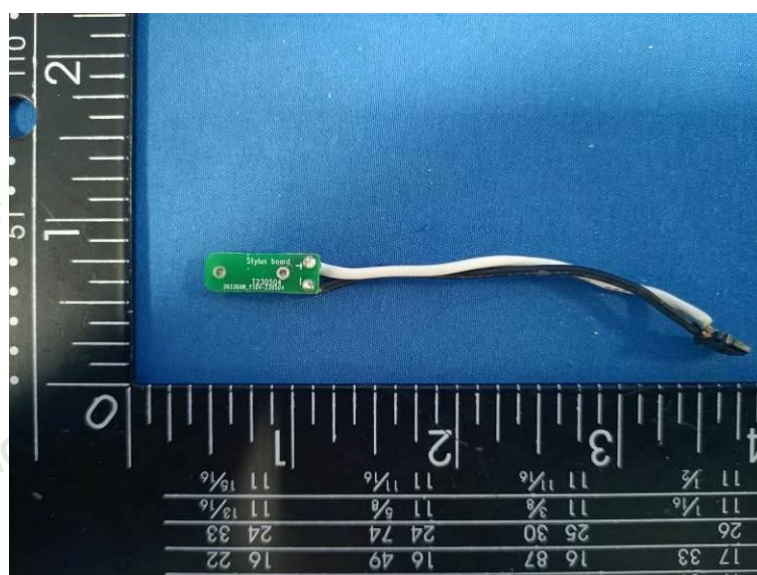
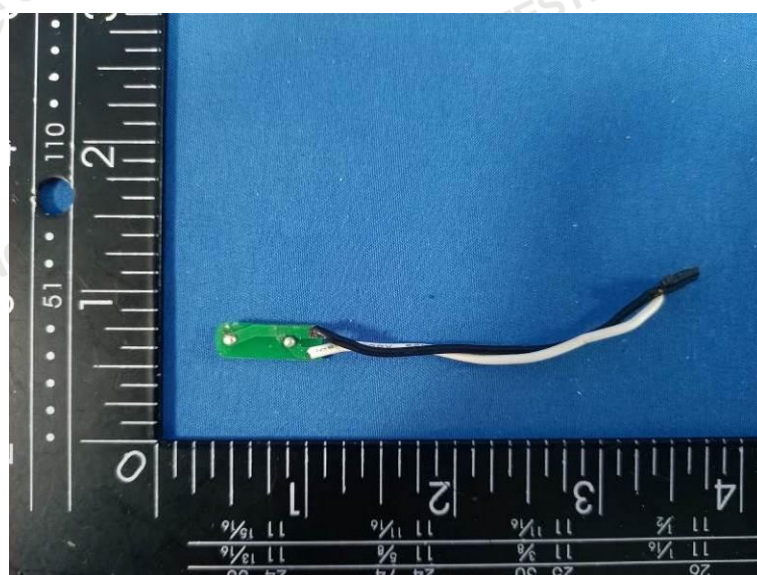
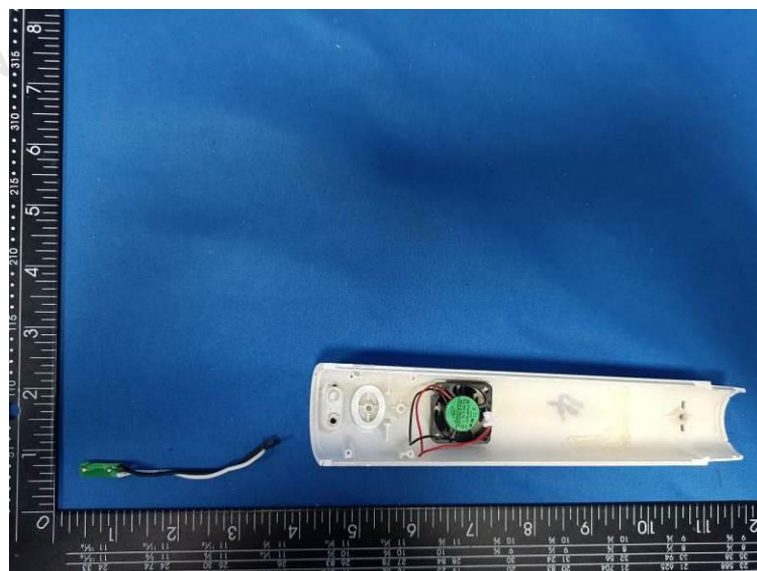


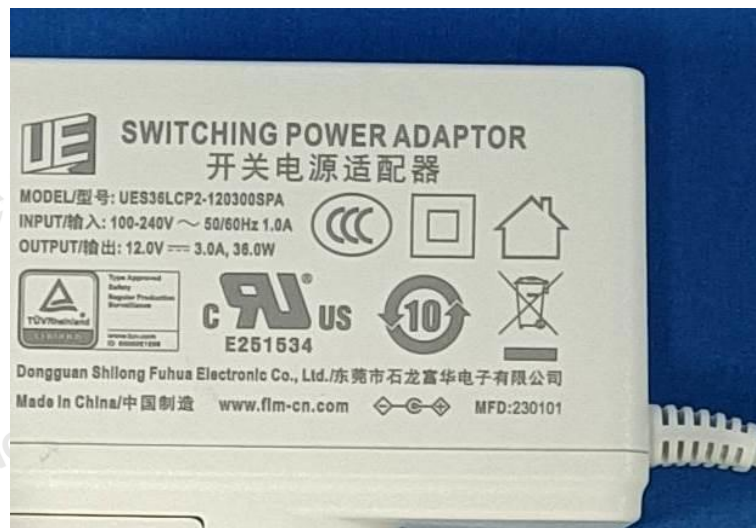
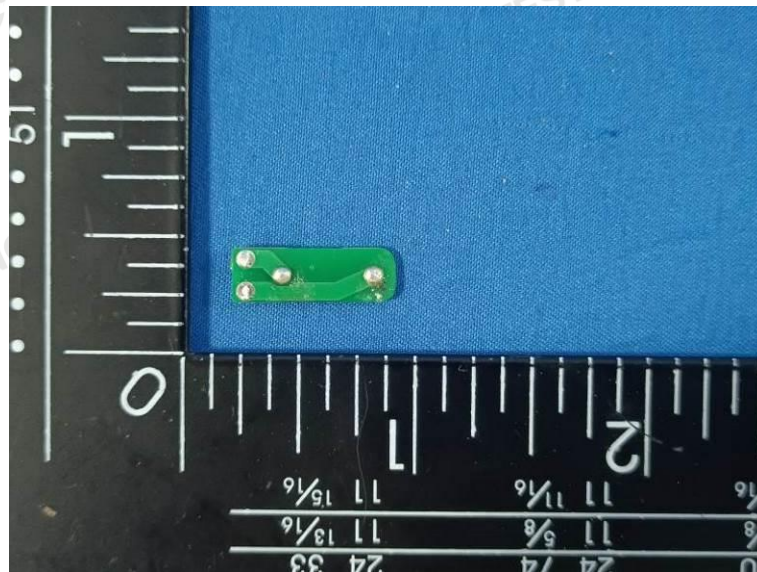
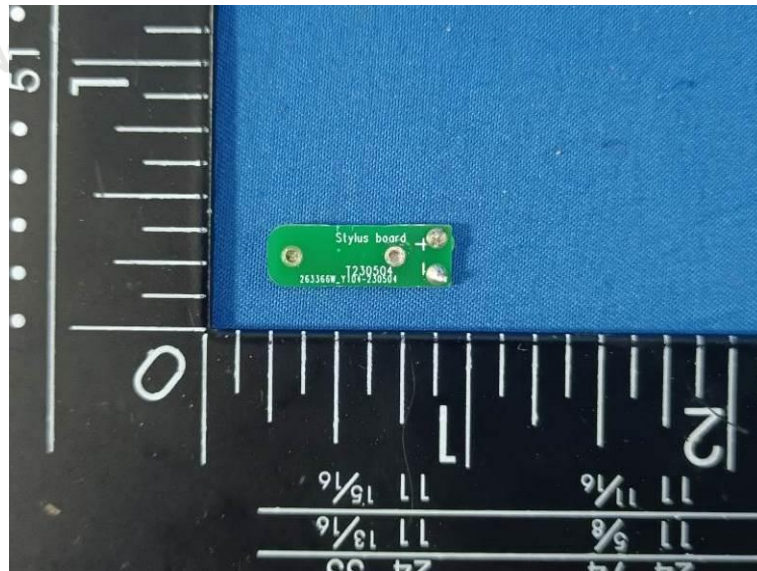














***** End of Report *****