



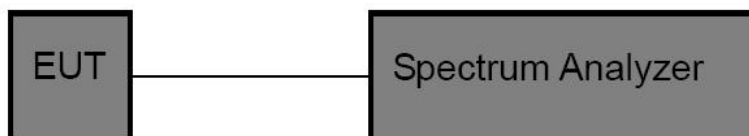
## 11 Power Spectral density

|                  |  |
|------------------|--|
| Test Requirement | : FCC CFR47 Part 15 Section 15.247   |
| Test Method      | : ANSI C63.10:2013   |
| Test Limit       | : Regulation 15.247(f) The power spectral density conducted from the intentional radiator to the antenna due to the digital modulation operation of the hybrid system, with the frequency hopping operation turned off, shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. |

### 11.1 Test Procedure

1. Connect the antenna port(s) to the spectrum analyzer input.
2. Configure the spectrum analyzer as shown below:  
Center frequency=DTS channel center frequency  
Span = 1.5 times the DTS bandwidth  
RBW = 3KHz, VBW = 10KHz  
Sweep time = auto couple  
Detector = peak  
Trace mode =max hold
3. Place the radio in continuous transmit mode, allow the trace to stabilize, view the transmitter wave form on the spectrum analyzer.
4. Use the peak marker function to determine the maximum amplitude level within the RBW.
5. If measured value exceeds limit, reduce RBW(no less than 3KHz) and repeat.

### 11.2 Test Setup

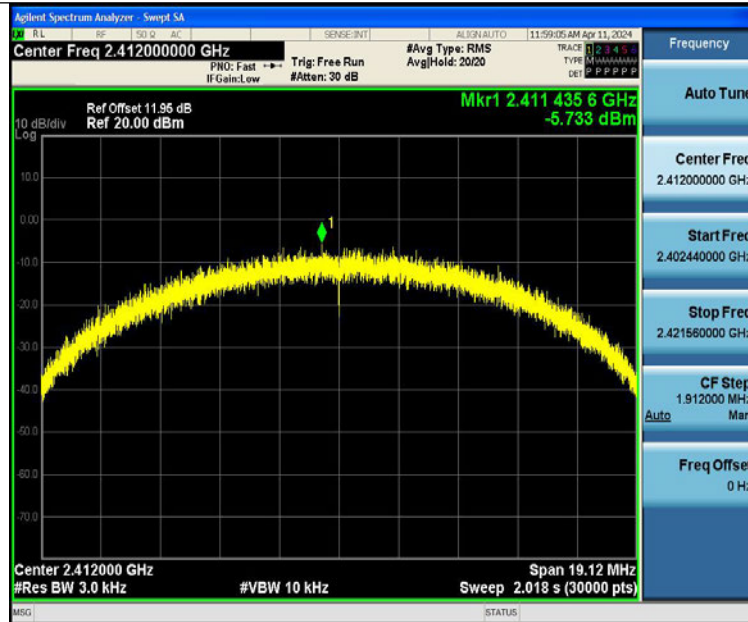


### 11.3 Test Result

| TestMode  | Antenna | Frequency[MHz] | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|-----------|---------|----------------|----------------------|-----------------|---------|
| 11B       | Ant1    | 2412           | -5.73                | ≤8.00           | PASS    |
| 11B       | Ant1    | 2437           | -6.2                 | ≤8.00           | PASS    |
| 11B       | Ant1    | 2462           | -6.51                | ≤8.00           | PASS    |
| 11G       | Ant1    | 2412           | -11.08               | ≤8.00           | PASS    |
| 11G       | Ant1    | 2437           | -11.22               | ≤8.00           | PASS    |
| 11G       | Ant1    | 2462           | -11.21               | ≤8.00           | PASS    |
| 11N20SISO | Ant1    | 2412           | -13.09               | ≤8.00           | PASS    |
| 11N20SISO | Ant1    | 2437           | -13.14               | ≤8.00           | PASS    |
| 11N20SISO | Ant1    | 2462           | -13.03               | ≤8.00           | PASS    |



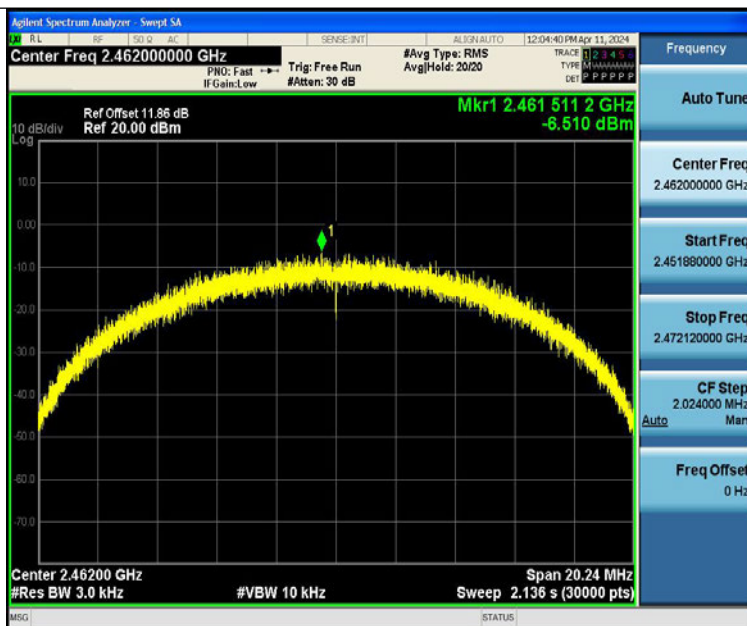
Test Graphs:



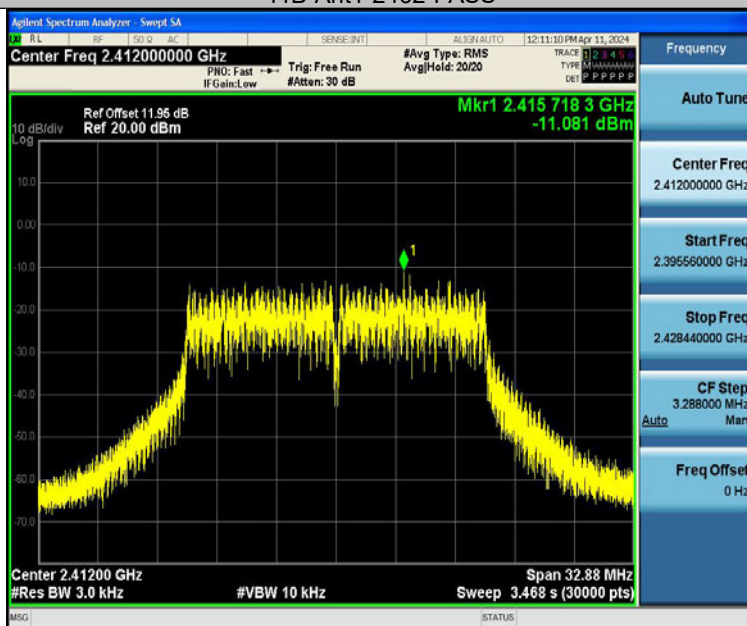
11B-Ant1-2412-PASS



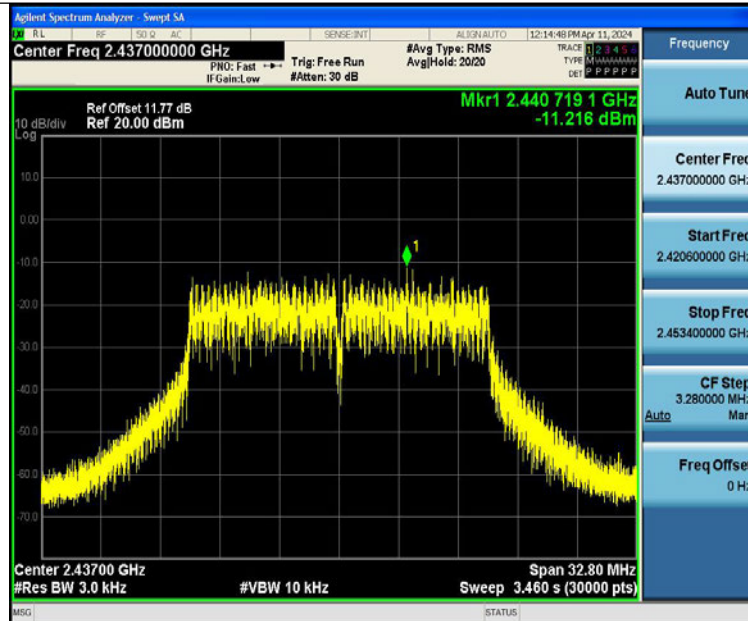
11B-Ant1-2437-PASS



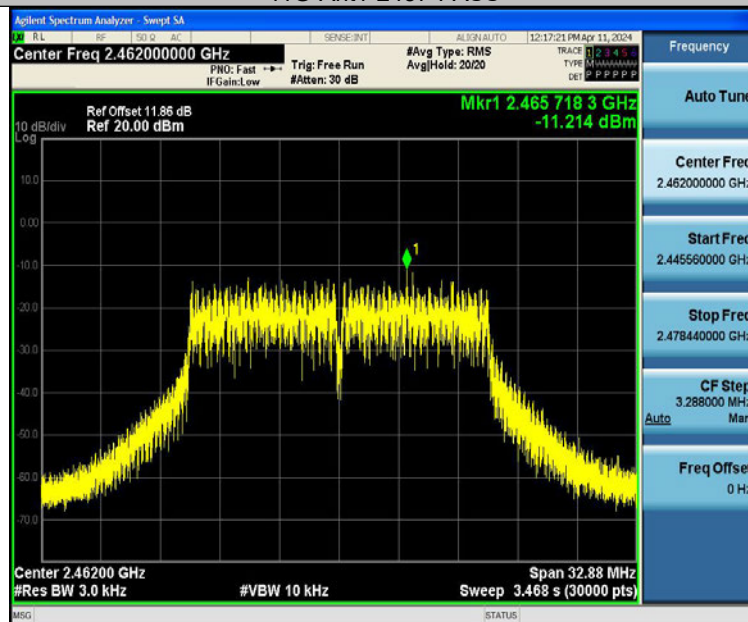
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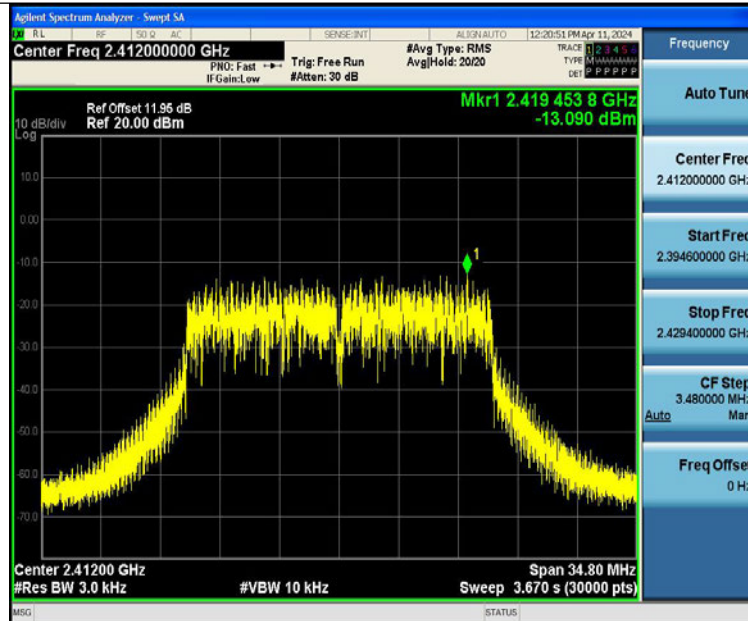
11G-Ant1-2412-PASS



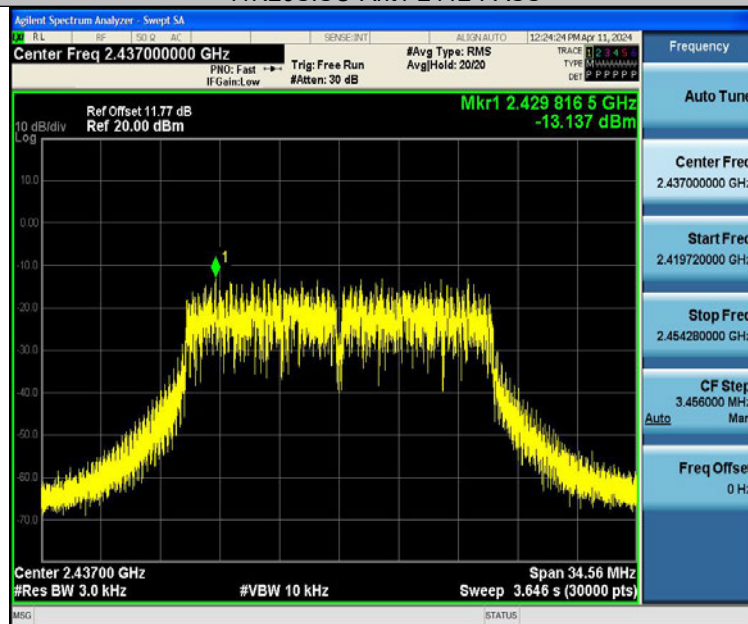
11G-Ant1-2437-PASS



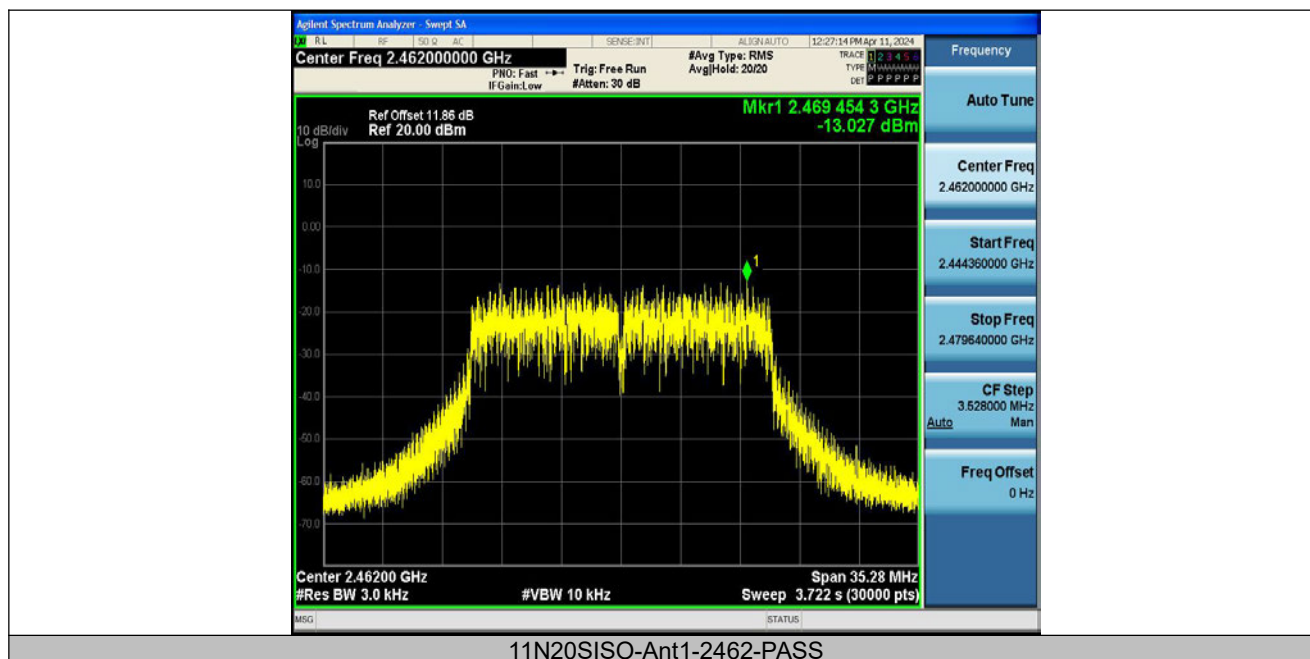
11G-Ant1-2462-PASS



11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2437-PASS





## **12 Antenna Application**

### **12.1 Antenna Requirement**

For intentional device, according to FCC 47 CFR Section 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. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

### **12.2 Result**

The EUT'S antenna, permanent attached antenna, is External Antenna. The antenna's gain is -0.02 dBi and meets the requirement.



## 13 Test Setup

### Conducted Emissions



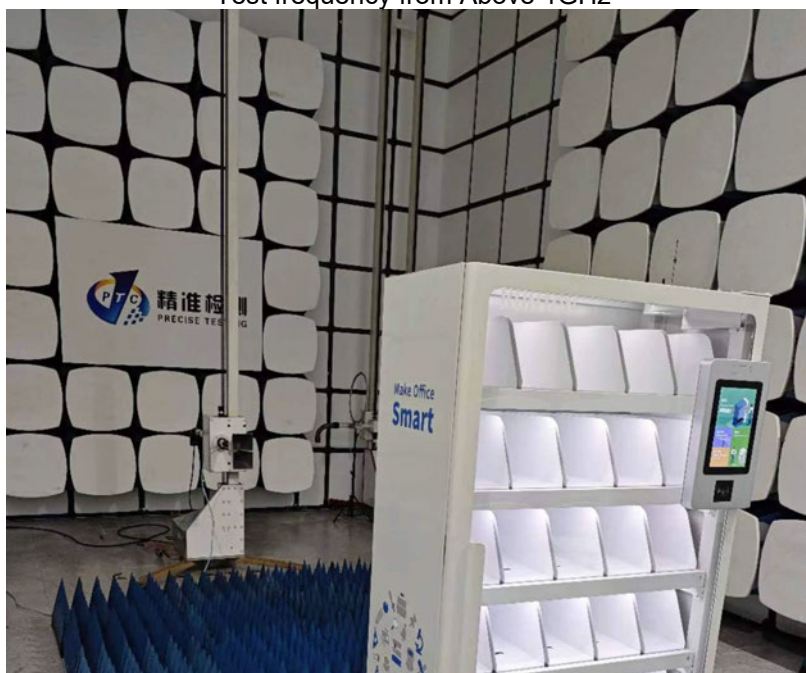
### Radiated Spurious Emissions From 30MHz-1000MHz





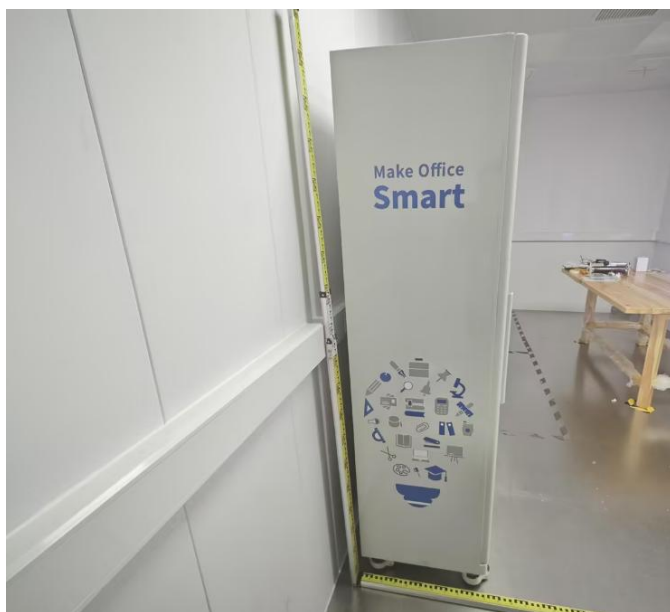


Test frequency from Above 1GHz



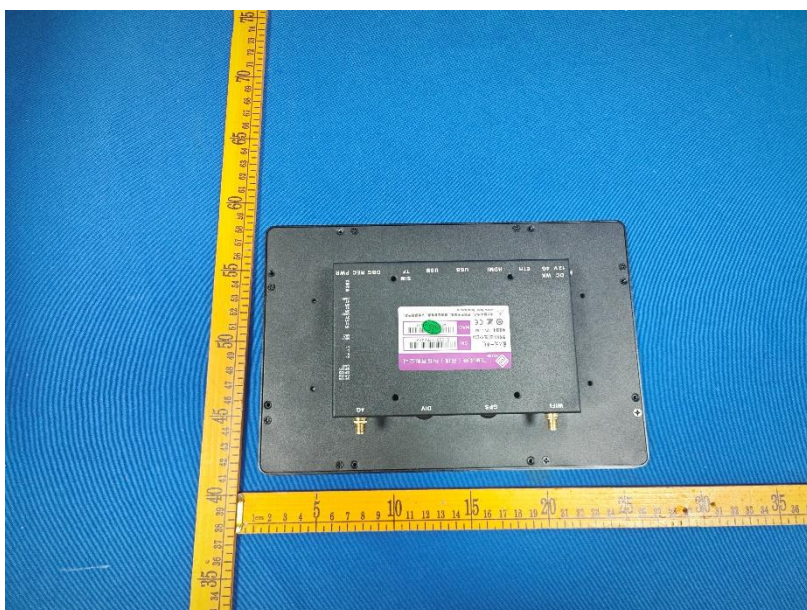
## 14 EUT PHOTOS

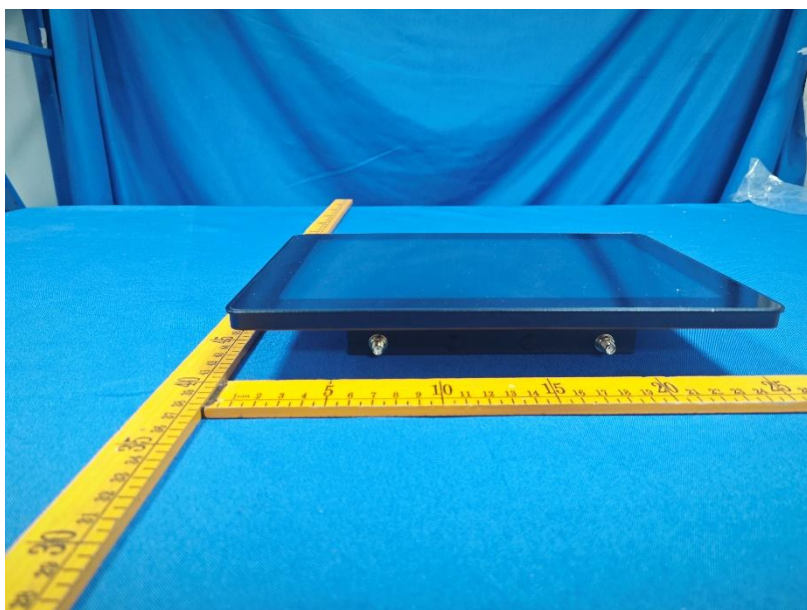




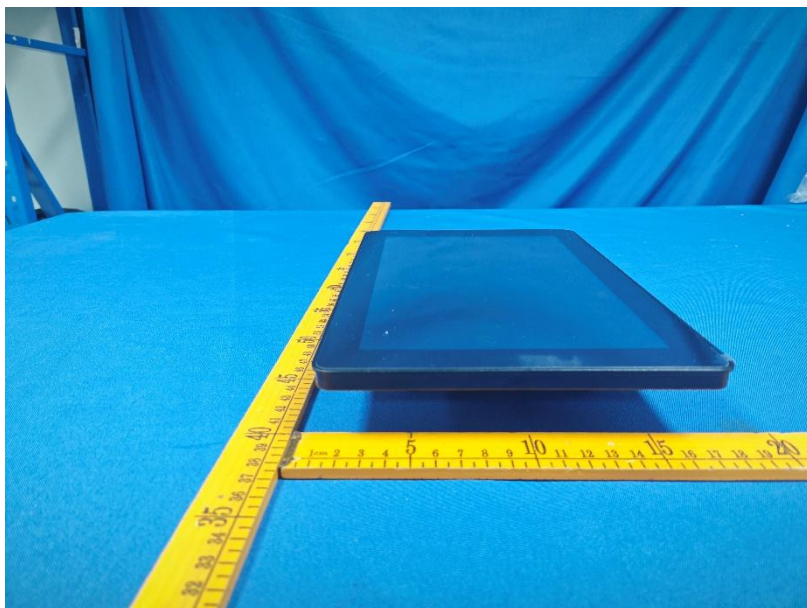


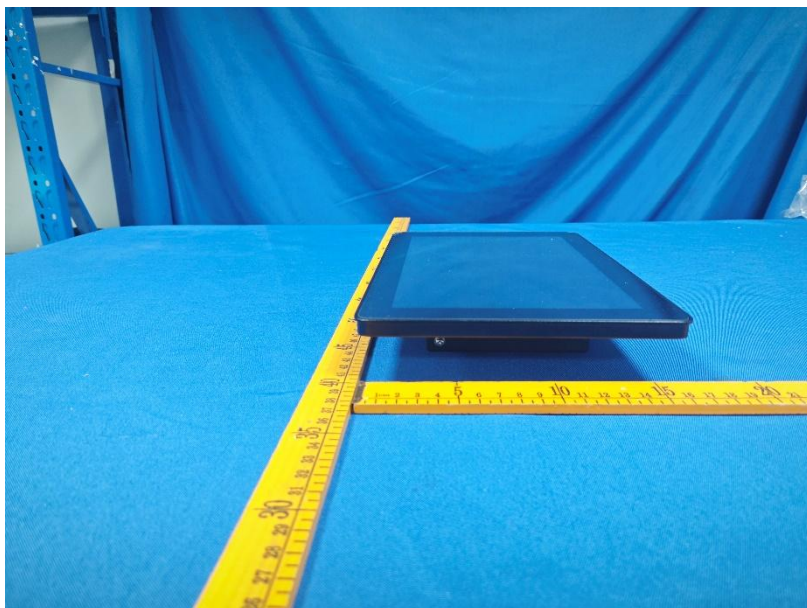


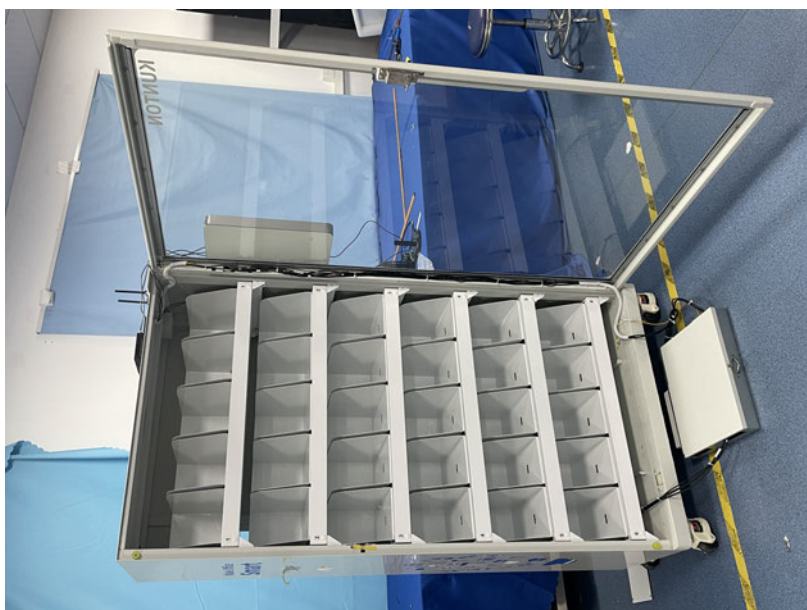




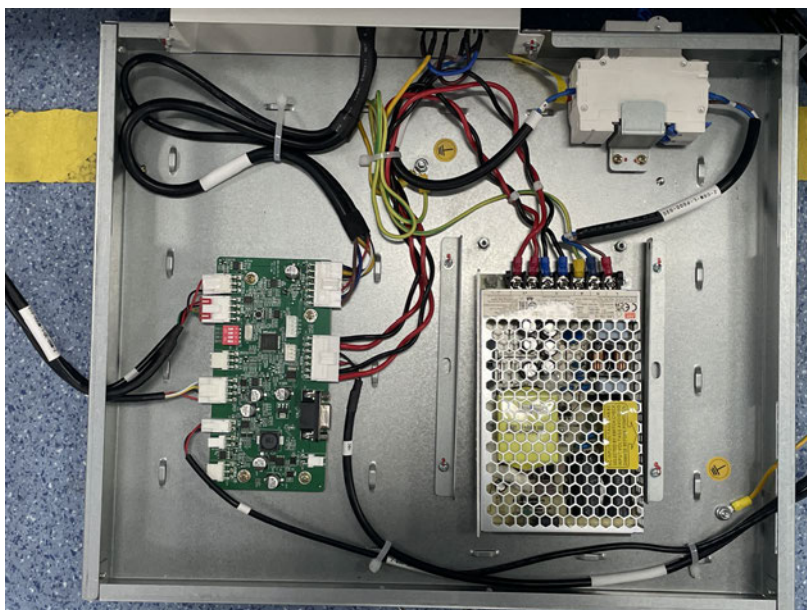


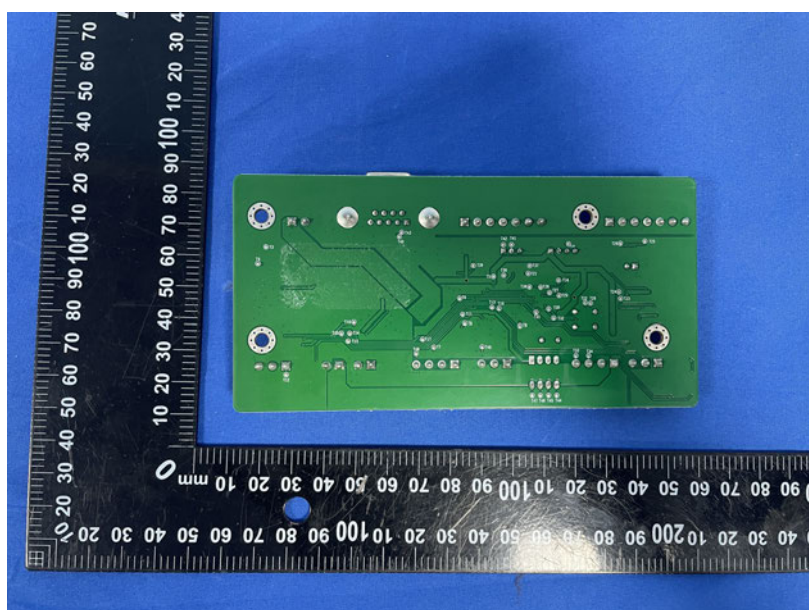
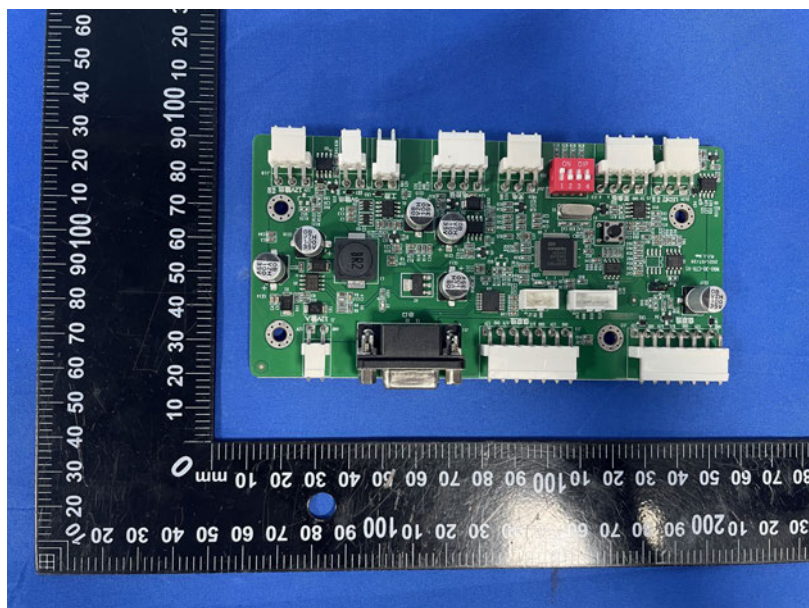




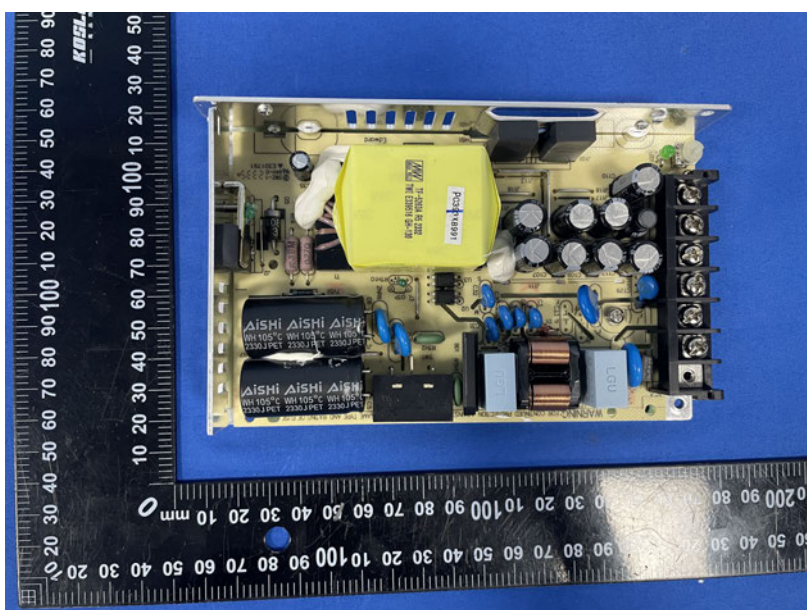
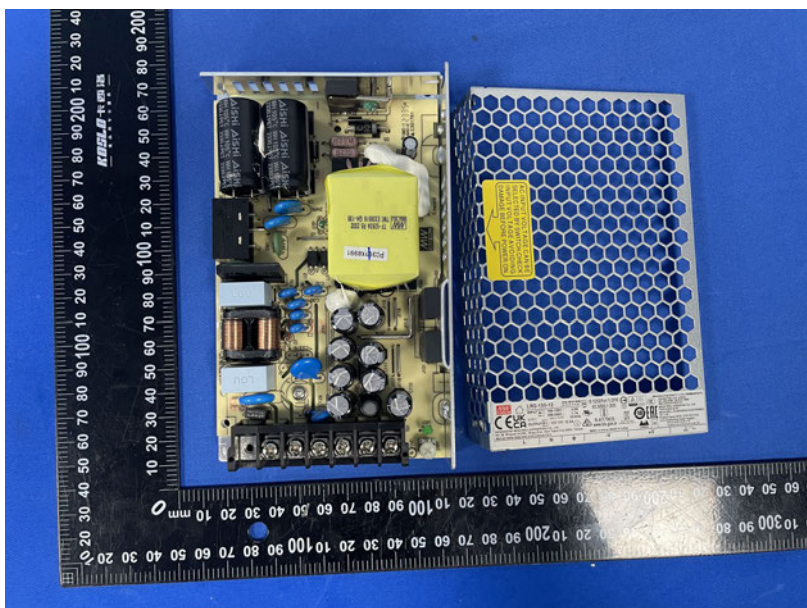




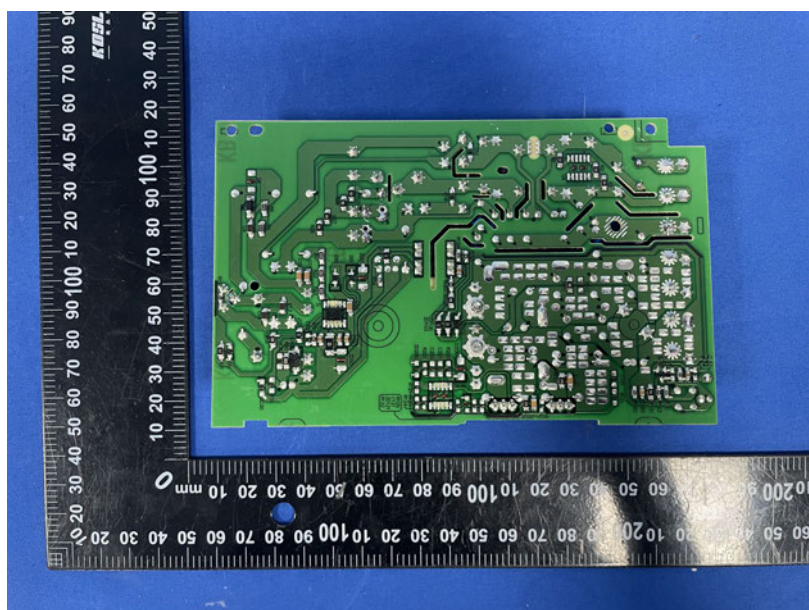


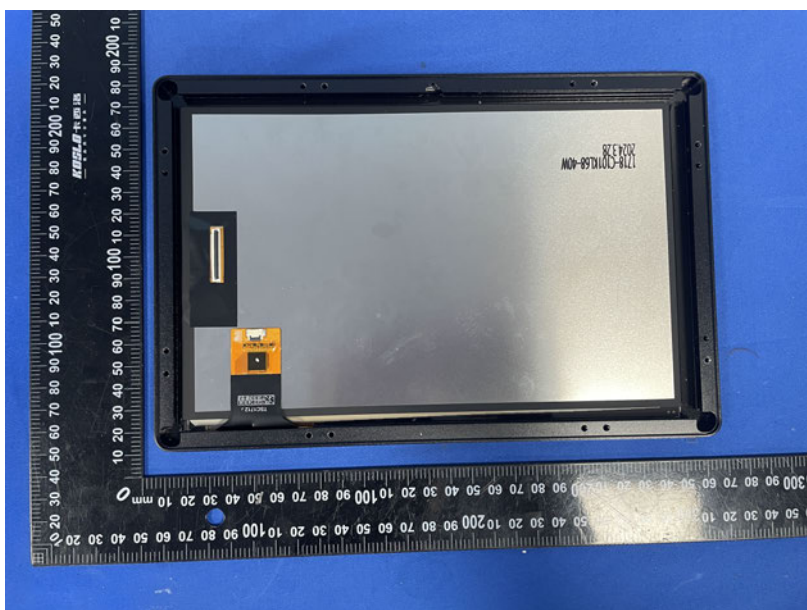


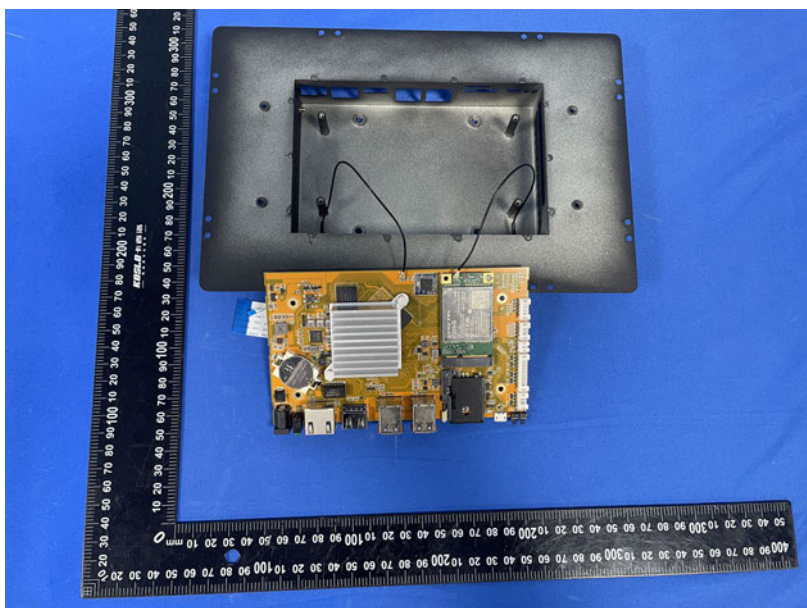




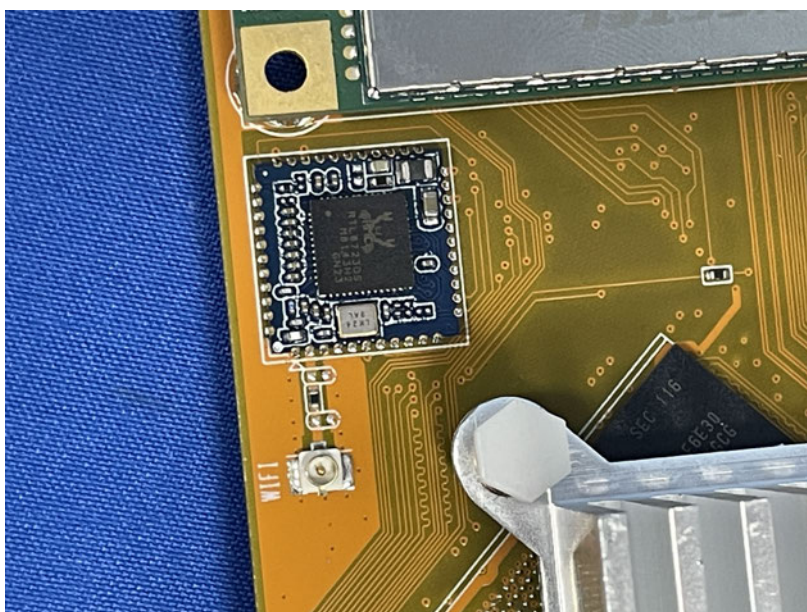
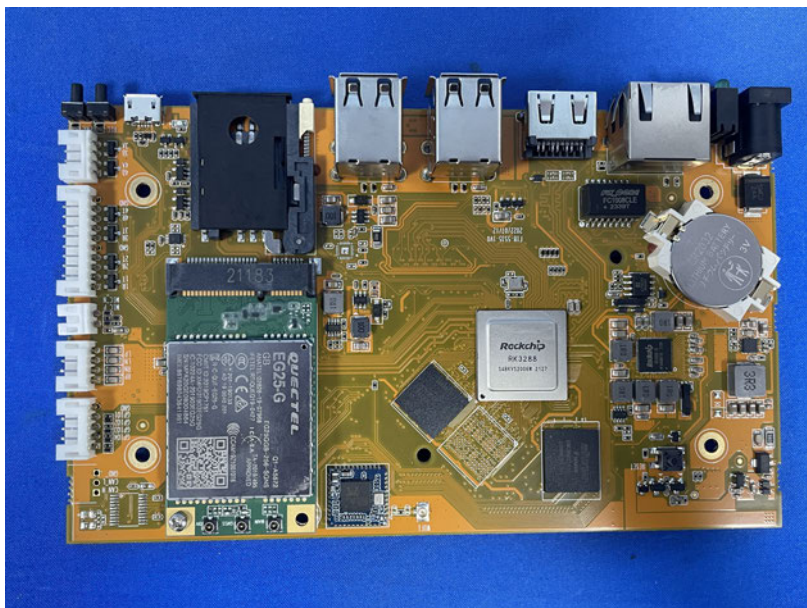


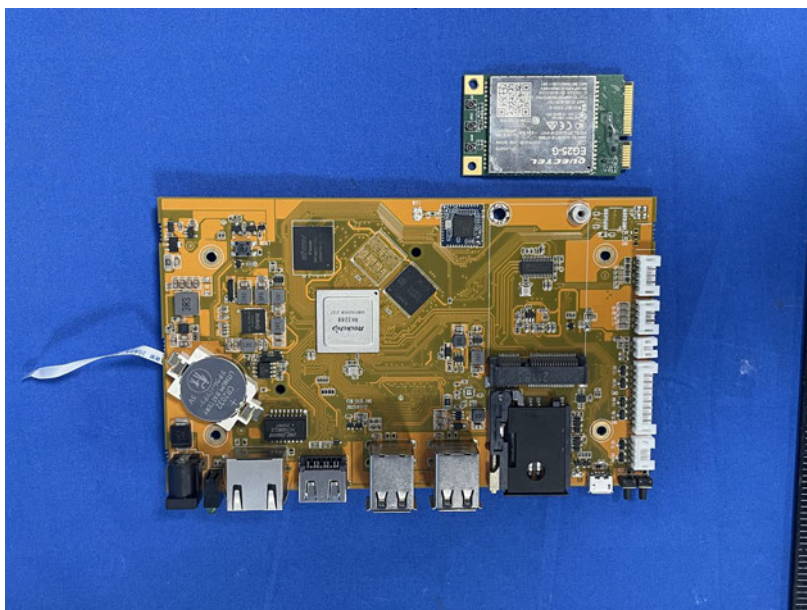
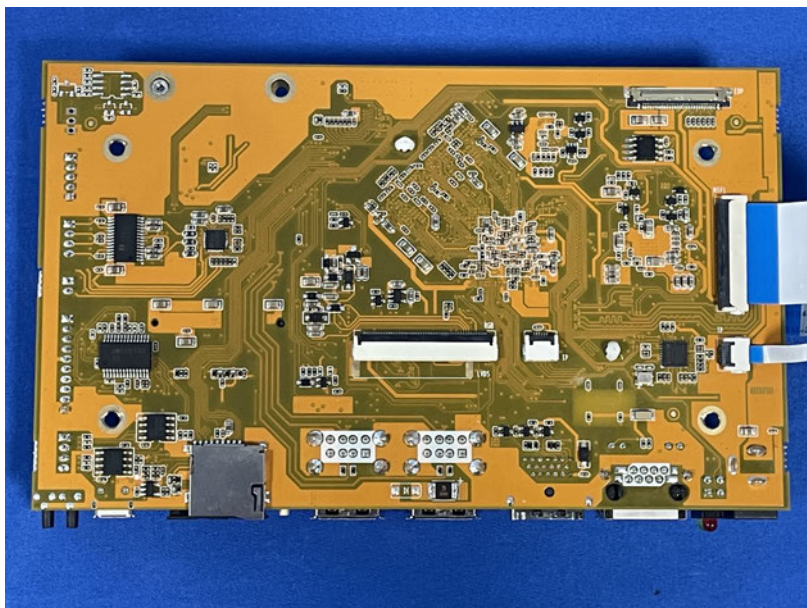




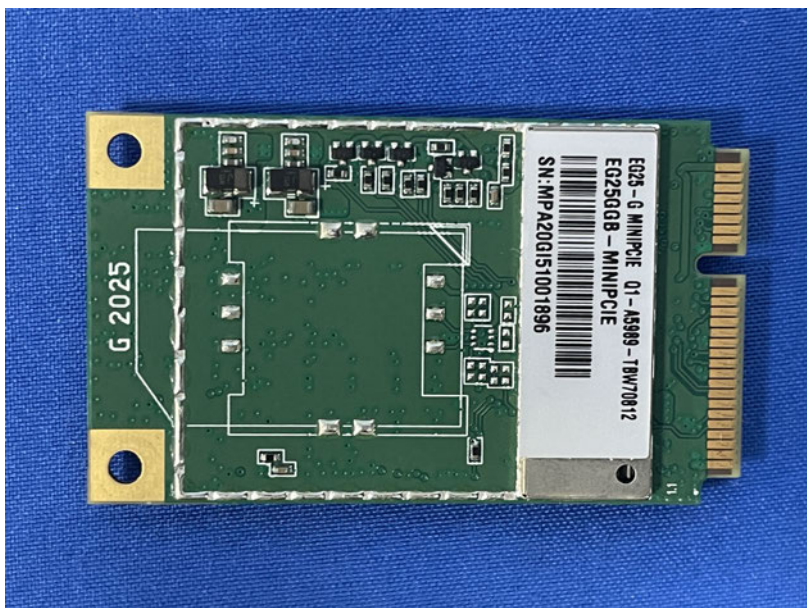




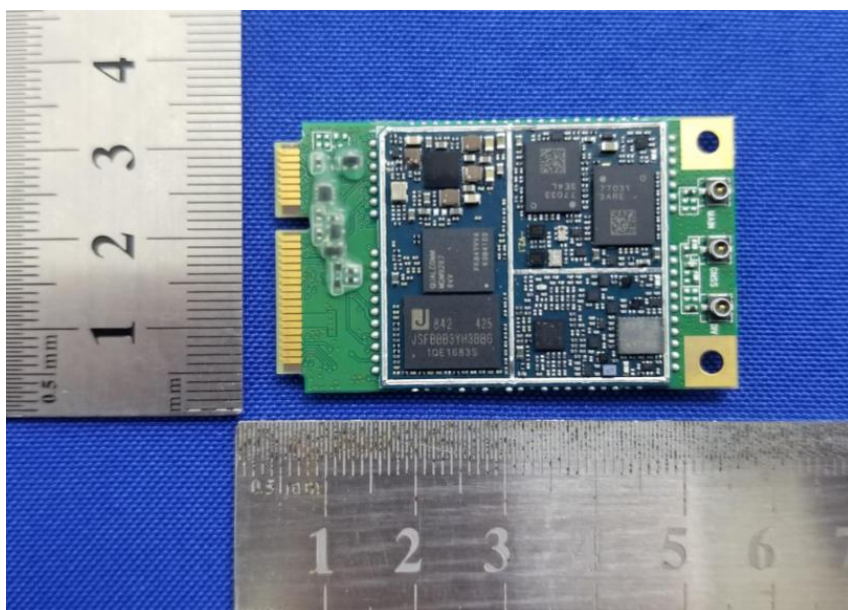
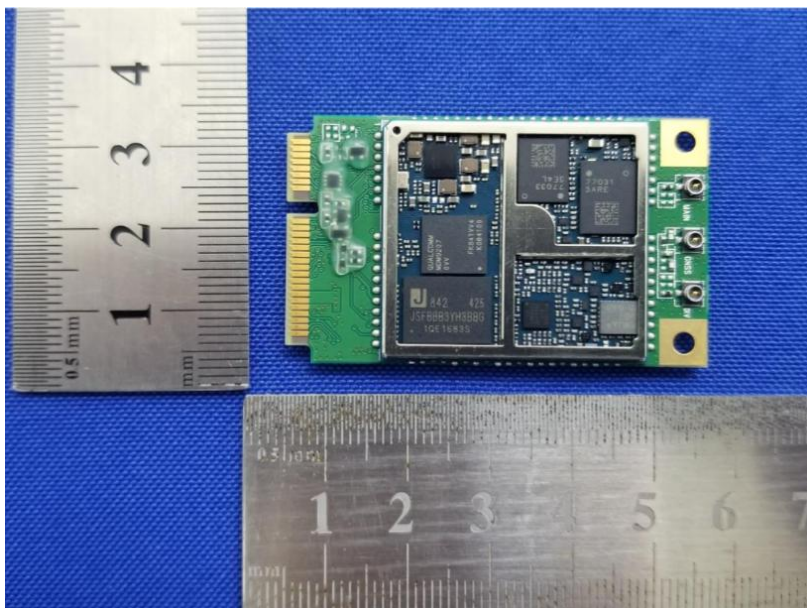


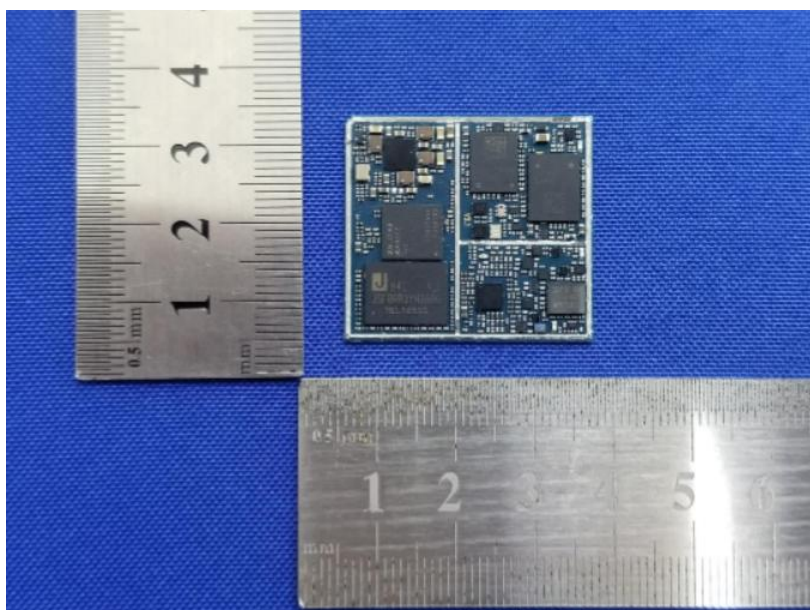
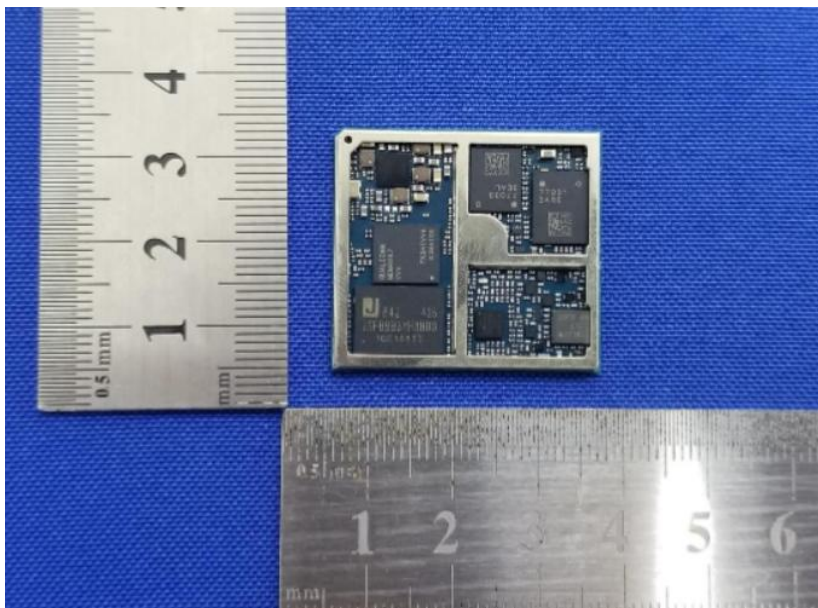






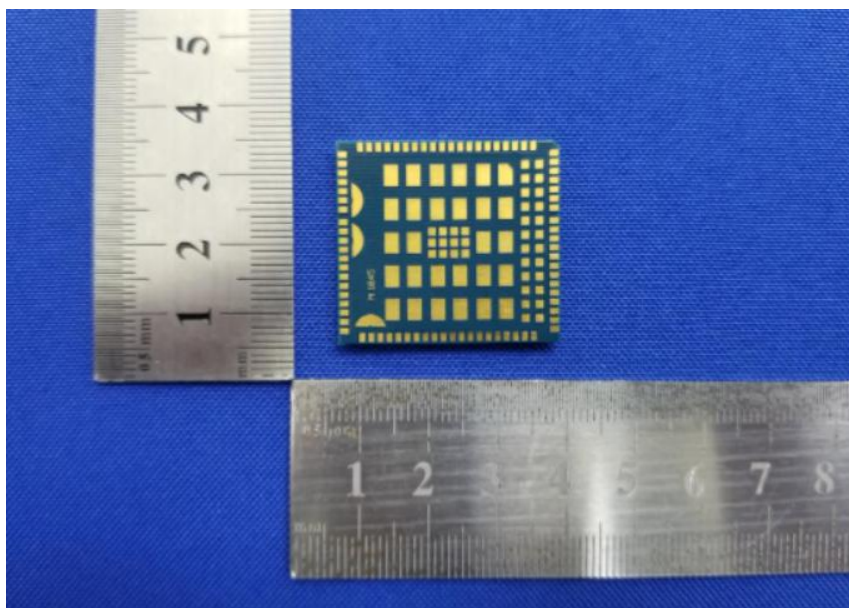








Report No.: PTC24022617701E-FC03



\*\*\*\*\*THE END REPORT\*\*\*\*\*