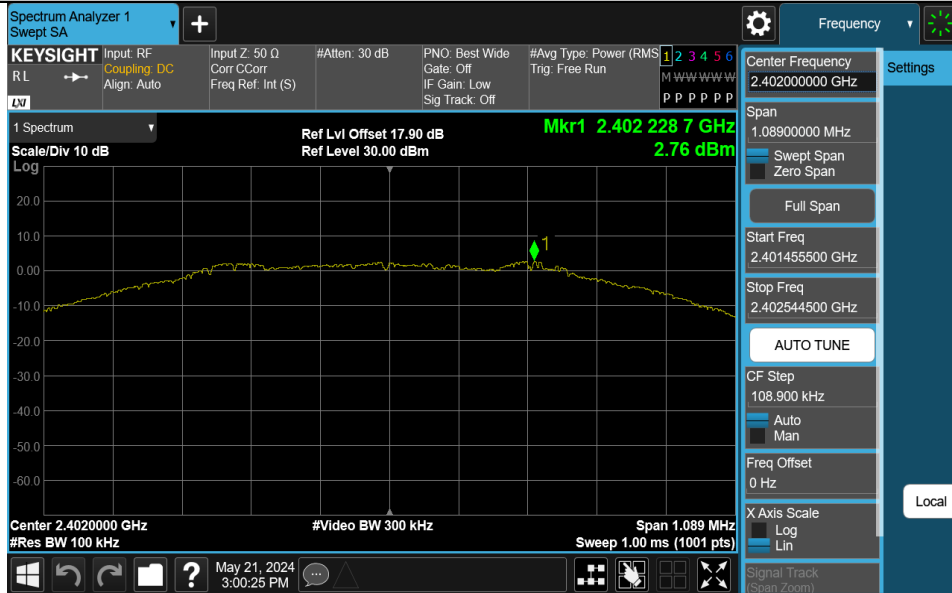


## Appendix D: Reference level measurement Test Result

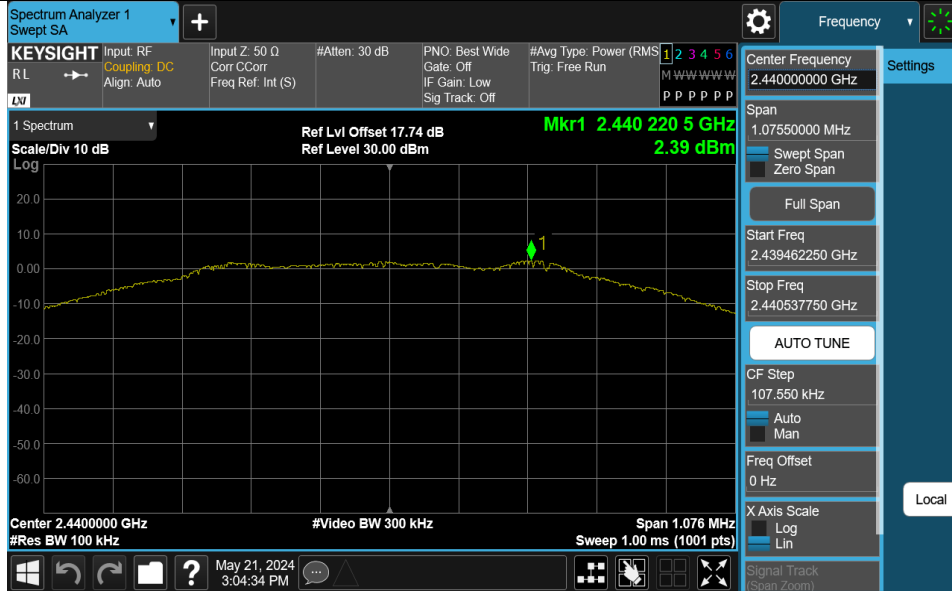
Test Mode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
BLE_1M	Ant1	2402	2402.23	2.77
BLE_1M	Ant1	2440	2440.22	2.39
BLE_1M	Ant1	2480	2480.23	2.21
BLE_2M	Ant1	2402	2402.14	0.97
BLE_2M	Ant1	2440	2440.14	0.55
BLE_2M	Ant1	2480	2480.14	0.47

### Test Graphs

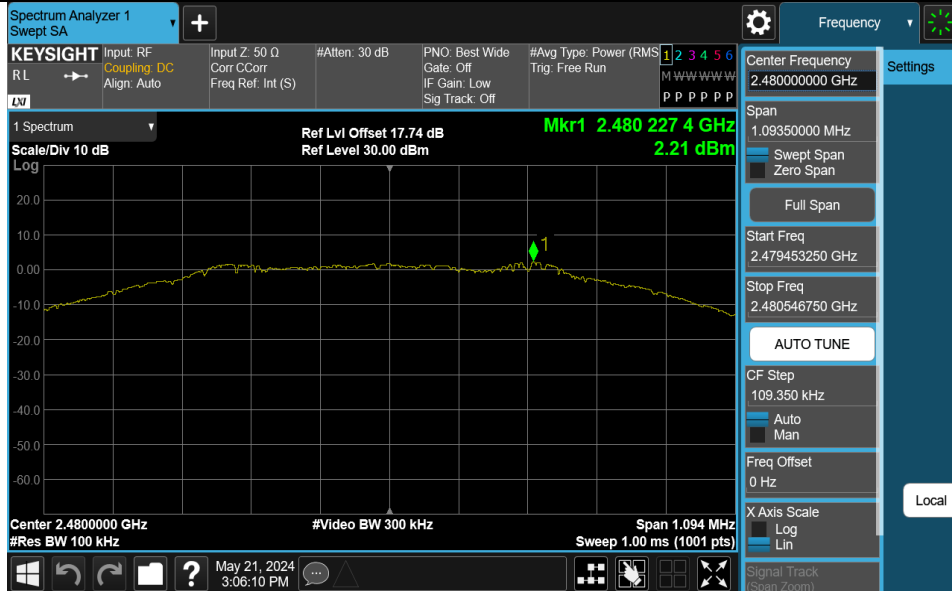
#### BLE\_1M-Ant1-2402-PASS



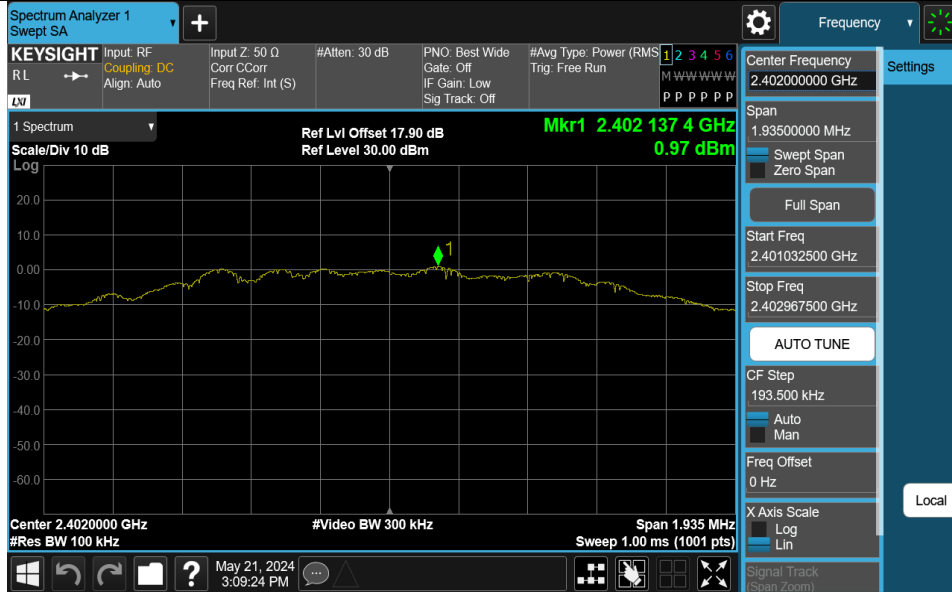
#### BLE\_1M-Ant1-2440-PASS



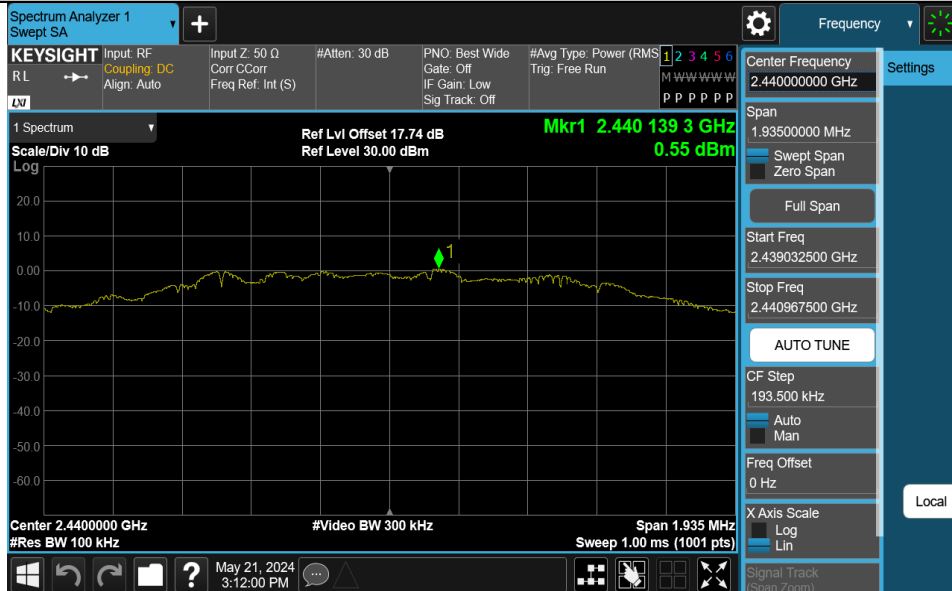
#### BLE\_1M-Ant1-2480-PASS



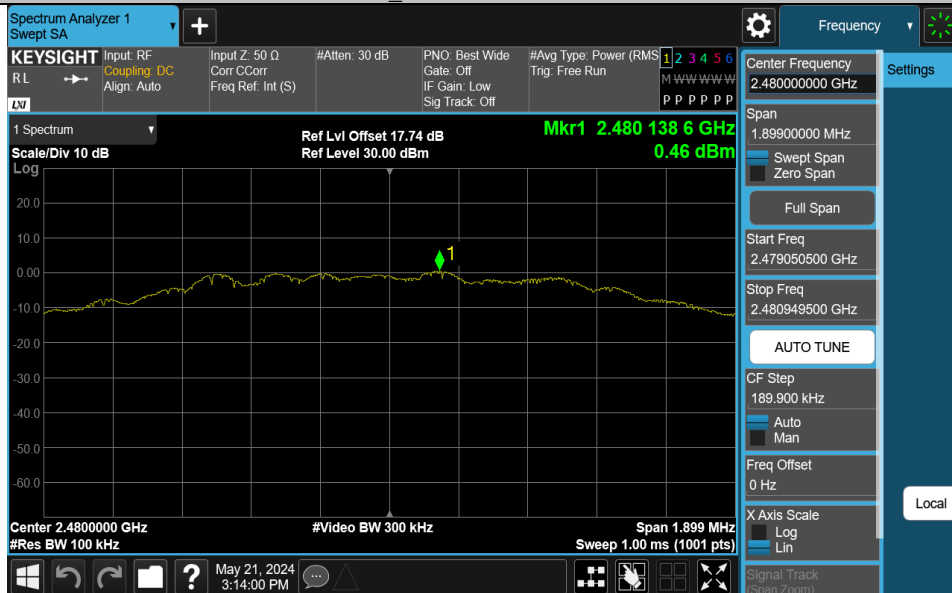
### BLE\_2M-Ant1-2402-PASS



### BLE\_2M-Ant1-2440-PASS



### BLE\_2M-Ant1-2480-PASS



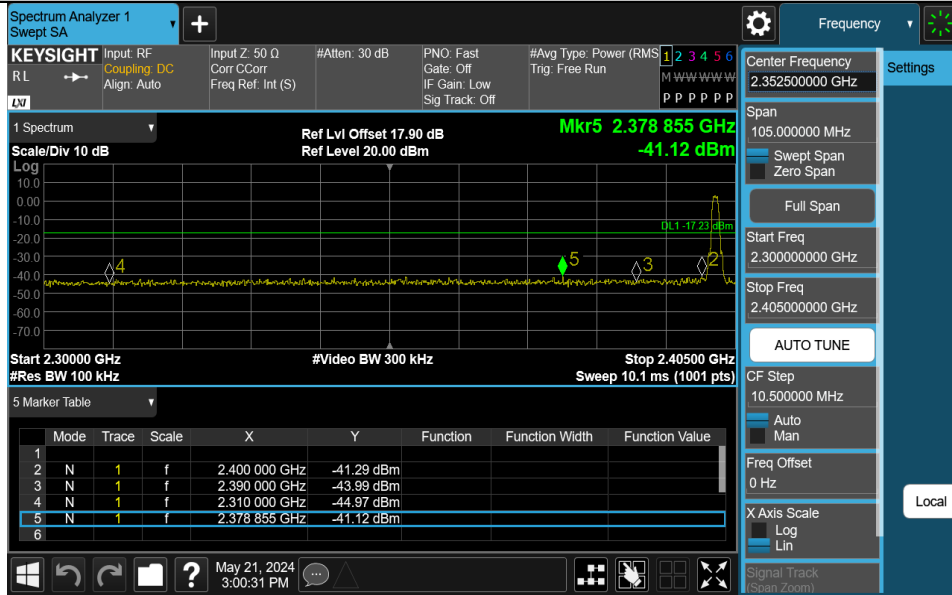
## Appendix E: Band edge measurements

## Test Result

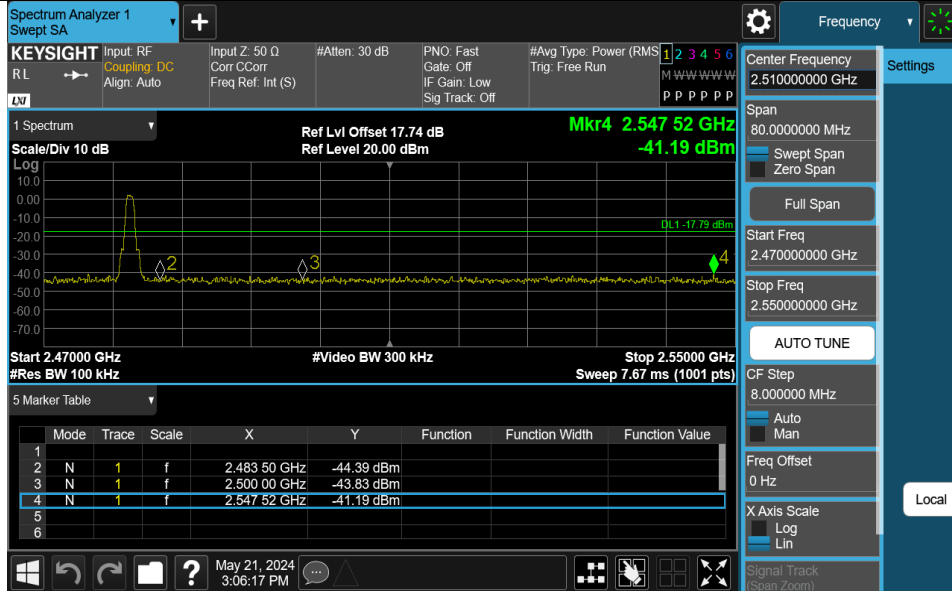
Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	2.77	-41.12	$\leq -17.23$	PASS
BLE_1M	Ant1	High	2480	2.21	-41.19	$\leq -17.79$	PASS
BLE_2M	Ant1	Low	2402	0.97	-31.55	$\leq -19.03$	PASS
BLE_2M	Ant1	High	2480	0.47	-40.42	$\leq -19.53$	PASS

### Test Graphs

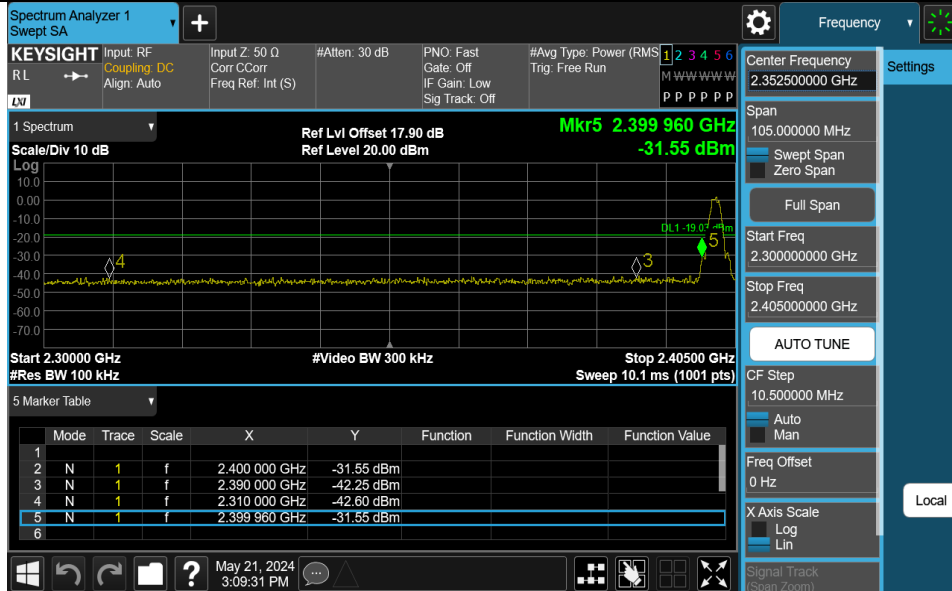
#### BLE\_1M-Ant1-2402-PASS



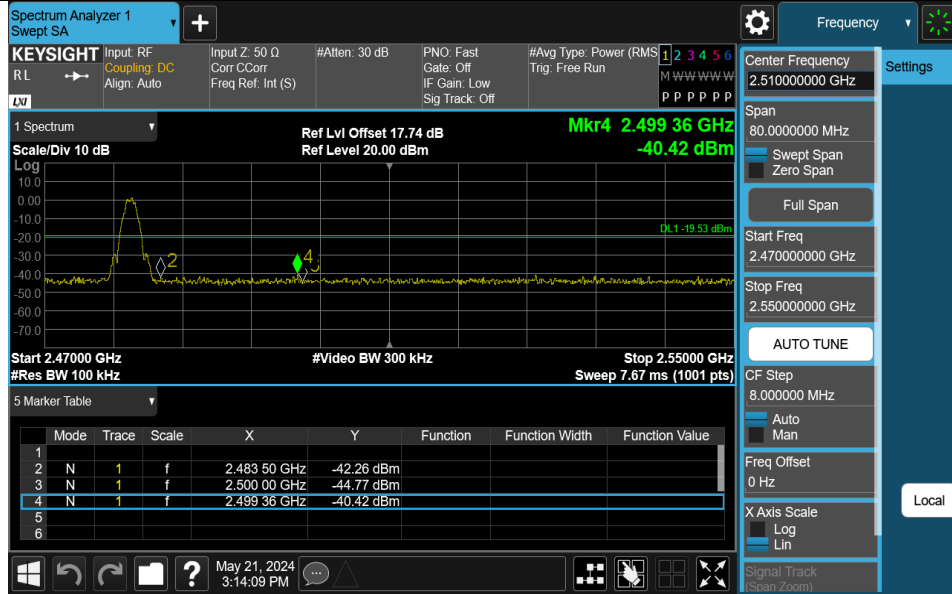
#### BLE\_1M-Ant1-2480-PASS



#### BLE\_2M-Ant1-2402-PASS



BLE\_2M-Ant1-2480-PASS

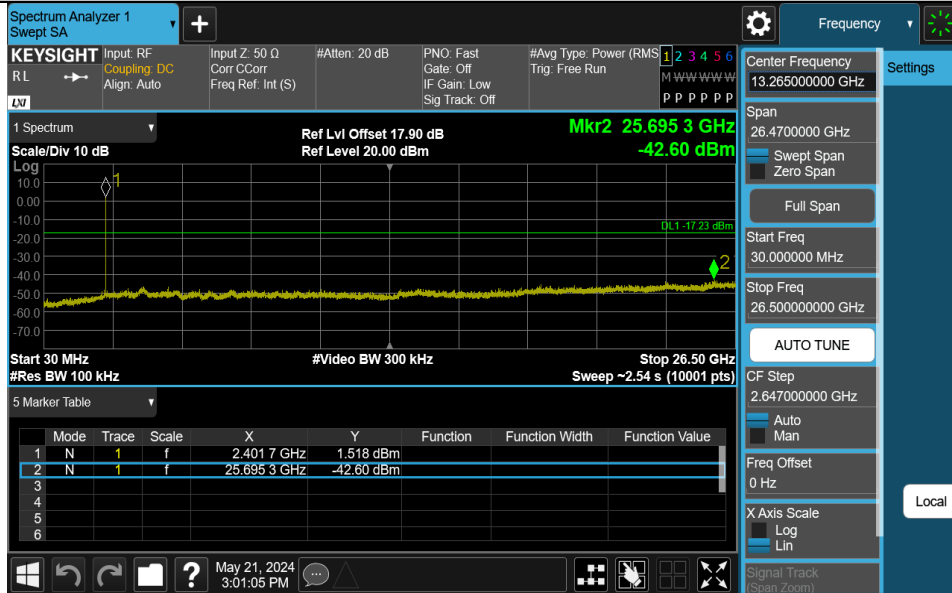


**Appendix F: Conducted Spurious Emission  
Test Result**

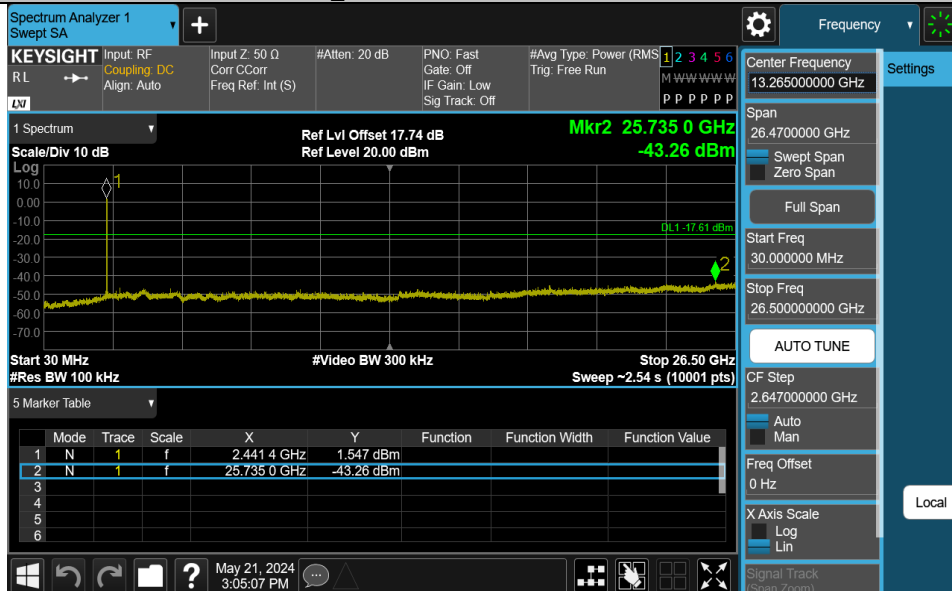
Test Mode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	30~26500	2.77	-42.6	≤-17.23	PASS
BLE_1M	Ant1	2440	30~26500	2.39	-43.26	≤-17.61	PASS
BLE_1M	Ant1	2480	30~26500	2.21	-43.15	≤-17.79	PASS
BLE_2M	Ant1	2402	30~26500	0.97	-42.27	≤-19.03	PASS
BLE_2M	Ant1	2440	30~26500	0.55	-42.72	≤-19.45	PASS
BLE_2M	Ant1	2480	30~26500	0.47	-43.32	≤-19.53	PASS

### Test Graphs

#### BLE\_1M-Ant1-2402-30~26500-PASS



#### BLE\_1M-Ant1-2440-30~26500-PASS

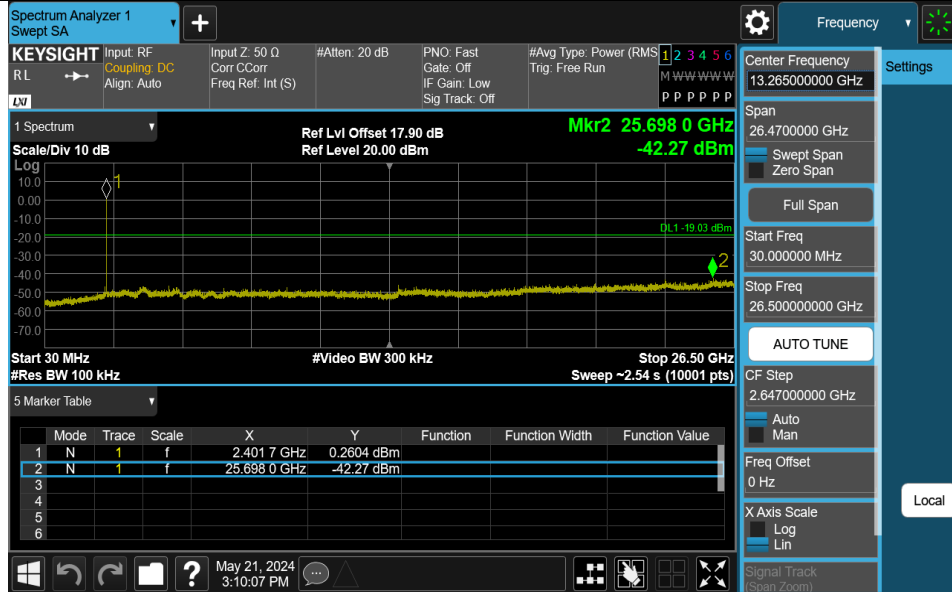


#### BLE\_1M-Ant1-2480-30~26500-PASS

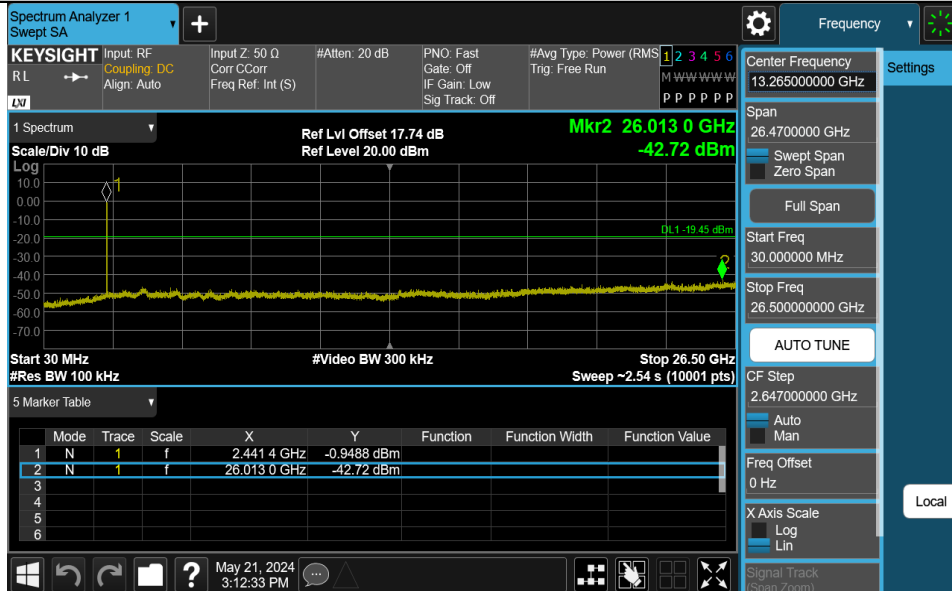




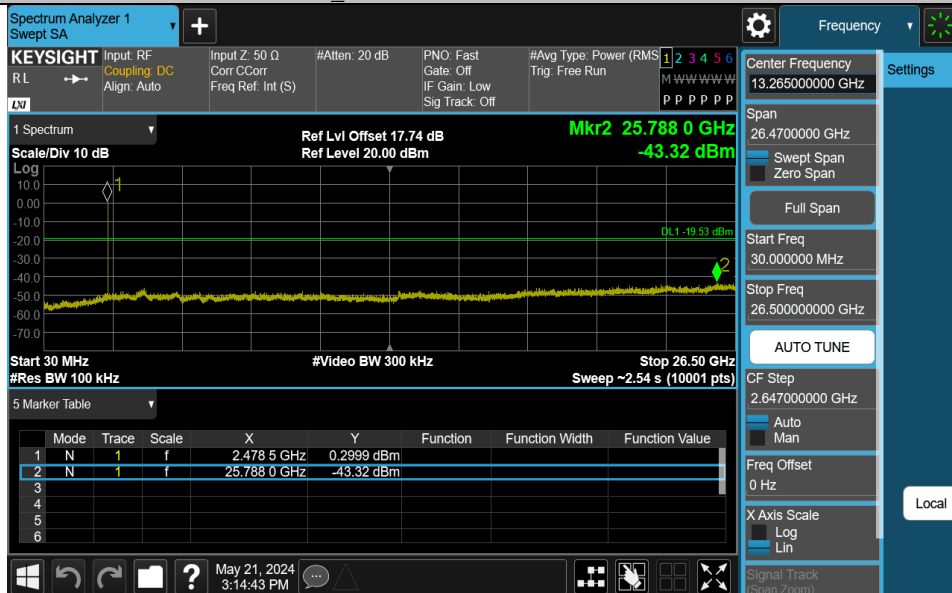
BLE\_2M-Ant1-2402-30~26500-PASS



BLE\_2M-Ant1-2440-30~26500-PASS



BLE\_2M-Ant1-2480-30~26500-PASS





Appendix G: Duty Cycle  
Test Result

Test Mode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2440	0.00	0.00	100	NaN
BLE_2M	Ant1	2440	18.00	18.00	100.00	0.00

Test Graphs

NTNV-BLE\_1M-Ant1-2440

Spectrum Analyzer 1  
Swept SA

KEYSIGHT Input: RF Coupling: DC Align: Auto  
RL →

Input Z: 50 Ω Corr C/Corr Freq Ref: Int (S)  
#Atten: 20 dB PNO: Fast Gate: Off IF Gain: Low Sig Track: Off  
#Avg Type: Power (RMS) Trig: Free Run

Center Frequency: 2.440000000 GHz  
Span: 0.00000000 Hz  
Start Freq: 2.440000000 GHz  
Stop Freq: 2.440000000 GHz  
AUTO TUNE  
CF Step: 3.000000 MHz  
Freq Offset: 0 Hz  
X Axis Scale: Log  
Sweep: 20.0 ms (1001 pts)

1 Spectrum  
Scale/Div 10 dB  
Log  
Ref Lvl Offset 17.74 dB  
Ref Level 20.00 dBm

Center 2.440000000 GHz Res BW 3.0 MHz #Video BW 3.0 MHz Span 0 Hz

May 21, 2024 3:03:56 PM

Settings Local

NTNV-BLE\_2M-Ant1-2440

Spectrum Analyzer 1  
Swept SA

KEYSIGHT Input: RF Coupling: DC Align: Auto  
RL →

Input Z: 50 Ω Corr C/Corr Freq Ref: Int (S)  
#Atten: 20 dB PNO: Fast Gate: Off IF Gain: Low Sig Track: Off  
#Avg Type: Power (RMS) Trig: Free Run

Center Frequency: 2.440000000 GHz  
Span: 0.00000000 Hz  
Start Freq: 2.440000000 GHz  
Stop Freq: 2.440000000 GHz  
AUTO TUNE  
CF Step: 3.000000 MHz  
Freq Offset: 0 Hz  
X Axis Scale: Log  
Sweep: 18.0 ms (1001 pts)

1 Spectrum  
Scale/Div 10 dB  
Log  
Ref Lvl Offset 17.74 dB  
Ref Level 20.00 dBm

Center 2.440000000 GHz Res BW 3.0 MHz #Video BW 3.0 MHz Span 0 Hz

5 Marker Table

Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1							
2							
3							
4							
5							
6							

May 21, 2024 3:11:15 PM

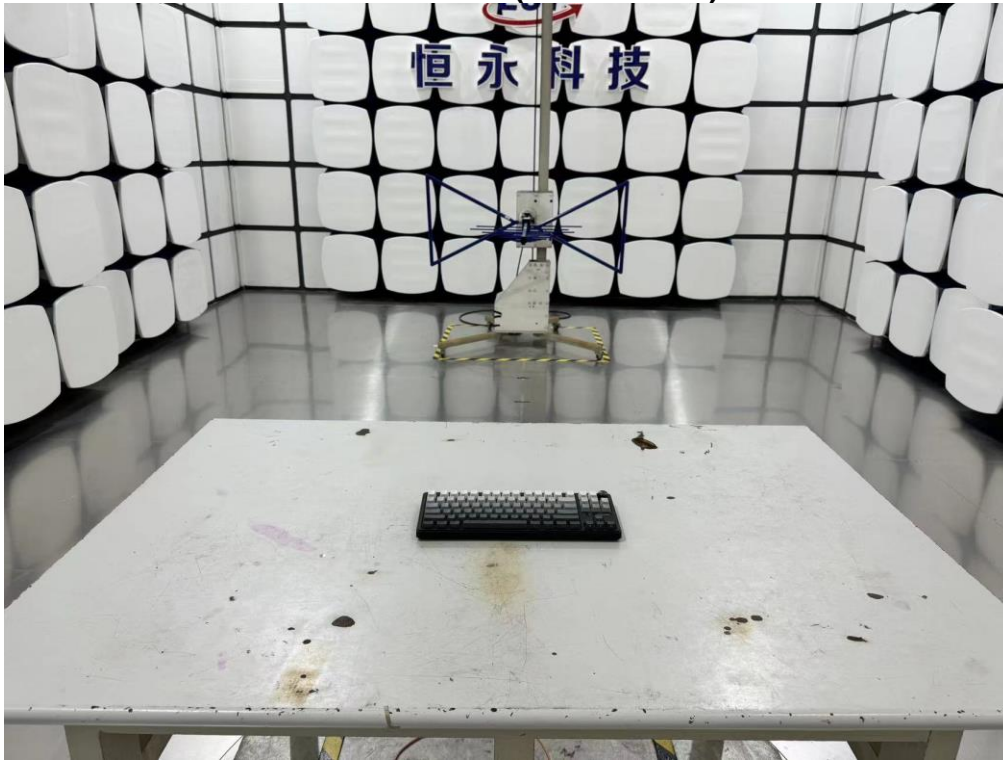
Settings Local

## 12. TEST SETUP PHOTO

Conducted Test



**Radiated Test (Below 1GHz)**



**Radiated Test (Above 1GHz)**



### 13. EUT PHOTO

External Photos  
M/N: R87Pro



**External Photos**  
M/N: R87Pro



**External Photos**  
M/N: R87Pro





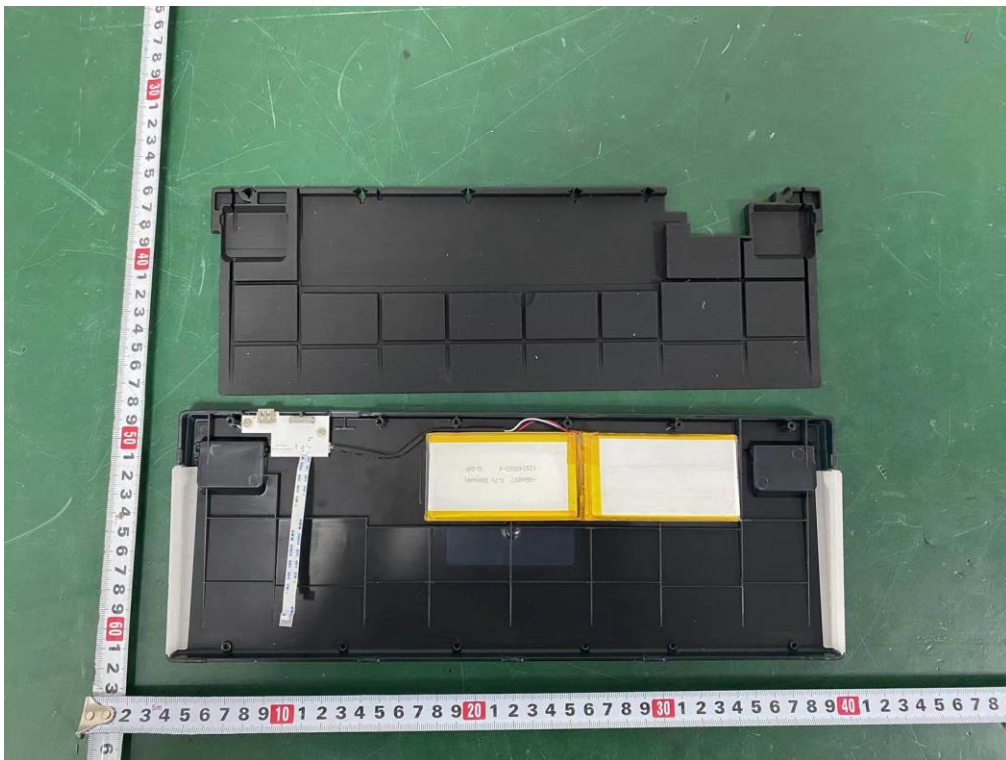
**External Photos**  
M/N: R87Pro



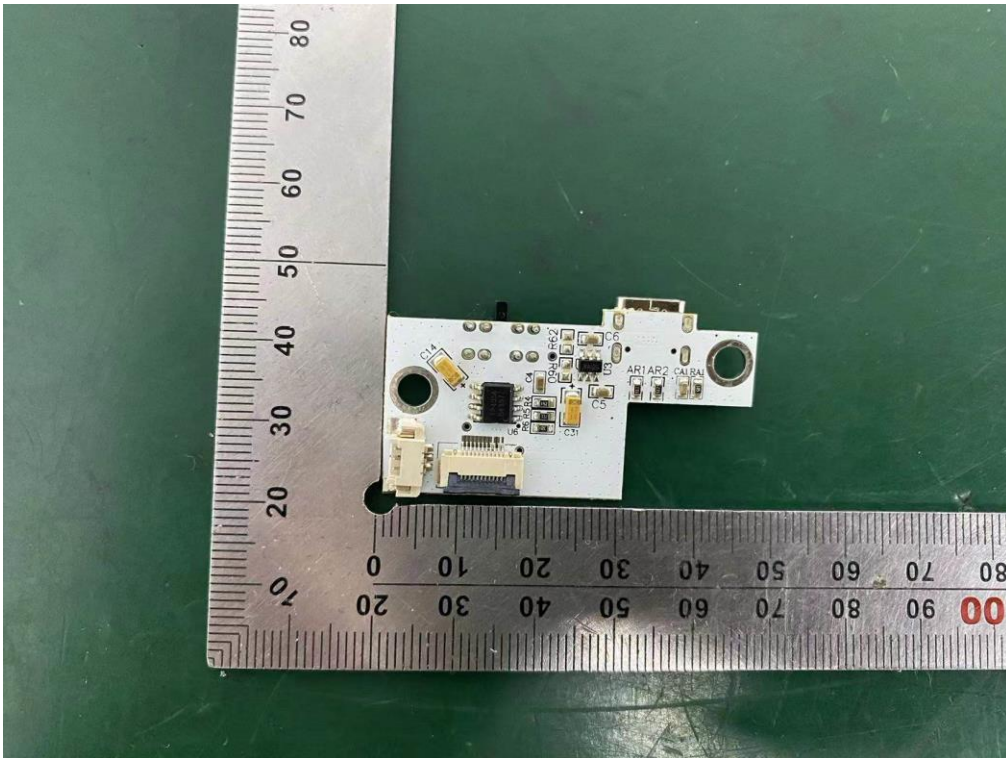
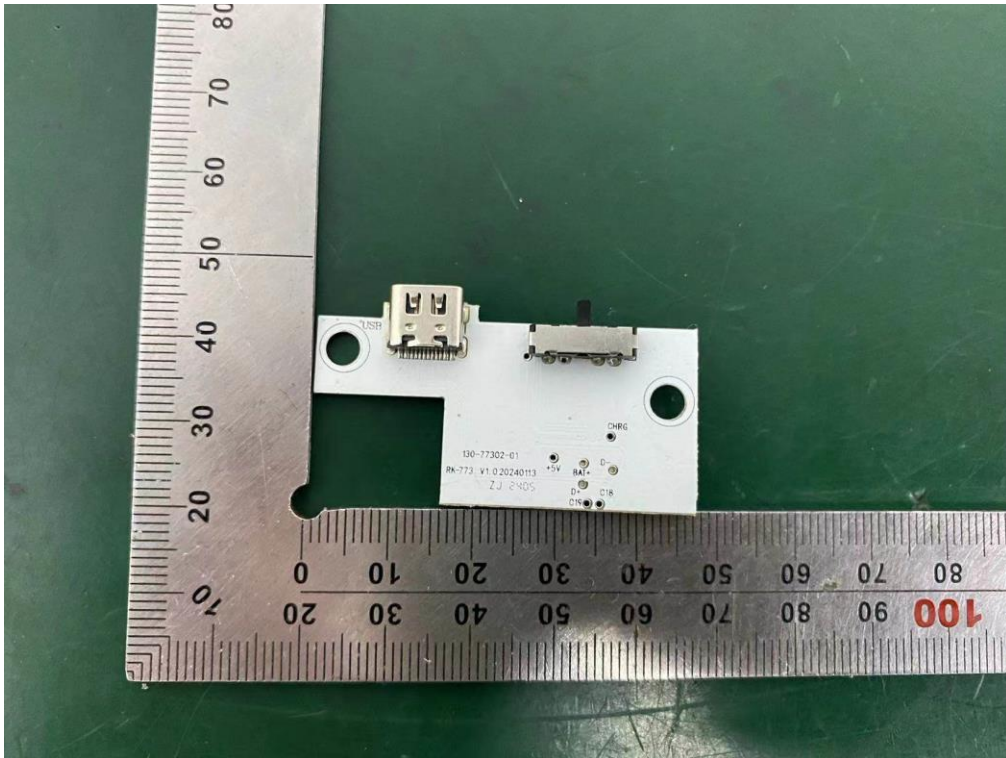
**External Photos**  
M/N: R87Pro



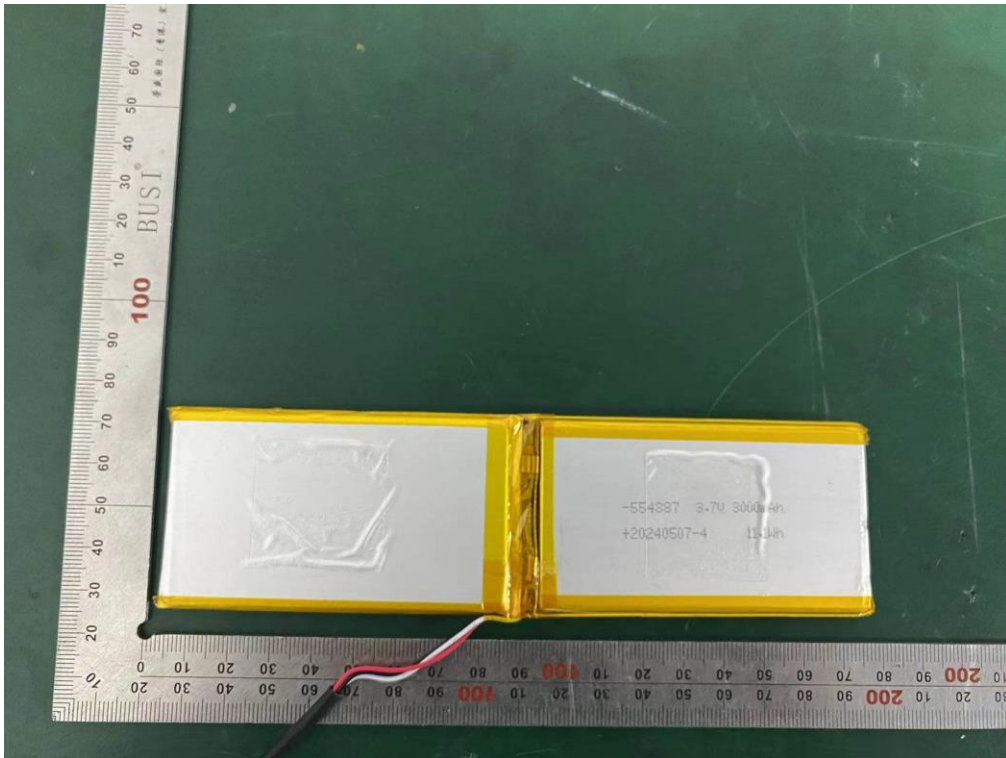
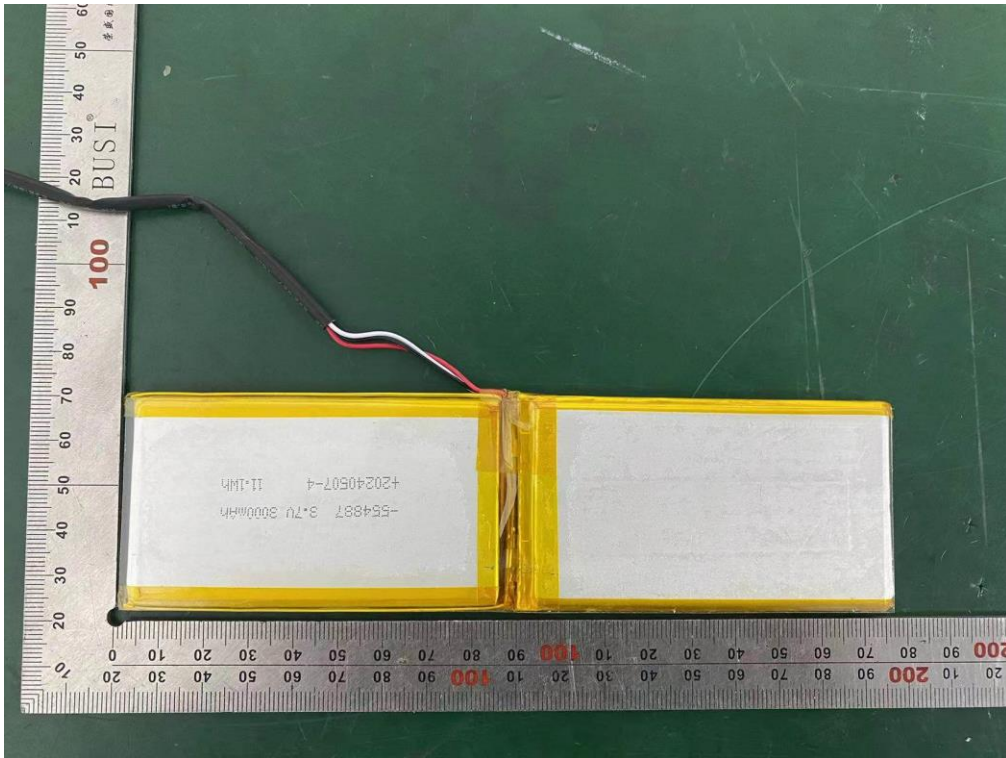
### Internal Photos M/N: R87Pro



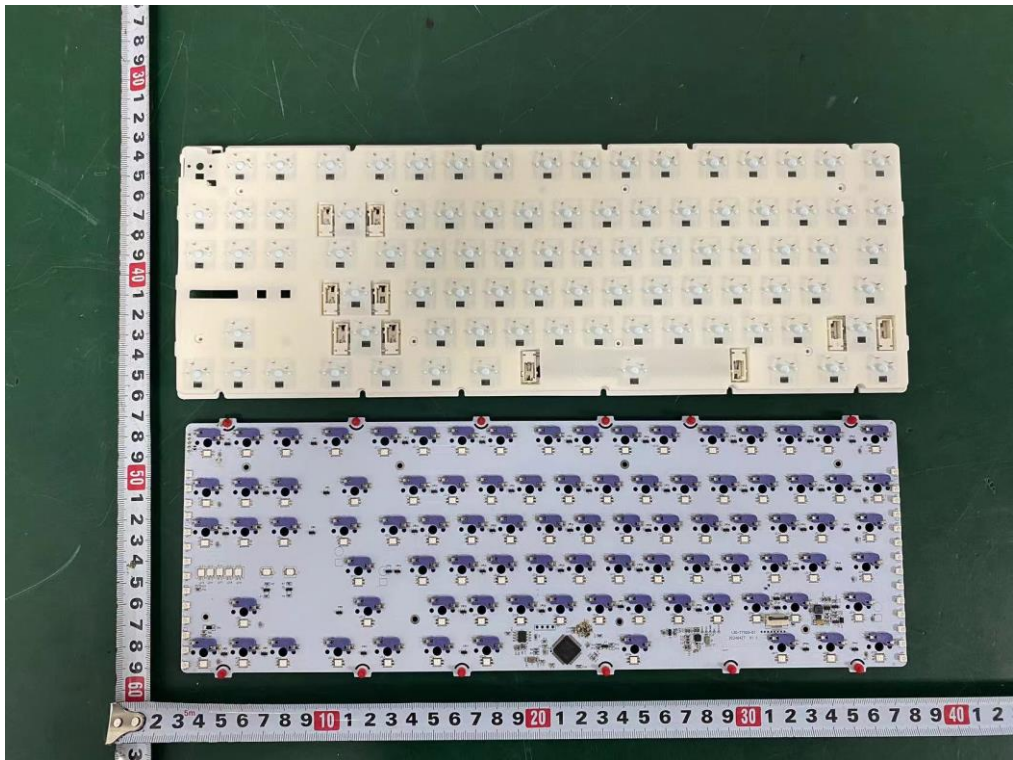
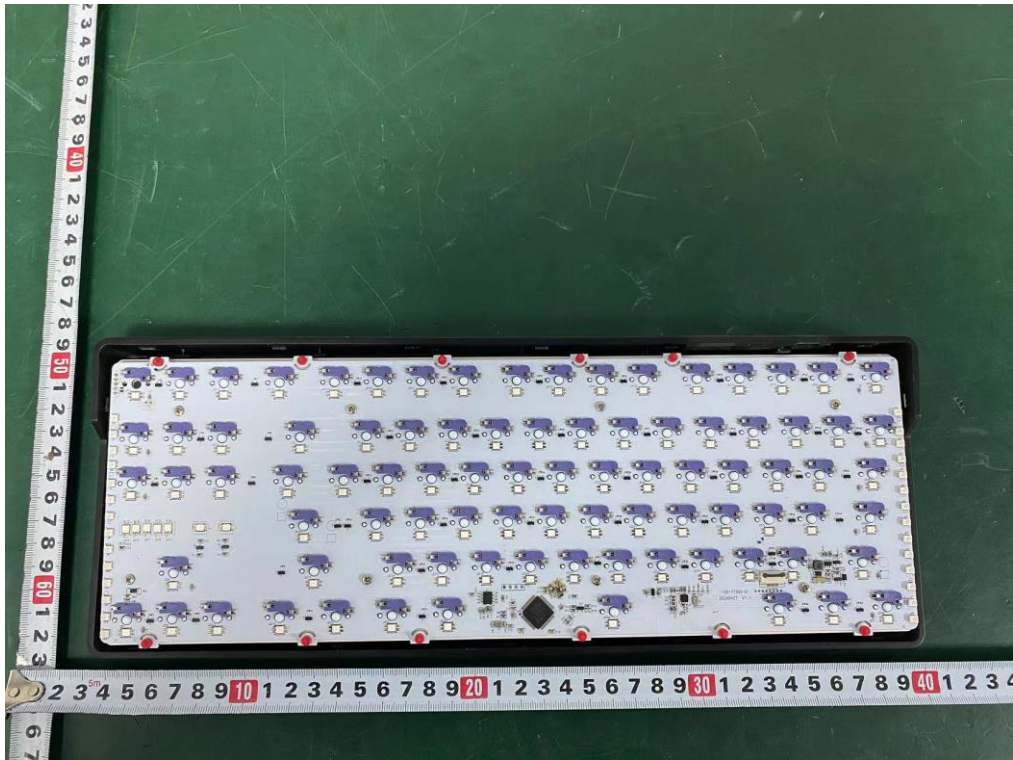
**Internal Photos**  
M/N: R87Pro



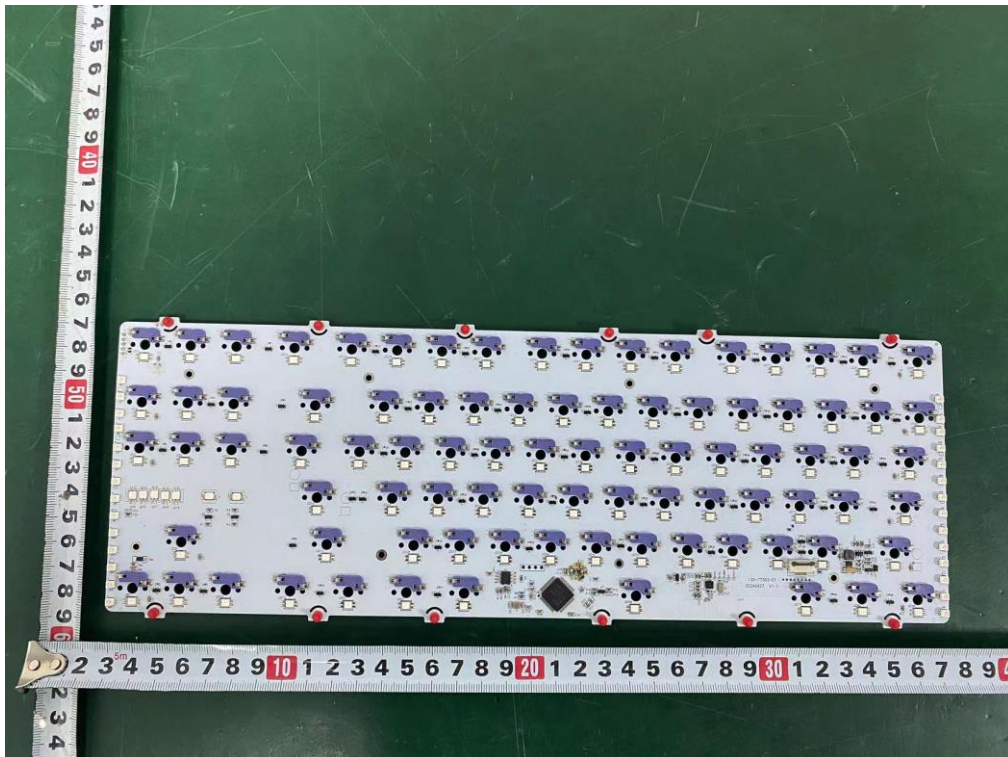
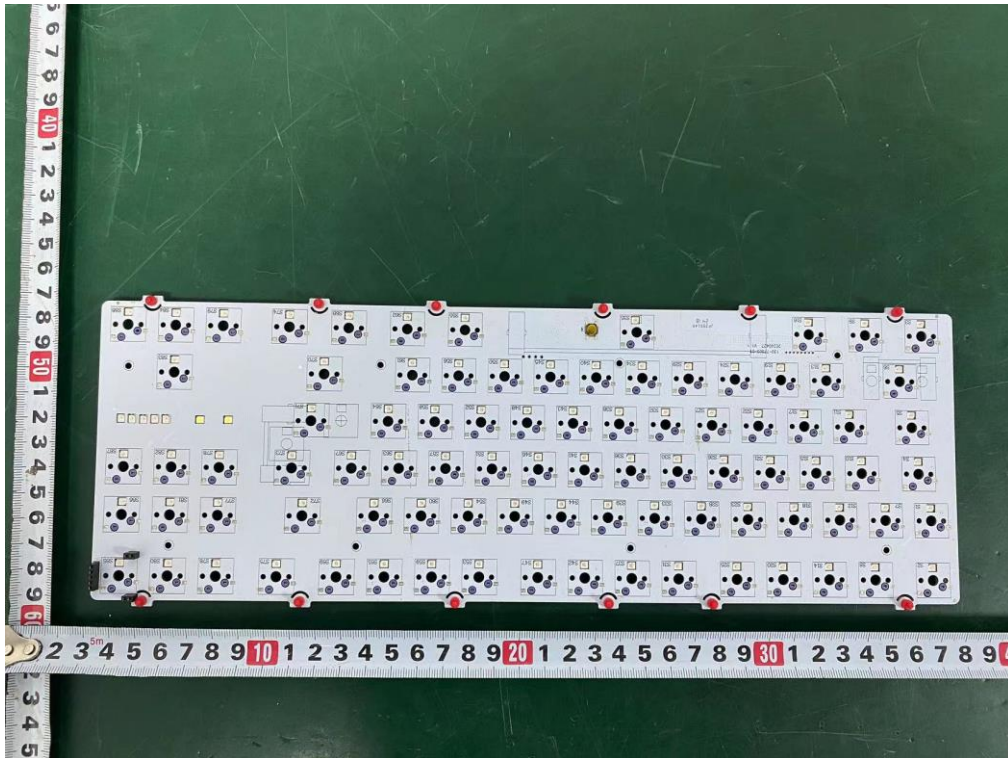
**Internal Photos**  
M/N: R87Pro



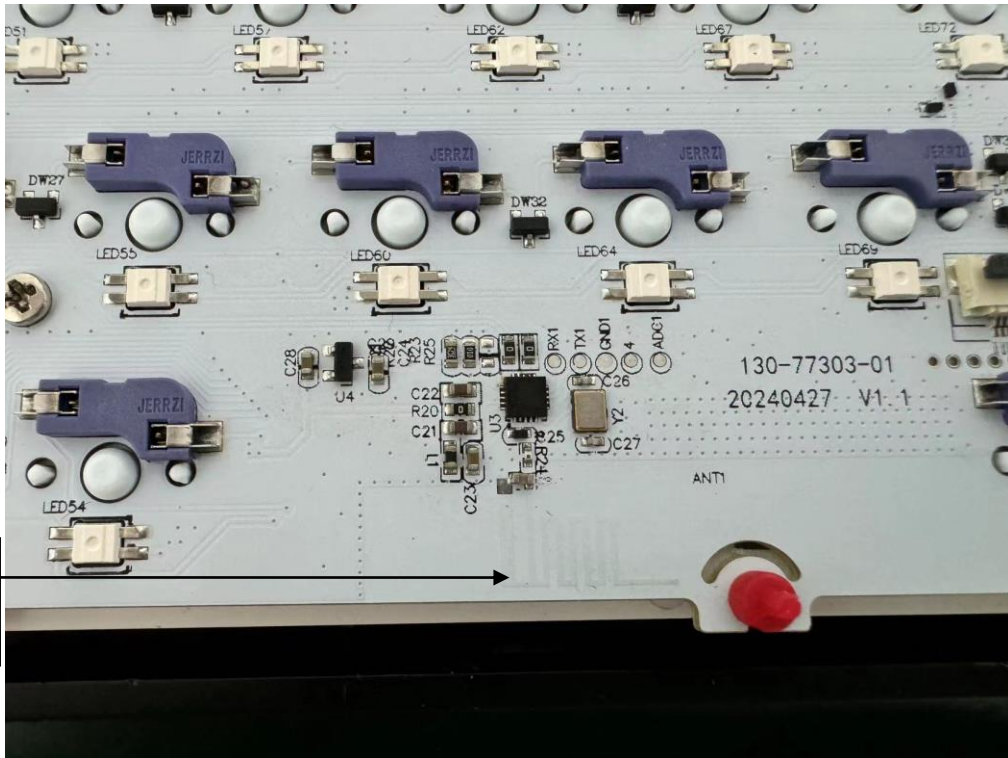
**Internal Photos**  
M/N: R87Pro



### Internal Photos M/N: R87Pro



**Internal Photos**  
M/N: R87Pro



Bluetooth/  
2.4G SRD  
Antenna

**End of Test Report**