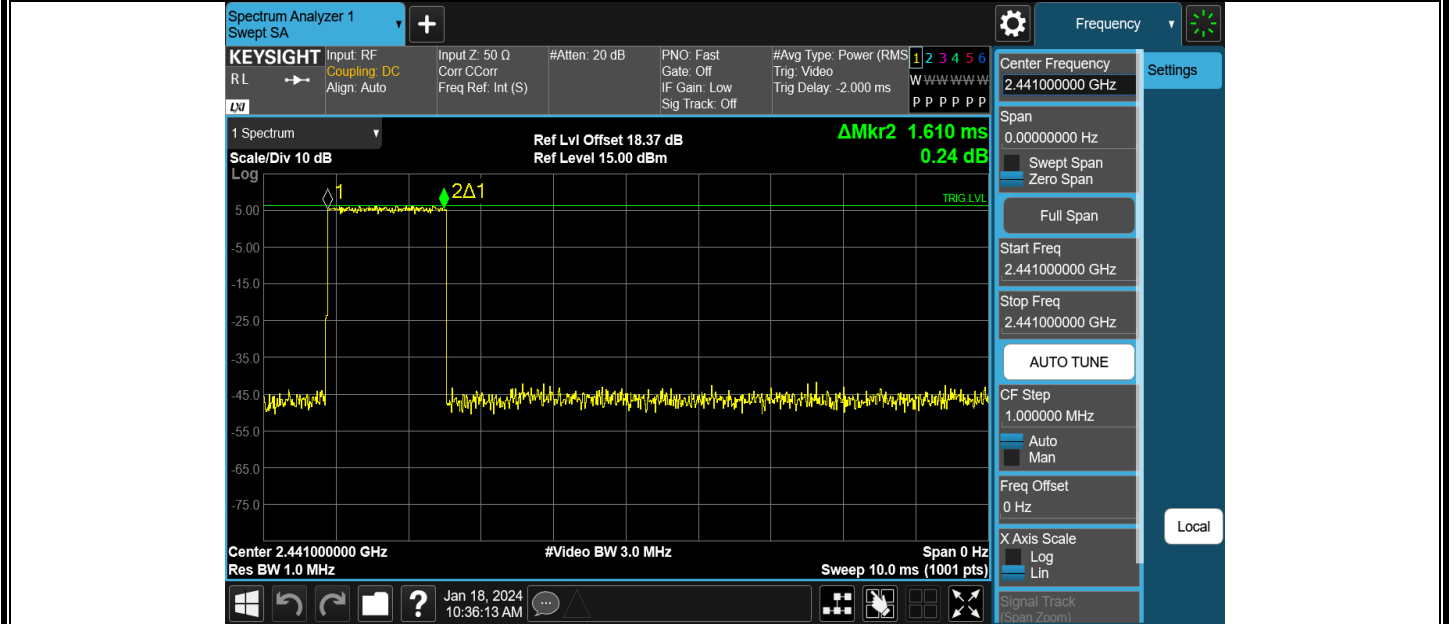
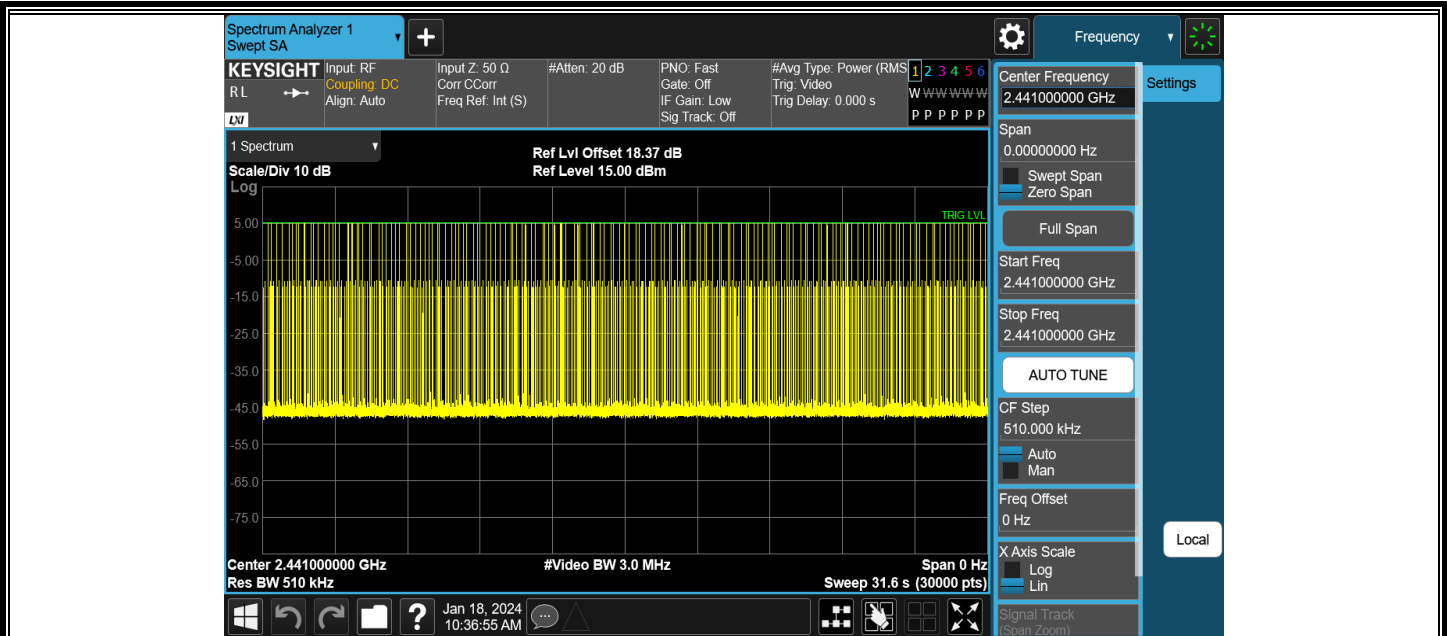
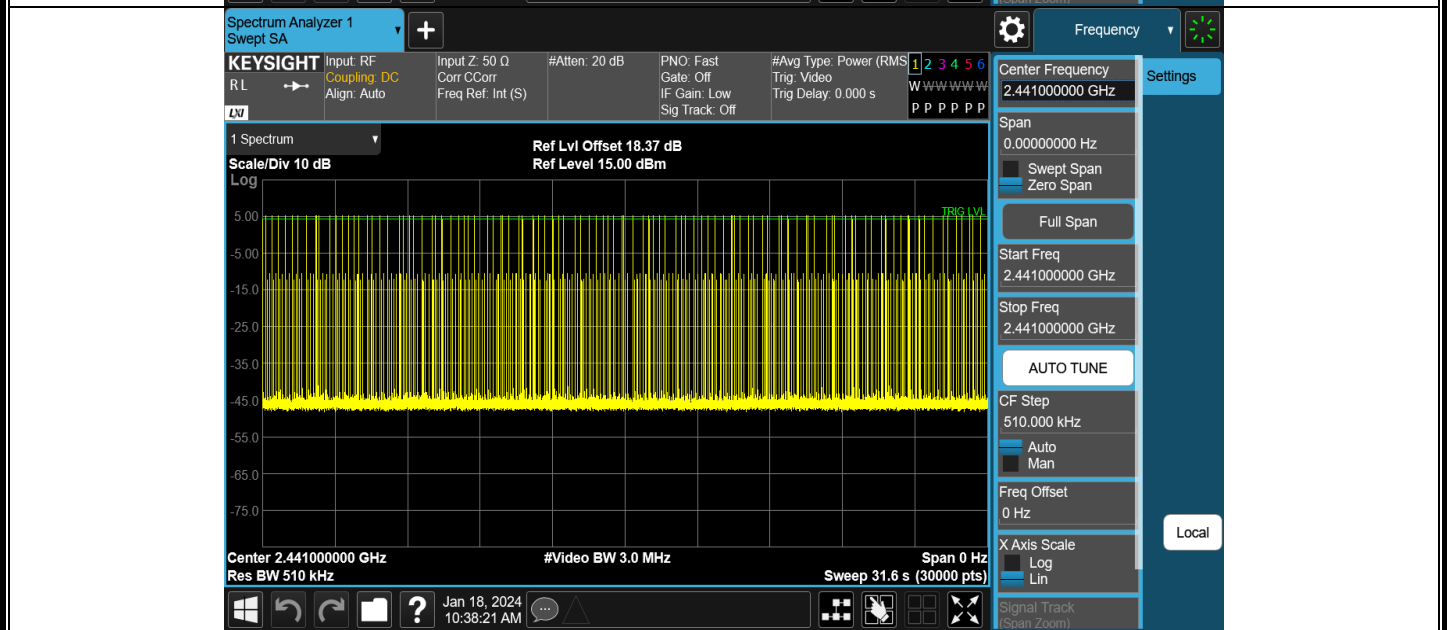
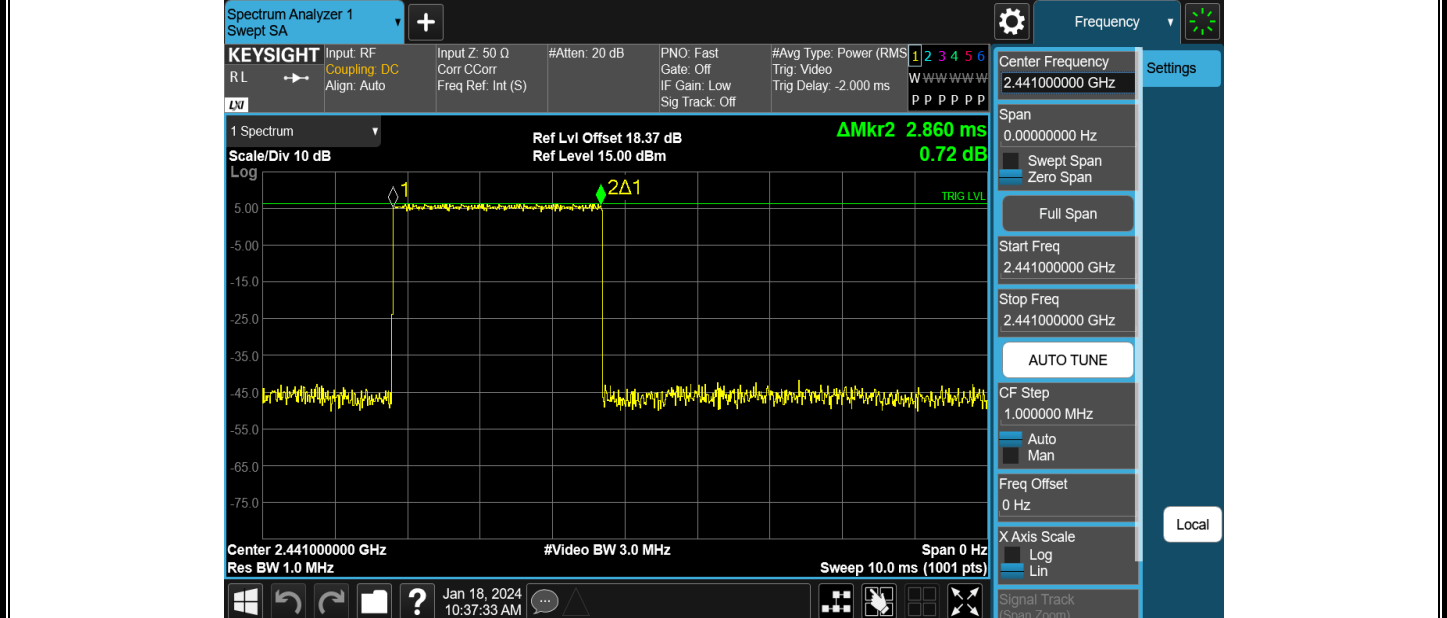


3DH3-Ant1-Hop-PASS





3DH5-Ant1-Hop-PASS



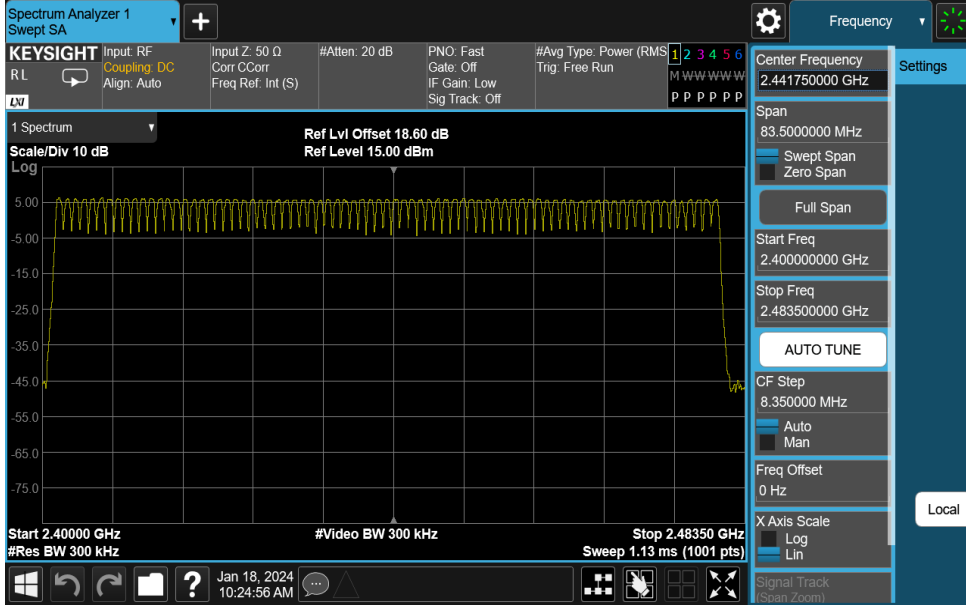
## Appendix E: Number of hopping channels

## Test Result

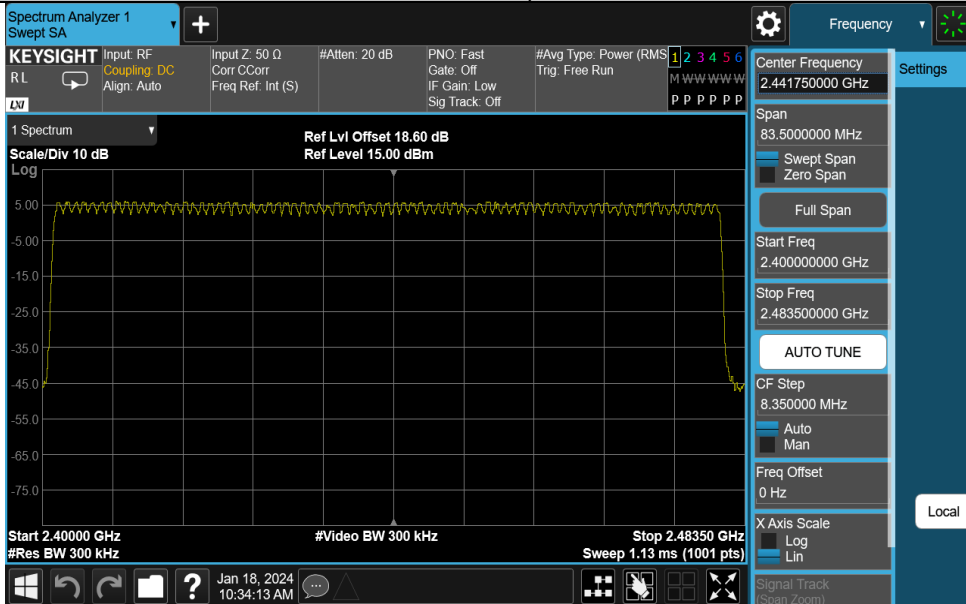
TestMode	Antenna	Frequency[MHz]	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	$\geq 15$	PASS
2DH5	Ant1	Hop	79	$\geq 15$	PASS
3DH5	Ant1	Hop	79	$\geq 15$	PASS

### Test Graphs

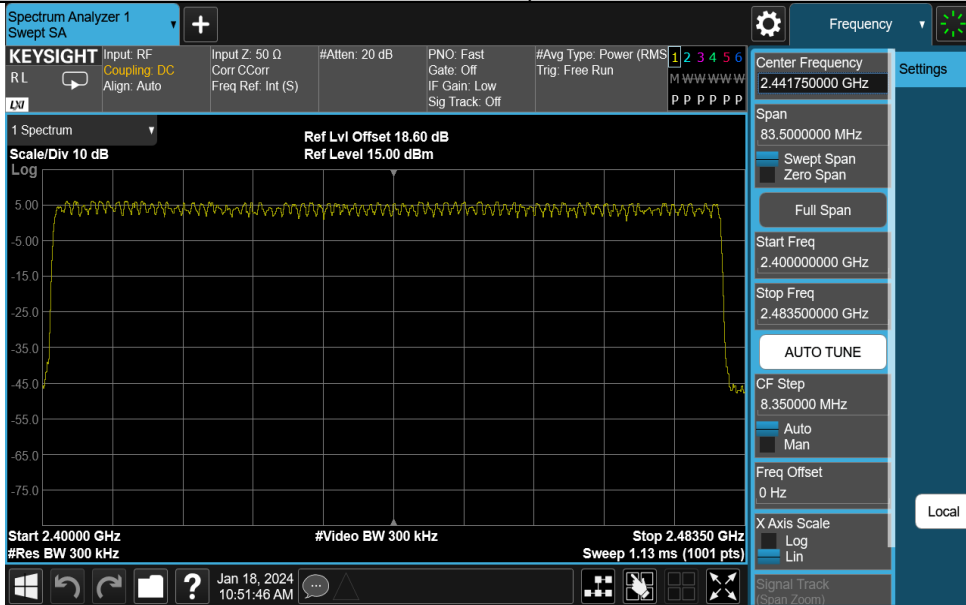
#### DH5-Ant1-Hop-PASS



#### 2DH5-Ant1-Hop-PASS



#### 3DH5-Ant1-Hop-PASS



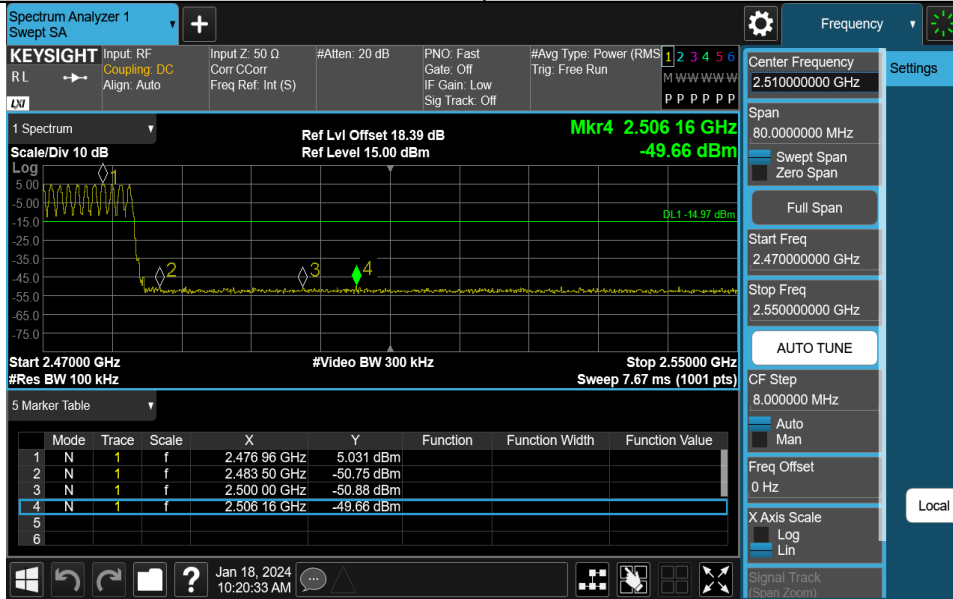
## Appendix F: Band edge measurements

## Test Result

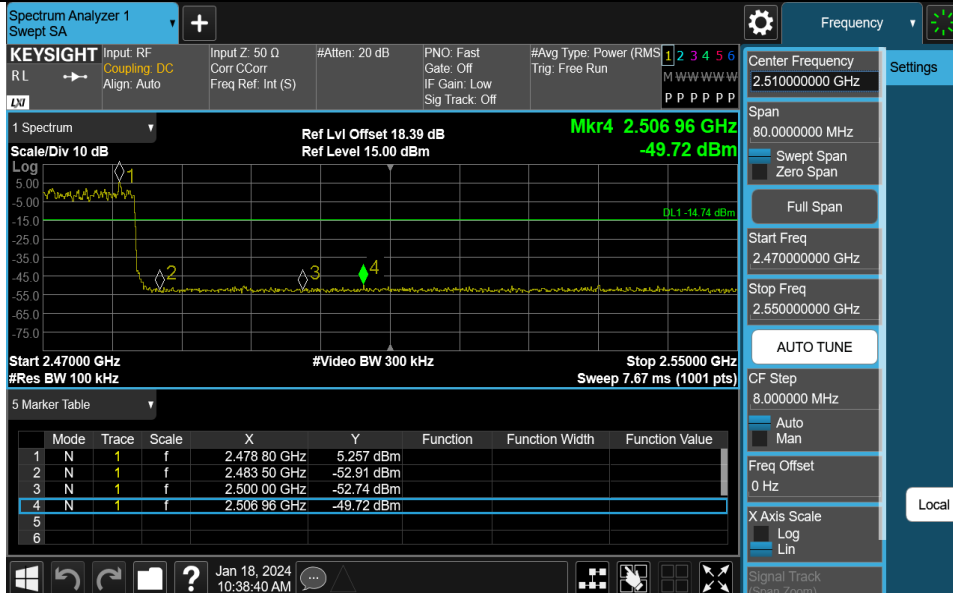
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	High	Hop_2480	5.03	-49.66	≤-14.97	PASS
3DH5	Ant1	High	Hop_2480	5.26	-49.72	≤-14.74	PASS
2DH5	Ant1	High	Hop_2480	5.00	-49.3	≤-15	PASS
DH5	Ant1	Low	Hop_2402	5.12	-50.01	≤-14.88	PASS
3DH5	Ant1	Low	Hop_2402	1.88	-49.87	≤-18.12	PASS
2DH5	Ant1	Low	Hop_2402	1.98	-49.83	≤-18.02	PASS
DH5	Ant1	High	2480	4.88	-50.06	≤-15.12	PASS
3DH5	Ant1	High	2480	4.89	-50.55	≤-15.11	PASS
2DH5	Ant1	High	2480	4.87	-49.42	≤-15.13	PASS
DH5	Ant1	Low	2402	5.50	-47.63	≤-14.5	PASS
3DH5	Ant1	Low	2402	4.75	-49.18	≤-15.25	PASS
2DH5	Ant1	Low	2402	5.07	-47.29	≤-14.93	PASS

### Test Graphs

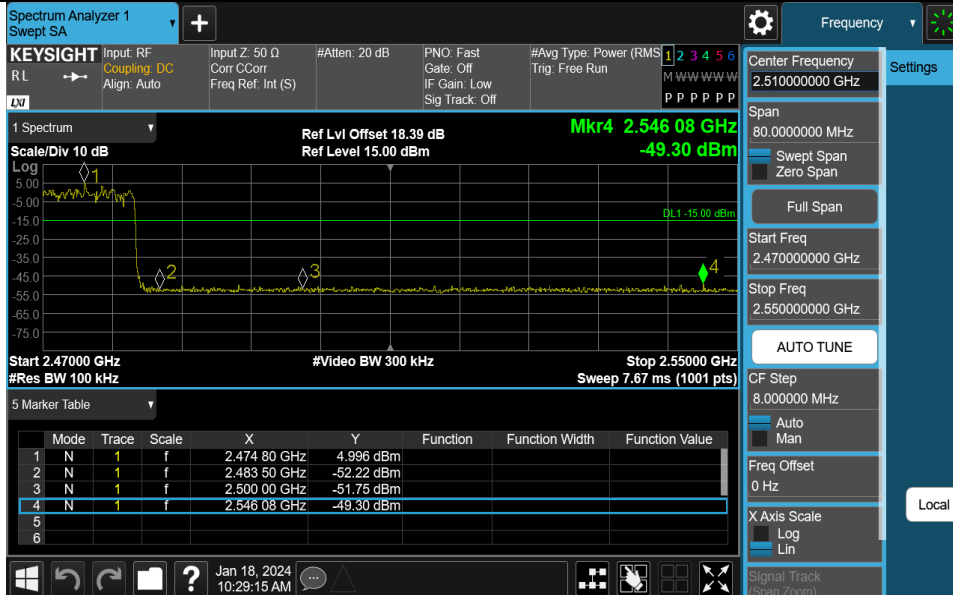
#### DH5-Ant1-Hop\_2480-PASS



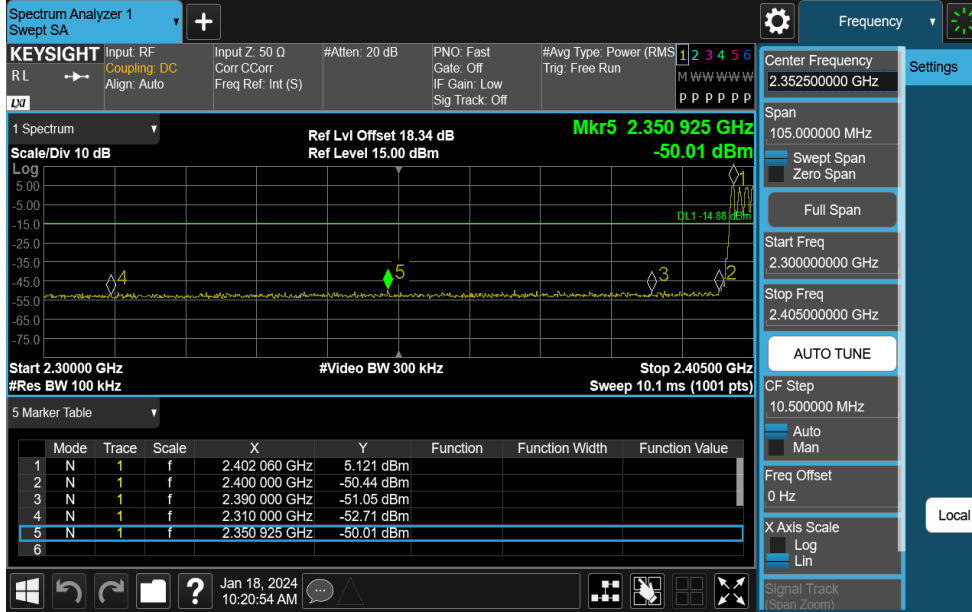
#### 3DH5-Ant1-Hop\_2480-PASS



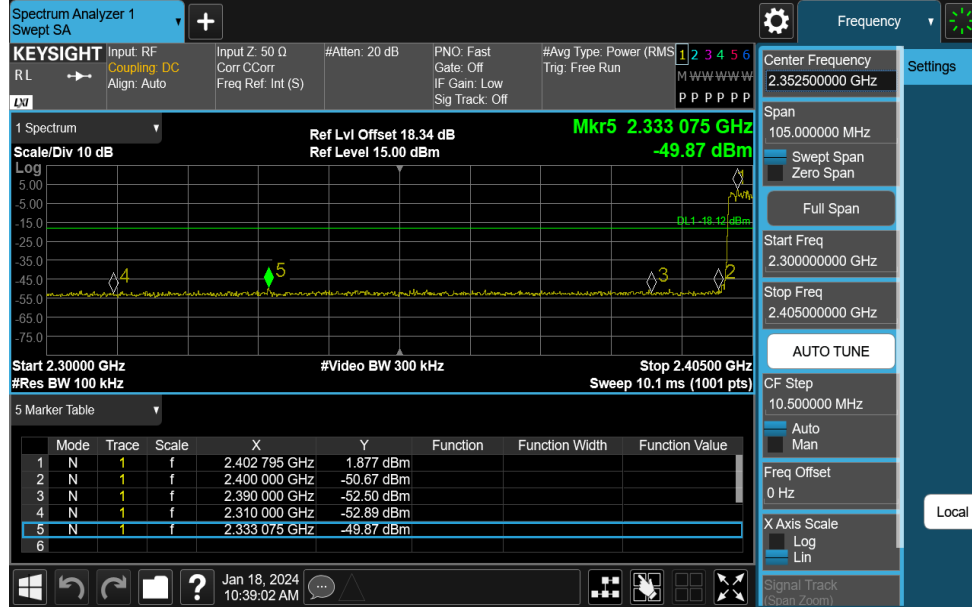
#### 2DH5-Ant1-Hop\_2480-PASS



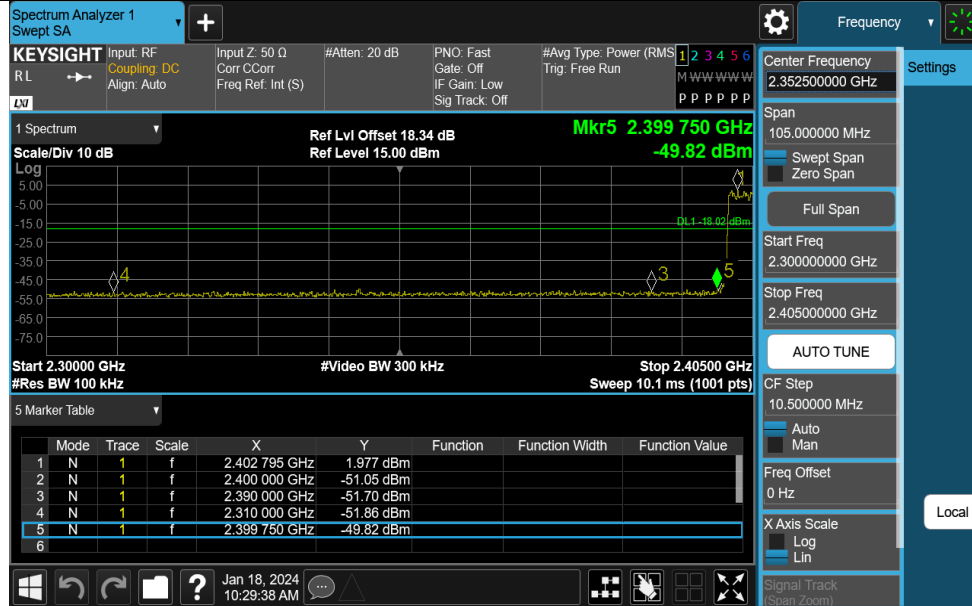
### DH5-Ant1-Hop\_2402-PASS



### 3DH5-Ant1-Hop\_2402-PASS



### 2DH5-Ant1-Hop\_2402-PASS



### DH5-Ant1-2480-PASS

**Spectrum Analyzer 1**  
Swept SA

**KEYSIGHT** Input: RF Coupling: DC Align: Auto 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: 2.510000000 GHz  
Span: 80.0000000 MHz  
Start Freq: 2.470000000 GHz  
Stop Freq: 2.550000000 GHz  
AUTO TUNE

1 Spectrum  
Scale/Div 10 dB  
Log  
Ref Lvl Offset 18.44 dB  
Ref Level 20.00 dBm  
Mkr4 2.483 52 GHz  
-50.06 dBm

Start 2.47000 GHz #Res BW 100 kHz #Video BW 300 kHz Stop 2.55000 GHz Sweep 7.67 ms (1001 pts)

5 Marker Table

Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.483 50 GHz	-53.17 dBm		
2	N	1	f	2.500 00 GHz	-53.17 dBm		
3	N	1	f	2.483 52 GHz	-50.06 dBm		
4	N	1	f	2.483 52 GHz	-50.06 dBm		
5							
6							

Jan 18, 2024 9:59:51 AM

### 3DH5-Ant1-2480-PASS

**Spectrum Analyzer 1**  
Swept SA

**KEYSIGHT** Input: RF Coupling: DC Align: Auto 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: 2.510000000 GHz  
Span: 80.0000000 MHz  
Start Freq: 2.470000000 GHz  
Stop Freq: 2.550000000 GHz  
AUTO TUNE

1 Spectrum  
Scale/Div 10 dB  
Log  
Ref Lvl Offset 18.44 dB  
Ref Level 20.00 dBm  
Mkr4 2.484 08 GHz  
-50.55 dBm

Start 2.47000 GHz #Res BW 100 kHz #Video BW 300 kHz Stop 2.55000 GHz Sweep 7.67 ms (1001 pts)

5 Marker Table

Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.483 50 GHz	-53.14 dBm		
2	N	1	f	2.500 00 GHz	-53.02 dBm		
3	N	1	f	2.484 08 GHz	-50.55 dBm		
4	N	1	f	2.484 08 GHz	-50.55 dBm		
5							
6							

Jan 18, 2024 10:14:49 AM

### 2DH5-Ant1-2480-PASS

**Spectrum Analyzer 1**  
Swept SA

**KEYSIGHT** Input: RF Coupling: DC Align: Auto 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: 2.510000000 GHz  
Span: 80.0000000 MHz  
Start Freq: 2.470000000 GHz  
Stop Freq: 2.550000000 GHz  
AUTO TUNE

1 Spectrum  
Scale/Div 10 dB  
Log  
Ref Lvl Offset 18.44 dB  
Ref Level 20.00 dBm  
Mkr4 2.498 40 GHz  
-49.42 dBm

Start 2.47000 GHz #Res BW 100 kHz #Video BW 300 kHz Stop 2.55000 GHz Sweep 7.67 ms (1001 pts)

5 Marker Table

Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.483 50 GHz	-51.45 dBm		
2	N	1	f	2.500 00 GHz	-53.98 dBm		
3	N	1	f	2.498 40 GHz	-49.42 dBm		
4	N	1	f	2.498 40 GHz	-49.42 dBm		
5							
6							

Jan 18, 2024 10:05:11 AM



### DH5-Ant1-2402-PASS

Spectrum Analyzer 1 Swept SA

**KEYSIGHT** Input: RF Coupling: DC Align: Auto 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: 2.352500000 GHz

Span: 105.000000 MHz

Start Freq: 2.300000000 GHz

Stop Freq: 2.405000000 GHz

AUTO TUNE

CF Step: 10.500000 MHz

Freq Offset: 0 Hz

X Axis Scale: Log

Signal Track (Span Zoom)

Local

1 Spectrum Scale/Div 10 dB Ref Lvl Offset 18.60 dB Ref Level 20.00 dB Mkr5 2.399 960 GHz -47.62 dBm

Start 2.30000 GHz #Res BW 100 kHz #Video BW 300 kHz Stop 2.40500 GHz Sweep 10.1 ms (1001 pts)

Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.400 000 GHz	-47.62 dBm		
2	N	1	f	2.390 000 GHz	-51.93 dBm		
3	N	1	f	2.310 000 GHz	-54.23 dBm		
4	N	1	f	2.399 960 GHz	-47.62 dBm		
5	N	1	f	2.399 960 GHz	-47.62 dBm		
6							

Jan 18, 2024 9:55:26 AM

### 3DH5-Ant1-2402-PASS

Spectrum Analyzer 1 Swept SA

**KEYSIGHT** Input: RF Coupling: DC Align: Auto 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: 2.352500000 GHz

Span: 105.000000 MHz

Start Freq: 2.300000000 GHz

Stop Freq: 2.405000000 GHz

AUTO TUNE

CF Step: 10.500000 MHz

Freq Offset: 0 Hz

X Axis Scale: Log

Signal Track (Span Zoom)

Local

1 Spectrum Scale/Div 10 dB Ref Lvl Offset 18.60 dB Ref Level 20.00 dB Mkr5 2.399 960 GHz -49.18 dBm

Start 2.30000 GHz #Res BW 100 kHz #Video BW 300 kHz Stop 2.40500 GHz Sweep 10.1 ms (1001 pts)

Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.400 000 GHz	-49.18 dBm		
2	N	1	f	2.390 000 GHz	-52.86 dBm		
3	N	1	f	2.310 000 GHz	-54.10 dBm		
4	N	1	f	2.399 960 GHz	-49.18 dBm		
5	N	1	f	2.399 960 GHz	-49.18 dBm		
6							

Jan 18, 2024 10:10:41 AM

### 2DH5-Ant1-2402-PASS

Spectrum Analyzer 1 Swept SA

**KEYSIGHT** Input: RF Coupling: DC Align: Auto 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: 2.352500000 GHz

Span: 105.000000 MHz

Start Freq: 2.300000000 GHz

Stop Freq: 2.405000000 GHz

AUTO TUNE

CF Step: 10.500000 MHz

Freq Offset: 0 Hz

X Axis Scale: Log

Signal Track (Span Zoom)

Local

1 Spectrum Scale/Div 10 dB Ref Lvl Offset 18.60 dB Ref Level 20.00 dB Mkr5 2.399 645 GHz -47.29 dBm

Start 2.30000 GHz #Res BW 100 kHz #Video BW 300 kHz Stop 2.40500 GHz Sweep 10.1 ms (1001 pts)

Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.400 000 GHz	-51.18 dBm		
2	N	1	f	2.390 000 GHz	-55.18 dBm		
3	N	1	f	2.310 000 GHz	-53.49 dBm		
4	N	1	f	2.399 645 GHz	-47.29 dBm		
5	N	1	f	2.399 645 GHz	-47.29 dBm		
6							

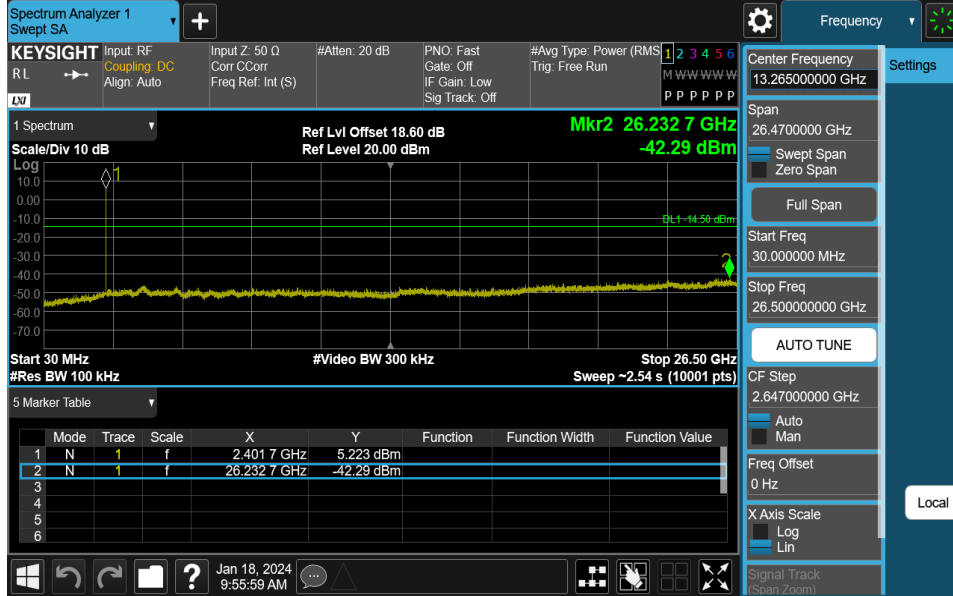
Jan 18, 2024 10:01:50 AM

## Appendix G: Conducted Spurious Emission Test Result

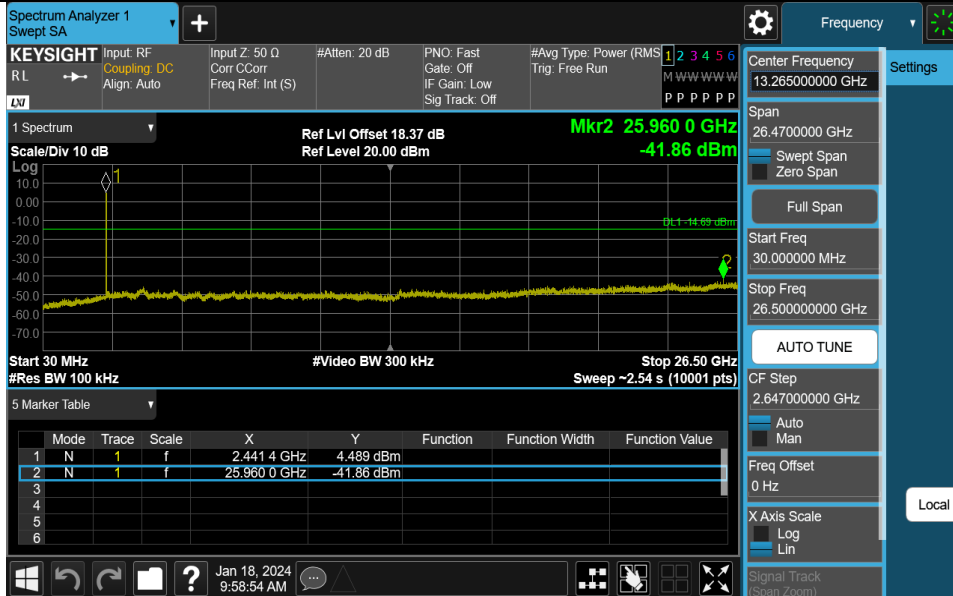
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	30~26500	5.50	-42.29	≤-14.5	PASS
DH5	Ant1	2441	30~26500	5.31	-41.86	≤-14.69	PASS
DH5	Ant1	2480	30~26500	4.88	-42.63	≤-15.12	PASS
2DH5	Ant1	2402	30~26500	5.07	-42.62	≤-14.93	PASS
2DH5	Ant1	2441	30~26500	4.54	-42.89	≤-15.46	PASS
2DH5	Ant1	2480	30~26500	4.87	-42.28	≤-15.13	PASS
3DH5	Ant1	2402	30~26500	4.75	-42.13	≤-15.25	PASS
3DH5	Ant1	2441	30~26500	5.07	-42.15	≤-14.93	PASS
3DH5	Ant1	2480	30~26500	4.89	-42.44	≤-15.11	PASS

### Test Graphs

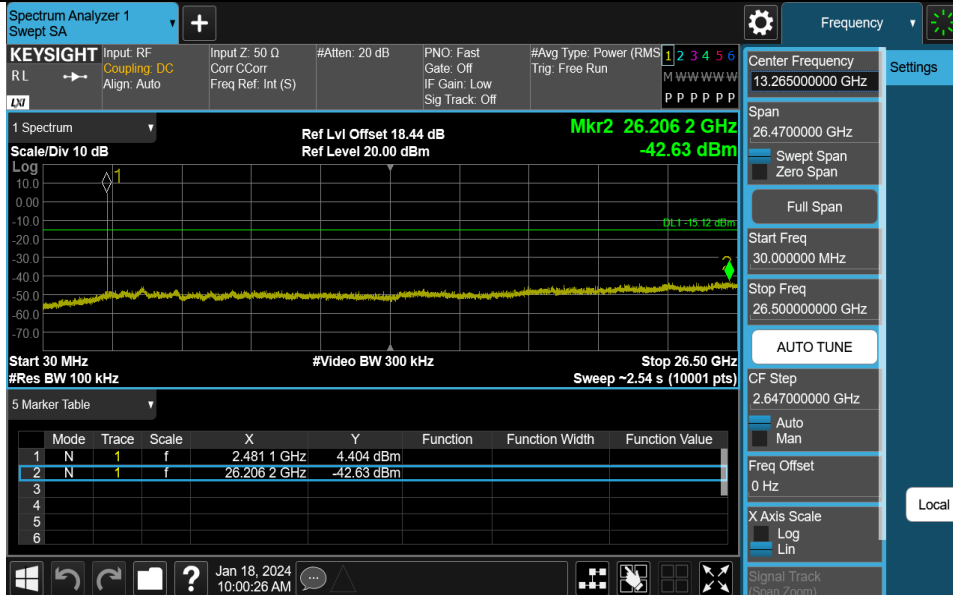
#### DH5-Ant1-2402-30~26500-PASS



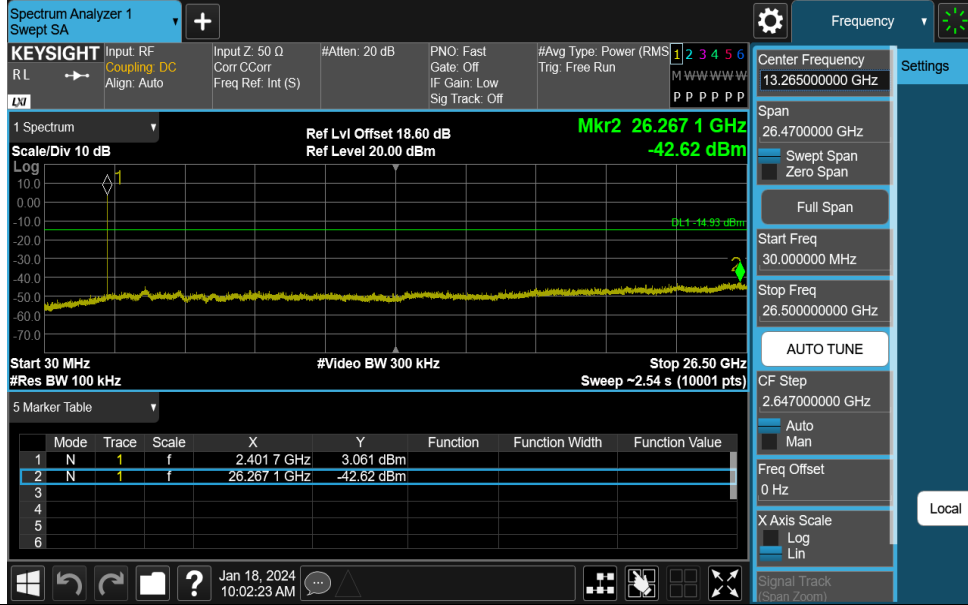
#### DH5-Ant1-2441-30~26500-PASS



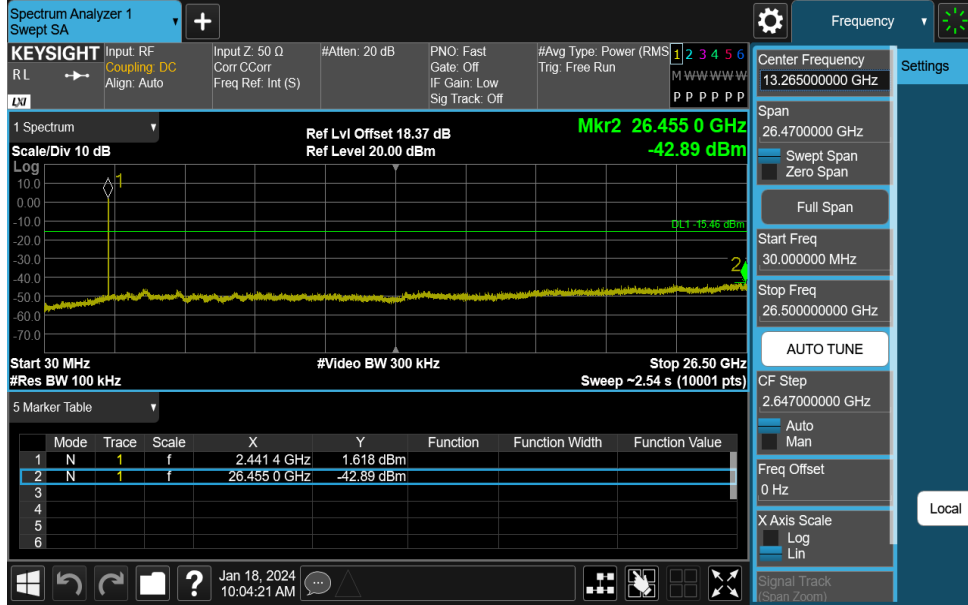
#### DH5-Ant1-2480-30~26500-PASS



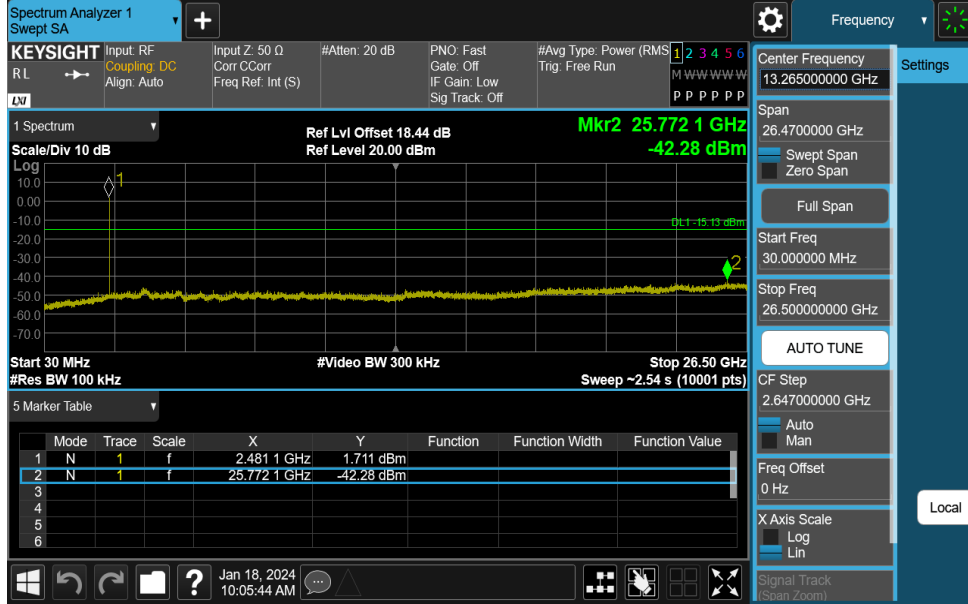
2DH5-Ant1-2402-30~26500-PASS

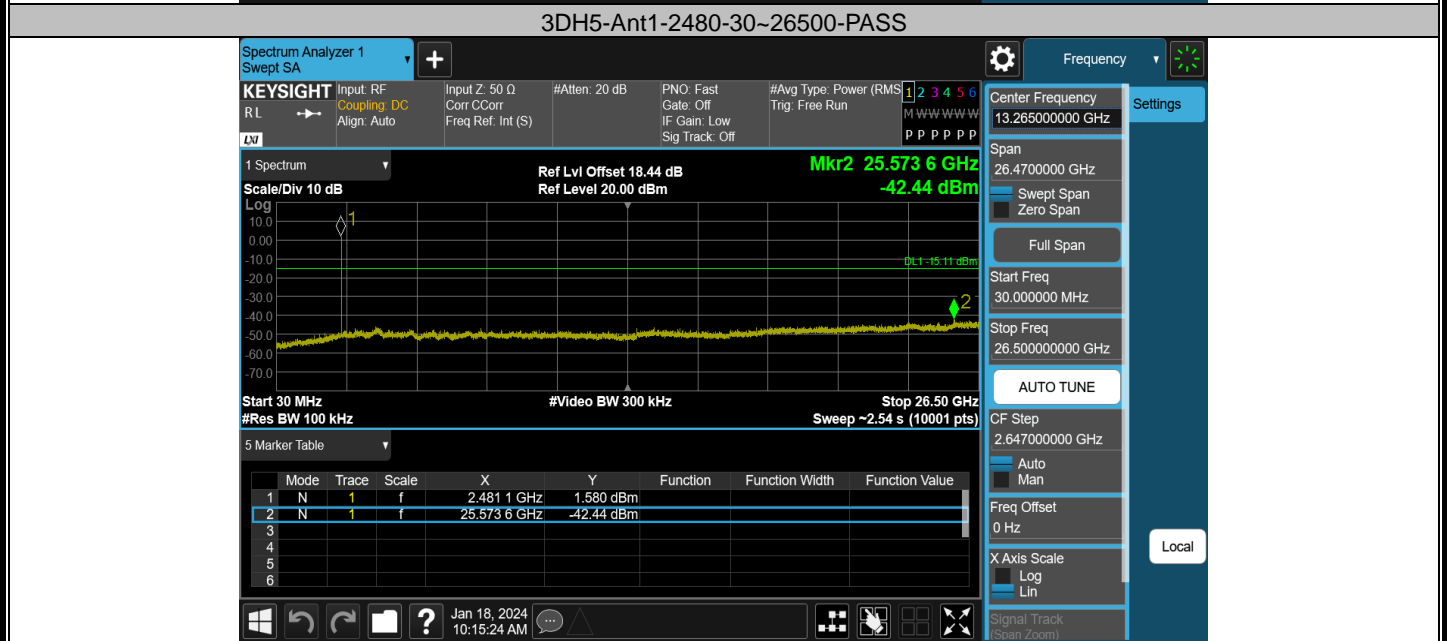
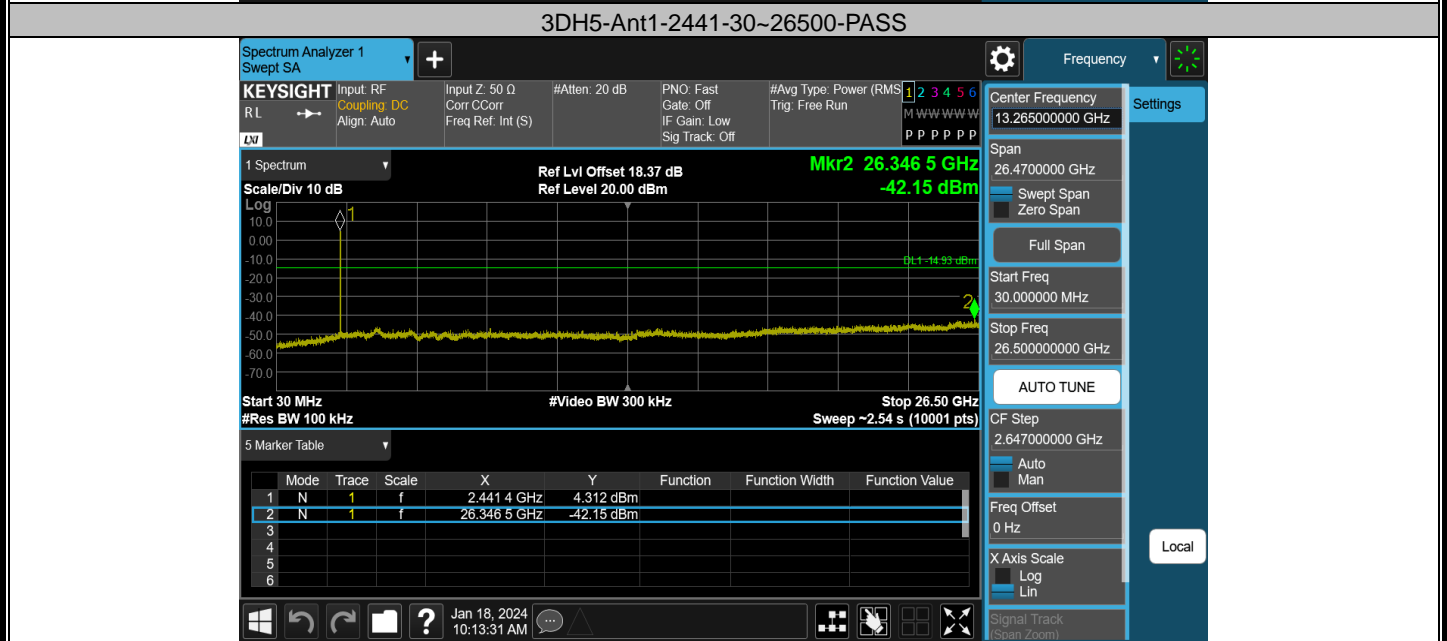
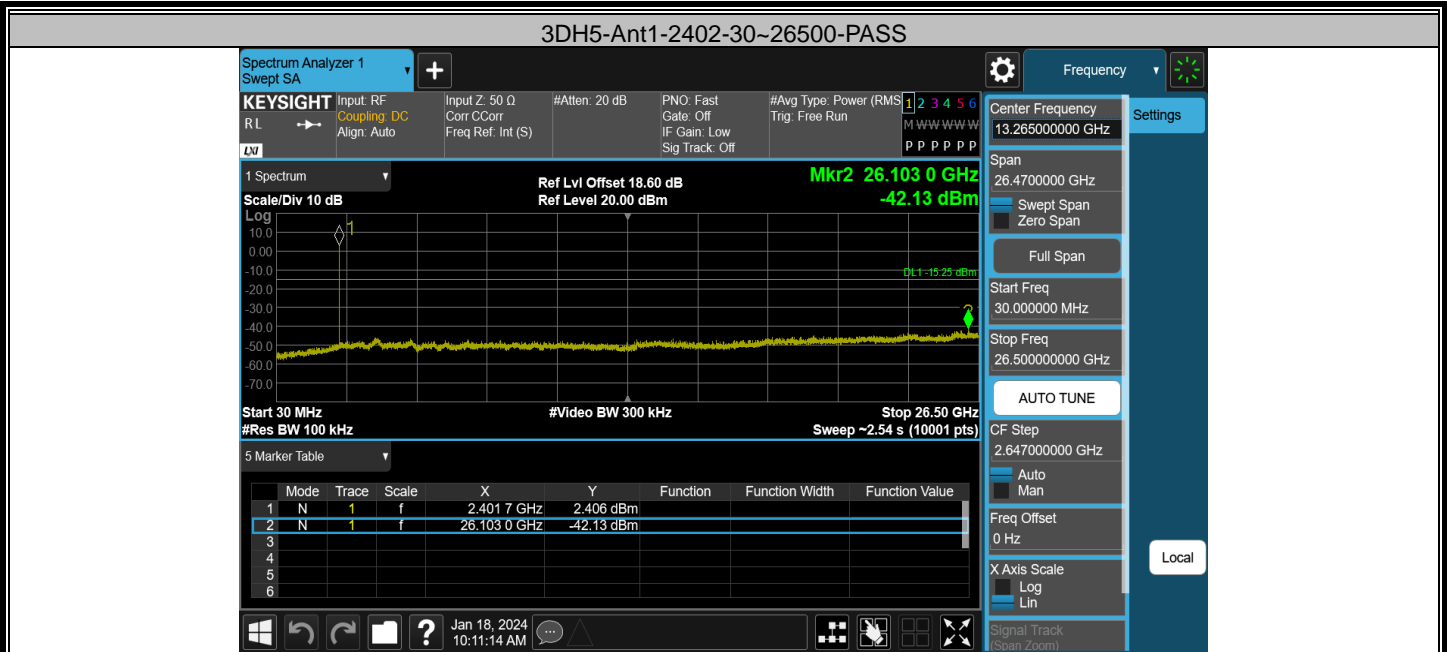


2DH5-Ant1-2441-30~26500-PASS



2DH5-Ant1-2480-30~26500-PASS



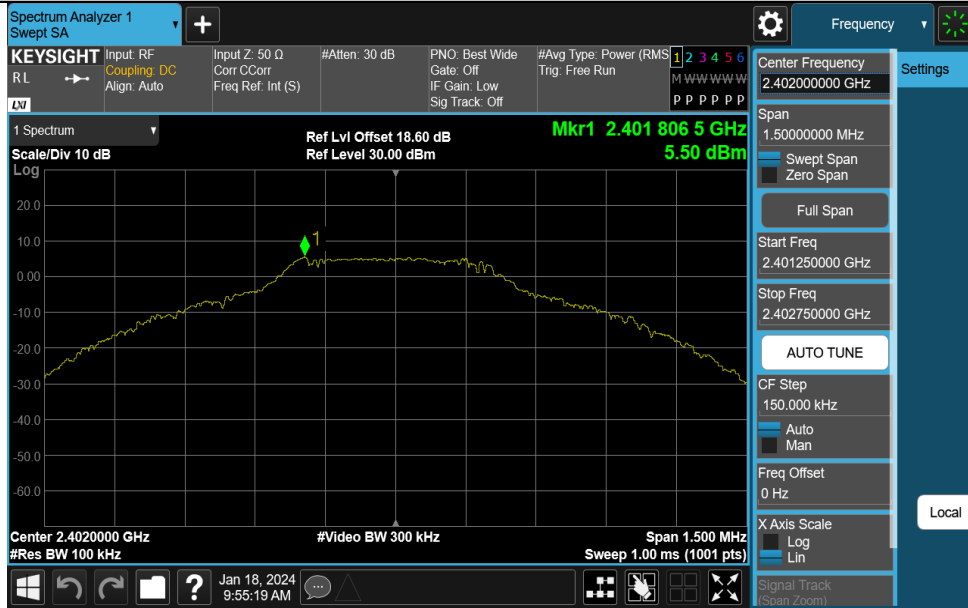


## Appendix H: Reference level measurement Test Result

TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
DH5	Ant1	2402	2401.81	5.50
DH5	Ant1	2441	2440.82	5.31
DH5	Ant1	2480	2479.98	4.88
2DH5	Ant1	2402	2402.14	5.07
2DH5	Ant1	2441	2441.14	4.54
2DH5	Ant1	2480	2479.81	4.87
3DH5	Ant1	2402	2401.97	4.75
3DH5	Ant1	2441	2441.16	5.07
3DH5	Ant1	2480	2479.84	4.89

### Test Graphs

#### DH5-Ant1-2402-PASS



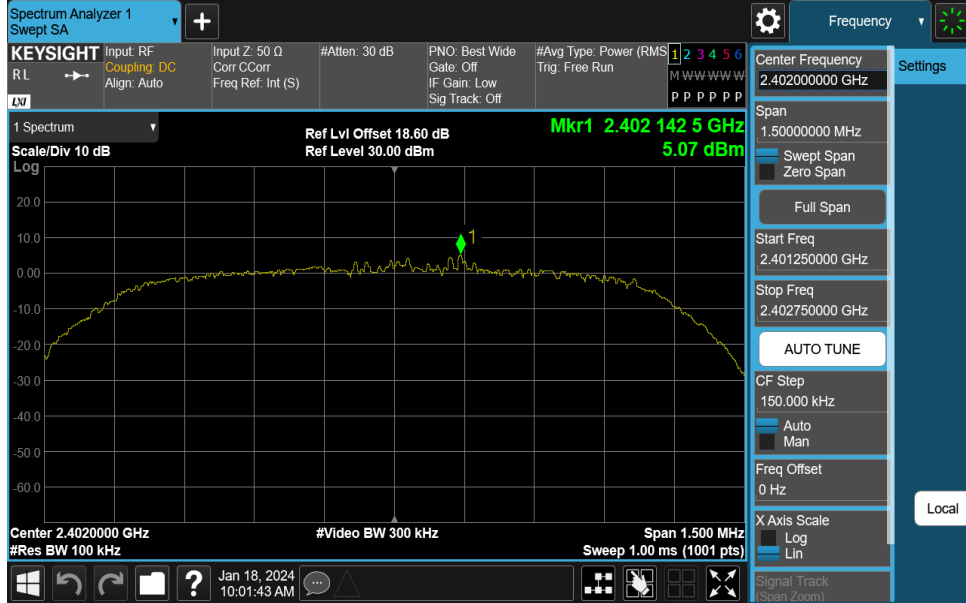
#### DH5-Ant1-2441-PASS



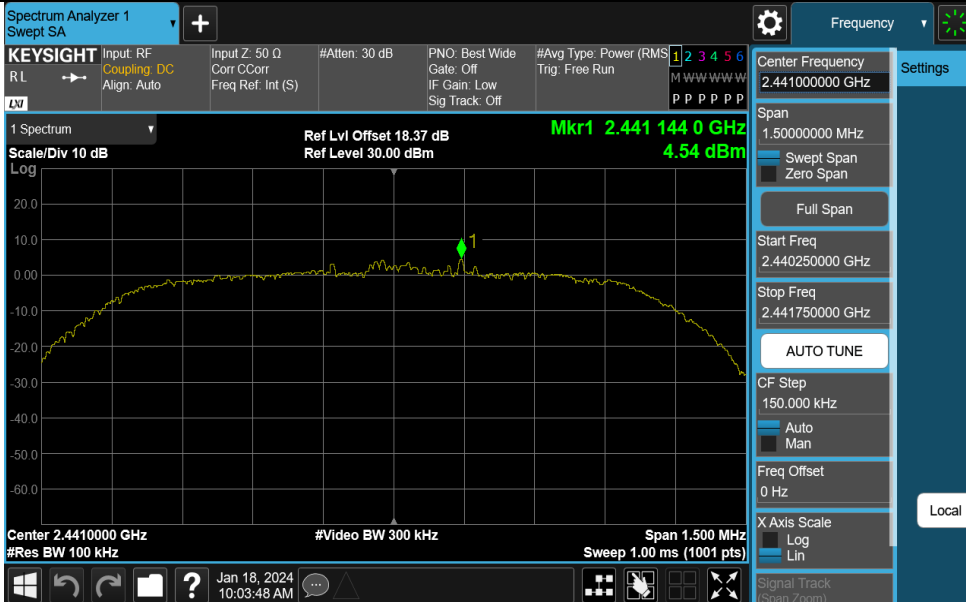
#### DH5-Ant1-2480-PASS



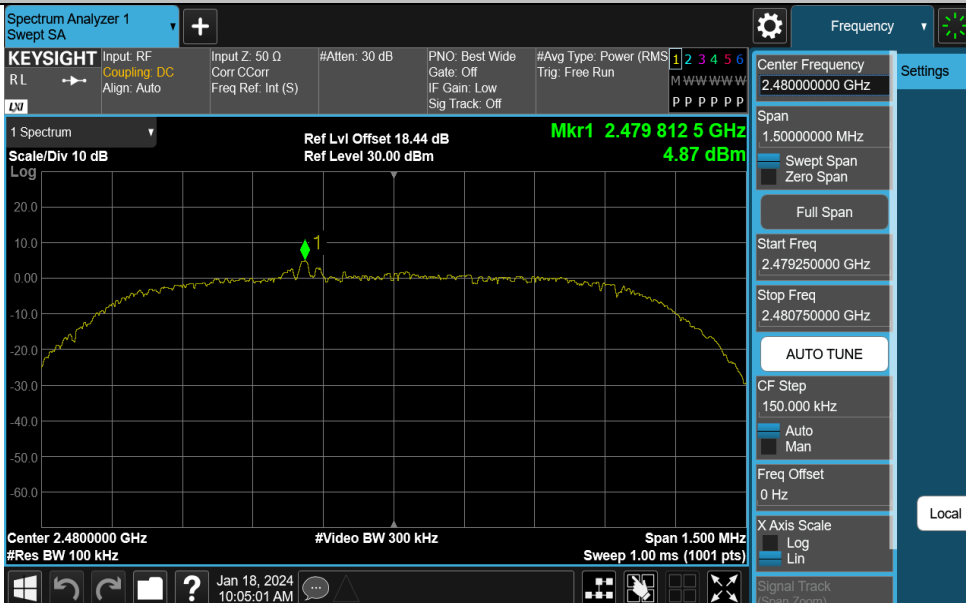
### 2DH5-Ant1-2402-PASS



### 2DH5-Ant1-2441-PASS

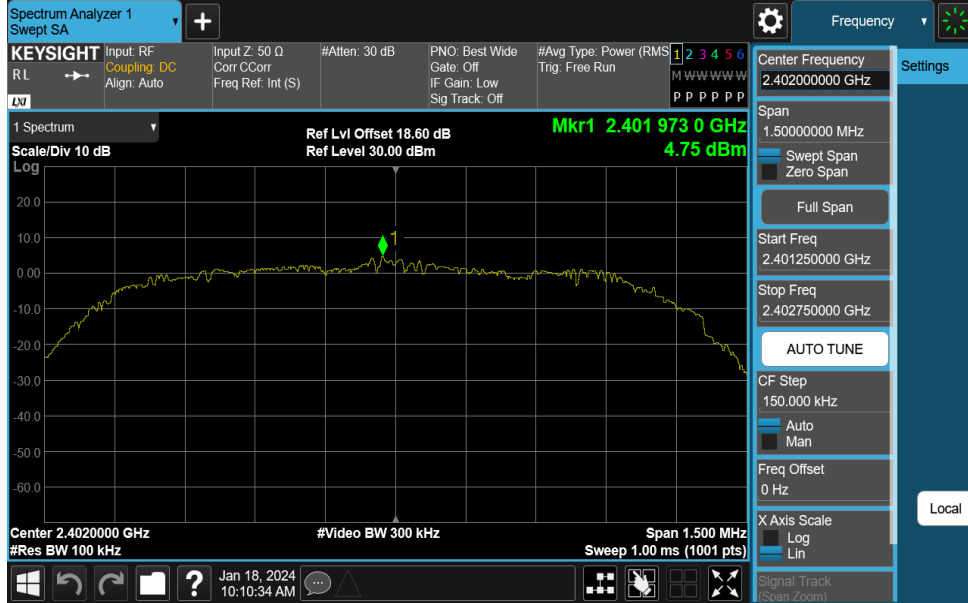


### 2DH5-Ant1-2480-PASS

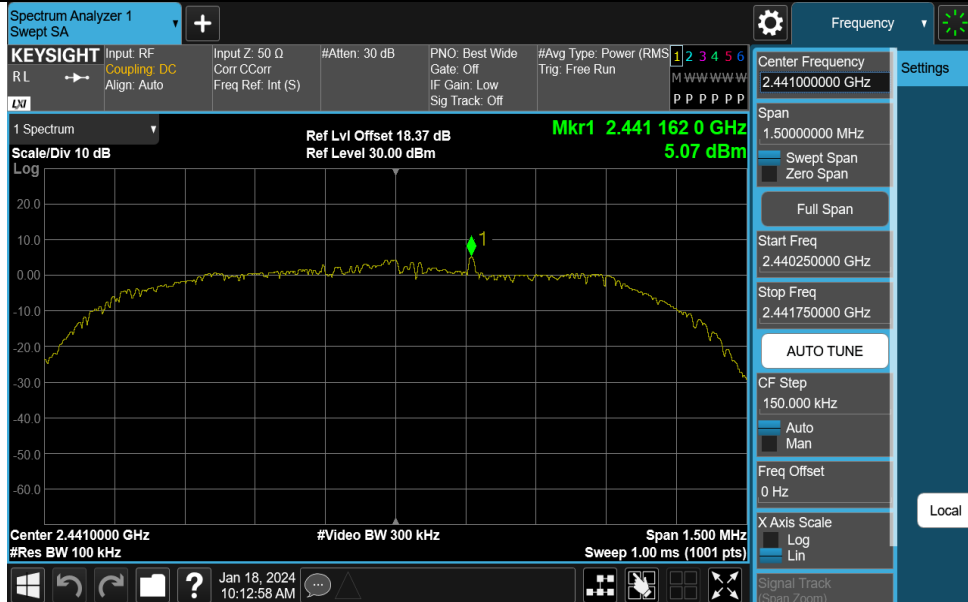




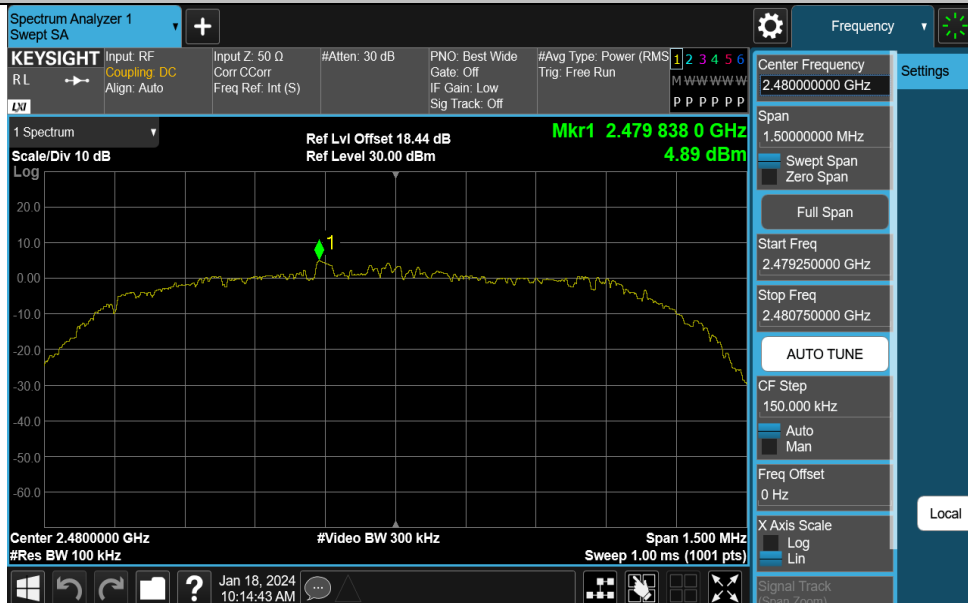
### 3DH5-Ant1-2402-PASS



### 3DH5-Ant1-2441-PASS



### 3DH5-Ant1-2480-PASS

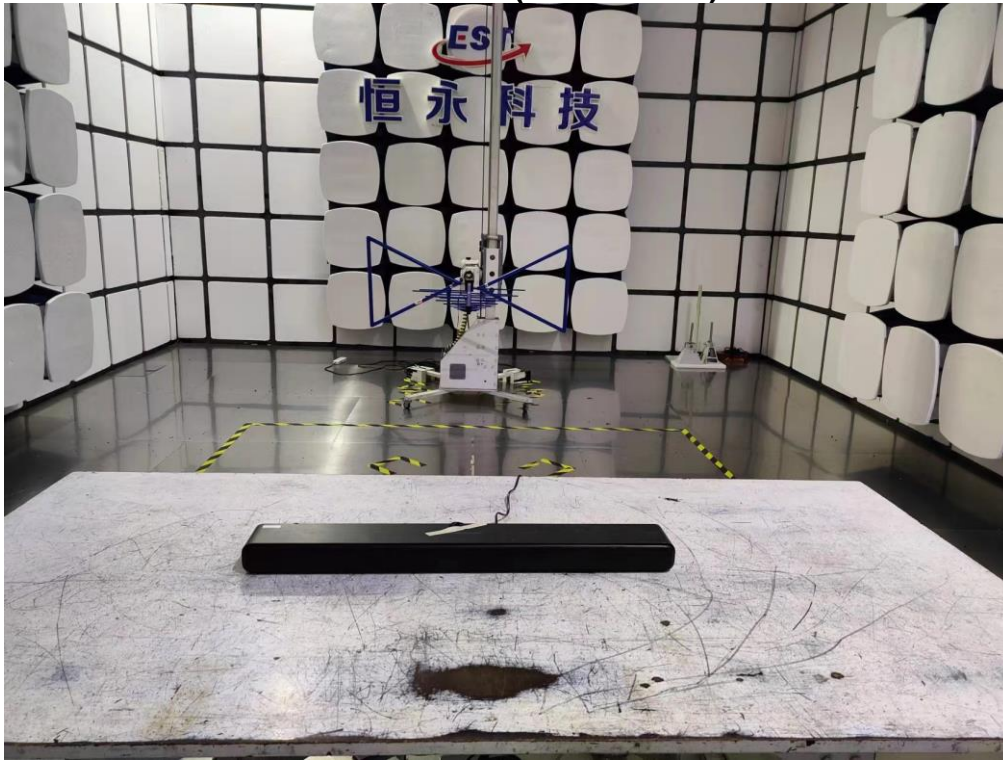


## 14. TEST SETUP PHOTO

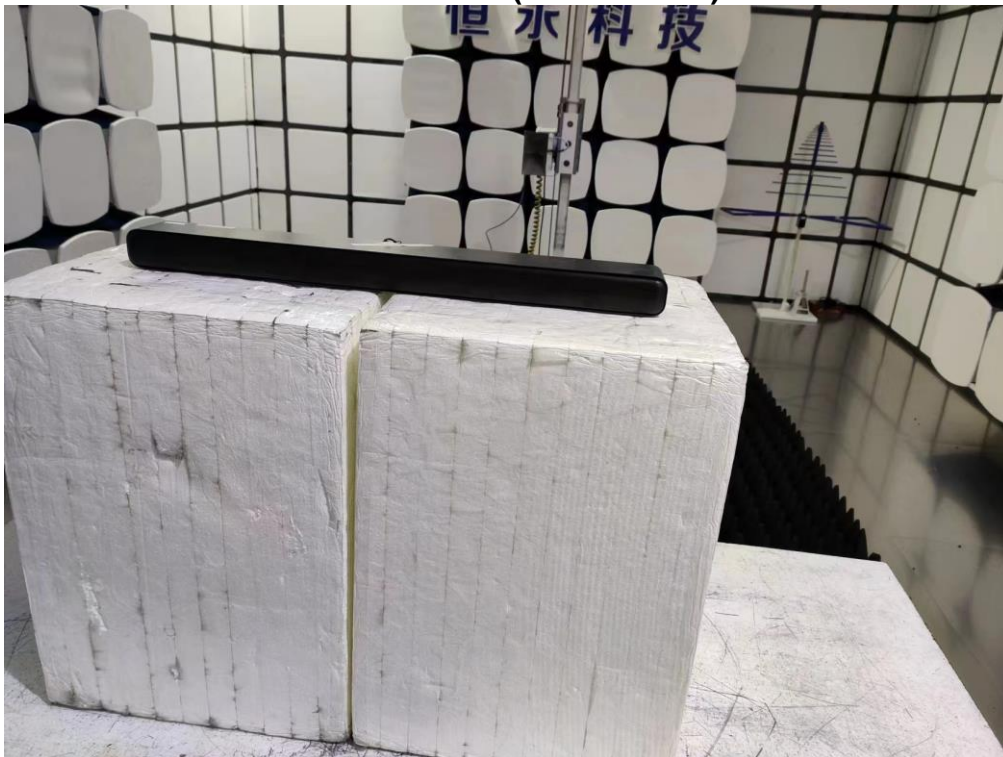
Conducted Test



**Radiated Test (Below 1GHz)**



**Radiated Test (Above 1GHz)**





# 15. EUT PHOTO

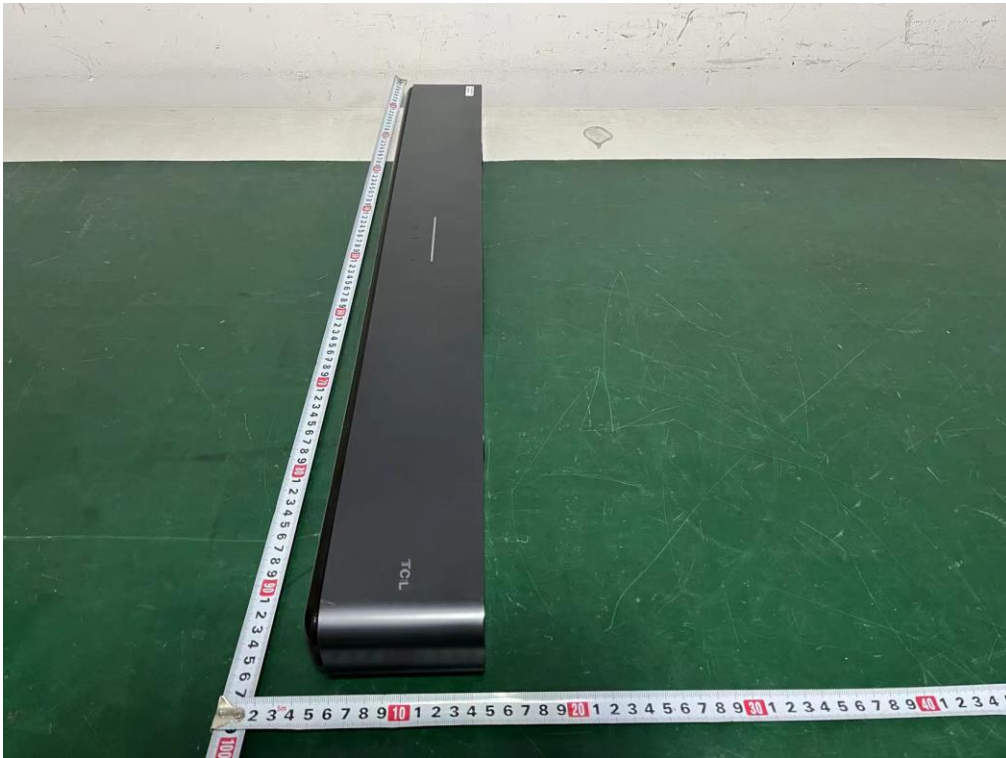
External Photos  
M/N: S55H



**External Photos**  
M/N: S55H



**External Photos**  
M/N: S55H





### External Photos M/N: S55H



**External Photos**  
M/N: S55H

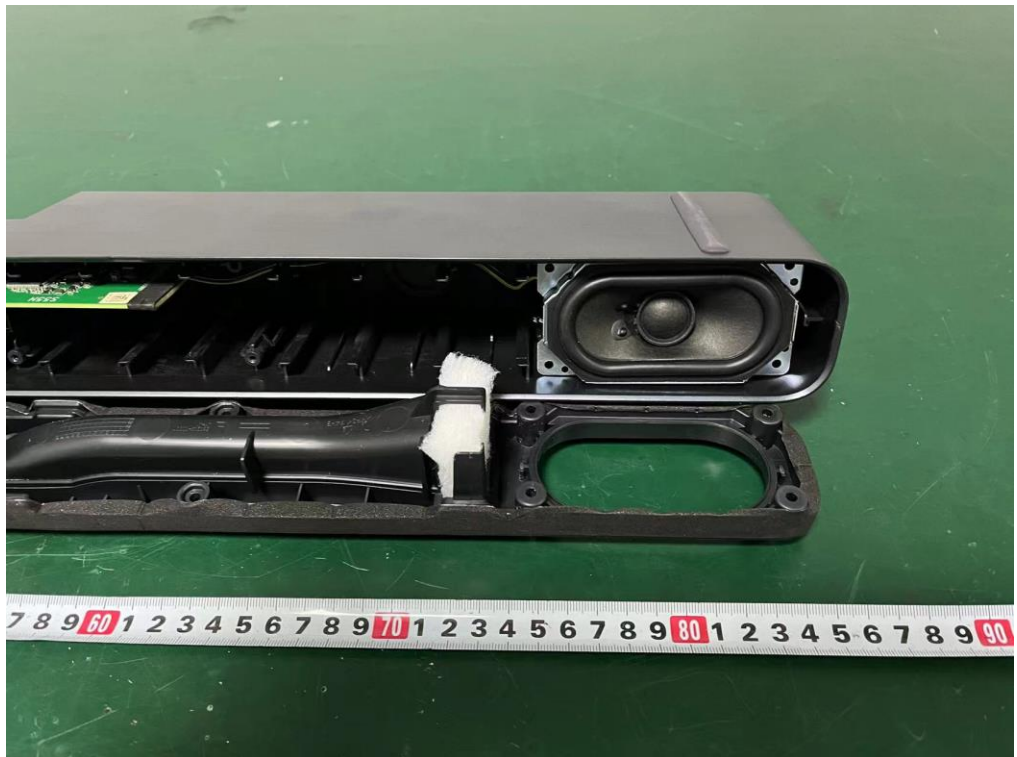




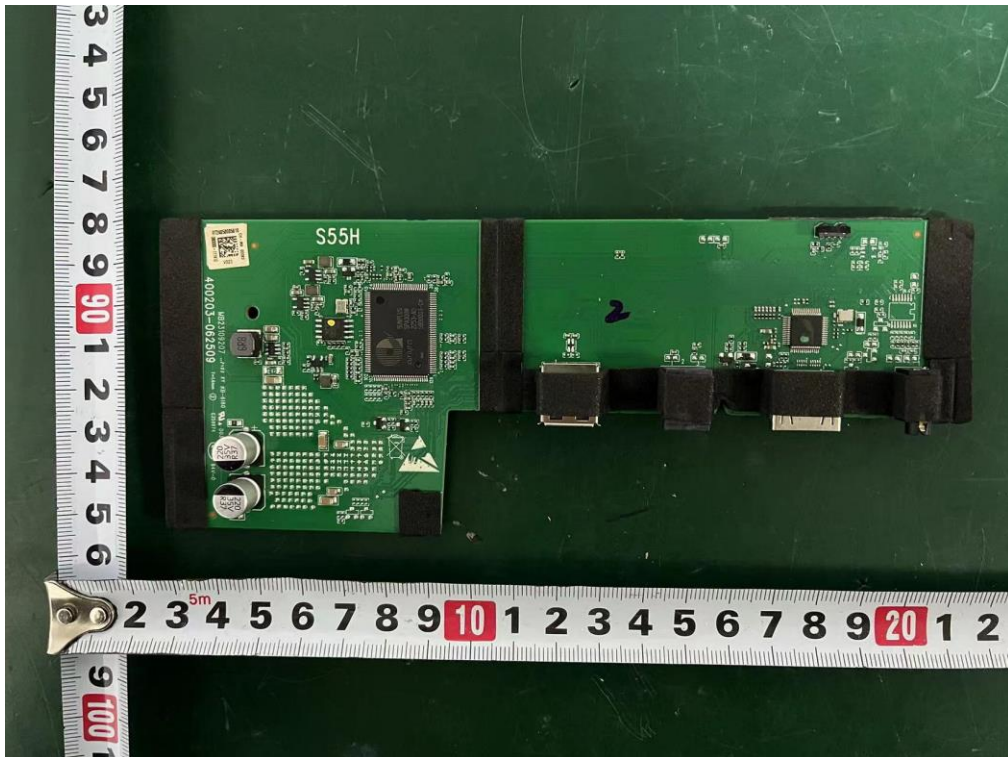
**Internal Photos**  
M/N: S55H



**Internal Photos**  
M/N: S55H

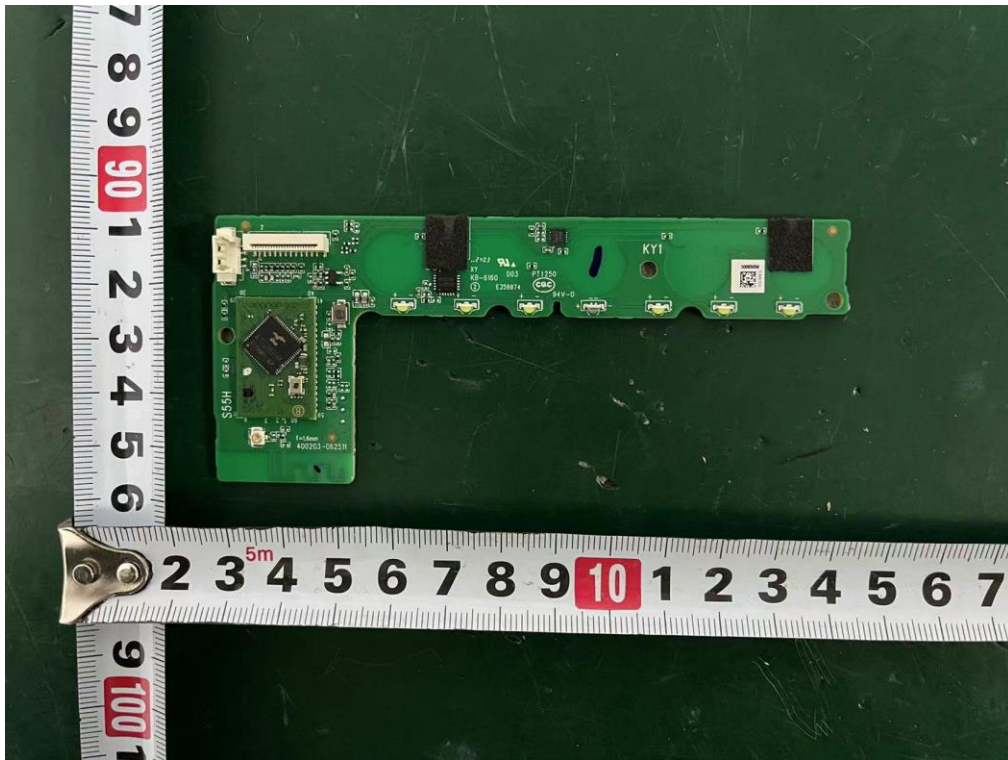
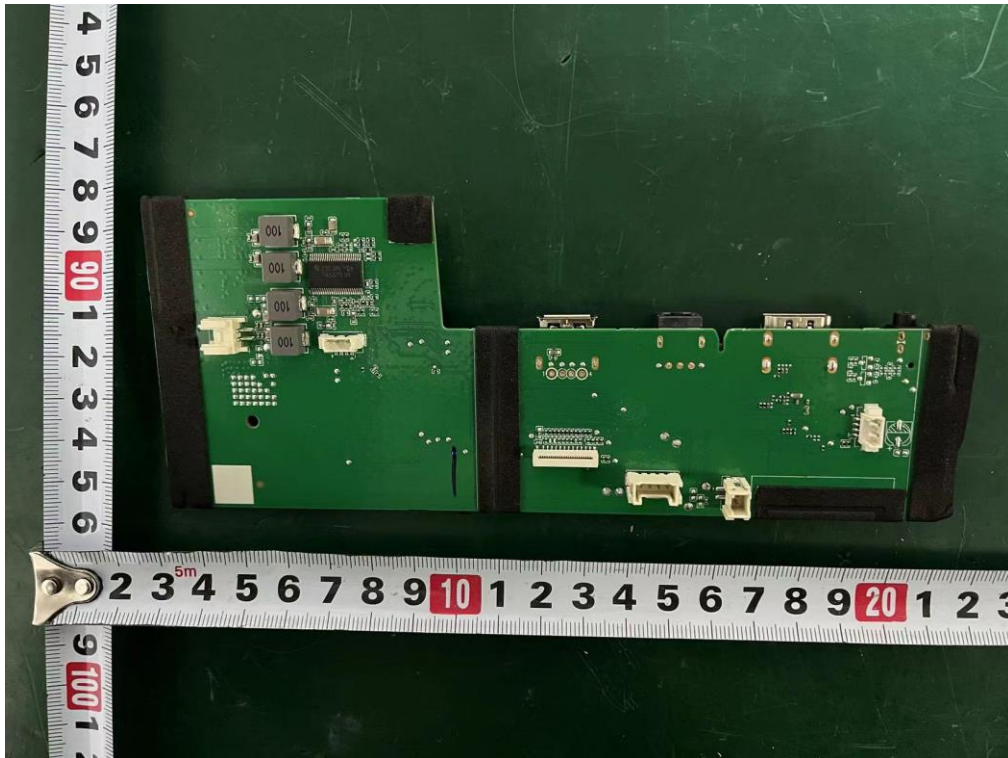


**Internal Photos**  
M/N: S55H

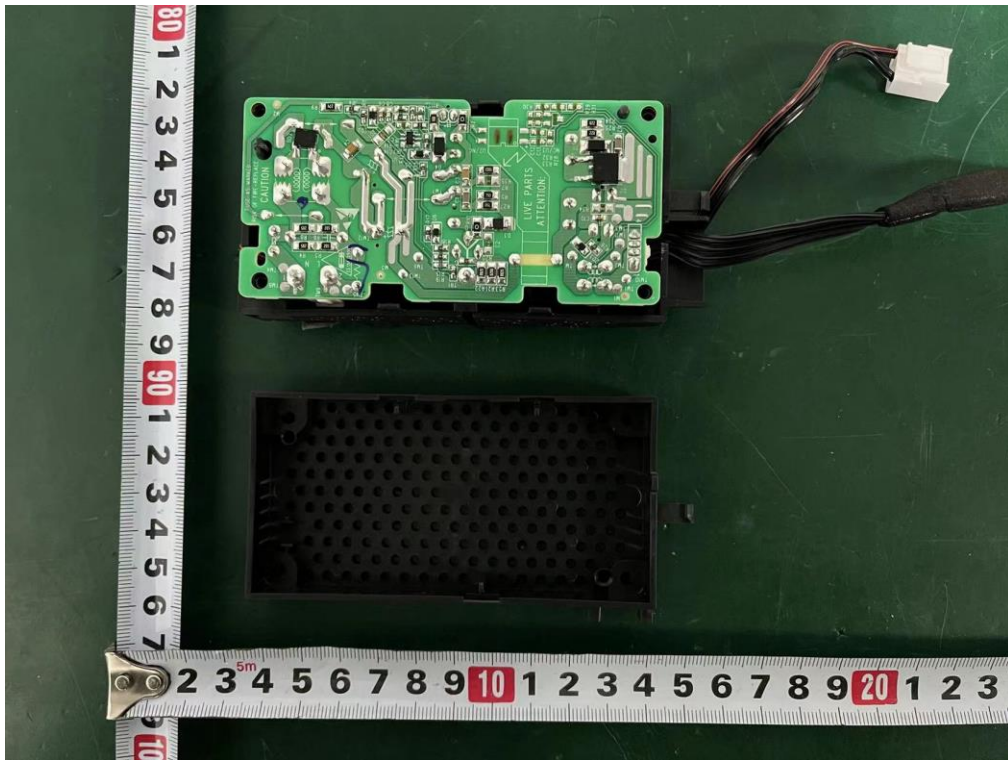
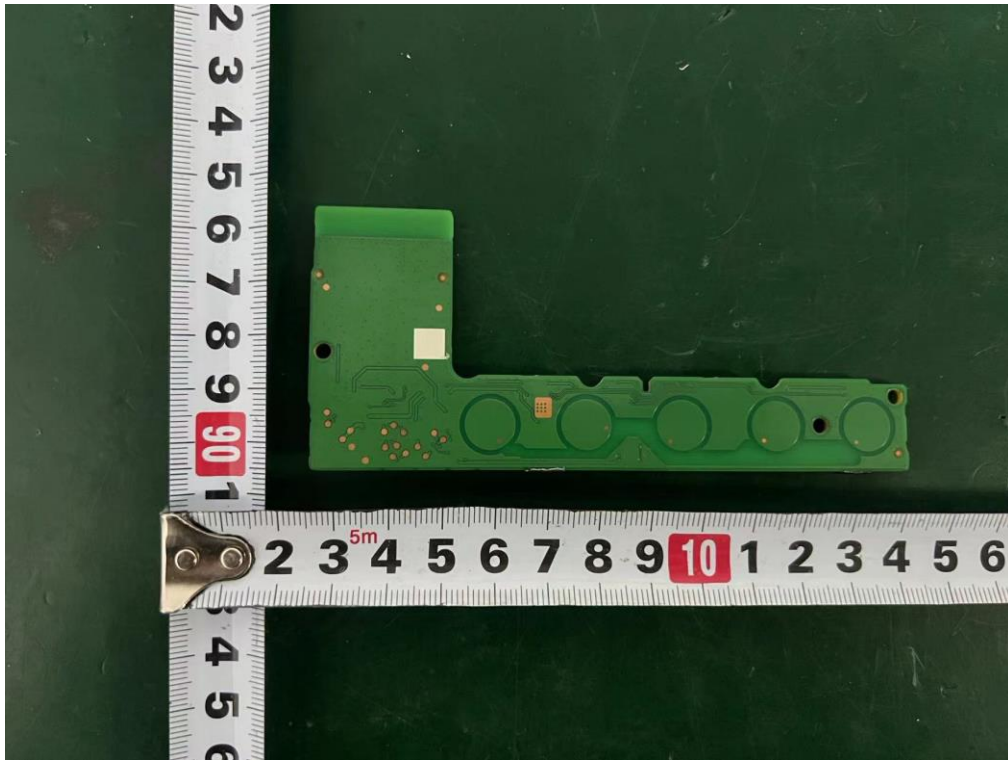




**Internal Photos**  
M/N: S55H

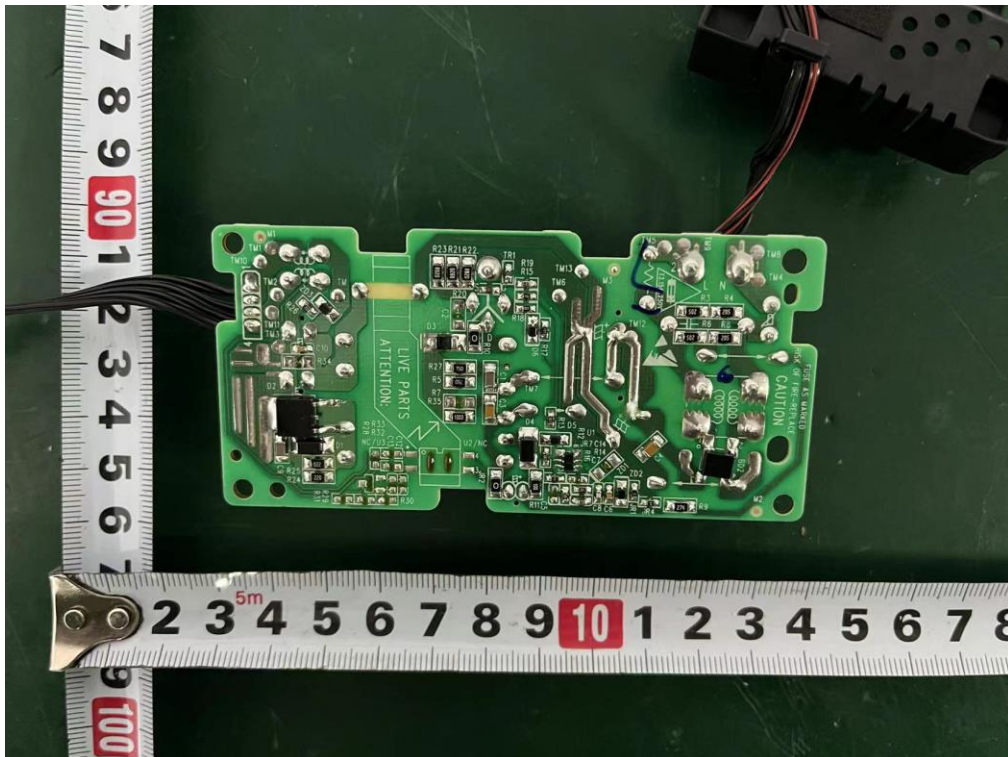
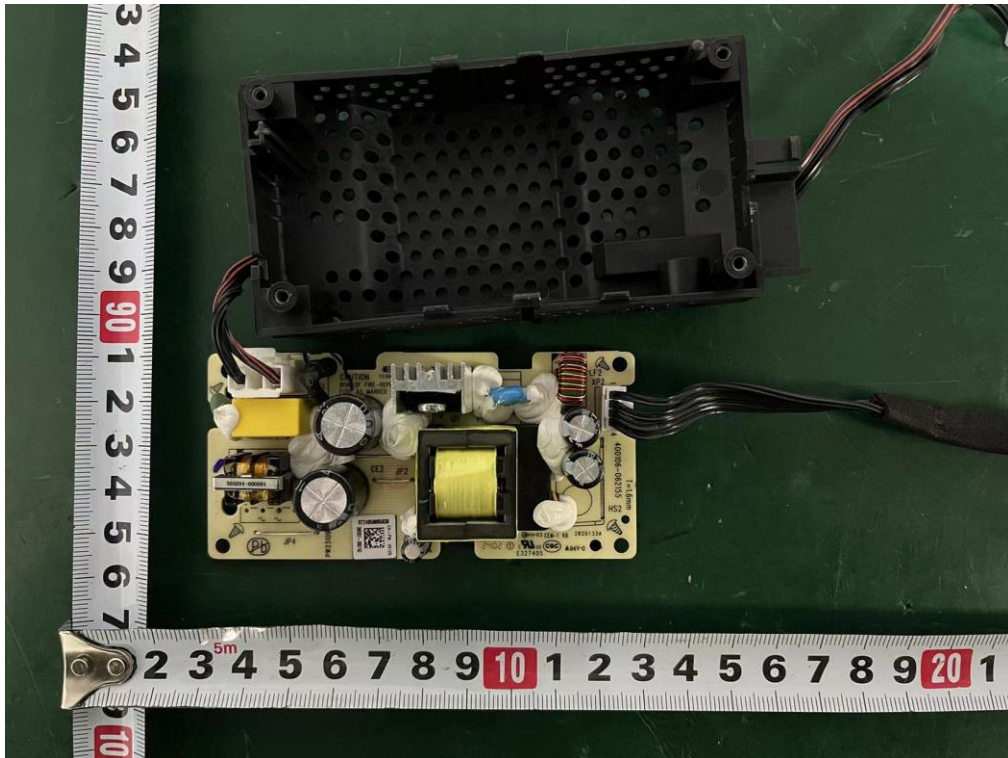


**Internal Photos**  
M/N: S55H





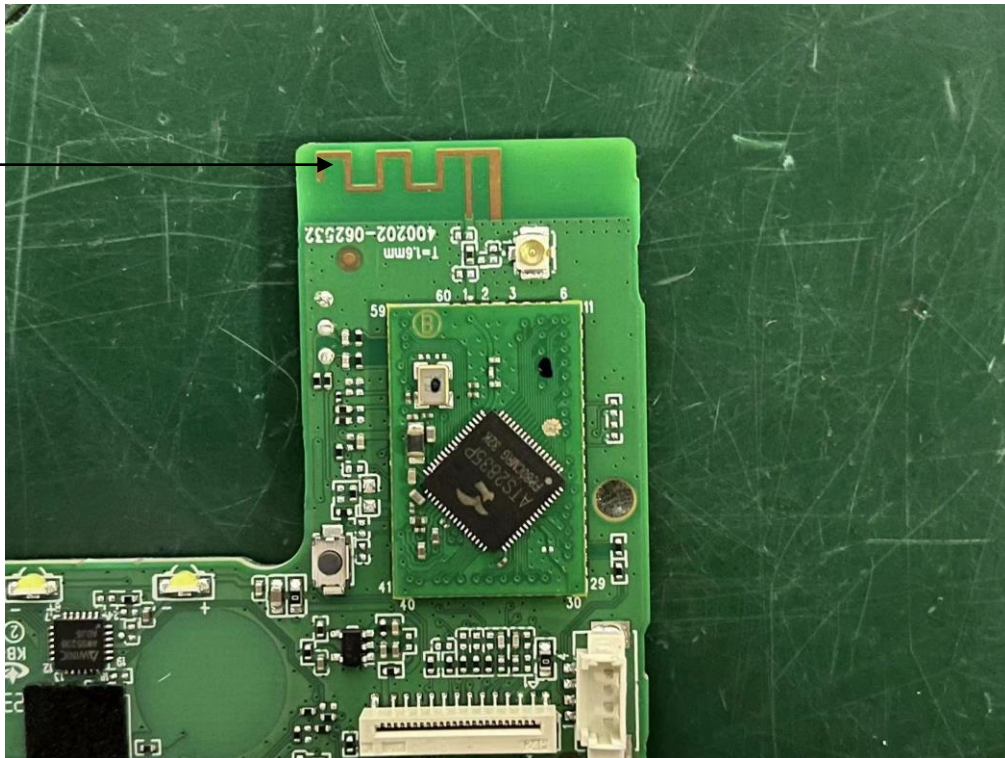
**Internal Photos**  
M/N: S55H



### Internal Photos

M/N: S55H

Bluetooth  
Antenna



End of Test Report