

# ISED TEST REPORT FOR CERTIFICATION On Behalf of

TCL OVERSEAS MARKETING LTD

2.0 Channel Dolby Atmos All in One Soundbar

Model Number: S45H

Additional Model: S45H-CA, S4BH

IC: 26250-S45H

Applicant:	TCL OVERSEAS MARKETING LTD
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Report Number:	ESTE-R2401385-1
Date of Test:	Jan. 05~25, 2024
Date of Report:	Mar. 31, 2025

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**Applicant:** TCL OVERSEAS MARKETING LTD  
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Science Park Shatin Hong Kong

**Manufacturer:** TCL OVERSEAS MARKETING LTD  
**Address:** 5/F, Building 22E, 22 Science Park East Avenue HongKong  
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**Factory 5:** Tonly Electronics Technology Viet Nam Co., Ltd.  
**Address:** Lot CN-03, Dong Mai Industrial Zone, Dong Mai Ward, Quang Yen  
Town, Quang Ninh Province, Vietnam

**E.U.T:** 2.0 Channel Dolby Atmos All in One Soundbar

**Model Number:** S45H

**Additional Model:** S45H-CA, S4BH  
Note: They are identical except model name.

**Power Supply:** AC 100-240V, 50/60Hz

**Trade Name:** TCL, FFALCON      **Serial No.:** -----

**Date of Receipt:** Jan. 05, 2024      **Date of Test:** Jan. 05~25, 2024

**Test Specification:** RSS-247 Issue 3  
RSS-Gen Issue 5  
ANSI C63.10:2013

**Test Result:** The device described above is tested by EST Technology Co., Ltd. The measurement results were contained in this test report and EST Technology Co., Ltd. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the Regulations RSS-247 and RSS-Gen requirements.

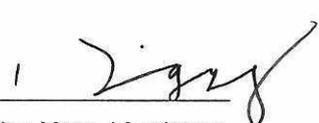
This report applies to above tested sample only and shall not be reproduced in part without written approval of EST Technology Co., Ltd.

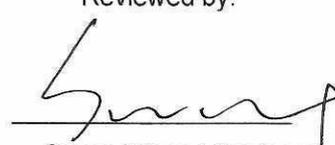
**Date:** Mar 31, 2025

Prepared by:

Reviewed by:

Approved by:

  
Ring Yang / Assistant

  
Seven Wang / Engineer

  
Iceman Hu / Manager

**Other Aspects:** This report base on the previous report with report number: ESTE-R2401385, factories and model number were added in this report.

Abbreviations: OK/P=passed    fail/F=failed    n.a/N=not applicable    E.U.T=equipment under tested

This test report is based on a single evaluation of one sample of above mentioned products ,It is not permitted to be duplicated in extracts without written approval of EST Technology Co., Ltd.

# 1. GENERAL INFORMATION

## 1.1. Description of Device (EUT)

Product Name	:	2.0 Channel Dolby Atmos All in One Soundbar
Model Number	:	S45H
Operation frequency	:	2402MHz~2480MHz
Number of channel	:	79
Max Output Power (PEAK)	:	6.84dBm
Modulation Type	:	BT BDR(1Mbps): GFSK BT EDR(2Mbps): $\pi/4$ -DQPSK BT EDR(3Mbps): 8-DPSK
Software Version	:	V03
Hardware Version	:	V02
Sample Type	:	Prototype production

Note: For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

## 1.2. Antenna Information

Ant No.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	-	-	Internal	-	2.91

Note:

- The antenna gain is declared by the customer and the laboratory is not responsible for the accuracy of the antenna gain.
- The test results of this report only apply to the sample as received.

## 1.3. Information of RF Cable

Cable Loss(dB)	Provided by
1.0	TCL OVERSEAS MARKETING LTD

Note:

- The customer declared the loss value of the RF Cable. and the test results of this report only apply to the sample as received.
- The laboratory is not responsible for the accuracy of the cable loss.

## 2.SUMMARY OF TEST

### 2.1.Summary of test result

No.	Description of Test Item	IC Standards Section	Results
1	Maximum Peak Output Power	RSS-247 5.1 (b)	PASS
2	20dB Bandwidth & 99% Occupied Bandwidth	RSS-247 5.1 (a) RSS-247 5.1 (b) RSS-Gen 6.7	PASS
3	Carrier Frequency Separation	RSS-247 5.1 (b)	PASS
4	Number Of Hopping Channel	RSS-247 5.1 (d)	PASS
5	Dwell Time	RSS-247 5.1 (d)	PASS
6	Conducted Band Edge	RSS-247 5.5	PASS
7	Conducted Spurious Emissions	RSS-247 5.5	PASS
8	Radiated Spurious Emissions and Band Edge	RSS-247 5.5 RSS-Gen 8.9 RSS-Gen 8.10	PASS
9	AC Power Line Conducted Emissions	RSS-Gen 8.8	PASS
10	Transmit Antenna	RSS-Gen 6.8	PASS

Note:“N/A” denotes test is not applicable in this test report.

## 2.2. Test Facilities

EMC Lab : Accredited by CNAS, CHINA  
Registration No.: L5288  
This Accreditation is valid until: November 12, 2029

Recognized by FCC, USA  
Designation Number: CN1215  
This Recognition is valid until: January 31, 2026

Accredited by A2LA, USA  
Registration No.: 4366.01  
This Accreditation is valid until: January 31, 2026

Recognized by Industry Canada  
CAB identifier No.: CN0035  
This Recognition is valid until: January 31, 2026

Recognized by VCCI, Japan  
Registration No.: C-14103; T-20073; R-13663;  
R-20103; G-20097  
Date of registration: Apr. 20, 2020  
This Recognition is valid until: Apr. 19, 2026

Recognized by TUV Rheinland, Germany  
Registration No.: UA 50413872 0001  
Date of registration: July 31, 2018

Recognized by Intertek  
Registration No.: 2011-RTL-L2-64  
Date of registration: November 08, 2018

Name of Firm : EST Technology Co., Ltd.

Site Location : Chilingxiang, Qishantou, Santun, Houjie, Dongguan,  
Guangdong, China

### 2.3.Measurement uncertainty

Test Item	Uncertainty
Uncertainty for Conduction emission test	±3.48dB
Uncertainty for spurious emissions test (Below 30MHz)	±1.62 dB
Uncertainty for spurious emissions test (30MHz-1GHz)	±4.60 dB(Polarize: H)
	±4.68 dB(Polarize: V)
Uncertainty for spurious emissions test (1GHz to 25GHz)	±4.96dB
Uncertainty for radio frequency	$7 \times 10^{-8}$
Uncertainty for conducted RF Power	1.08dB
Uncertainty for Power density test	0.26dB

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

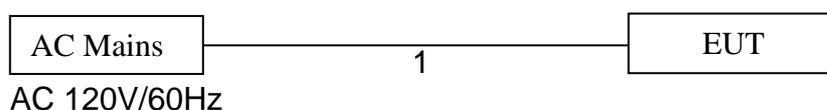
### 2.4.Assistant equipment used for test

Item	Equipment	Brand	Model Name/Type No.	IC ID	Series No.
-	-	-	-	-	-

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	1.5m	AC Cable

### 2.5.Block Diagram

For radiated emissions test: EUT was placed on a turn table, which is 0.8 (or 1.5) meter high above ground. EUT was beset into Bluetooth test mode by software before test.



(EUT: 2.0 Channel Dolby Atmos All in One Soundbar)

## 2.6. Test mode

Combining all the rates, modulations, and packet types, the Pre-scans had been carried out. The worst case test mode was selected for the final test as listed below.

Test Item	Modulation Type	Operating Mode	Packet Type	Test Channel
Maximum Peak Output Power	GFSK&8-DPSK & $\pi/4$ -DQPSK	Non Hopping	DH5	Low/Middle/High
20dB Bandwidth & 99% Occupied Bandwidth	GFSK&8-DPSK & $\pi/4$ -DQPSK	Non Hopping	DH5	Low/Middle/High
Carrier Frequency Separation	GFSK&8-DPSK & $\pi/4$ -DQPSK	Hopping	DH5	Low/Middle/High
Number Of Hopping Channel	GFSK&8-DPSK & $\pi/4$ -DQPSK	Hopping	DH5	All Channel Hopping
Dwell Time	GFSK&8-DPSK & $\pi/4$ -DQPSK	Hopping	DH1/DH3/DH5	Middle( All Channel Hopping)
Conducted Band Edge	GFSK&8-DPSK & $\pi/4$ -DQPSK	Non Hopping &Hopping	DH5	Low/ High& All Channel Hopping
Conducted Spurious Emissions	GFSK&8-DPSK & $\pi/4$ -DQPSK	Non Hopping	DH5	Low/Middle/High
Radiated Spurious Emissions(Below 1GHz)	GFSK&8-DPSK & $\pi/4$ -DQPSK	Non Hopping	DH5	Low/Middle/High
Radiated Spurious Emissions(Above 1GHz)	GFSK&8-DPSK & $\pi/4$ -DQPSK	Non Hopping	DH5	Low/Middle/High
Radiated Band Edge	GFSK&8-DPSK & $\pi/4$ -DQPSK	Non Hopping	DH5	Low/High
AC Power Line Conducted Emissions	GFSK&8-DPSK & $\pi/4$ -DQPSK	Non Hopping	DH5	Low/Middle/High

Note: In radiated measurement, the EUT had been pre-scan on the positioned of each 3 axis(X,Y,Z), the worst case was found when positioned on **X-plane**.

## 2.7.Channel List

Channel No.	Frequency (MHz)						
0	2402	1	2403	2	2404	3	2405
4	2406	5	2407	6	2408	7	2409
8	2410	9	2411	10	2412	11	2413
12	2414	13	2415	14	2416	15	2417
16	2418	17	2419	18	2420	19	2421
20	2422	21	2423	22	2424	23	2425
24	2426	25	2427	26	2428	27	2429
28	2430	29	2431	30	2432	31	2433
32	2434	33	2435	34	2436	35	2437
36	2438	37	2439	38	2440	39	2441
40	2442	41	2443	42	2444	43	2445
44	2446	45	2447	46	2448	47	2449
48	2450	49	2451	50	2452	51	2453
52	2454	53	2455	54	2456	55	2457
56	2458	57	2459	58	2460	59	2461
60	2462	61	2463	62	2464	63	2465
64	2466	65	2467	66	2468	67	2469
68	2470	69	2471	70	2472	71	2473
72	2474	73	2475	74	2476	75	2477
76	2478	77	2479	78	2480	-	-

## 2.8.Power Setting of Test Software

Software Name	BT FCC Tool V2.25		
	2402	2441	2480
Frequency(MHz)	2402	2441	2480
GFSK(1Mbps) Setting	5	5	5
$\pi/4$ -DQPSK(2Mbps) Setting	5	5	5
8-DPSK(3Mbps) Setting	5	5	5

Note: This information is provided by the applicant.

## 2.9. Test Equipment

Equipment List during the test period Jan. 05~25, 2024

For conducted emission test						
Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESHS30	EST-E001	LISAI	June 12,23	1 Year
Artificial Mains Network	Rohde & Schwarz	ENV216	EST-E002	LISAI	June 12,23	1 Year
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	EST-E078	LISAI	June 12,23	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A

For radiated emission test(9kHz-30MHz)						
Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESR7	EST-E047	LISAI	June 12,23	1 Year
Active Loop Antenna	SCHWARBECK	FMZB 1519B	EST-E054	LISAI	June 12,23	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A
9kHz-30MHz Cable	N/A	EST-001	N/A	N/A	N/A	N/A

For radiated emissions test (30MHz-1000MHz)						
Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESR7	EST-E047	LISAI	June 12,23	1 Year
Bilog Antenna	Teseq	CBL 6111D	EST-E034	LISAI	June 12,23	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A
30-1000MHz Cable	N/A	EST-002	N/A	N/A	N/A	N/A

For radiated emission test(Above 1000MHz)						
Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
Horn Antenna	SCHWARZBECK	BBHA9120D	EST-E144	LISAI	June 12,23	1 Year
Horn Antenna	Com-Power	AHA-840	EST-E133	LISAI	June 12,23	1 Year
Low Noise Amplifier	RF	TRLA-010180 G45N	EST-E142	LISAI	June 12,23	1 Year
Spectrum Analyzer	Rohde & Schwarz	FSV40	EST-E069	LISAI	June 12,23	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A
Above 1GHz Cable	N/A	EST-003	N/A	N/A	N/A	N/A

**For connect EUT antenna terminal test**

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
TS 1120	Tonscend	/	/	/	/	/
Test Software	Tonscend	TS1120-3	3.3.38	/	/	/
RF Control Unit	Tonscend	JS0806-2	EST-E134	LISAI	June 12,23	1 Year
Signal and Spectrum Analyzer	Keysight	N9010B	EST-E141	LISAI	June 12,23	1 Year

### 3. MAXIMUM PEAK OUTPUT POWER

#### 3.1. Limit

FHSs shall have hopping channel carrier frequencies separated by a minimum of 25kHz or the 20dB bandwidth of the hopping channel, whichever is greater. Alternatively, FHSs operating in the band 2400-2483.5MHz may have hopping channel carrier frequencies that are separated by 25kHz or two thirds of the 20dB bandwidth of the hopping channel, whichever is greater, provided that the systems operate with an output power no greater than 0.125W.

#### 3.2. Test Setup



#### 3.3. Spectrum Analyzer Setting

Spectrum Parameters	Setting
RBW	3MHz
VBW	3MHz
Span	7.5MHz
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

#### 3.4. Test Procedure

- a. Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- b. Spectrum analyzer setting parameters in accordance with section 3.3.
- c. Set the EUT transmit continuously with maximum output power over fixed single hopping channel.
- d. Allow trace to stabilize, use the marker-to-peak function to set the marker to the peak of the emission.
- e. Repeat above procedures until all channels and test modes were measured.
- f. Record the results in the test report.

#### 3.5. Test Result

Refer to section 13: Appendix C

## 4.20dB BANDWIDTH & 99% OCCUPIED BANDWIDTH

### 4.1.Limit

The bandwidth of a frequency hopping channel is the 20 dB emission bandwidth, measured with the hopping stopped. FHSs shall have hopping channel carrier frequencies separated by a minimum of 25kHz or the 20dB bandwidth of the hopping channel, whichever is greater. Alternatively, FHSs operating in the band 2400-2483.5MHz may have hopping channel carrier frequencies that are separated by 25kHz or two thirds of the 20dB bandwidth of the hopping channel, whichever is greater, provided that the systems operate with an output power no greater than 0.125W.

### 4.2.Test Setup



### 4.3.Spectrum Analyzer Setting

Spectrum Parameters	Setting
RBW	30KHz
VBW	100KHz
Span	3MHz
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

### 4.4.Test Procedure

#### For 20dB Bandwidth Measurement :

- a. Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- b. Spectrum analyzer setting parameters in accordance with section 4.3.
- c. Set the EUT transmit continuously with maximum output power over fixed single hopping channel.
- d. Allow trace to stabilize, use the ndB down function to measure 20dB Bandwidth.
- e. Repeat above procedures until all channels and test modes were measured.
- f. Record the results in the test report.

#### For 99% Occupied Bandwidth Measurement:

- a. Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- b. Spectrum analyzer setting parameters in accordance with section 4.3.
- c. Set the EUT transmit continuously with maximum output power over fixed single hopping channel.
- d. Allow trace to stabilize, use the 99% occupied bandwidth function to measure 20dB Bandwidth.
- e. Repeat above procedures until all channels and test modes were measured.
- f. Record the results in the test report.

### 4.5.Test Result

Refer to section 13: Appendix A & B

## 5.CARRIER FREQUENCY SEPARATION

### 5.1.Limit

The bandwidth of a frequency hopping channel is the 20 dB emission bandwidth, measured with the hopping stopped. FHSs shall have hopping channel carrier frequencies separated by a minimum of 25kHz or the 20dB bandwidth of the hopping channel, whichever is greater. Alternatively, FHSs operating in the band 2400-2483.5MHz may have hopping channel carrier frequencies that are separated by 25kHz or two thirds of the 20dB bandwidth of the hopping channel, whichever is greater, provided that the systems operate with an output power no greater than 0.125W.

### 5.2.Test Setup



### 5.3.Spectrum Analyzer Setting

Spectrum Parameters	Setting
RBW	30KHz
VBW	100KHz
Span	3MHz
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

### 5.4.Test Procedure

- a. Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- b. Spectrum analyzer setting parameters in accordance with section 5.3.
- c. Set the EUT transmit continuously with maximum output power in all channel hopping mode.
- d. Allow trace to stabilize, use the marker-delta function to measure channel separation between two adjacent channels.
- e. Repeat above procedures until all channels and test modes were measured.
- f. Record the results in the test report.

### 5.5.Test Result

Refer to section 13: Appendix D

## 6. NUMBER OF HOPPING CHANNEL

### 6.1. Limit

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels

### 6.2. Test Setup



### 6.3. Spectrum Analyzer Setting

Spectrum Parameters	Setting
RBW	300KHz
VBW	300KHz
Start frequency	2400MHz
Stop frequency	2483.5MHz
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

### 6.4. Test Procedure

- a. Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- b. Spectrum analyzer setting parameters in accordance with section 6.3.
- c. Set the EUT transmit continuously with maximum output power in all channel hopping mode.
- d. Allow trace to stabilize, use the marker-peak function to mark the first and last frequency hopping channel.
- e. Repeat above procedures until all test modes were measured.
- f. Record the results in the test report.

### 6.5. Test Result

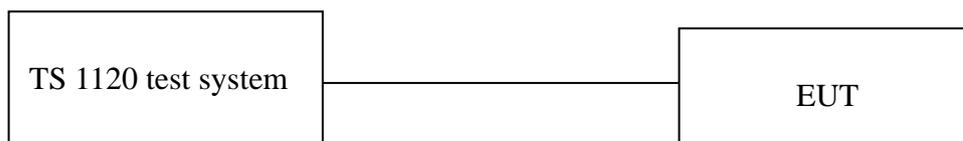
Refer to section 13: Appendix F

## 7.DWELL TIME

### 7.1.Limit

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds, multiplied by the number of hopping channels employed. Transmissions on particular hopping frequencies may be avoided or suppressed provided that at least 15 hopping channels are used.

### 7.2.Test Setup



### 7.3.Spectrum Analyzer Setting

Spectrum Parameters	Setting
RBW	1MHz
VBW	1MHz
Span	Zero
Detector	Peak
Sweep Time	2.5ms(DH1)/10ms(DH3)/20ms(DH5)
Sweep Mode	Single Sweep

### 7.4.Test Procedure

- Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- Spectrum analyzer setting parameters in accordance with section 7.3.
- Set the EUT transmit continuously with maximum output power in all channel hopping mode.
- Allow trace to stabilize, use the marker-delta function to measure single pulse duration.
- Repeat above procedures until all test modes were measured.
- Record the results in the test report.

### 7.5.Test Result

Refer to section 13: Appendix E

## 8. CONDUCTED BAND EDGE

### 8.1. Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

### 8.2. Test Setup



### 8.3. Spectrum Analyzer Setting

Spectrum Parameters	Setting
RBW	100KHz
VBW	300KHz
Span	100MHz
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

### 8.4. Test Procedure

- a. Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- b. Spectrum analyzer setting parameters in accordance with section 8.3.
- c. Set the EUT transmit continuously with maximum output power over fixed single hopping channel.
- d. Allow trace to stabilize, use the marker function to mark the highest emission level outside the authorized band.
- e. Repeat above procedures until all channels and test modes were measured(including frequency hopping off and frequency hopping on).
- f. Record the results in the test report.

### 8.5. Test Result

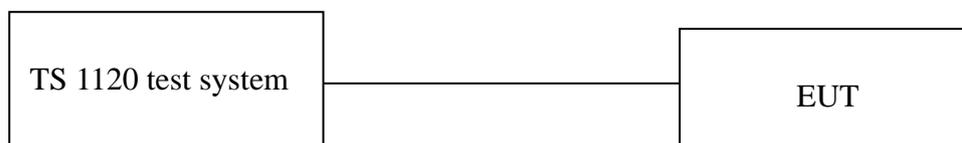
Refer to section 13: Appendix G & I

## 9. CONDUCTED SPURIOUS EMISSIONS

### 9.1. Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

### 9.2. Test Setup



### 9.3. Spectrum Analyzer Setting

Spectrum Parameters	Setting
RBW	100KHz
VBW	300KHz
Start frequency	30MHz
Stop frequency	26.5GHz
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

### 9.4. Test Procedure

- a. Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- b. Spectrum analyzer setting parameters in accordance with section 9.3.
- c. Set the EUT transmit continuously with maximum output power over fixed single hopping channel.
- d. Allow trace to stabilize, use the marker function to mark the highest emission level outside the authorized band.
- e. Repeat above procedures until all channels and test modes were measured.
- f. Record the results in the test report.

### 9.5. Test Result

Refer to section 13: Appendix H & I

## 10. RADIATED SPURIOUS EMISSIONS AND BAND EDGE

### 10.1. Limit

Except where otherwise indicated in the applicable RSS, radiated emissions shall comply with the field strength limits shown in below. Additionally, the level of any transmitter unwanted emission shall not exceed the level of the transmitter's fundamental emission.

#### Restricted frequency band

MHz	MHz	GHz
0.090 - 0.110	149.9 - 150.05	9.0 - 9.2
0.495 - 0.505	156.52475 - 156.52525	9.3 - 9.5
2.1735 - 2.1905	156.7 - 156.9	10.6 - 12.7
3.020 - 3.026	162.0125 - 167.17	13.25 - 13.4
4.125 - 4.128	167.72 - 173.2	14.47 - 14.5
4.17725 - 4.17775	240 - 285	15.35 - 16.2
4.20725 - 4.20775	322 - 335.4	17.7 - 21.4
5.677 - 5.683	399.9 - 410	22.01 - 23.12
6.215 - 6.218	608 - 614	23.6 - 24.0
6.26775 - 6.26825	960 - 1427	31.2 - 31.8
6.31175 - 6.31225	1435 - 1626.5	36.43 - 36.5
8.291 - 8.294	1645.5 - 1646.5	Above 38.6
8.362 - 8.366	1660 - 1710	
8.37625 - 8.38675	1718.8 - 1722.2	
8.41425 - 8.41475	2200 - 2300	
12.29 - 12.293	2310 - 2390	
12.51975 - 12.52025	2483.5 - 2500	
12.57675 - 12.57725	2655 - 2900	
13.36 - 13.41	3260 - 3267	
16.42 - 16.423	3332 - 3339	
16.69475 - 16.69525	3345.8 - 3358	
16.80425 - 16.80475	3500 - 4400	
25.5 - 25.67	4500 - 5150	
37.5 - 38.25	5350 - 5460	
73 - 74.6	7250 - 7750	
74.8 - 75.2	8025 - 8500	
108 - 138	--	

**General field strength limits at frequencies below 30 MHz**

Frequency	Magnetic field strength (H-Field) ( $\mu\text{A}/\text{m}$ )	Measurement distance (m)
9 - 490 kHz	$6.37/F$ (F in kHz)	300
490 - 1705 kHz	$63.7/F$ (F in kHz)	30
1.705 - 30 MHz	0.08	30

Note: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

**General field strength limits at frequencies above 30 MHz**

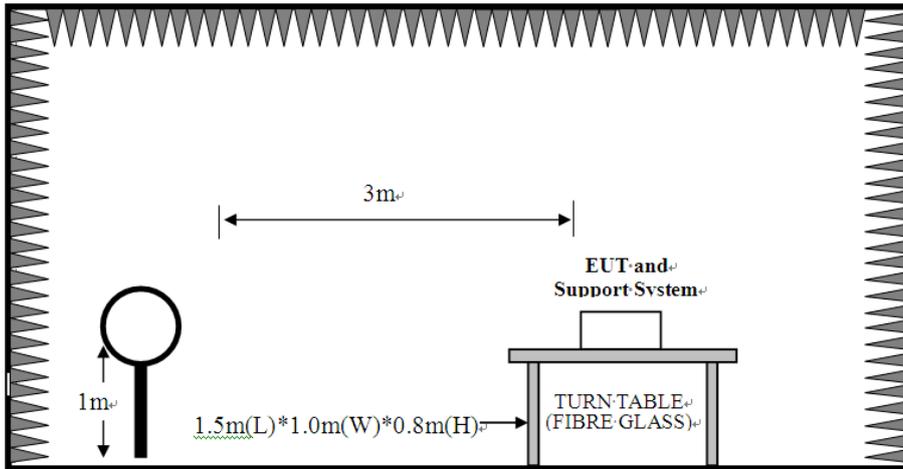
Frequency(MHz)	Field Strength( $\mu\text{V}/\text{m}$ at 3 m)
30 - 88	100
88 - 216	150
216 - 960	200
Above 960	500

Note:

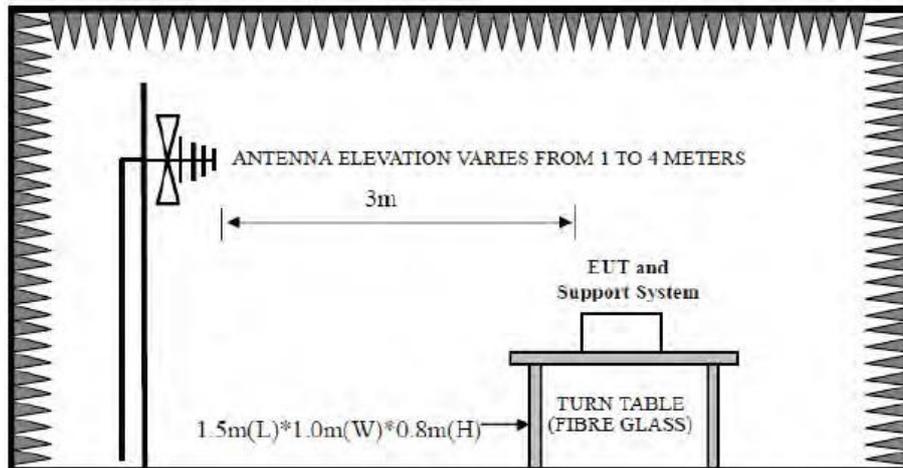
1. Emission level  $\text{dB}\mu\text{V} = 20 \log$  Emission level  $\mu\text{V}/\text{m}$ .
2. The smaller limit shall apply at the cross point between two frequency bands.
3. Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

## 10.2. Test Setup

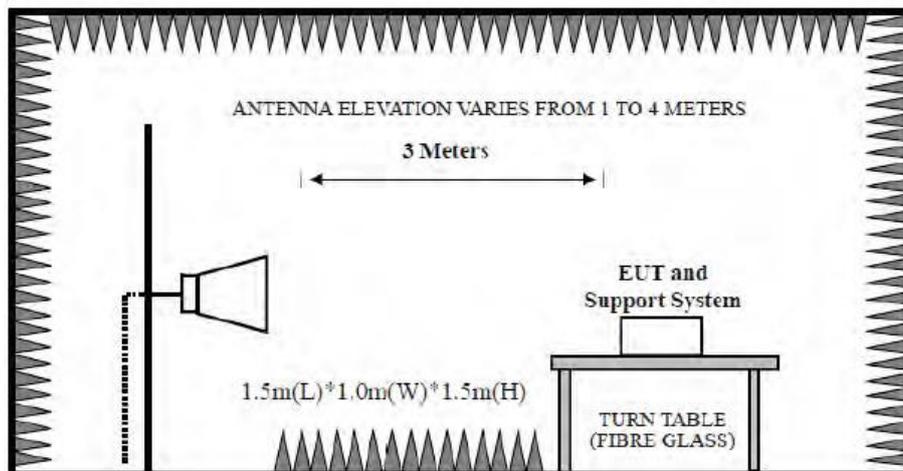
9kHz~30MHz



30~1000MHz



Above 1GHz



### 10.3. Spectrum Analyzer Setting

#### For 9KHz-150KHz

Spectrum Parameters	Setting
RBW	300Hz(for Peak&AVG)/CISPR 200Hz(for QP)
VBW	300Hz(for Peak&AVG)/CISPR 200Hz(for QP)
Start frequency	9KHz
Stop frequency	150KHz
Sweep Time	Auto
Detector	PEAK/QP/AVG
Trace Mode	Max Hold

#### For 150KHz-30MHz

Spectrum Parameters	Setting
RBW	9KHz
VBW	9KHz
Start frequency	150KHz
Stop frequency	30MHz
Sweep Time	Auto
Detector	QP
Trace Mode	Max Hold

#### For 30MHz-1GHz

Spectrum Parameters	Setting
RBW	120KHz
VBW	300KHz
Start frequency	30MHz
Stop frequency	1GHz
Sweep Time	Auto
Detector	QP
Trace Mode	Max Hold

#### For Above 1GHz

Spectrum Parameters	Setting
RBW	1MHz
VBW	PEAK Measurement
	AVG Measurement
	3MHz
	Duty cycle ≥ 98%, VBW = 10Hz
	Duty cycle < 98%, VBW ≥ 1/T
Start frequency	1GHz
Stop frequency	25GHz
Sweep Time	Auto
Detector	PEAK
Trace Mode	Max Hold

## 10.4. Test Procedure

- a. EUT was placed on a turn table, which is 0.8 meter high above ground for below 1GHz test, and which is 1.5 meter high above ground for above 1GHz test.
- b. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower.
- c. Set the EUT transmit continuously with maximum output power.
- d. The turn table can rotate 360 degrees to determine the position of the maximum emission level.
- e. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.
- f. Spectrum analyzer setting parameters in accordance with section 10.3.
- g. Repeat above procedures until all channels and test modes were measured.
- h. Record the results in the test report.

### Note:

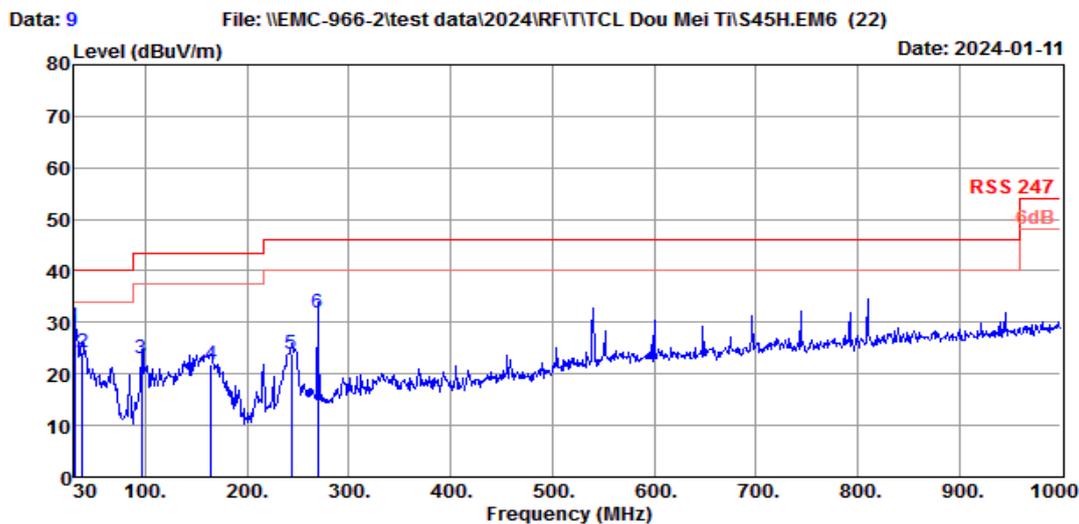
1. For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.
2. The frequency 2402MHz ,2441MHz and 2480MHz is fundamental frequency which no limit, the limit on plots is automatically generated by the software, it's not fundamental limit, we can't remove it.
3. GFSK,  $\pi/4$ -DQPSK and 8-DPSK mode all have been tested, only worse case GFSK mode is reported.

## 10.5. Test Result

### Radiated Emissions Below 1GHz

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Site no. : 2# 966 chamber Data no. : 9  
 Dis. / Ant. : 3m 47018 Ant. pol. : VERTICAL  
 Limit : RSS 247  
 Env. / Ins. : Temp:20.2°C;Humi:48%;Press:101.32kPa  
 Engineer : LST  
 EUT : 2.0 Channel Dolby Atmos All in One  
 Soundbar  
 Power : AC 120V/60Hz  
 M/N : S45H  
 Test Mode : TX Mode

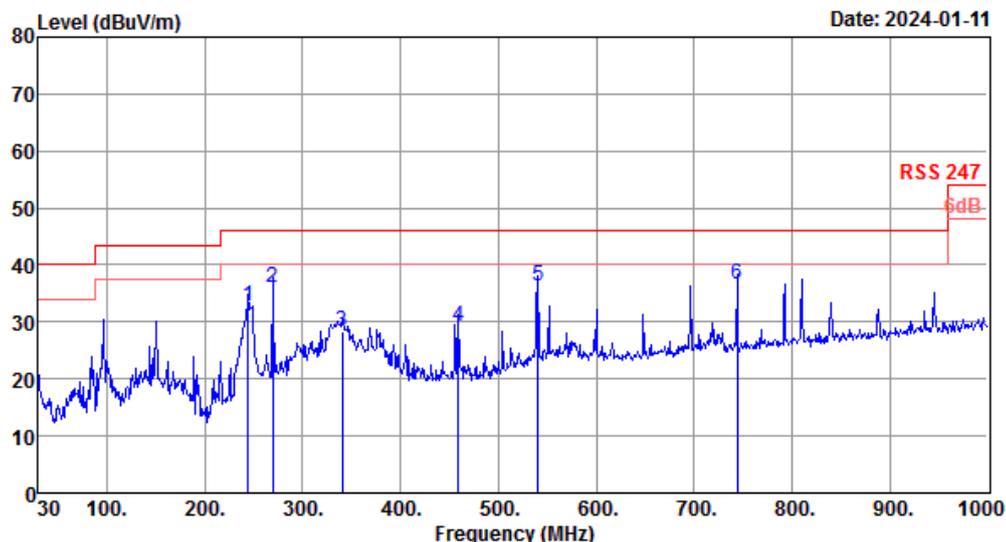
	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.00	18.90	0.58	9.76	29.24	40.00	10.76	QP
2	37.76	13.00	0.64	10.56	24.20	40.00	15.80	QP
3	95.96	10.02	1.52	11.39	22.93	43.50	20.57	QP
4	164.83	10.90	1.56	9.34	21.80	43.50	21.70	QP
5	243.40	11.90	1.92	10.20	24.02	46.00	21.98	QP
6	269.59	13.70	2.05	16.21	31.96	46.00	14.04	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 10 File: \\EMC-966-2\test data\2024\RF\TCL Dou Mei Ti\S45H.EM6 (22)



Site no. : 2# 966 chamber Data no. : 10  
 Dis. / Ant. : 3m 47018 Ant. pol. : HORIZONTAL  
 Limit : RSS 247  
 Env. / Ins. : Temp:20.2°C;Humi:48%;Press:101.32kPa  
 Engineer : LST  
 EUT : 2.0 Channel Dolby Atmos All in One  
 Soundbar  
 Power : AC 120V/60Hz  
 M/N : S45H  
 Test Mode : TX Mode

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	244.37	11.95	1.92	19.01	32.88	46.00	13.12	QP
2	269.59	13.70	2.05	20.14	35.89	46.00	10.11	QP
3	340.40	15.00	2.42	10.89	28.31	46.00	17.69	QP
4	458.74	17.57	2.78	8.96	29.31	46.00	16.69	QP
5	540.22	19.60	3.07	13.55	36.22	46.00	9.78	QP
6	743.92	22.18	3.73	10.57	36.48	46.00	9.52	QP

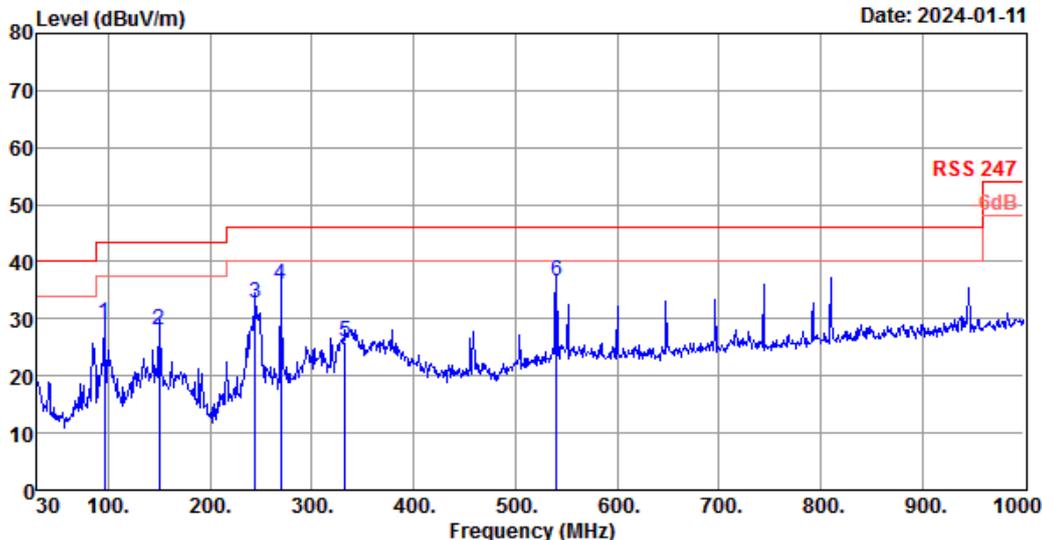
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 11 File: \\EMC-966-2\test data\2024\RF\TCL Dou Mei Ti\S45H.EM6 (22)

Date: 2024-01-11



Site no. : 2# 966 chamber Data no. : 11  
 Dis. / Ant. : 3m 47018 Ant. pol. : HORIZONTAL  
 Limit : RSS 247  
 Env. / Ins. : Temp:20.2°C;Humi:48%;Press:101.32kPa  
 Engineer : LST  
 EUT : 2.0 Channel Dolby Atmos All in One  
 Soundbar  
 Power : AC 120V/60Hz  
 M/N : S45H  
 Test Mode : RX Mode

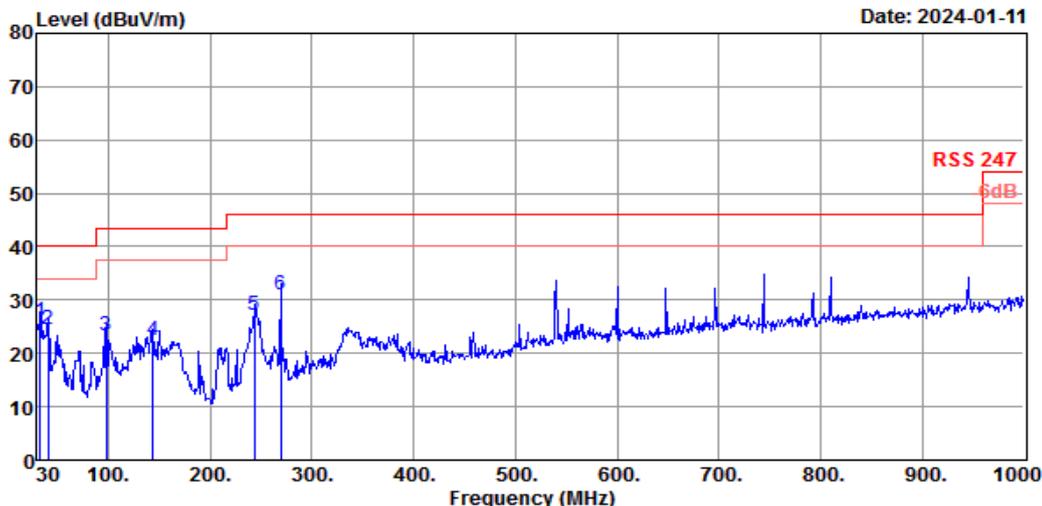
	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	95.96	10.02	1.52	17.63	29.17	43.50	14.33	QP
2	150.28	11.90	1.49	14.54	27.93	43.50	15.57	QP
3	244.37	11.95	1.92	18.79	32.66	46.00	13.34	QP
4	269.59	13.70	2.05	20.34	36.09	46.00	9.91	QP
5	332.64	14.93	2.38	8.68	25.99	46.00	20.01	QP
6	540.22	19.60	3.07	13.88	36.55	46.00	9.45	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 12 File: \\EMC-966-2\test data\2024\RFIT\TCL Dou Mei Ti\S45H.EM6 (22)



Site no. : 2# 966 chamber Data no. : 12  
 Dis. / Ant. : 3m 47018 Ant. pol. : VERTICAL  
 Limit : RSS 247  
 Env. / Ins. : Temp:20.2°C;Humi:48%;Press:101.32kPa  
 Engineer : LST  
 EUT : 2.0 Channel Dolby Atmos All in One  
 Soundbar  
 Power : AC 120V/60Hz  
 M/N : S45H  
 Test Mode : RX Mode

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	32.91	16.45	0.60	8.78	25.83	40.00	14.17	QP
2	40.67	12.20	0.66	11.57	24.43	40.00	15.57	QP
3	97.90	10.06	1.67	11.63	23.36	43.50	20.14	QP
4	143.49	12.40	1.53	8.49	22.42	43.50	21.08	QP
5	243.40	11.90	1.92	13.47	27.29	46.00	18.71	QP
6	269.59	13.70	2.05	15.32	31.07	46.00	14.93	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

Note:

1. The amplitude of 9KHz to 30MHz spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.
2. All test mode had been pre-test, only the worst case was reported.

### Radiated Emissions Above 1G

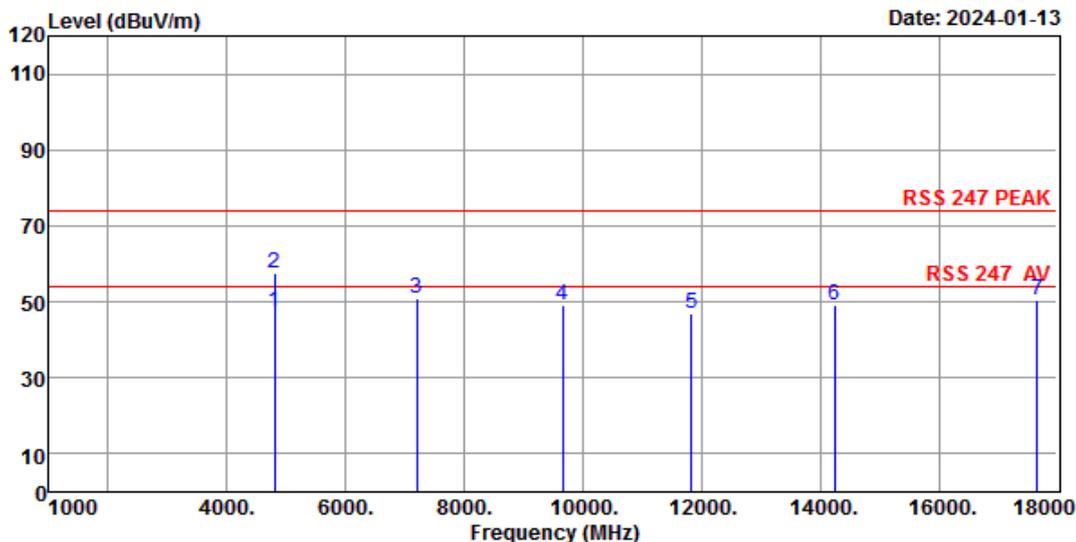
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Data: 49

File: \\EMC-966-1\test data\2024\RFIT\TCL Dou Mei Ti\S45H.EM6 (92)

Date: 2024-01-13



Site no. : 1# 966 Chamber                      Data no. : 49  
 Dis. / Ant. : 3m BBHA9120D-2667            Ant. pol. : VERTICAL  
 Limit : RSS 247 PEAK  
 Env. / Ins. : Temp:19.5°C;Humi:51%;Press:101.52kPa  
 Engineer : QQZ  
 EUT : 2.0 Channel Dolby Atmos All in One  
           Soundbar  
 Power : AC 120V/60Hz  
 M/N : S45H  
 Test Mode : GFSK TX 2402MHz

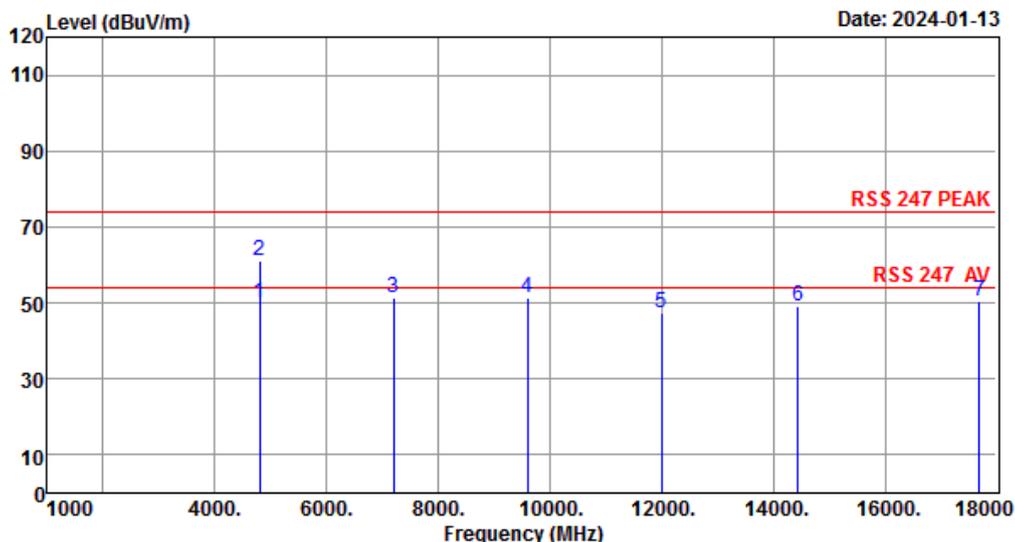
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4804.00	32.39	5.20	44.49	54.20	47.30	54.00	6.70	Average
2	4804.00	32.39	5.20	44.49	64.62	57.72	74.00	16.28	Peak
3	7206.00	36.16	6.67	44.08	51.98	50.73	74.00	23.27	Peak
4	9653.00	38.13	7.77	43.66	47.06	49.30	74.00	24.70	Peak
5	11829.00	38.82	8.73	42.34	41.95	47.16	74.00	26.84	Peak
6	14243.00	39.88	9.88	41.39	40.81	49.18	74.00	24.82	Peak
7	17660.00	40.48	12.15	43.21	41.17	50.59	74.00	23.41	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 50 File: \\EMC-966-1\test data\2024\RF\TCL Dou Mei Ti\S45H.EM6 (92)



Site no. : 1# 966 Chamber Data no. : 50  
 Dis. / Ant. : 3m BBHA9120D-2667 Ant. pol. : HORIZONTAL  
 Limit : RSS 247 PEAK  
 Env. / Ins. : Temp:19.5°C;Humi:51%;Press:101.52kPa  
 Engineer : QQZ  
 EUT : 2.0 Channel Dolby Atmos All in One  
 Soundbar  
 Power : AC 120V/60Hz  
 M/N : S45H  
 Test Mode : GFSK TX 2402MHz

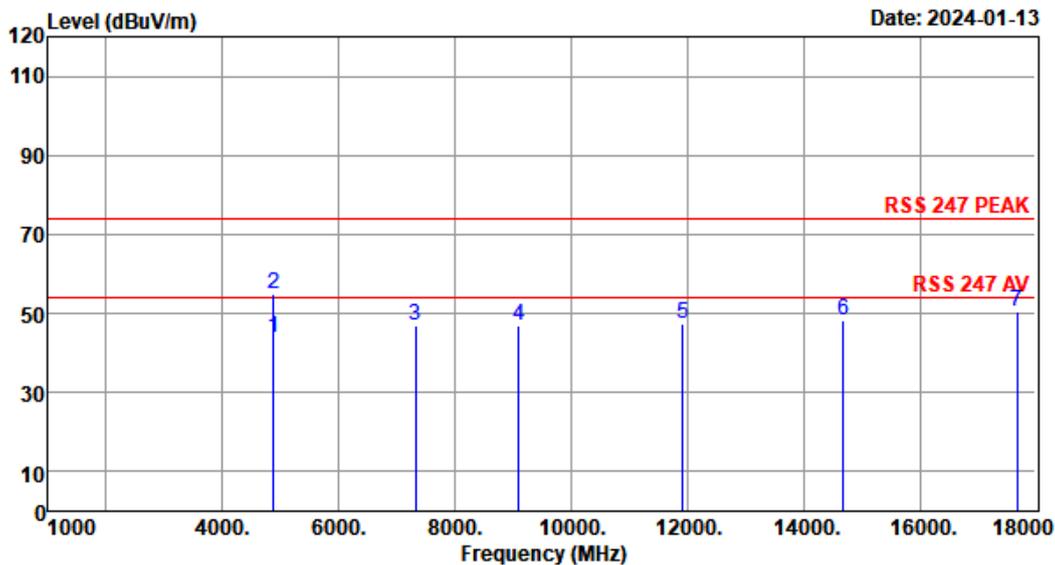
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4804.00	32.39	5.20	44.49	56.83	49.93	54.00	4.07	Average
2	4804.00	32.39	5.20	44.49	67.98	61.08	74.00	12.92	Peak
3	7206.00	36.16	6.67	44.08	52.50	51.25	74.00	22.75	Peak
4	9602.00	38.12	7.77	43.64	49.02	51.27	74.00	22.73	Peak
5	11999.00	38.80	8.83	42.20	42.11	47.54	74.00	26.46	Peak
6	14447.00	39.78	9.98	41.90	41.31	49.17	74.00	24.83	Peak
7	17694.00	40.59	12.18	43.16	41.00	50.61	74.00	23.39	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 53 File: \\EMC-966-1\test data\2024\RF\TCL Dou Mei Ti\S45H.EM6 (96)



Site no. : 1# 966 Chamber Data no. : 53  
 Dis. / Ant. : 3m BBHA9120D-2667 Ant. pol. : VERTICAL  
 Limit : RSS 247 PEAK  
 Env. / Ins. : Temp:19.5°C;Humi:51%;Press:101.52kPa  
 Engineer : QQZ  
 EUT : 2.0 Channel Dolby Atmos All in One  
 Soundbar  
 Power : AC 120V/60Hz  
 M/N : S45H  
 Test Mode : GFSK TX 2441MHz

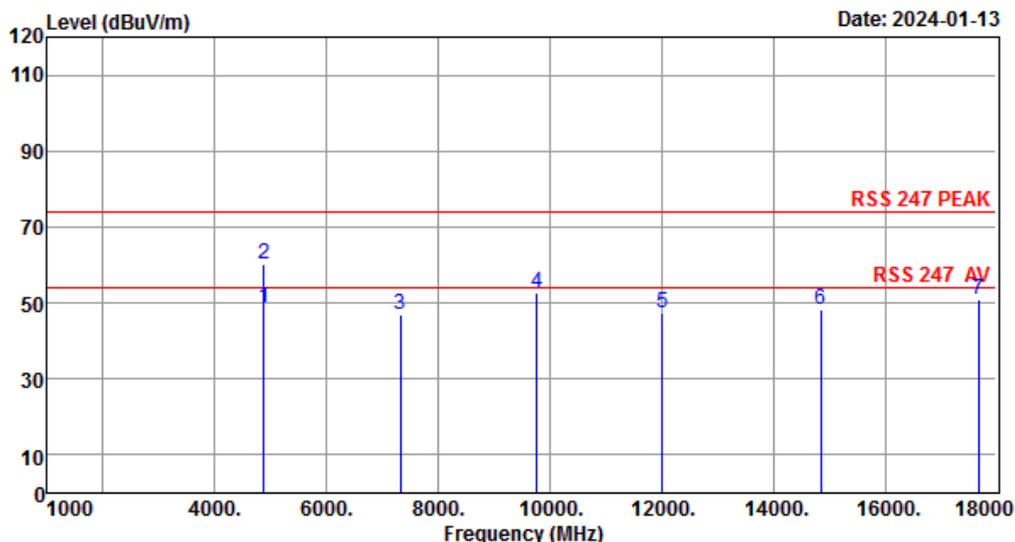
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4882.000	32.55	5.28	44.42	50.28	43.69	54.00	10.31	Average
2	4882.000	32.55	5.28	44.42	61.44	54.85	74.00	19.15	Peak
3	7323.000	36.26	6.70	44.07	47.92	46.81	74.00	27.19	Peak
4	9092.000	38.02	7.78	43.43	44.75	47.12	74.00	26.88	Peak
5	11914.000	38.81	8.78	42.27	42.04	47.36	74.00	26.64	Peak
6	14685.000	39.66	10.10	42.49	40.90	48.17	74.00	25.83	Peak
7	17677.000	40.53	12.17	43.18	40.98	50.50	74.00	23.50	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 54 File: \\EMC-966-1\test data\2024\RF\T\TCL Dou Mei Ti\S45H.EM6 (92)



Site no. : 1# 966 Chamber Data no. : 54  
 Dis. / Ant. : 3m BBHA9120D-2667 Ant. pol. : HORIZONTAL  
 Limit : RSS 247 PEAK  
 Env. / Ins. : Temp:19.5°C;Humi:51%;Press:101.52kPa  
 Engineer : QQZ  
 EUT : 2.0 Channel Dolby Atmos All in One  
 Soundbar  
 Power : AC 120V/60Hz  
 M/N : S45H  
 Test Mode : GFSK TX 2441MHz

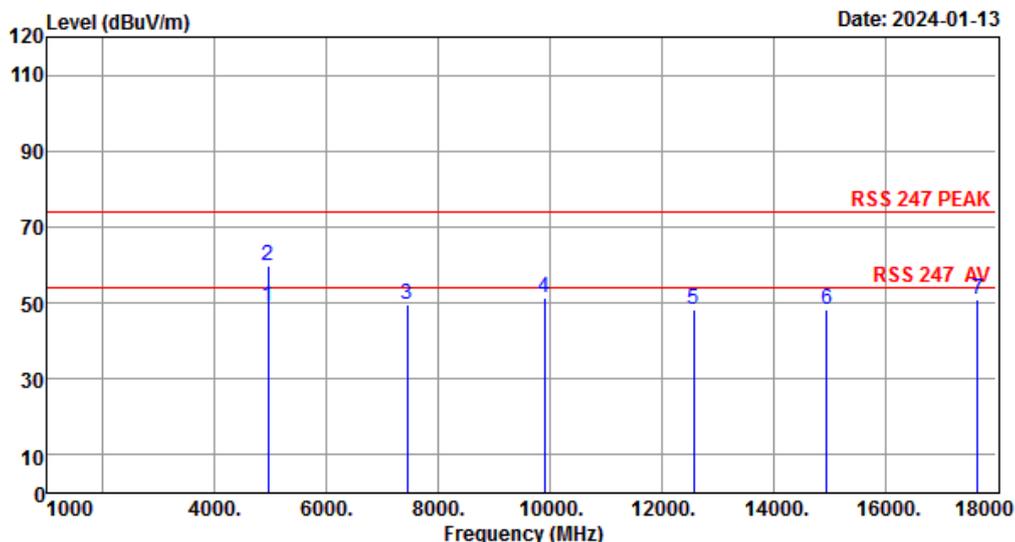
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4882.00	32.55	5.28	44.42	55.20	48.61	54.00	5.39	Average
2	4882.00	32.55	5.28	44.42	66.68	60.09	74.00	13.91	Peak
3	7323.00	36.26	6.70	44.07	47.94	46.83	74.00	27.17	Peak
4	9772.00	38.15	7.77	43.71	50.47	52.68	74.00	21.32	Peak
5	12016.00	38.81	8.84	42.18	41.82	47.29	74.00	26.71	Peak
6	14855.00	39.57	10.18	42.92	41.30	48.13	74.00	25.87	Peak
7	17677.00	40.53	12.17	43.18	41.49	51.01	74.00	22.99	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 55 File: \\EMC-966-1\test data\2024\RF\TCL Dou Mei Ti\S45H.EM6 (92)



Site no. : 1# 966 Chamber Data no. : 55  
 Dis. / Ant. : 3m BBHA9120D-2667 Ant. pol. : HORIZONTAL  
 Limit : RSS 247 PEAK  
 Env. / Ins. : Temp:19.5°C;Humi:51%;Press:101.52kPa  
 Engineer : QQZ  
 EUT : 2.0 Channel Dolby Atmos All in One  
 Soundbar  
 Power : AC 120V/60Hz  
 M/N : S45H  
 Test Mode : GFSK TX 2480MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4960.00	32.72	5.37	44.33	55.54	49.30	54.00	4.70	Average
2	4960.00	32.72	5.37	44.33	65.91	59.67	74.00	14.33	Peak
3	7440.00	36.35	6.74	44.06	50.49	49.52	74.00	24.48	Peak
4	9908.00	38.18	7.77	43.77	49.08	51.26	74.00	22.74	Peak
5	12577.00	39.32	9.08	41.39	41.36	48.37	74.00	25.63	Peak
6	14957.00	39.52	10.23	43.17	41.86	48.44	74.00	25.56	Peak
7	17660.00	40.48	12.15	43.21	41.38	50.80	74.00	23.20	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

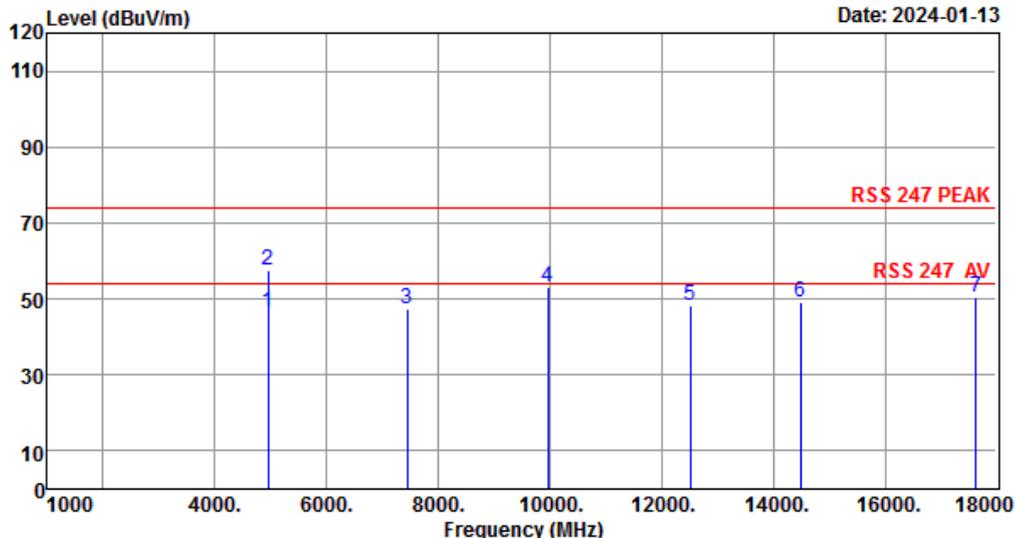
# EST Technology

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Data: 56

File: \\EMC-966-1\test data\2024\RF\TCL Dou Mei Ti\S45H.EM6 (92)

Date: 2024-01-13



Site no. : 1# 966 Chamber                      Data no. : 56  
 Dis. / Ant. : 3m BBHA9120D-2667            Ant. pol. : VERTICAL  
 Limit : RSS 247 PEAK  
 Env. / Ins. : Temp:19.5°C;Humi:51%;Press:101.52kPa  
 Engineer : QQZ  
 EUT : 2.0 Channel Dolby Atmos All in One  
           Soundbar  
 Power : AC 120V/60Hz  
 M/N : S45H  
 Test Mode : GFSK TX 2480MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4960.00	32.72	5.37	44.33	52.59	46.35	54.00	7.65	Average
2	4960.00	32.72	5.37	44.33	63.69	57.45	74.00	16.55	Peak
3	7440.00	36.35	6.74	44.06	48.29	47.32	74.00	26.68	Peak
4	9959.00	38.19	7.77	43.79	50.99	53.16	74.00	20.84	Peak
5	12509.00	39.26	9.05	41.49	41.47	48.29	74.00	25.71	Peak
6	14481.00	39.76	10.00	41.99	41.29	49.06	74.00	24.94	Peak
7	17626.00	40.37	12.12	43.26	41.15	50.38	74.00	23.62	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

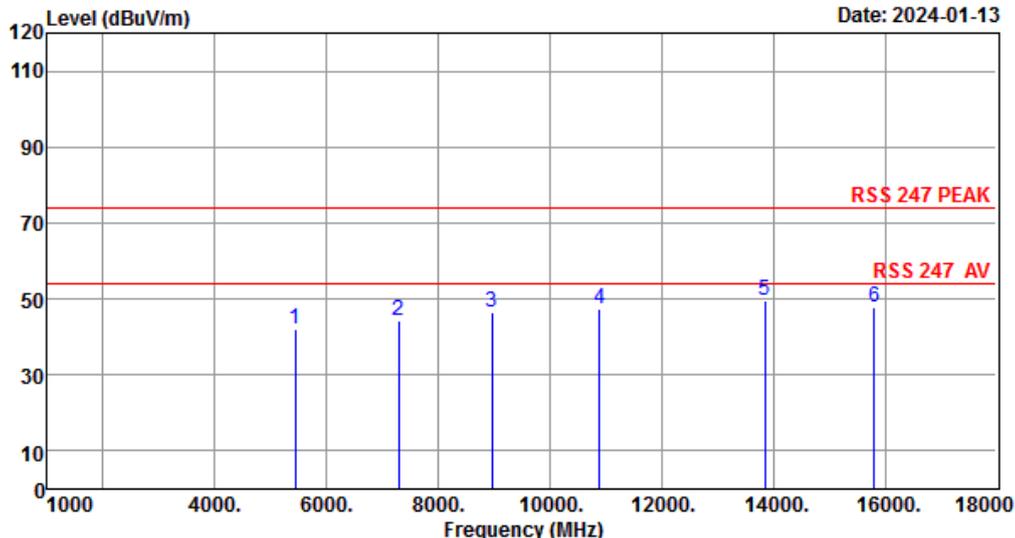
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Data: 59

File: \\EMC-966-1\test data\2024\RF\TCL Dou Mei Ti\S45H.EM6 (92)

Date: 2024-01-13



Site no. : 1# 966 Chamber                      Data no. : 59  
 Dis. / Ant. : 3m BBHA9120D-2667            Ant. pol. : HORIZONTAL  
 Limit : RSS 247 PEAK  
 Env. / Ins. : Temp:19.5°C;Humi:51%;Press:101.52kPa  
 Engineer : QQZ  
 EUT : 2.0 Channel Dolby Atmos All in One  
       Soundbar  
 Power : AC 120V/60Hz  
 M/N : S45H  
 Test Mode : RX Mode

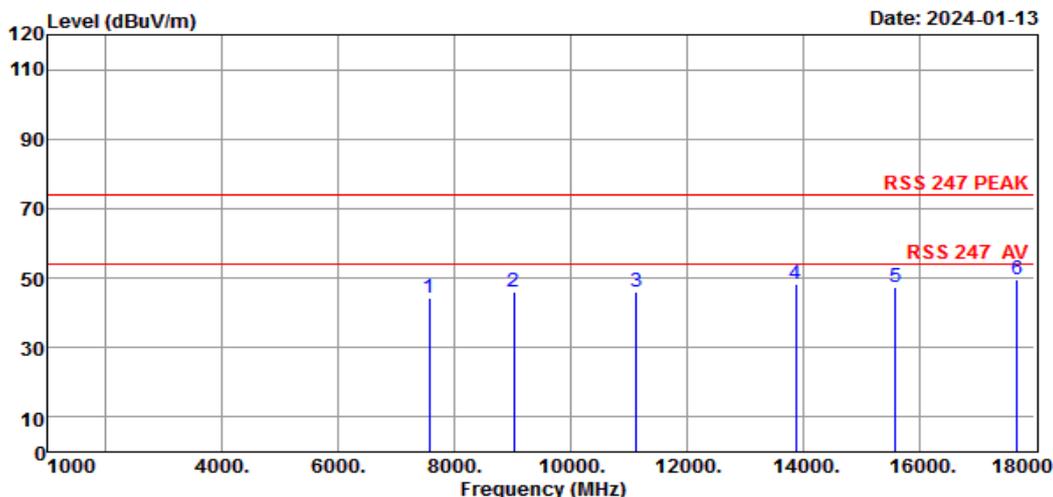
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5437.00	33.28	5.74	44.21	47.37	42.18	74.00	31.82	Peak
2	7290.00	36.23	6.69	44.07	45.40	44.25	74.00	29.75	Peak
3	8956.00	37.95	7.74	43.43	44.06	46.32	74.00	27.68	Peak
4	10894.00	38.83	8.21	43.08	43.29	47.25	74.00	26.75	Peak
5	13852.00	39.96	9.69	40.80	40.65	49.50	74.00	24.50	Peak
6	15807.00	38.13	10.57	43.95	42.92	47.67	74.00	26.33	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 60 File: \\EMC-966-1\test data\2024\RF\TCL Dou Mei Ti\S45H.EM6 (92)



Site no. : 1# 966 Chamber Data no. : 60  
 Dis. / Ant. : 3m BBHA9120D-2667 Ant. pol. : VERTICAL  
 Limit : RSS 247 PEAK  
 Env. / Ins. : Temp:19.5°C;Humi:51%;Press:101.52kPa  
 Engineer : QQZ  
 EUT : 2.0 Channel Dolby Atmos All in One  
 Soundbar  
 Power : AC 120V/60Hz  
 M/N : S45H  
 Test Mode : RX Mode

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7562.00	36.45	6.78	44.04	44.99	44.18	74.00	29.82	Peak
2	9024.00	38.00	7.78	43.41	43.61	45.98	74.00	28.02	Peak
3	11132.00	38.89	8.34	42.89	41.81	46.15	74.00	27.85	Peak
4	13886.00	39.97	9.71	40.80	39.36	48.24	74.00	25.76	Peak
5	15603.00	38.47	10.49	43.78	42.36	47.54	74.00	26.46	Peak
6	17694.00	40.59	12.18	43.16	40.10	49.71	74.00	24.29	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

Note:

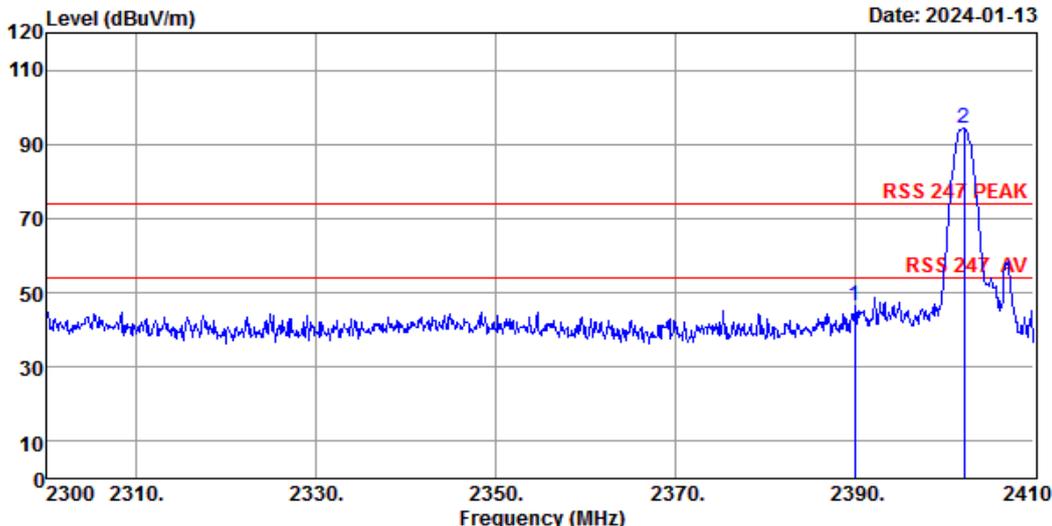
1. The amplitude of 18GHz to 25GHz spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.
2. All test mode had been pre-test,only Low/Middle/High Channel of the worst case modulation mode was reported.

### Radiated Band Edge

EST Technology

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Data: 51 File: \\EMC-966-1\test data\2024\RF\TCL Dou Mei Ti\S45H.EM6 (92) Date: 2024-01-13



Site no. : 1# 966 Chamber Data no. : 51  
 Dis. / Ant. : 3m BBHA9120D-2667 Ant. pol. : HORIZONTAL  
 Limit : RSS 247 PEAK  
 Env. / Ins. : Temp:19.5°C;Humi:51%;Press:101.52kPa  
 Engineer : QQZ  
 EUT : 2.0 Channel Dolby Atmos All in One  
 Soundbar  
 Power : AC 120V/60Hz  
 M/N : S45H  
 Test Mode : GFSK TX 2402MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.43	3.55	45.01	60.41	46.38	74.00	27.62	Peak
2	2402.19	27.47	3.55	45.01	108.12	94.13	74.00	-20.13	Peak

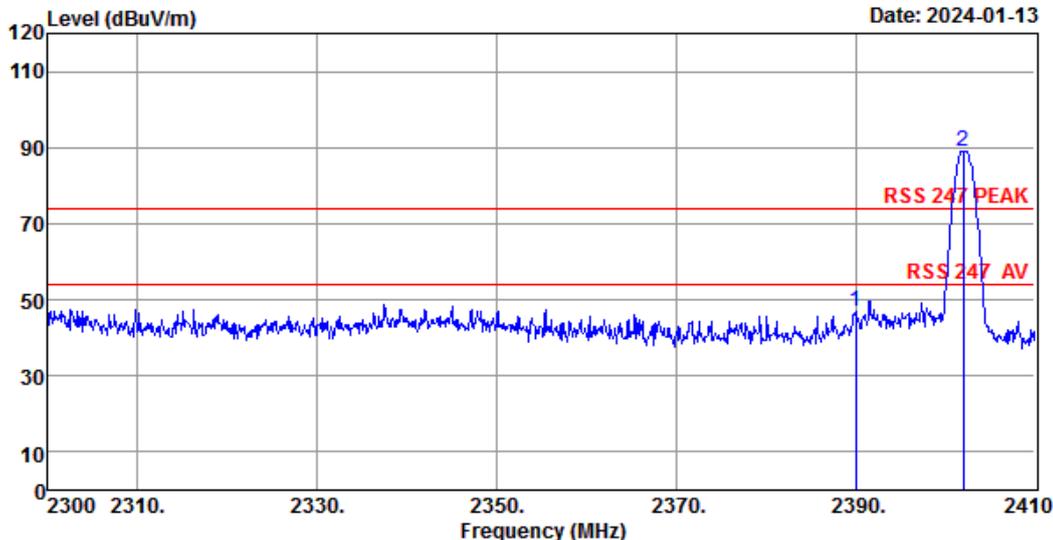
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 52 File: \\EMC-966-1\test data\2024\RF\TCL Dou Mei Ti\S45H.EM6 (92)

Date: 2024-01-13



Site no. : 1# 966 Chamber Data no. : 52  
 Dis. / Ant. : 3m BBHA9120D-2667 Ant. pol. : VERTICAL  
 Limit : RSS 247 PEAK  
 Env. / Ins. : Temp:19.5°C;Humi:51%;Press:101.52kPa  
 Engineer : QQZ  
 EUT : 2.0 Channel Dolby Atmos All in One  
 Soundbar  
 Power : AC 120V/60Hz  
 M/N : S45H  
 Test Mode : GFSK TX 2402MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.43	3.55	45.01	60.93	46.90	74.00	27.10	Peak
2	2401.97	27.47	3.55	45.01	103.15	89.16	74.00	-15.16	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

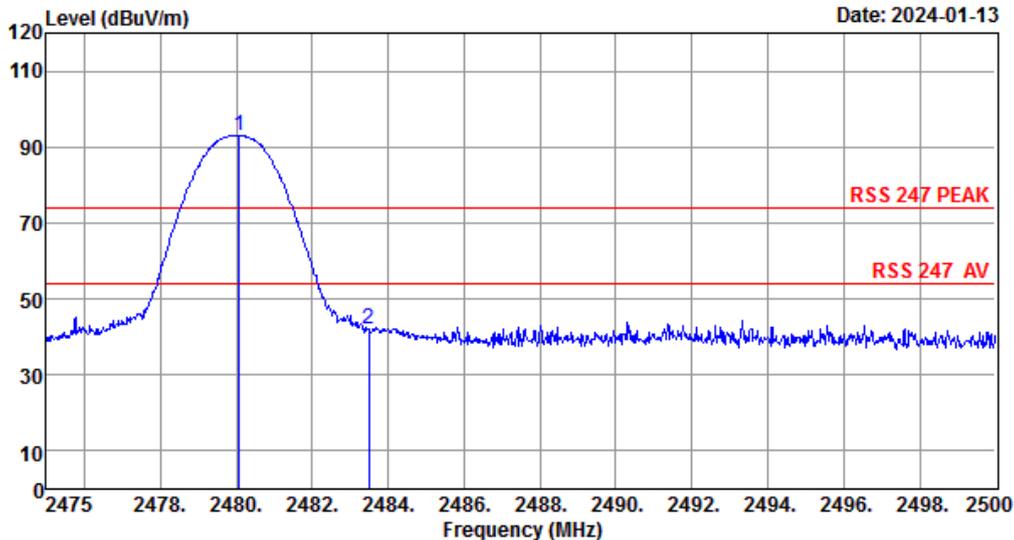
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Data: 57

File: \\EMC-966-1\test data\2024\RF\TCL Dou Mei Ti\S45H.EM6 (92)

Date: 2024-01-13



Site no. : 1# 966 Chamber                      Data no. : 57  
 Dis. / Ant. : 3m BBHA9120D-2667            Ant. pol. : VERTICAL  
 Limit : RSS 247 PEAK  
 Env. / Ins. : Temp:19.5°C;Humi:51%;Press:101.52kPa  
 Engineer : QQZ  
 EUT : 2.0 Channel Dolby Atmos All in One  
       Soundbar  
 Power : AC 120V/60Hz  
 M/N : S45H  
 Test Mode : GFSK TX 2480MHz

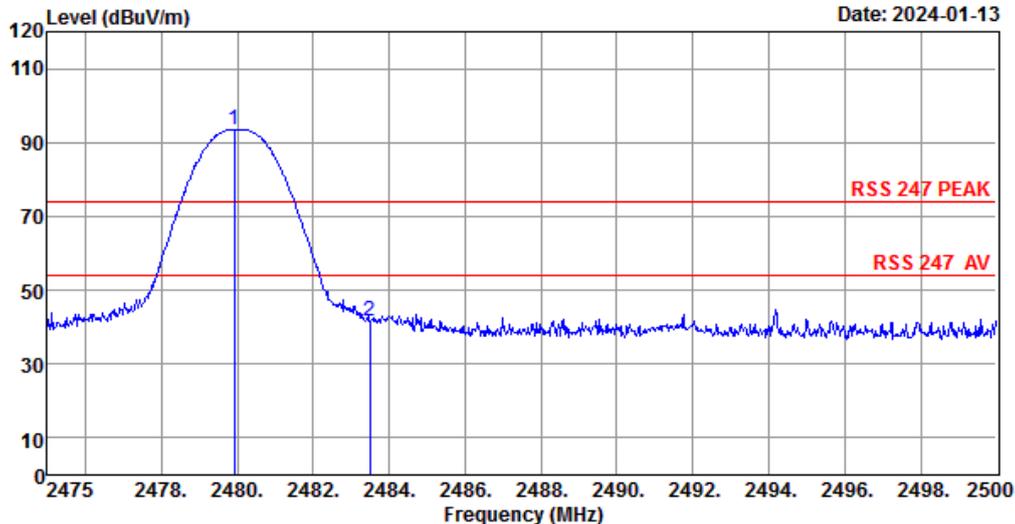
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.08	27.69	3.62	44.93	106.47	92.85	74.00	-18.85	Peak
2	2483.50	27.70	3.62	44.93	55.69	42.08	74.00	31.92	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

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Data: 58 File: \\EMC-966-1\test data\2024\RF\TCL Dou Mei Ti\S45H.EM6 (92) Date: 2024-01-13



Site no. : 1# 966 Chamber Data no. : 58  
 Dis. / Ant. : 3m BBHA9120D-2667 Ant. pol. : HORIZONTAL  
 Limit : RSS 247 PEAK  
 Env. / Ins. : Temp:19.5°C;Humi:51%;Press:101.52kPa  
 Engineer : QQZ  
 EUT : 2.0 Channel Dolby Atmos All in One  
 Soundbar  
 Power : AC 120V/60Hz  
 M/N : S45H  
 Test Mode : GFSK TX 2480MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.93	27.69	3.62	44.93	107.15	93.53	74.00	-19.53	Peak
2	2483.50	27.70	3.62	44.93	55.21	41.60	74.00	32.40	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.  
 2. Margin= Limit - Emission Level.  
 3. The emission levels that are 20dB below the official limit are not reported.

Note: All test mode had been pre-test, only Low/High Channel of the worst case modulation mode was reported.

## 11. AC POWER LINE CONDUCTED EMISSIONS

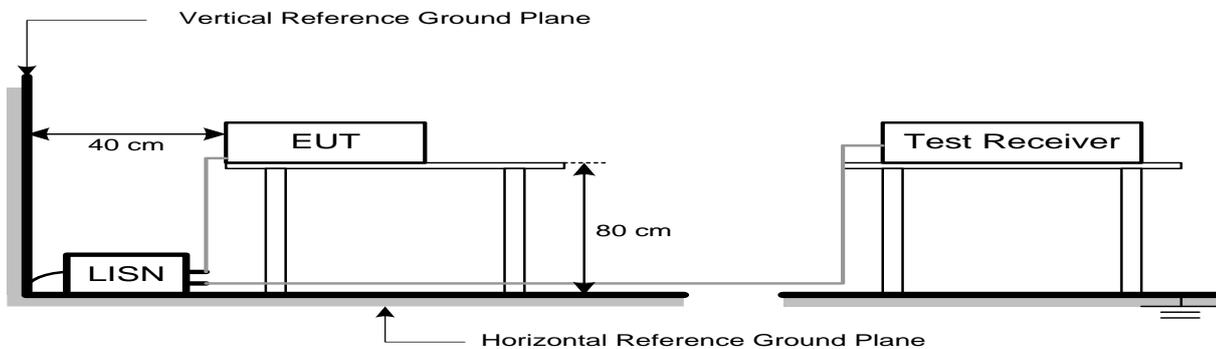
### 11.1. Limit

Frequency (MHz)	Conducted limit(dB $\mu$ V)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56*	56 to 46*
0.5 - 5	56	46
5 - 30	60	50

Note:

- \* Decreasing linearly with logarithm of frequency.
- The lower limit shall apply at the transition frequencies.

### 11.2. Test Setup



### 11.3. Spectrum Analyzer Setting

Spectrum Parameters	Setting
RBW	9KHz
VBW	9KHz
Start frequency	150KHz
Stop frequency	30MHz
Sweep Time	Auto
Detector	QP/AVG
Trace Mode	Max Hold

## 11.4. Test Procedure

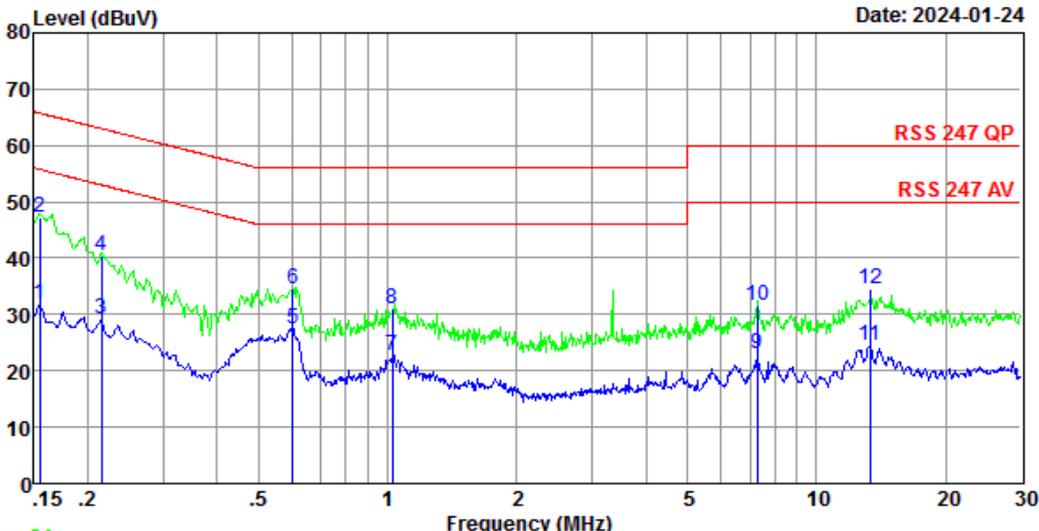
- a. The EUT was placed on a non-metallic table, 80cm above the ground plane.
- b. The EUT Power connected to the power mains through a line impedance stabilization network.
- c. Provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs).
- d. Set the EUT transmit continuously with maximum output power.
- e. Spectrum analyzer setting parameters in accordance with section 11.3.
- f. The AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2013 on Conducted Emission Test.
- g. Record the results in the test report.

# 11.5. Test Result

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Data: 50 File: \\EMC-CE-2\Test Data\2024\RF\TCL Duo Mei Ti\TCL Duo Mei Ti.EM6 (56) Date: 2024-01-24



Trace: 21  
 Site no : 2#CE Shield Room Data no. : 50  
 Env. / Ins. : Temp:22.8°C Humi:49% Press:101.40kPa LINE Phase : LINE  
 Limit : RSS 247 QP  
 Engineer : ZSX  
 EUT : 2.0 Channel Dolby Atmos All in One  
 Soundbar  
 Power : AC 120V/60Hz  
 M/N : S45H  
 Test Mode : TX Mode

	Freq. (MHz)	LISN Factor (db)	Cable Loss (db)	Reading dBuV	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15	10.12	9.89	11.99	32.00	55.74	23.74	Average
2	0.15	10.12	9.89	27.13	47.14	65.74	18.60	QP
3	0.22	10.16	9.94	9.22	29.32	53.01	23.69	Average
4	0.22	10.16	9.94	20.21	40.31	63.01	22.70	QP
5	0.60	10.05	9.97	7.55	27.57	46.00	18.43	Average
6	0.60	10.05	9.97	14.59	34.61	56.00	21.39	QP
7	1.03	9.97	10.05	2.71	22.73	46.00	23.27	Average
8	1.03	9.97	10.05	11.10	31.12	56.00	24.88	QP
9	7.29	10.14	9.99	2.92	23.05	50.00	26.95	Average
10	7.29	10.14	9.99	11.50	31.63	60.00	28.37	QP
11	13.34	10.39	10.03	4.03	24.45	50.00	25.55	Average
12	13.34	10.39	10.03	14.11	34.53	60.00	25.47	QP

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.  
 2. Margin= Limit - Emission Level.  
 3. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

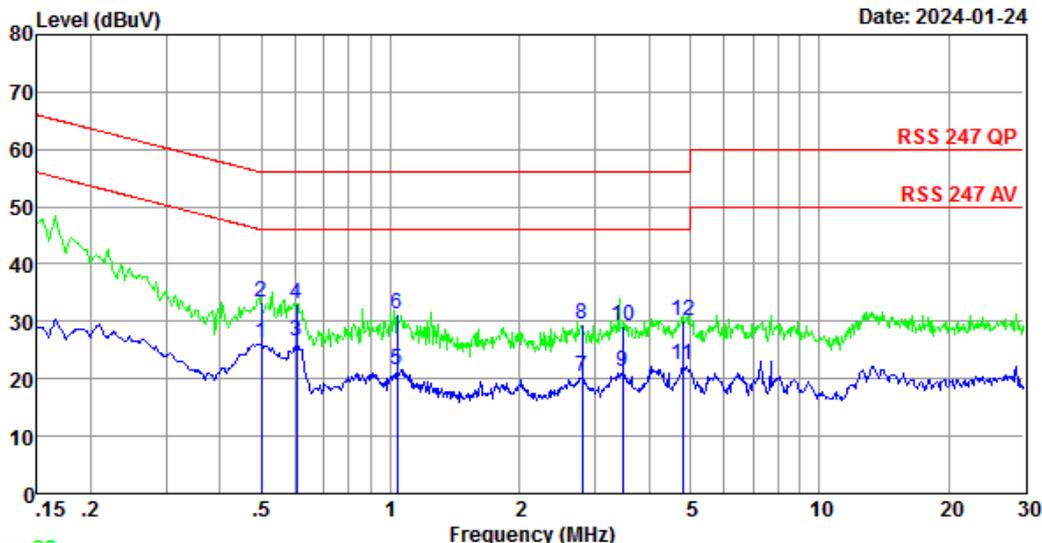
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Data: 52

File: \\EMC-CE-2\Test Data\2024\RF\TTCL Duo Mei TiTCL Duo Mei TiEM6 (56)

Date: 2024-01-24



Trace: 23

Site no : 2#CE Shield Room Data no. : 52  
 Env. / Ins. : Temp:22.8°C Humi:49% Press:101.40kPa LINE Phase : NEUTRAL  
 Limit : RSS 247 QP  
 Engineer : ZSX  
 EUT : 2.0 Channel Dolby Atmos All in One  
 Soundbar  
 Power : AC 120V/60Hz  
 M/N : S45H  
 Test Mode : TX Mode

	Freq. (MHz)	LISN Factor (db)	Cable Loss (db)	Reading dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.50	9.98	9.94	6.34	26.26	46.01	19.75	Average
2	0.50	9.98	9.94	13.50	33.42	56.01	22.59	QP
3	0.60	10.00	9.97	6.46	26.43	46.00	19.57	Average
4	0.60	10.00	9.97	13.20	33.17	56.00	22.83	QP
5	1.04	9.99	10.05	1.62	21.66	46.00	24.34	Average
6	1.04	9.99	10.05	11.20	31.24	56.00	24.76	QP
7	2.79	10.01	10.00	0.24	20.25	46.00	25.75	Average
8	2.79	10.01	10.00	9.50	29.51	56.00	26.49	QP
9	3.47	10.01	10.00	1.29	21.30	46.00	24.70	Average
10	3.47	10.01	10.00	9.20	29.21	56.00	26.79	QP
11	4.80	10.01	9.99	2.35	22.35	46.00	23.65	Average
12	4.80	10.01	9.99	10.10	30.10	56.00	25.90	QP

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.  
 2. Margin= Limit - Emission Level.  
 3. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

## 12. TRANSMIT ANTENNA

### 12.1. Limit

The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

For licence-exempt equipment with detachable antennas, the user manual shall also contain the following notice in a conspicuous location:

This radio transmitter [enter the device's ISED certification number] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

### 12.2. Test Result

All antennas are listed in section 1.2. And the antennas used for this product is internal antenna, So the notice does not need to be displayed in the user manual.

## 13.APPENDIX

### Appendix A: 20dB Emission Bandwidth Test Result

TestMode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.948	2401.535	2402.483	---	---
DH5	Ant1	2441	1.014	2440.466	2441.480	---	---
DH5	Ant1	2480	0.933	2479.547	2480.480	---	---
2DH5	Ant1	2402	1.269	2401.370	2402.639	---	---
2DH5	Ant1	2441	1.317	2440.334	2441.651	---	---
2DH5	Ant1	2480	1.323	2479.334	2480.657	---	---
3DH5	Ant1	2402	1.251	2401.367	2402.618	---	---
3DH5	Ant1	2441	1.281	2440.361	2441.642	---	---
3DH5	Ant1	2480	1.254	2479.361	2480.615	---	---

### Test Graphs

DH5-Ant1-2402



DH5-Ant1-2441



DH5-Ant1-2480



### 2DH5-Ant1-2402



### 2DH5-Ant1-2441



### 2DH5-Ant1-2480



### 3DH5-Ant1-2402



### 3DH5-Ant1-2441



### 3DH5-Ant1-2480



## Appendix B: Occupied Channel Bandwidth Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.89355	2401.5551	2402.4487	---	---
DH5	Ant1	2441	0.89933	2440.5488	2441.4481	---	---
DH5	Ant1	2480	0.88653	2479.5547	2480.4412	---	---
2DH5	Ant1	2402	1.1681	2401.4111	2402.5792	---	---
2DH5	Ant1	2441	1.1734	2440.4119	2441.5853	---	---
2DH5	Ant1	2480	1.1836	2479.4039	2480.5875	---	---
3DH5	Ant1	2402	1.1798	2401.4078	2402.5876	---	---
3DH5	Ant1	2441	1.1689	2440.4159	2441.5848	---	---
3DH5	Ant1	2480	1.1806	2479.4107	2480.5913	---	---

### Test Graphs

#### DH5-Ant1-2402



#### DH5-Ant1-2441



#### DH5-Ant1-2480



2DH5-Ant1-2402



2DH5-Ant1-2441



2DH5-Ant1-2480



### 3DH5-Ant1-2402



### 3DH5-Ant1-2441



### 3DH5-Ant1-2480



## Appendix C: Maximum conducted output power

## Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Gain [dBi]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
DH5	Ant1	2402	5.84	≤20.97	2.91	8.75	≤20.97	PASS
DH5	Ant1	2441	5.41	≤20.97	2.91	8.32	≤20.97	PASS
DH5	Ant1	2480	5.38	≤20.97	2.91	8.29	≤20.97	PASS
2DH5	Ant1	2402	6.51	≤20.97	2.91	9.42	≤20.97	PASS
2DH5	Ant1	2441	6.03	≤20.97	2.91	8.94	≤20.97	PASS
2DH5	Ant1	2480	6.07	≤20.97	2.91	8.98	≤20.97	PASS
3DH5	Ant1	2402	6.84	≤20.97	2.91	9.75	≤20.97	PASS
3DH5	Ant1	2441	6.43	≤20.97	2.91	9.34	≤20.97	PASS
3DH5	Ant1	2480	6.43	≤20.97	2.91	9.34	≤20.97	PASS

### Test Graphs

#### DH5-Ant1-2402-PASS



#### DH5-Ant1-2441-PASS



#### DH5-Ant1-2480-PASS



### 2DH5-Ant1-2402-PASS



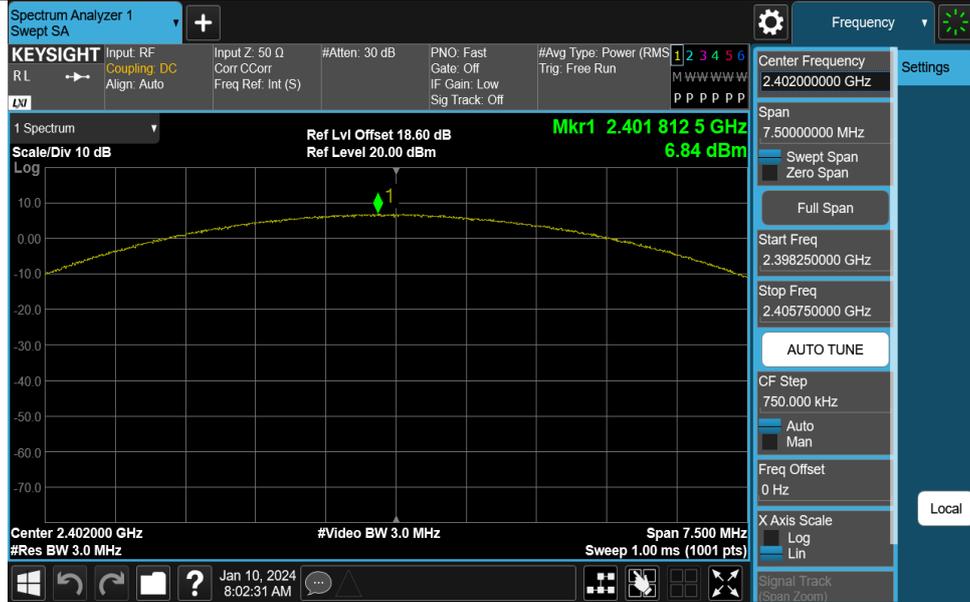
### 2DH5-Ant1-2441-PASS



### 2DH5-Ant1-2480-PASS



### 3DH5-Ant1-2402-PASS



### 3DH5-Ant1-2441-PASS



### 3DH5-Ant1-2480-PASS



## Appendix D: Carrier frequency separation

## Test Result

TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.02	$\geq 1.014$	PASS
DH5	Ant1	2441	1.167	$\geq 1.014$	PASS
DH5	Ant1	2480	0.978	$\geq 0.676$	PASS
2DH5	Ant1	2402	1.011	$\geq 0.882$	PASS
2DH5	Ant1	2441	0.984	$\geq 0.882$	PASS
2DH5	Ant1	2480	1.143	$\geq 0.882$	PASS
3DH5	Ant1	2402	0.981	$\geq 0.854$	PASS
3DH5	Ant1	2441	0.876	$\geq 0.854$	PASS
3DH5	Ant1	2480	0.984	$\geq 0.854$	PASS

### 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



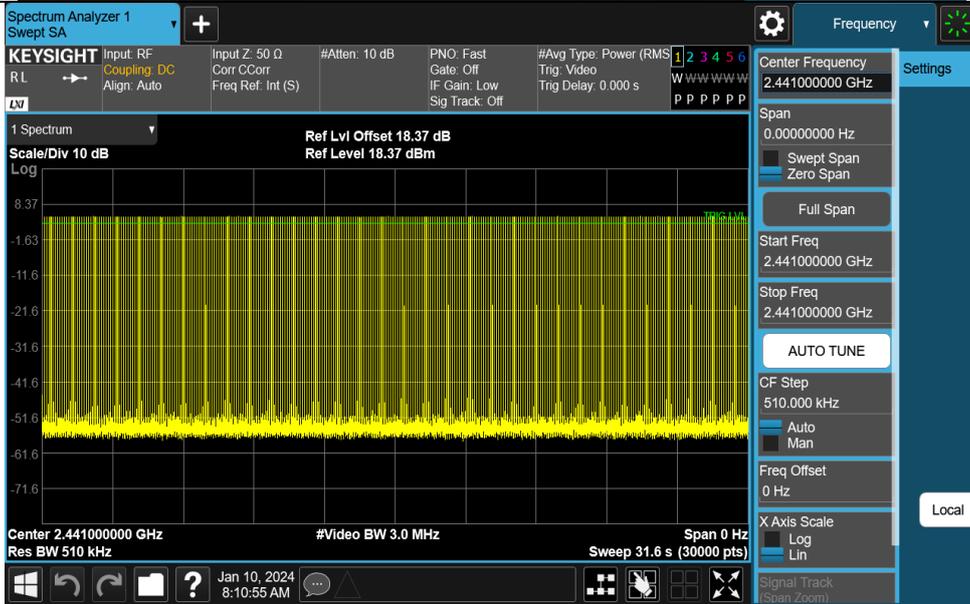
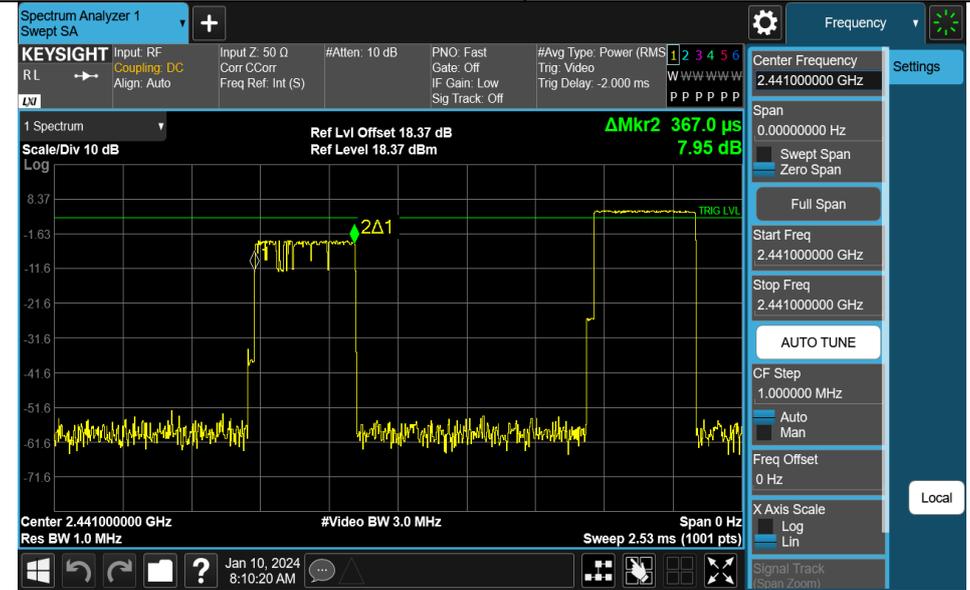
## Appendix E: Time of occupancy

## Test Result

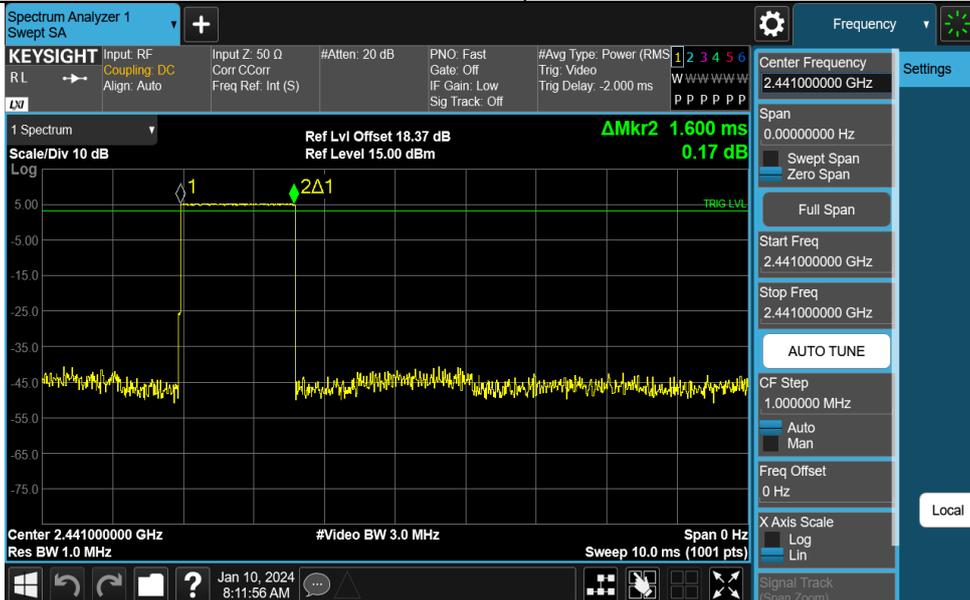
TestMode	Antenna	Frequency[MHz]	Burst Width [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.367	319	0.117	≤0.4	PASS
DH3	Ant1	Hop	1.600	159	0.254	≤0.4	PASS
DH5	Ant1	Hop	2.850	107	0.305	≤0.4	PASS
2DH1	Ant1	Hop	0.377	319	0.12	≤0.4	PASS
2DH3	Ant1	Hop	1.620	159	0.258	≤0.4	PASS
2DH5	Ant1	Hop	2.860	107	0.306	≤0.4	PASS
3DH1	Ant1	Hop	0.375	319	0.12	≤0.4	PASS
3DH3	Ant1	Hop	1.610	159	0.256	≤0.4	PASS
3DH5	Ant1	Hop	2.870	107	0.307	≤0.4	PASS

### Test Graphs

#### DH1-Ant1-Hop-PASS

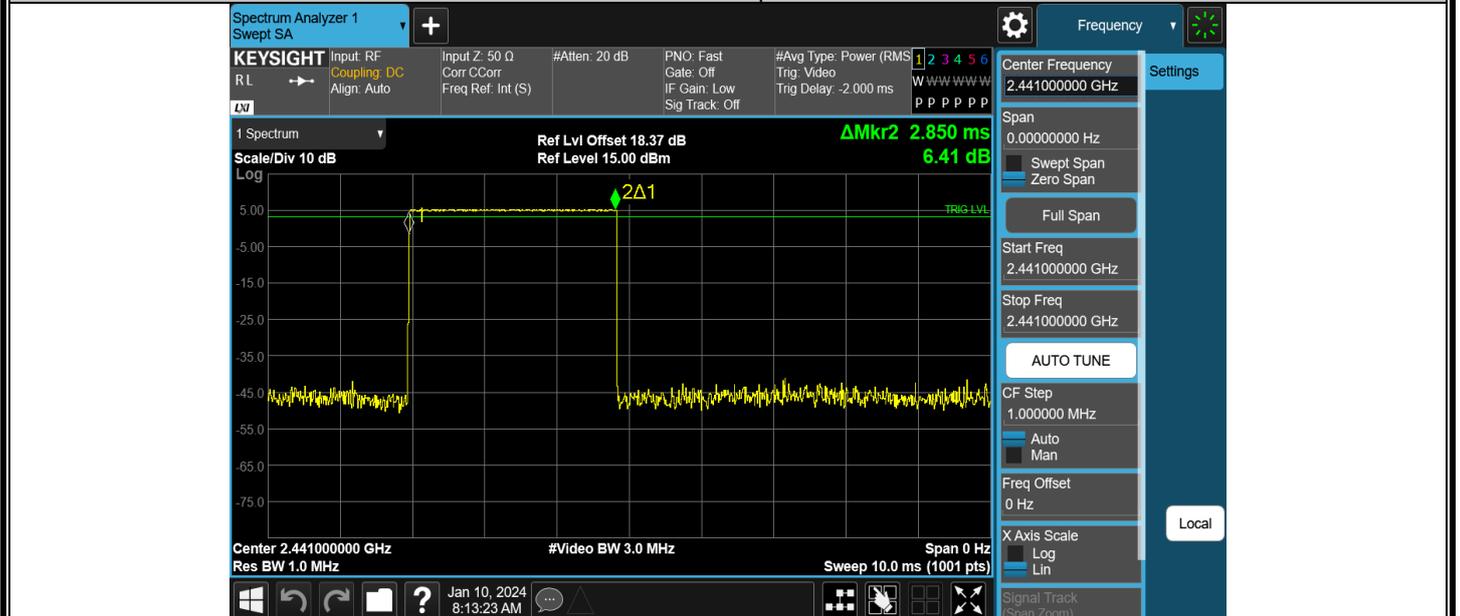


#### DH3-Ant1-Hop-PASS

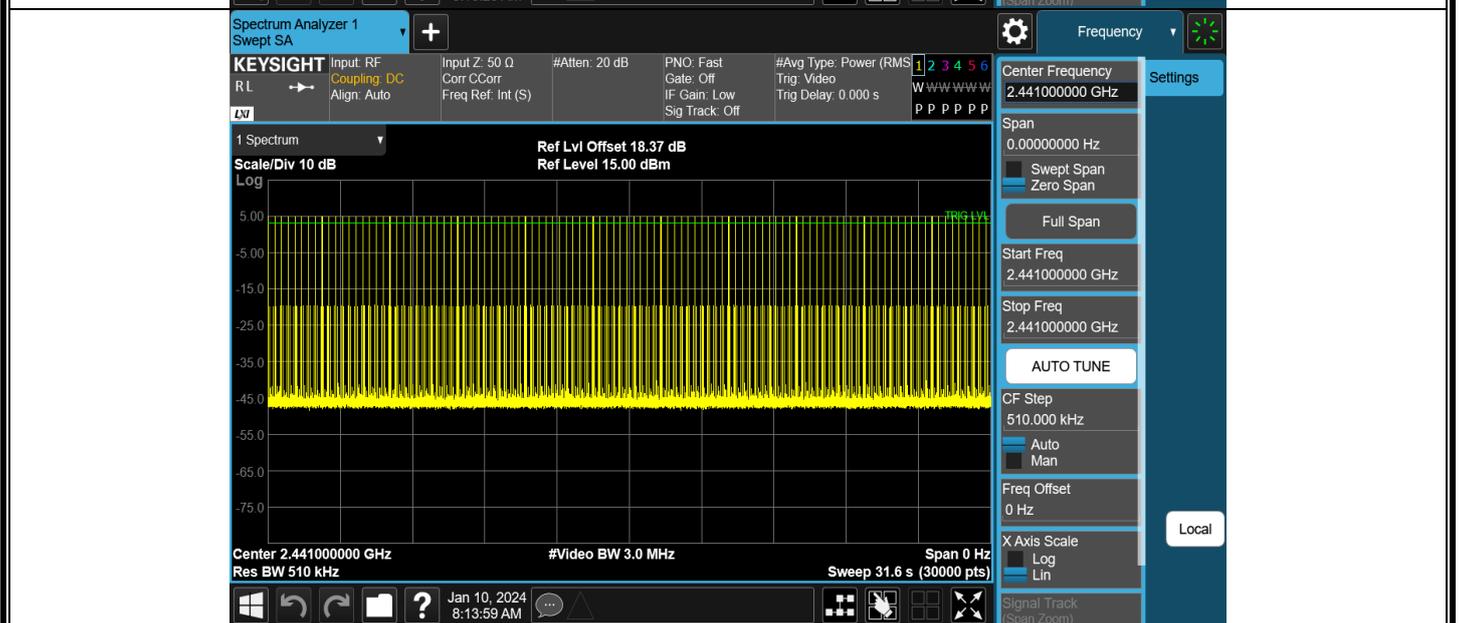


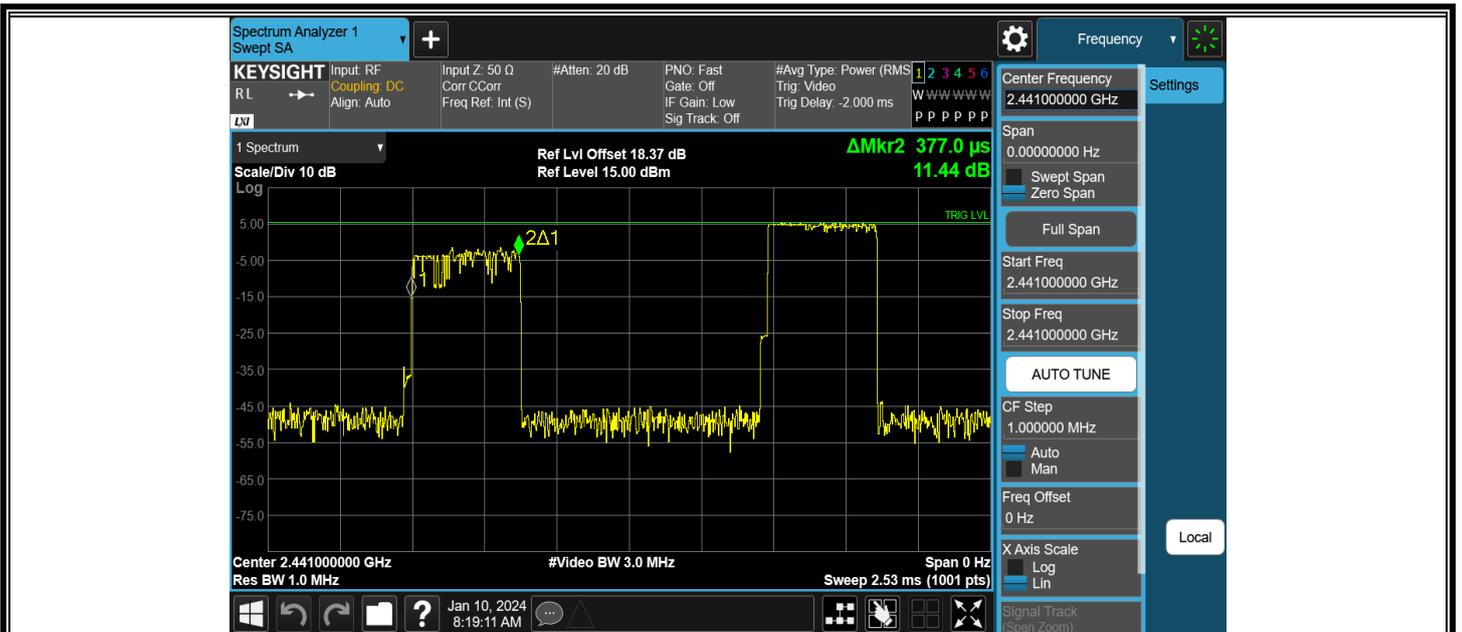


DH5-Ant1-Hop-PASS



2DH1-Ant1-Hop-PASS





2DH3-Ant1-Hop-PASS

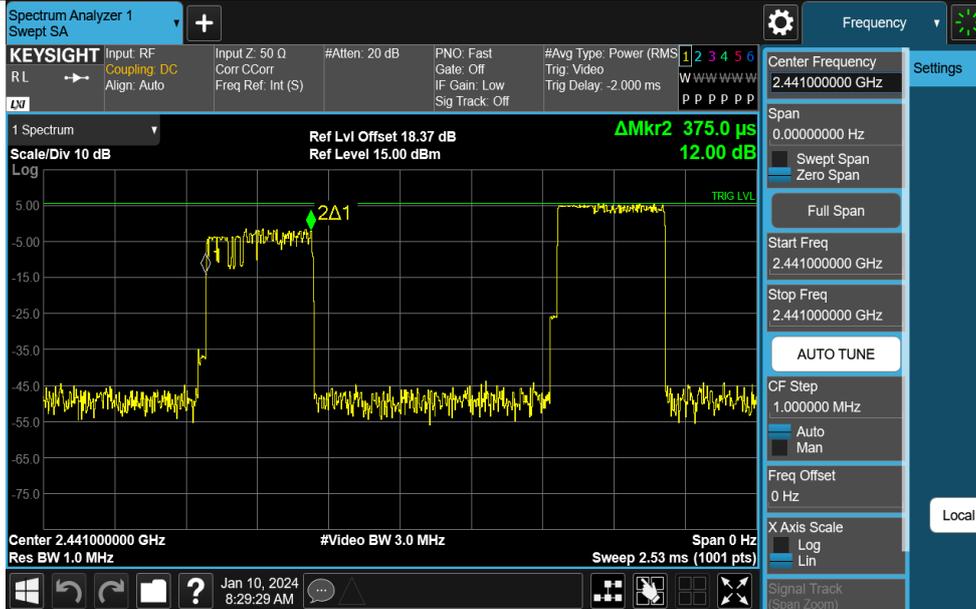




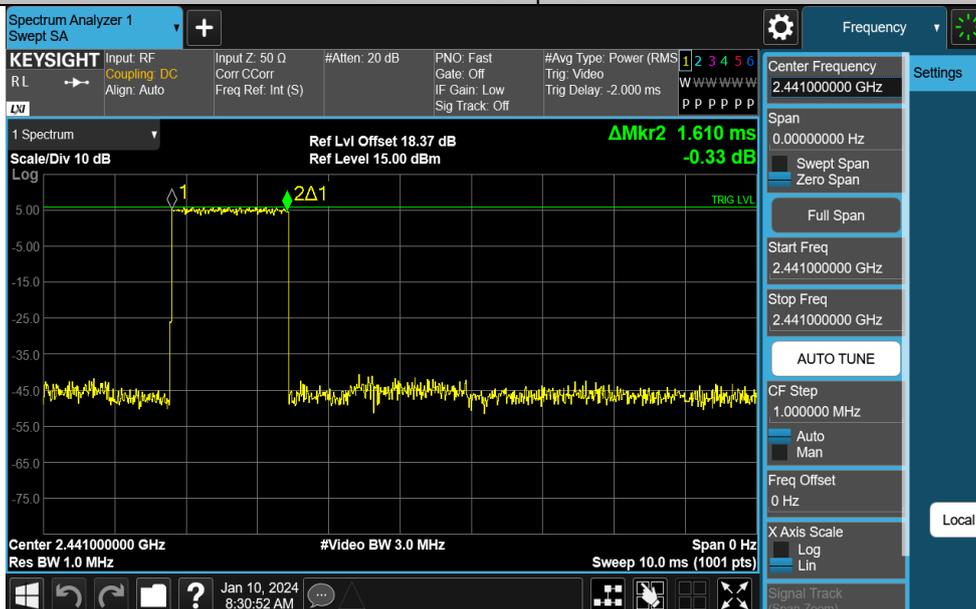
2DH5-Ant1-Hop-PASS



### 3DH1-Ant1-Hop-PASS



### 3DH3-Ant1-Hop-PASS





3DH5-Ant1-Hop-PASS



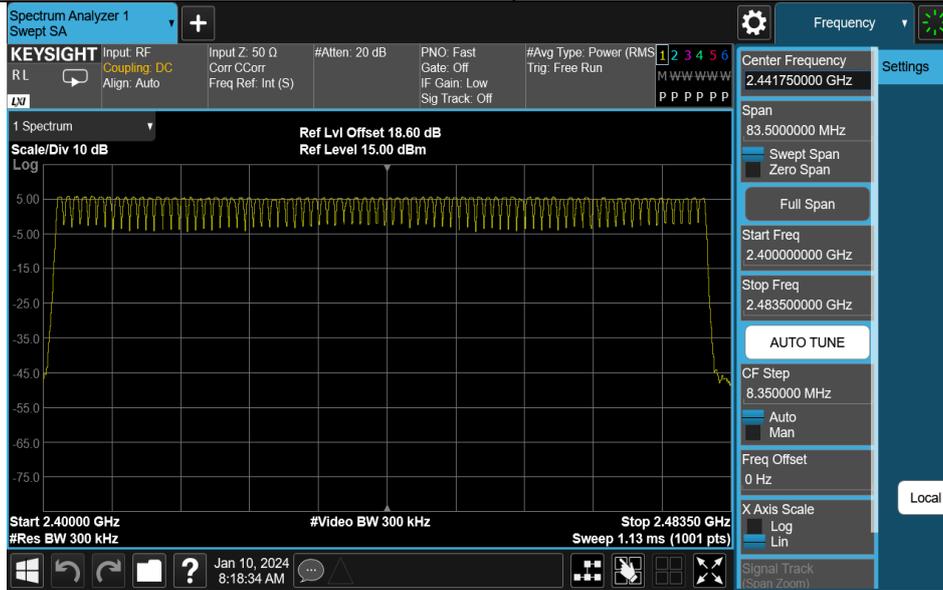
## Appendix F: Number of hopping channels

## Test Result

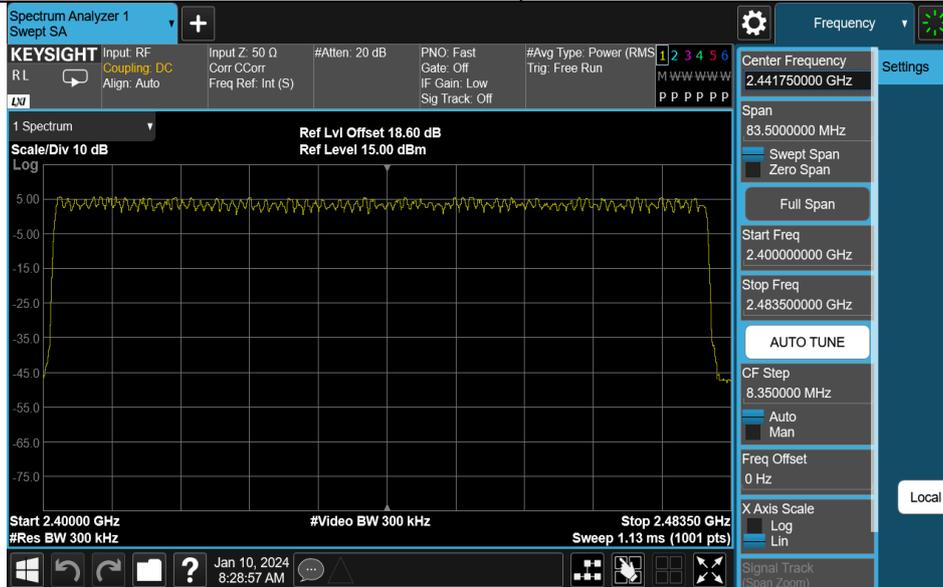
TestMode	Antenna	Frequency[MHz]	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	$\geq 15$	PASS
2DH5	Ant1	Hop	79	$\geq 15$	PASS
3DH5	Ant1	Hop	79	$\geq 15$	PASS

### Test Graphs

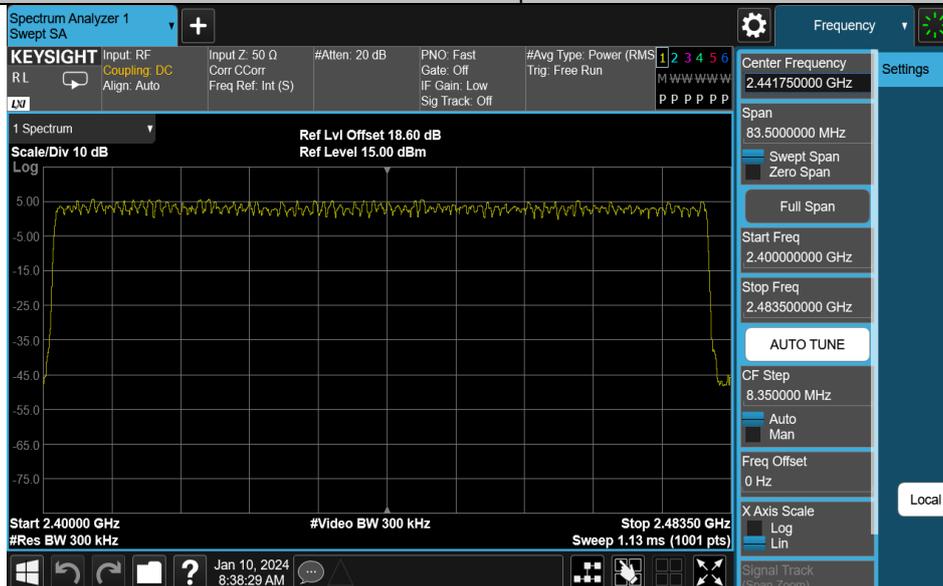
#### DH5-Ant1-Hop-PASS



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



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



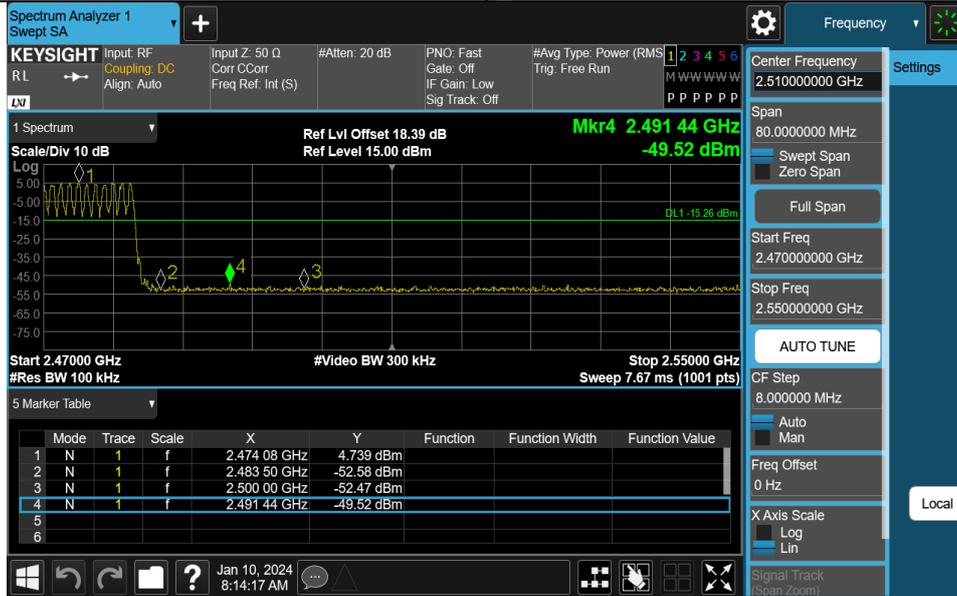
## Appendix G: Band edge measurements

## Test Result

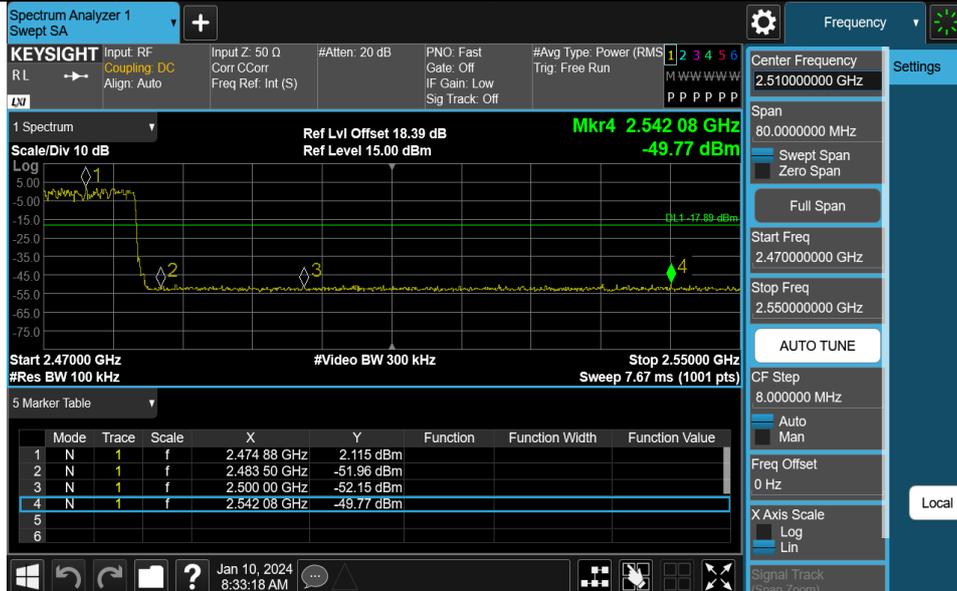
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	High	Hop_2480	4.74	-49.52	≤-15.26	PASS
3DH5	Ant1	High	Hop_2480	2.12	-49.77	≤-17.89	PASS
2DH5	Ant1	High	Hop_2480	4.71	-49.86	≤-15.29	PASS
DH5	Ant1	Low	Hop_2402	5.11	-49.29	≤-14.89	PASS
3DH5	Ant1	Low	Hop_2402	3.16	-49.91	≤-16.84	PASS
2DH5	Ant1	Low	Hop_2402	3.63	-50.05	≤-16.37	PASS
DH5	Ant1	High	2480	4.47	-49.49	≤-15.53	PASS
3DH5	Ant1	High	2480	4.91	-48.25	≤-15.09	PASS
2DH5	Ant1	High	2480	4.74	-50.05	≤-15.26	PASS
DH5	Ant1	Low	2402	5.37	-48.66	≤-14.63	PASS
3DH5	Ant1	Low	2402	5.35	-49.55	≤-14.65	PASS
2DH5	Ant1	Low	2402	4.82	-49.86	≤-15.18	PASS

### Test Graphs

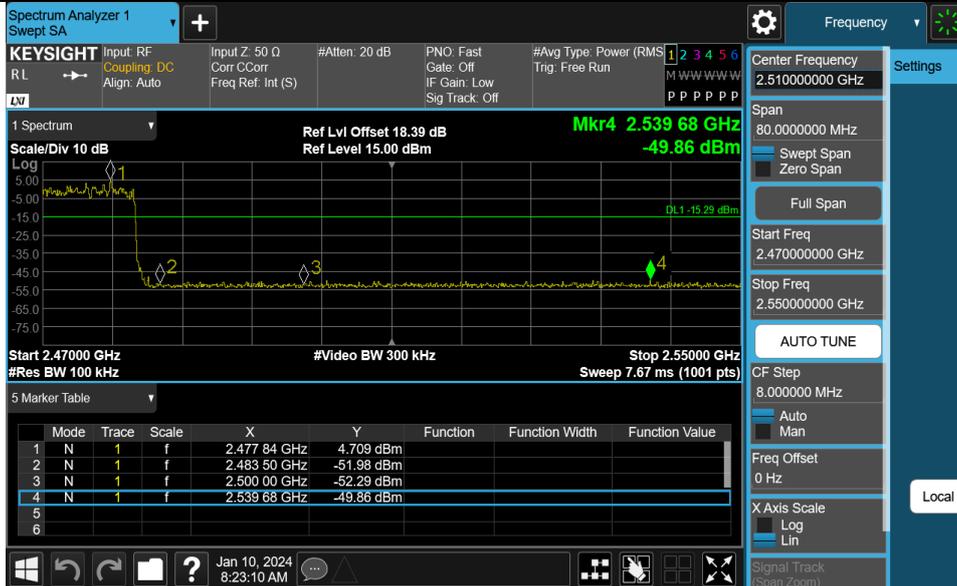
DH5-Ant1-Hop\_2480-PASS



3DH5-Ant1-Hop\_2480-PASS



2DH5-Ant1-Hop\_2480-PASS



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

**Spectrum Analyzer 1**  
Swept SA

**KEYSIGHT** Input: RF Coupling: DC Align: Auto Input Z: 50 Ω Corr CCorr: 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 18.34 dB  
Ref Level 15.00 dBm

Mkr5 2.399 960 GHz  
-49.29 dBm

DL1 -14.89 dBm

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

5 Marker Table

Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.405 000 GHz	5.106 dBm		
2	N	1	f	2.400 000 GHz	-49.29 dBm		
3	N	1	f	2.390 000 GHz	-51.87 dBm		
4	N	1	f	2.310 000 GHz	-53.63 dBm		
5	N	1	f	2.399 960 GHz	-49.29 dBm		
6							

Jan 10, 2024 8:14:37 AM

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

**Spectrum Analyzer 1**  
Swept SA

**KEYSIGHT** Input: RF Coupling: DC Align: Auto Input Z: 50 Ω Corr CCorr: 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 18.34 dB  
Ref Level 15.00 dBm

Mkr5 2.397 230 GHz  
-49.91 dBm

DL1 -16.84 dBm

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

5 Marker Table

Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.401 955 GHz	3.164 dBm		
2	N	1	f	2.400 000 GHz	-52.24 dBm		
3	N	1	f	2.390 000 GHz	-51.79 dBm		
4	N	1	f	2.310 000 GHz	-53.76 dBm		
5	N	1	f	2.397 230 GHz	-49.91 dBm		
6							

Jan 10, 2024 8:33:39 AM

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

**Spectrum Analyzer 1**  
Swept SA

**KEYSIGHT** Input: RF Coupling: DC Align: Auto Input Z: 50 Ω Corr CCorr: 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 18.34 dB  
Ref Level 15.00 dBm

Mkr5 2.399 855 GHz  
-50.05 dBm

DL1 -16.37 dBm

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

5 Marker Table

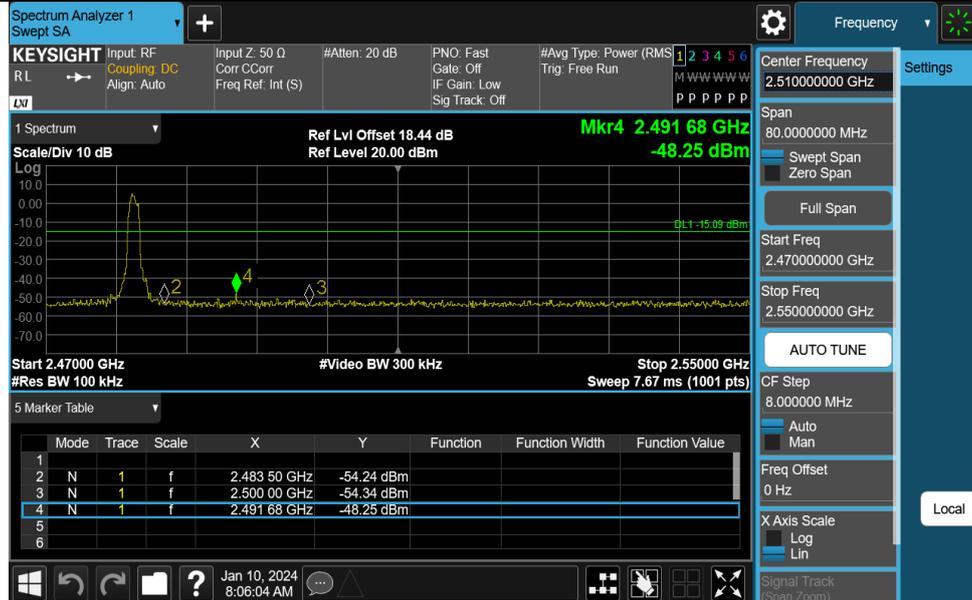
Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.405 000 GHz	3.629 dBm		
2	N	1	f	2.400 000 GHz	-51.64 dBm		
3	N	1	f	2.390 000 GHz	-52.36 dBm		
4	N	1	f	2.310 000 GHz	-51.42 dBm		
5	N	1	f	2.399 855 GHz	-50.05 dBm		
6							

Jan 10, 2024 8:24:37 AM

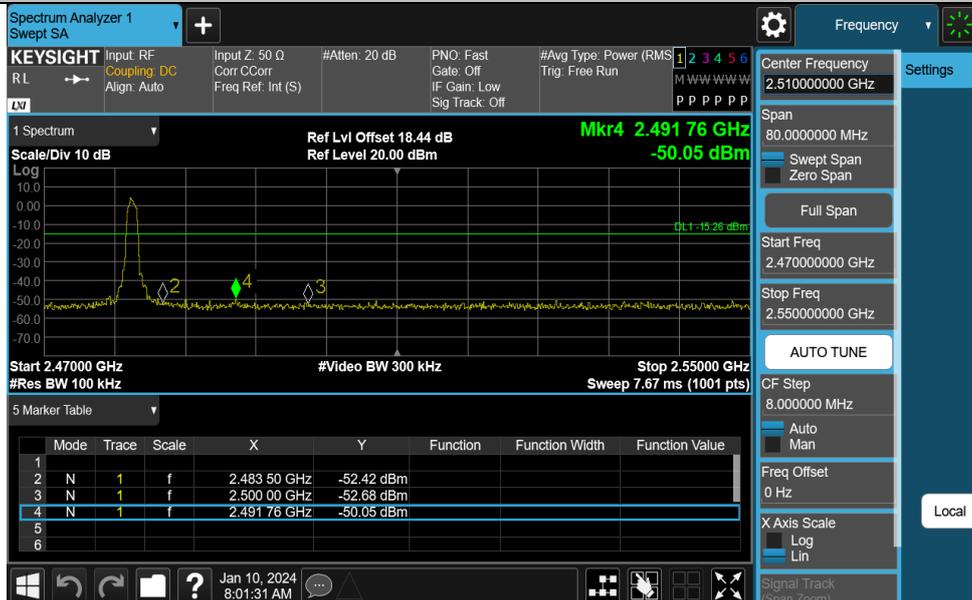
### DH5-Ant1-2480-PASS



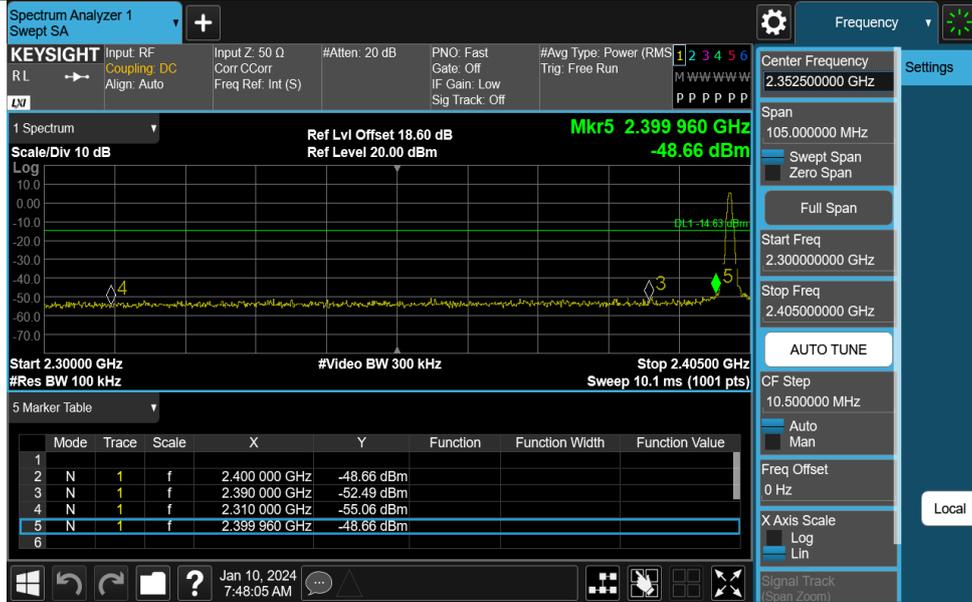
### 3DH5-Ant1-2480-PASS



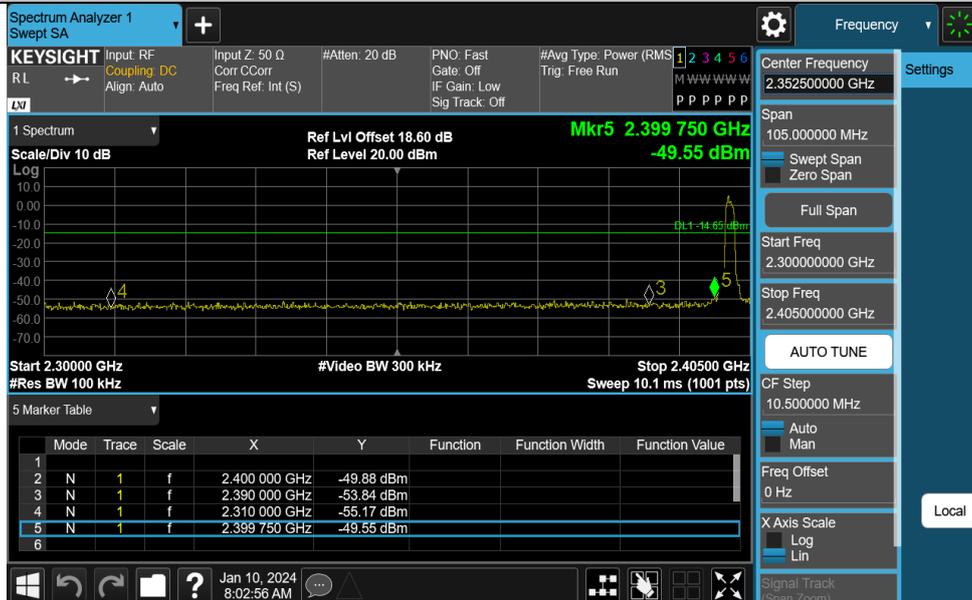
### 2DH5-Ant1-2480-PASS



### DH5-Ant1-2402-PASS



### 3DH5-Ant1-2402-PASS



### 2DH5-Ant1-2402-PASS



## Appendix H: Conducted Spurious Emission Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	30~26500	5.37	-42.89	≤-14.63	PASS
DH5	Ant1	2441	30~26500	4.46	-43.54	≤-15.54	PASS
DH5	Ant1	2480	30~26500	4.47	-43.31	≤-15.53	PASS
2DH5	Ant1	2402	30~26500	4.82	-42.35	≤-15.18	PASS
2DH5	Ant1	2441	30~26500	4.74	-42.68	≤-15.26	PASS
2DH5	Ant1	2480	30~26500	4.74	-41.88	≤-15.26	PASS
3DH5	Ant1	2402	30~26500	5.35	-42.2	≤-14.65	PASS
3DH5	Ant1	2441	30~26500	4.93	-42.76	≤-15.07	PASS
3DH5	Ant1	2480	30~26500	4.91	-42.55	≤-15.09	PASS

### Test Graphs

DH5-Ant1-2402-30~26500-PASS

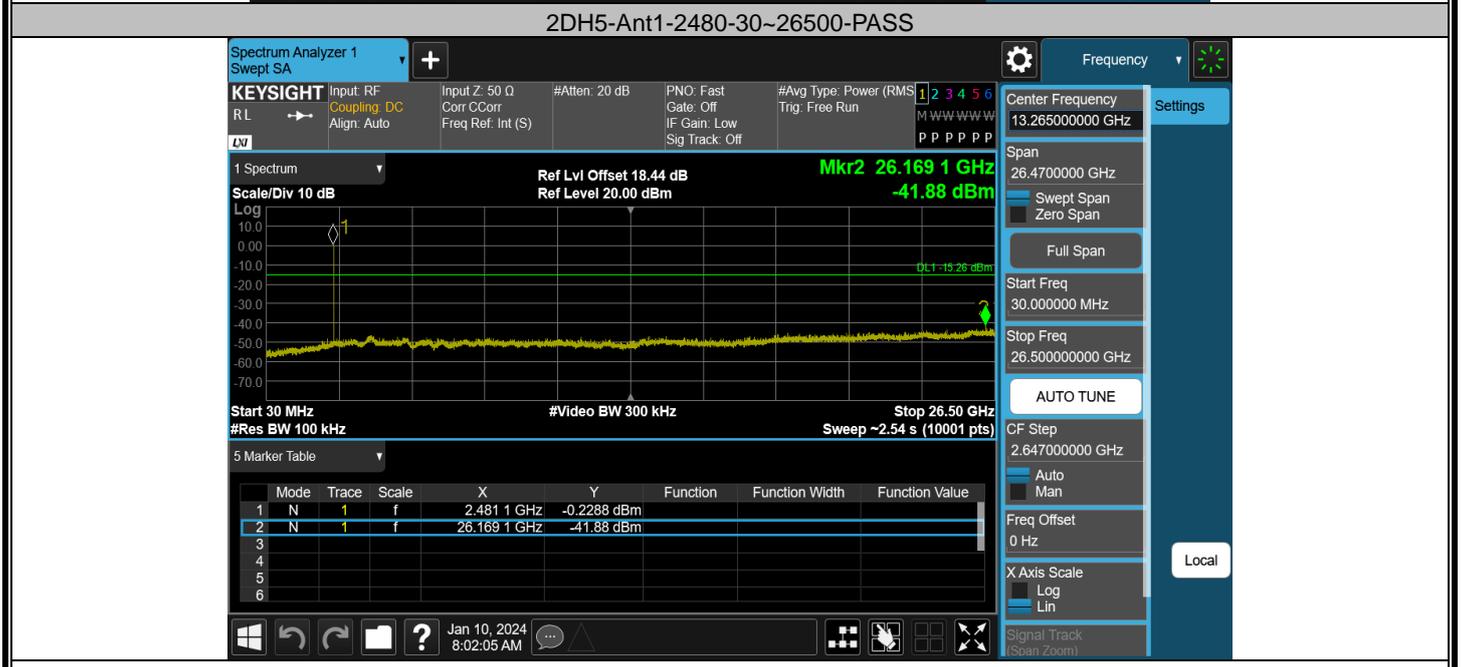
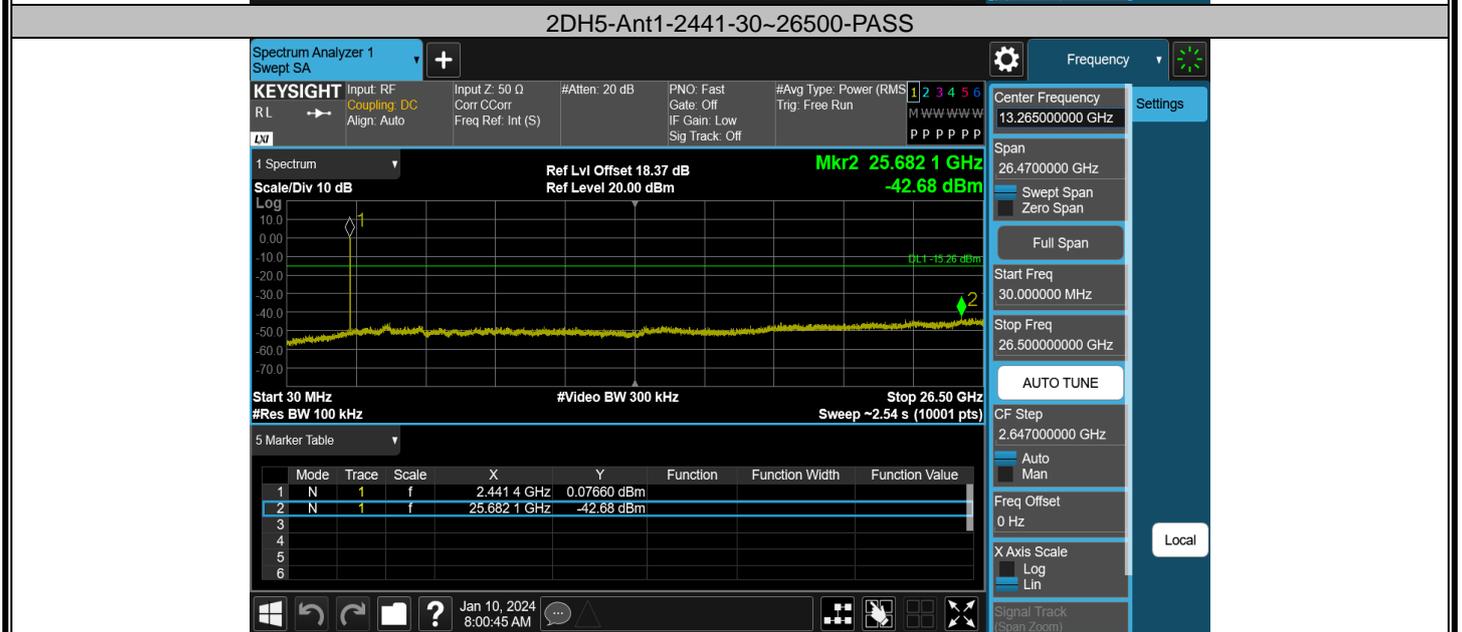
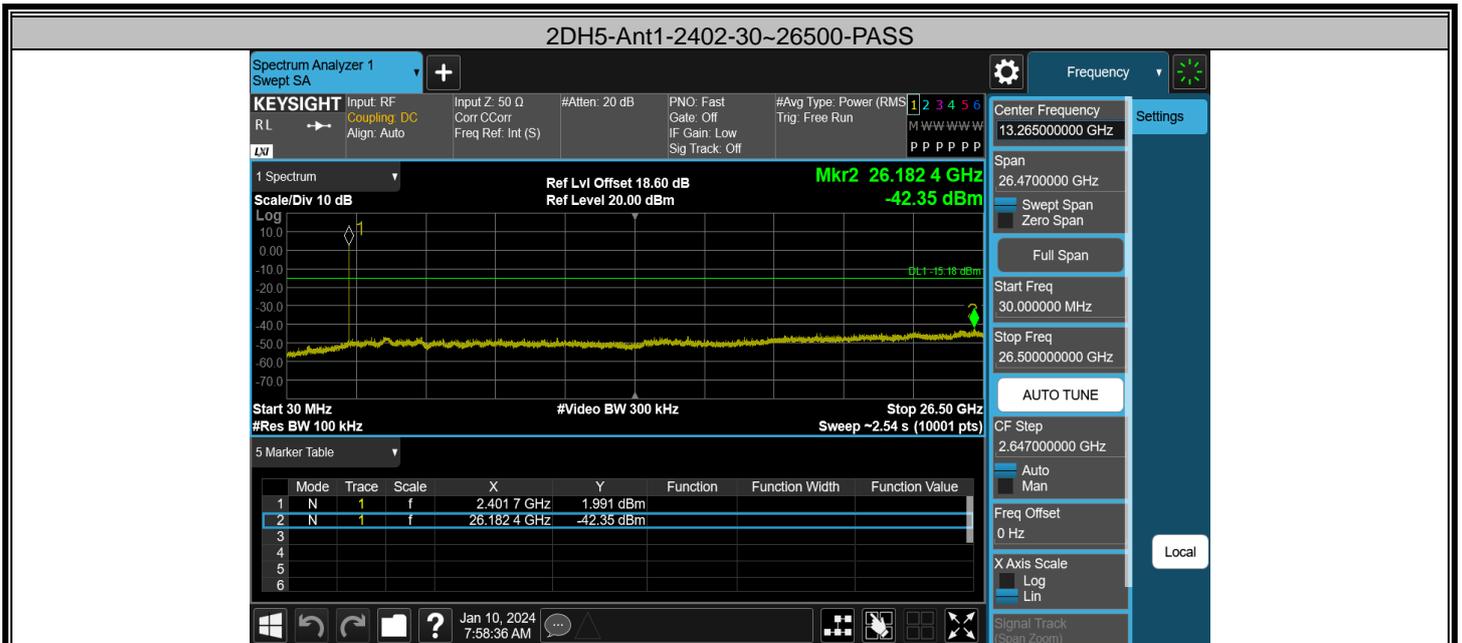


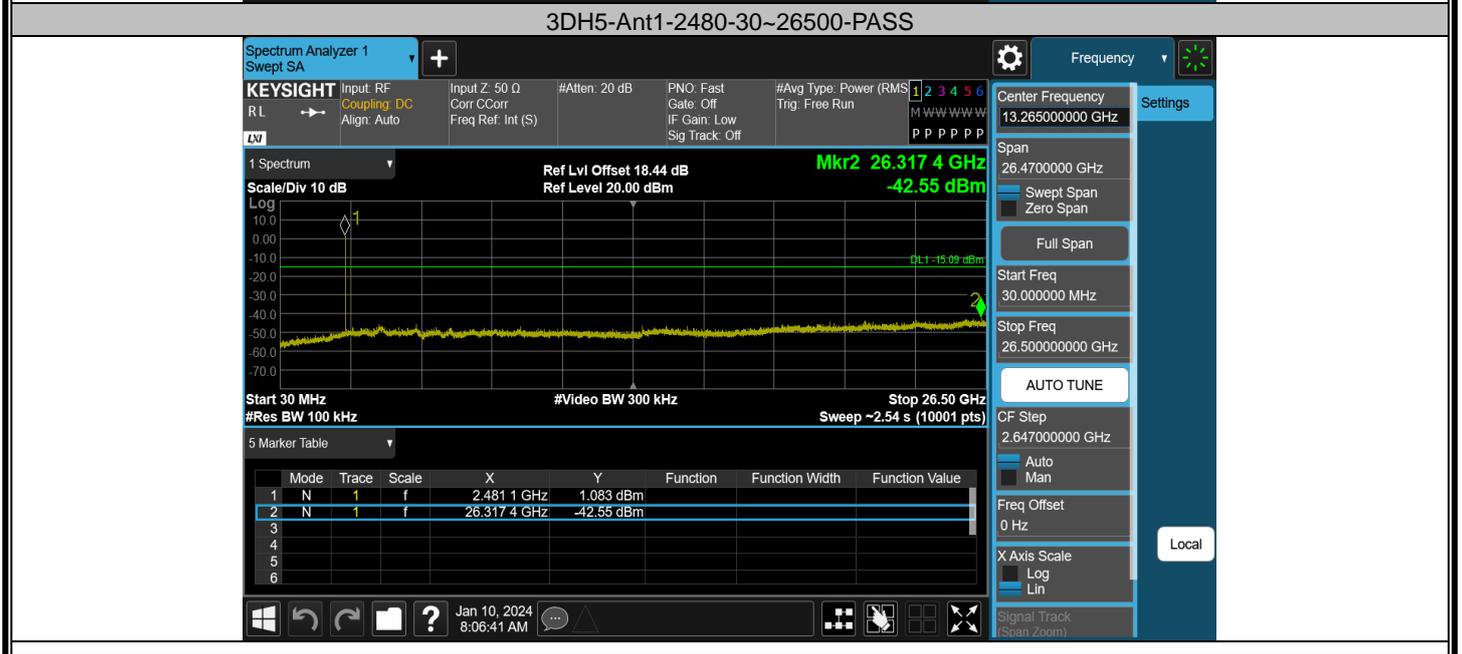
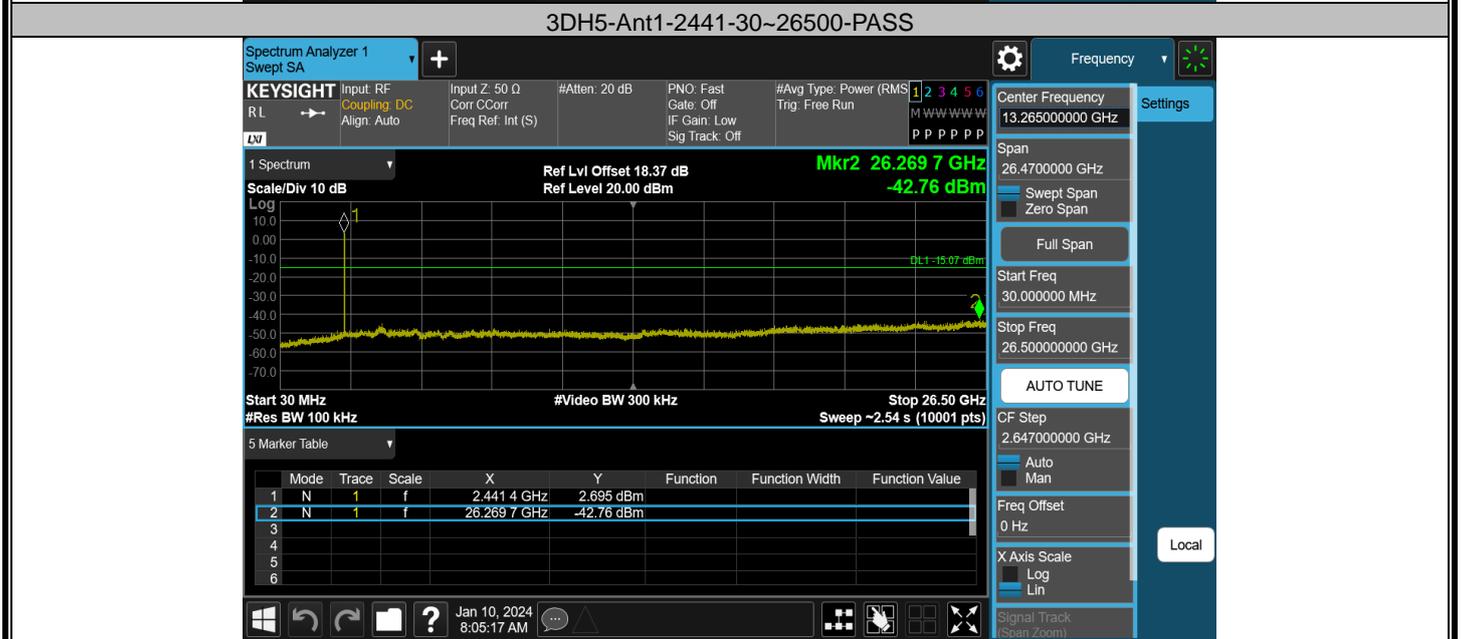
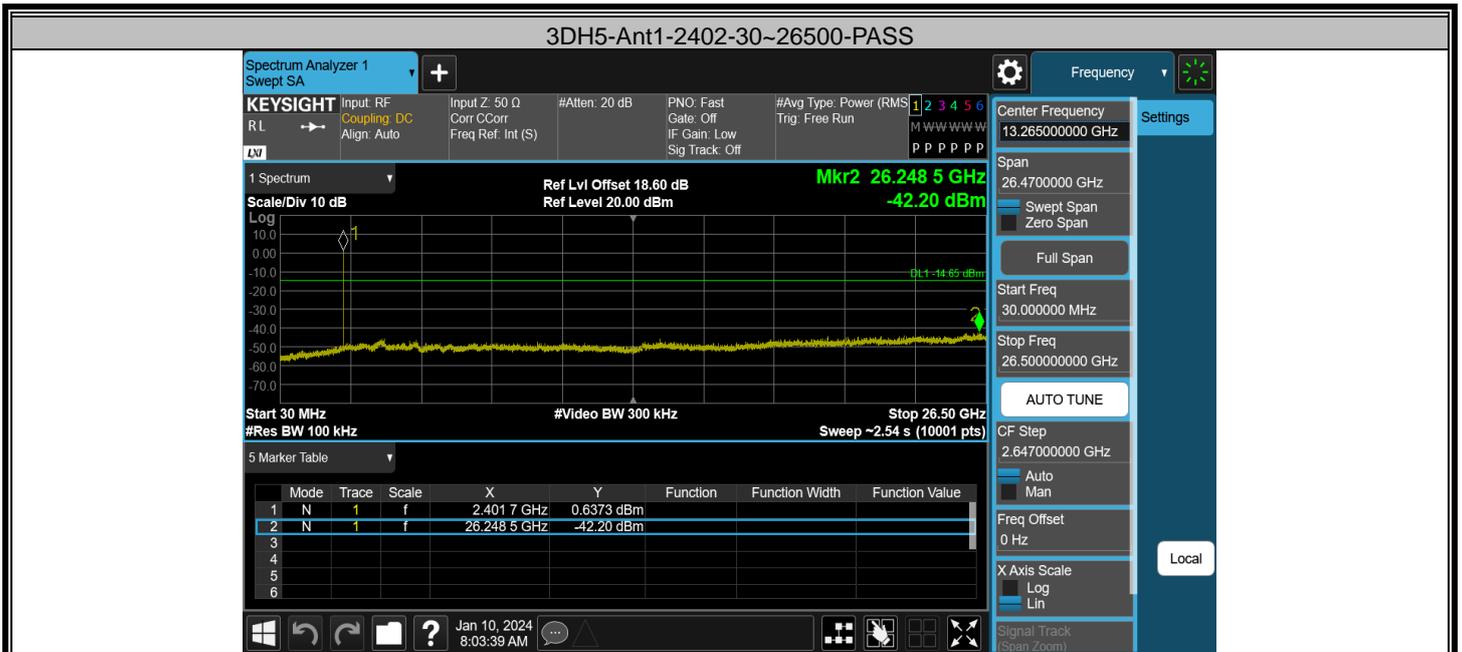
DH5-Ant1-2441-30~26500-PASS



DH5-Ant1-2480-30~26500-PASS







## Appendix I: Reference level measurement Test Result

TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
DH5	Ant1	2402	2401.83	5.37
DH5	Ant1	2441	2440.99	4.46
DH5	Ant1	2480	2480.00	4.47
2DH5	Ant1	2402	2401.85	4.82
2DH5	Ant1	2441	2440.83	4.74
2DH5	Ant1	2480	2479.84	4.74
3DH5	Ant1	2402	2401.83	5.35
3DH5	Ant1	2441	2440.83	4.93
3DH5	Ant1	2480	2479.83	4.91

### Test Graphs

#### DH5-Ant1-2402-PASS



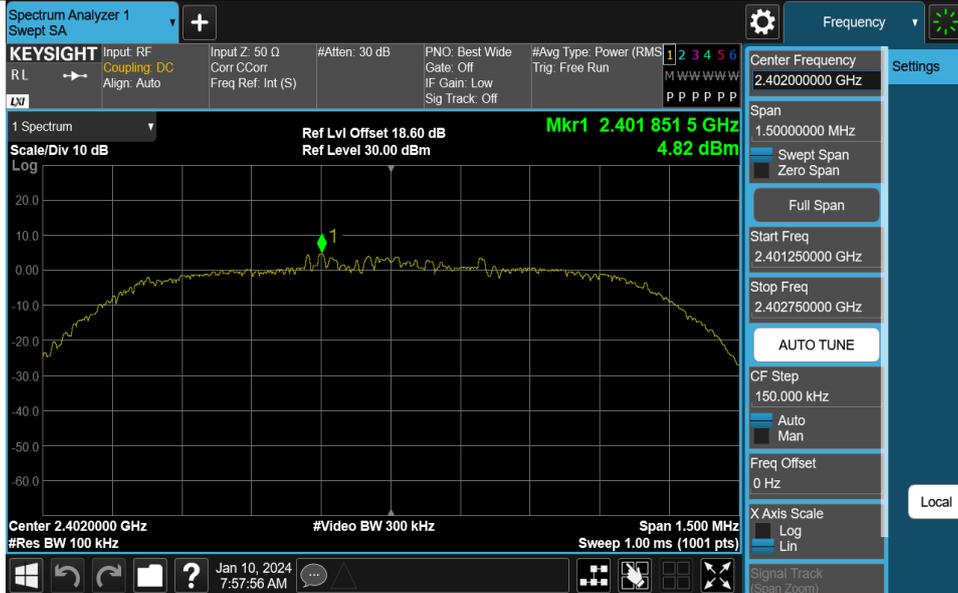
#### DH5-Ant1-2441-PASS



#### 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

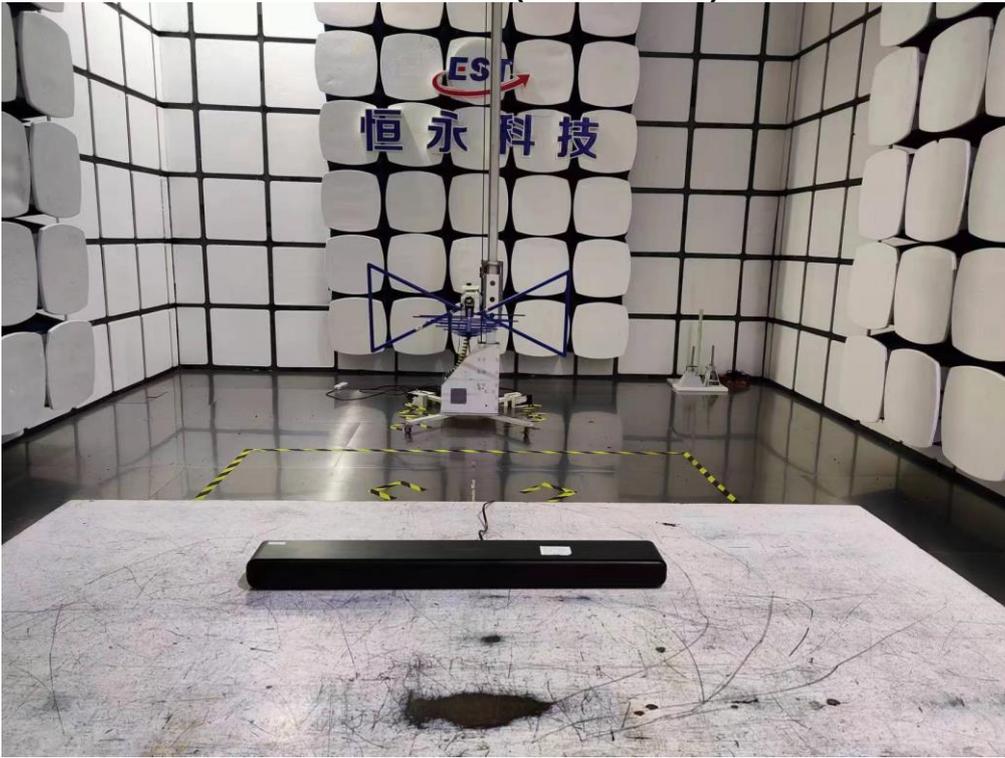


## 14. TEST SETUP PHOTO

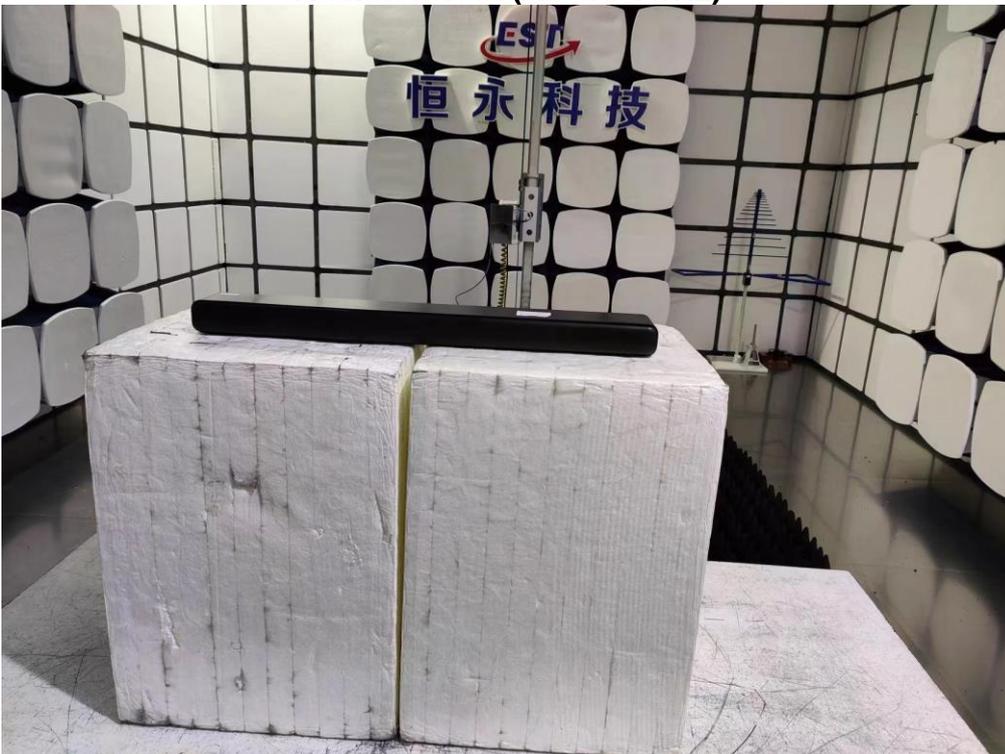
Conducted Test



**Radiated Test (Below 1GHz)**



**Radiated Test (Above 1GHz)**

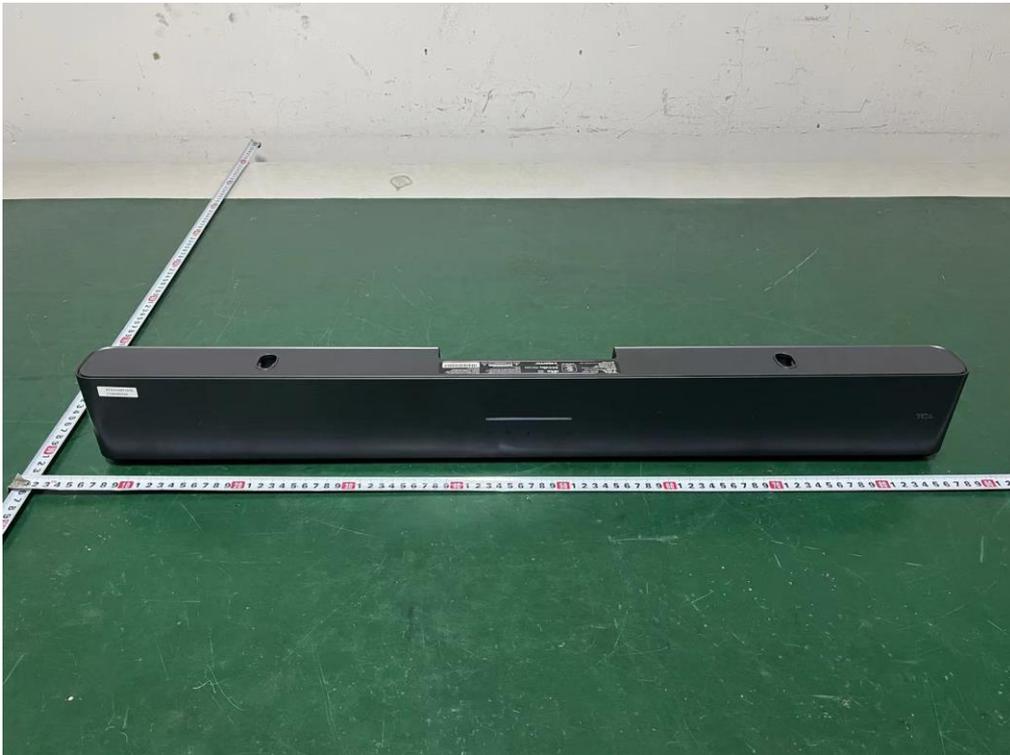
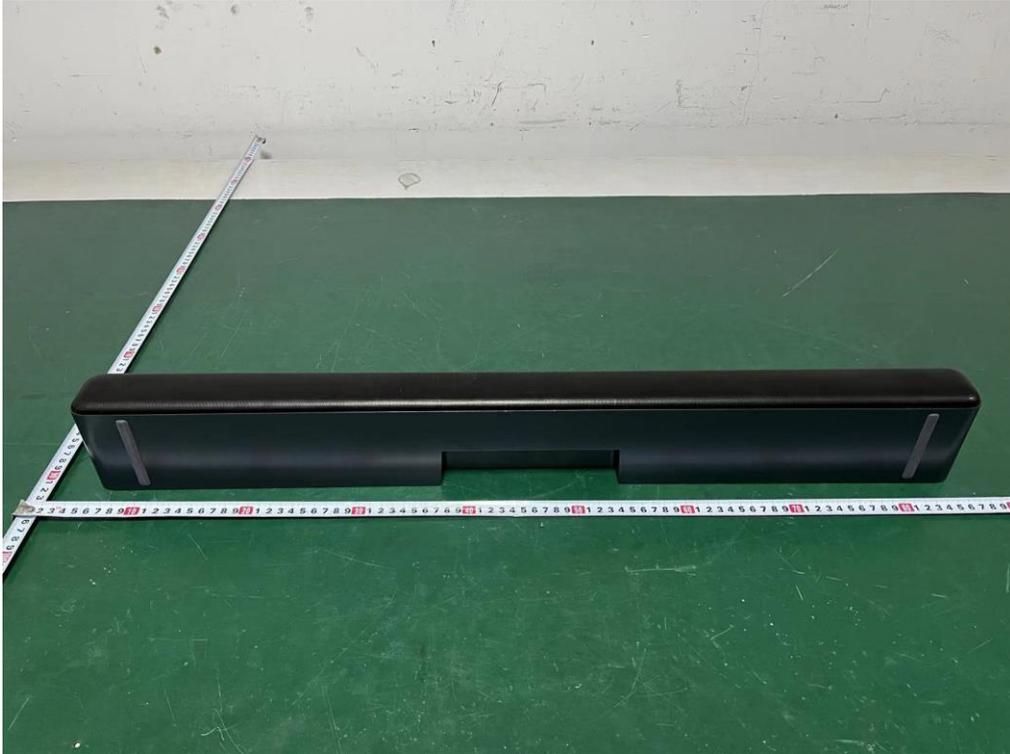


# 15. EUT PHOTO

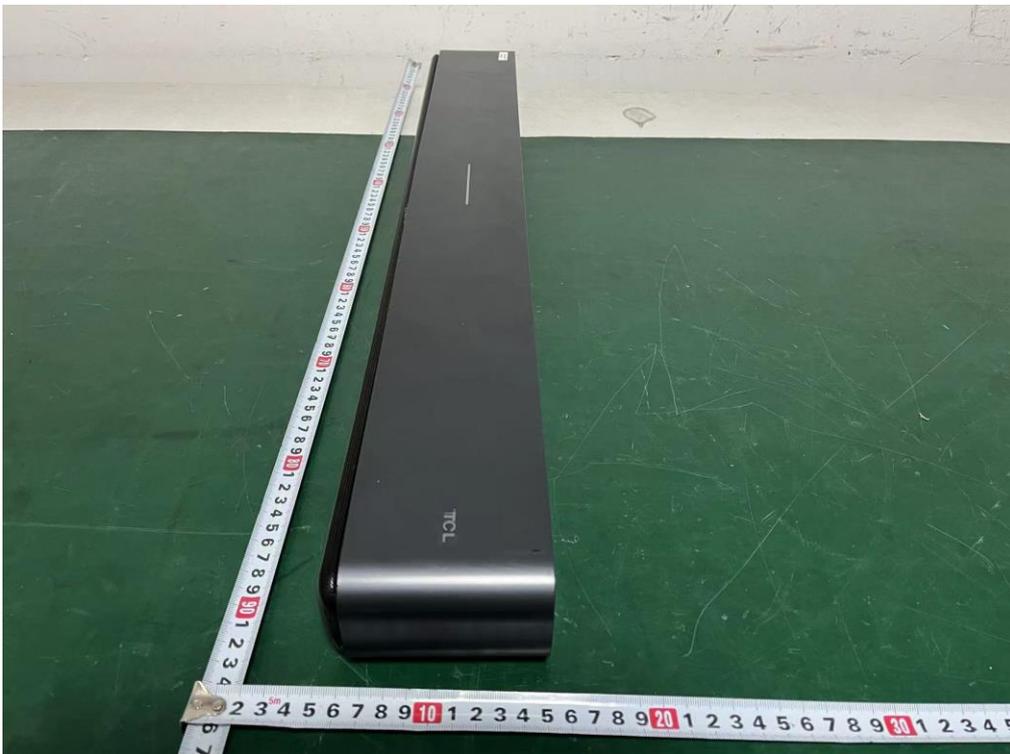
External Photos  
M/N: S45H



**External Photos**  
M/N: S45H



**External Photos**  
M/N: S45H





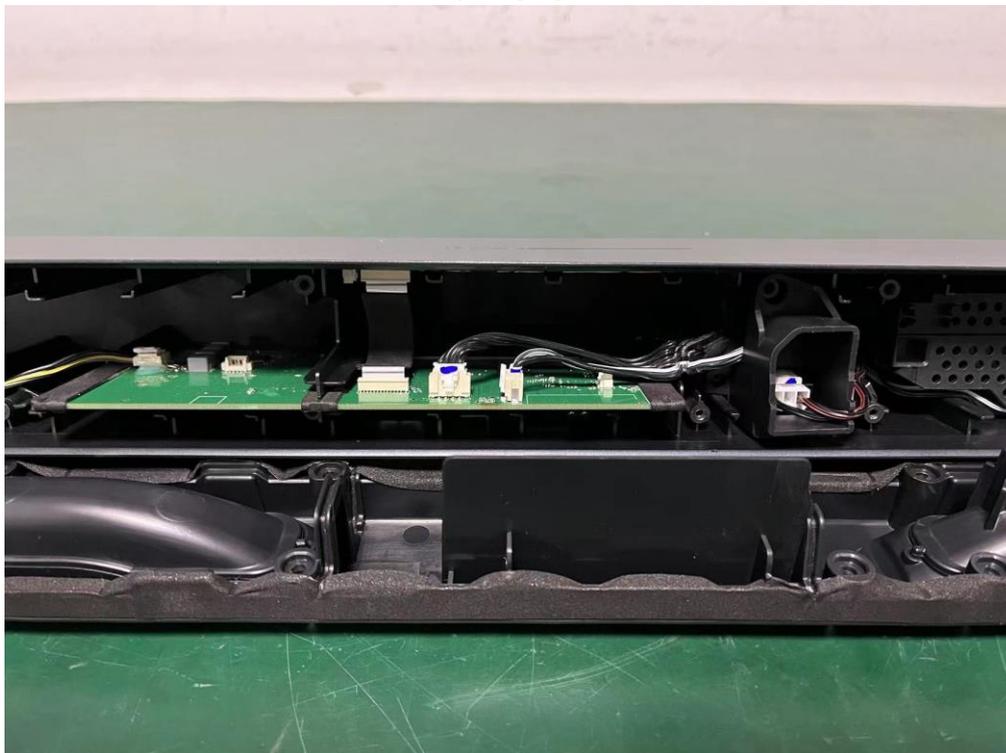
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M/N: S45H



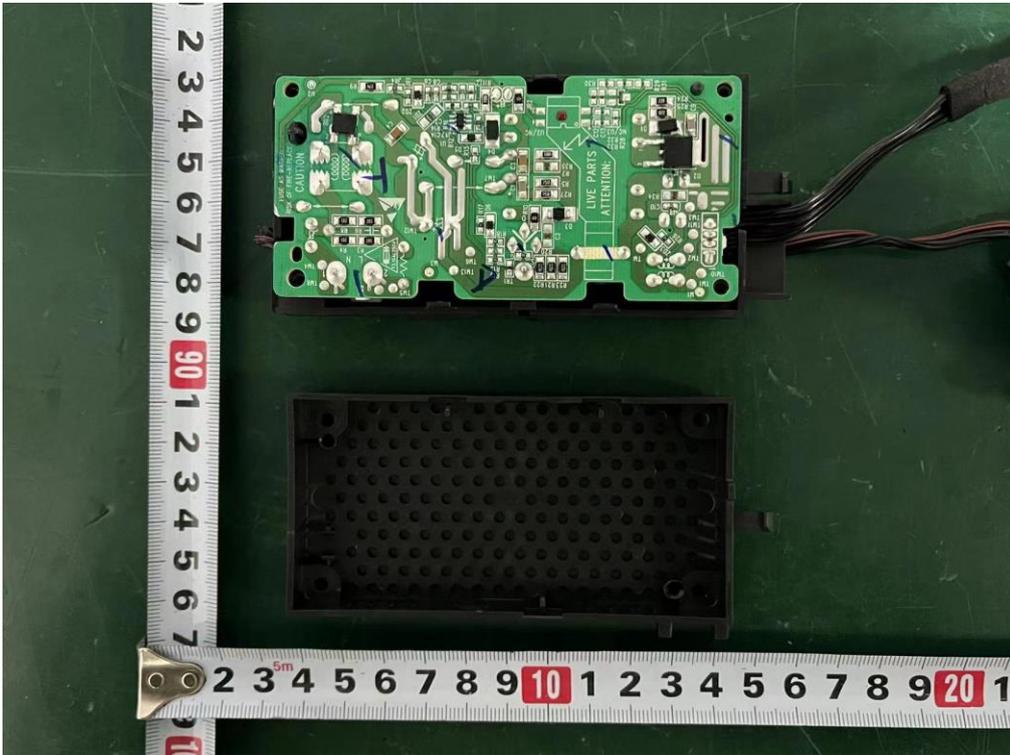
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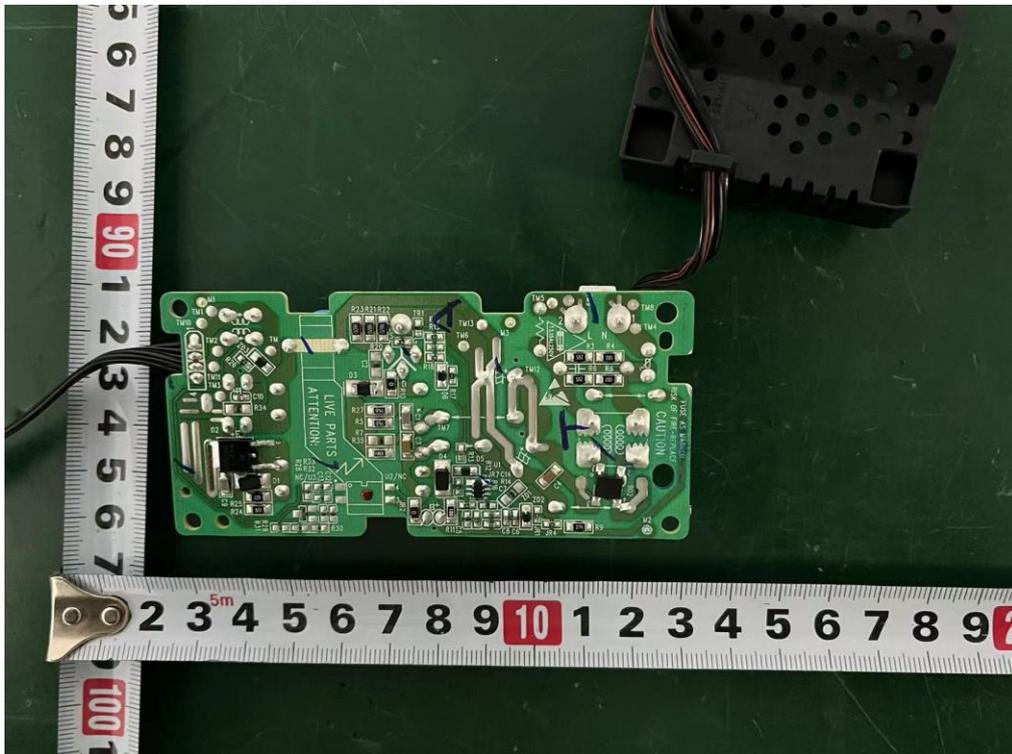
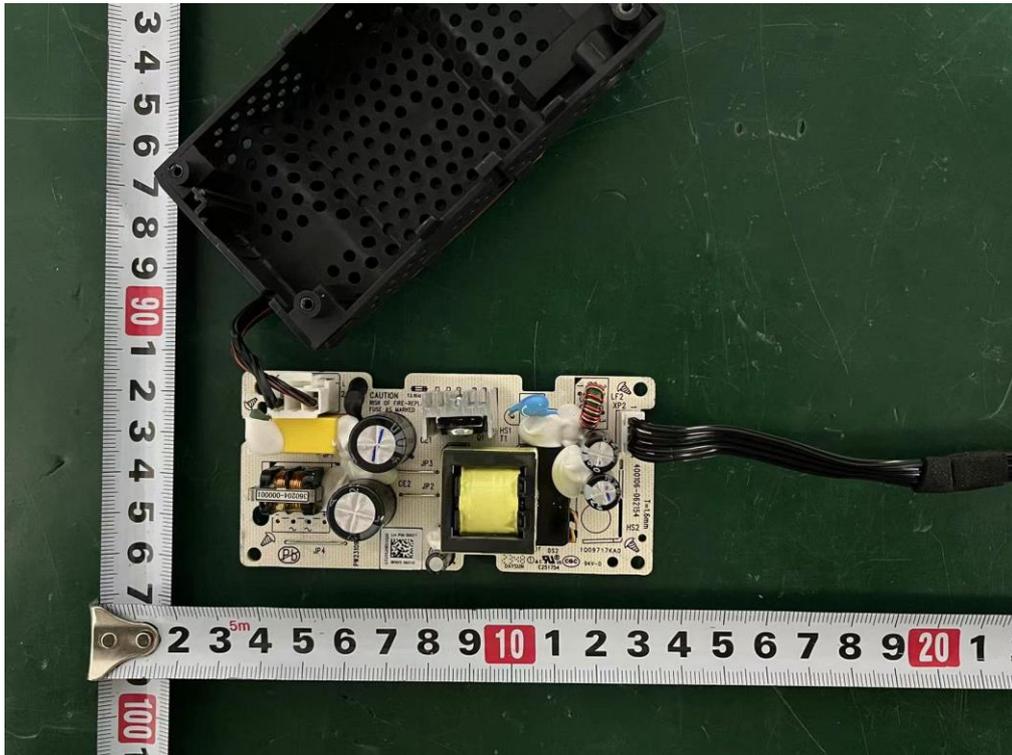
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M/N: S45H



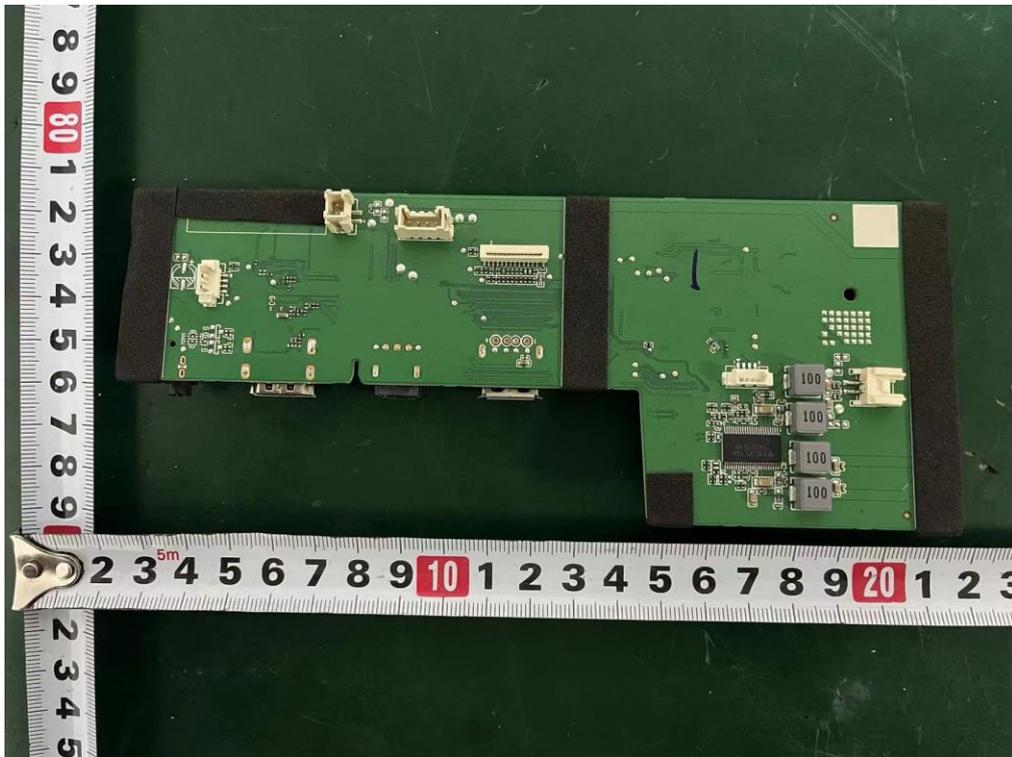
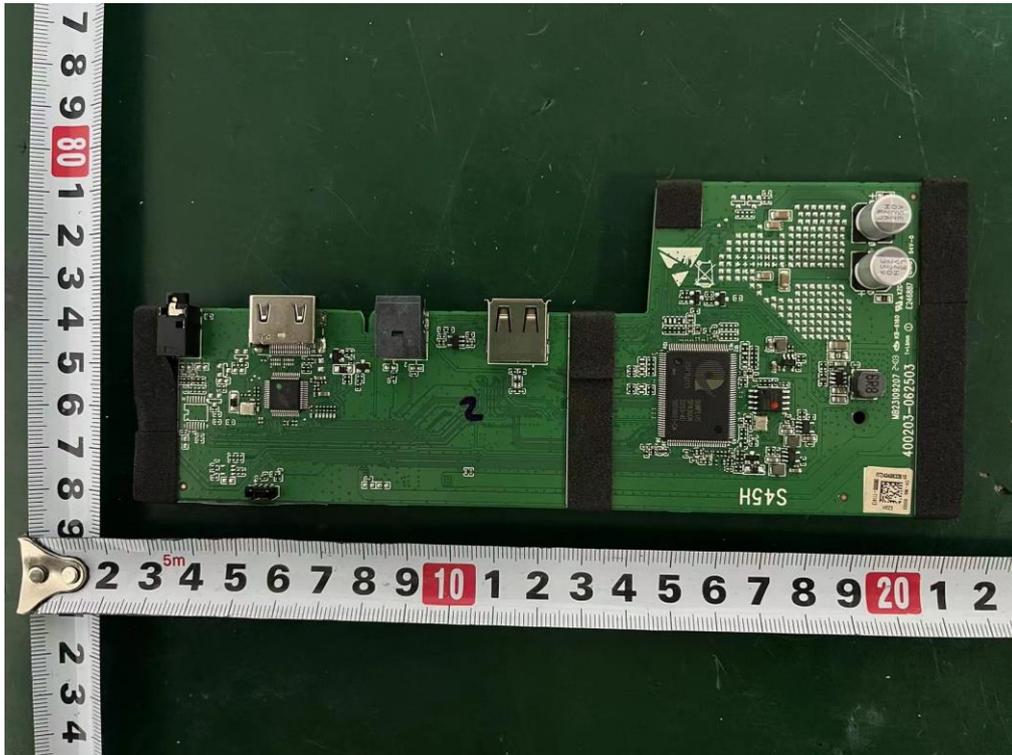
**Internal Photos**  
M/N: S45H



**Internal Photos**  
M/N: S45H

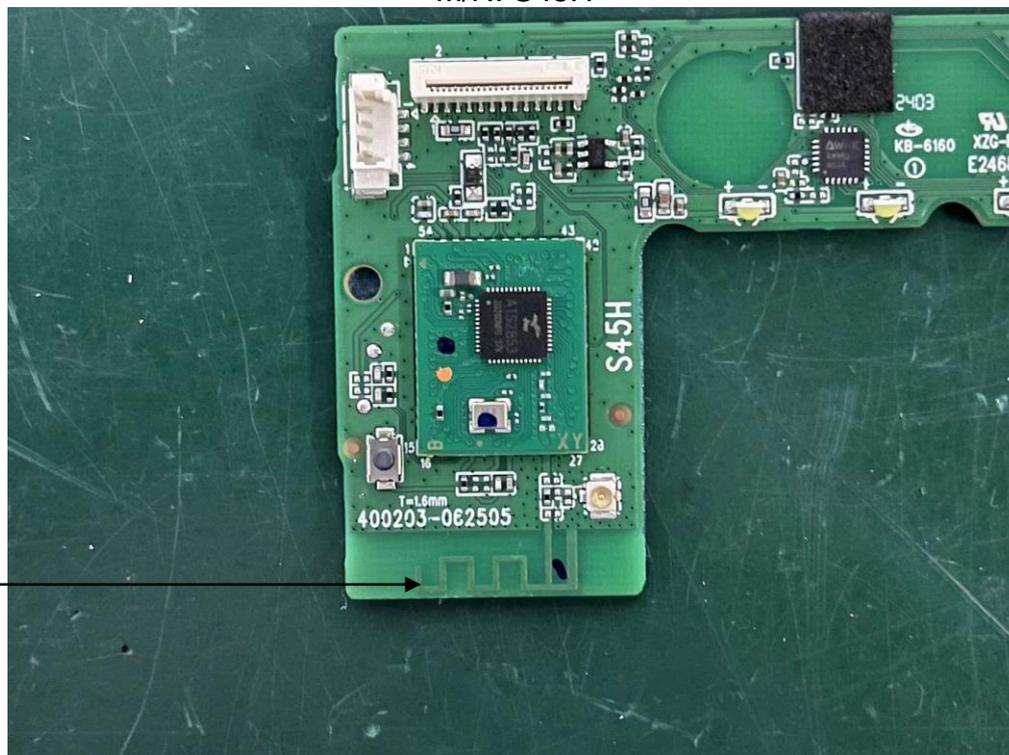


**Internal Photos**  
M/N: S45H



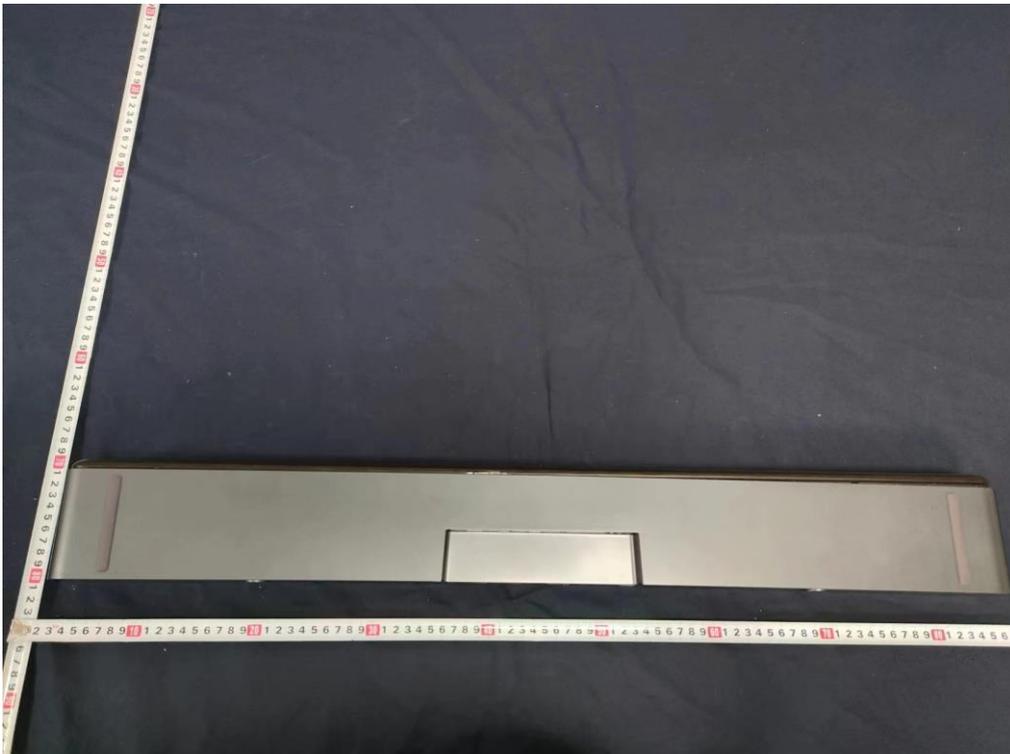
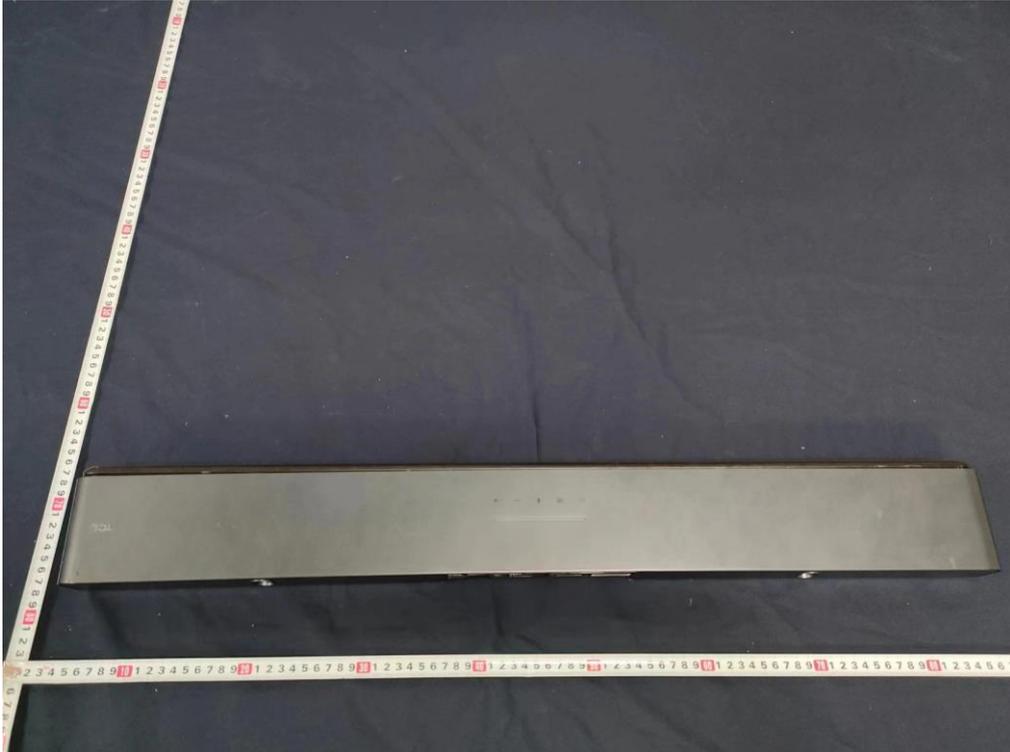


**Internal Photos**  
M/N: S45H



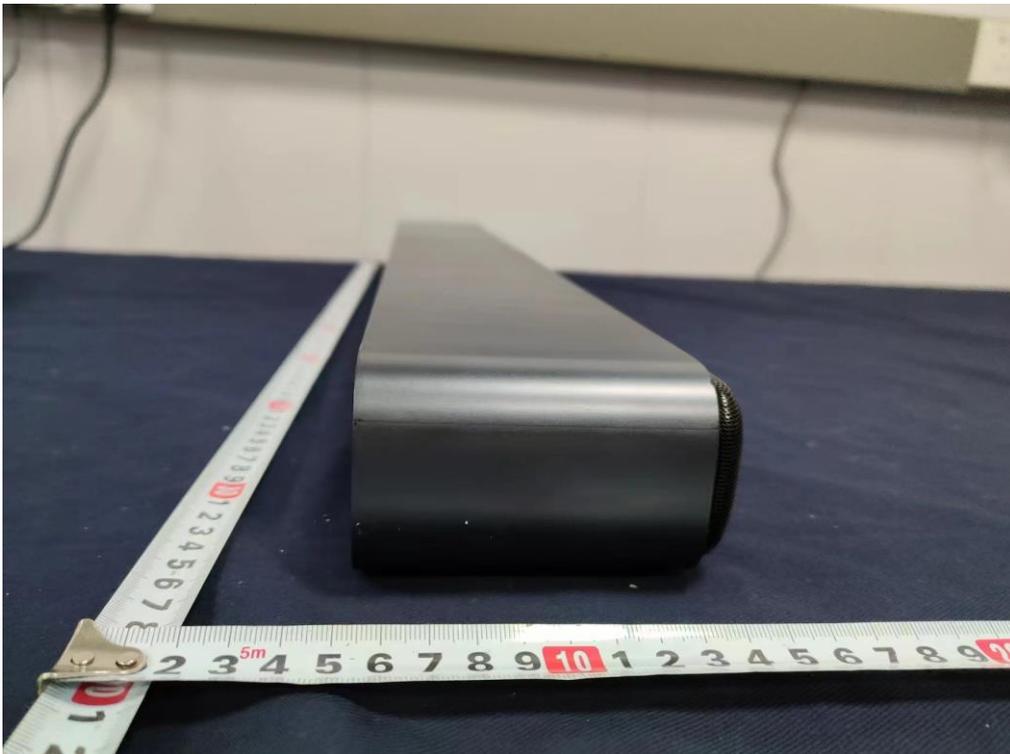
Bluetooth  
Antenna

**External Photos**  
M/N: S45H-CA





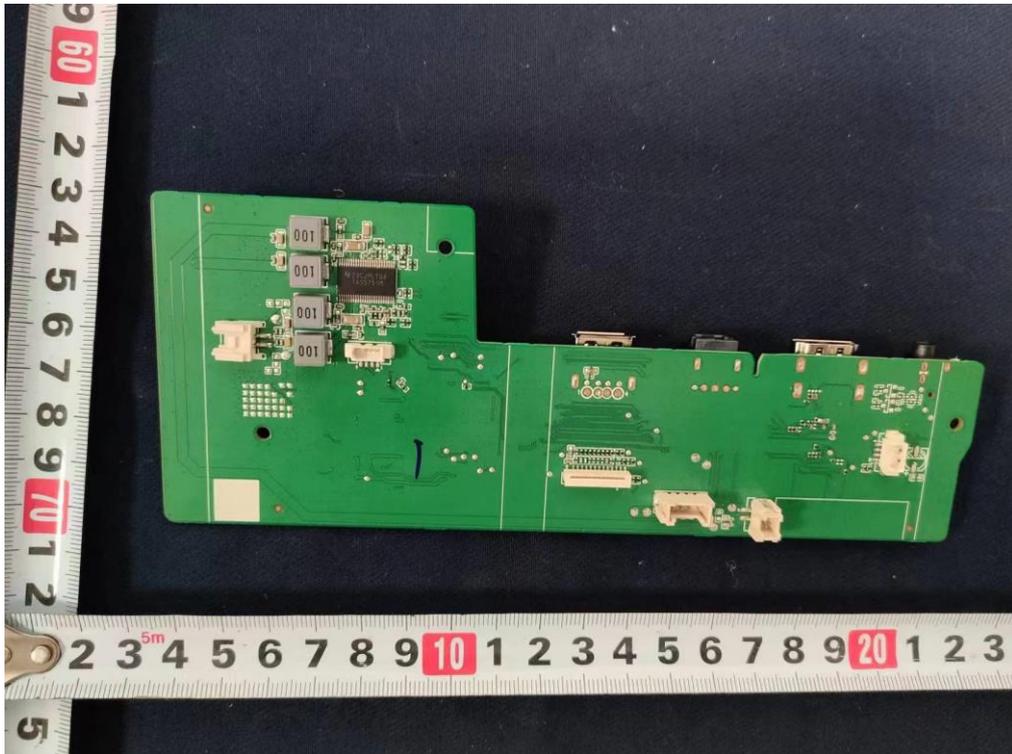
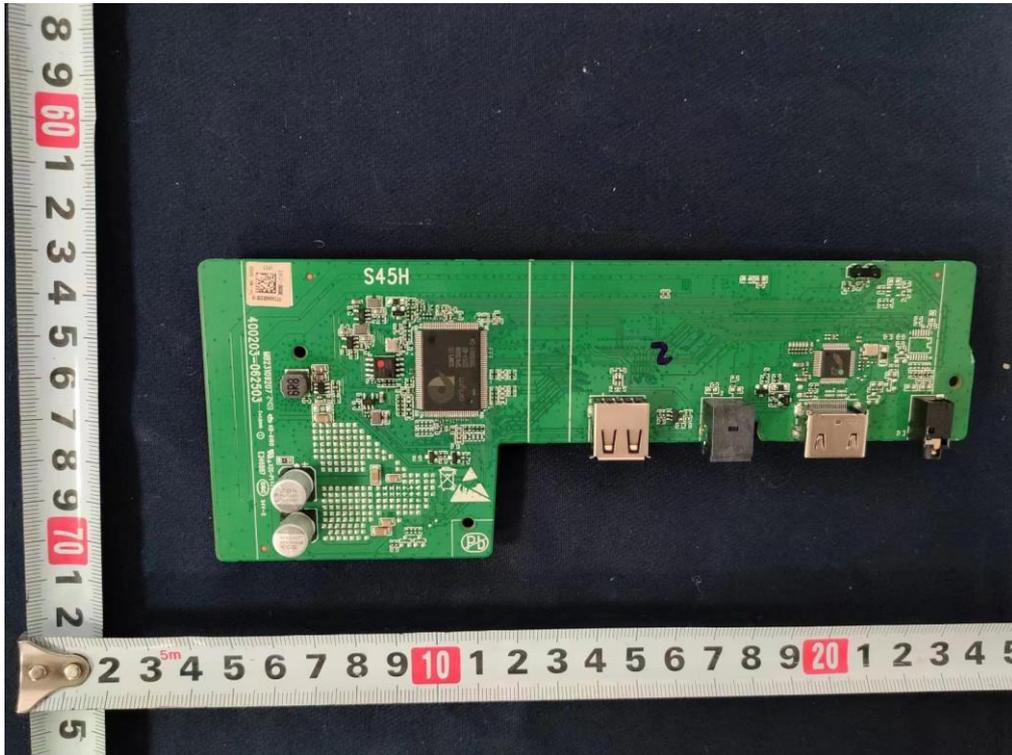
**External Photos**  
M/N: S45H-CA



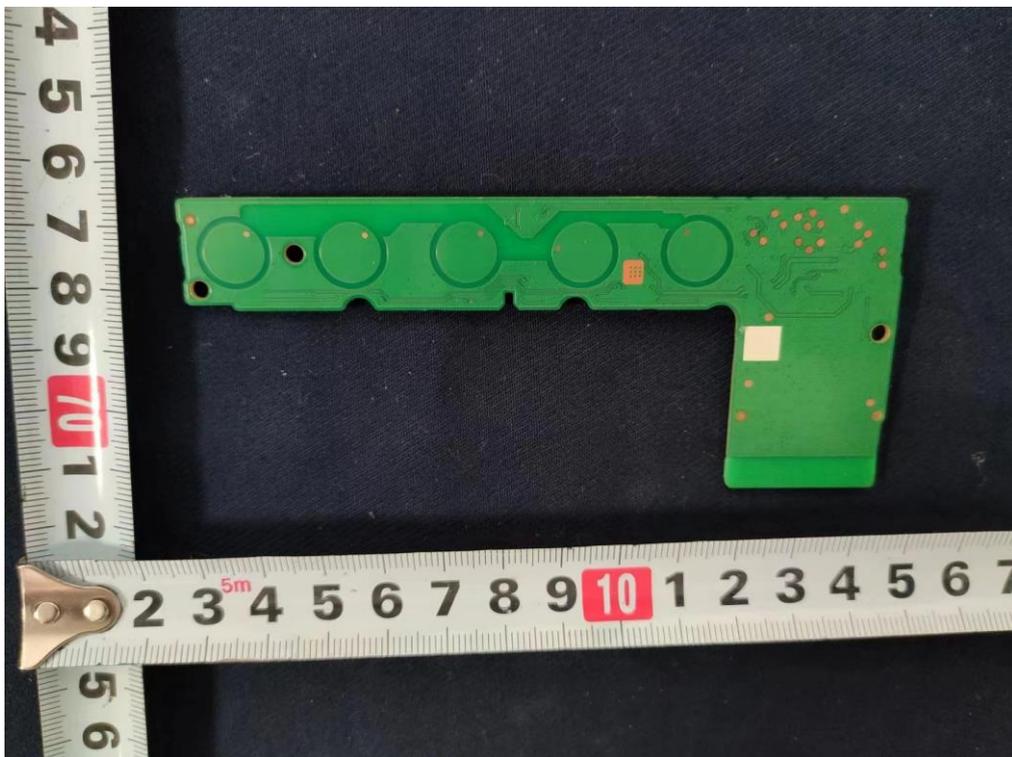
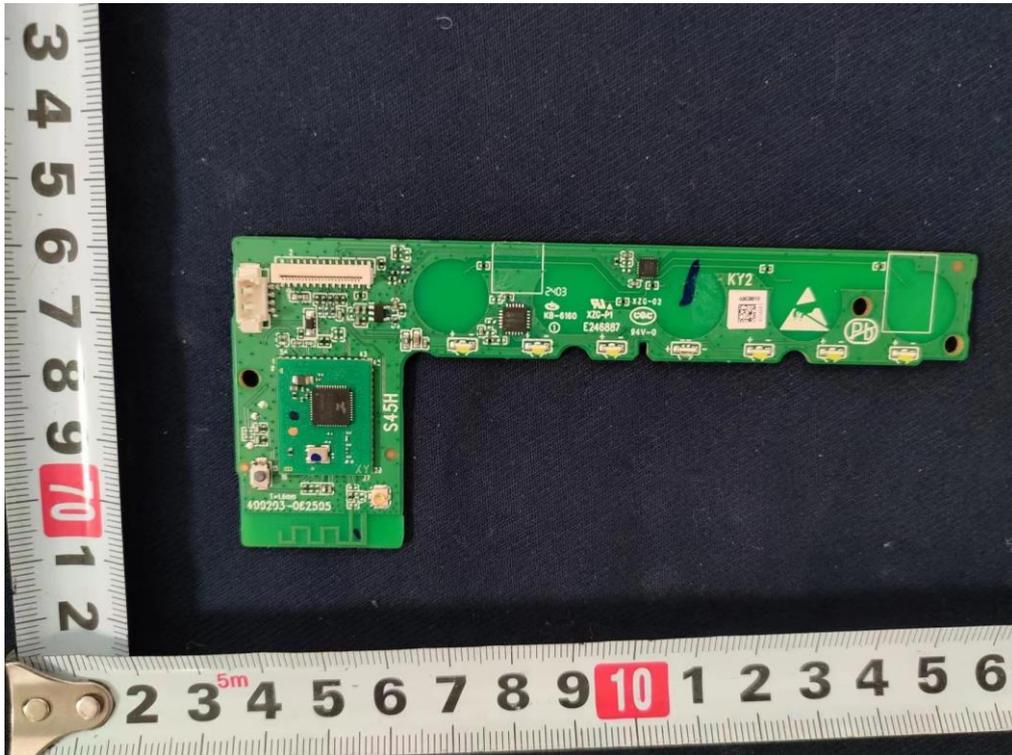
**Internal Photos**  
M/N: S45H-CA



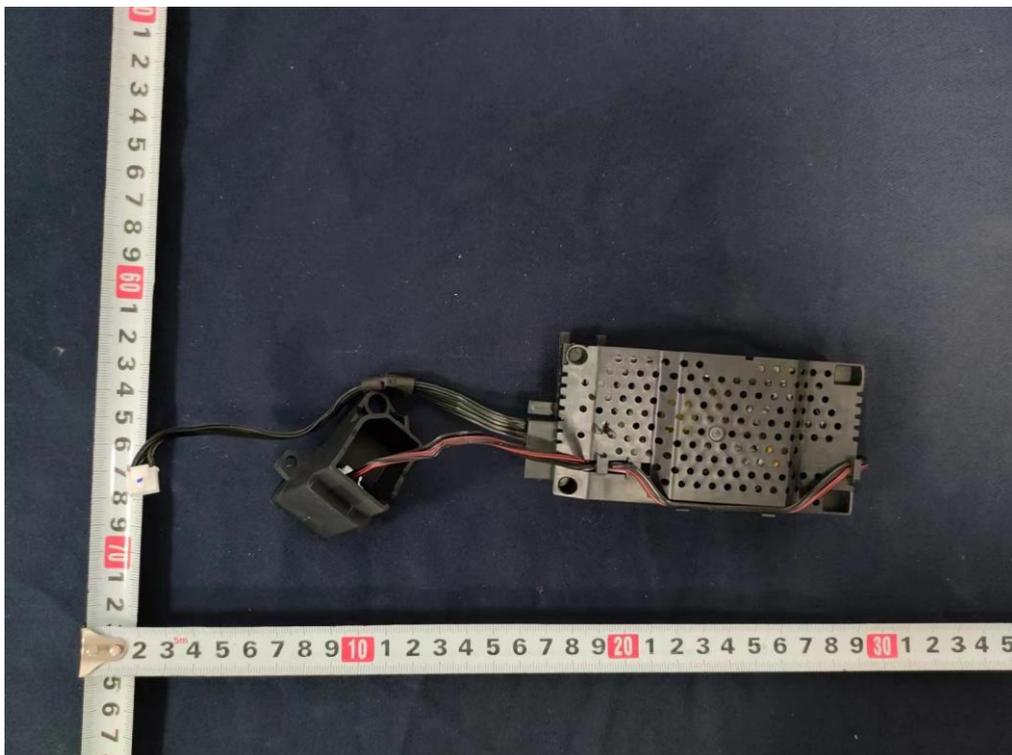
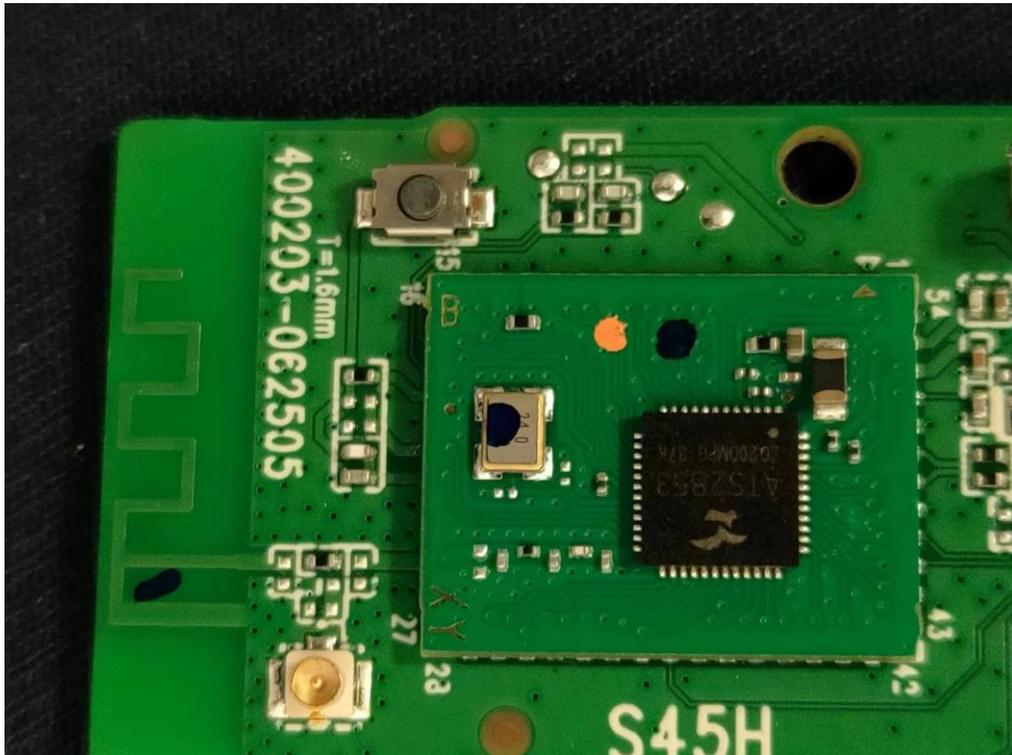
**Internal Photos**  
M/N: S45H-CA



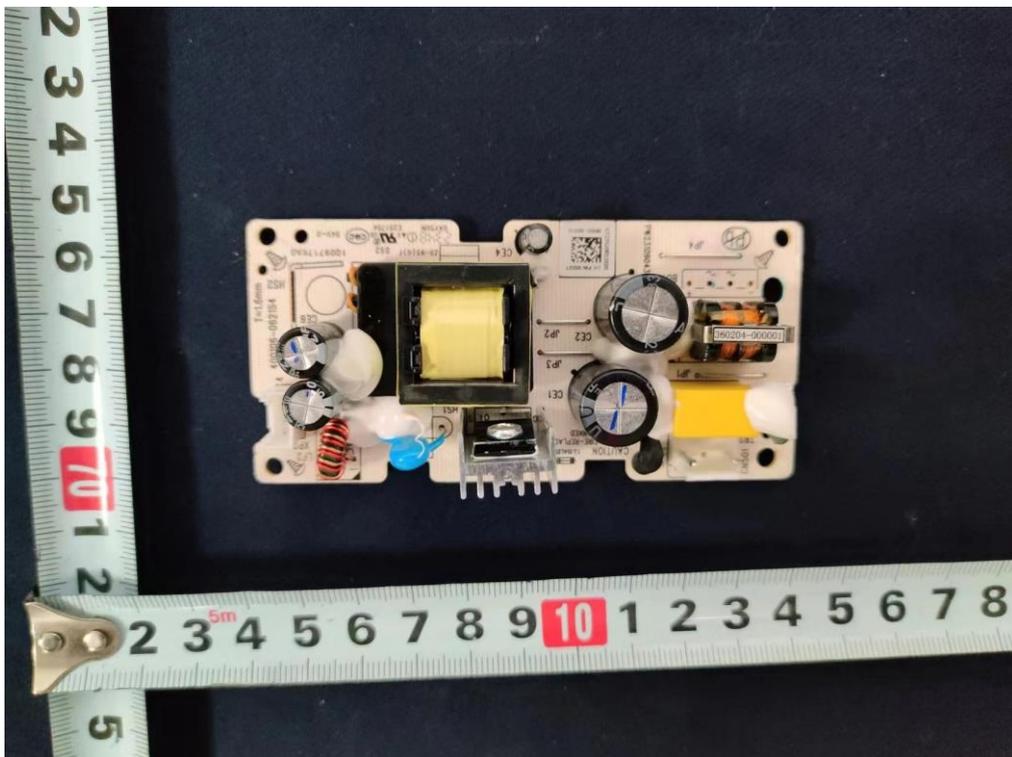
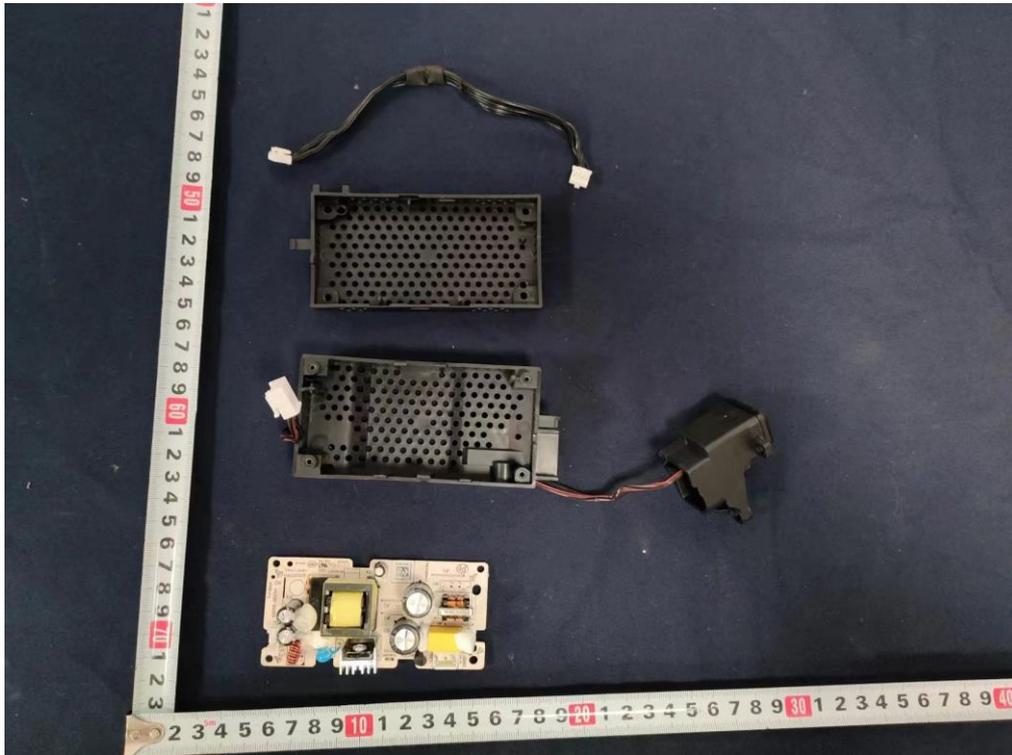
**Internal Photos**  
M/N: S45H-CA



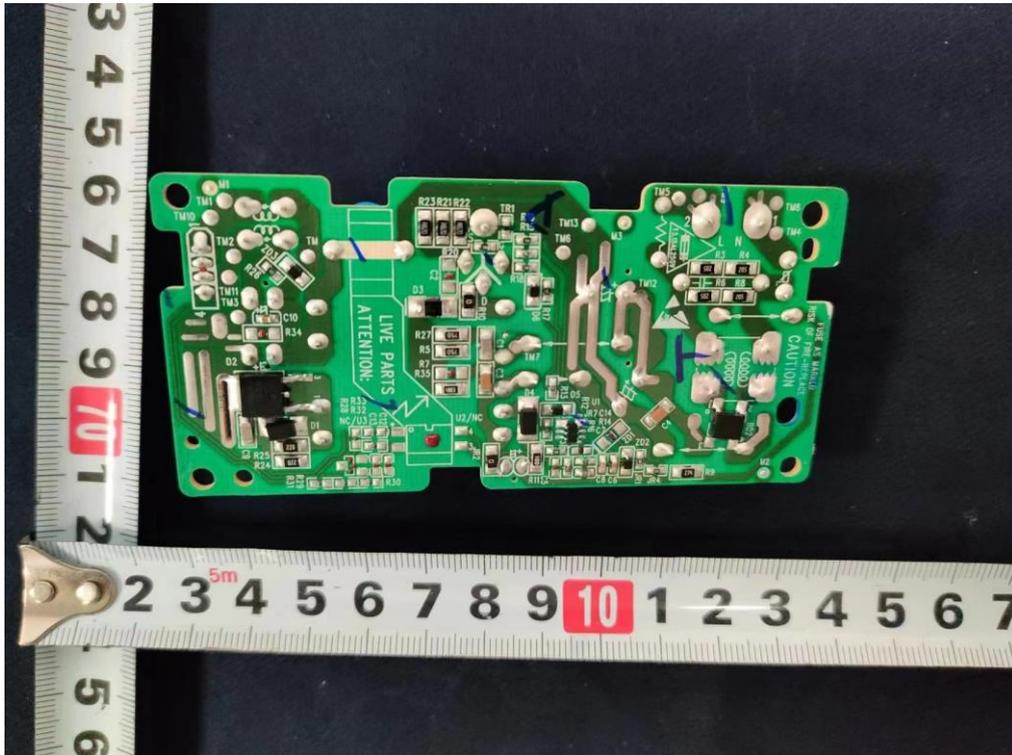
**Internal Photos**  
M/N: S45H-CA



**Internal Photos**  
M/N: S45H-CA



**Internal Photos**  
M/N: S45H-CA



**End of Test Report**