

Prüfbericht-Nr.: <i>Test report no.:</i>	CN25HI90 001	Auftrags-Nr.: <i>Order no.:</i>	168542112	Page 1 of 22 <i>Seite 1 von 22</i>
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	2025-04-11	
Auftraggeber: <i>Client:</i>	Harman International Industries, Inc 8500 Balboa Blvd, Northridge, California, 91329, United States			
Prüfgegenstand: <i>Test item:</i>	Wireless Subwoofer			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	CINEMA SB595 SUB (Trademark: JBL)			
Auftrags-Inhalt: <i>Order content:</i>	Type test			
Prüfgrundlage: <i>Test specification:</i>	CFR47 FCC Part 15: Subpart C Section 15.247 CFR47 FCC Part 15: Subpart C Section 15.207 CFR47 FCC Part 15: Subpart C Section 15.209	RSS-247 Issue 3 August 2023 RSS-Gen Issue 5 February 2021		
Wareneingangsdatum: <i>Date of sample receipt:</i>	2025-03-20	Refer to photos document		
Prüfmuster-Nr.: <i>Test sample no.:</i>	A003943146			
Prüfzeitraum: <i>Testing period:</i>	2025-05-29 – 2025-06-09			
Ort der Prüfung: <i>Place of testing:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von: <i>tested by:</i>	X 	genehmigt von: <i>authorized by:</i>	X 	
Datum: <i>Date:</i>	2025-06-25 <small>Signed by: Harry W. C. Wu</small>	Ausstellungsdatum: <i>Issue date:</i>	2025-06-25 <small>Signed by: Alex Lan</small>	
Stellung / Position:	Project Manager	Stellung / Position:	Authorizer	
Sonstiges / <i>Other:</i>	FCC ID: APISB595SUB IC: 6132A-SB595SUB HVIN: CINEMA SB595 SUB			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
<small>* Legende:</small>	<small>P(ass) = entspricht o.g. Prüfgrundlage(n)</small>	<small>F(ail) = entspricht nicht o.g. Prüfgrundlage(n)</small>	<small>N/A = nicht anwendbar</small>	<small>N/T = nicht getestet</small>
<small>* Legend:</small>	<small>P(ass) = passed a.m. test specification(s)</small>	<small>F(ail) = failed a.m. test specification(s)</small>	<small>N/A = not applicable</small>	<small>N/T = not tested</small>
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				
TUV Rheinland (Shenzhen) Co., Ltd., 1601-1604, 1801-1804, Tower A Building 2, Shenzhen International Innovation Valley, Dashi 1st Road, Xili Street, Xili Community, Nanshan District, Shenzhen, 518000, P. R. China Mail: service-gc@tuv.com · Web: www.tuv.com				

Prüfbericht-Nr.: CN25HI90 001
Test report no.:

Page 2 of 22
Seite 2 von 22

Remarks
Anmerkungen

1	<p>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system.</p> <p>Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</p> <p><i>Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben.</i></p> <p><i>Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</i></p>
2	<p>As contractually agreed, this document has been signed digitally only. TÜV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TÜV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged.</p> <p><i>Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben.</i></p>
3	<p>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</p> <p><i>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</i></p>
4	<p>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</p> <p><i>Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.</i></p>

Prüfbericht-Nr.: CN25HI90 001
Test report no.:

Seite 3 von 22
Page 3 of 22

Test Summary

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER

RESULT: Pass

5.1.3 CONDUCTED POWER SPECTRAL DENSITY

RESULT: Pass

5.1.4 99%dB BANDWIDTH

RESULT: Pass

5.1.5 6dB BANDWIDTH

RESULT: Pass

5.1.6 FREQUENCY STABILITY

RESULT: Pass

5.1.7 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHZ BANDWIDTH

RESULT: Pass

5.1.8 RADIATED SPURIOUS EMISSION

RESULT: Pass

5.1.9 CONDUCTED EMISSION ON AC MAINS

RESULT: Pass

Prüfbericht-Nr.: CN25HI90 001
Test report no.:

 Seite 4 von 22
 Page 4 of 22

Contents

1	GENERAL REMARKS	5
1.1	COMPLEMENTARY MATERIALS	5
2	TEST SITES	5
2.1	TEST FACILITIES	5
2.2	LIST OF TEST AND MEASUREMENT INSTRUMENTS.....	6
2.3	TRACEABILITY	7
2.4	CALIBRATION	7
2.5	MEASUREMENT UNCERTAINTY.....	7
2.6	LOCATION OF ORIGINAL DATA.....	7
2.7	STATUS OF FACILITY USED FOR TESTING.....	7
3	GENERAL PRODUCT INFORMATION	8
3.1	PRODUCT FUNCTION AND INTENDED USE.....	8
3.2	RATINGS AND SYSTEM DETAILS	8
3.3	INDEPENDENT OPERATION MODES	9
3.4	NOISE GENERATING AND NOISE SUPPRESSING PARTS.....	9
3.5	SUBMITTED DOCUMENTS.....	9
4	TEST SET-UP AND OPERATION MODES	10
4.1	PRINCIPLE OF CONFIGURATION SELECTION	10
4.2	TEST OPERATION AND TEST SOFTWARE.....	10
4.3	SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT	10
4.4	COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE	10
4.5	TEST SETUP DIAGRAM	11
5	TEST RESULTS	13
5.1	TRANSMITTER REQUIREMENT & TEST SUITES	13
5.1.1	<i>Antenna Requirement</i>	<i>13</i>
5.1.2	<i>Maximum Peak Conducted Output Power.....</i>	<i>14</i>
5.1.3	<i>Conducted Power Spectral Density</i>	<i>15</i>
5.1.4	<i>99%dB Bandwidth</i>	<i>16</i>
5.1.5	<i>6dB Bandwidth</i>	<i>17</i>
5.1.6	<i>Frequency stability</i>	<i>18</i>
5.1.7	<i>Conducted Spurious Emissions Measured in 100 kHz Bandwidth</i>	<i>19</i>
5.1.8	<i>Radiated Spurious Emission</i>	<i>20</i>
5.1.9	<i>Conducted Emission on AC Mains.....</i>	<i>21</i>
6	PHOTOGRAPHS OF THE TEST SET-UP.....	22
7	LIST OF TABLES.....	22

Prüfbericht-Nr.: **CN25HI90 001**
Test report no.:

Seite 5 von 22
Page 5 of 22

1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Photographs of the Test Set-up

Appendix B: Test Results of generic 2.4GHz.

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.

2-3F, 101 & 102, No.2, Nuclear Power Industrial Park, Fuming Community, Fucheng Street, Longhua District, Shenzhen 518000, People's Republic of China

FCC Registration No.: CN1260

IC Registration No.: 25069 and the CAB identifier is CN0078.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radio Spectrum Testing				
Equipment	Manufacturer	Model	Serial No.	Cal. until
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY60241175	25.09.2025
MXG X-Series RF Vector Signal Generator	Keysight	N5182B	MY61250137	25.09.2025
EXG X-Series Microwave Analog Signal Generator	Keysight	N5173B	MY61250141	25.09.2025
DC Power Supply	Keysight	E3642A	MY61276100	25.09.2025
Wireless Connectivity Tester	R&S	CMW270	102505	25.09.2025
Power Control Unit	Tonscend	JS0806-4ADC	N/A	25.09.2025
Automation Control Unit	Tonscend	JS0806-2	21C8060396	25.09.2025
Humid & Temp Programmable Tester	BOST	NTH090-60	19040801	24.02.2026
Cable 1	Calibration frequency range: 9 kHz~1.0 GHz			20.12.2025
Cable 2	Calibration frequency range: 9 kHz~18 GHz			20.12.2025
Cable 3	Calibration frequency range: 1 GHz~40 GHz			20.12.2025
Test Software	Tonscend	JS1120-3	N/A	N/A
Control PC	Lenovo	TianYi510S-071MB	YLX23JMF	N/A
Unwanted Emission Testing				
Equipment	Manufacturer	Model	Serial No.	Cal. until
EMI Test Receiver	R&S	ESR 7	102021	28.09.2025
Signal Analyzer	R&S	FSV 40	101439	28.09.2025
System Controller Interface	R&S	SCI-100	S10010038	N/A
Filterbank	R&S	Wlan	100759	28.09.2025
OSP	R&S	OSP 120	102040	N/A
Pre-amplifier	R&S	SCU08F1	08320031	28.09.2025
Amplifier	R&S	SCU-18F	180070	28.09.2025
Amplifier	R&S	SCU40A	100475	28.09.2025
Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	27.09.2026
Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218717	27.09.2026
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	27.09.2026
Active Loop Antenna	Schwarzbeck	FMZB 1513	302	27.09.2026
Test software	R&S	EMC32 (V10.60.10)	N/A	N/A
Control PC	Dell	OptiPlex 7050	36NV9P2	N/A
3m Semi-Anechoic Chamber	Albatross	SAC-3m	APC17151-SAC	13.09.2027
Above 1G cable #1 i	Calibration frequency range: 9 kHz~6 GHz			20.12.2025
Above 1G cable #2	Calibration frequency range: 1 GHz~18 GHz			20.12.2025
Antenna-Preamplifier 40GHz cable	Calibration frequency range: 1 GHz~40 GHz			20.12.2025
Conducted Emission Testing				
Equipment	Manufacturer	Model	Serial No.	Cal. until
EMI Test Receiver	R&S	ESR3	102680	09.02.2026

Prüfbericht-Nr.: CN25HI90 001
Test report no.:

 Seite 7 von 22
 Page 7 of 22

Artificial Mains Network	R&S	ENV216	102333	22.07.2025
Artificial Mains Network	R&S	ENV216	101445	09.02.2026
LISN ENV216-Receiver cable in SR3	Calibration frequency range: 9 kHz~30 MHz			20.12.2025
EMC32 test software	R&S	EMC32(Ver.10.50.00)	N/A	N/A

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

Parameter	Uncertainty (k=2)
Occupied Channel Bandwidth	± 2.08 %
RF output power, conducted	± 0.99 dB
RF power density, conducted	± 0.99 dB
Unwanted Emissions, conducted	± 0.89 dB
All emissions, radiated	± 4.17 dB

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at 2-3F, 101 & 102, No.2, Nuclear Power Industrial Park, Fuming Community, Fucheng Street, Longhua District, Shenzhen 518000, People's Republic of China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

Prüfbericht-Nr.: CN25HI90 001
Test report no.:

 Seite 8 von 22
 Page 8 of 22

3 General Product Information

3.1 Product Function and Intended Use

The EUT is a wireless subwoofer, this subwoofer supports generic 2.4GHz technology.

For details refer to the User Manual and Circuit Diagram.

3.2 Ratings and System Details

Table 2: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment	Wireless Subwoofer
Type Designation	CINEMA SB595 SUB
Trademark	JBL
FCC ID	APISB595SUB
IC	6132A-SB595SUB
HVIN	CINEMA SB595 SUB
Extreme Temperature Range	0°C to +45°C
Operating Voltage	Input: AC 100-240V, 50/60Hz, 35W
Technical Specification of generic 2.4GHz	
Operating Frequency band	2400 ~ 2483.5 MHz
Operating Channel	2402 ~ 2480 MHz
Channel Number	40 channels
Channel separation	2MHz
Data rate	1Mbps, 2Mbps
Modulation	GFSK
Antenna Type	FPC antenna
Antenna Gain	4.53 dBi (Provided by the Client)

Table 3: RF Channel and Frequency of generic 2.4GHz

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
00	2402.00	10	2422.00	20	2442.00	30	2462.00
01	2404.00	11	2424.00	21	2444.00	31	2464.00
02	2406.00	12	2426.00	22	2446.00	32	2466.00
03	2408.00	13	2428.00	23	2448.00	33	2468.00
04	2410.00	14	2430.00	24	2450.00	34	2470.00
05	2412.00	15	2432.00	25	2452.00	35	2472.00
06	2414.00	16	2434.00	26	2454.00	36	2474.00
07	2416.00	17	2436.00	27	2456.00	37	2476.00
08	2418.00	18	2438.00	28	2458.00	38	2478.00
09	2420.00	19	2440.00	29	2460.00	39	2480.00

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, generic 2.4GHz transmitting mode
 - 1. Low channel
 - 2. Middle channel
 - 3. High channel
- B. On, Operating mode
- C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- Application Form
- Block Diagram
- FCC/IC Label and Location Info
- Operation Description
- Photo Document
- Schematics
- User Manual

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.10: 2013.

4.3 Special Accessories and Auxiliary Equipment

Table 4: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N or Rating
Laptop	Lenovo	T480	PF-16A6N8

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 30MHz)

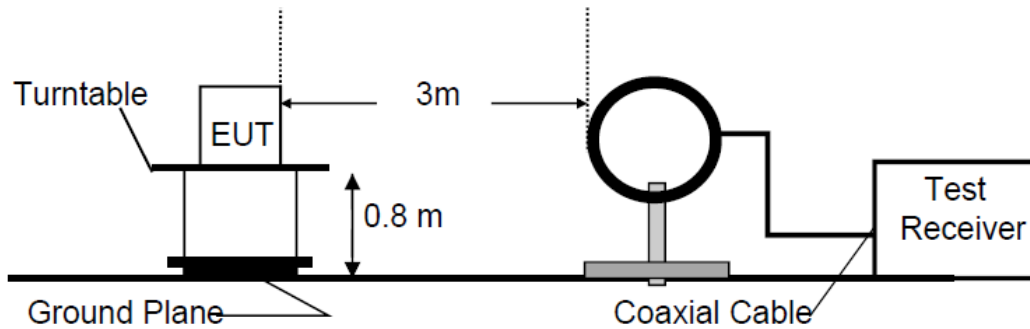


Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

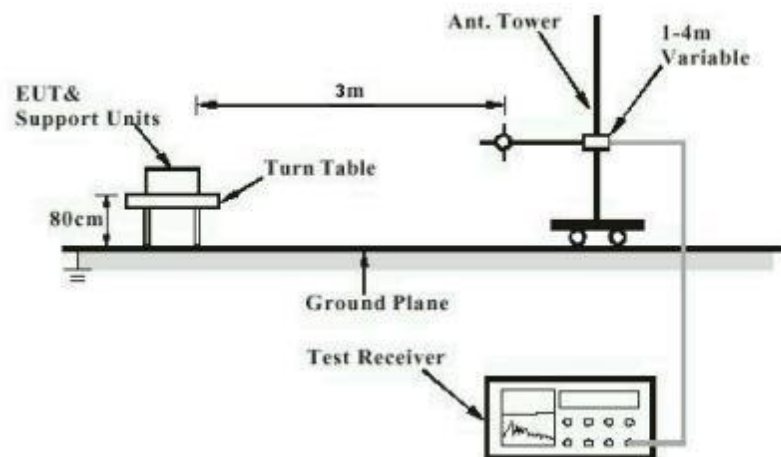


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

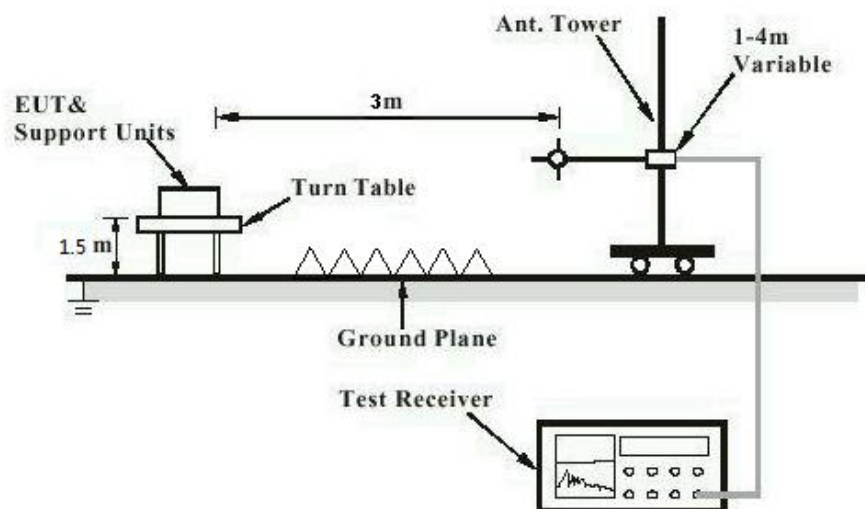


Diagram of Measurement Configuration for Conducted Transmitter Measurement

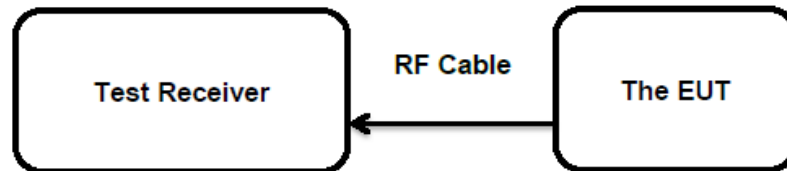
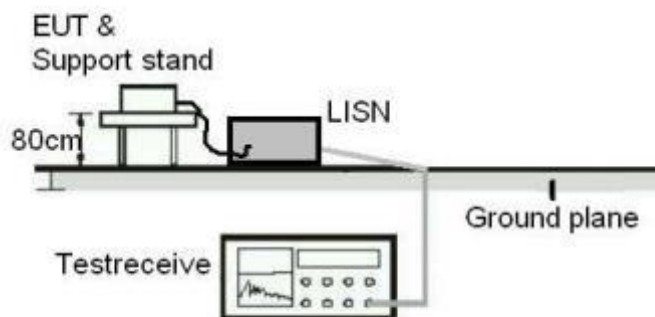


Diagram of Measurement Configuration for Mains Conduction Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT:

Pass

Test Specification

Test standard

: FCC Part 15.247(b)(4) and Part 15.203
: RSS-Gen Clause 6.7

Limit

: the use of antennas with directional gains that do not
: exceed 6 dBi

According to the manufacturer declared, the EUT has one FPC antenna, the directional gain of antennas is 4.53 dBi for generic 2.4GHz, and the antenna connector is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

Prüfbericht-Nr.: CN25HI90 001
Test report no.:

 Seite 14 von 22
 Page 14 of 22

5.1.2 Maximum Peak Conducted Output Power

RESULT:
Pass
Test Specification

Test standard : FCC Part 15.247(b)(3)
 : RSS-247 Clause 5.4(d)
 Basic standard : ANSI C63.10: 2013
 Limits : < 1 Watt (Maximum Conducted Peak Power)
 : e.i.r.p. <4W
 Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-05-29 to 2025-06-09
 Input voltage : AC 120V, 60Hz
 Operation mode : A
 Test channel : Low / Middle / High
 Ambient temperature : 24.8 °C
 Relative humidity : 55 %
 Atmospheric pressure : 101 kPa

For details refer to following test result.

Table 5: Test Result of Maximum Peak Conducted Output Power

Data Rate	Test Channel (MHz)	Measured Peak Power		Limit (W)	
		(dBm)	(W)		
1 Mbps	2402	2.86	0.00193	< 1.0	
	2440	2.89	0.00195		
	2480	3.25	0.00211		
2 Mbps	2402	2.81	0.00191		
	2440	2.83	0.00192		
	2480	3.25	0.00211		
Maximum Measured Value		3.25	0.00211		

Note: The cable loss is taken into account in results and the maximum e.i.r.p. is 7.78 dBm less than 4W (36 dBm).

Prüfbericht-Nr.: **CN25HI90 001**
Test report no.:

 Seite 15 von 22
 Page 15 of 22

5.1.3 Conducted Power Spectral Density

RESULT:
Pass
Test Specification

Test standard : FCC Part 15.247(e)
 : RSS-247 Clause 5.2(b)
 Basic standard : ANSI C63.10: 2013
 Limits : 8 dBm / 3kHz
 Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-05-29 to 2025-06-09
 Input voltage : AC 120V, 60Hz
 Operation mode : A
 Test channel : Low / Middle / High
 Ambient temperature : 24.8 °C
 Relative humidity : 55 %
 Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

Table 6: Test Result of Conducted Power Spectral Density

Data Rate	Channel Frequency (MHz)	Measured Conducted Power Spectral Density	Limit
		(dBm / 3kHz)	
1 Mbps	2402	-12.67	8 dBm / 3kHz
	2440	-12.52	
	2480	-12.26	
2 Mbps	2402	-15.84	8 dBm / 3kHz
	2440	-15.57	
	2480	-15.40	

Prüfbericht-Nr.: CN25HI90 001
Test report no.:

 Seite 16 von 22
 Page 16 of 22

5.1.4 99%dB Bandwidth

RESULT:
Pass
Test Specification

 Test standard : RSS-Gen clause 6.7
 Basic standard : ANSI C63.10: 2013
 Kind of test site : Shielded Room

Test Setup

 Date of testing : 2025-05-29 to 2025-06-09
 Input voltage : AC 120V, 60Hz
 Operation mode : A
 Test channel : Low / Middle / High
 Ambient temperature : 24.8 °C
 Relative humidity : 55 %
 Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

Table 7: Test Result of 99% Bandwidth

Data Rate	Channel Frequency (MHz)	Measured 99% Bandwidth	Limit
		(MHz)	
1 Mbps	2402	1.0242	/
	2440	1.0155	
	2480	1.0197	
2 Mbps	2402	2.0120	/
	2440	2.0120	
	2480	2.0204	

Prüfbericht-Nr.: CN25HI90 001
Test report no.:

 Seite 17 von 22
 Page 17 of 22

5.1.5 6dB Bandwidth

RESULT:
Pass
Test Specification

 Test standard : FCC Part 15.247(a)(2)
 : RSS-247 Clause 5.2(a)
 Basic standard : ANSI C63.10: 2013
 Kind of test site : Shielded Room

Test Setup

 Date of testing : 2025-05-29 to 2025-06-09
 Input voltage : AC 120V, 60Hz
 Operation mode : A
 Test channel : Low / Middle / High
 Ambient temperature : 24.8 °C
 Relative humidity : 55 %
 Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

Table 8: Test Result of 6dB Bandwidth

Data Rate	Channel Frequency (MHz)	Measured 6dB Bandwidth	Limit
		(MHz)	
1 Mbps	2402	0.652	>500kHz
	2440	0.680	
	2480	0.656	
2 Mbps	2402	1.148	>500kHz
	2440	1.148	
	2480	1.128	

Prüfbericht-Nr.: **CN25HI90 001**
Test report no.:

Seite 18 von 22
Page 18 of 22

5.1.6 Frequency stability

RESULT:

Pass

Test Specification

Test standard : RSS-247 Clause 8.11
Basic standard : ANSI C63.10: 2013
Limits : within at least the central 80% of its permitted operating frequency band (2400-2483.5MHz)
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-05-29 to 2025-06-09
Input voltage : AC 120V, 60Hz
Operation mode : B
Ambient temperature : 24.8 °C
Relative humidity : 55 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B .

Prüfbericht-Nr.: **CN25HI90 001**
Test report no.:Seite 19 von 22
Page 19 of 22

5.1.7 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

RESULT:

Pass

Test Specification

Test standard	:	FCC Part 15.247(d) RSS-247 Clause 5.5
Basic standard	:	ANSI C63.10: 2013
Limits	:	20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power); In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a)
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2025-05-29 to 2025-06-09
Input voltage	:	AC 120V, 60Hz
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	24.8 °C
Relative humidity	:	55 %
Atmospheric pressure	:	101 kPa

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to test plots, and compliance is achieved as well.

For the measurement records, refer to the appendix B.

Prüfbericht-Nr.: **CN25HI90 001**
Test report no.:Seite 20 von 22
Page 20 of 22

5.1.8 Radiated Spurious Emission

RESULT:**Pass****Test Specification**

Test standard	:	FCC Part 15.247(d) & FCC Part 15.205 RSS-247 Clause 3.3 & 5.5
Basic standard	:	ANSI C63.10: 2013
Limits	:	Refer to 15.209(a) of FCC part 15.247(d) RSS-Gen Table 4 & Table 5
Kind of test site	:	3m Semi-anechoic Chamber

Test Setup

Date of testing	:	2025-05-29 to 2025-06-09
Input voltage	:	AC 120V, 60Hz
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	Refer to test result
Relative humidity	:	Refer to test result
Atmospheric pressure	:	101 kPa

Remark:

Testing was carried out within frequency range 9kHz to the tenth harmonics. Only the worst case spurious emissions configuration of the each mode were reported.

For the measurement records, refer to the appendix B.

Prüfbericht-Nr.: **CN25HI90 001**
Test report no.:

Seite 21 von 22
Page 21 of 22

5.1.9 Conducted Emission on AC Mains

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.207(a)
RSS-Gen Clause 8.8
Basic standard : ANSI C63.10: 2013
Frequency range : 0.15 – 30MHz
Limits : FCC Part 15.207(a)
RSS-Gen Table 4
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-05-29 to 2025-06-09
Input voltage : AC 120V, 60Hz
Operation mode : B
Earthing : Not connected
Ambient temperature : 25.0 °C
Relative humidity : 51.2 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix A.

7 List of Tables

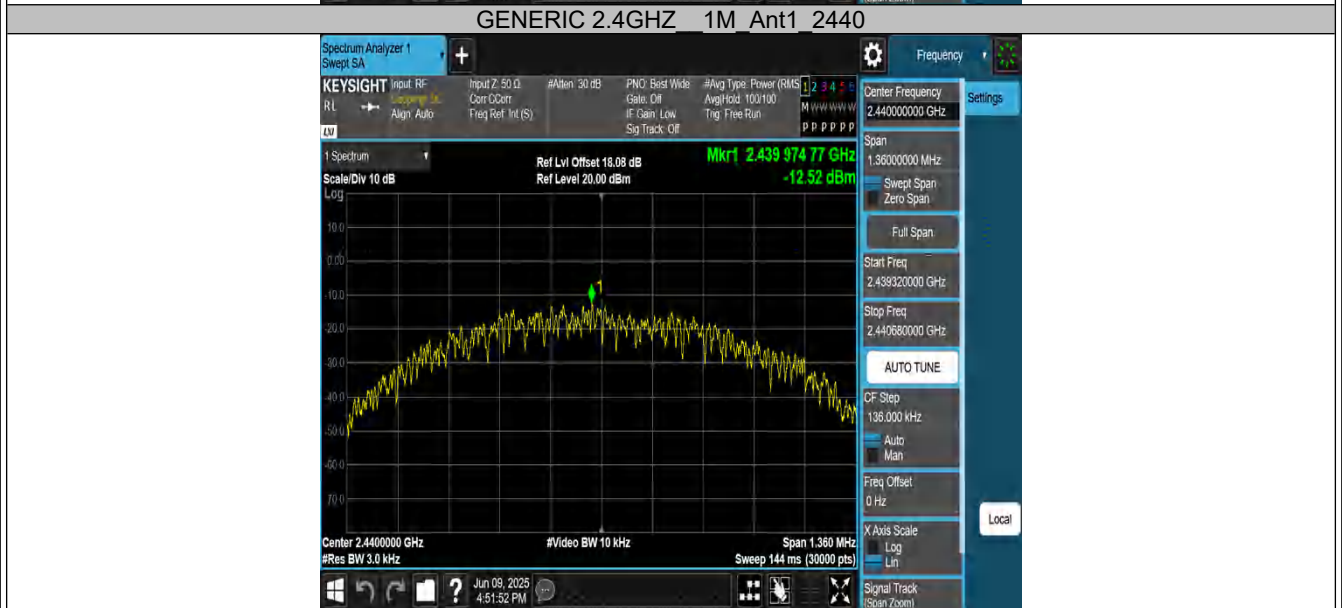
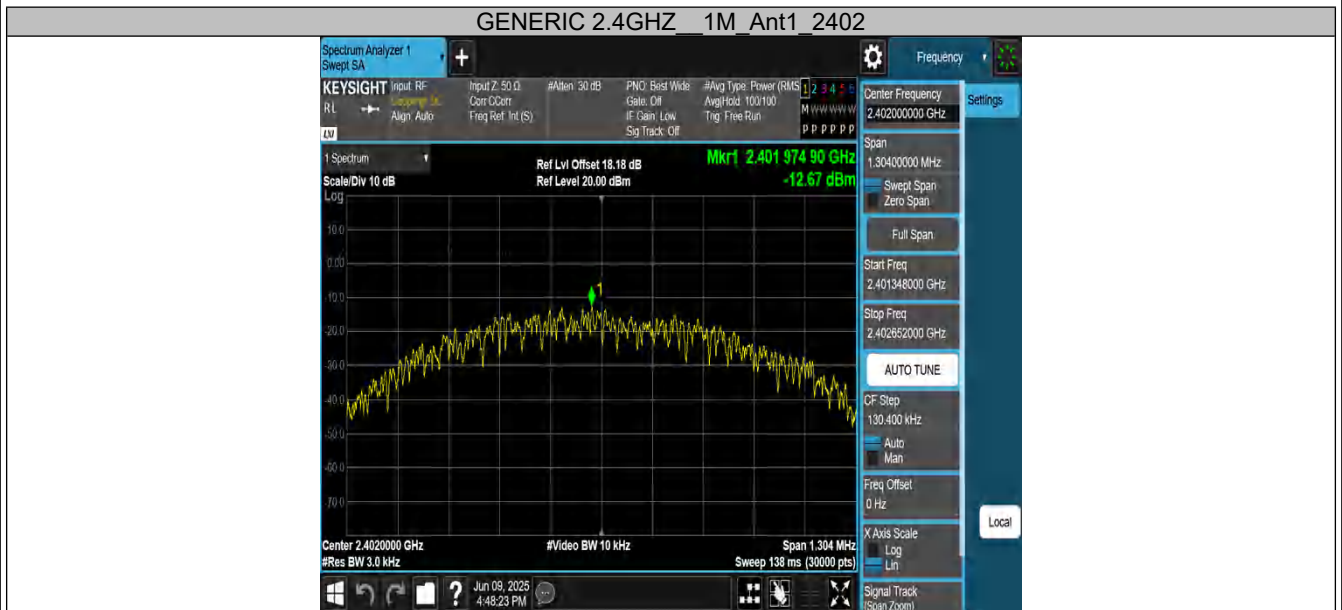
Table 1: List of Test and Measurement Equipment.....	6
Table 2: Technical Specification of EUT	8
Table 3: RF Channel and Frequency of generic 2.4GHz	8
Table 4: List of Accessories and Auxiliary Equipment.....	10
Table 5: Test Result of Maximum Peak Conducted Output Power.....	14
Table 6: Test Result of Conducted Power Spectral Density	15
Table 7: Test Result of 99% Bandwidth	16
Table 8: Test Result of 6dB Bandwidth.....	17

Appendix B: Test Results of generic 2.4GHz

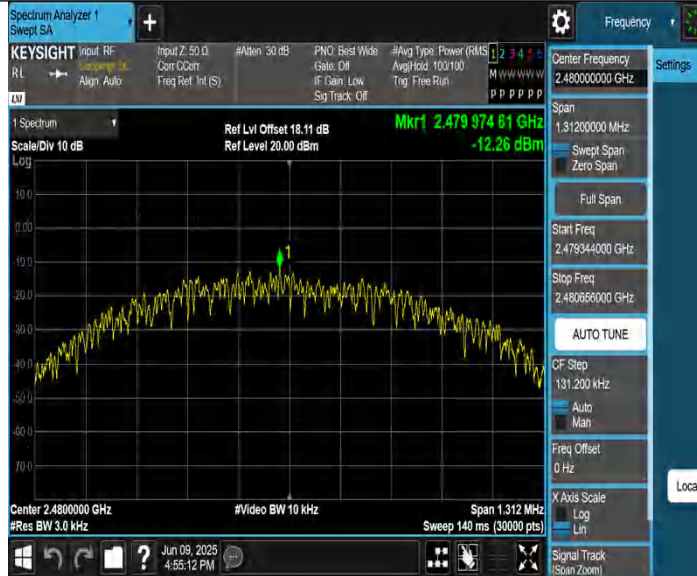
APPENDIX B: TEST RESULTS OF GENERIC 2.4GHZ	1
APPENDIX B.1: TEST RESULTS OF CONDUCTED POWER SPECTRAL DENSITY	2
APPENDIX B.2: TEST RESULTS OF 6DB BANDWIDTH	5
APPENDIX B.3: TEST RESULTS OF 99% BANDWIDTH	8
APPENDIX B.4: TEST RESULTS OF FREQUENCY STABILITY	11
APPENDIX B.5: TEST RESULTS OF CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHZ BANDWIDTH	13
<i>Conducted Spurious Emission</i>	13
<i>Band edge measurements</i>	19
APPENDIX B.6: TEST RESULTS OF RADIATED SPURIOUS EMISSIONS	22
30 MHz - 1GHz.....	22
1GHz - 18GHz	24
APPENDIX B.7: TEST RESULTS OF RADIATED EMISSIONS IN RESTRICTED BANDS	36
APPENDIX B.8: TEST RESULTS OF CONDUCTED EMISSIONS	44

Appendix B.1: Test Results of Conducted Power Spectral Density

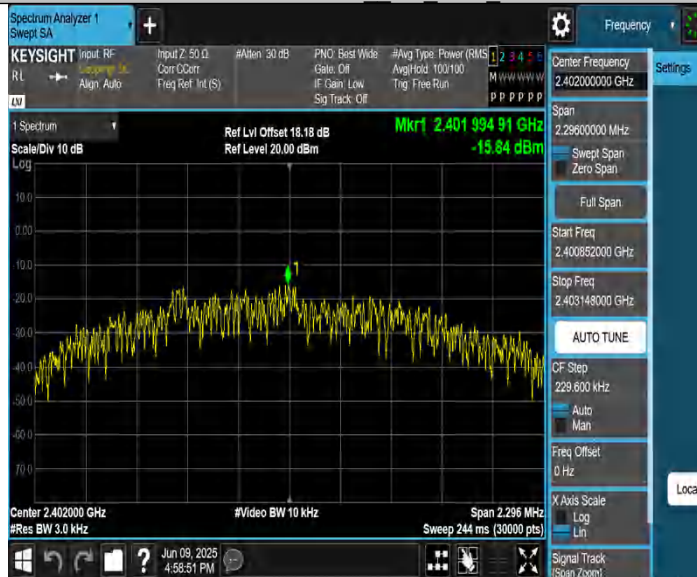
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
GENERIC 2.4GHZ__1M	Ant1	2402	-12.67	≤8.00	PASS
		2440	-12.52	≤8.00	PASS
		2480	-12.26	≤8.00	PASS
GENERIC 2.4GHZ__2M	Ant1	2402	-15.84	≤8.00	PASS
		2440	-15.57	≤8.00	PASS
		2480	-15.40	≤8.00	PASS



GENERIC 2.4GHZ 1M Ant1 2480

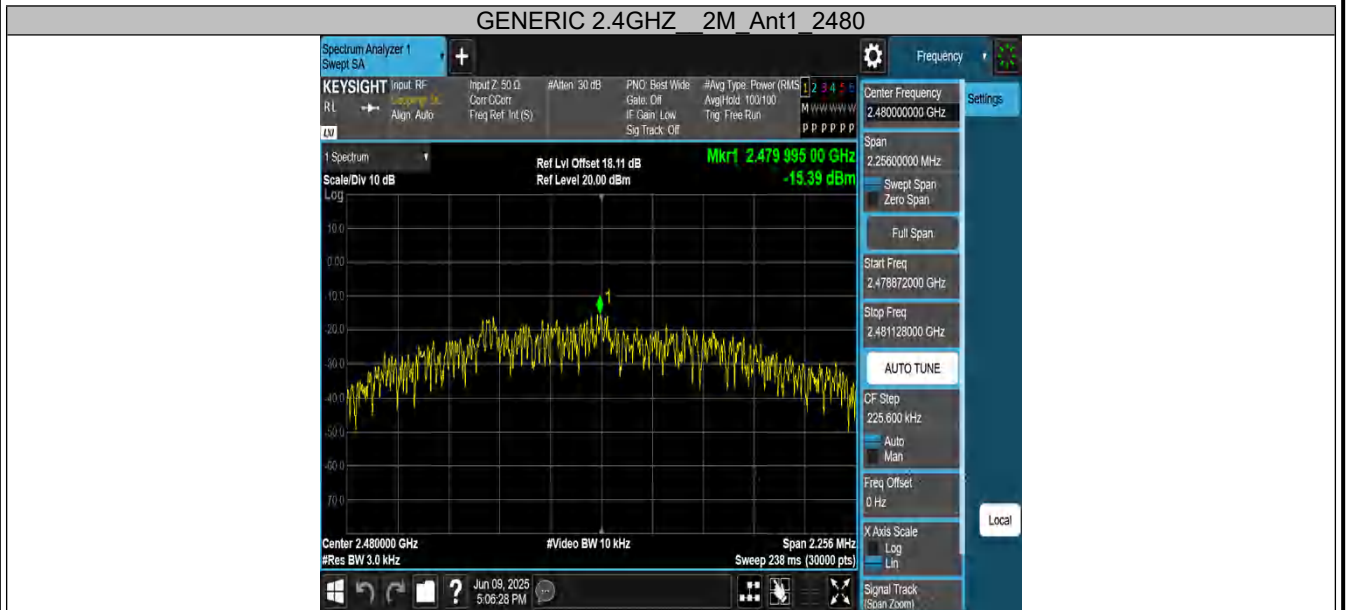


GENERIC 2.4GHZ 2M Ant1 2402



GENERIC 2.4GHZ 2M Ant1 2440





Appendix B.2: Test Results of 6dB Bandwidth

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
GENERIC 2.4GHZ__1M	Ant1	2402	0.652	2401.672	2402.324	0.5	PASS
		2440	0.680	2439.668	2440.348	0.5	PASS
		2480	0.656	2479.672	2480.328	0.5	PASS
GENERIC 2.4GHZ__2M	Ant1	2402	1.148	2401.416	2402.564	0.5	PASS
		2440	1.148	2439.424	2440.572	0.5	PASS
		2480	1.128	2479.428	2480.556	0.5	PASS

GENERIC 2.4GHZ 1M Ant1 2402



GENERIC 2.4GHZ 1M Ant1 2440



GENERIC 2.4GHZ 1M Ant1 2480



GENERIC 2.4GHZ 2M Ant1 2402



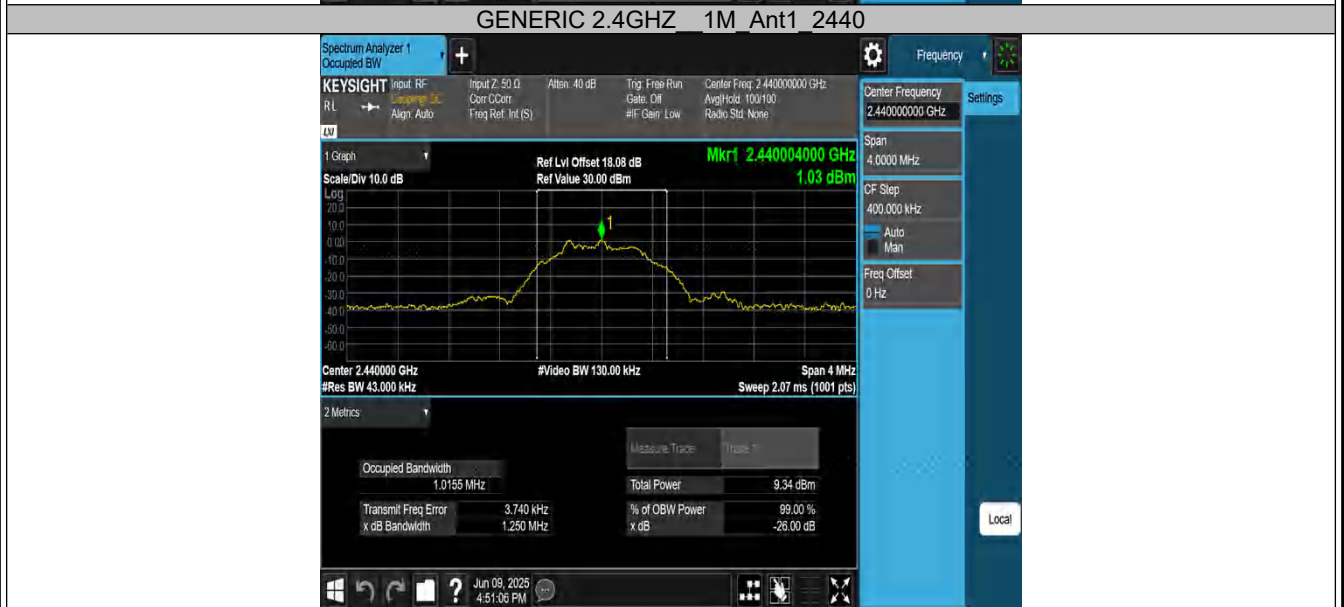
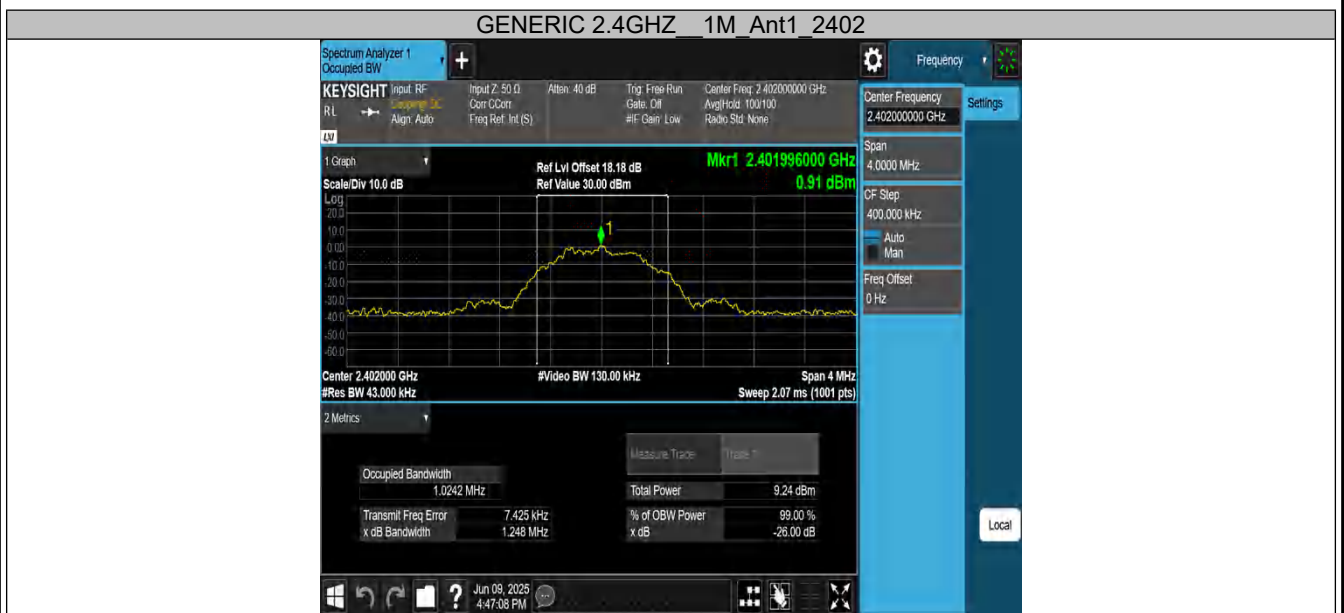
GENERIC 2.4GHZ 2M Ant1 2440

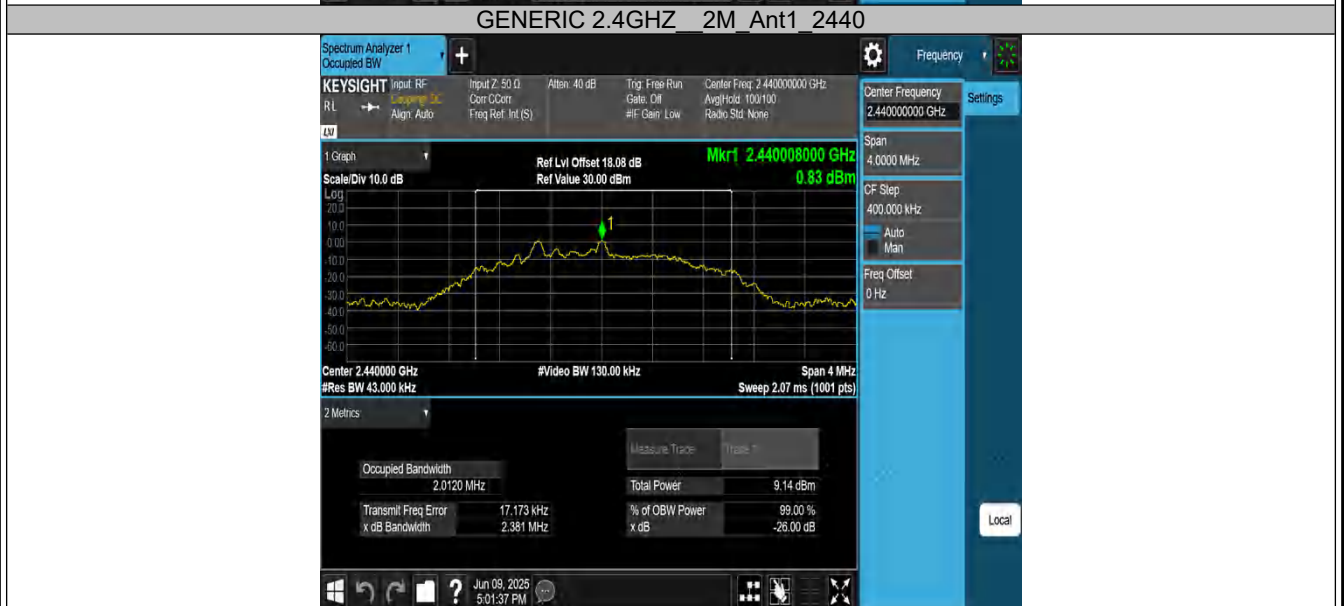
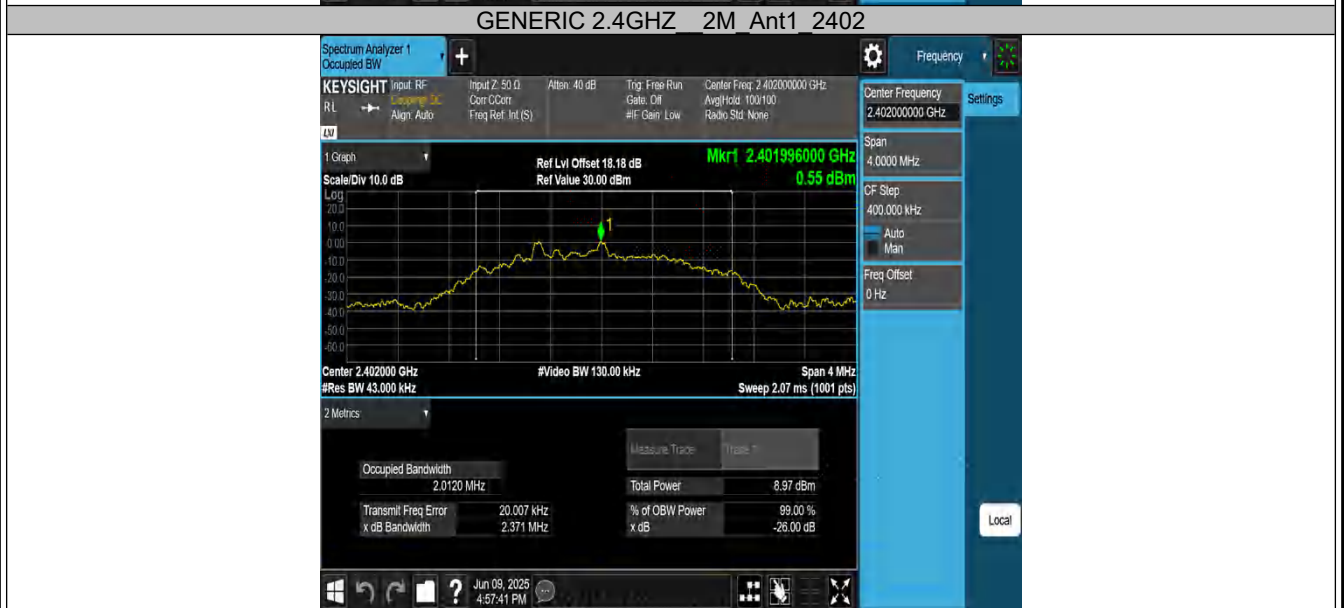
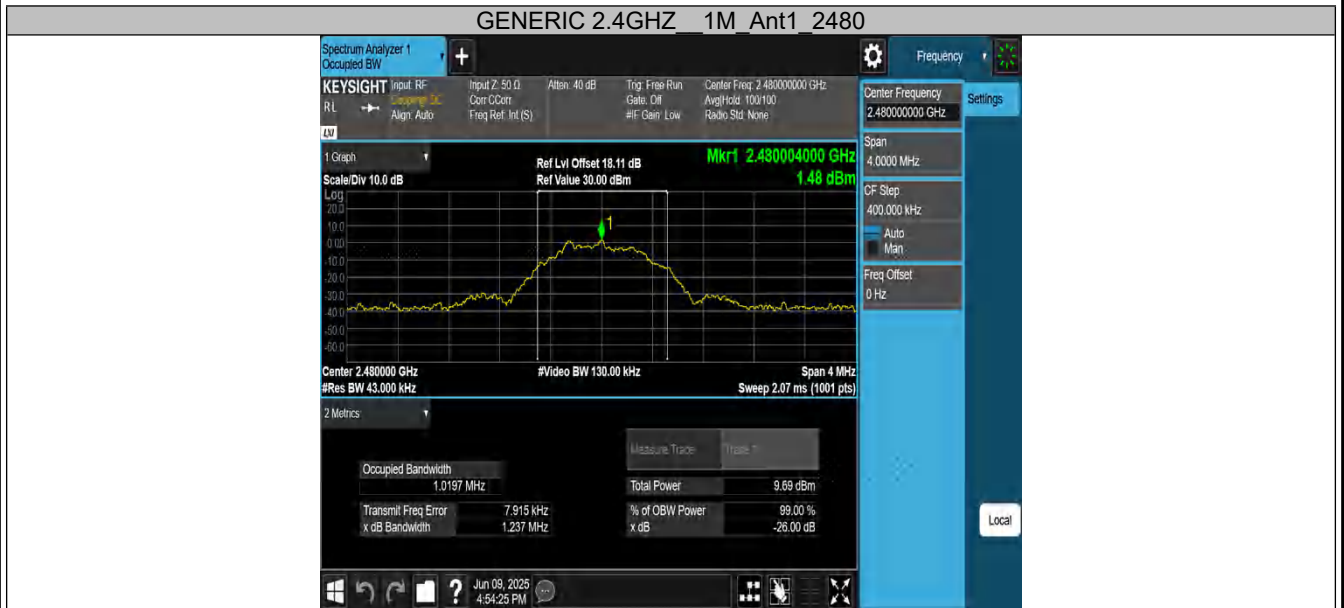


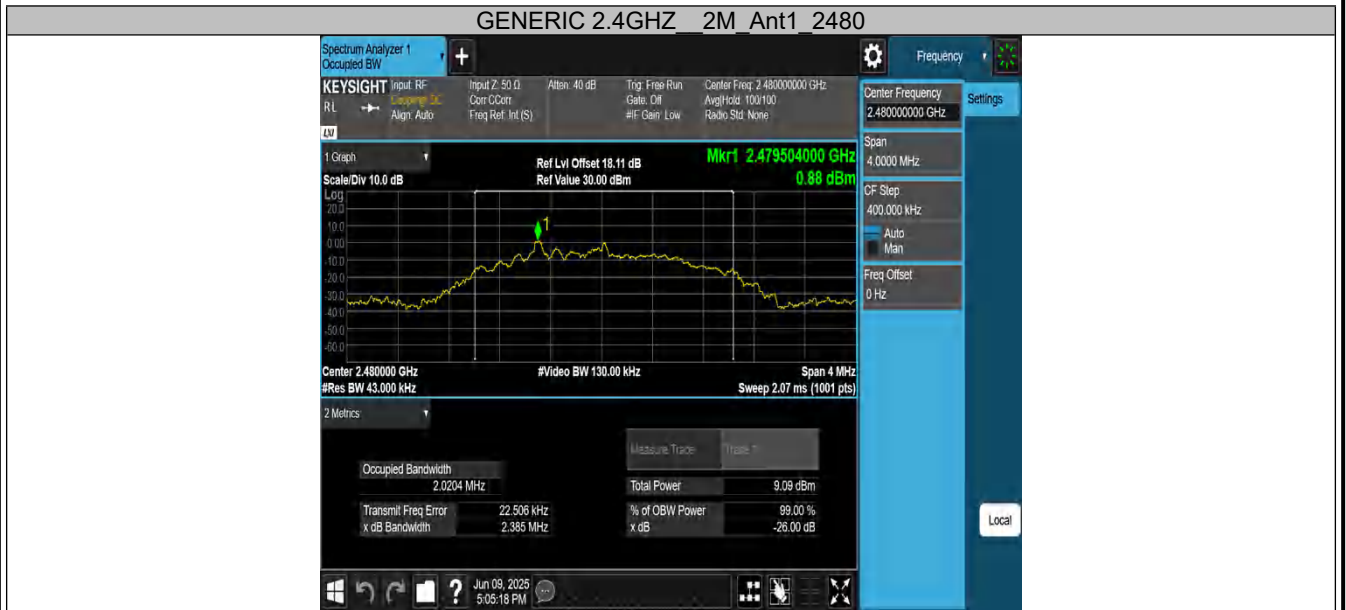


Appendix B.3: Test Results of 99% Bandwidth

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
GENERIC 2.4GHZ__1M	Ant1	2402	1.0242	2401.4953	2402.5195	---	---
		2440	1.0155	2439.4960	2440.5115	---	---
		2480	1.0197	2479.4981	2480.5178	---	---
GENERIC 2.4GHZ__2M	Ant1	2402	2.0120	2401.0140	2403.0260	---	---
		2440	2.0120	2439.0112	2441.0232	---	---
		2480	2.0204	2479.0123	2481.0327	---	---







Appendix B.4: Test Results of Frequency stability

Test Channel (MHz)	2402
--------------------	------

Test result of frequency tolerance of voltage variation

Voltage	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
AC 108V	2401.988	-12	-5.00	10
AC 120V	2401.986	-14	-5.83	
AC 132V	2401.987	-13	-5.41	

Test result of frequency tolerance of temperature variation

Temperature (°C)	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
-30	2401.985	-15	-6.24	10
-20	2401.987	-13	-5.41	
-10	2401.987	-13	-5.41	
0	2401.989	-11	-4.58	
10	2401.991	-9	-3.75	
20	2401.988	-12	-5.00	
30	2401.986	-14	-5.83	
40	2401.987	-13	-5.41	
50	2401.985	-15	-6.24	
55	2401.985	-15	-6.24	

Test Channel (MHz)	2440
--------------------	------

Test result of frequency tolerance of voltage variation

Voltage	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
AC 108V	2439.985	-15	-6.15	10
AC 120V	2439.984	-16	-6.56	
AC 132V	2439.983	-17	-6.97	

Test result of frequency tolerance of temperature variation

Temperature (°C)	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
-30	2439.990	-10	-4.10	10
-20	2439.986	-14	-5.74	
-10	2439.985	-15	-6.15	
0	2439.987	-13	-5.33	
10	2439.986	-14	-5.74	
20	2439.987	-13	-5.33	
30	2439.989	-11	-4.51	
40	2439.988	-12	-4.92	
50	2439.990	-10	-4.10	
55	2439.990	-10	-4.10	

Test Channel (MHz)	2480
--------------------	------

Test result of frequency tolerance of voltage variation

Voltage	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
AC 108V	2479.988	-12	-4.84	10
AC 120V	2479.985	-15	-6.05	
AC 132V	2479.987	-13	-5.24	

Test result of frequency tolerance of temperature variation

Temperature (°C)	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
-30	2479.985	-15	-6.05	10
-20	2479.985	-15	-6.05	
-10	2479.983	-17	-6.85	
0	2479.984	-16	-6.45	
10	2479.984	-16	-6.45	
20	2479.985	-15	-6.05	
30	2479.994	-6	-2.42	
40	2479.991	-9	-3.63	
50	2479.993	-7	-2.82	
55	2479.993	-7	-2.82	

Appendix B.5: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

Conducted Spurious Emission

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
GENERIC 2.4GHZ__1M	Ant1	2402	Reference	2.20	2.20	---	PASS
			30~1000	2.20	-41.71	≤-17.8	PASS
			1000~26500	2.20	-31.59	≤-17.8	PASS
		2440	Reference	2.24	2.24	---	PASS
			30~1000	2.24	-42.54	≤-17.76	PASS
			1000~26500	2.24	-32.17	≤-17.76	PASS
		2480	Reference	2.54	2.54	---	PASS
			30~1000	2.54	-41.99	≤-17.46	PASS
			1000~26500	2.54	-32.76	≤-17.46	PASS
GENERIC 2.4GHZ__2M	Ant1	2402	Reference	2.14	2.14	---	PASS
			30~1000	2.14	-41.58	≤-17.86	PASS
			1000~26500	2.14	-32.81	≤-17.86	PASS
		2440	Reference	2.28	2.28	---	PASS
			30~1000	2.28	-41.08	≤-17.72	PASS
			1000~26500	2.28	-32.51	≤-17.72	PASS
		2480	Reference	2.50	2.50	---	PASS
			30~1000	2.50	-41.17	≤-17.5	PASS
			1000~26500	2.50	-31.76	≤-17.5	PASS



GENERIC 2.4GHZ 1M Ant1 2402 30~1000



GENERIC 2.4GHZ 1M Ant1 2402 1000~26500



GENERIC 2.4GHZ 1M Ant1 2440 0~Reference



GENERIC 2.4GHZ 1M Ant1 2440 30~1000



GENERIC 2.4GHZ 1M Ant1 2440 1000~26500



GENERIC 2.4GHZ 1M Ant1 2480 0~Reference



GENERIC 2.4GHZ 1M Ant1 2480 30~1000



GENERIC 2.4GHZ 1M Ant1 2480 1000~26500



GENERIC 2.4GHZ 2M Ant1 2402 0~Reference



GENERIC 2.4GHZ 2M Ant1 2402 30~1000



GENERIC 2.4GHZ 2M Ant1 2402 1000~26500



GENERIC 2.4GHZ 2M Ant1 2440 0~Reference



GENERIC 2.4GHZ 2M Ant1 2440 30~1000



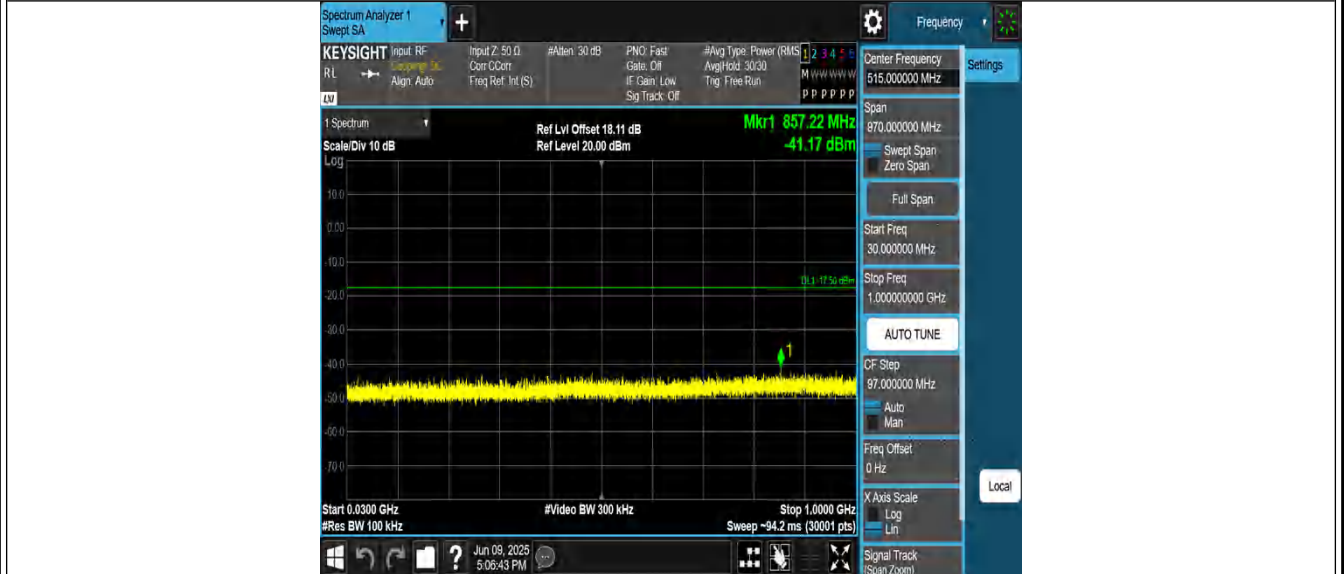
GENERIC 2.4GHZ 2M Ant1 2440 1000~26500



GENERIC 2.4GHZ 2M Ant1 2480 0~Reference



GENERIC 2.4GHZ 2M Ant1 2480 30~1000



GENERIC 2.4GHZ 2M Ant1 2480 1000~26500



Band edge measurements

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
GENERIC 2.4GHZ_1M	Ant1	Low	2402	2.15	-44.19	≤-17.85	PASS
		High	2480	2.36	-44.14	≤-17.64	PASS
GENERIC 2.4GHZ_2M	Ant1	Low	2402	1.72	-31.93	≤-18.28	PASS
		High	2480	2.49	-45.39	≤-17.51	PASS

GENERIC 2.4GHZ 1M Ant1 Low 2402



GENERIC 2.4GHZ 1M Ant1 High 2480



GENERIC 2.4GHZ 2M Ant1 Low 2402



GENERIC 2.4GHZ 2M Ant1 High 2480



Appendix B.6: Test Results of Radiated Spurious Emissions

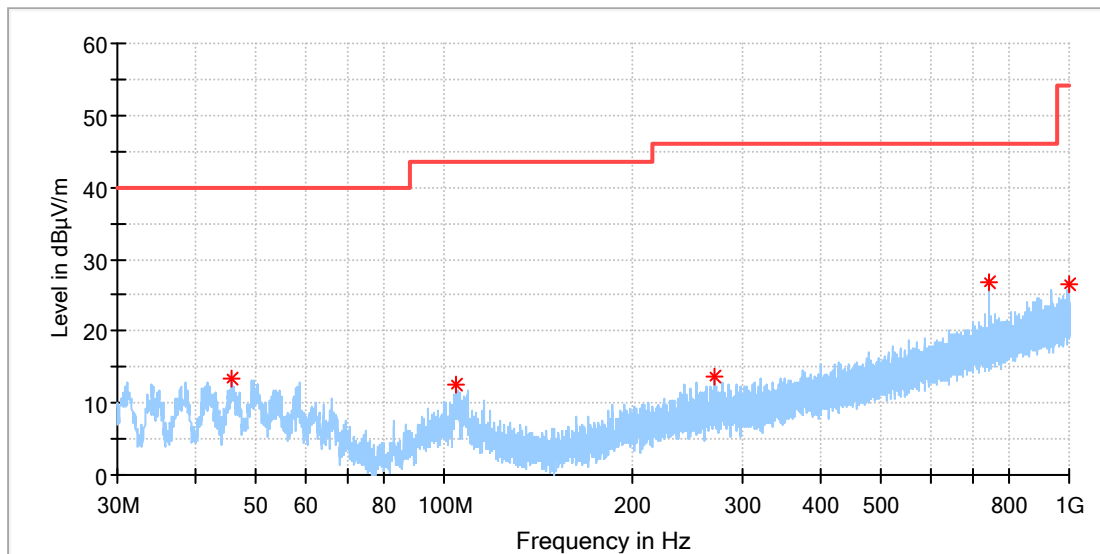
Note:

- 1) This testing was carried out on different modulations, but only the worst case was presented in this report.
- 2) Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

30 MHz - 1GHz

EUT Information

EUT Name:	Wireless Subwoofer
Model:	CINEMA SB595 SUB
Test Mode:	GENERIC 2.4GHZ_ 1M_Middle channel
Order No/Sample No:	168542112/A003941723-002
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

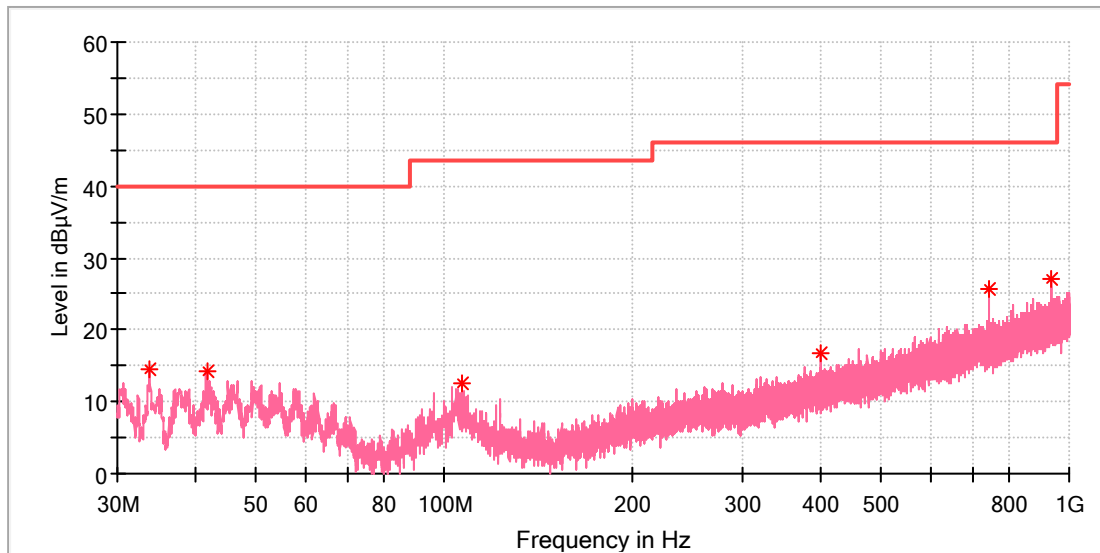


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
45.631923	13.27	40.00	26.73	100.0	H	257.0	-18.8
104.652692	12.43	43.50	31.07	100.0	H	223.0	-18.9
270.970385	13.54	46.00	32.46	100.0	H	93.0	-16.9
742.465000	26.70	46.00	19.30	100.0	H	17.0	-7.2
999.962692	26.55	54.00	27.45	100.0	H	115.0	-3.4

EUT Information

EUT Name:	Wireless Subwoofer
Model:	CINEMA SB595 SUB
Test Mode:	GENERIC 2.4GHZ_ 1M_Middle channel
Order No/Sample No:	168542112/A003941723-002
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

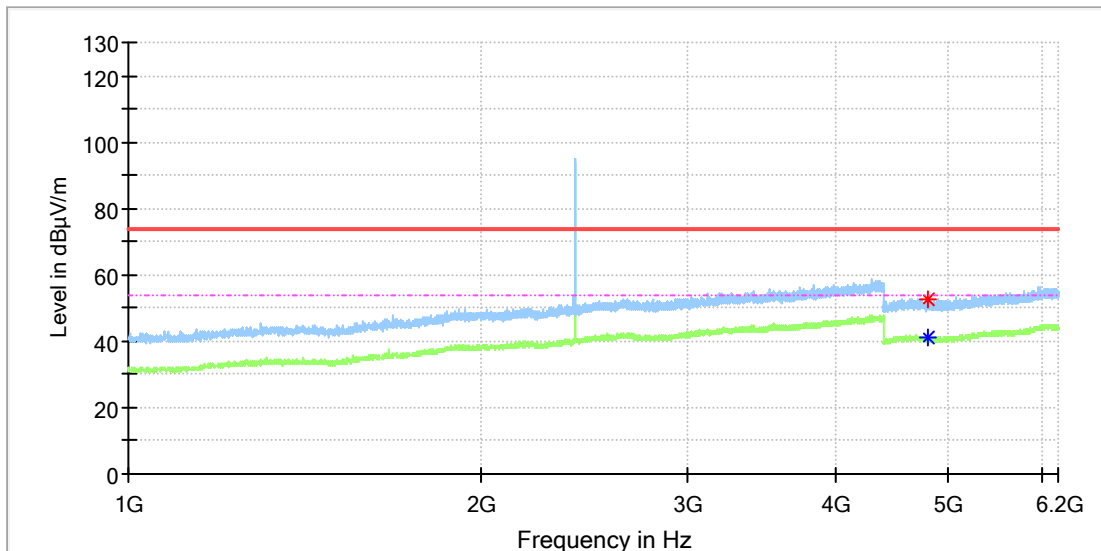
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
33.768077	14.49	40.00	25.51	100.0	V	249.0	-22.4
41.677308	14.36	40.00	25.64	100.0	V	259.0	-19.8
106.741923	12.47	43.50	31.03	100.0	V	0.0	-19.0
400.689231	16.66	46.00	29.34	100.0	V	0.0	-13.8
742.502308	25.70	46.00	20.30	100.0	V	128.0	-7.2
937.546923	26.98	46.00	19.02	100.0	V	268.0	-4.4

1GHz - 18GHz

Note: The highest waveform in the figure is generic 2.4GHz Fundamental.

EUT Information

EUT Name:	Wireless Subwoofer
Model:	CINEMA SB595 SUB
Test Mode:	GENERIC 2.4GHZ_ 1M_Low channel
Order No/Sample No:	168542112/A003941723-002
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

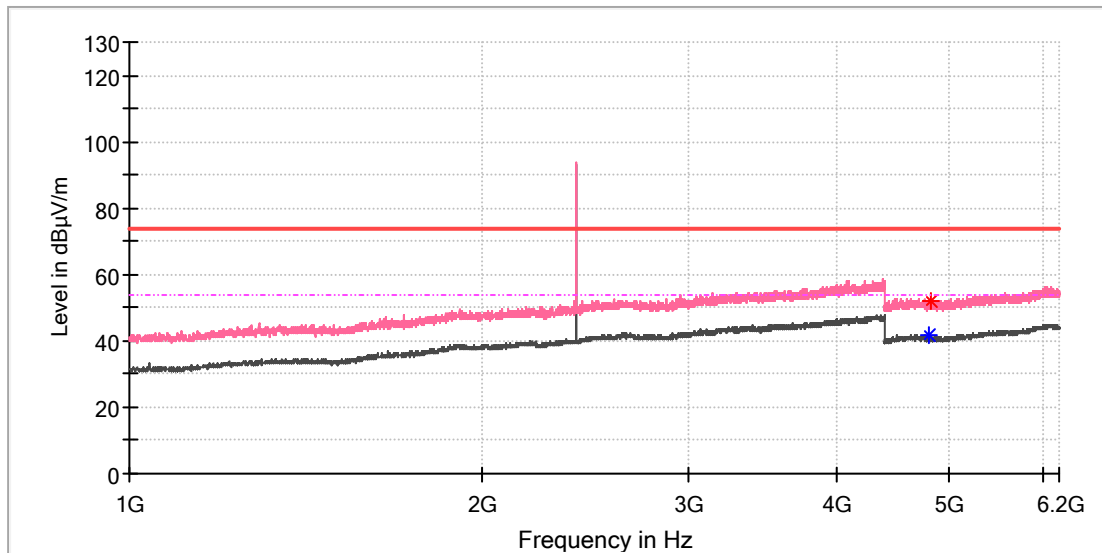


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4802.000000	52.86	---	74.00	21.14	150.0	H	291.0	13.3
4804.500000	---	41.36	54.00	12.64	150.0	H	268.0	13.3

EUT Information

EUT Name:	Wireless Subwoofer
Model:	CINEMA SB595 SUB
Test Mode:	GENERIC 2.4GHZ_ 1M_Low channel
Order No/Sample No:	168542112/A003941723-002
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

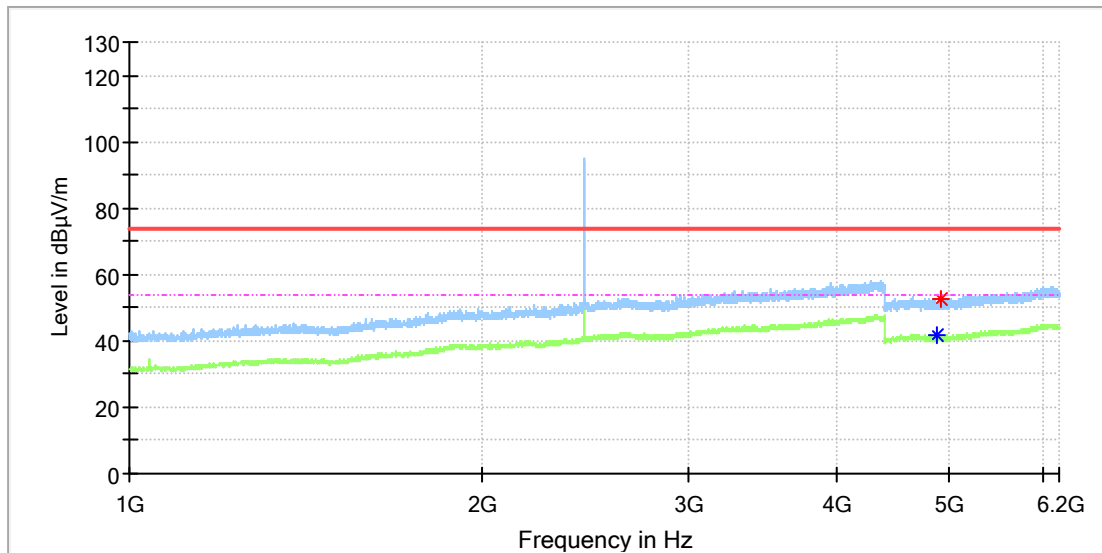


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4803.500000	---	41.51	54.00	12.49	150.0	V	82.0	13.3
4820.500000	51.95	---	74.00	22.05	150.0	V	228.0	13.3

EUT Information

EUT Name:	Wireless Subwoofer
Model:	CINEMA SB595 SUB
Test Mode:	GENERIC 2.4GHZ_ 1M_Mid channel
Order No/Sample No:	168542112/A003941723-002
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

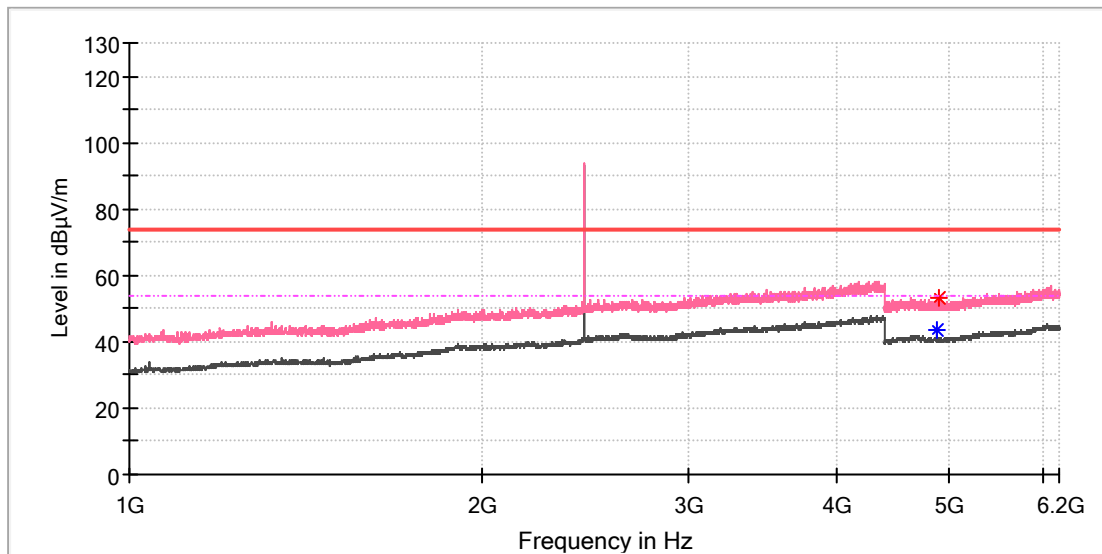


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4880.000000	---	41.72	54.00	12.28	150.0	H	256.0	13.3
4913.500000	52.52	---	74.00	21.48	150.0	H	9.0	13.3

EUT Information

EUT Name: Wireless Subwoofer
 Model: CINEMA SB595 SUB
 Test Mode: GENERIC 2.4GHZ_ 1M_Mid channel
 Order No/Sample No: 168542112/A003941723-002
 Test Voltage:: AC 120V/60Hz
 Remark: Temp 23 Humi:56%
 Test Standard: FCC 15.247
 Tested By: Kei Zhang
 Reviewed By: Terry Yin

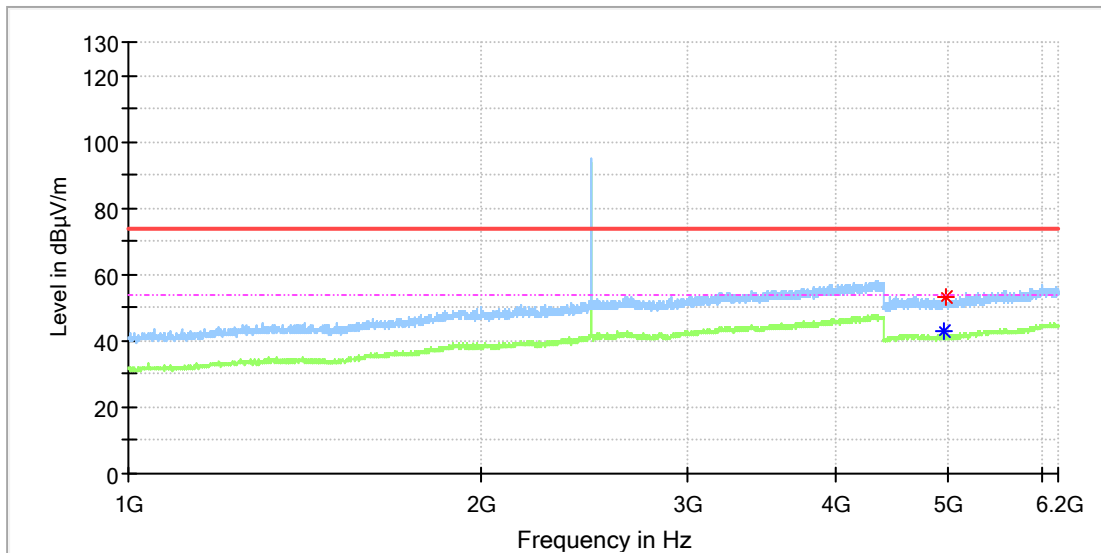


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4879.500000	---	43.42	54.00	10.58	150.0	V	39.0	13.3
4901.000000	53.18	---	74.00	20.82	150.0	V	51.0	13.3

EUT Information

EUT Name:	Wireless Subwoofer
Model:	CINEMA SB595 SUB
Test Mode:	GENERIC 2.4GHZ_ 1M_High channel
Order No/Sample No:	168542112/A003941723-002
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

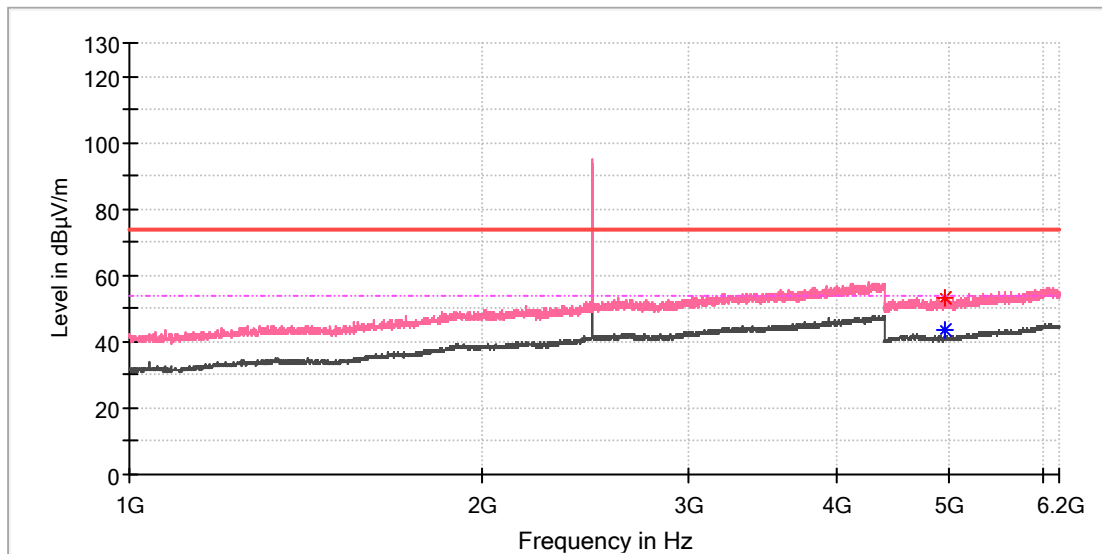


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4960.000000	---	42.74	54.00	11.26	150.0	H	245.0	13.3
4976.000000	53.38	---	74.00	20.62	150.0	H	245.0	13.3

EUT Information

EUT Name:	Wireless Subwoofer
Model:	CINEMA SB595 SUB
Test Mode:	GENERIC 2.4GHZ_ 1M_High channel
Order No/Sample No:	168542112/A003941723-002
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

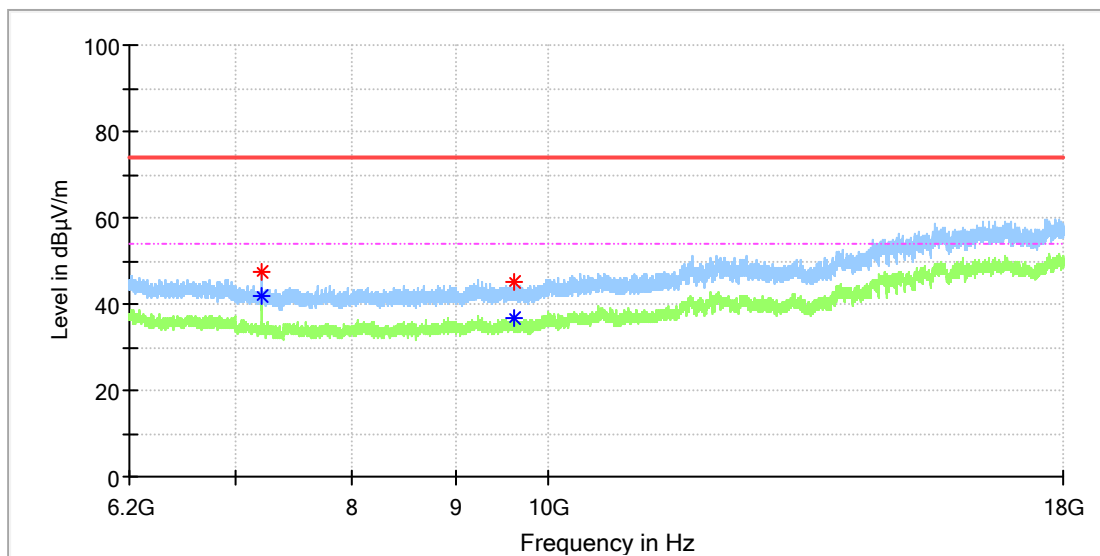


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4954.000000	52.98	---	74.00	21.02	150.0	V	57.0	13.3
4960.000000	---	43.29	54.00	10.71	150.0	V	39.0	13.3

EUT Information

EUT Name:	Wireless Subwoofer
Model:	CINEMA SB595 SUB
Test Mode:	GENERIC 2.4GHZ_ 1M_Low channel
Order No/Sample No:	168542112/A003941723-002
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

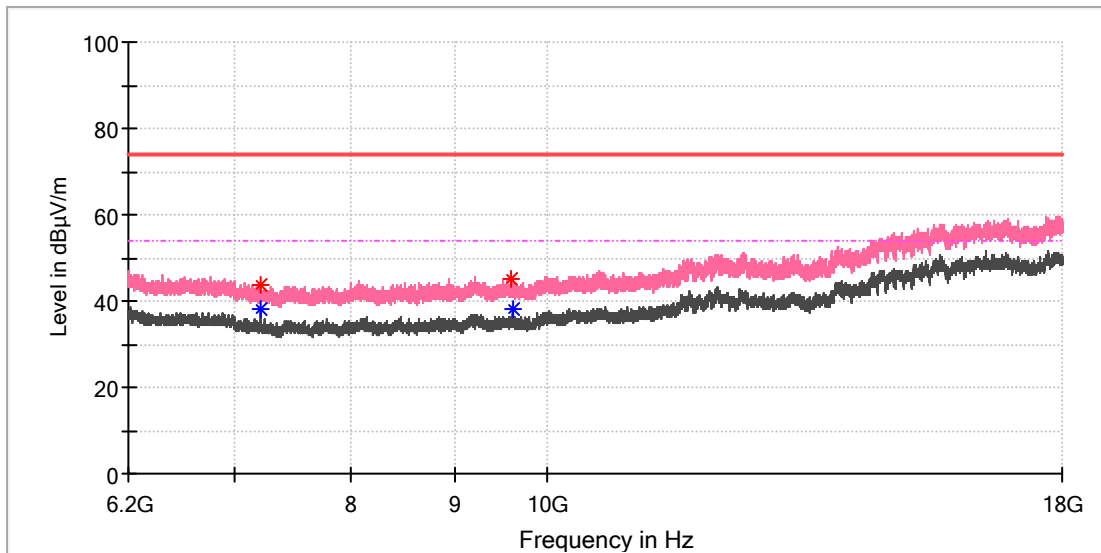


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7204.966667	---	41.68	54.00	12.32	150.0	H	73.0	8.8
7206.441667	47.43	---	74.00	26.57	150.0	H	84.0	8.8
9612.166667	45.22	---	74.00	28.78	150.0	H	120.0	10.4
9621.508333	---	36.52	54.00	17.48	150.0	H	345.0	10.4

EUT Information

EUT Name:	Wireless Subwoofer
Model:	CINEMA SB595 SUB
Test Mode:	GENERIC 2.4GHZ_ 1M_Low channel
Order No/Sample No:	168542112/A003941723-002
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

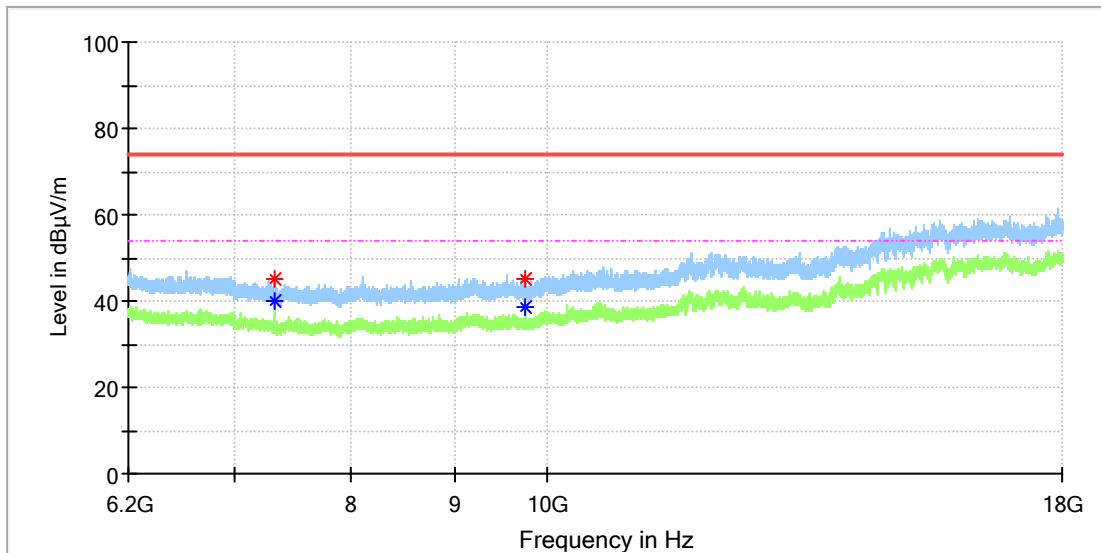


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7204.966667	43.85	---	74.00	30.15	150.0	V	327.0	8.8
7206.441667	---	38.08	54.00	15.92	150.0	V	82.0	8.8
9599.383333	45.26	---	74.00	28.74	150.0	V	136.0	10.4
9607.741667	---	38.06	54.00	15.94	150.0	V	235.0	10.4

EUT Information

EUT Name: Wireless Subwoofer
 Model: CINEMA SB595 SUB
 Test Mode: GENERIC 2.4GHZ_ 1M_Mid channel
 Order No/Sample No: 168542112/A003941723-002
 Test Voltage:: AC 120V/60Hz
 Remark: Temp 23 Humi:56%
 Test Standard: FCC 15.247
 Tested By: Kei Zhang
 Reviewed By: Terry Yin

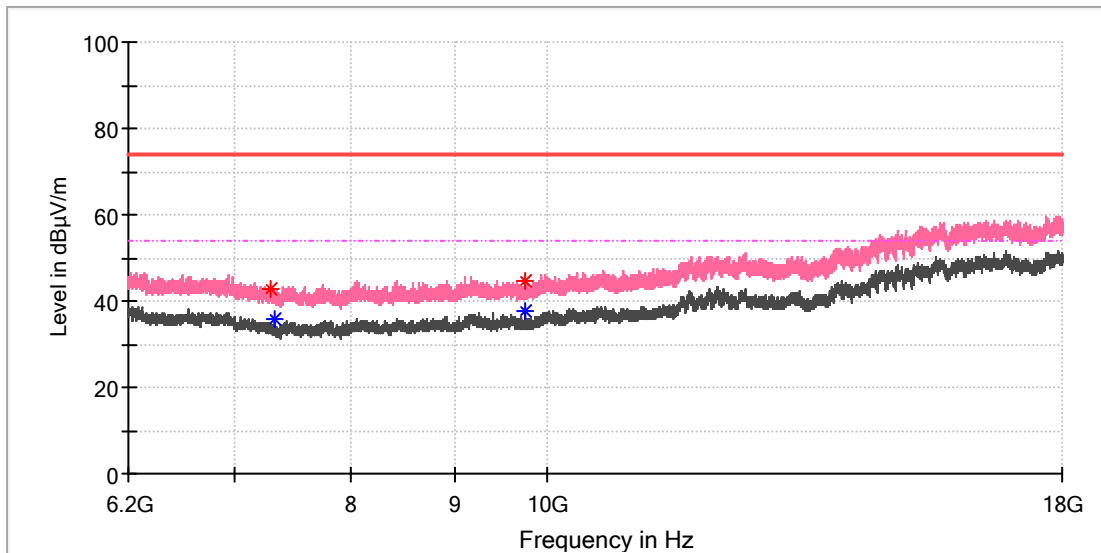


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7319.033333	45.00	---	74.00	29.00	150.0	H	73.0	8.2
7320.016667	---	40.19	54.00	13.81	150.0	H	73.0	8.2
9759.175000	45.18	---	74.00	28.82	150.0	H	35.0	10.4
9759.666667	---	38.78	54.00	15.22	150.0	H	49.0	10.4

EUT Information

EUT Name: Wireless Subwoofer
 Model: CINEMA SB595 SUB
 Test Mode: GENERIC 2.4GHZ_ 1M_Mid channel
 Order No/Sample No: 168542112/A003941723-002
 Test Voltage:: AC 120V/60Hz
 Remark: Temp 23 Humi:56%
 Test Standard: FCC 15.247
 Tested By: Kei Zhang
 Reviewed By: Terry Yin

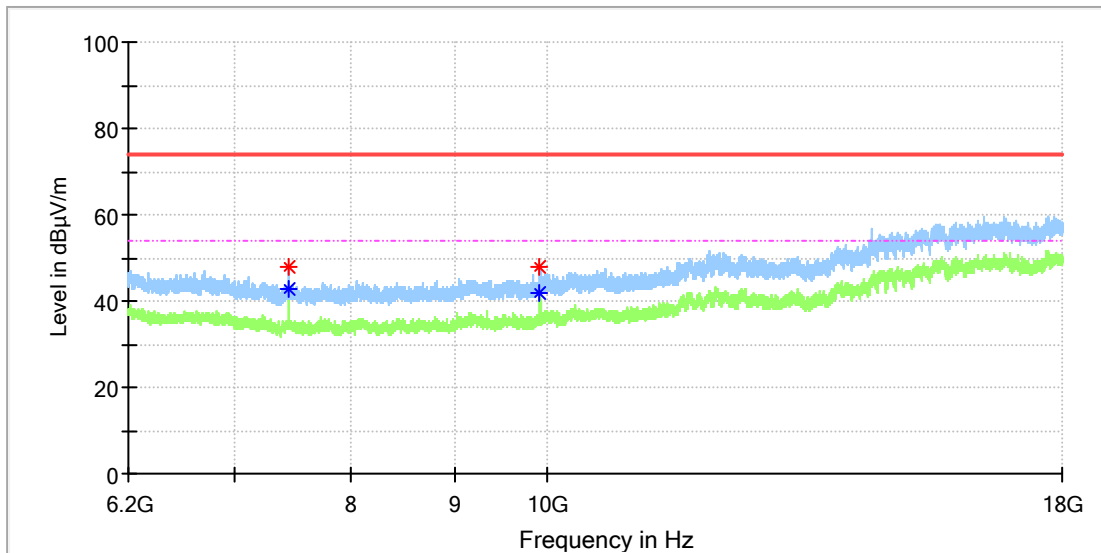


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7294.941667	42.99	---	74.00	31.01	150.0	V	176.0	8.3
7319.525000	---	35.62	54.00	18.38	150.0	V	229.0	8.2
9760.158333	44.73	---	74.00	29.27	150.0	V	114.0	10.4
9760.158333	---	37.66	54.00	16.34	150.0	V	114.0	10.4

EUT Information

EUT Name: Wireless Subwoofer
 Model: CINEMA SB595 SUB
 Test Mode: GENERIC 2.4GHZ_ 1M_High channel
 Order No/Sample No: 168542112/A003941723-002
 Test Voltage:: AC 120V/60Hz
 Remark: Temp 23 Humi:56%
 Test Standard: FCC 15.247
 Tested By: Kei Zhang
 Reviewed By: Terry Yin

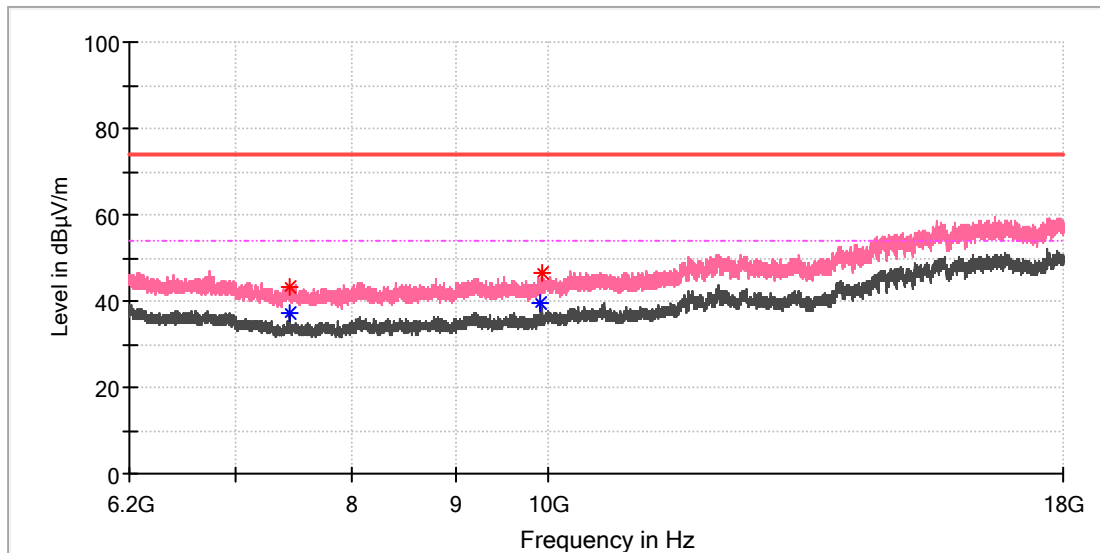


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7439.000000	---	42.98	54.00	11.02	150.0	H	67.0	8.4
7439.983333	47.90	---	74.00	26.10	150.0	H	83.0	8.4
9919.458333	47.69	---	74.00	26.31	150.0	H	44.0	10.8
9919.458333	---	41.91	54.00	12.09	150.0	H	44.0	10.8

EUT Information

EUT Name:	Wireless Subwoofer
Model:	CINEMA SB595 SUB
Test Mode:	GENERIC 2.4GHZ_ 1M_High channel
Order No/Sample No:	168542112/A003941723-002
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



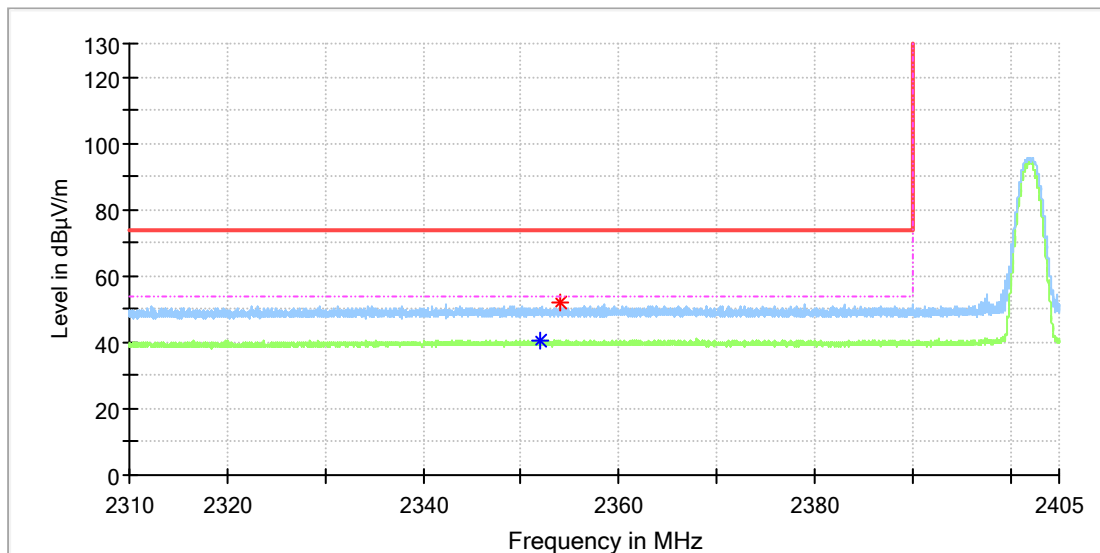
Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7439.000000	43.36	---	74.00	30.64	150.0	V	122.0	8.4
7439.000000	---	37.04	54.00	16.96	150.0	V	122.0	8.4
9919.458333	---	39.40	54.00	14.60	150.0	V	122.0	10.8
9920.933333	46.63	---	74.00	27.37	150.0	V	122.0	10.8

Appendix B.7: Test Results of Radiated Emissions in Restricted Bands

EUT Information

EUT Name:	Wireless Subwoofer
Model:	CINEMA SB595 SUB
Test Mode:	GENERIC 2.4GHZ_ 1M_Low channel
Order No/Sample No:	168542112/A003941723-002
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

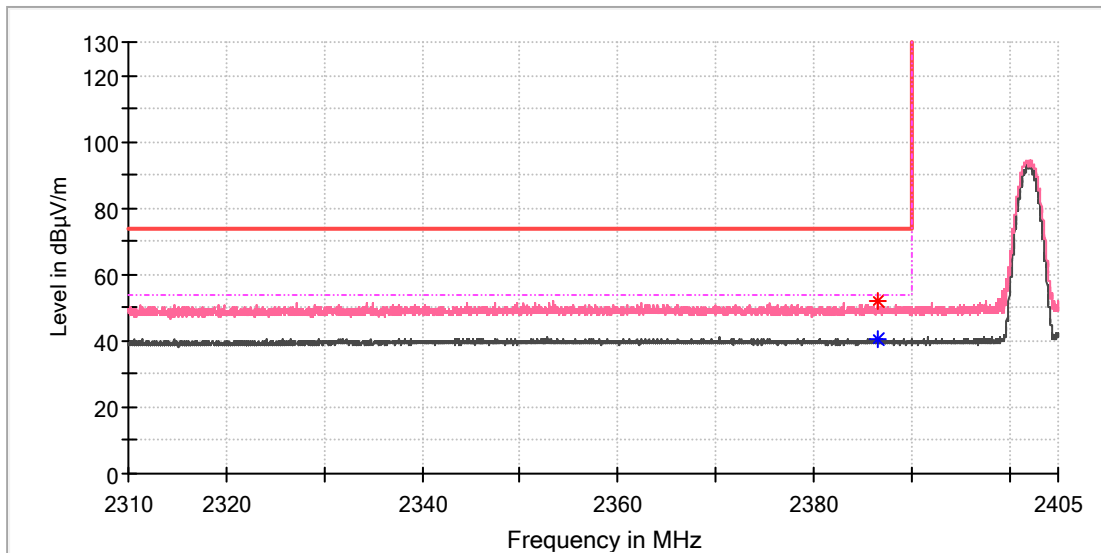


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2352.009559	---	40.79	54.00	13.21	150.0	H	242.0	8.5
2353.951471	52.19	---	74.00	21.81	150.0	H	6.0	8.5

EUT Information

EUT Name:	Wireless Subwoofer
Model:	CINEMA SB595 SUB
Test Mode:	GENERIC 2.4GHZ_ 1M_Low channel
Order No/Sample No:	168542112/A003941723-002
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

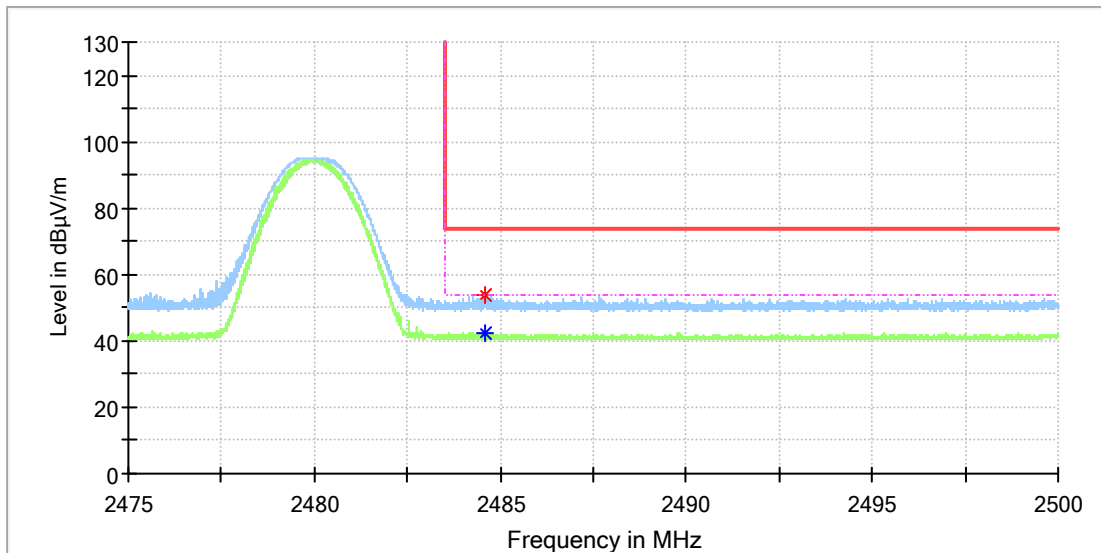


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2386.586765	51.86	---	74.00	22.14	150.0	V	33.0	8.5
2386.642647	---	40.60	54.00	13.40	150.0	V	60.0	8.5

EUT Information

EUT Name:	Wireless Subwoofer
Model:	CINEMA SB595 SUB
Test Mode:	GENERIC 2.4GHZ_ 1M_High channel
Order No/Sample No:	168542112/A003941723-002
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

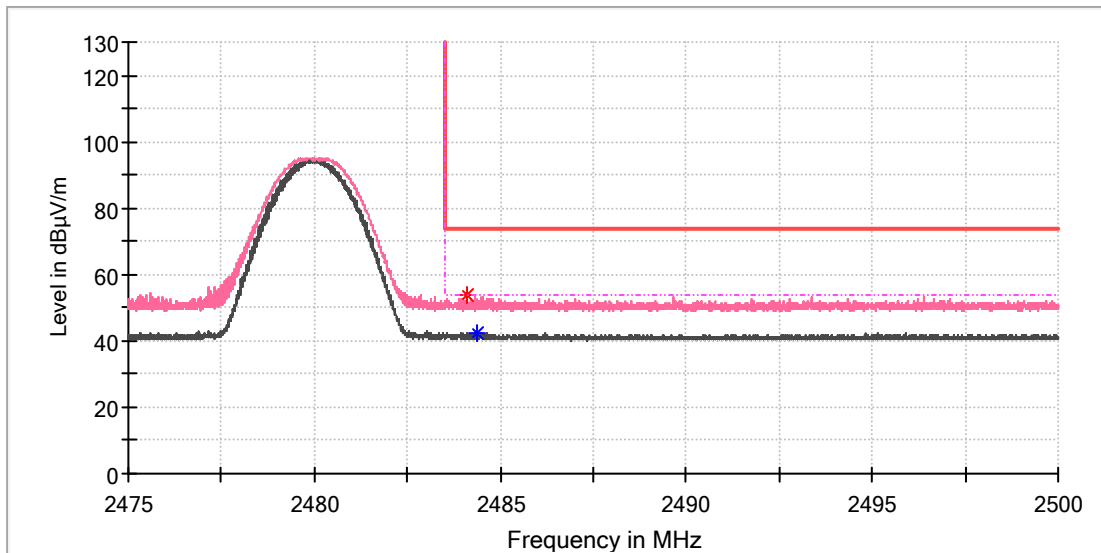


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2484.577206	53.90	---	74.00	20.10	150.0	H	258.0	9.0
2484.613971	---	42.47	54.00	11.53	150.0	H	291.0	9.0

EUT Information

EUT Name:	Wireless Subwoofer
Model:	CINEMA SB595 SUB
Test Mode:	GENERIC 2.4GHZ_ 1M_High channel
Order No/Sample No:	168542112/A003941723-002
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

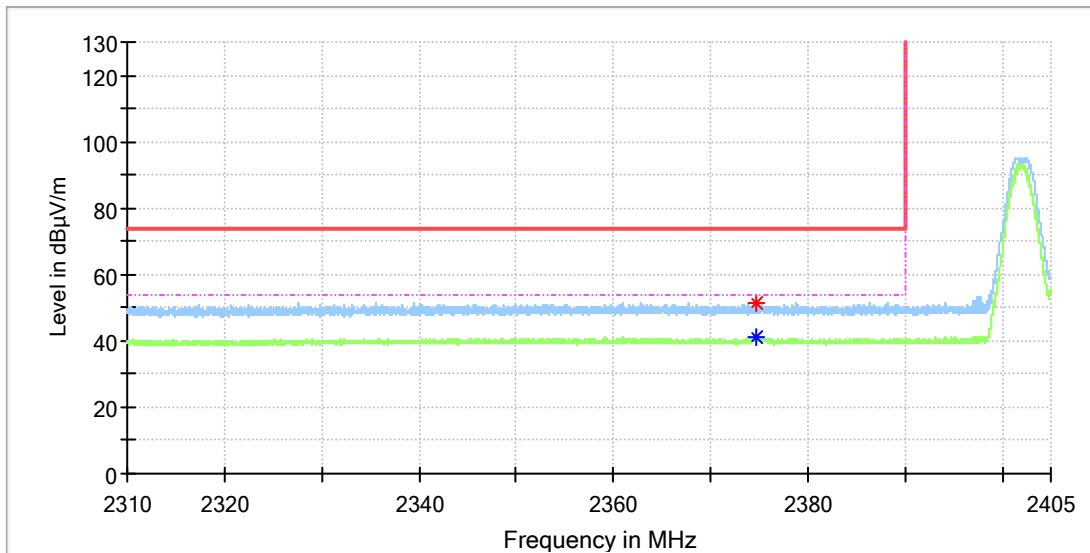


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2484.125000	53.89	---	74.00	20.11	150.0	V	354.0	9.0
2484.400735	---	42.34	54.00	11.66	150.0	V	0.0	9.0

EUT Information

EUT Name:	Wireless Subwoofer
Model:	CINEMA SB595 SUB
Test Mode:	GENERIC 2.4GHZ_ 2M_Low channel
Order No/Sample No:	168542112/A003941723-002
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

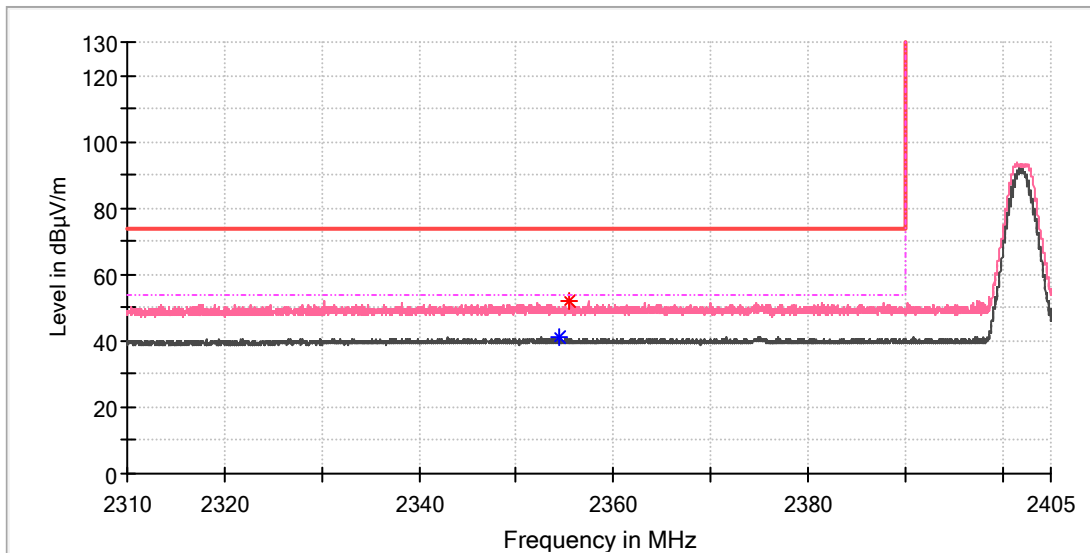


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2374.669853	51.22	---	74.00	22.78	150.0	H	296.0	8.5
2374.697794	---	41.10	54.00	12.90	150.0	H	78.0	8.5

EUT Information

EUT Name:	Wireless Subwoofer
Model:	CINEMA SB595 SUB
Test Mode:	GENERIC 2.4GHZ_ 2M_Low channel
Order No/Sample No:	168542112/A003941723-002
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

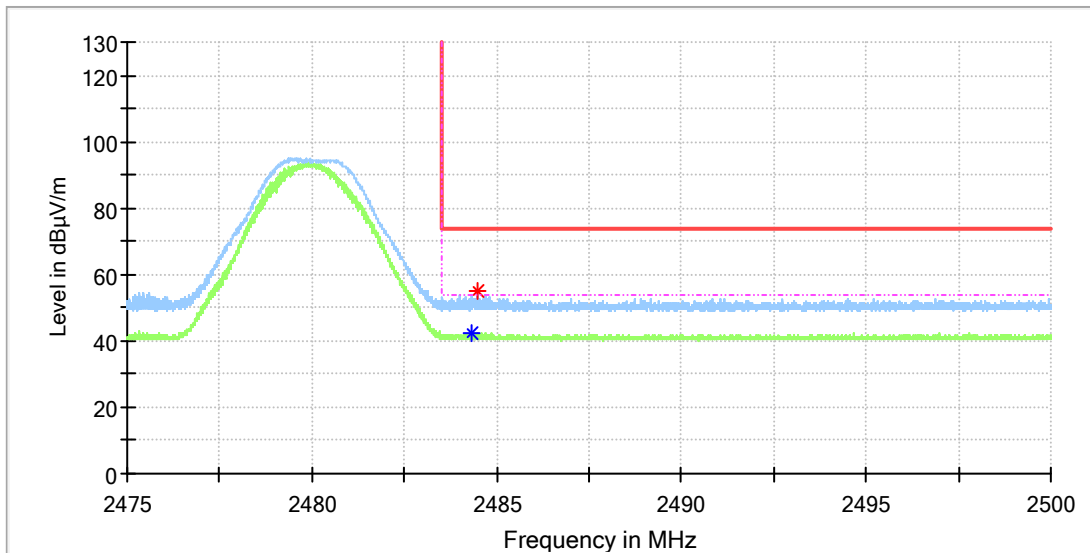


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2354.370588	---	40.89	54.00	13.11	150.0	V	171.0	8.5
2355.530147	52.26	---	74.00	21.74	150.0	V	316.0	8.5

EUT Information

EUT Name:	Wireless Subwoofer
Model:	CINEMA SB595 SUB
Test Mode:	GENERIC 2.4GHZ_ 2M_High channel
Order No/Sample No:	168542112/A003941723-002
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

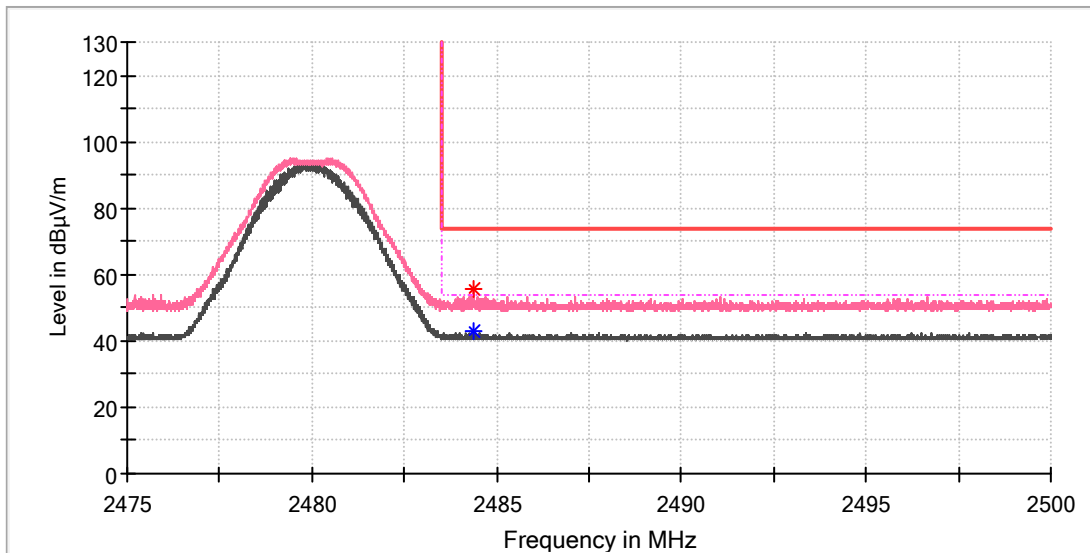


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2484.327206	---	42.46	54.00	11.54	150.0	H	246.0	9.0
2484.481618	54.85	---	74.00	19.15	150.0	H	253.0	9.0

EUT Information

EUT Name:	Wireless Subwoofer
Model:	CINEMA SB595 SUB
Test Mode:	GENERIC 2.4GHZ_ 2M_High channel
Order No/Sample No:	168542112/A003941723-002
Test Voltage::	AC 120V/60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



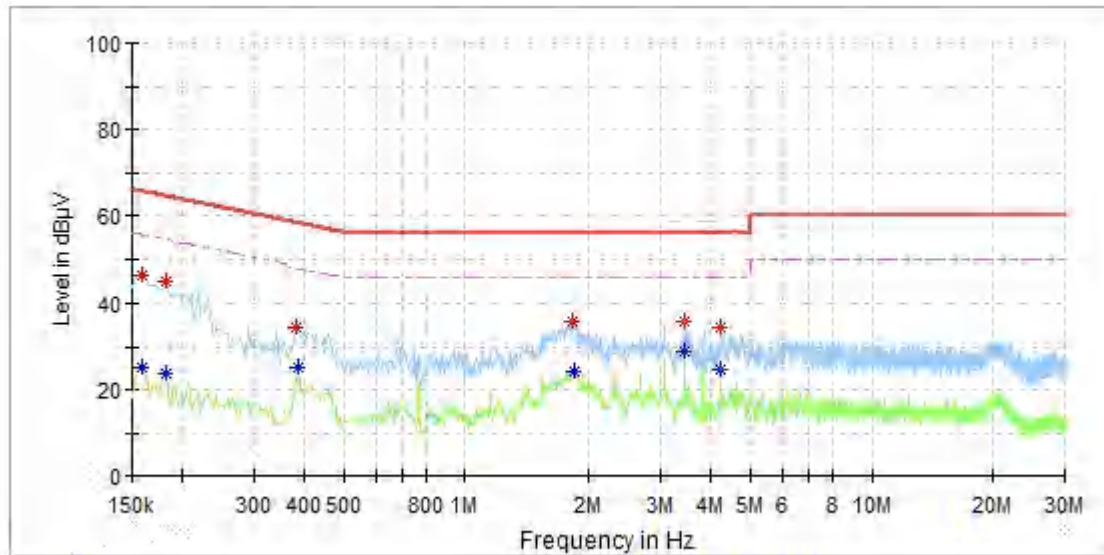
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2484.393382	---	42.68	54.00	11.32	150.0	V	20.0	9.0
2484.393382	55.57	---	74.00	18.43	150.0	V	20.0	9.0

Appendix B.8: Test Results of Conducted Emissions

EUT Information

EUT Name: Wireless Subwoofer
 Model: CINEMA SB595 SUB
 Test Mode: Wireless connected to soundbar
 Test Voltage: AC 120V/60Hz
 Test Standard: FCC Part 15.207
 Test By:/Review By: Soloman Wu/Murphy Chen
 Tem./Hum./Pressure: 24.5°C/52.3%/101kPa
 Remark: SR2



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.158000	---	25.15	55.57	30.42	L1	9.8
0.158000	46.66	---	65.57	18.91	L1	9.8
0.182000	---	23.91	54.39	30.49	L1	9.8
0.182000	45.23	---	64.39	19.16	L1	9.8
0.382000	34.22	---	58.24	24.01	L1	9.9
0.386000	---	24.94	48.15	23.21	L1	9.9
1.826000	35.91	---	56.00	20.09	L1	10.0
1.838000	---	24.35	46.00	21.65	L1	10.0
3.454000	---	29.01	46.00	16.99	L1	10.1
3.458000	35.87	---	56.00	20.13	L1	10.1
4.226000	---	24.65	46.00	21.35	L1	10.1
4.226000	34.33	---	56.00	21.67	L1	10.1

EUT Information

EUT Name: Wireless Subwoofer

Model: CINEMA SB595 SUB

Test Mode: Wireless connected to soundbar

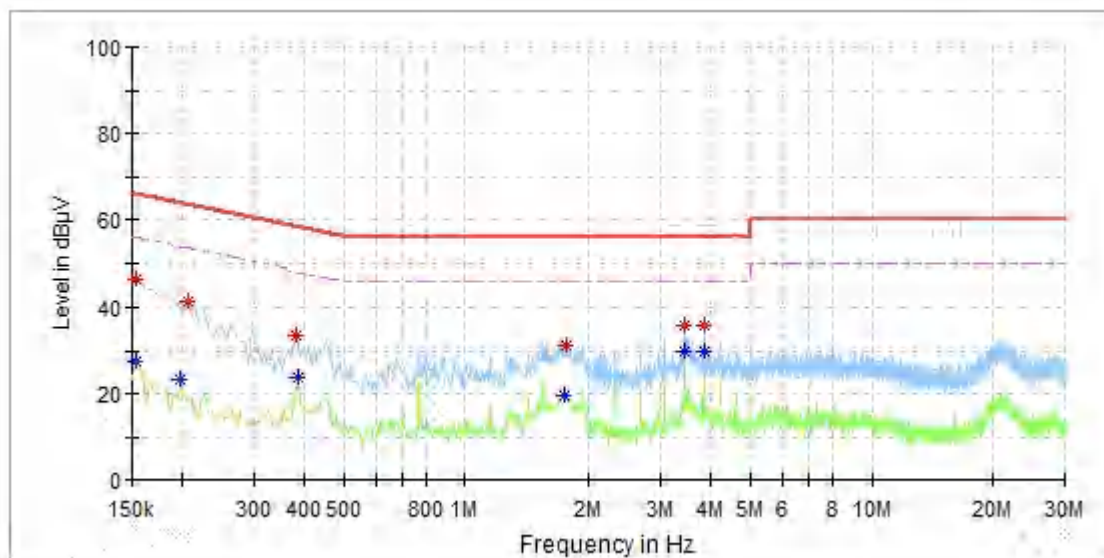
Test Voltage: AC 120V/60Hz

Test Standard: FCC Part 15.207

Test By:/Review By: Soloman Wu/Murphy Chen

Tem./Hum./Pressure: 24.5°C/52.3%/101kPa

Remark: SR2



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.154000	46.38	---	65.78	19.40	N	9.7
0.154000	---	27.50	55.78	28.28	N	9.7
0.198000	---	23.28	53.69	30.42	N	9.7
0.206000	41.54	---	63.37	21.82	N	9.7
0.382000	33.43	---	58.24	24.80	N	9.7
0.386000	---	23.93	48.15	24.22	N	9.7
1.742000	---	19.76	46.00	26.24	N	9.8
1.750000	31.02	---	56.00	24.98	N	9.8
3.458000	35.64	---	56.00	20.36	N	9.8
3.458000	---	29.71	46.00	16.29	N	9.8
3.842000	---	29.58	46.00	16.42	N	9.8
3.842000	35.65	---	56.00	20.35	N	9.8