



## MEASUREMENT REPORT

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**FCC ID** : 2AQVB-DN2458A  
**APPLICANT** : Taisync Technology Inc.  
**Application Type** : Certification  
**Product** : Video&Data transmission device  
**Model No.** : DN2458A  
**Brand Name** : Viulinx  
**FCC Classification** : (DTS) Digital Transmission System  
**FCC Rule Part(s)** : Part 15.247  
**Test Procedure(s)** : ANSI C63.10-2013  
**Received Date** : December 30, 2024  
**Test Date** : January 6, 2025~ January 14, 2025

**Tested By** : *Kaunaz Lee*  
( Kaunaz Lee )

**Reviewed By** : *Paddy Chen*  
( Paddy Chen )

**Approved By** : *Chenz Ker*  
( Chenz Ker )



The test results only relate to the tested sample.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.10. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Taiwan) Co., Ltd.

## Revision History

Report No.	Version	Description	Issue Date	Note
2412TW0122-U1	1.0	Original Report	2025-01-21	

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## General Information

<b>Applicant</b>	Taisync Technology Inc.
<b>Applicant Address</b>	2051 Junction Avenue, Suite 115, San Jose, CA 95131, USA
<b>Manufacturer</b>	Taisync Technology Inc.
<b>Manufacturer Address</b>	2051 Junction Avenue, Suite 115, San Jose, CA 95131, USA
<b>Factory</b>	MIGHT ELECTRONIC CO., LTD
<b>Factory Address</b>	NO. 41-1, YUANSHAN, 2ND NEIGHBORHOOD, XINFENG TOWNSHIP, HSINCHU COUNTY 30441, TAIWAN(R.O.C.)
<b>Test Site</b>	MRT Technology (Taiwan) Co., Ltd
<b>Test Site Address</b>	No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C)
<b>MRT FCC Registration No.</b>	291082
<b>Test Device Serial No.</b>	#1-1 <input type="checkbox"/> Production <input checked="" type="checkbox"/> Pre-Production <input type="checkbox"/> Engineering

## Test Facility / Accreditations

1. MRT facility is a FCC registered (Reg. No. 291082) test facility with the site description report on file and is designated by the FCC as an Accredited Test Firm.
2. MRT facility is an IC registered (MRT Reg. No. 21723) test laboratory with the site description on file at Industry Canada.
3. MRT Lab is accredited to ISO 17025 by the Taiwan Accreditation Foundation (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC (Designation Number: TW3261), Industry Canada, EU and TELEC Rules.

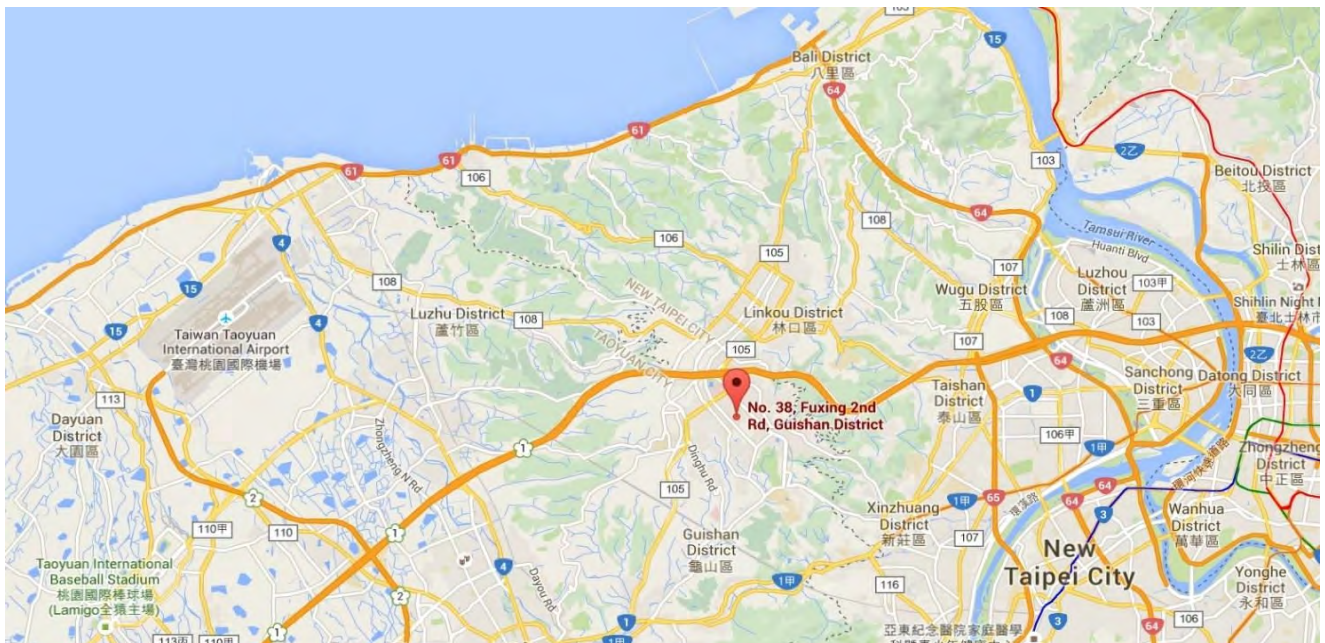
# 1. INTRODUCTION

## 1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Industry Canada Certification and Engineering Bureau.

## 1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taoyuan City. These measurement tests were conducted at the MRT Technology (Taiwan) Co., Ltd. Facility located at No.38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 33377, Taiwan (R.O.C).



## 2. PRODUCT INFORMATION

### 2.1. Equipment Description

Product Name	Video&Data transmission device
Brand Name	Viulinx
Model No.	DN2458A
Specification	SRD 2.4GHz & 5.8GHz
Remark: 1. The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

## 2.2. Product Specification Subjective to this Standard

Operating Frequency	2412~2470MHz
Channel Number	3
Type of modulation	OFDM
Channel Bandwidth	10MHz
Data Rate	2.08Mbps ~ 6.57Mbps
RF Port	2

Note: The product works with only one port at a time.

## 2.3. Test Mode

Test Mode	Mode 1: Transmit by 2.4GHz with Ant 1 Mode 2: Transmit by 2.4GHz with Ant 2
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Note: Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.

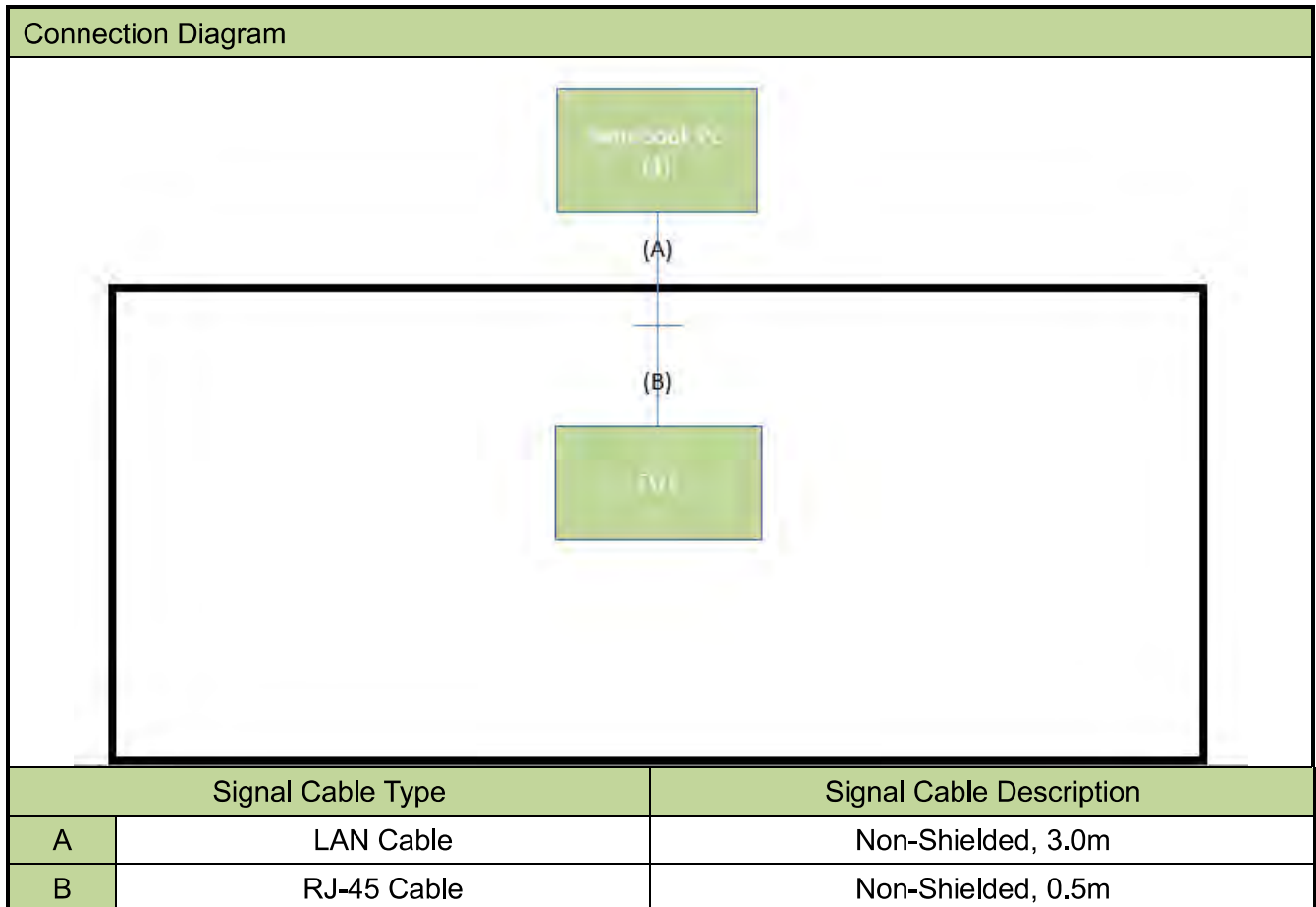


## 2.4. Operation Frequency / Channel List

Channel	Frequency	Channel	Frequency	Channel	Frequency
01	2412 MHz	02	2444 MHz	03	2470 MHz

## 2.5. Test Configuration

This device was tested per the guidance of ANSI C63.10-2013. ANSI C63.10-2013 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing.



## 2.6. Test System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook PC	Lenovo	T450	N/A	Non-shielded, 0.8m

## 2.7. Test Software

The test utility software used during testing was “calibration.html”.

## 2.8. Duty Cycles

Test Mode	Duty Cycle
2.4GHz	92%

## 2.9. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

## 2.10. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase.

However, when the device is so small wherein placement of the label with specified statement is not practical, only the FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.

### **3. DESCRIPTION of TEST**

#### **3.1. Evaluation Procedure**

The measurement procedures described in the American National Standard for Testing Unlicensed Wireless Devices (ANSI C63.10-2013), and the guidance provided in KDB 558074 D01v05r02 were used in the measurement.

#### **3.2. AC Line Conducted Emissions**

The line-conducted facility is located inside an 9'x4'x3' shielded enclosure. A 1m x 2m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50uH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground-plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the receiver and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The receiver was scanned from 150kHz to 30MHz. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 9kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was also maximized by varying: power lines, the mode of operation or data exchange speed, or support equipment which determined the worst-case emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions are used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.

An extension cord was used to connect to a single LISN which powered by EUT. The extension cord was calibrated with LISN, the impedance and insertion loss are compliance with the requirements as stated in ANSI C63.10-2013.

Line conducted emissions test results are shown in Section 7.8.

### 3.3. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. A MF Model 210SS turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable.

For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up for frequencies below 1GHz was placed on top of the 0.8 meter high, 1 x 1.5 meter table; and test set-up for frequencies 1-40GHz was placed on top of the 1.5 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, clock speed, mode of operation or video resolution, if applicable, turntable azimuth, and receive antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, which produced the worst-case emissions. According to 3dB Beam-Width of horn antenna, the horn antenna should be always directed to the EUT when rising height.

Radiated emissions test results are shown in Section 7.6 & 7.7 .

## 4. ANTENNA REQUIREMENTS

### Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

- The antenna of the **Video&Data transmission device**, is permanently attached.
- There are no provisions for connection to an external antenna.

### **Conclusion:**

The EUT unit complies with the requirement of §15.203.

#### Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Be-Comfortable	N12-7419-R0A	Dipole	2.4G: 5.02dBi 5.8G: 5.06dBi

## 5. TEST EQUIPMENT CALIBRATION DATE

### Radiated Emissions

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Active Loop Antenna	SCHWARZBECK	FMZB 1519B	MRTTWA00002	1 year	2025/5/7
Broadband TRILOG Antenna	SCHWARZBECK	VULB 9162	MRTTWA00001	1 year	2025/11/5
Broadband Hornantenna	SCHWARZBECK	BBHA 9120D	MRTTWA00003	1 year	2025/2/28
Broadband Preamplifier	SCHWARZBECK	BBV 9718	MRTTWA00005	1 year	2025/2/28
Breitband Hornantenna	SCHWARZBECK	BBHA 9170	MRTTWA00004	1 year	2025/3/26
Broadband Amplifier	SCHWARZBECK	BBV 9721	MRTTWA00006	1 year	2025/3/21
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2025/3/5
Signal Analyzer	R&S	FSV40	MRTTWA00007	1 year	2025/3/14

### Conducted Test Equipment

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2025/9/24
EXA Signal Analyzer	KEYSIGHT	N9010B	MRTTWA00074	1 year	2025/8/12
USB Wideband Power Sensor	KEYSIGHT	U2021XA	MRTTWA00014	1 year	2025/4/16

Software	Manufacturer	Version No.
e3	Audix	9.160520a

## 6. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k = 2$ .

Conducted Emission- Power Line
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): 0.15MHz~30MHz: $\pm 2.53\text{dB}$
Radiated Spurious Emission
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): 9kHz~30MHz: $\pm 3.92\text{dB}$ 30MHz~1GHz: $\pm 4.25\text{dB}$ 1GHz~18GHz: $\pm 4.40\text{dB}$ 18GHz~40GHz: $\pm 4.45\text{dB}$
Frequency Error
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): $\pm 78.4\text{Hz}$
Conducted Power
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): $\pm 0.84\text{dB}$
Conducted Spurious Emission
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): $\pm 2.65\text{ dB}$
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): $\pm 3.3\%$
Temp. / Humidity
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): $\pm 0.82^\circ\text{C}/ \pm 3\%$
DC Voltage
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): $\pm 0.3\%$



## 7. TEST RESULT

### 7.1. Summary

**Product Name:** Video&Data transmission device

FCC Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.247(a)(2)	6dB Bandwidth	$\geq 500\text{kHz}$	Conducted	Pass	Section 7.2
15.247(b)(3)	Output Power	$\leq 30.00\text{dBm}$		Pass	Section 7.3
15.247(e)	Power Spectral Density	$\leq 8.00\text{dBm}/3\text{kHz}$		Pass	Section 7.4
15.247(d)	Out-of-Band Emissions	Conducted $\geq 20\text{dBc}$		Pass	Section 7.5
15.205 15.209	Spurious Emission	$< \text{FCC 15.209 limits}$	Radiated	Pass	Section 7.6
15.205 15.209	Band Edge Measurement	$\leq 74\text{dBuV/m(Peak)}$ $\leq 54\text{dBuV/m(Average)}$		Pass	Section 7.7
15.207	AC Conducted Emissions 150kHz - 30MHz	$< \text{FCC 15.207 limits}$	Line Conducted	Pass	Section 7.8

Notes:

- Determining compliance is based on the test results met the regulation limits or requirements declared by clients, and the test results don't take into account the value of measurement uncertainty.

## 7.2. 6dB Bandwidth Measurement

### 7.2.1. Test Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

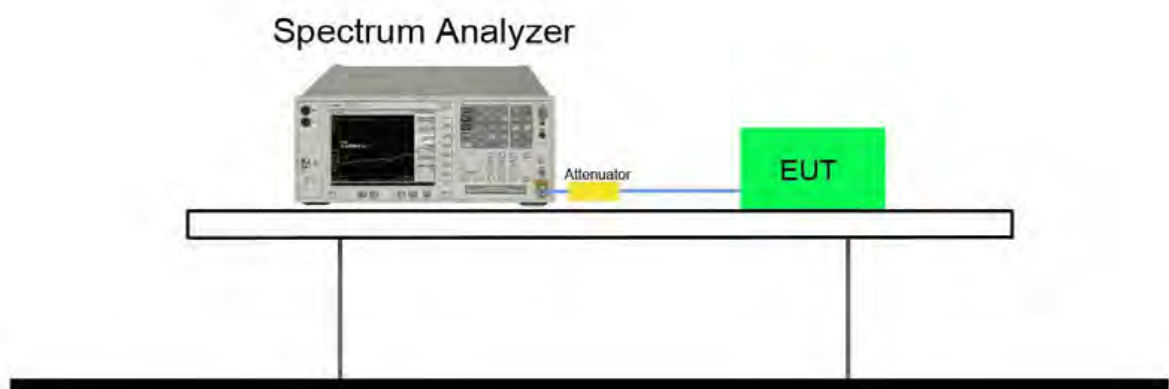
### 7.2.2. Test Procedure used

KDB 558074 D01v05r02- Section 8.2 Option 2

### 7.2.3. Test Setting

1. The Spectrum's automatic bandwidth measurement capability was used to perform the 6dB bandwidth measurement. The "X" dB bandwidth parameter was set to  $X = 6$ . The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. Set RBW = 100 kHz
3.  $VBW \geq 3 \times RBW$
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. Allow the trace was allowed to stabilize

### 7.2.4. Test Setup



### 7.2.5. Test Result

Product	Video&Data transmission device	Temperature	25°C
Test Engineer	Fran	Relative Humidity	54%
Test Site	SR6	Test Date	2025/1/14

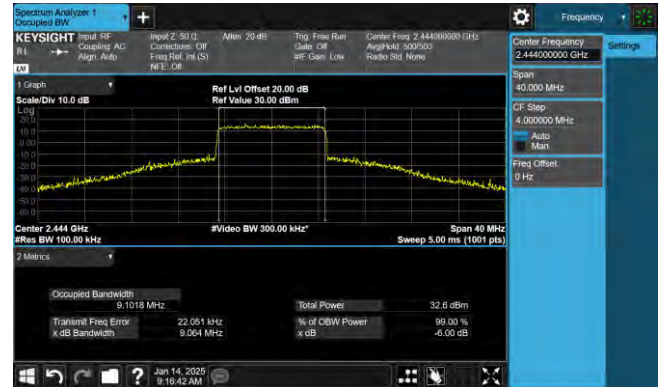
Test Mode	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
2.4GHz_Ant 1	CH01	2412	9.104	9.0501	≥ 0.5	Pass
	CH02	2444	9.064	9.1018	≥ 0.5	Pass
	CH03	2470	9.063	9.0517	≥ 0.5	Pass

## Ant 1

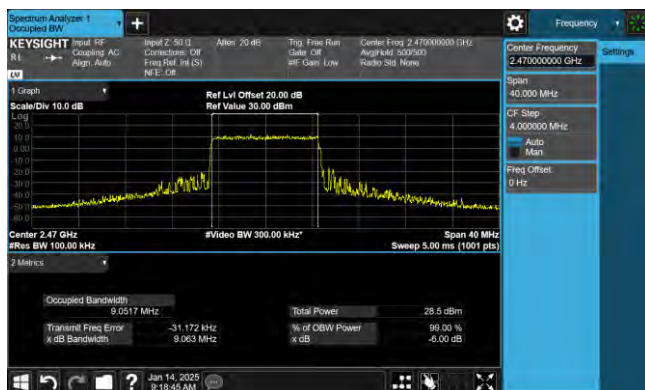
### CH01 (2412MHz)



### CH02 (2444MHz)



### CH03 (2470MHz)



## 7.3. Output Power Measurement

### 7.3.1. Test Limit

The maximum out power shall be less 1 Watt (30dBm).

### 7.3.2. Test Procedure Used

KDB 558074 D01v05r02 - Section 8.3

### 7.3.3. Test Setting

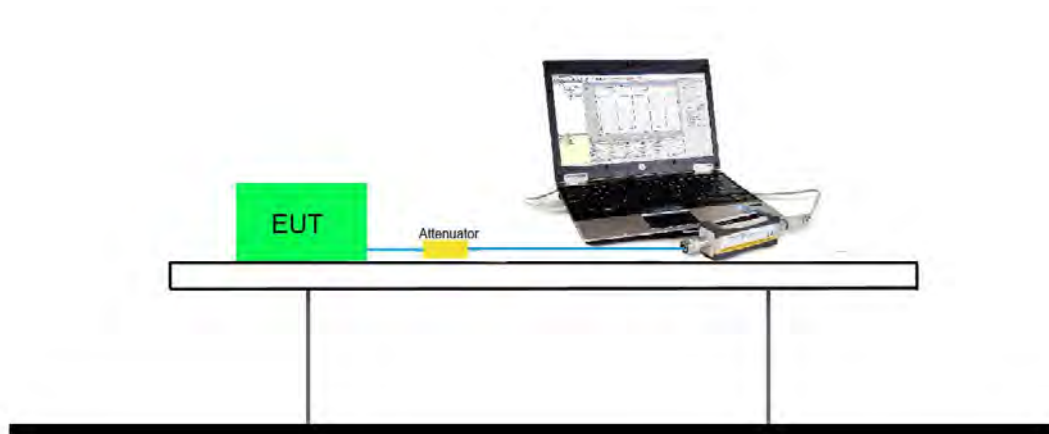
#### Peak Power Measurement

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall utilize a fast-responding diode detector.

#### Average Power Measurement

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

### 7.3.4. Test Setup



### 7.3.5. Test Result of Output Power

Product	Video&Data transmission device	Temperature	25°C
Test Engineer	Fran	Relative Humidity	54%
Test Site	SR6	Test Date	2025/1/6

Test Mode	Channel No.	Frequency (MHz)	Average Power (dBm)	Power Limit (dBm)
2.4GHz_Ant 1	CH01	2412	25.27	< 30
	CH02	2444	25.27	< 30
	CH03	2470	21.48	< 30
2.4GHz_Ant 2	CH01	2412	25.49	< 30
	CH02	2444	25.32	< 30
	CH03	2470	20.58	< 30

Note1: Average Power =Reading value on power meter + cable loss.

## 7.4. Power Spectral Density Measurement

### 7.4.1. Test Limit

The maximum permissible power spectral density is 8dBm in any 3 kHz band.

### 7.4.2. Test Procedure Used

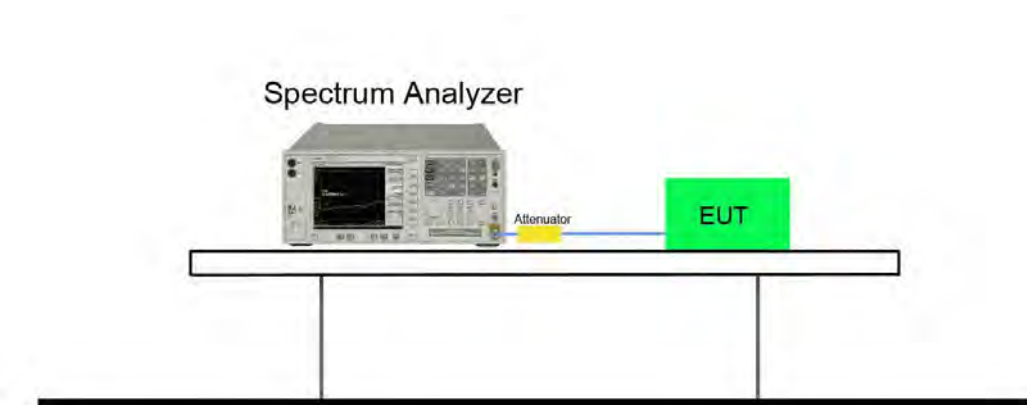
KDB 558074 D01v05r02 - Section 8.4 Method PKPSD

### 7.4.3. Test Setting

This procedure shall be used if maximum peak conducted output power was used to demonstrate compliance, and is optional if the maximum conducted (average) output power was used to demonstrate compliance.

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5 times the DTS bandwidth.
- c) Set the RBW to: 10 kHz.
- d) Set the VBW  $\geq 3 \times$  RBW.
- e) Detector = RMS.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.

### 7.4.4. Test Setup



### 7.4.5. Test Result

Product	Video&Data transmission device	Temperature	25°C
Test Engineer	Fran	Relative Humidity	54%
Test Site	SR6	Test Date	2025/1/14

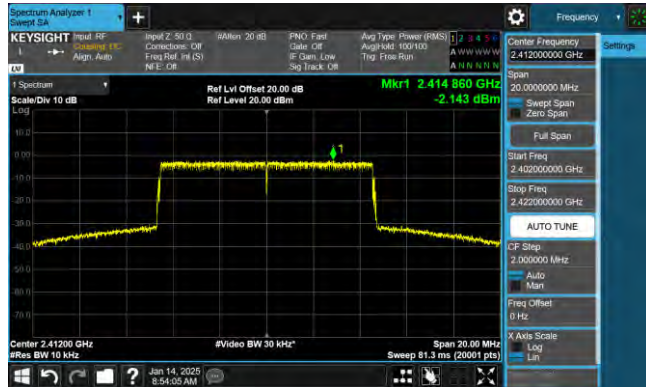
Test Mode	Channel No.	Frequency (MHz)	Average PSD (dBm / 10kHz)	Duty Cycle (%)	Total PSD (dBm / 10kHz)	Limit (dBm / 3kHz)	Result
2.4GHz_Ant 1	CH01	2412	-2.143	0.92	-1.795	≤ 8	Pass
	CH02	2444	-2.072	0.92	-1.724	≤ 8	Pass
	CH03	2470	-6.553	0.92	-6.205	≤ 8	Pass
2.4GHz_Ant 2	CH01	2412	-2.061	0.92	-1.713	≤ 8	Pass
	CH02	2444	-1.191	0.92	-0.843	≤ 8	Pass
	CH03	2470	-7.378	0.92	-7.030	≤ 8	Pass

Note: Total PSD= Average PSD + + 10\*log (1/Duty Cycle).

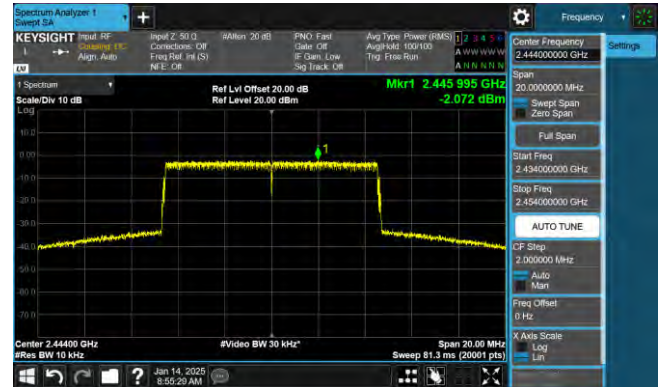


## Ant 1

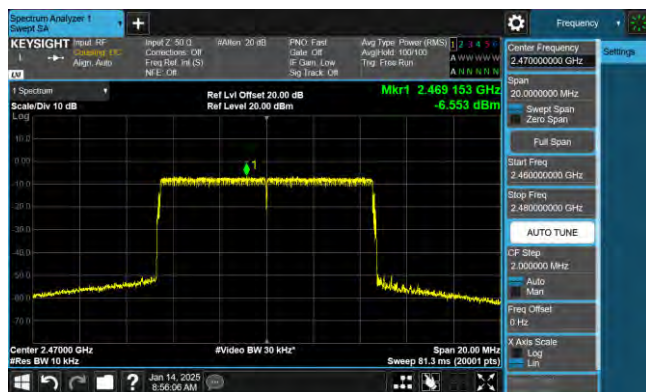
### CH01 (2412MHz)



### CH02 (2444MHz)

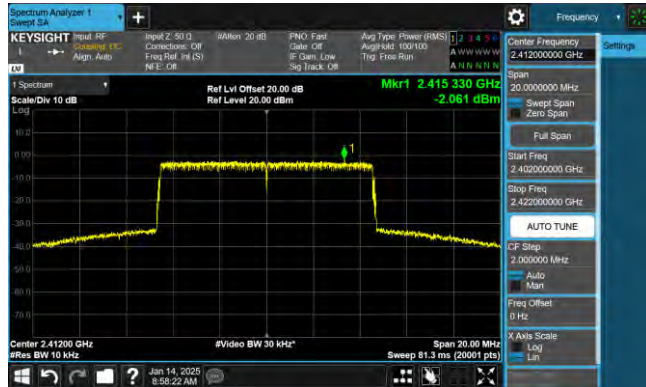


### CH03 (2470MHz)

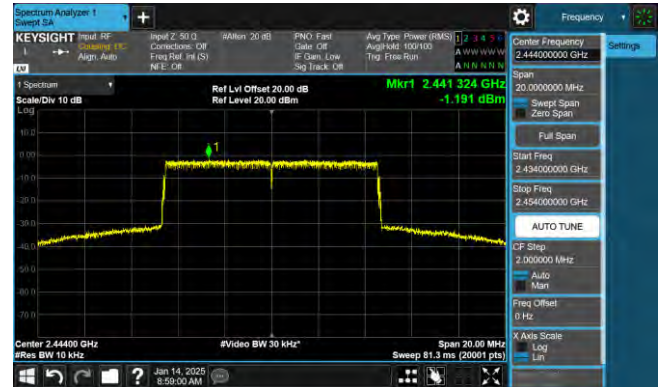


## Ant 2

### CH01 (2412MHz)



### CH02 (2444MHz)



### CH03 (2470MHz)



## 7.5. Out-of-Band Spurious Emissions Emissions Measurement

### 7.5.1. Test Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on RF conducted measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

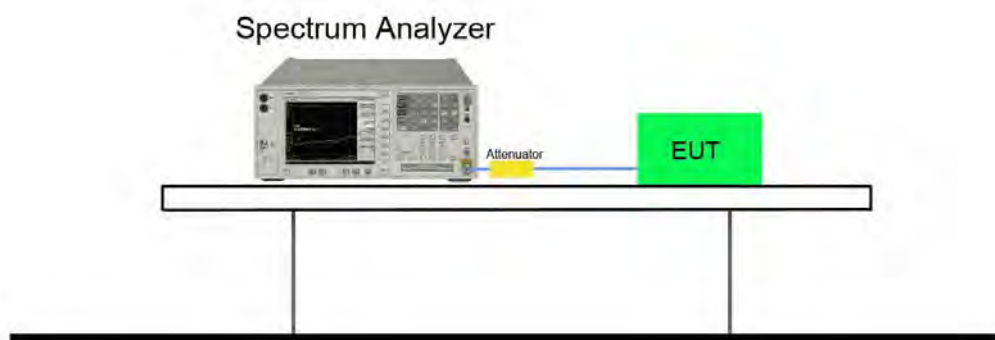
### 7.5.2. Test Procedure Used

ANSI C63.10- Section 11.1 & 11.2

### 7.5.3. Test Settling

- (a) Set instrument center frequency to DTS channel center frequency
- (b) Set the span to  $\geq 1.5$  times the DTS bandwidth
- (c) Set the RBW = 100 kHz
- (d) Set the VBW  $\geq 3 \times$  RBW
- (e) Detector = peak
- (f) Sweep time = auto couple
- (g) Trace mode = max hold
- (h) Allow trace to fully stabilize

### 7.5.4. Test Setup



### 7.5.5. Test Result

Product	Video&Data transmission device	Temperature	25°C
Test Engineer	Fran	Relative Humidity	54%
Test Site	SR6	Test Date	2025/1/14

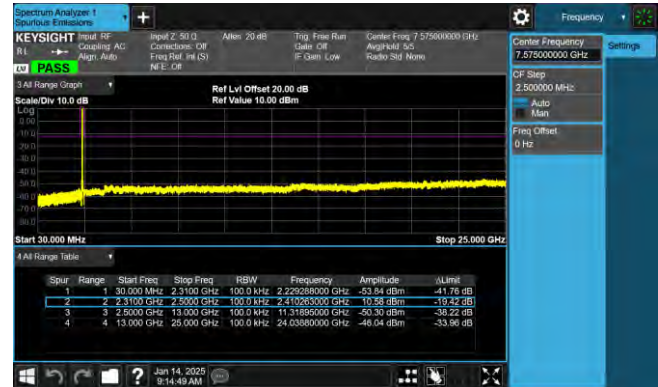
Test Mode	Channel No.	Frequency (MHz)	Limit	Result
2.4GHz_Ant 1	CH01	2412	30dBc	Pass
	CH02	2444	30dBc	Pass
	CH03	2470	30dBc	Pass
2.4GHz_Ant 2	CH01	2412	30dBc	Pass
	CH02	2444	30dBc	Pass
	CH03	2470	30dBc	Pass

## Ant 1

### CH01 (2412MHz)



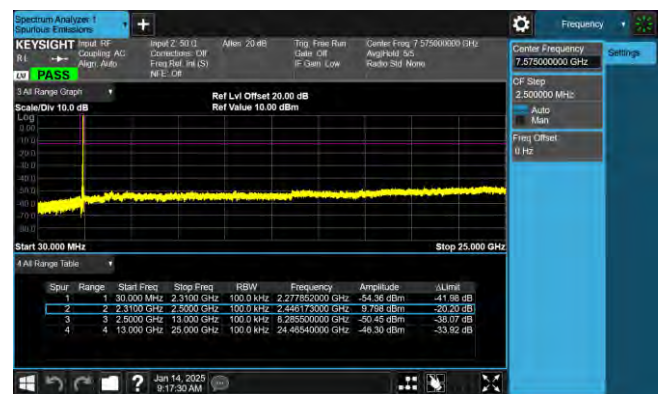
### CH01 (2412MHz)



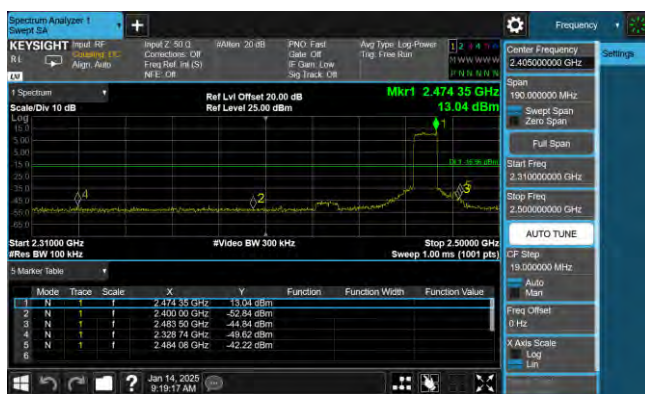
### CH02 (2444MHz)



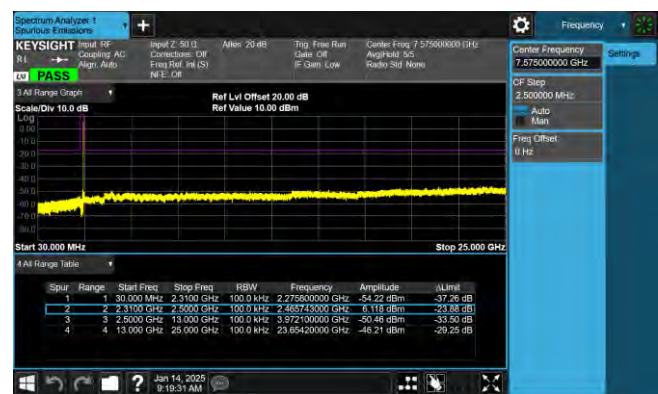
### CH02 (2444MHz)



### CH03 (2470MHz)



### CH03 (2470MHz)



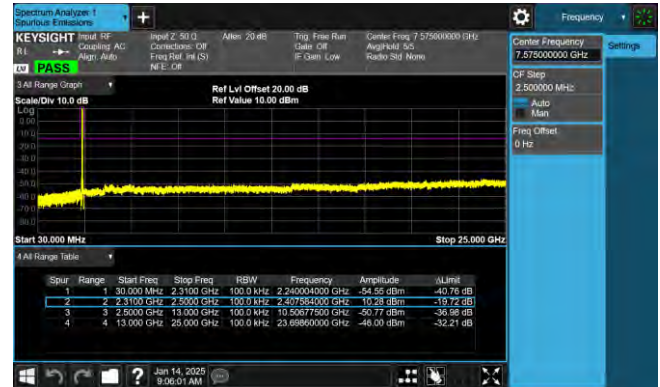


## Ant 2

### CH01 (2412MHz)



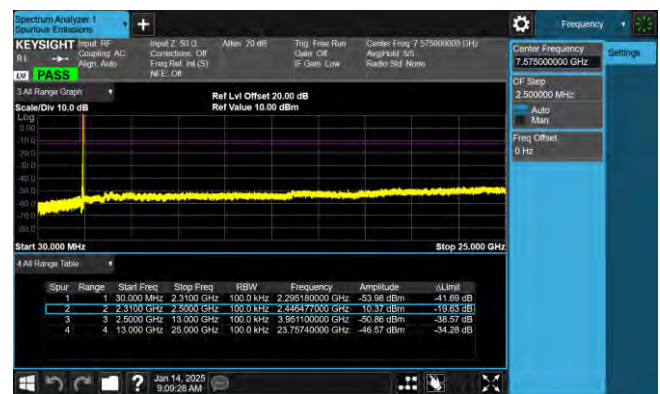
### CH01 (2412MHz)



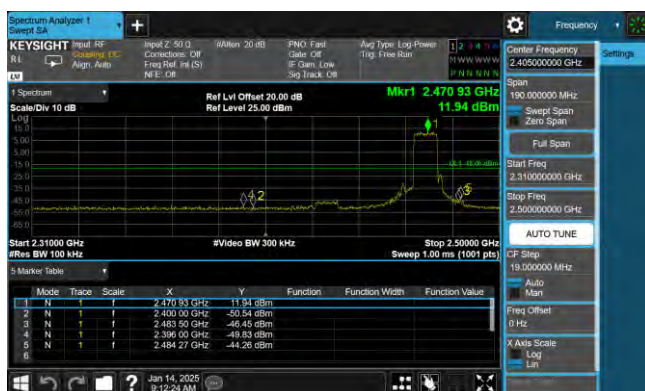
### CH02 (2444MHz)



### CH02 (2444MHz)



### CH03 (2470MHz)



### CH03 (2470MHz)



## 7.6. Radiated Spurious Emission Measurement

### 7.6.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [V/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

### 7.6.2. Test Procedure Used

ANSI C63.10 - Section 11.12.2.3 (quasi-peak measurements)

ANSI C63.10 - Section 11.12.2.4 (peak power measurements)

ANSI C63.10 - Section 11.12.2.5 (average power measurements)

### 7.6.3. Test Setting

#### Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = as specified in Table 1
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple

6.Trace mode = max hold

7.Trace was allowed to stabilize

**Table 1 - RBW as a function of frequency**

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

### **Average Field Strength Measurements**

1.Analyzer center frequency was set to the frequency of the radiated spurious emission of interest

2.RBW = 1MHz

3.VBW  $\geq$  1/T

4.De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to “Voltage” regardless of the display mode

5.Detector = Peak

6.Sweep time = auto

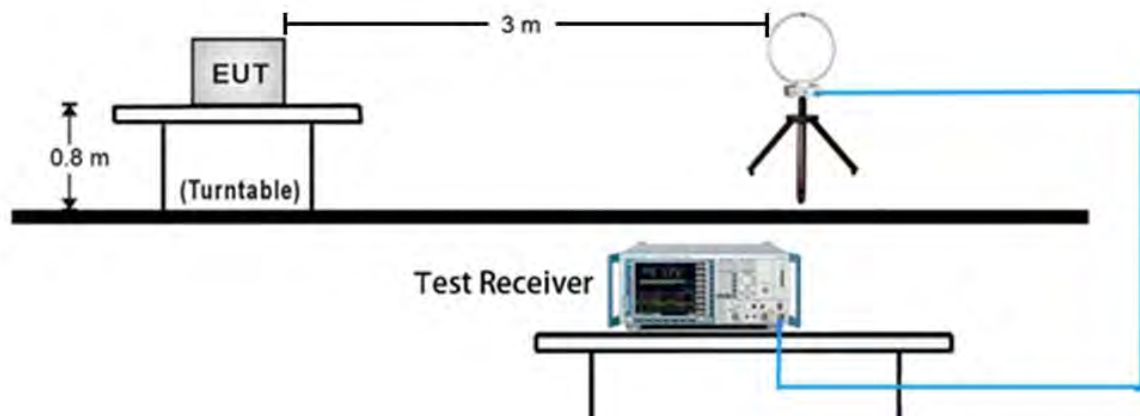
7.Trace mode = max hold

8.Allow max hold to run for at least 50 times (1/duty cycle) traces

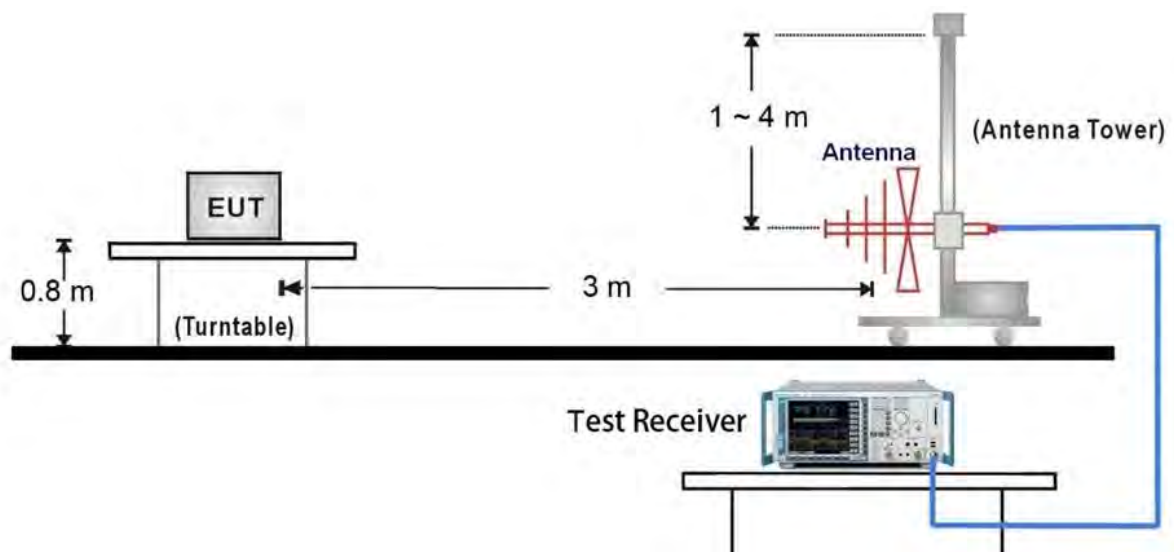


#### 7.6.4. Test Setup

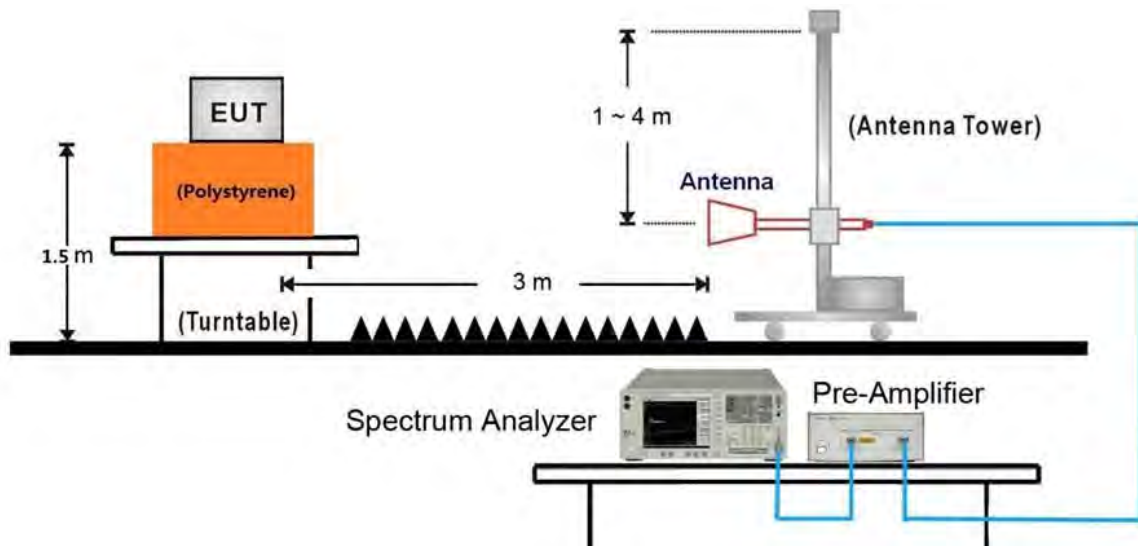
##### 9kHz ~ 30MHz Test Setup:



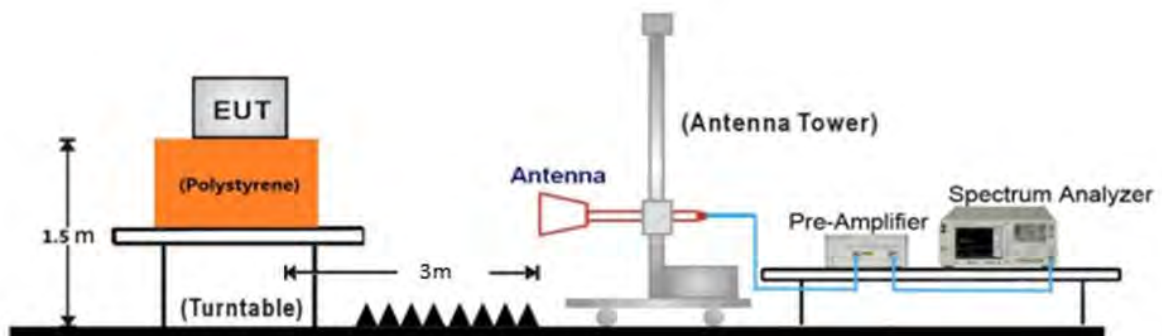
##### 30MHz ~ 1GHz Test Setup:



### 1GHz ~ 18GHz Test Setup:

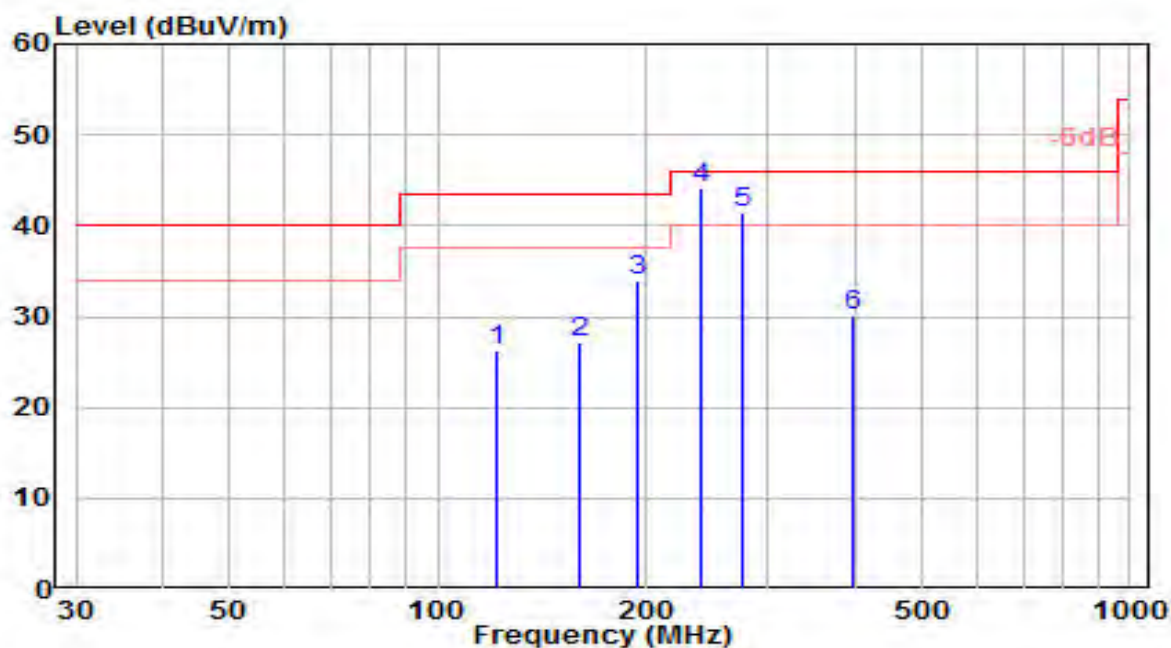


### 18GHz ~ 25GHz Test Setup:



### 7.6.5. Test Result

EUT	Video&Data transmission device	Date of Test	2025-01-07
Factor	VULB 9162	Temp. / Humidity	22°C /48%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 2.4G_TX_2444MHz_Ant 1	Test Voltage	AC 120V/60Hz

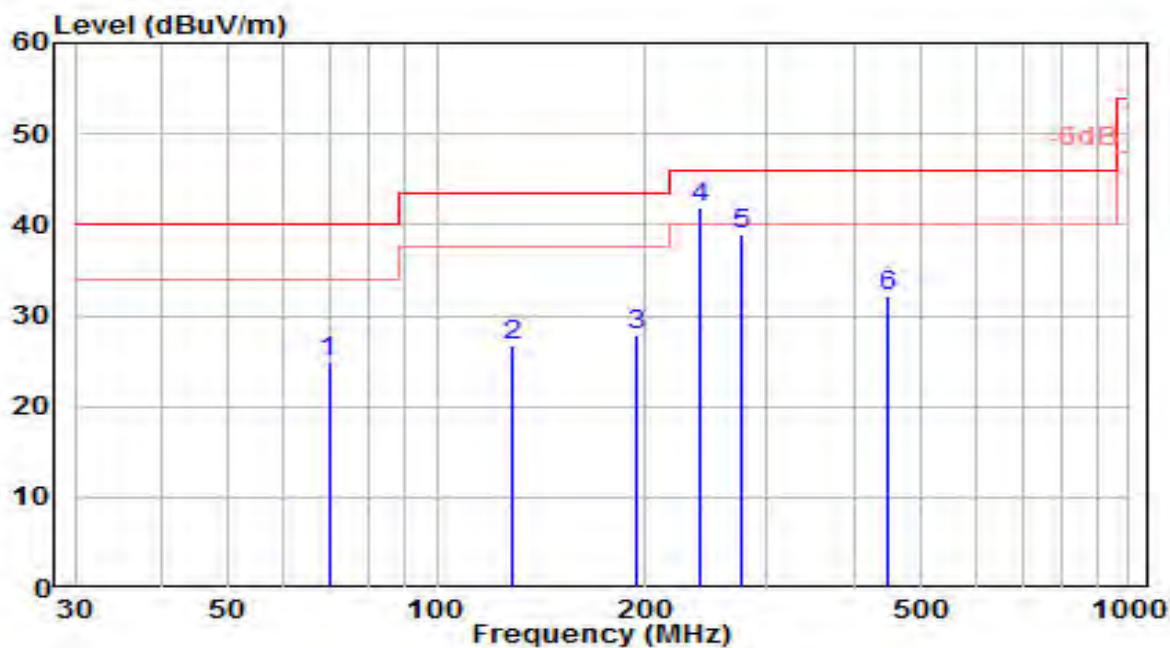


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	121.180	9.23	17.12	26.35	-17.15	43.50	150	85	QP
2	159.980	11.16	16.03	27.19	-16.31	43.50	150	70	QP
3	194.900	15.54	18.34	33.87	-9.63	43.50	150	275	QP
4	* 239.520	24.20	19.88	44.08	-1.92	46.00	100	275	QP
5	276.380	20.78	20.62	41.40	-4.60	46.00	100	35	QP
6	399.570	6.20	23.80	30.01	-15.99	46.00	100	210	QP

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Video&Data transmission device	Date of Test	2025-01-07
Factor	VULB 9162	Temp. / Humidity	22°C /48%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 2.4G_TX_2444MHz_Ant 1	Test Voltage	AC 120V/60Hz

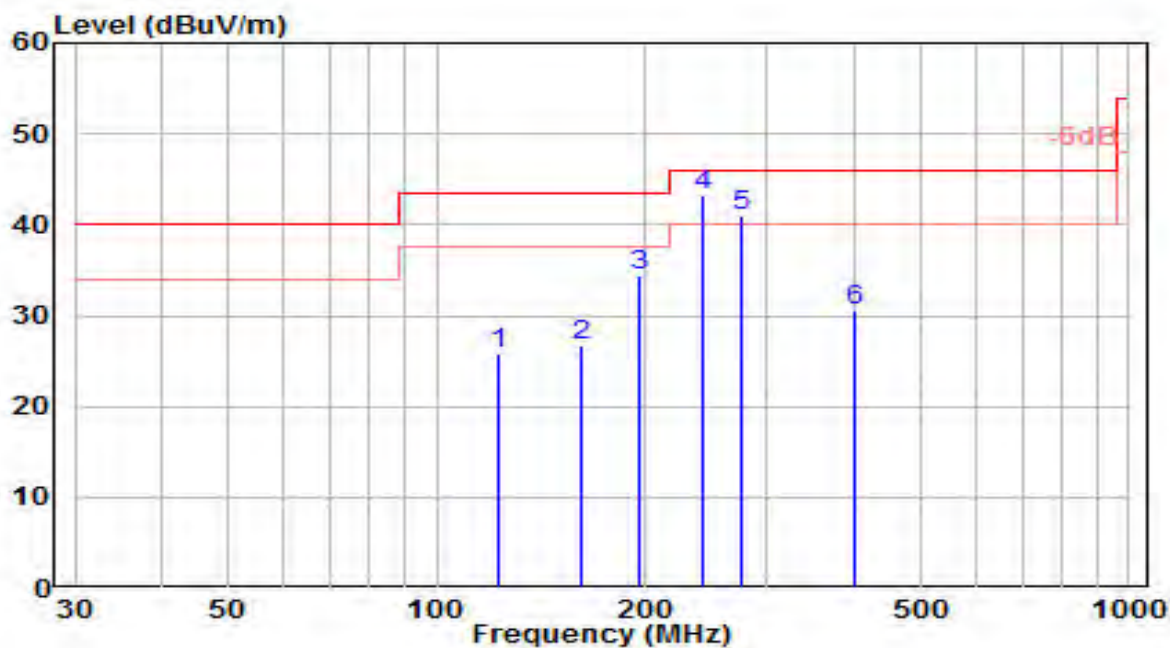


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	69.770	8.52	16.33	24.85	-15.15	40.00	100	325	QP
2	127.970	10.53	16.19	26.72	-16.78	43.50	100	320	QP
3	194.900	9.51	18.34	27.84	-15.66	43.50	150	205	QP
4	* 240.490	22.06	19.92	41.98	-4.02	46.00	100	15	QP
5	274.440	18.41	20.58	38.99	-7.01	46.00	100	195	QP
6	450.010	7.96	24.30	32.26	-13.74	46.00	100	40	QP

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Video&Data transmission device	Date of Test	2025-01-07
Factor	VULB 9162	Temp. / Humidity	22°C /48%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 2.4G_TX_2444MHz_Ant 2	Test Voltage	AC 120V/60Hz

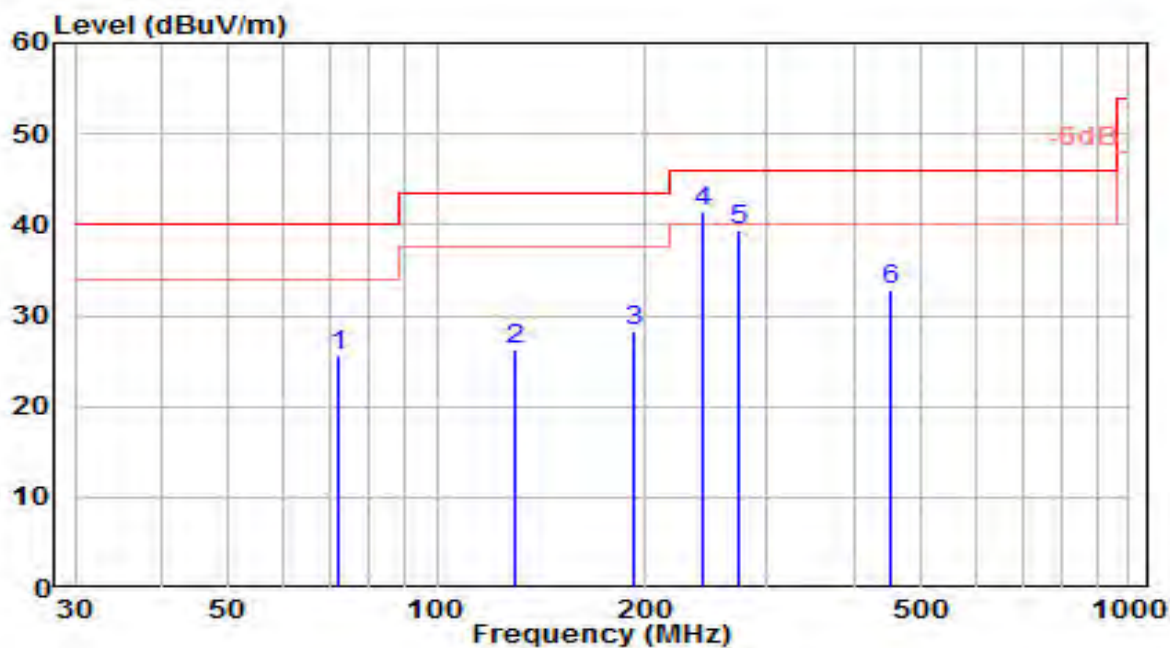


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	122.575	8.87	16.93	25.80	-17.70	43.50	150	85	QP
2	161.557	10.68	16.08	26.76	-16.74	43.50	150	70	QP
3	196.362	16.10	18.40	34.50	-9.00	43.50	150	275	QP
4	* 241.189	23.38	19.96	43.34	-2.66	46.00	100	275	QP
5	274.996	20.47	20.59	41.06	-4.94	46.00	100	35	QP
6	401.189	6.74	23.82	30.56	-15.44	46.00	100	210	QP

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Video&Data transmission device	Date of Test	2025-01-07
Factor	VULB 9162	Temp. / Humidity	22°C /48%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 2.4G_TX_2444MHz_Ant 2	Test Voltage	AC 120V/60Hz



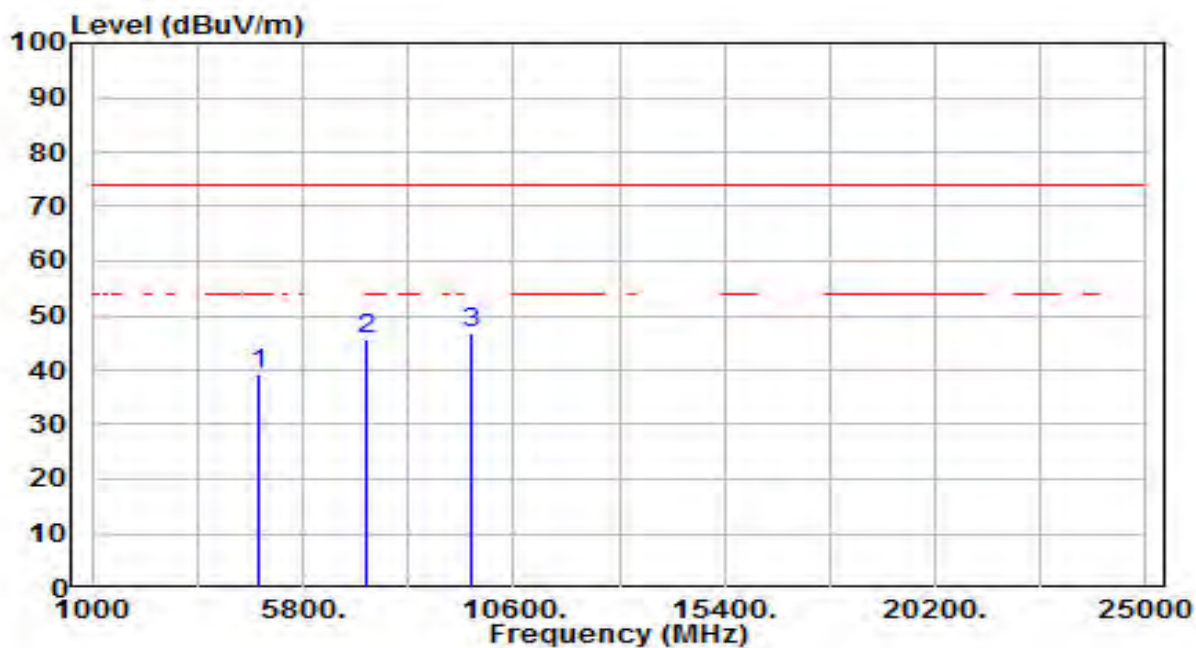
No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	71.995	9.77	15.82	25.59	-14.41	40.00	100	325	QP
2	130.101	10.27	15.91	26.18	-17.32	43.50	100	320	QP
3	192.446	10.13	18.23	28.36	-15.14	43.50	150	205	QP
4	* 241.937	21.51	20.00	41.50	-4.50	46.00	100	15	QP
5	272.094	18.87	20.52	39.40	-6.60	46.00	100	195	QP
6	452.464	8.45	24.36	32.81	-13.19	46.00	100	40	QP

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.



EUT	Video&Data transmission device	Date of Test	2025-01-08
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	22°C /48%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 2.4G_TX_2412MHz_Ant 1	Test Voltage	AC 120V/60Hz

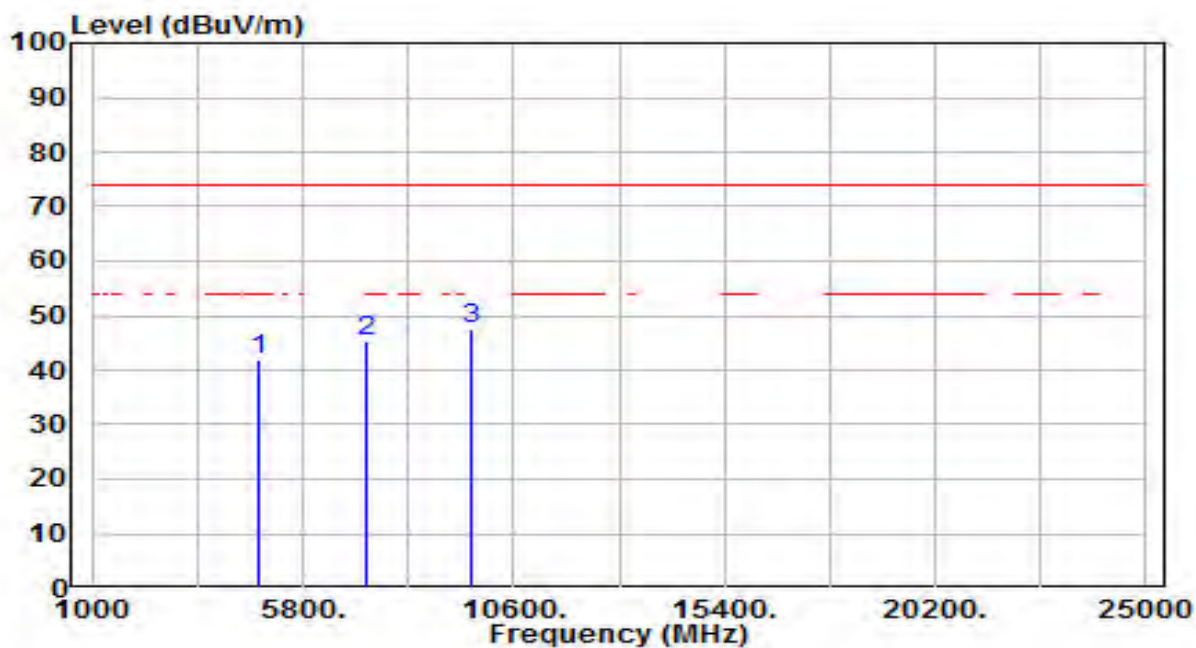


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	4824.000	35.68	3.75	39.43	-34.57	74.00	100	10	Peak
2	7236.000	34.03	11.68	45.70	-28.30	74.00	100	319	Peak
3	* 9648.000	31.05	15.77	46.82	-27.18	74.00	100	195	Peak

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Video&Data transmission device	Date of Test	2025-01-08
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	22°C /48%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 2.4G_TX_2412MHz_Ant 1	Test Voltage	AC 120V/60Hz



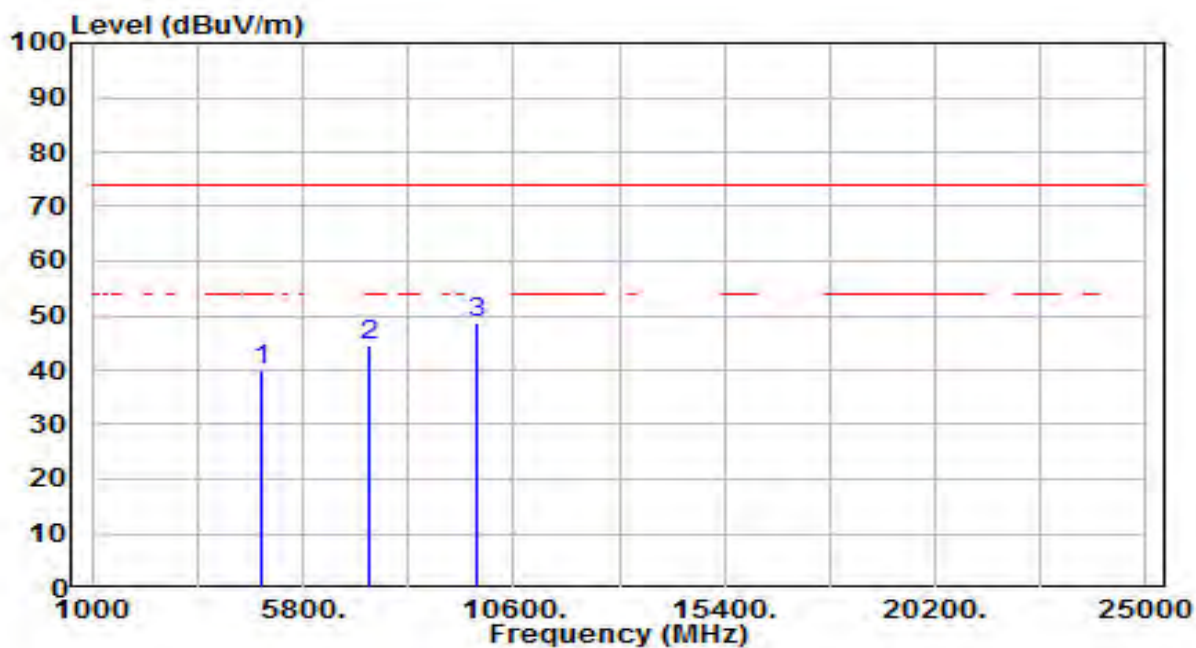
No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	4824.000	38.01	3.75	41.76	-32.24	74.00	100	154	Peak
2	7236.000	33.60	11.68	45.27	-28.73	74.00	100	43	Peak
3	* 9648.000	31.76	15.77	47.53	-26.47	74.00	100	185	Peak

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.



EUT	Video&Data transmission device	Date of Test	2025-01-08
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	22°C /48%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 2.4G_TX_2444MHz_Ant 1	Test Voltage	AC 120V/60Hz

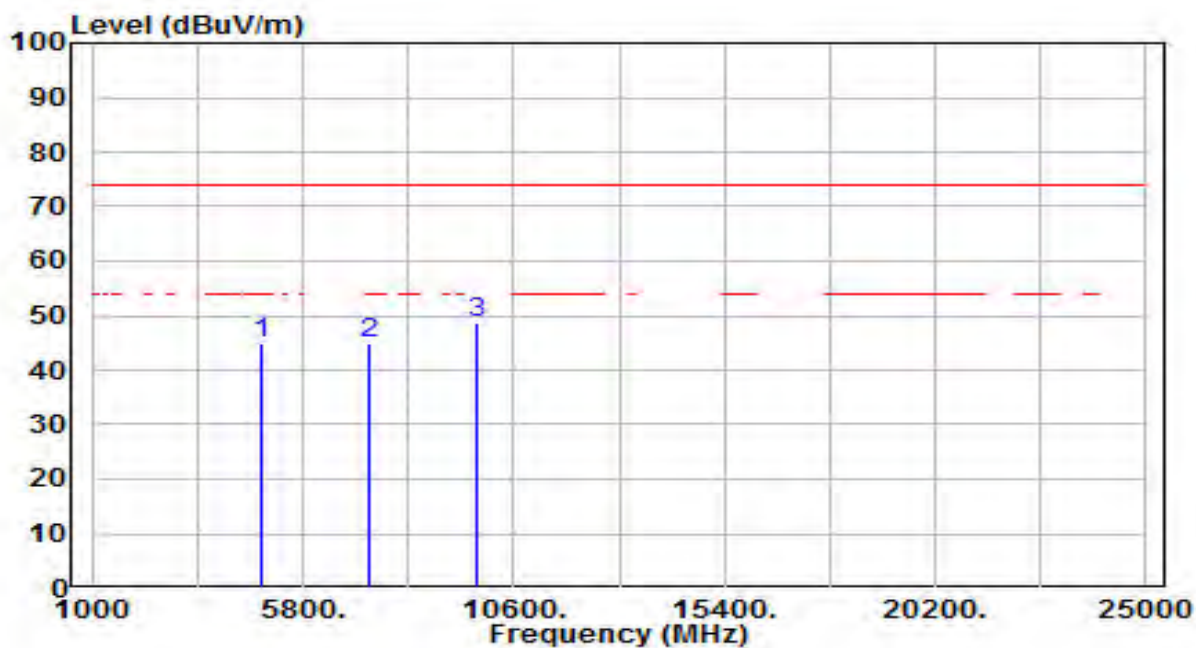


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	4888.000	36.22	3.86	40.08	-33.92	74.00	100	348	Peak
2	7332.000	32.39	12.02	44.40	-29.60	74.00	100	302	Peak
3	* 9776.000	32.79	16.01	48.80	-25.20	74.00	100	16	Peak

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Video&Data transmission device	Date of Test	2025-01-08
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	22°C /48%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 2.4G_TX_2444MHz_Ant 1	Test Voltage	AC 120V/60Hz

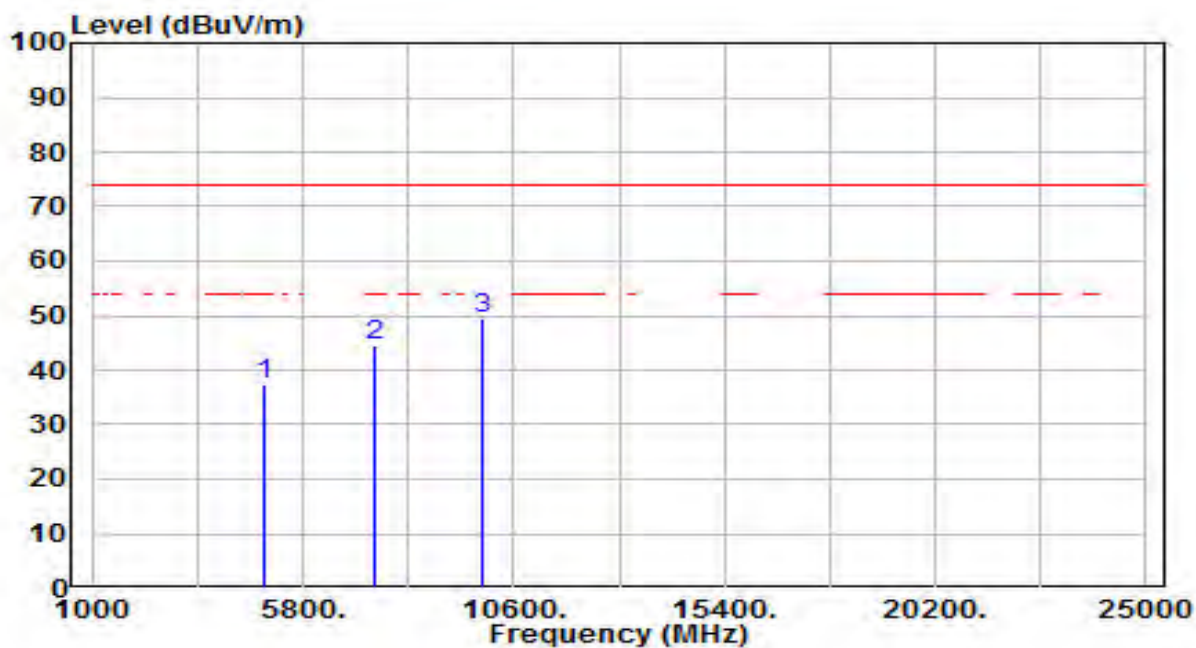


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	4888.000	40.90	3.86	44.76	-29.24	74.00	100	111	Peak
2	7332.000	32.94	12.02	44.96	-29.04	74.00	100	217	Peak
3	* 9776.000	32.59	16.01	48.59	-25.41	74.00	100	305	Peak

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Video&Data transmission device	Date of Test	2025-01-08
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	22°C /48%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 2.4G_TX_2470MHz_Ant 1	Test Voltage	AC 120V/60Hz

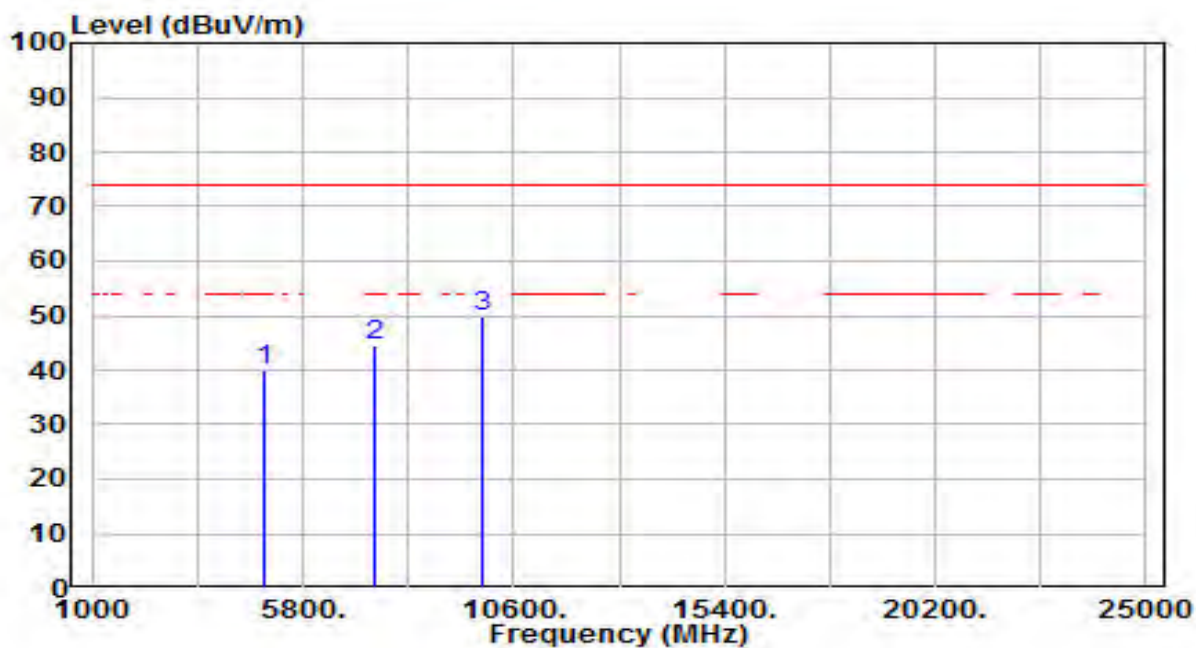


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	4940.000	33.59	3.95	37.54	-36.46	74.00	100	358	Peak
2	7410.000	32.06	12.29	44.35	-29.65	74.00	100	170	Peak
3	* 9880.000	33.26	16.20	49.45	-24.55	74.00	100	159	Peak

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Video&Data transmission device	Date of Test	2025-01-08
Factor	BBHA 9120D & BBHA 9170	Temp. / Humidity	22°C /48%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 2.4G_TX_2470MHz_Ant 1	Test Voltage	AC 120V/60Hz



No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	4940.000	35.98	3.95	39.93	-34.07	74.00	100	32	Peak
2	7410.000	32.10	12.29	44.39	-29.61	74.00	100	60	Peak
3	* 9880.000	33.47	16.20	49.67	-24.33	74.00	100	337	Peak

Note:

1. " \*", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.