MEASUREMENT REPORT

FCC ID	:	**2AQVB-DN2458A**
APPLICANT	:	**Taisync Technology Inc.**
Application Type	:	**Certification**
Product	:	**Video&Data transmission device**
Model No.	:	**DN2458A**
Brand Name	:	**Viulinx**
FCC Classification	:	**Unlicensed National Information Infrastructure (UNII)**
FCC Rule Part(s)	:	**Part 15 Subpart E (Section 15.407)**
Test Procedure(s)	:	**ANSI C63.10-2013**
Received Date	:	**December 30, 2024**
Test Date	:	**January 6, 2025~ January 6, 2025**

Tested By : Kaunaz Lee
(Kaunaz Lee)

Reviewed By : Paddy Chen
(Paddy Chen)

Approved By : Chenz Ker
(Chenz Ker)

Testing Laboratory
3261

The test results only relate to the tested samples.
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-U2	1.0	Original Report	2025-01-21	

CONTENTS

Description Page

General Information

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

Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Fuxing Rd., Taoyuan, Taiwan (R.O.C)

- **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.**
- **MRT facility is an IC registered (MRT Reg. No. 21723) test laboratory with the site description on file at Industry Canada.**
- **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.**

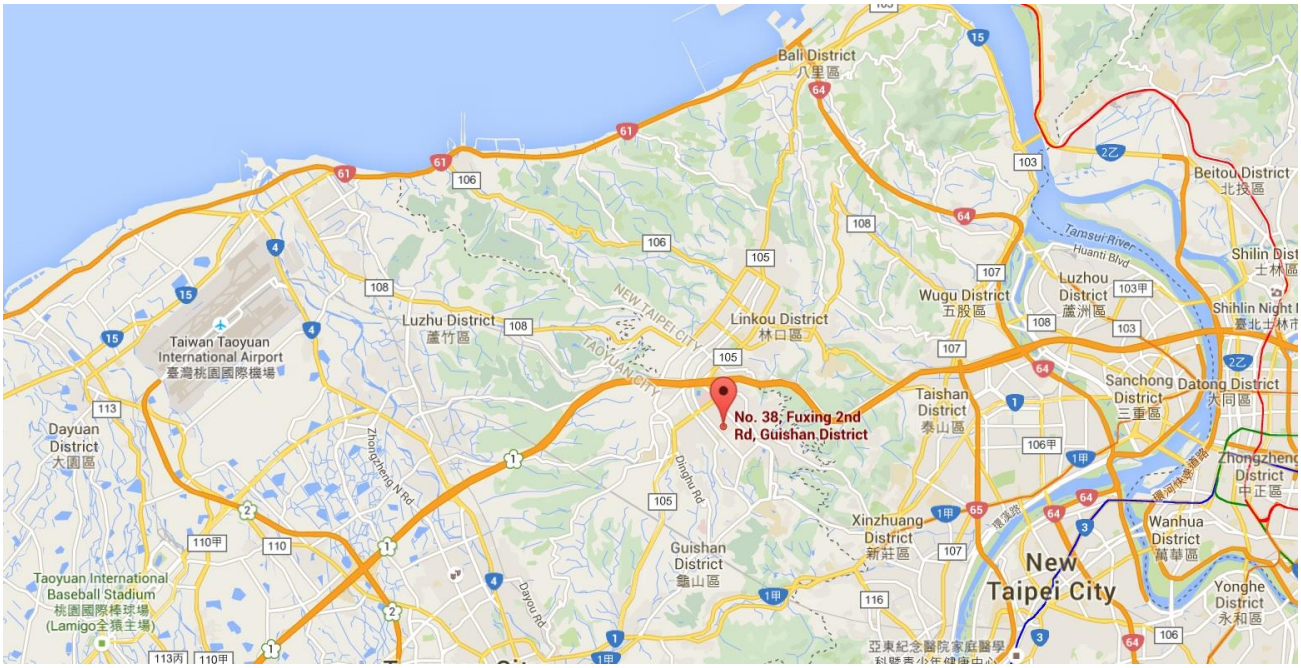
1. INTRODUCTION

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	5731~5782MHz
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. Operation Frequencies and Channel List

Channel	Frequency	Channel	Frequency	Channel	Frequency
01	5731 MHz	02	5765 MHz	03	5782 MHz

2.4. Test Mode

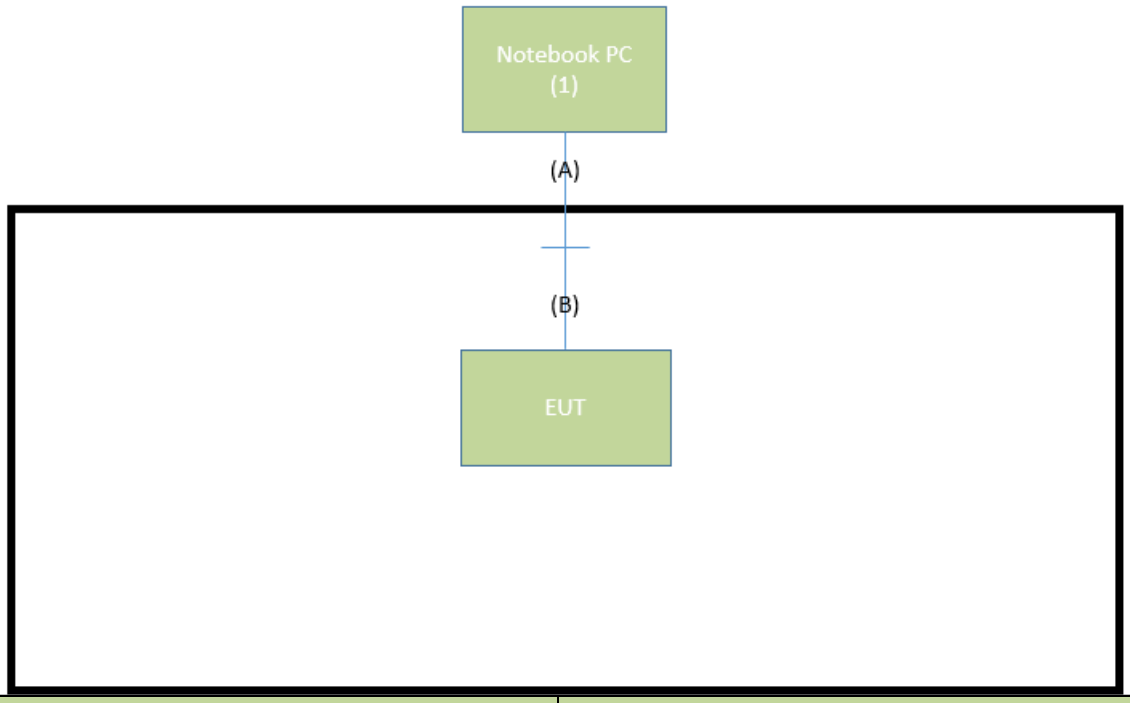
Test Mode	Mode 1: Transmit by 5.8GHz with Ant 1 Mode 2: Transmit by 5.8GHz with Ant 2

Note: Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.

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.

Connection Diagram



Signal Cable Type		Signal Cable Description
A	LAN Cable	Non-Shielded, 3.0m
B	RJ-45 Cable	Non-Shielded, 0.5m

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
5.8GHz	92.26%

2.9. Test Configuration

This device was tested per the guidance of KDB 789033 D02v02r01. ANSI C63.10-2013 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing.

2.10. EMI Suppression Device(s)/Modifications

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

2.11. 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 789033 were used in the measurement of the device**.**

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 whichever 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 7.10.

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 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, whichever 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.

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
Acitve 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: ± 2.53dB
Conducted Measurement
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ± 1.3dB
Radiated Spurious Emission
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 9kHz~30MHz: ± 3.92dB 30MHz~1GHz: ± 4.25dB 1GHz~18GHz: ± 4.40dB 18GHz~40GHz: ± 4.45dB

7. TEST RESULT

7.1. Summary

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

FCC Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.407(a)	26dB Bandwidth	N/A	Conducted	Pass	Section 7.2
15.407(e)	6dB Bandwidth	≥ 500kHz		Pass	Section 7.3
15.407(a)(1)(i), (2), (3)	Maximum Conducted Output Power	Refer to Section 7.5		Pass	Section 7.4
15.407(h)(1)	Transmit Power Control	≤ 24 dBm		N/A	Section 7.5
15.407(a)(1)(i), (2), (3), (5)	Power Spectral Density	Refer to Section 7.7		Pass	Section 7.6
15.407(b)(1), (4)	Undesirable Emissions	≤ -27dBm/MHz EIRP ≤ -17dBm/MHz EIRP	Radiated	Pass	Section 7.7 & 7.8
15.205, 15.209 15.407(b)(8), (9), (10)	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Emissions in restricted bands must meet the radiated limits detailed in 15.209		Pass	
15.207	AC Conducted Emissions 150kHz - 30MHz	< FCC 15.207 limits	Line Conducted	Pass	Section 7.9

Notes:

1) 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. 26dB Bandwidth Measurement

7.2.1. Test Limit

N/A

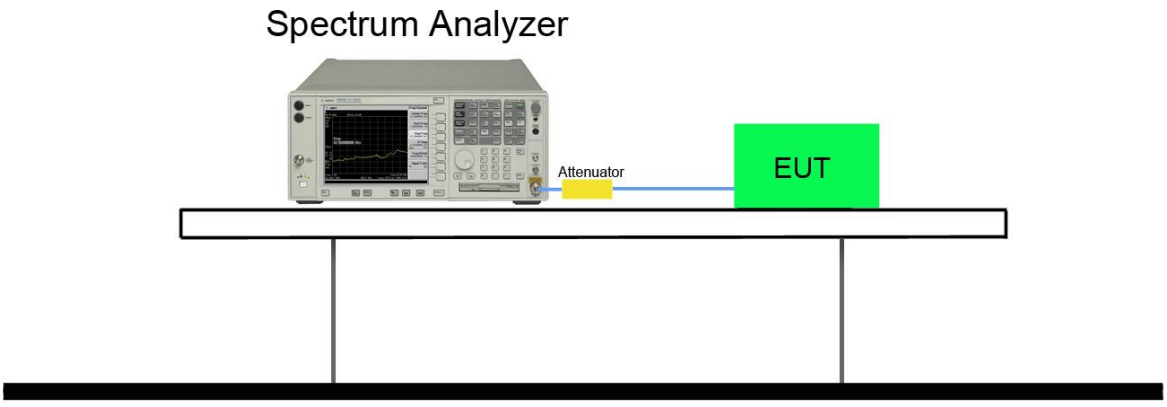
7.2.2. Test Procedure used

KDB 789033 D02v02r01 - Section C.1

7.2.3. Test Setting

1. The analyzers' automatic bandwidth measurement capability was used to perform the 26dB bandwidth measurement. The "X" dB bandwidth parameter was set to X = 26. The automatic bandwidth measurement function also has the capability of simultaneously measuring the 99% occupied bandwidth. The bandwidth measurement was not influenced by any intermediated power nulls in the fundamental emission.
2. RBW = approximately 1% of the emission bandwidth.
3. VBW ≥ 3 × RBW.
4. Detector = Peak.
5. Trace mode = max hold.

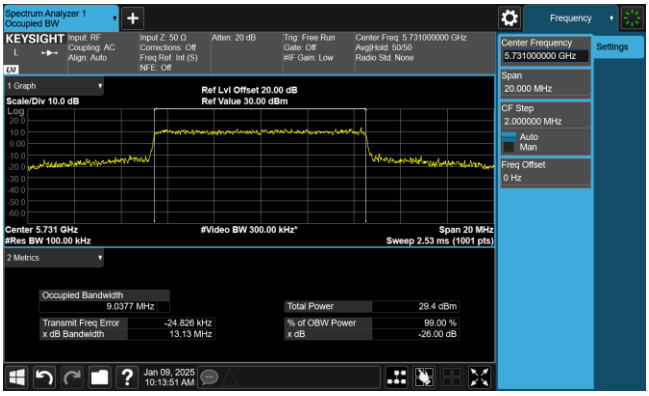
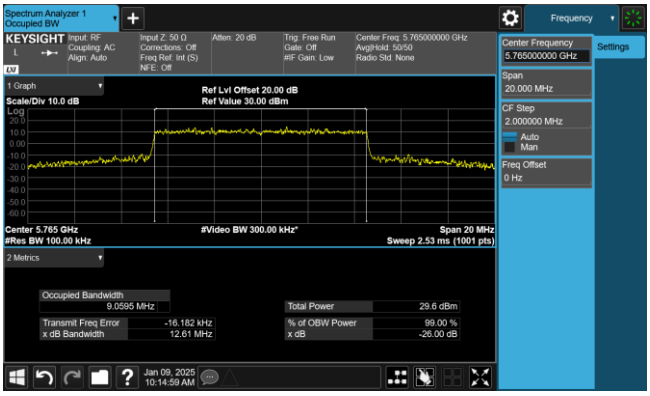
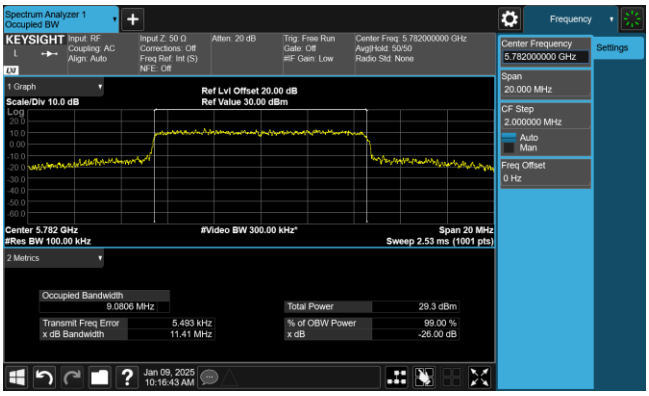
7.2.4. Test Setup



7.2.5. Test Result

Product	Video&Data transmission device	Temperature	25°C
Test Engineer	Fran	Relative Humidity	54%
Test Site	SR6	Test Date	2025/1/9

Test Mode	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
5.8GHz_Ant 1	CH01	5731	13.13	9.0377	N/A	Pass
	CH02	5765	12.61	9.0595	N/A	Pass
	CH03	5782	11.41	9.0806	N/A	Pass

Ant 1	
CH01 (5731MHz)	**CH02 (5765MHz)**
	
CH03 (5782MHz)	
	

7.3. 6dB Bandwidth Measurement

7.3.1. Test Limit

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

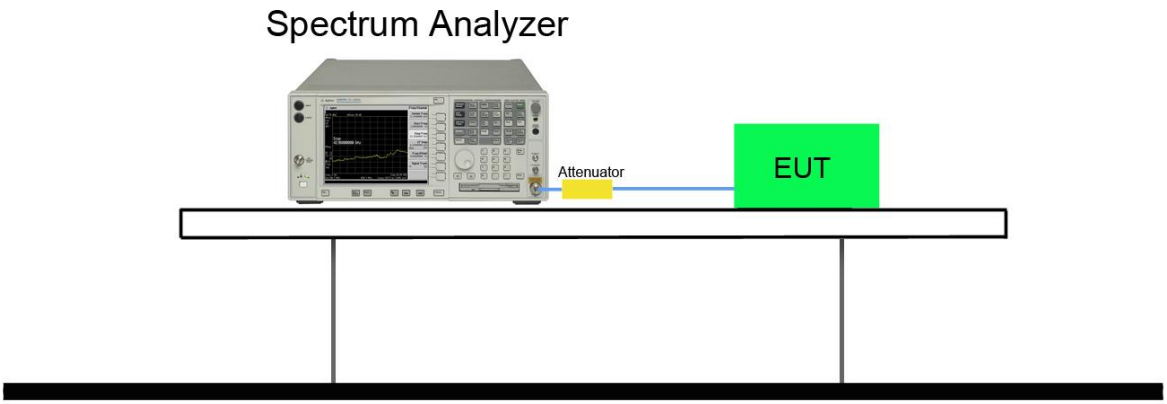
7.3.2. Test Procedure used

KDB 789033 D02v02r01 - Section C.2

7.3.3. Test Setting

1. Set center frequency to the nominal EUT channel center frequency.
2. RBW = 100 kHz.
3. VBW ≧ 3 × RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

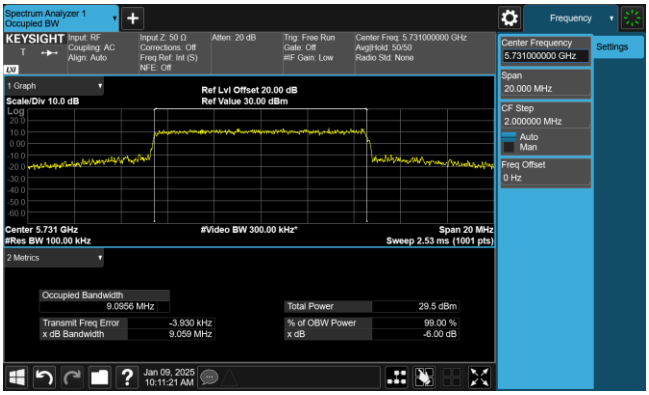
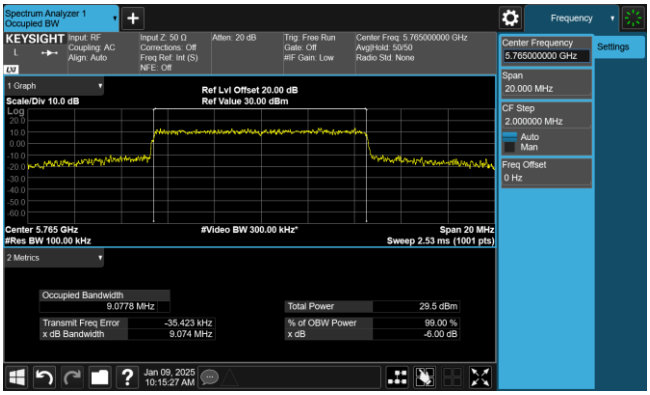
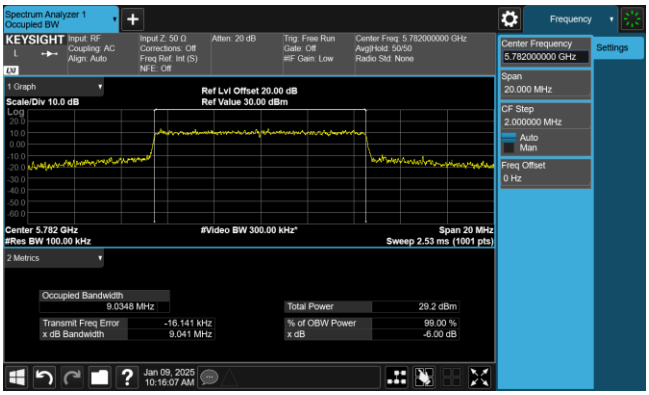
7.3.4. Test Setup



7.3.5. Test Result

Product	Video&Data transmission device	Temperature	25°C
Test Engineer	Fran	Relative Humidity	54%
Test Site	SR6	Test Date	2025/1/9

Test Mode	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
5.8GHz_Ant 1	CH01	5731	9.059	9.0956	≥ 0.5	Pass
	CH02	5765	9.074	9.0778	≥ 0.5	Pass
	CH03	5782	9.041	9.0348	≥ 0.5	Pass

Ant 1	
CH01 (5731MHz)	**CH02 (5765MHz)**
	
CH03 (5782MHz)	
	

7.4. Output Power Measurement

7.4.1. Test Limit

For FCC Power Measurement Limit

For client operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 250mW.
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (23.98dBm) or 11dBm +10 log (26dB BW).
For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm).

If transmitting antennas of directional gain greater than 6dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

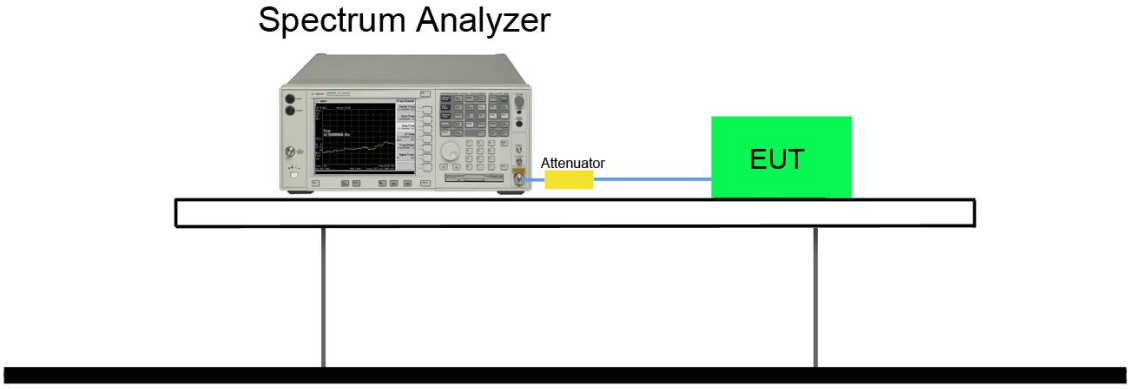
7.4.2. Test Procedure Used

KDB 789033 D02v02r01 - Section E) 3) b) Method PM-G

7.4.3. Test Setting

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.

7.4.4. 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	2025/1/6

Test Mode	Channel No.	Frequency (MHz)	Average Power (dBm)	Power Limit (dBm)
5.8GHz_Ant 1	CH01	5731	24.28	< 30
	CH02	5765	24.30	< 30
	CH03	5782	24.09	< 30
5.8GHz_Ant 2	CH01	5731	24.15	< 30
	CH02	5765	24.29	< 30
	CH03	5782	24.23	< 30

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

7.5. Transmit Power Control

7.5.1. Test Limit

The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm.

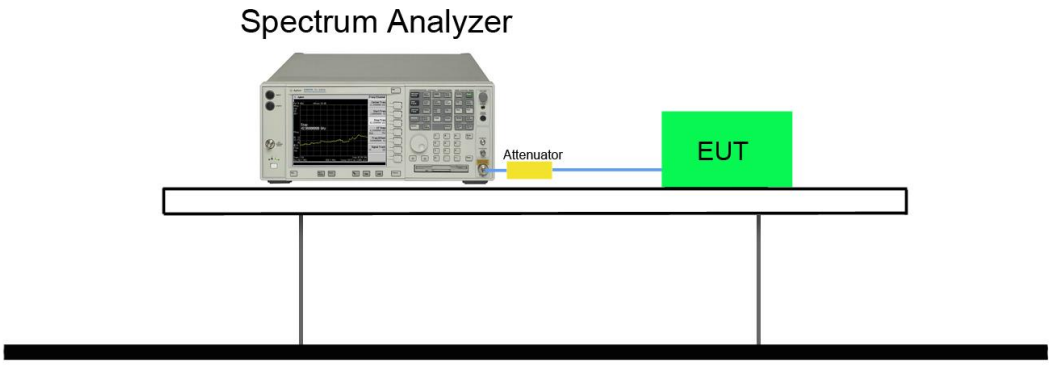
7.5.2. Test Procedure Used

KDB 789033 D02v02r01 - Section E) 3) b) Method PM-G

7.5.3. Test Setting

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.

7.5.4. Test Setup



7.5.5. Test Result

A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

7.6. Power Spectral Density Measurement

7.6.1. Test Limit

For FCC Power Spectral Density Limit

For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

If transmitting antennas of directional gain greater than 6dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

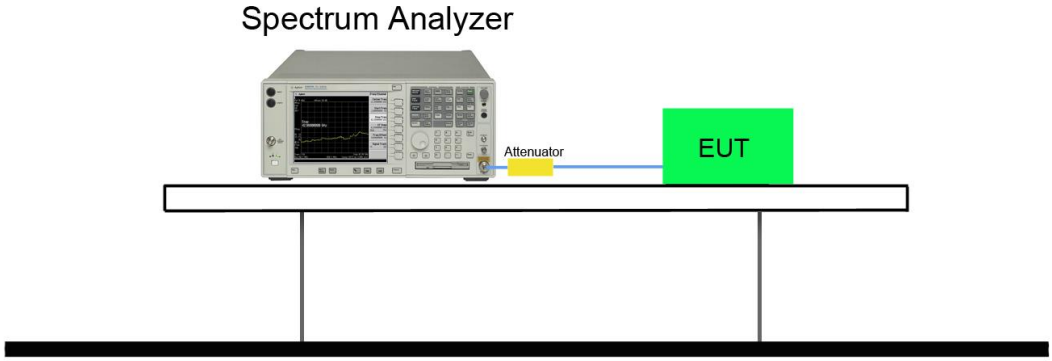
7.6.2. Test Procedure Used

KDB 789033 D02v02r01 - Section F

7.6.3. Test Setting

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz, if measurement bandwidth of Maximum PSD is specified in 500 kHz,
4. RBW = 100 kHz
5. VBW = 3MHz
6. Number of sweep points ≥ 2 × (span / RBW)
7. Detector = power averaging (Average)
8. Sweep time = auto
9. Trigger = free run
10. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
11. Add 10*log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add 10*log (1/0.25) = 6 dB if the duty cycle is 25 percent.
12. When the measurement bandwidth of Maximum PSD is specified in 500 kHz, add a constant factor 10*log(500kHz/100kHz) = 7 dB to the measured result

7.6.4. Test Setup

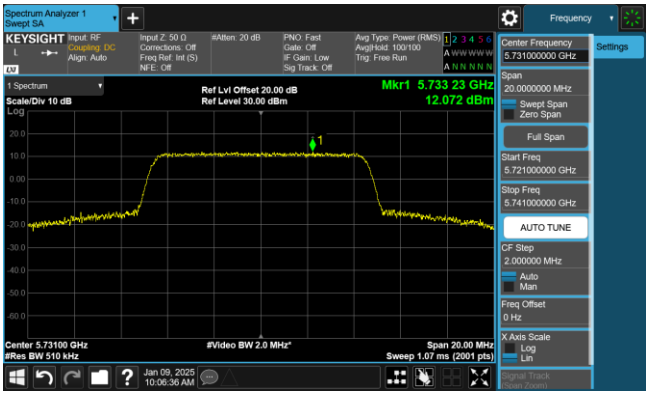
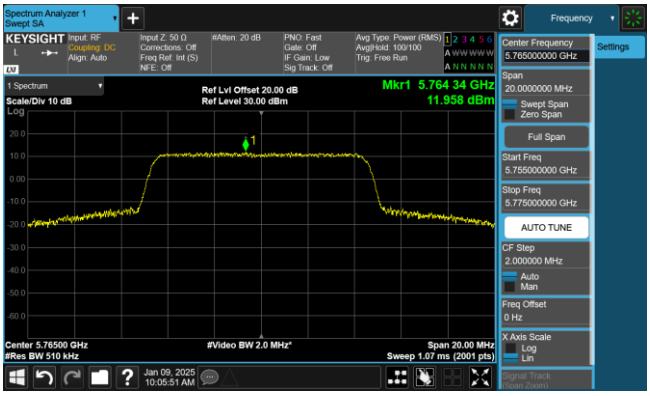
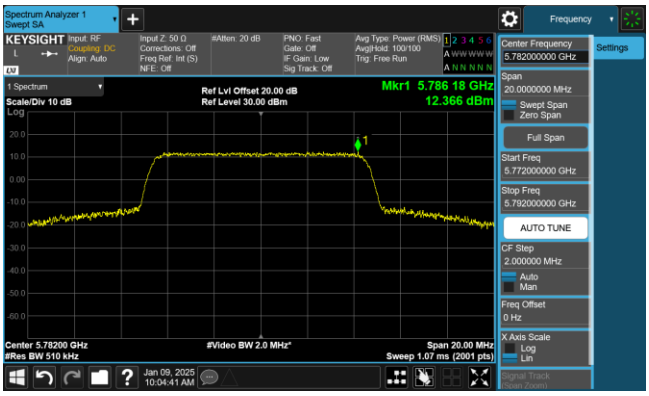


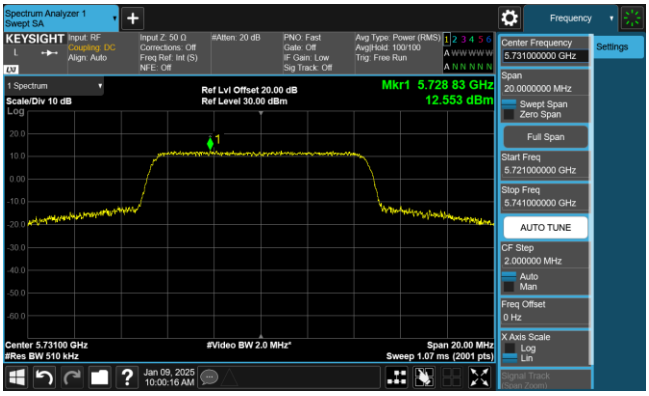
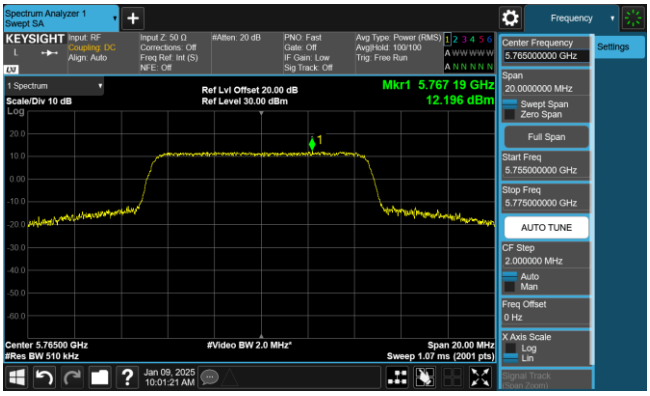
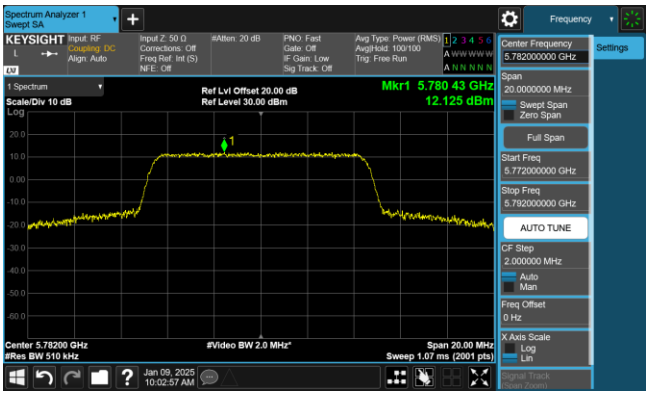
7.6.5. Test Result

Product	Video&Data transmission device	Temperature	25°C
Test Engineer	Fran	Relative Humidity	54%
Test Site	SR6	Test Date	2025/1/9

Test Mode	Ch. No.	Freq. (MHz)	Average PSD (dBm/510KHz)	Duty Cycle (%)	Total PSD (dBm/ 510kHz)	Limit (dBm/ 500kHz)	Result
5.8GHz_Ant 1	CH01	5731	12.072	92.26%	12.422	≤ 30	Pass
	CH02	5765	11.958	92.26%	12.308	≤ 30	Pass
	CH03	5782	12.366	92.26%	12.716	≤ 30	Pass
5.8GHz_Ant 2	CH01	5731	12.553	92.26%	12.903	≤ 30	Pass
	CH02	5765	12.196	92.26%	12.546	≤ 30	Pass
	CH03	5782	12.125	92.26%	12.475	≤ 30	Pass

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

Ant 1	
CH01 (5731MHz)	**CH02 (5765MHz)**
	
CH03 (5782MHz)	
	

Ant 2	
CH01 (5731MHz)	**CH02 (5765MHz)**
	
CH03 (5782MHz)	
	

7.7. Radiated Spurious Emission Measurement

7.7.1. 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

7.7.2. Test Procedure Used

KDB 789033 D02v02r01 – Section G

7.7.3. Test Setting

Peak Measurements above 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = 120 kHz
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Average Measurements above 1GHz (Method AD)

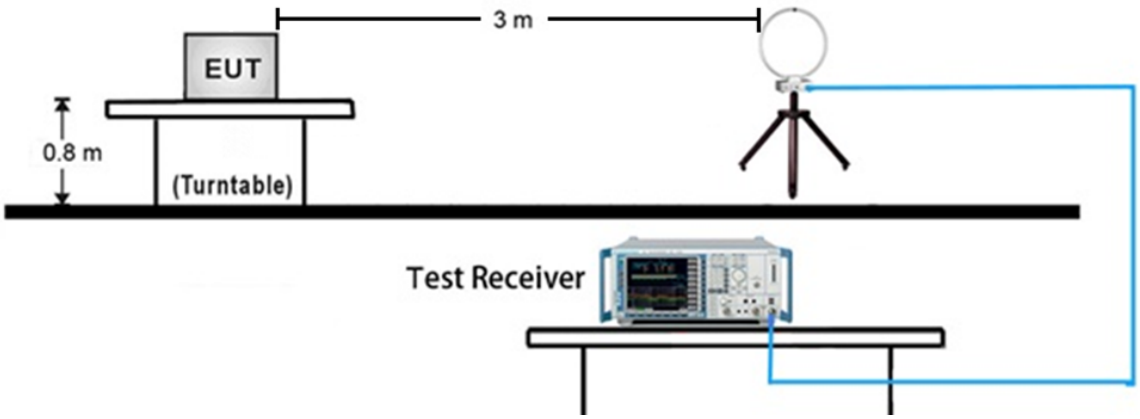
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = power average (Average)
5. Number of measurement points = 1001 (Number of points must be > 2 x span/RBW)
6. Sweep time = auto
7. Trace was averaged over at 100 sweeps

Quasi-Peak & Average Measurements below 30MHz

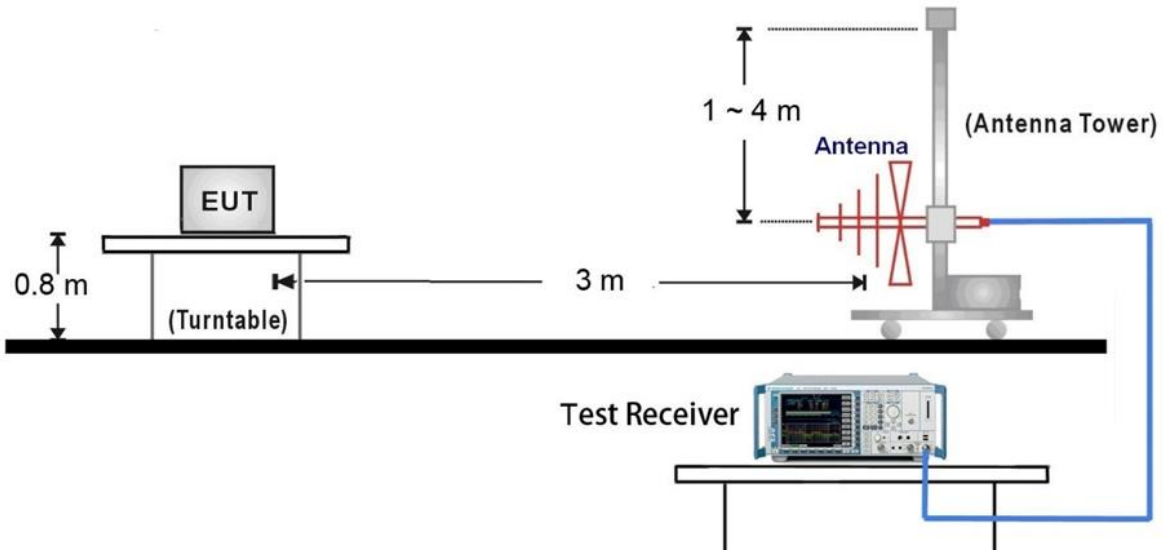
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = 200Hz for 9kHz to 150kHz frequency; RBW = 9kHz for 0.15MHz to 30MHz frequency
4. Detector = CISPR quasi-peak or power average (Average)
5. Sweep time = auto couple
6. Trace was allowed to stabilize

7.7.4. Test Setup

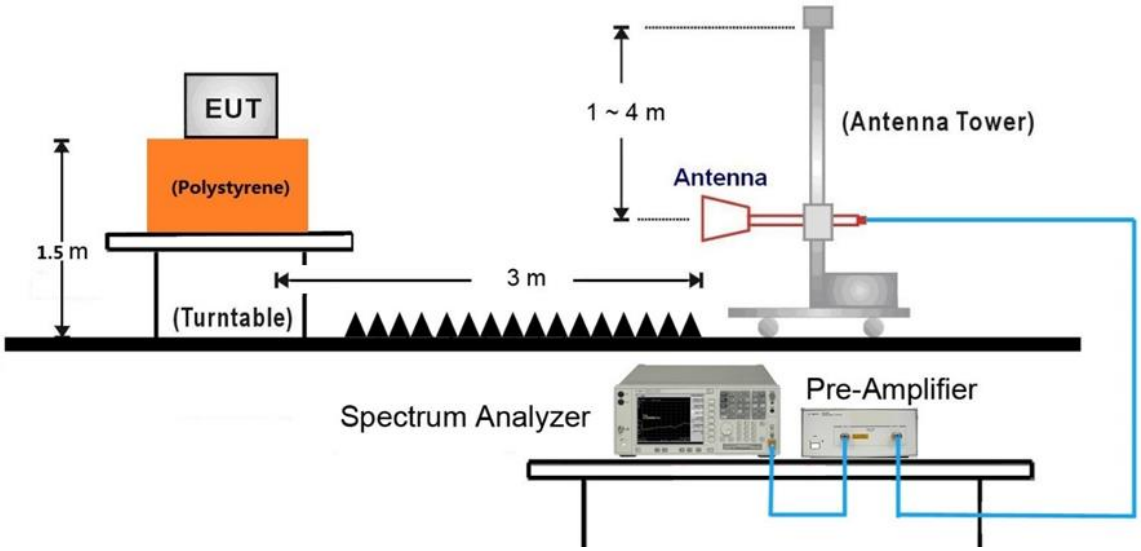
9kHz ~ 30MHz Test Setup:



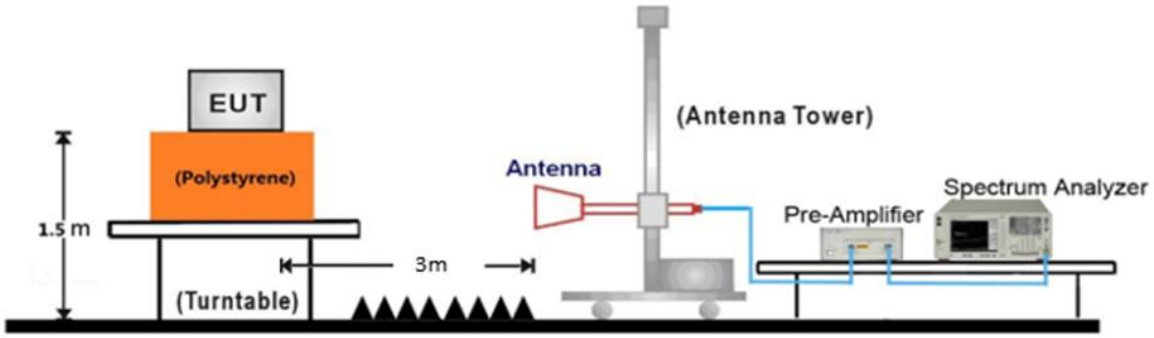
30MHz ~ 1GHz Test Setup:



1GHz ~18GHz Test Setup:

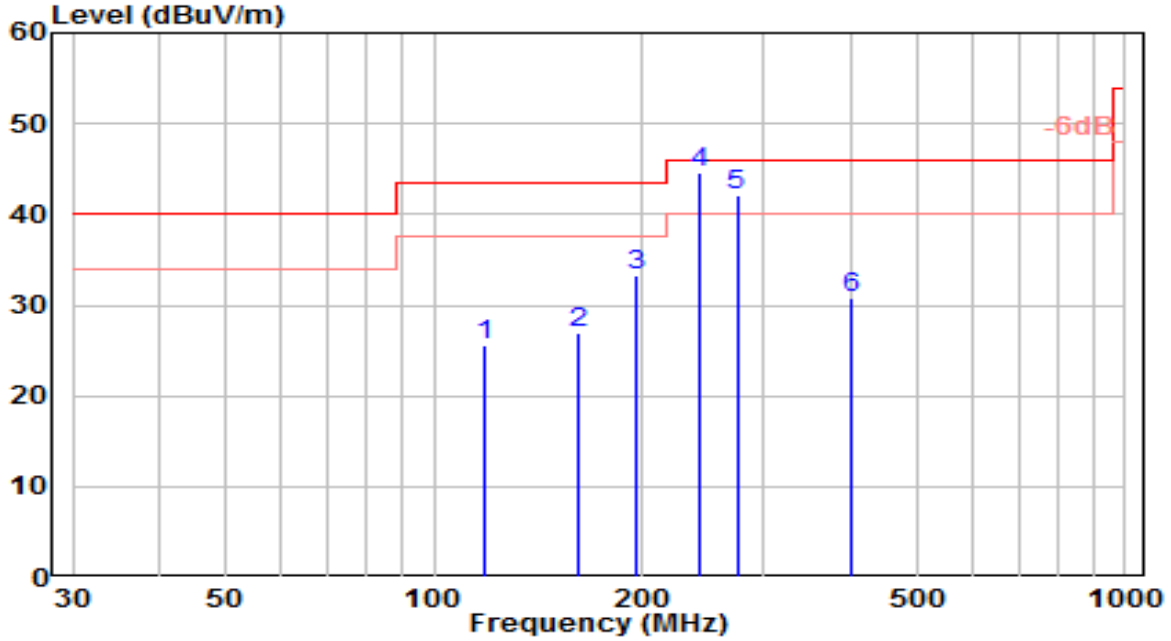


18GHz ~40GHz Test Setup:



7.7.5. 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 5.8G_TX_5765MHz_Ant 1	Test Voltage	AC 120V/60Hz

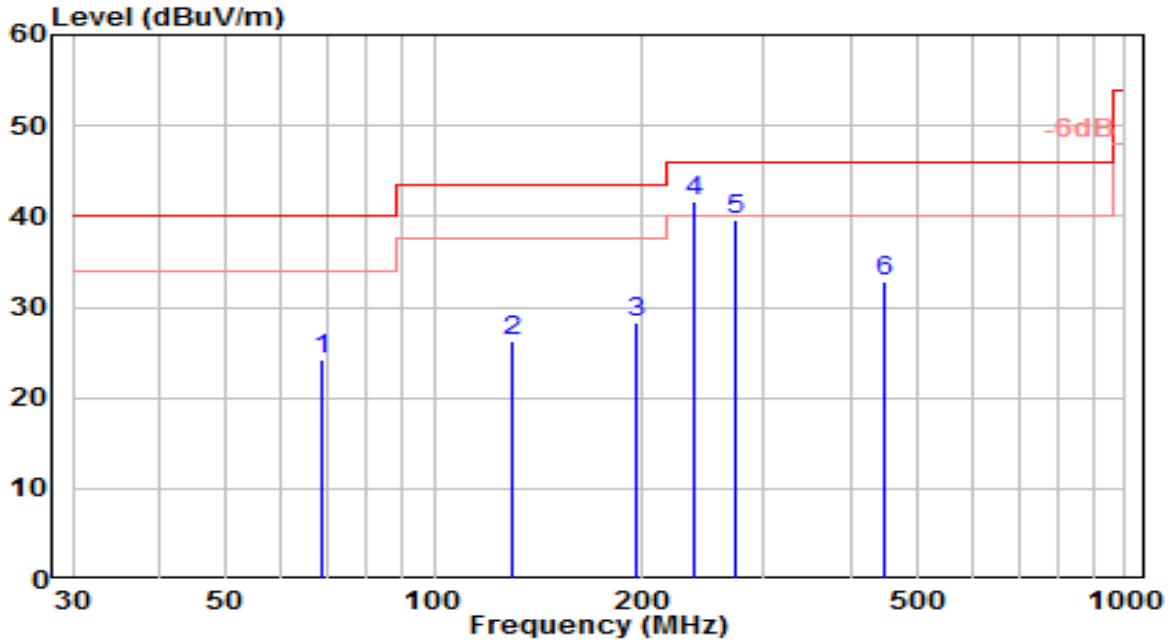


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		118.729	8.17	17.46	25.63	-17.87	43.50	150	85	QP
2		162.094	10.74	16.10	26.84	-16.66	43.50	150	70	QP
3		196.268	14.92	18.40	33.32	-10.18	43.50	150	275	QP
4	*	241.417	24.52	19.97	44.49	-1.51	46.00	100	275	QP
5		274.256	21.52	20.57	42.09	-3.91	46.00	100	35	QP
6		401.543	6.95	23.83	30.77	-15.23	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 5.8G_TX_5765MHz_Ant 1	Test Voltage	AC 120V/60Hz

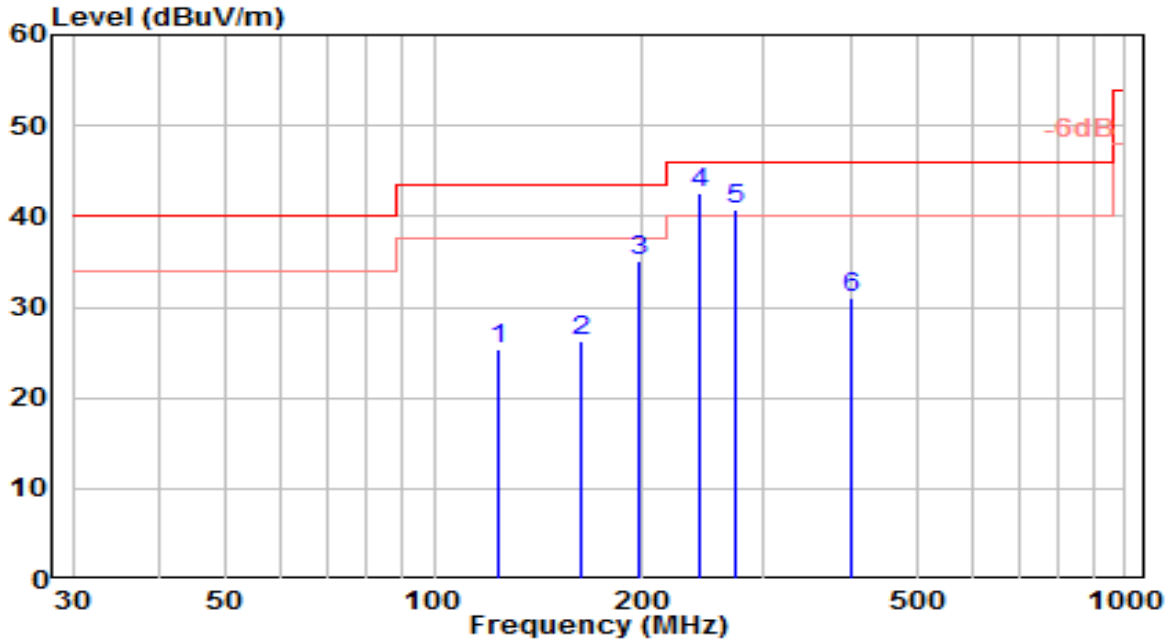


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		68.545	7.42	16.78	24.20	-15.80	40.00	100	325	QP
2		129.606	10.39	15.97	26.36	-17.14	43.50	100	320	QP
3		196.358	9.90	18.40	28.30	-15.20	43.50	150	205	QP
4	*	238.616	21.71	19.85	41.56	-4.44	46.00	100	15	QP
5		273.091	19.07	20.55	39.62	-6.38	46.00	100	195	QP
6		448.856	8.45	24.29	32.74	-13.26	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 5.8G_TX_5765MHz_Ant 2	Test Voltage	AC 120V/60Hz

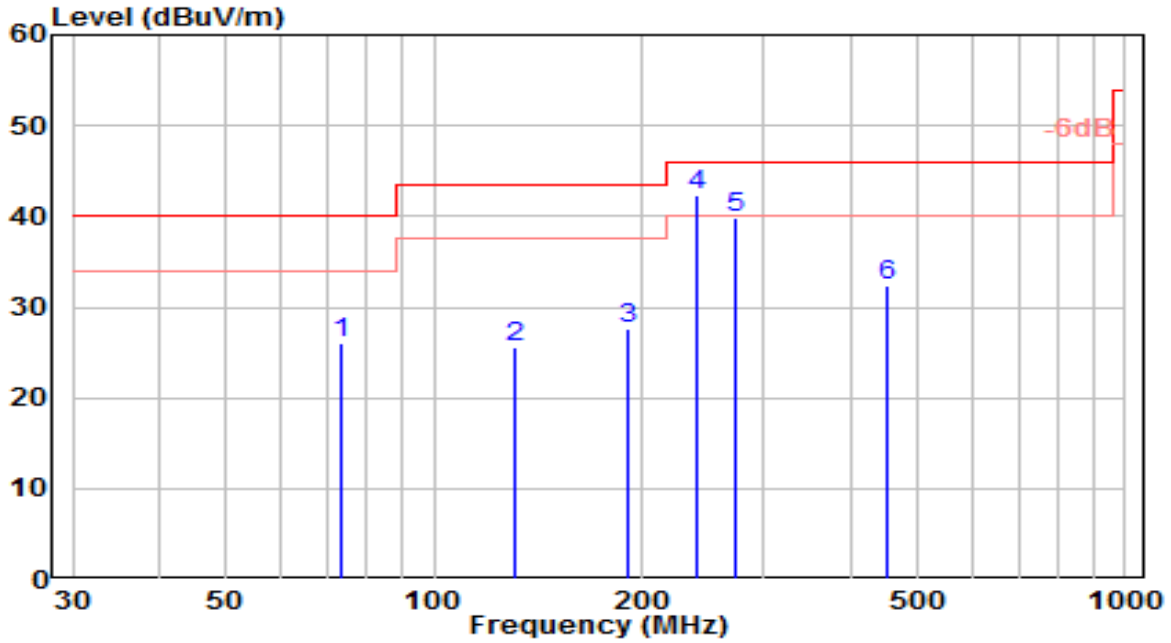


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		123.970	8.51	16.74	25.25	-18.25	43.50	150	85	QP
2		163.134	10.19	16.13	26.33	-17.17	43.50	150	70	QP
3		197.824	16.66	18.47	35.13	-8.37	43.50	150	275	QP
4	*	242.858	22.55	20.05	42.60	-3.40	46.00	100	275	QP
5		273.612	20.16	20.56	40.72	-5.28	46.00	100	35	QP
6		402.808	7.28	23.84	31.12	-14.88	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 5.8G_TX_5765MHz_Ant 2	Test Voltage	AC 120V/60Hz

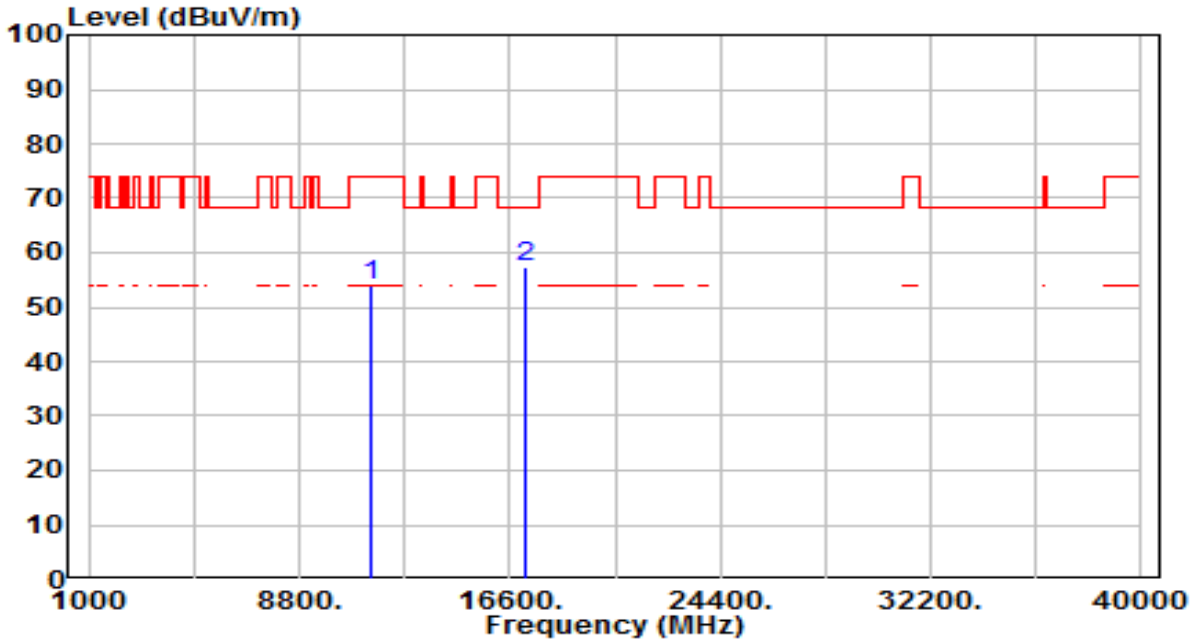


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		73.439	10.50	15.51	26.01	-13.99	40.00	100	325	QP
2		131.347	9.81	15.83	25.64	-17.86	43.50	100	320	QP
3		191.189	9.51	18.18	27.69	-15.81	43.50	150	205	QP
4	*	240.442	22.33	19.92	42.24	-3.76	46.00	100	15	QP
5		273.437	19.38	20.55	39.94	-6.06	46.00	100	195	QP
6		454.038	7.94	24.40	32.34	-13.66	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 5.8G_TX_5731MHz_Ant 1	Test Voltage	AC 120V/60Hz

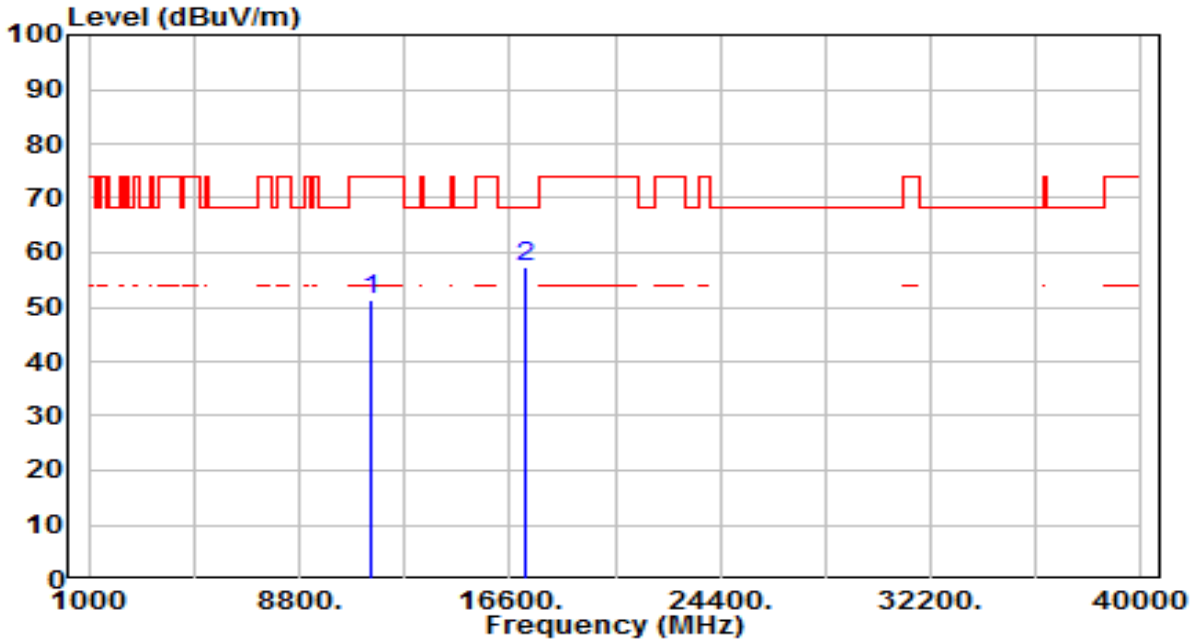


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		11462.000	34.11	19.78	53.89	-20.11	74.00	100	140	Peak
2	*	17193.000	31.86	25.45	57.32	-10.88	68.20	100	339	Peak

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 5.8G_TX_5731MHz_Ant 1	Test Voltage	AC 120V/60Hz

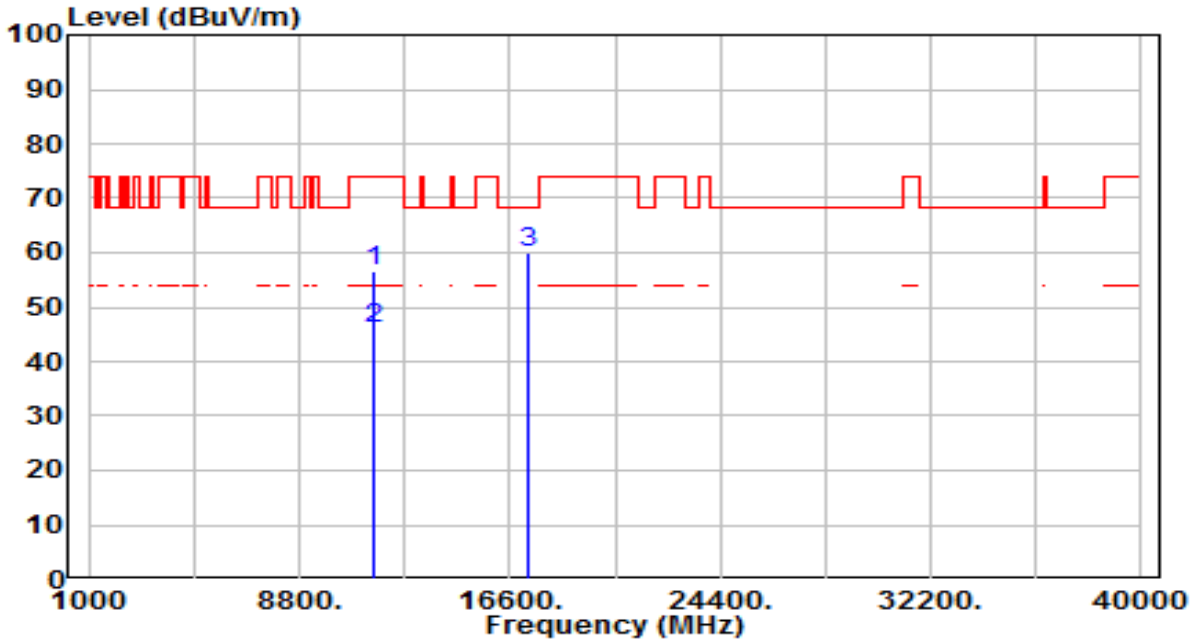


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		11462.000	31.72	19.78	51.50	-22.50	74.00	100	218	Peak
2	*	17193.000	31.85	25.45	57.30	-10.90	68.20	100	267	Peak

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 5.8G_TX_5765MHz_Ant 1	Test Voltage	AC 120V/60Hz

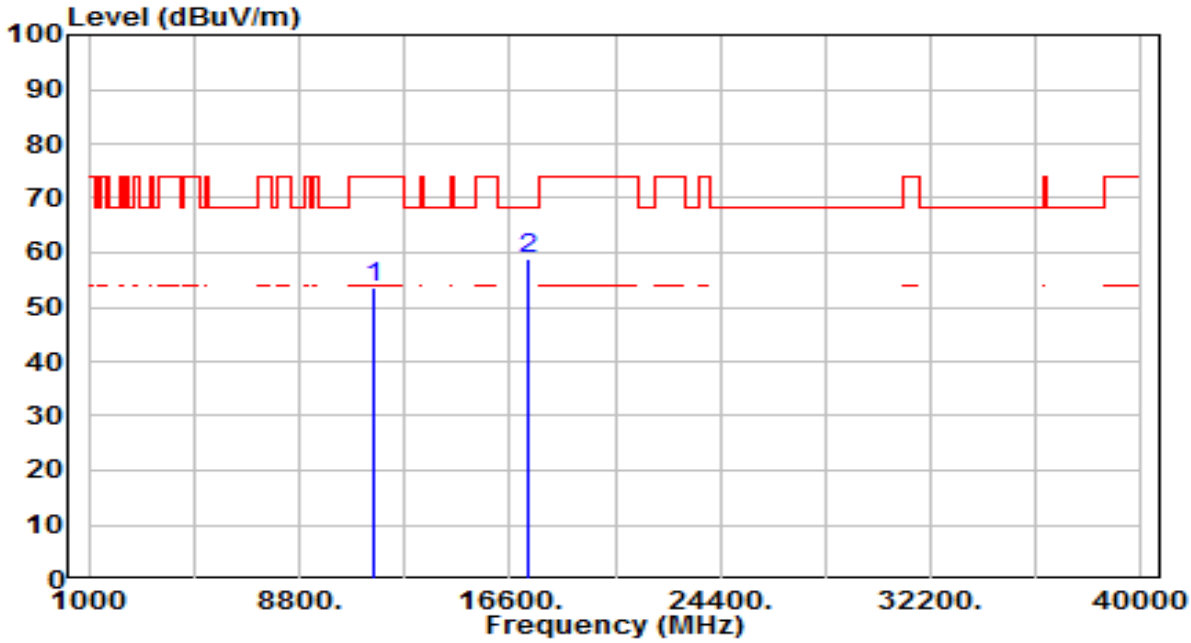


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		11530.000	36.72	19.79	56.52	-17.48	74.00	100	227	Peak
2	*	11530.000	26.30	19.79	46.09	-7.91	54.00	100	227	Average
3	*	17295.000	33.78	26.21	59.99	-8.21	68.20	100	338	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 5.8G_TX_5765MHz_Ant 1	Test Voltage	AC 120V/60Hz

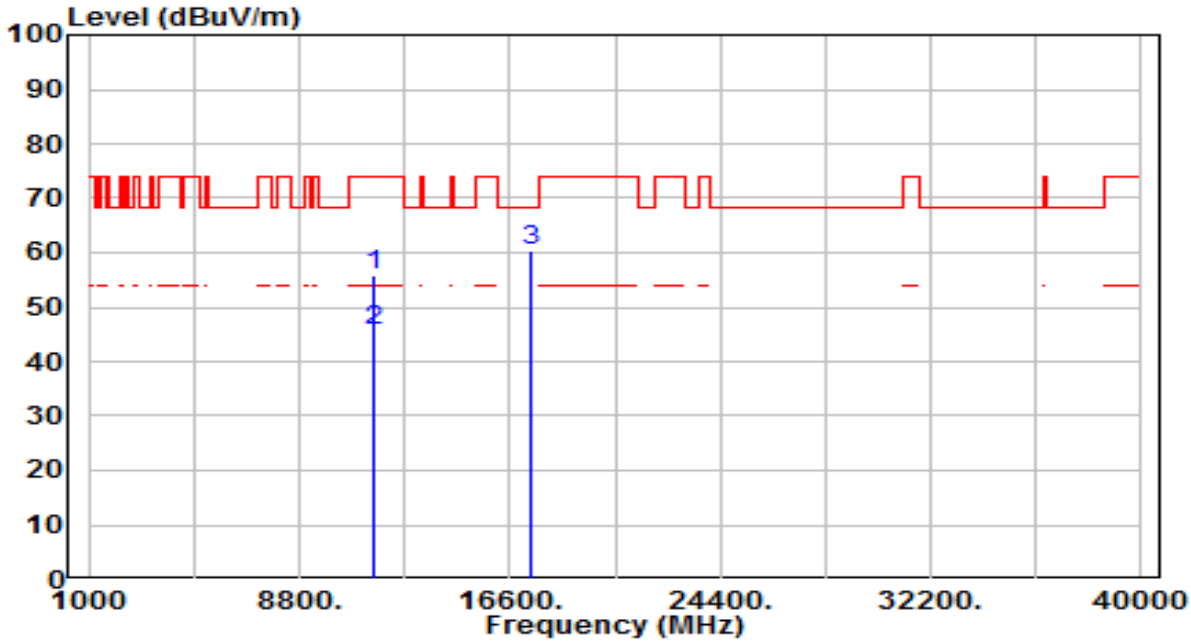


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		11530.000	33.72	19.79	53.51	-20.49	74.00	100	199	Peak
2	*	17295.000	32.75	26.21	58.96	-9.24	68.20	100	287	Peak

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 5.8G_TX_5782MHz_Ant 1	Test Voltage	AC 120V/60Hz

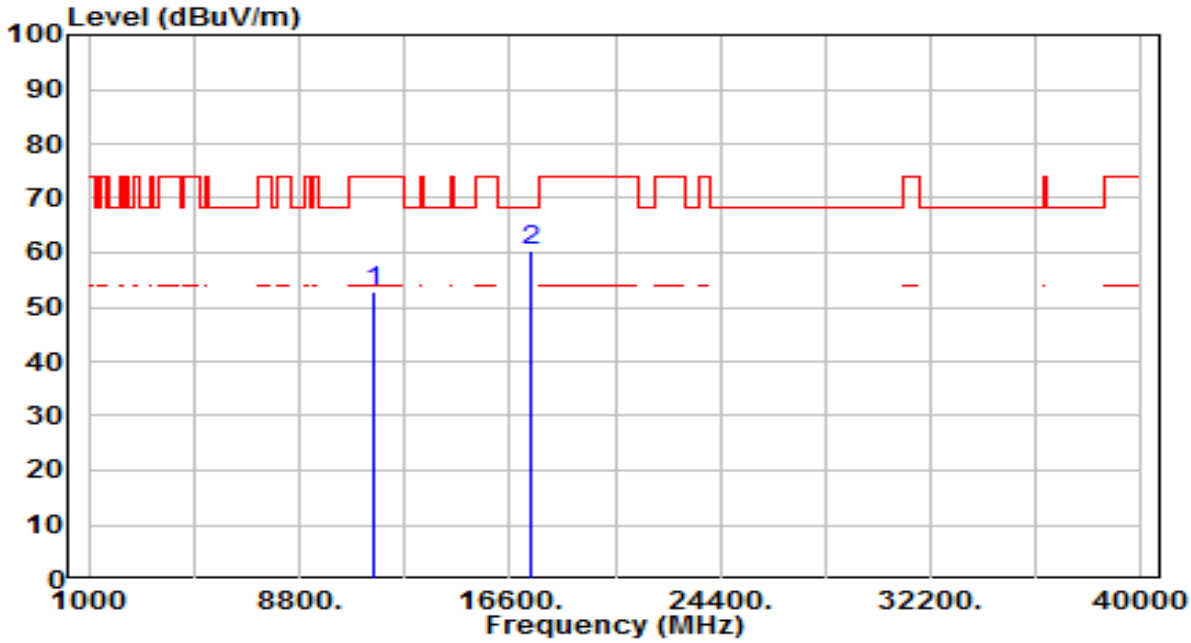


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		11564.000	36.23	19.73	55.96	-18.04	74.00	100	235	Peak
2	*	11564.000	25.80	19.73	45.53	-8.47	54.00	100	235	Average
3	*	17346.000	33.70	26.59	60.29	-7.91	68.20	100	214	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 5.8G_TX_5782MHz_Ant 1	Test Voltage	AC 120V/60Hz

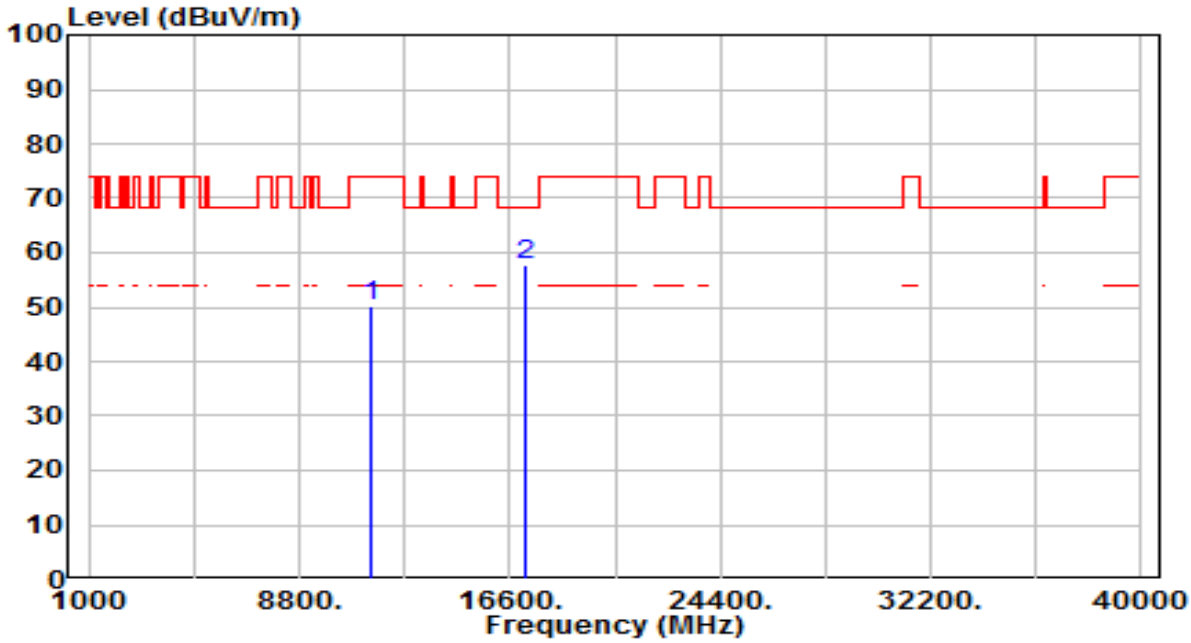


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		11564.000	33.09	19.73	52.82	-21.18	74.00	100	222	Peak
2	*	17346.000	33.62	26.59	60.20	-8.00	68.20	100	320	Peak

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 5.8G_TX_5731MHz_Ant 2	Test Voltage	AC 120V/60Hz

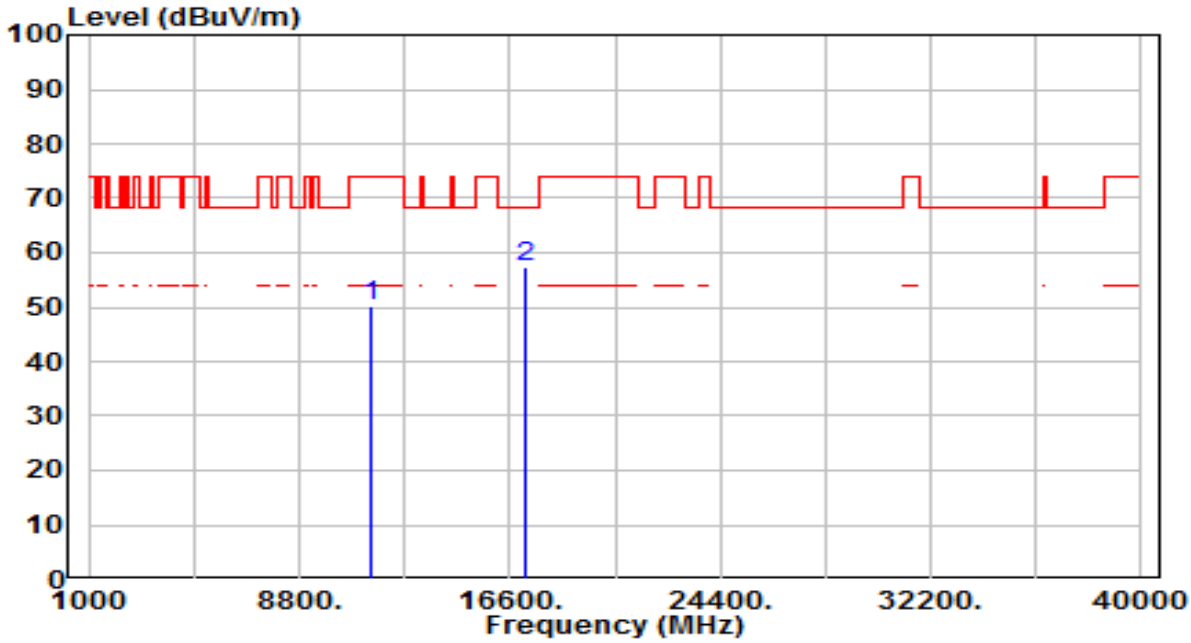


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		11462.000	30.42	19.78	50.20	-23.80	74.00	100	0	Peak
2	*	17193.000	32.26	25.45	57.71	-10.49	68.20	100	38	Peak

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 5.8G_TX_5731MHz_Ant 2	Test Voltage	AC 120V/60Hz

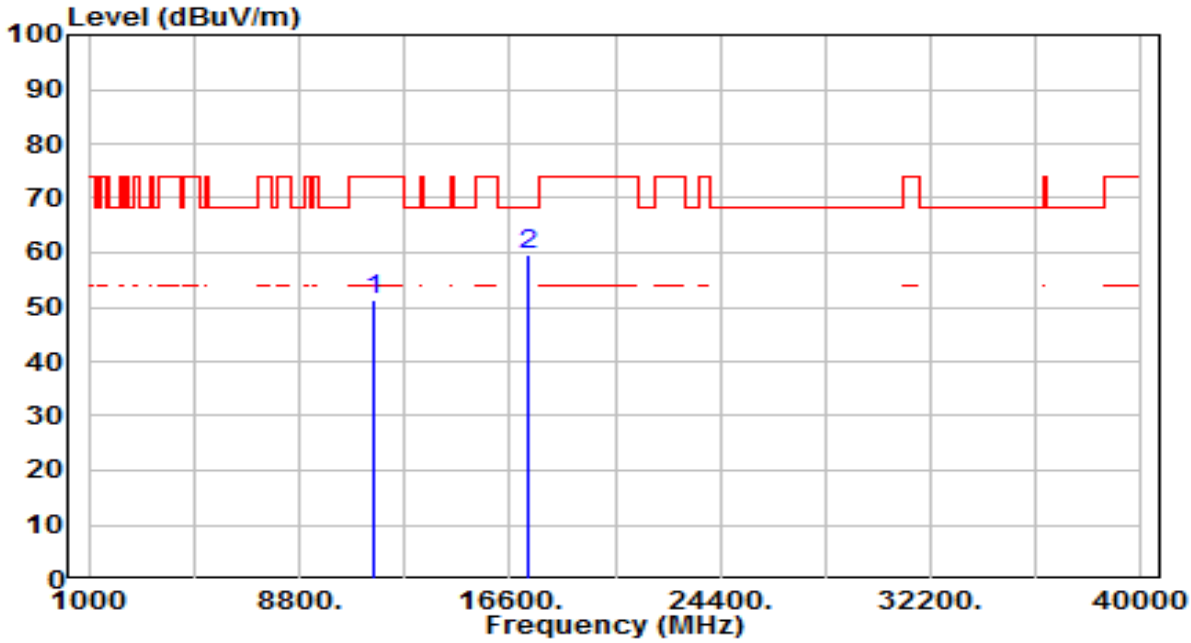


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		11462.000	30.35	19.78	50.13	-23.87	74.00	100	103	Peak
2	*	17193.000	31.94	25.45	57.39	-10.81	68.20	100	199	Peak

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 5.8G_TX_5765MHz_Ant 2	Test Voltage	AC 120V/60Hz

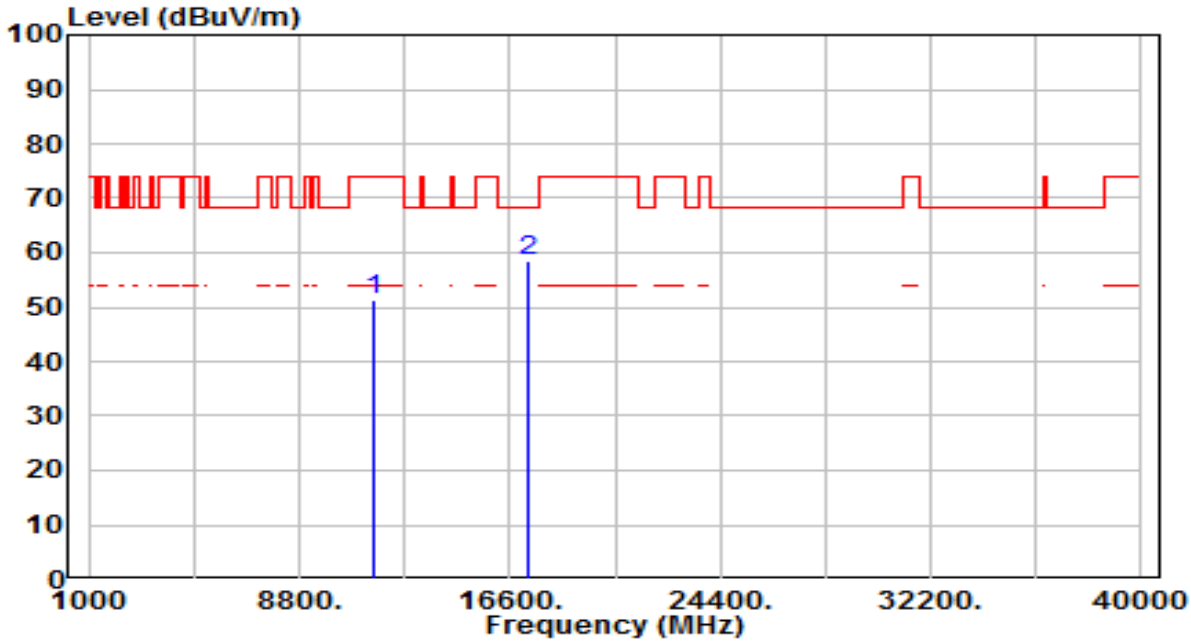


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		11530.000	31.67	19.79	51.47	-22.53	74.00	100	309	Peak
2	*	17295.000	33.33	26.21	59.54	-8.66	68.20	100	312	Peak

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 5.8G_TX_5765MHz_Ant 2	Test Voltage	AC 120V/60Hz

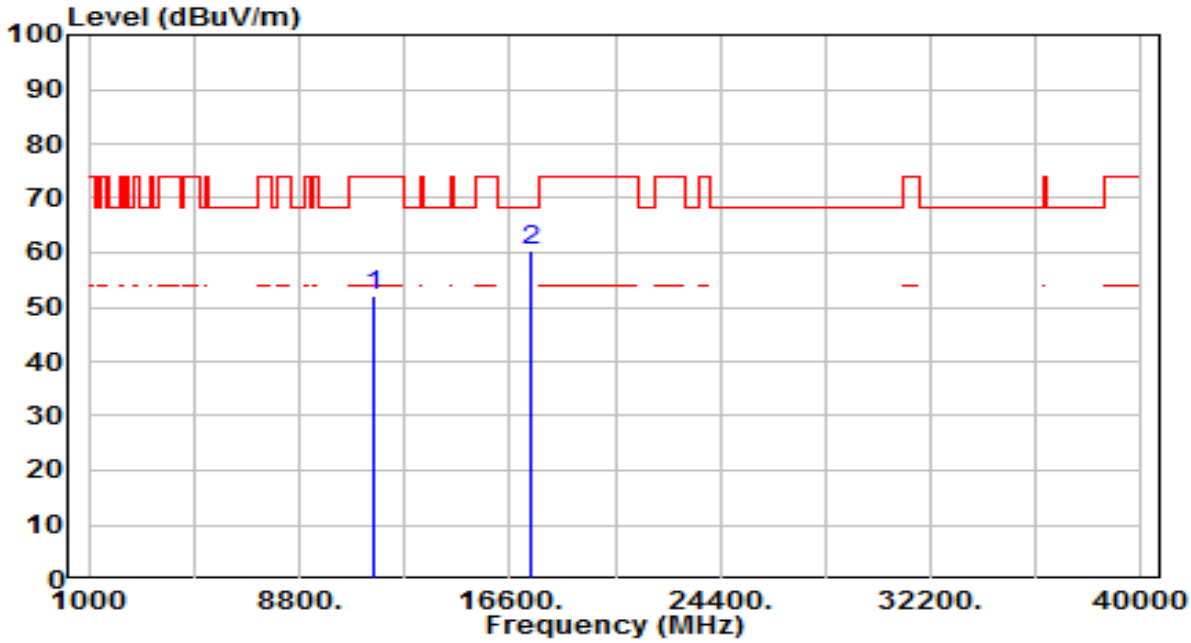


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		11530.000	31.49	19.79	51.28	-22.72	74.00	100	256	Peak
2	*	17295.000	32.39	26.21	58.60	-9.60	68.20	100	231	Peak

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 5.8G_TX_5782MHz_Ant 2	Test Voltage	AC 120V/60Hz

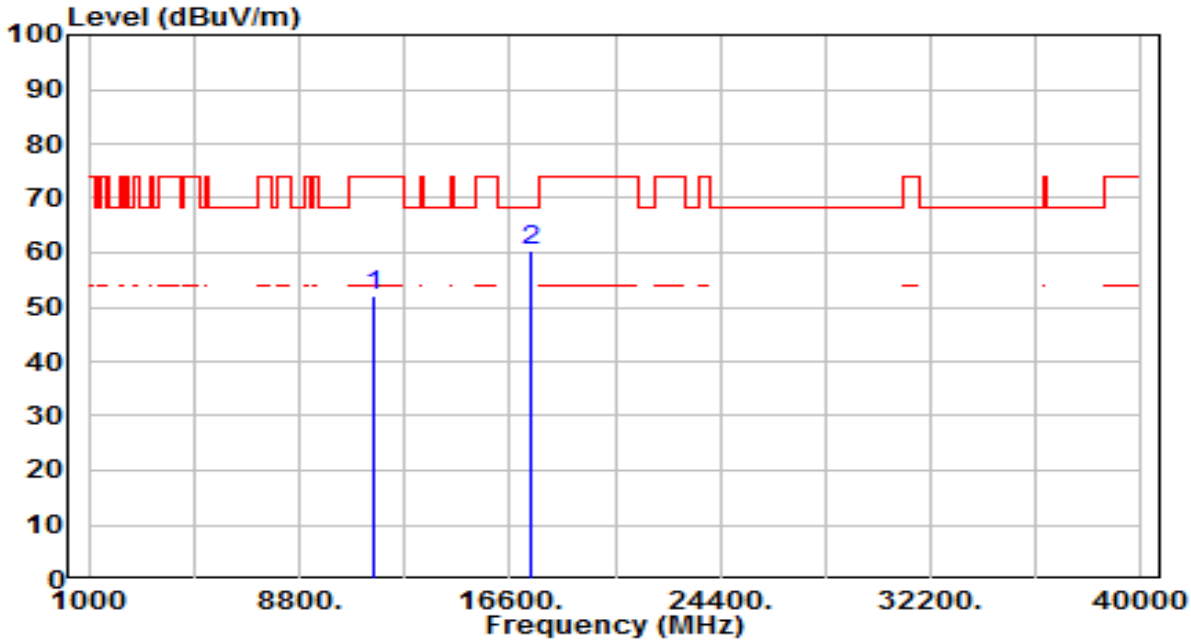


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		11564.000	32.19	19.73	51.92	-22.08	74.00	100	222	Peak
2	*	17346.000	33.81	26.59	60.39	-7.81	68.20	100	166	Peak

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 5.8G_TX_5782MHz_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		11564.000	32.48	19.73	52.21	-21.79	74.00	100	132	Peak
2	*	17346.000	33.80	26.59	60.39	-7.81	68.20	100	118	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.

7.8. Radiated Restricted Band Edge Measurement

7.8.1. Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1] 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.25 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 – 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])
13.36 - 13.41	--	--	--

For 15.407(b) requirement:

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

For FCC transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

For IC transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of −17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of −27 dBm/MHz.

Refer to KDB 789033 D02v02r01 G)2)c), as specified in § 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a maximum emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in § 15.407(b)(4)). However, an out-of-band emission that complies with both the peak and average limits of § 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz maximum emission limit.

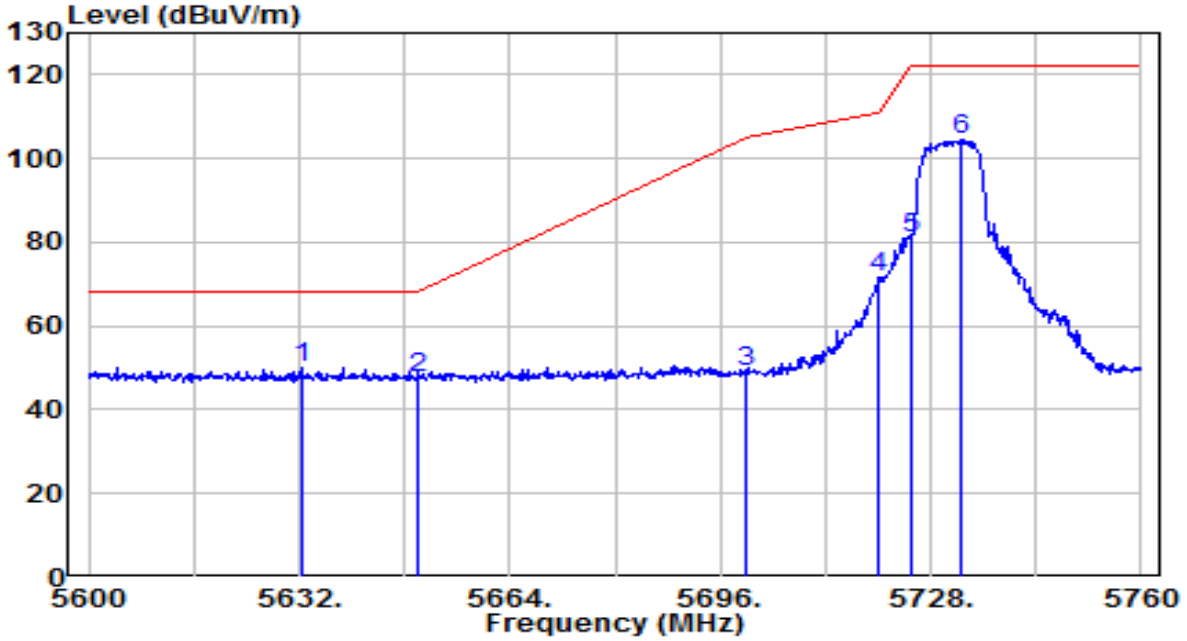
All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC-Radiated emission limits; general requirements

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

7.8.2. Test Result

EUT	Video&Data transmission device	Date of Test	2025-01-08
Factor	BBHA 9120D	Temp. / Humidity	22°C /48%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_5731MHz_Ant 1	Test Voltage	AC 120V/60Hz

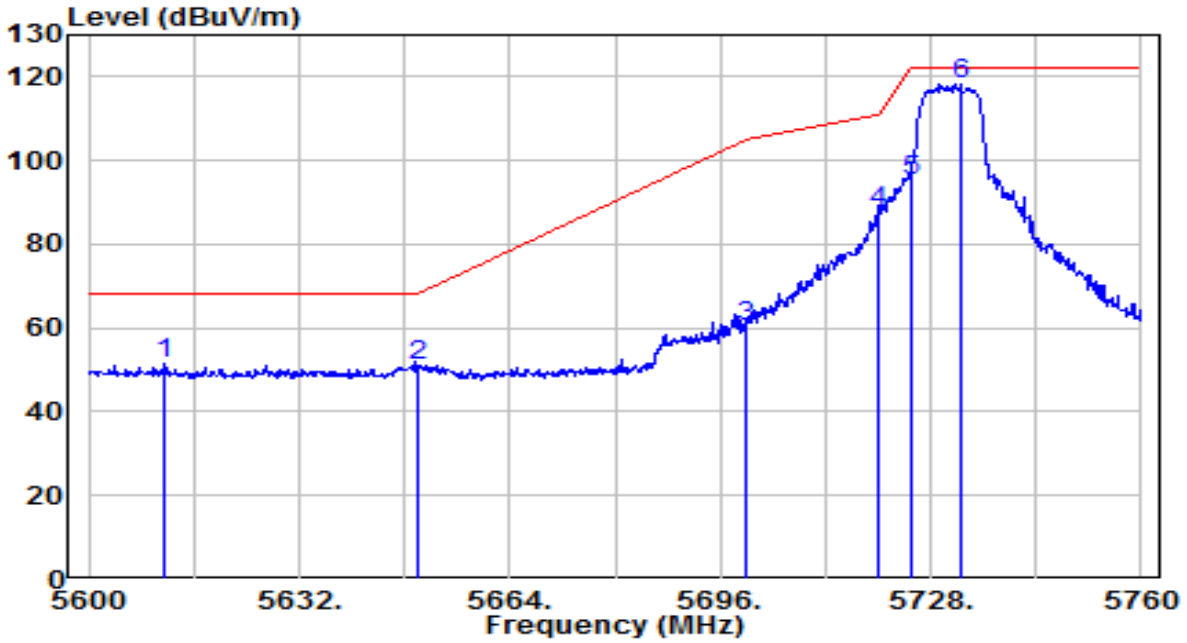


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5632.320	44.78	5.21	50.00	-18.20	68.20	150	315	Peak
2		5650.000	42.15	5.27	47.42	-20.78	68.20	150	315	Peak
3		5700.000	43.57	5.44	49.01	-56.19	105.20	150	315	Peak
4		5720.000	66.07	5.51	71.57	-39.23	110.80	150	315	Peak
5		5725.000	75.24	5.53	80.76	-41.44	122.20	150	315	Peak
6		5732.800	98.87	5.55	104.42	N/A	N/A	150	315	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) + 10dB Attenuation.
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	Temp. / Humidity	22°C /48%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_5731MHz_Ant 1	Test Voltage	AC 120V/60Hz

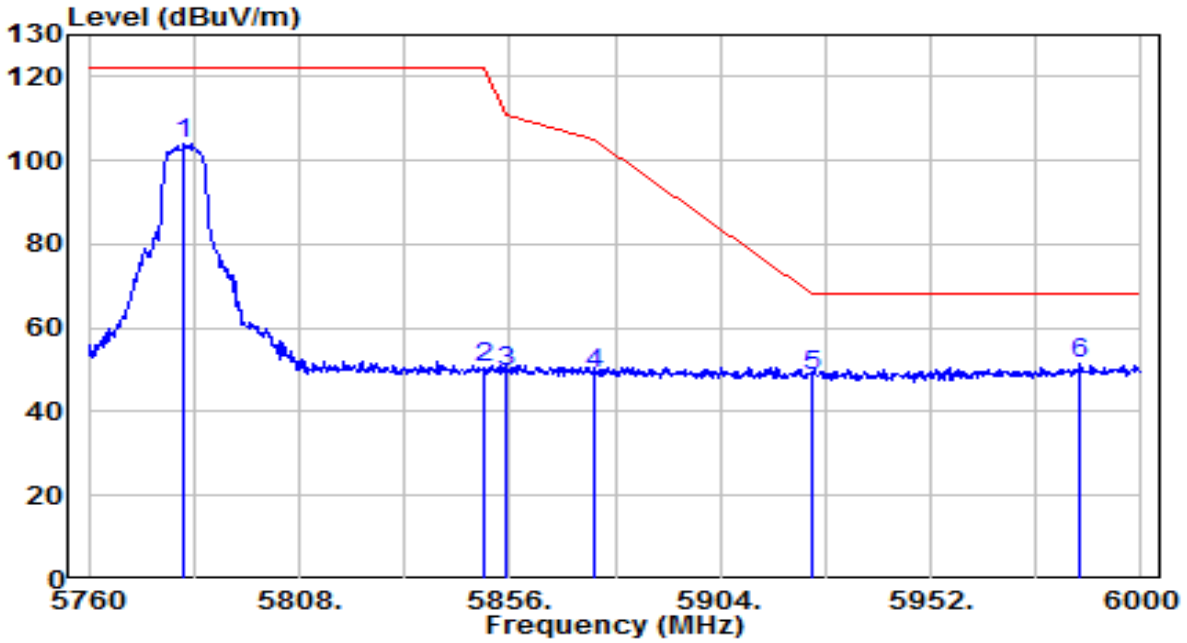


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5611.520	46.28	5.14	51.43	-16.77	68.20	135	25	Peak
2		5650.000	45.95	5.27	51.23	-16.97	68.20	135	25	Peak
3		5700.000	54.87	5.44	60.31	-44.89	105.20	135	25	Peak
4		5720.000	82.26	5.51	87.77	-23.03	110.80	135	25	Peak
5		5725.000	89.45	5.53	94.98	-27.22	122.20	135	25	Peak
6		5732.640	112.88	5.55	118.43	N/A	N/A	135	25	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) + 10dB Attenuation.
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	Temp. / Humidity	22°C /48%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_5782MHz_Ant 1	Test Voltage	AC 120V/60Hz

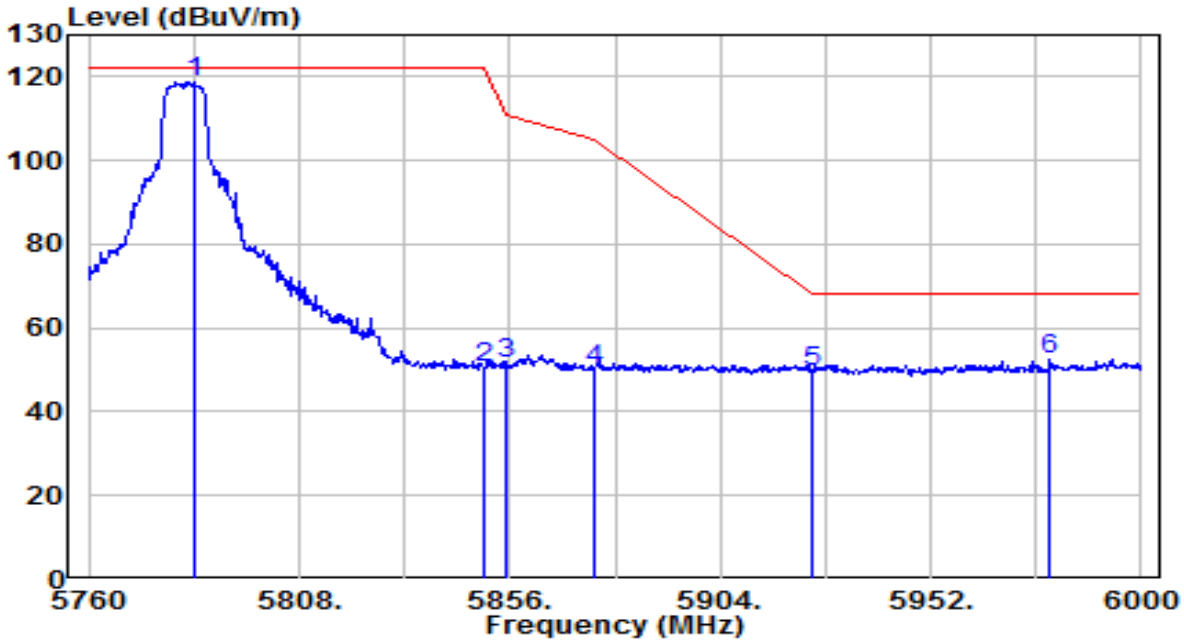


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5781.840	98.06	5.72	103.78	N/A	N/A	180	65	Peak
2		5850.000	44.69	5.95	50.63	-71.57	122.20	180	65	Peak
3		5855.000	43.53	5.96	49.49	-61.31	110.80	180	65	Peak
4		5875.000	43.12	6.03	49.15	-56.05	105.20	180	65	Peak
5		5925.000	42.57	6.20	48.76	-19.44	68.20	180	65	Peak
6	*	5986.080	44.87	6.40	51.27	-16.93	68.20	180	65	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) + 10dB Attenuation.
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	Temp. / Humidity	22°C /48%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_5782MHz_Ant 1	Test Voltage	AC 120V/60Hz

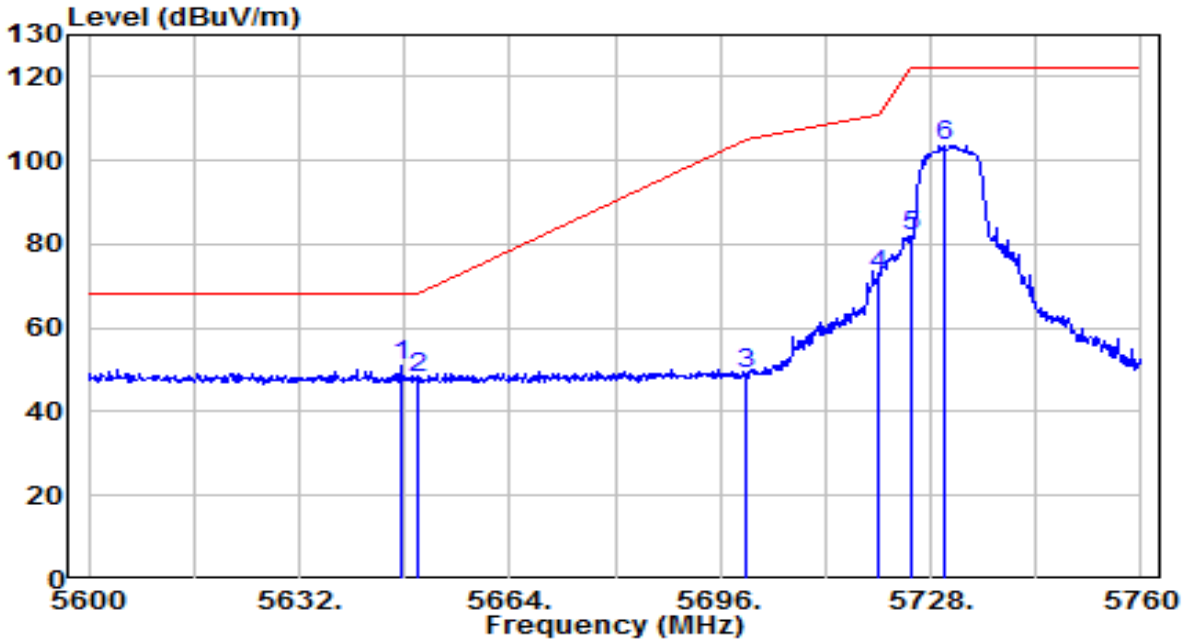


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5784.000	113.23	5.72	118.96	N/A	N/A	145	360	Peak
2		5850.000	44.56	5.95	50.50	-71.70	122.20	145	360	Peak
3		5855.000	45.70	5.96	51.66	-59.14	110.80	145	360	Peak
4		5875.000	43.95	6.03	49.98	-55.22	105.20	145	360	Peak
5		5925.000	43.30	6.20	49.50	-18.70	68.20	145	360	Peak
6	*	5979.120	45.87	6.38	52.25	-15.95	68.20	145	360	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) + 10dB Attenuation.
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	Temp. / Humidity	22°C /48%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_5731MHz_Ant 2	Test Voltage	AC 120V/60Hz

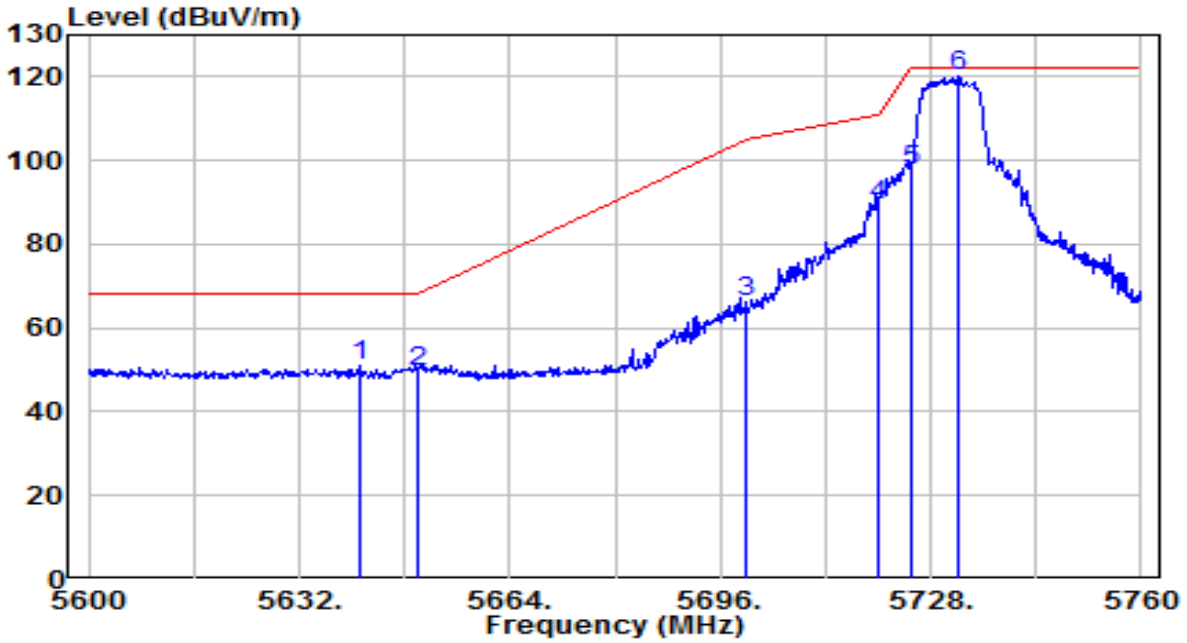


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5647.360	45.62	5.27	50.88	-17.32	68.20	185	235	Peak
2		5650.000	42.68	5.27	47.95	-20.25	68.20	185	235	Peak
3		5700.000	43.49	5.44	48.93	-56.27	105.20	185	235	Peak
4		5720.000	66.90	5.51	72.41	-38.39	110.80	185	235	Peak
5		5725.000	76.49	5.53	82.01	-40.19	122.20	185	235	Peak
6		5730.080	98.13	5.54	103.68	N/A	N/A	185	235	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) + 10dB Attenuation.
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	Temp. / Humidity	22°C /48%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_5731MHz_Ant 2	Test Voltage	AC 120V/60Hz

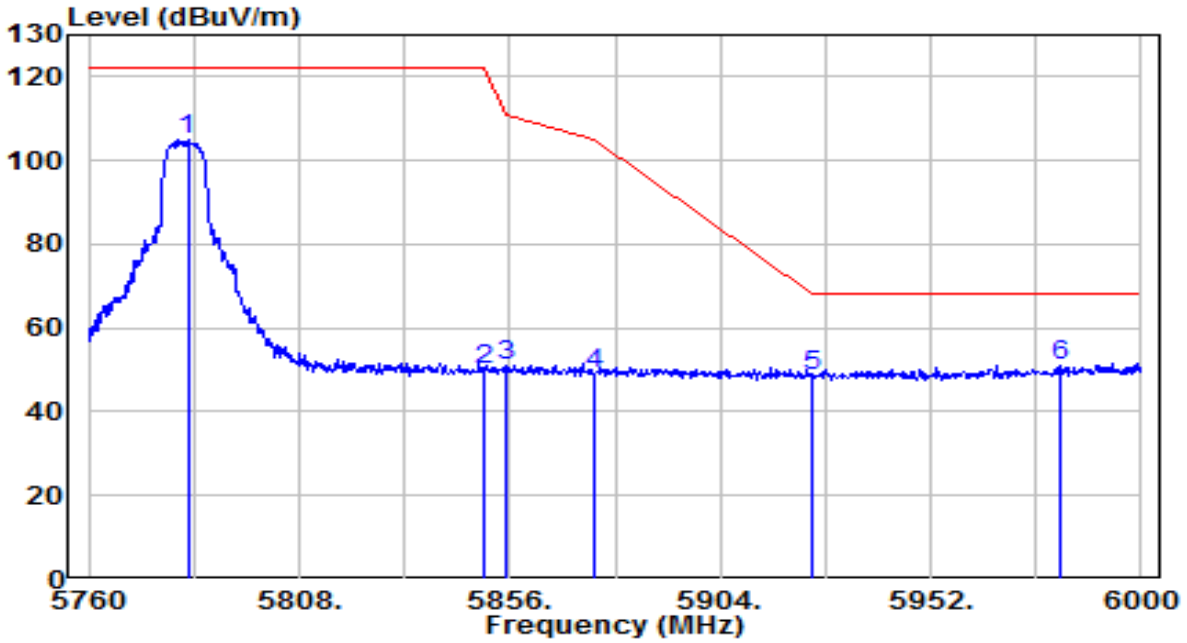


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5641.280	45.75	5.24	51.00	-17.20	68.20	155	180	Peak
2		5650.000	44.49	5.27	49.76	-18.44	68.20	155	180	Peak
3		5700.000	60.66	5.44	66.10	-39.10	105.20	155	180	Peak
4		5720.000	83.91	5.51	89.41	-21.39	110.80	155	180	Peak
5		5725.000	92.10	5.53	97.63	-24.57	122.20	155	180	Peak
6		5732.000	114.59	5.55	120.14	N/A	N/A	155	180	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) + 10dB Attenuation.
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	Temp. / Humidity	22°C /48%
Polarity	Horizontal	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_5782MHz_Ant 2	Test Voltage	AC 120V/60Hz

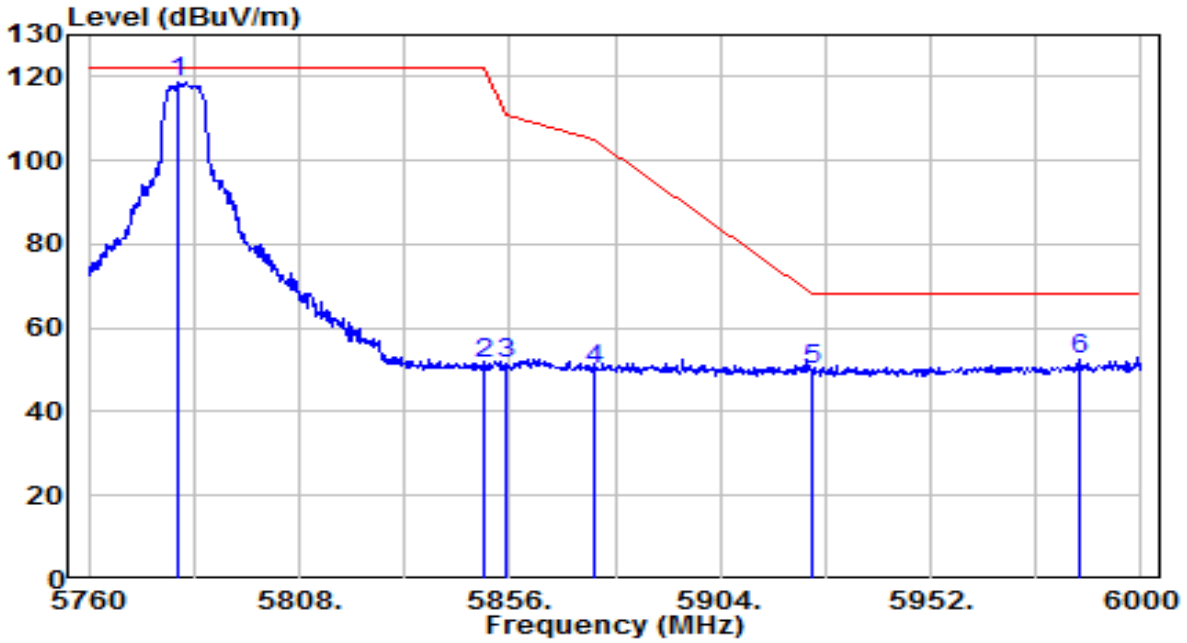


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5782.560	99.11	5.72	104.83	N/A	N/A	140	325	Peak
2		5850.000	43.94	5.95	49.88	-72.32	122.20	140	325	Peak
3		5855.000	45.24	5.96	51.21	-59.59	110.80	140	325	Peak
4		5875.000	43.15	6.03	49.18	-56.02	105.20	140	325	Peak
5		5925.000	42.39	6.20	48.59	-19.61	68.20	140	325	Peak
6	*	5981.760	44.77	6.39	51.16	-17.04	68.20	140	325	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) + 10dB Attenuation.
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	Temp. / Humidity	22°C /48%
Polarity	Vertical	Site / Test Engineer	AC1 / Todd
Test Mode	SRD 5.8G_TX_5782MHz_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		5780.640	113.20	5.71	118.91	N/A	N/A	160	5	Peak
2		5850.000	45.43	5.95	51.37	-70.83	122.20	160	5	Peak
3		5855.000	45.74	5.96	51.70	-59.10	110.80	160	5	Peak
4		5875.000	43.92	6.03	49.95	-55.25	105.20	160	5	Peak
5		5925.000	43.62	6.20	49.82	-18.38	68.20	160	5	Peak
6	*	5986.080	46.27	6.40	52.67	-15.53	68.20	160	5	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) + 10dB Attenuation.
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.

7.9. AC Conducted Emissions Measurement

7.9.1. Test Limit

FCC Part 15.207 Limits		
Frequency (MHz)	QP (dBμV)	AV (dBμV)
0.15 ~ 0.50	66 ~ 56	56 ~ 46
0.50 ~ 5.0	56	46
5.0 ~ 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

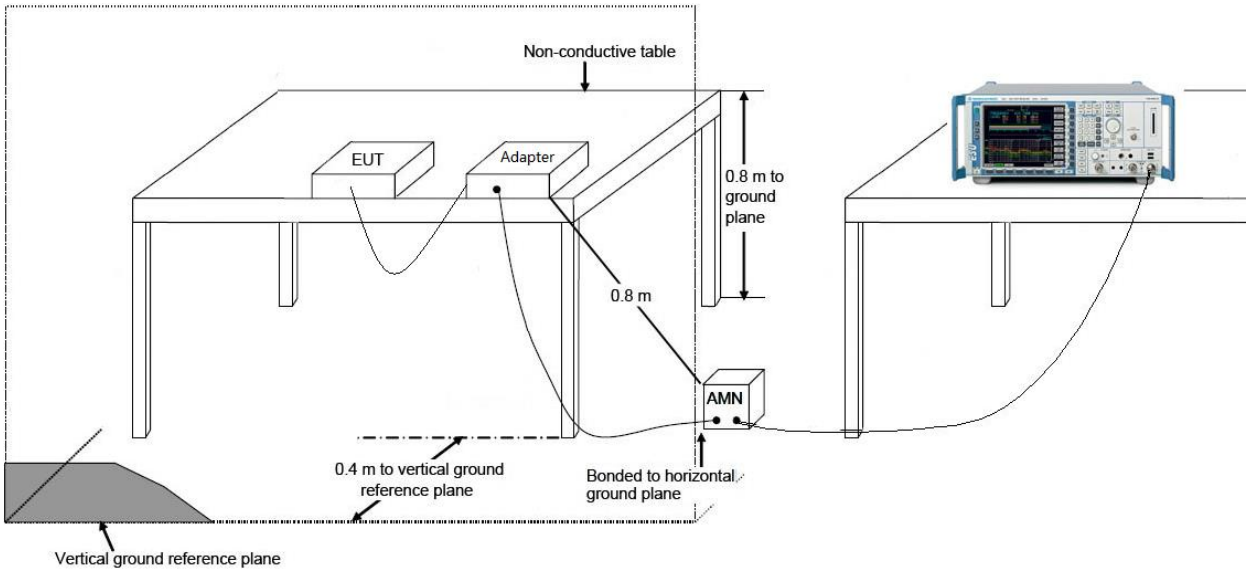
7.9.2. Test Procedure

The EUT was setup according to ANSI C63.4, 2009 and tested according to KDB 789033 for compliance to FCC 47CFR 15.247 requirements. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs) Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

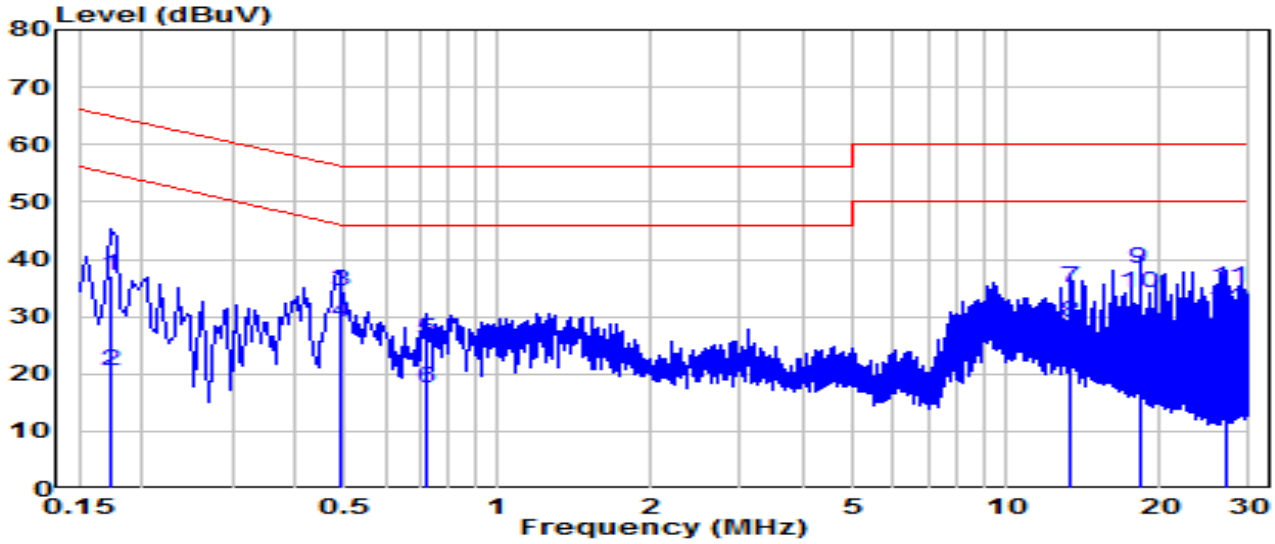
Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

7.9.3. Test Setup



7.9.4. Test Result

EUT	Video&Data transmission device	Date of Test	2025-01-07
Factor	CE_ENV216-L1 (Filter ON)	Temp. / Humidity	23.4°C /46%
Polarity	Line1	Site / Test Engineer	SR2 / Ryan
Test Mode	SRD 5.8G_TX_5765MHz _Ant 1	Test Voltage	AC 120V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV)	Margin (dB)	Limit (dBuV)	Remark (QP/PK/AV)
1		0.172	27.62	9.63	37.26	-27.58	64.84	QP
2		0.172	11.02	9.63	20.65	-34.19	54.84	Average
3		0.487	24.81	9.65	34.46	-21.75	56.21	QP
4		0.487	19.40	9.65	29.05	-17.16	46.21	Average
5		0.721	16.19	9.66	25.85	-30.15	56.00	QP
6		0.721	7.71	9.66	17.38	-28.62	46.00	Average
7		13.419	25.26	9.89	35.15	-24.85	60.00	QP
8		13.419	19.02	9.89	28.91	-21.09	50.00	Average
9	*	18.243	28.42	9.93	38.35	-21.65	60.00	QP
10	*	18.243	24.05	9.93	33.97	-16.03	50.00	Average
11		27.156	25.18	9.92	35.11	-24.89	60.00	QP
12		27.156	21.30	9.92	31.23	-18.77	50.00	Average

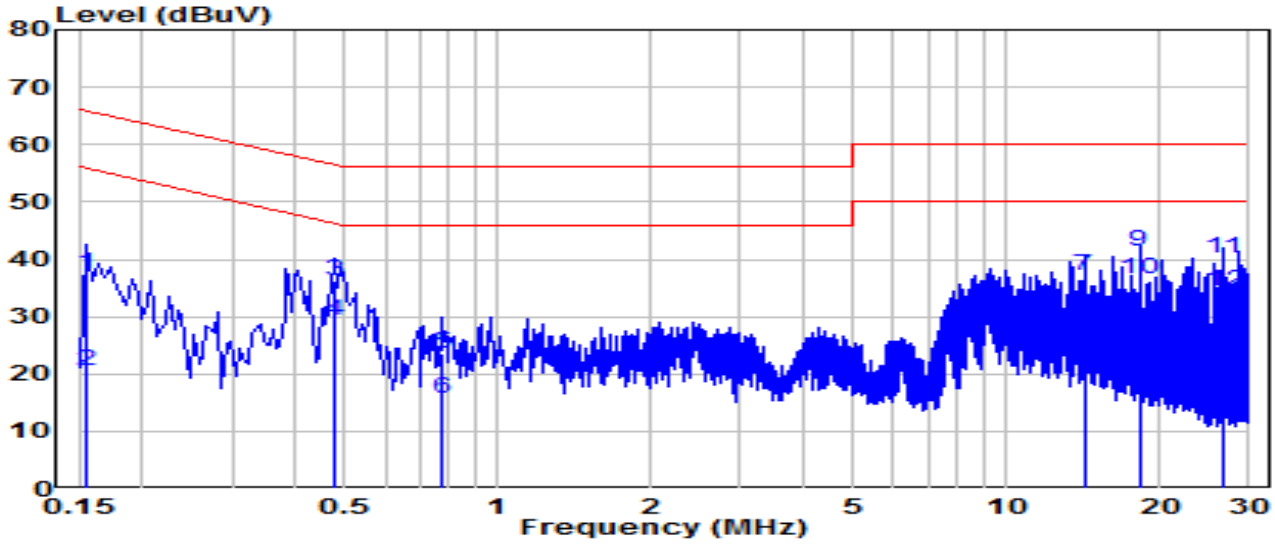
Note:

1. " *", means this data is the worst emission level.

2. C.F (Correction Factor) = LISN Factor (dB)+ Cable Loss (dB).

3. Measurement (dBuV) = Reading(dBuV) + C.F (Correction Factor).

EUT	Video&Data transmission device	Date of Test	2025-01-07
Factor	CE_ENV216-N (Filter ON)	Temp. / Humidity	23.4°C /46%
Polarity	Neutral	Site / Test Engineer	SR2 / Ryan
Test Mode	SRD 5.8G_TX_5765MHz _Ant 1	Test Voltage	AC 120V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV)	Margin (dB)	Limit (dBuV)	Remark (QP/PK/AV)
1		0.154	27.73	9.63	37.36	-28.39	65.75	QP
2		0.154	10.94	9.63	20.57	-35.18	55.75	Average
3		0.478	26.72	9.65	36.37	-19.99	56.37	QP
4		0.478	19.50	9.65	29.15	-17.21	46.37	Average
5		0.780	13.93	9.67	23.60	-32.40	56.00	QP
6		0.780	6.14	9.67	15.81	-30.19	46.00	Average
7		14.211	27.15	9.93	37.08	-22.92	60.00	QP
8		14.211	20.59	9.93	30.53	-19.47	50.00	Average
9	*	18.243	31.24	9.98	41.22	-18.78	60.00	QP
10	*	18.243	26.55	9.98	36.53	-13.47	50.00	Average
11		26.607	30.16	10.03	40.19	-19.81	60.00	QP
12		26.607	24.47	10.03	34.50	-15.50	50.00	Average

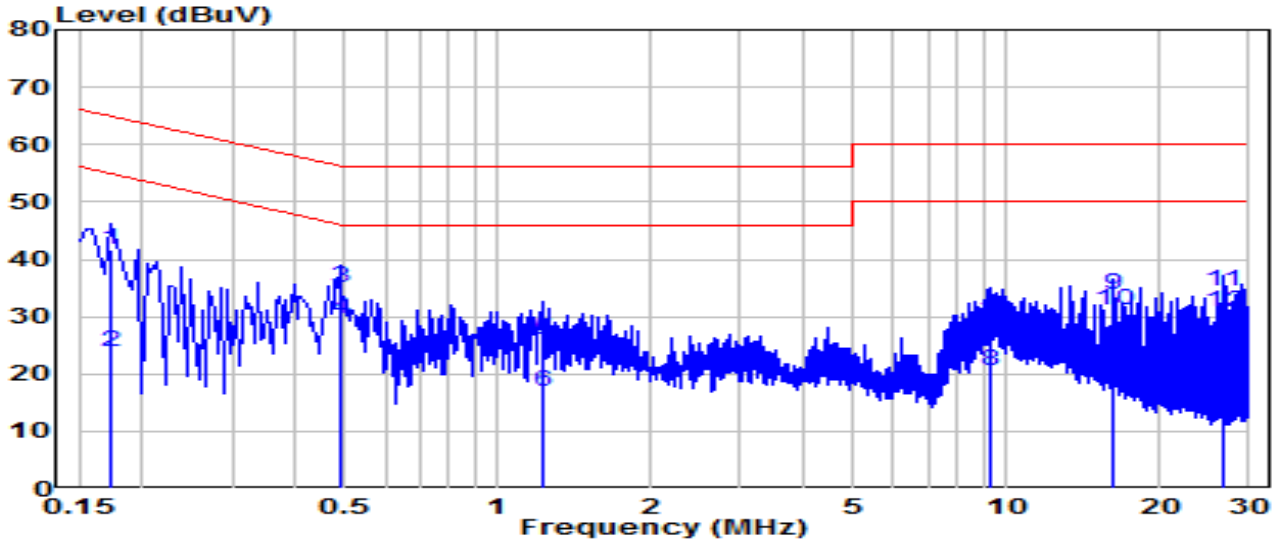
Note:

1. " *", means this data is the worst emission level.

2. C.F (Correction Factor) = LISN Factor (dB)+ Cable Loss (dB).

3. Measurement (dBuV) = Reading(dBuV) + C.F (Correction Factor).

EUT	Video&Data transmission device	Date of Test	2025-01-10
Factor	CE_ENV216-L1 (Filter ON)	Temp. / Humidity	23.4°C /46%
Polarity	Line1	Site / Test Engineer	SR2 / Ryan
Test Mode	SRD 5.8G_TX_5765MHz _Ant 2	Test Voltage	AC 120V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV)	Margin (dB)	Limit (dBuV)	Remark (QP/PK/AV)
1		0.172	32.18	9.63	41.81	-23.03	64.84	QP
2		0.172	14.31	9.63	23.94	-30.90	54.84	Average
3		0.487	25.38	9.65	35.03	-21.18	56.21	QP
4	*	0.487	19.97	9.65	29.62	-16.59	46.21	Average
5		1.221	16.13	9.68	25.81	-30.19	56.00	QP
6		1.221	7.18	9.68	16.86	-29.14	46.00	Average
7		9.307	18.74	9.85	28.59	-31.41	60.00	QP
8		9.307	10.66	9.85	20.51	-29.49	50.00	Average
9		16.227	24.03	9.91	33.94	-26.06	60.00	QP
10		16.227	21.14	9.91	31.05	-18.95	50.00	Average
11		26.607	24.43	9.92	34.36	-25.64	60.00	QP
12		26.607	20.90	9.92	30.82	-19.18	50.00	Average

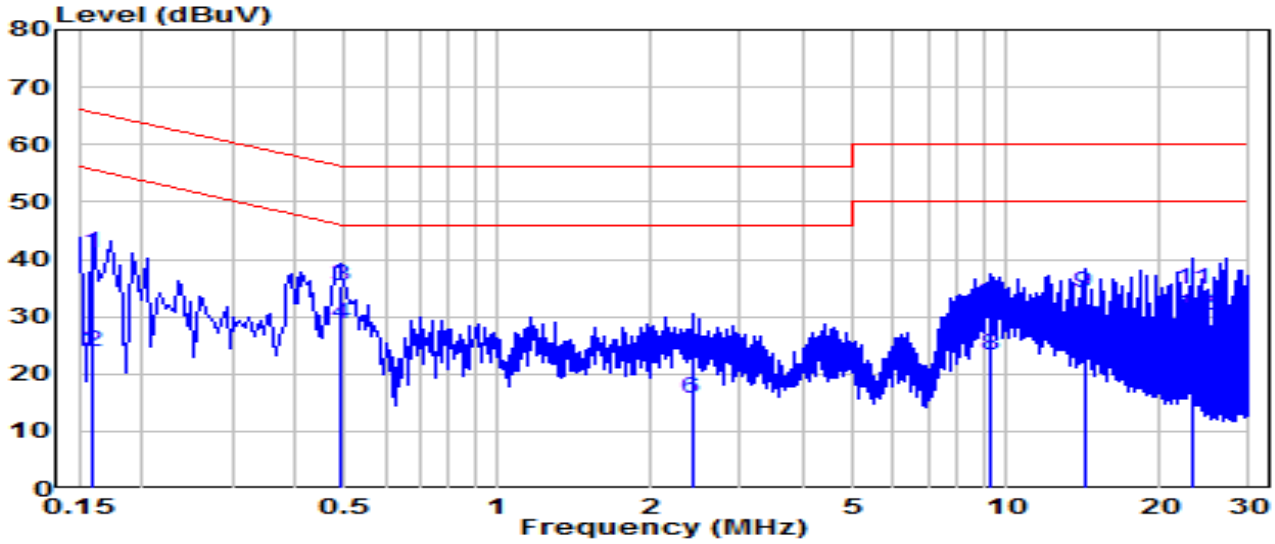
Note:

1. " *", means this data is the worst emission level.

2. C.F (Correction Factor) = LISN Factor (dB)+ Cable Loss (dB).

3. Measurement (dBuV) = Reading(dBuV) + C.F (Correction Factor).

EUT	Video&Data transmission device	Date of Test	2025-01-10
Factor	CE_ENV216-N (Filter ON)	Temp. / Humidity	23.4°C /46%
Polarity	Neutral	Site / Test Engineer	SR2 / Ryan
Test Mode	SRD 5.8G_TX_5765MHz _Ant 2	Test Voltage	AC 120V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV)	Margin (dB)	Limit (dBuV)	Remark (QP/PK/AV)
1		0.159	31.48	9.63	41.11	-24.41	65.52	QP
2		0.159	14.34	9.63	23.97	-31.54	55.52	Average
3		0.487	25.77	9.65	35.42	-20.79	56.21	QP
4	*	0.487	19.05	9.65	28.70	-17.51	46.21	Average
5		2.404	13.24	9.72	22.96	-33.04	56.00	QP
6		2.404	6.13	9.72	15.85	-30.15	46.00	Average
7		9.289	22.20	9.87	32.07	-27.93	60.00	QP
8		9.289	13.39	9.87	23.26	-26.74	50.00	Average
9		14.211	24.30	9.93	34.24	-25.76	60.00	QP
10		14.211	18.02	9.93	27.95	-22.05	50.00	Average
11		23.125	24.68	10.01	34.69	-25.31	60.00	QP
12		23.125	20.12	10.01	30.13	-19.87	50.00	Average

Note:

1. " *", means this data is the worst emission level.

2. C.F (Correction Factor) = LISN Factor (dB)+ Cable Loss (dB).

3. Measurement (dBuV) = Reading(dBuV) + C.F (Correction Factor).

8. CONCLUSION

The data collected relate only the item(s) tested and show that the **Video&Data transmission device,** is in compliance with Part 15E of the FCC Rules.

Appendix A : Test Photograph

Refer to “2412TW0122-UTfile.

Appendix B : External Photograph

Refer to “2412TW0122-UE file.

Appendix C : Internal Photograph

Refer to “2412TW0122-UI file.

The End