

**ELECTROMAGNETIC EMISSIONS
COMPLIANCE TEST REPORT**

Applicant: Murata Manufacturing Co., Ltd.
10-1, Higashikotari 1-chome Nagaokakyo-shi, Kyoto 617-8555 Japan
Manufacturer: Murata Manufacturing Co., Ltd.
10-1, Higashikotari 1-chome Nagaokakyo-shi, Kyoto 617-8555 Japan
Product Name: Communication Module
Brand Name: muRata
Model No.: For FCC:
LBEE5XV2EA, LBEE5XV2EB
For ISED:
LBEE5XV2EA_SANT, LBEE5XV2EA_DANT,
LBEE5XV2EB_SANT, LBEE5XV2EB_DANT
Model Difference: Refer to section 1.6
Report Number: TERF2303000711ER
FCC ID VPYLBEE5XV2EA
IC: 772C-LBEE5XV2EA
Date of EUT Received: November 08, 2022
Date of Test: March 22, 2023
Issue Date: June 13, 2023

CHUN-CHIEH, CHEN

Approved By _____**CHUN-CHIEH, CHEN****We hereby certify that:**

The above equipment was tested by SGS Taiwan Ltd. Central RF Lab. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10:2013 and the energy emitted by the sample EUT comply with FCC rule part §15.247 and §15.407, ISSED RSS-247.

The results of this report relate only to the sample identified in this report.

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Revision History

Report Number	Revision	Description	Issue Date	Revised By	Remark
TERF2303000711ER	00	Original	May 04, 2023	Violetta Tang	
TERF2303000711ER	01	Remove HMN information from page 6	June 02, 2023	Violetta Tang	
TERF2303000711ER	02	Correct firmware information on page 4	June 13, 2023	Violetta Tang	

Note:

- 1、The remark "***" indicates modification of the report upon requests from certification body.
- 2、Variant information of model numbers is provided by the applicant, test results of this report are applicable to the sample EUT(s) received.

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1 GENERAL INFORMATION

1.1 Product Description

Product Name:	Communication Module
Brand Name:	muRata
Model No.:	For FCC: LBEE5XV2EA, LBEE5XV2EB For ISED: LBEE5XV2EA_SANT, LBEE5XV2EA_DANT, LBEE5XV2EB_SANT, LBEE5XV2EB_DANT
Model Difference:	Refer to section 1.6
Hardware Version:	1.0
Firmware Version:	1.1.1.1 1.1.2.1 1.1.1.2 1.1.2.2
EUT Series No.:	SA2022003000000312
Power Supply:	3.3Vdc, 1.8Vdc
Test Software (Name/Version)	Tera Term / 4.103

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1.2 Test Methodology of Applied Standards

FCC Part 15, Subpart C §15.247

FCC Part 15, Subpart E §15.407

FCC KDB 558074 D01 15.247 Meas Guidance v05r02

FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

RSS-247 issue 2 Feb. 2017

RSS-Gen, Issue 5 April 2018

ANSI C63.10:2013

1.3 Test Facility

Laboratory	Test Site Address	Test Site Name	FCC Designation number	IC CAB identifier
SGS Taiwan Ltd. Central RF Lab. (TAF code 3702)	No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan.	SAC 1	TW0027	TW3702
		SAC 2		
		SAC 3		
		Conduction 1		
		Conducted 1		
		Conducted 2		
		Conducted 3		
		Conducted 4		
		Conducted 5		
		Conducted 6		
	No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333	Conduction C	TW0028	
		SAC C		
		SAC D		
		SAC G		
		Conducted A		
		Conducted B		
		Conducted C		
		Conducted D		
		Conducted E		
		Conducted F		
Conducted G				
Note: Test site name is remarked on the equipment list in each section of this report as an indication where measurements occurred in specific test site and address.				

1.4 Special Accessories

There are no special accessories used while test was conducted.

1.5 Equipment Modifications

There was no modification incorporated into the EUT.

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1.6 Model Variants

The LBEE5XV2EA_SANT and LBEE5XV2EA_DANT are electrically identical.

Model For ISED	Model For FCC	Chip on C101	RF functions
LBEE5XV2EA_SANT	LBEE5XV2EA	CYW55573	2x2 WLAN2.4GHz,5GHz, 6GHz +BT/ BLE
LBEE5XV2EA_DANT			

The LBEE5XV2EB_SANT and LBEE5XV2EB_DANT are electrically identical.

Model For ISED	Model For FCC	Chip on C101	RF functions
LBEE5XV2EB_SANT	LBEE5XV2EB	CYW55572	2x2 WLAN2.4GHz,5GHz +BT/ BLE
LBEE5XV2EB_DANT			

In addition, the differences of firmware versions are

Model	Firmware versions	Antenna connector(s)	WLAN	BT	BLE
LBEE5XV2EA_DANT	1.1.2.1	3 (ANT0, ANT1, BT_ANT)	ANT0, ANT1	BT_ANT	BT_ANT
LBEE5XV2EB_DANT	1.1.2.2				
LBEE5XV2EA_SANT	1.1.1.1	2 (ANT0, ANT1)	ANT0, ANT1	ANT0	ANT0
LBEE5XV2EB_SANT	1.1.1.2				

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2 SYSTEM TEST CONFIGURATION

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT Exercise

An engineering test mode (software/firmware) that applicant provided was utilized to manipulate the EUT into transmit, selection of the test channel, and modulation scheme.

2.3 Test Procedure

2.3.1 Radiated Emissions

The EUT is placed on a turn table. For emissions testing at or below 1 GHz, the table height shall be 0.8 m above the reference ground plane. For emission measurements above 1 GHz, the table height shall be 1.5 m. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this transmitter (EUT) was rotated through three orthogonal axes and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna.

2.4 Measurement Results Explanation Example

2.4.1 Radiated Emission Test Sites For Measurements From 9 kHz To 30 MHz

Radiated emission below 30MHz is measured in a 9m*6m*6m semi-anechoic chamber, the measurements correspond to those obtained at an open-field test site.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

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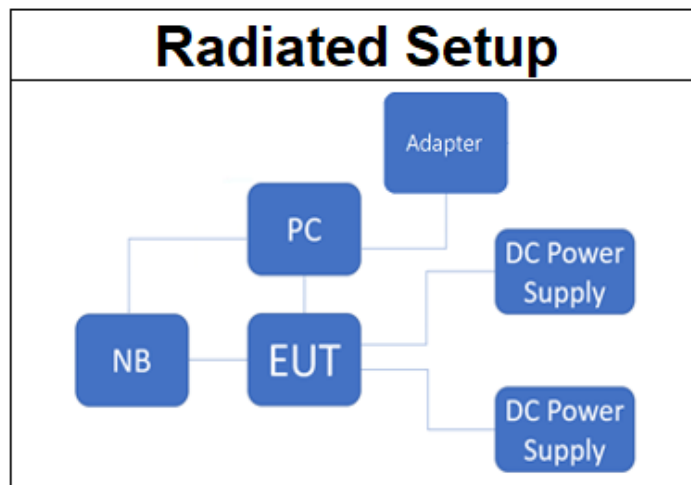
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2.5 Test Configuration



2.6 Control Unit(s)

Radiated Emission Test Site: SAC 2					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
PC	GIGABYTE	GB-BX17H-4500	N/A	N/A	N/A
Adapter	FSP GROUP INC.	FSP065-REB	N/A	N/A	N/A
Notebook	Lenovo	T440P	PC-06L5W6	N/A	N/A

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3 DESCRIPTION OF TEST MODES

3.1 The Worst Test Modes and Channel Details

1. The EUT has been tested under operating condition.
2. Test program used to control the EUT for staying in continuous transmitting mode is programmed.
3. Investigation has been done on all the possible configurations for searching the worst case. The given UE is pre-scanned among below modes.

Test mode

Final test modes are considering the modulation and worse data rate as below table.

Simultaneously constitute			
WLAN 2.4G(MIMO)_ANT5+Bluetooth_ANT1			
WLAN 2.4G(MIMO)_ANT5+Bluetooth_ANT5			
WLAN 5G(MIMO)_ANT4+Bluetooth_ANT1			
WLAN 5G(MIMO)_ANT4+Bluetooth_ANT5			
WLAN 5G(SISO)_ANT1+Bluetooth_ANT1			
WLAN 5G(SISO)_ANT6+Bluetooth_ANT6			
WLAN 5G(MIMO)_ANT4+Bluetooth_ANT4			
Antenna Number	Antenna Type	Supplier	Antenna Part No.
ANT1	Dipole	Molex	146153
ANT3		Molex	219611
ANT4		Unictron	WT32D1-KX
ANT5		Inventek	W24P-U
ANT6	Monopole	Murata	Type2EA_Antenna

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4 MEASUREMENT UNCERTAINTY

Test Items	Uncertainty
Undesignable radiated emission measurement	+/- 1.68 dB
Temperature	+/- 0.7 °C
Humidity	+/- 3 %
DC / AC Power Source	+/- 1 %

Radiated Spurious Emission Measurement Uncertainty				
Polarization: Vertical	+/-	2.8	dB	9kHz~30MHz
	+/-	4.82	dB	30MHz - 1000MHz
	+/-	4.37	dB	1GHz - 18GHz
	+/-	4.21	dB	18GHz - 40GHz
Polarization: Horizontal	+/-	2.8	dB	9kHz~30MHz
	+/-	4.54	dB	30MHz - 1000MHz
	+/-	4.37	dB	1GHz - 18GHz
	+/-	4.21	dB	18GHz - 40GHz

Note:

1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
2. The conformity assessment statement in this report is based solely on the test results, measurement uncertainty is excluded.

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5 UNDESIRABLE RADIATED EMISSION MEASUREMENT

5.1 Standard Applicable

$EIRP = (E \cdot d)^2 / 30$, where E is the field strength in V/m, d is the measurement distance (3m), $EIRP$ is the equivalent isotropically radiated power in Watts.

5.1.1 5150~5850 MHz

Applicable to	Operation Freq. (MHz)	EIRP		Field Strength @ 3m (dB μ V/m)
		Freq. (MHz)	Limits (dBm/MHz)	
15.407(b)(1) RSS-247 §6.2.1.2	5150~5250	$f \leq 5150$ $f \geq 5350$	PK: -27	PK: 68.2
15.407(b)(2) RSS-247 §6.2.2.2	5250~5350			
15.407(b)(3) RSS-247 §6.2.3.2	5475~5725	$f \leq 5470$ $f \geq 5725$	PK: -27	PK: 68.2
15.407(b)(4)(i) RSS-247 §6.2.4.2	5725~5850	at 75 MHz or more above or below the band edge		

5.1.2 Spurious Emission

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 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. In addition, radiated emissions which fall in the restricted bands must also comply with the §15.209 and RSS-Gen §8.9 Table 5 and 6 limit as below.

And according to §15.33(a) (1) & RSS-Gen §6.13.2.a, for an intentional radiator operates below 10GHz, the frequency range of measurements: to the tenth harmonic of the highest fundamental frequency or to 40GHz, whichever is lower:

Frequency (MHz)	Field strength (microvolts/meter)	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

Note:

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

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5.2 Measurement Equipment Used:

Radiated Emission Test Site: SAC 2					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Horn Antenna	RF SPIN	DRH18-E	210303A18-ES	02/24/2023	02/23/2024
Bi-log Antenna	SCHWARZBECK	VULB9168	9168-1278	03/09/2023	03/08/2024
Loop Antenna	ETS.LINDGREN	6502	148045	10/05/2022	10/04/2023
Horn Antenna	SCHWARZBECK	BBHA9170	184	12/30/2022	12/29/2023
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY59071541	07/14/2022	07/13/2023
Test Software	Audix	e3	Ver. 9.210322	N.C.R	N.C.R
DC Power Supply	Agilent	E3640A	MY40005907	10/07/2022	10/06/2023
DC Power Supply	Agilent	E3640A	KR93300208	09/08/2022	09/07/2023
EMI Test Receiver	R&S	ESCI 7	100759	08/22/2022	08/21/2023
Pre-Amplifier	EMCI	EMC330N	980826	08/31/2022	08/30/2023
Pre-Amplifier	EMCI	EMC118A45SEE	980867	08/31/2022	08/30/2023
Pre-Amplifier	EMCI	EMC184045B	980135	10/27/2022	10/26/2023
Attenuator	Mini-Circuit	BW-S10W2+	2	12/13/2022	12/12/2023
Bandreject Filter 2400-2483.5	EWT	EWT-14-0166	M1	12/13/2022	12/12/2023
Bandreject Filter 5150-5350	Micro-Tronics	BRM50703	1	12/13/2022	12/12/2023
Bandreject Filter 5725-5875	Micro-Tronics	BRM50705	1	12/13/2022	12/12/2023
4GHz High Pass Filter	WI	WHKX4.0/18G-10SS	22	12/13/2022	12/12/2023
7GHz High Pass Filter	WI	WHKX7.0/18G-8SS	45	12/13/2022	12/12/2023
Coaxial Cables	EMCI	EMCCFD400-NM-NM-	RX Cable below 1G	08/31/2022	08/30/2023
Coaxial Cables	EMCI	EMC104-SM-SM-600	RX Cable below 1G	08/31/2022	08/30/2023
Coaxial Cables	EMCI	EMC105-SM-SM-2000	RX Cable below 1G	08/31/2022	08/30/2023
Coaxial Cables	EMCI	EMC104-SM-SM-10000	RX Cable above 1G	08/31/2022	08/30/2023
Coaxial Cables	EMCI	EMC105-SM-SM-1000	RX Cable above 1G	08/31/2022	08/30/2023
Coaxial Cables	EMCI	EMC105-SM-SM-1500	RX Cable above 1G	08/31/2022	08/30/2023
Coaxial Cables	EMCI	EMC105-SM-SM-2000	RX Cable above 1G	08/31/2022	08/30/2023
Coaxial Cables	EMCI	EMCCFD400-NM-NM-	RX Cable below 30M	08/31/2022	08/30/2023
Coaxial Cables	EMCI	EMC105-SM-SM-2000	RX Cable below 30M	08/31/2022	08/30/2023
Site Cal	SGS	SAC 2	N/A	08/31/2022	08/30/2023

NOTE: N.C.R refers to Not Calibrated Required.

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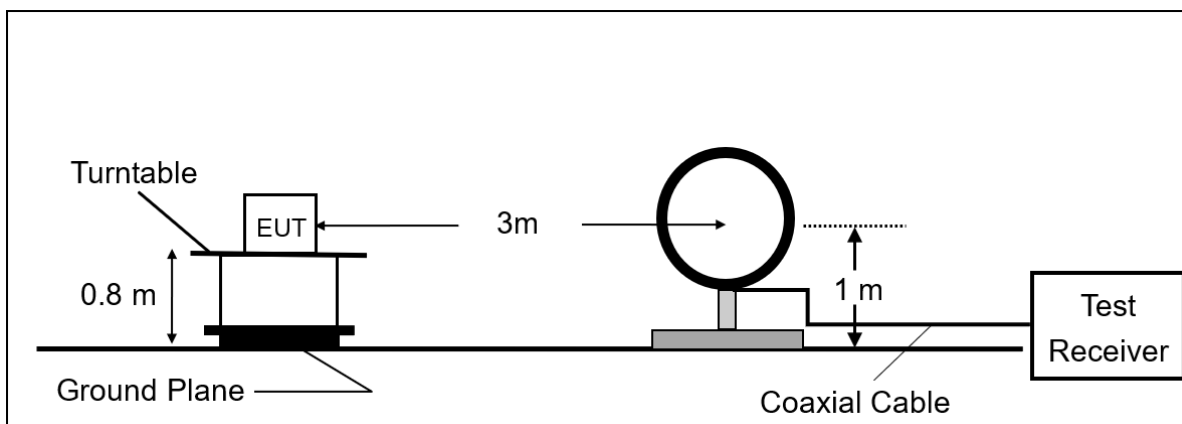
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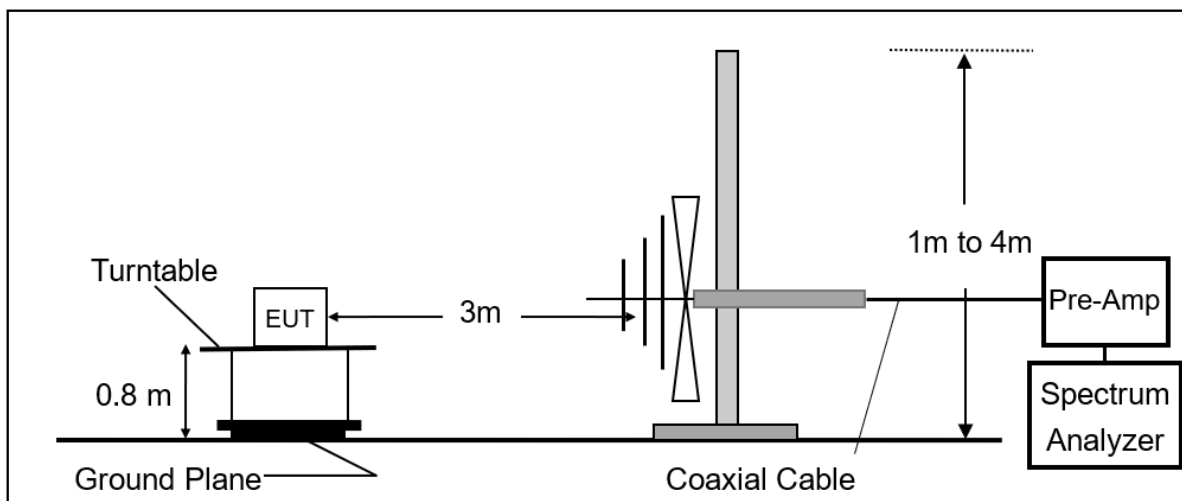
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5.3 Test Setup

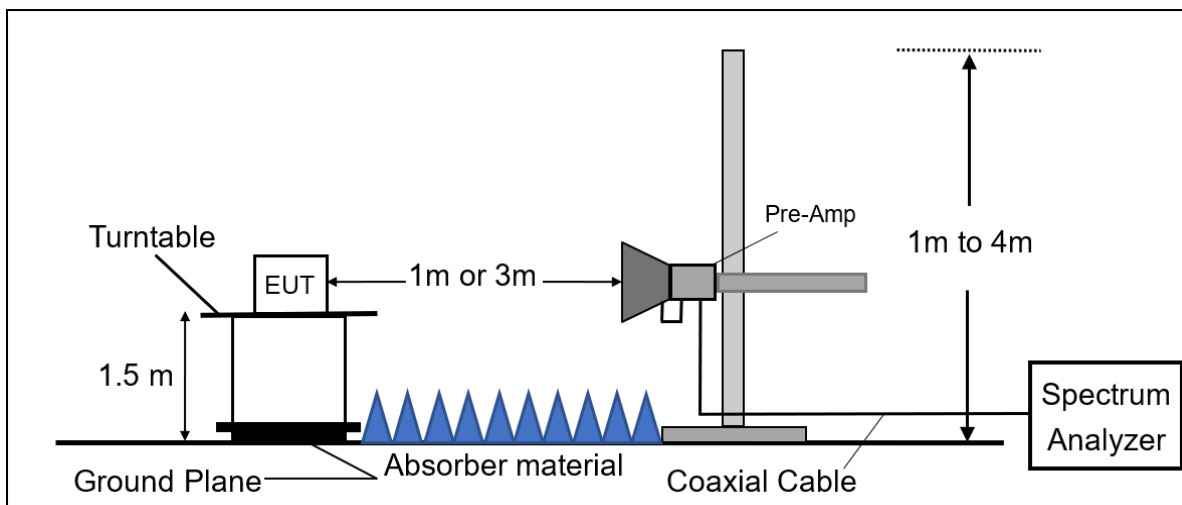
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz.



(B) Radiated Emission Test Set-Up, Frequency From 30MHz to 1000MHz



(C) Radiated Emission Test Set-Up, Frequency Above 1GHz



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5.4 Measurement Procedure

1. The EUT was placed on a turn table with 0.8m for frequency < 1GHz and 1.5m for frequency > 1GHz above ground plane.
2. The turn table shall rotate 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
4. Set the spectrum analyzer as RBW=100 kHz and VBW=300 kHz for Peak Detector (PK) at frequency between 30MHz and 1 GHz
5. Use receiver mode as RBW=120 kHz for Quasi-peak (QP) at frequency between 30MHz and 1 GHz.
6. Set the spectrum analyzer as RBW=1 MHz, VBW=3 MHz for Maximum Emission Measurements at frequency above 1 GHz.
7. Set the spectrum analyzer as RBW=1 MHz, VBW=10 Hz (Duty cycle > 98%) or VBW $\geq 1/T$ (Duty cycle < 98%) for Average Emission Measurements at frequency above 1 GHz.
8. When measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna.
9. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
10. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
11. Repeat above procedures until all frequency measured were complete.

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5.5 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where *FS* = Field Strength

CL = Cable Attenuation Factor (Cable Loss)

RA = Reading Amplitude

AG = Amplifier Gain

AF = Antenna Factor

The limit of the emission level is expressed in dB μ V/m, which converts $20 \cdot \log(\mu\text{V/m})$

Actual FS(dB μ V/m) = SPA. Reading level(dB μ V) + Factor(dB)

Factor(dB) = Antenna Factor(dB μ V/m) + Cable Loss(dB) – Pre_Amplifier Gain(dB)

5.6 Test Results of Radiated Spurious Emissions from 9 kHz to 30 MHz

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit per 15.31(o) & RSS-GEN §6.13.2 was not reported.

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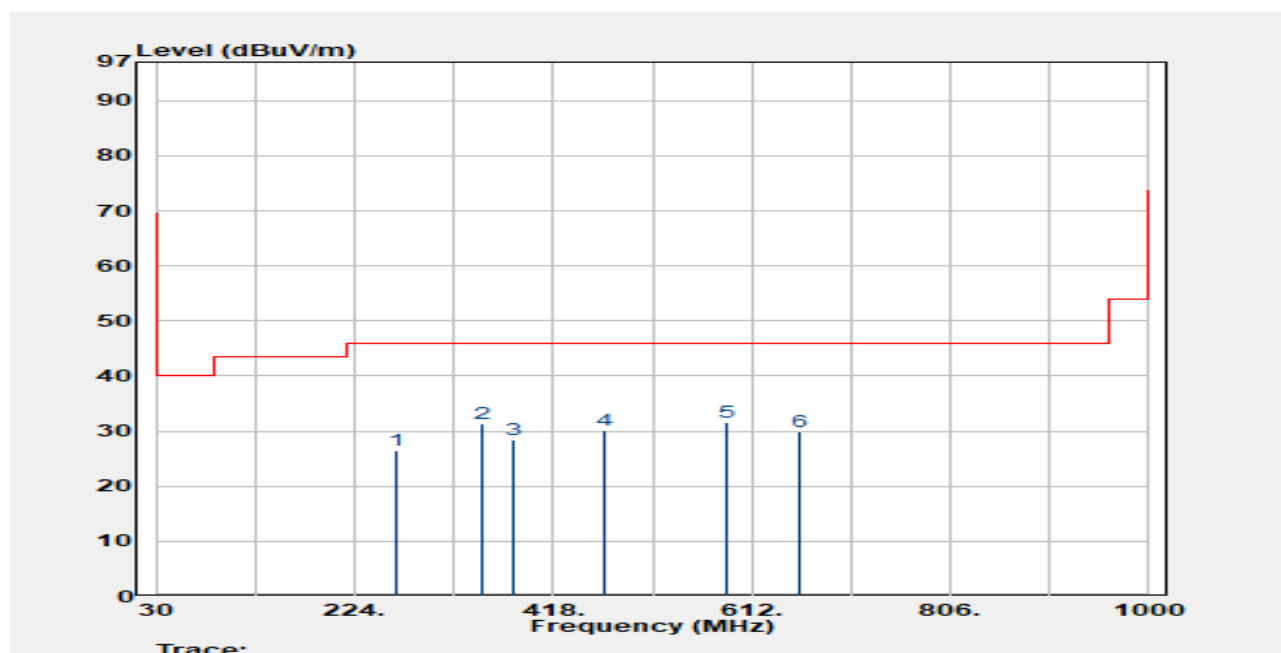
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5.7 Radiated Spurious Emission Measurement Result

5.7.1 Spurious Emission

Report Number	:TERF2303000711ER	Test Site	:SAC 2
Operation Mode	:802.11g + BR	Test Date	:2023-03-22
Test Frequency	:2422 + 2480 MHz	Temp./Humi.	:25.8/60
Test Mode	:Tx	Antenna Pol.	:Vertical
EUT Pol	:H Plane	Engineer	:Ricky Chen
Note	:Wi-Fi 2.4G(Antenna: W24P-U) +Bluetooth(Antenna: 146153)		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
264.740	Peak	39.60	-13.21	26.40	46.00	-19.60
348.160	Peak	42.45	-11.19	31.27	46.00	-14.73
379.200	Peak	38.78	-10.35	28.43	46.00	-17.57
467.470	Peak	38.20	-8.03	30.17	46.00	-15.83
586.780	Peak	37.15	-5.65	31.49	46.00	-14.51
658.560	Peak	35.36	-5.53	29.82	46.00	-16.18

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Report Number :TERF2303000711ER

Test Site :SAC 2

Operation Mode :802.11g + BR

Test Date :2023-03-22

Test Frequency :2422 + 2480 MHz

Temp./Humi. :25.8/60

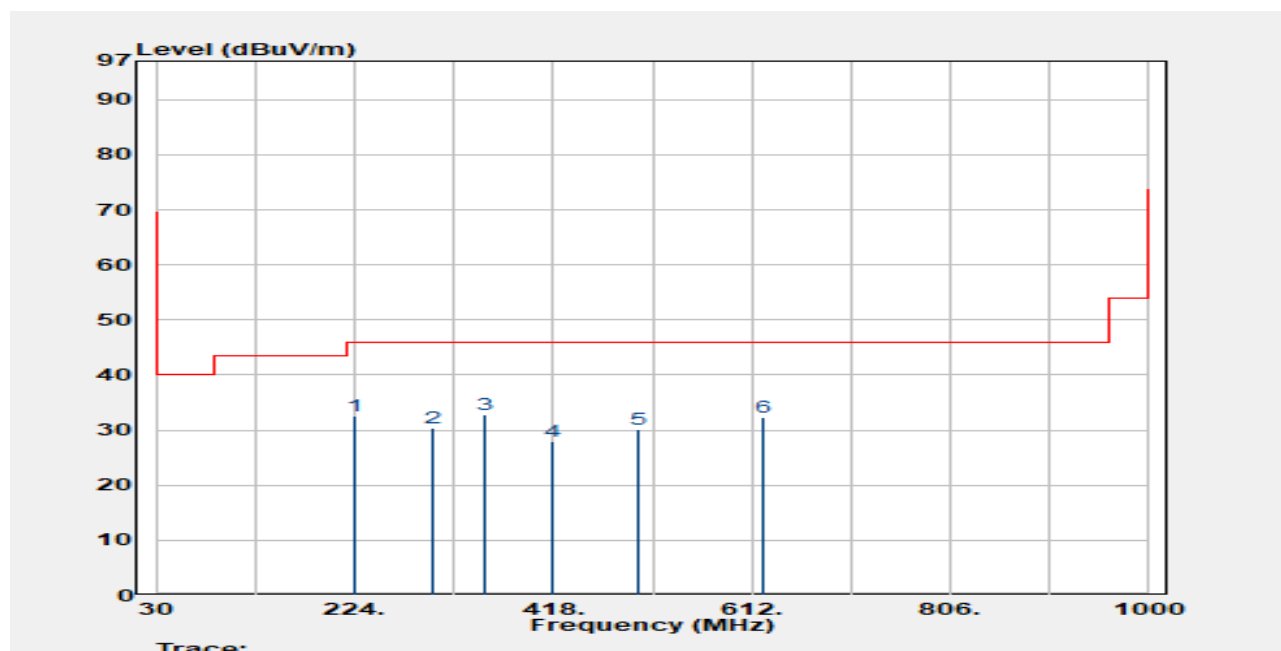
Test Mode :Tx

Antenna Pol. :Horizontal

EUT Pol :H Plane

Engineer :Ricky Chen

Note :Wi-Fi 2.4G(Antenna: W24P-U) +Bluetooth(Antenna: 146153)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
223.030	Peak	48.58	-16.06	32.53	46.00	-13.47
299.660	Peak	42.75	-12.48	30.27	46.00	-15.73
350.100	Peak	44.12	-11.24	32.88	46.00	-13.12
418.000	Peak	37.46	-9.59	27.87	46.00	-18.13
500.450	Peak	37.60	-7.57	30.02	46.00	-15.98
622.670	Peak	37.48	-5.20	32.27	46.00	-13.73

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Report Number :TERF2303000711ER

Test Site :SAC 2

Operation Mode :802.11g + BR

Test Date :2023-03-22

Test Frequency :2422 + 2480 MHz

Temp./Humi. :25.8/60

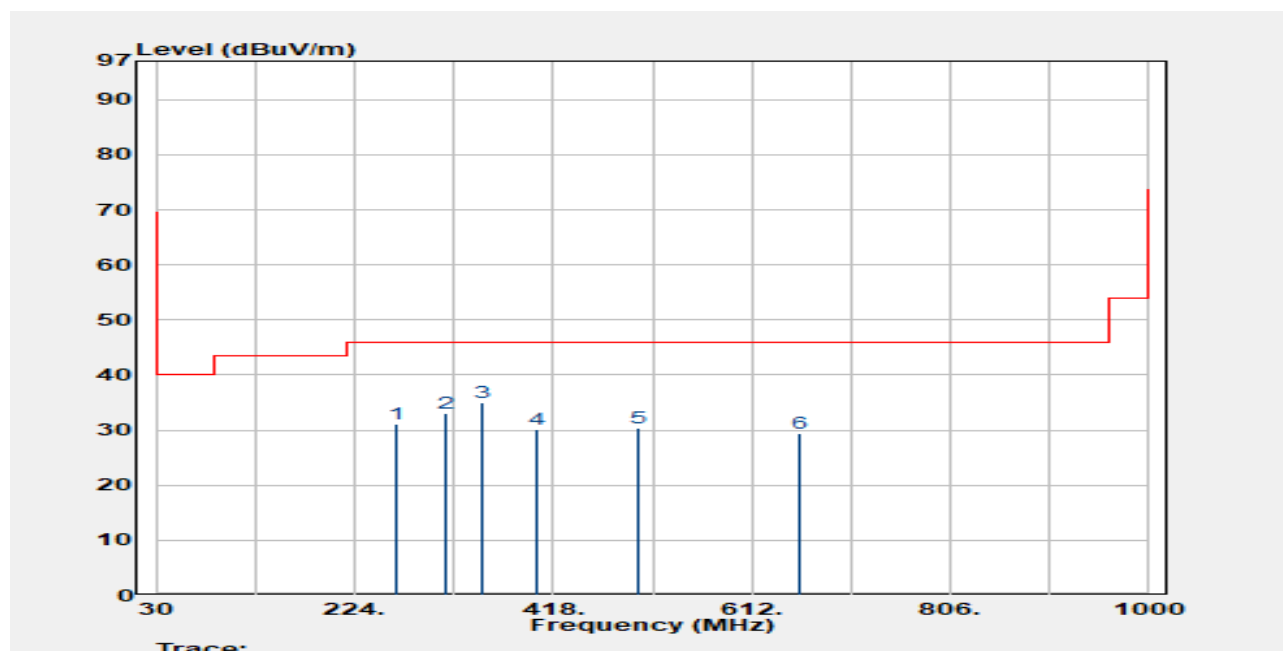
Test Mode :Tx

Antenna Pol. :Vertical

EUT Pol :H Plane

Engineer :Ricky Chen

Note :Wi-Fi 2.4G(Antenna: W24P-U) +Bluetooth(Antenna: W24P-U)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
264.740	Peak	44.34	-13.21	31.13	46.00	-14.87
313.240	Peak	45.04	-12.06	32.98	46.00	-13.02
348.160	Peak	46.13	-11.19	34.94	46.00	-11.06
401.510	Peak	39.95	-9.77	30.18	46.00	-15.82
500.450	Peak	38.04	-7.57	30.47	46.00	-15.53
658.560	Peak	34.89	-5.53	29.35	46.00	-16.65

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Report Number :TERF2303000711ER

Test Site :SAC 2

Operation Mode :802.11g + BR

Test Date :2023-03-22

Test Frequency :2422 + 2480 MHz

Temp./Humi. :25.8/60

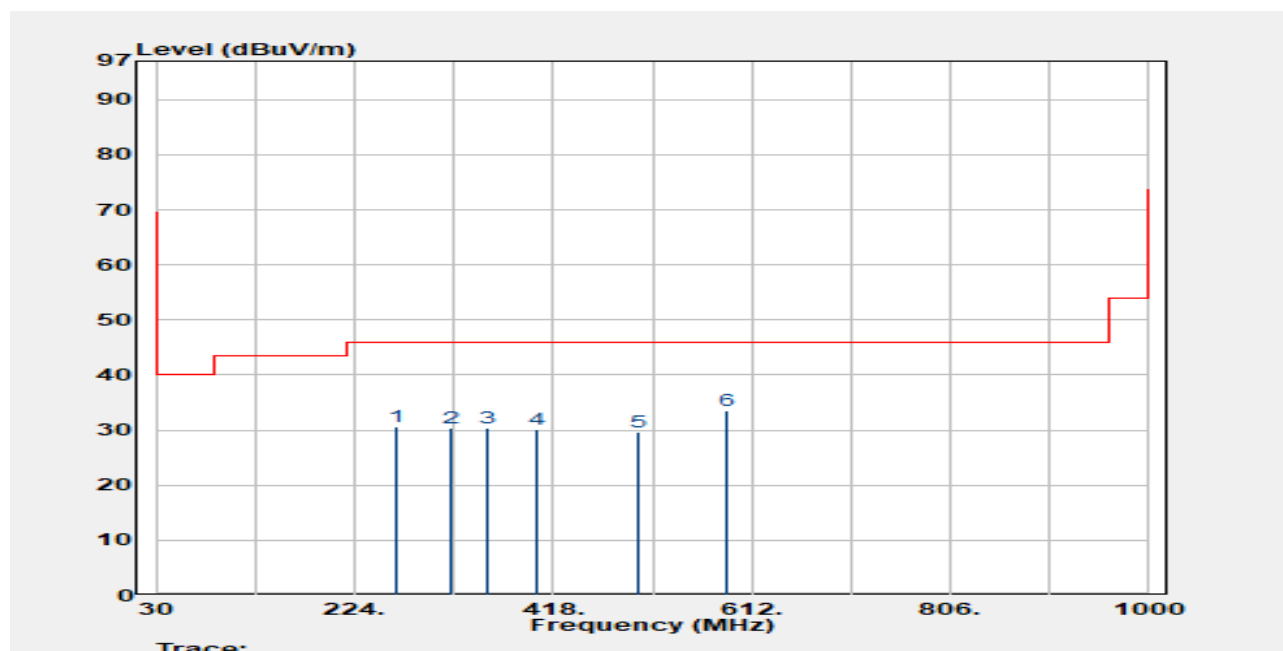
Test Mode :Tx

Antenna Pol. :Horizontal

EUT Pol :H Plane

Engineer :Ricky Chen

Note :Wi-Fi 2.4G(Antenna: W24P-U) +Bluetooth(Antenna: W24P-U)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
264.740	Peak	43.76	-13.21	30.55	46.00	-15.45
319.060	Peak	42.35	-11.86	30.49	46.00	-15.51
353.010	Peak	41.70	-11.22	30.48	46.00	-15.52
401.510	Peak	40.01	-9.77	30.24	46.00	-15.76
500.450	Peak	37.11	-7.57	29.54	46.00	-16.46
586.780	Peak	39.10	-5.65	33.44	46.00	-12.56

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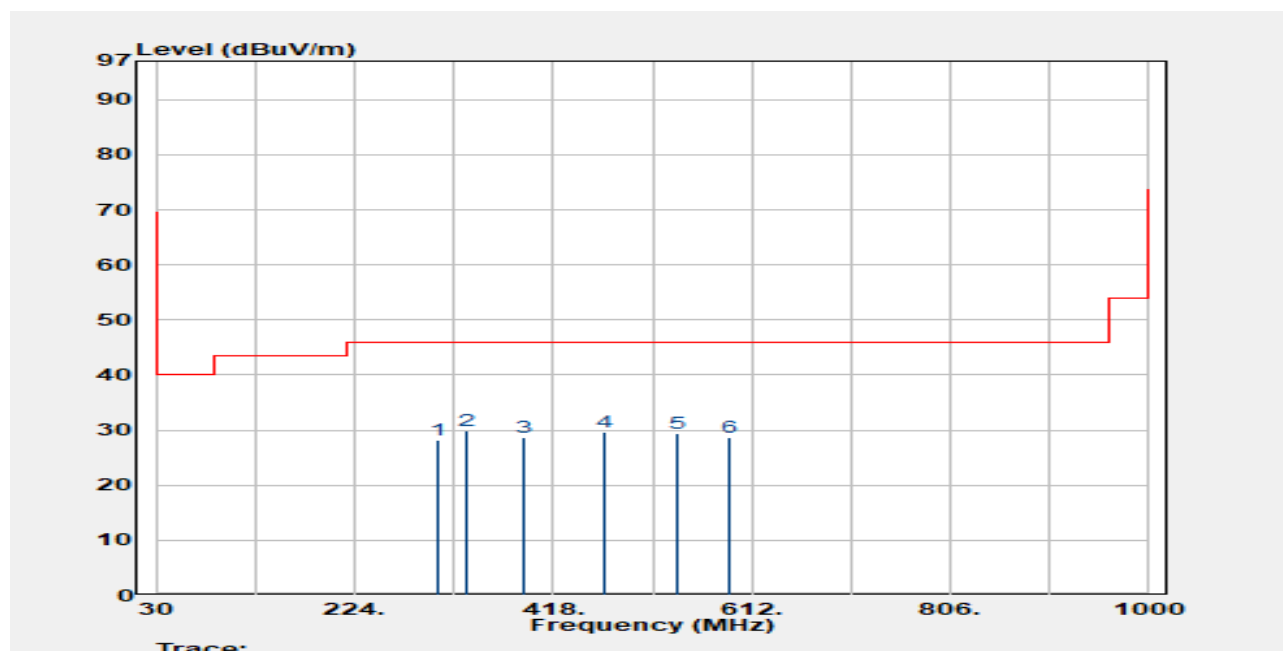
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Report Number	:TERF2303000711ER	Test Site	:SAC 2
Operation Mode	:802.11a + BR	Test Date	:2023-03-22
Test Frequency	:5745 + 2480 MHz	Temp./Humi.	:25.8/60
Test Mode	:Tx	Antenna Pol.	:Vertical
EUT Pol	:H Plane	Engineer	:Ricky Chen
Note	:Wi-Fi 5G(Antenna: WT32D1-KX series)+ Bluetooth(Antenna: 146153)		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
306.450	Peak	40.64	-12.38	28.25	46.00	-17.75
332.640	Peak	41.24	-11.28	29.95	46.00	-16.05
389.870	Peak	38.53	-9.95	28.58	46.00	-17.42
467.470	Peak	37.62	-8.03	29.59	46.00	-16.41
539.250	Peak	36.58	-7.14	29.44	46.00	-16.56
589.690	Peak	33.79	-5.19	28.60	46.00	-17.40

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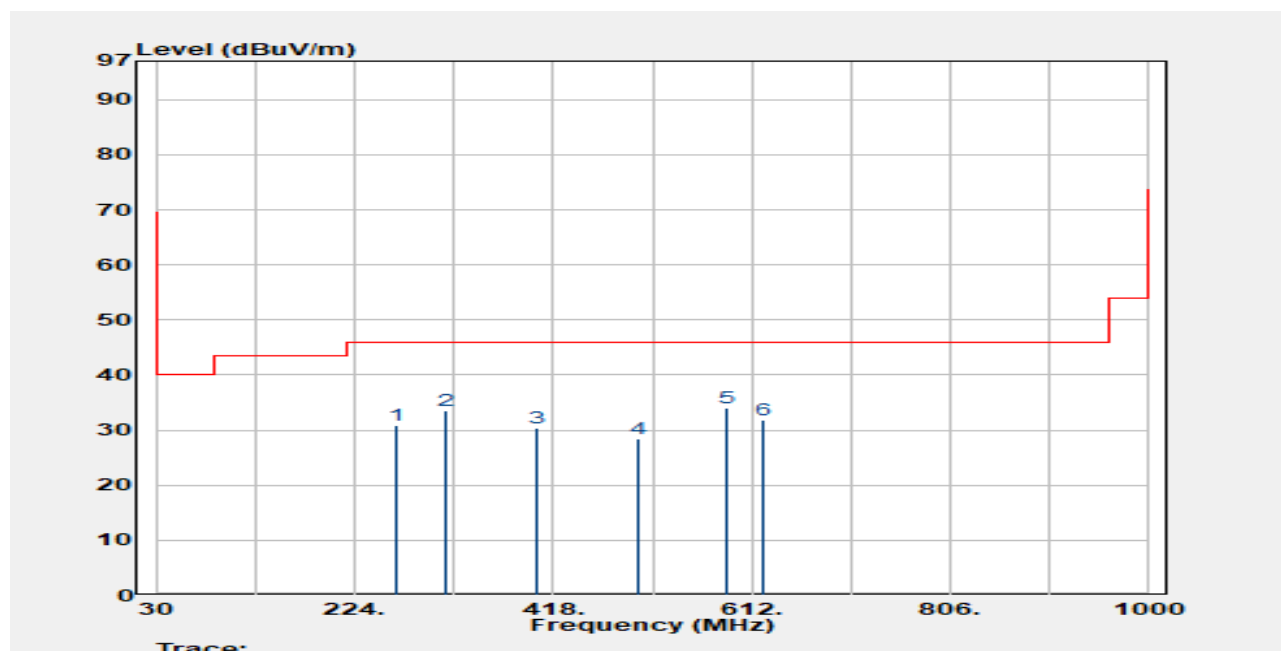
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Report Number	:TERF2303000711ER	Test Site	:SAC 2
Operation Mode	:802.11a + BR	Test Date	:2023-03-22
Test Frequency	:5745 + 2480 MHz	Temp./Humi.	:25.8/60
Test Mode	:Tx	Antenna Pol.	:Horizontal
EUT Pol	:H Plane	Engineer	:Ricky Chen
Note	:Wi-Fi 5G(Antenna: WT32D1-KX series)+ Bluetooth(Antenna: 146153)		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
264.740	Peak	44.04	-13.21	30.83	46.00	-15.17
313.240	Peak	45.67	-12.06	33.61	46.00	-12.39
401.510	Peak	40.15	-9.77	30.38	46.00	-15.62
500.450	Peak	36.12	-7.57	28.55	46.00	-17.45
586.780	Peak	39.57	-5.65	33.92	46.00	-12.08
622.670	Peak	36.99	-5.20	31.79	46.00	-14.21

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Report Number :TERF2303000711ER

Test Site :SAC 2

Operation Mode :802.11a + BR

Test Date :2023-03-22

Test Frequency :5745 + 2480 MHz

Temp./Humi. :25.8/60

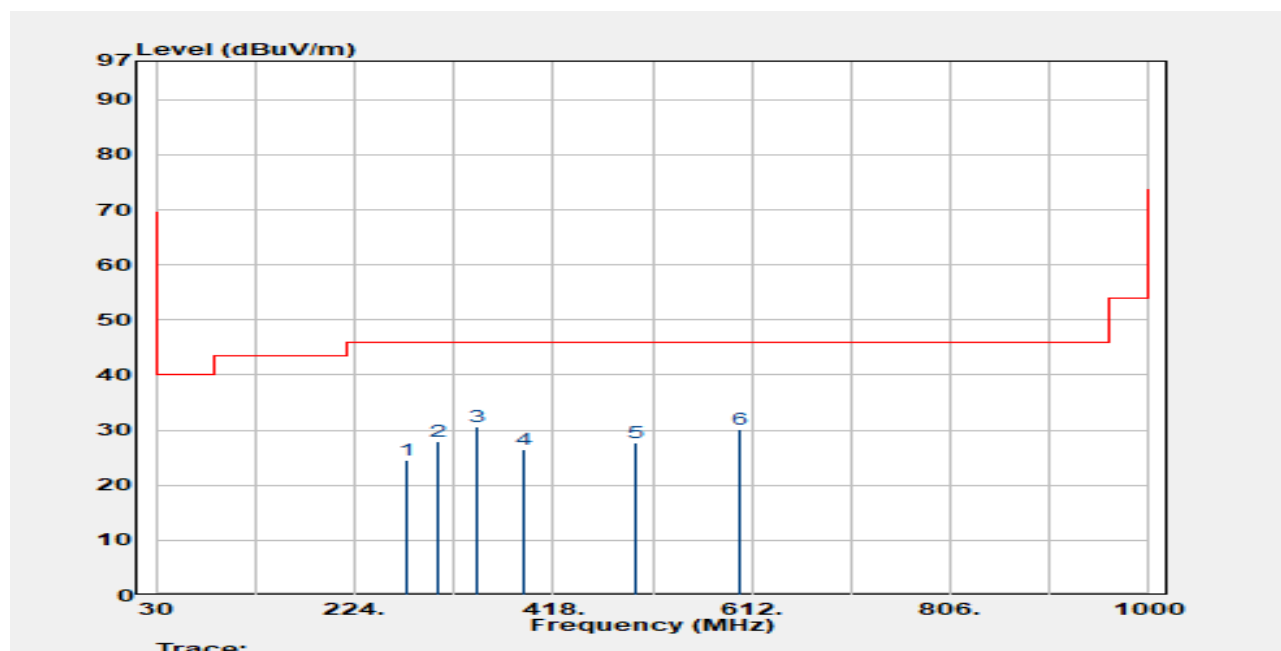
Test Mode :Tx

Antenna Pol. :Vertical

EUT Pol :H Plane

Engineer :Ricky Chen

Note :Wi-Fi 5G(Antenna: WT32D1-KX series)+ Bluetooth(Antenna: W24P-U)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
275.410	Peak	37.50	-12.91	24.59	46.00	-21.41
306.450	Peak	40.44	-12.38	28.06	46.00	-17.94
344.280	Peak	41.81	-11.11	30.70	46.00	-15.30
389.870	Peak	36.44	-9.95	26.50	46.00	-19.50
497.540	Peak	35.43	-7.71	27.73	46.00	-18.27
599.390	Peak	34.99	-4.85	30.13	46.00	-15.87

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Report Number :TERF2303000711ER

Test Site :SAC 2

Operation Mode :802.11a + BR

Test Date :2023-03-22

Test Frequency :5745 + 2480 MHz

Temp./Humi. :25.8/60

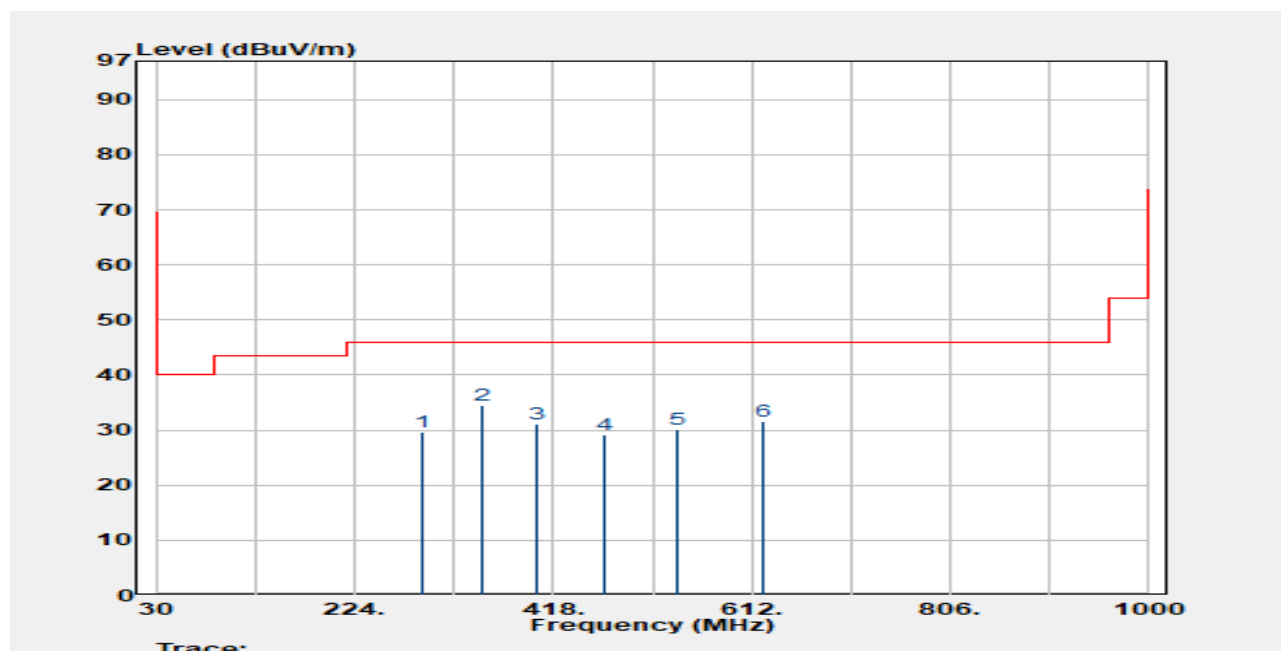
Test Mode :Tx

Antenna Pol. :Horizontal

EUT Pol :H Plane

Engineer :Ricky Chen

Note :Wi-Fi 5G(Antenna: WT32D1-KX series)+ Bluetooth(Antenna: W24P-U)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
288.990	Peak	42.12	-12.55	29.57	46.00	-16.43
348.160	Peak	45.77	-11.19	34.58	46.00	-11.42
401.510	Peak	40.86	-9.77	31.09	46.00	-14.91
467.470	Peak	37.19	-8.03	29.17	46.00	-16.83
539.250	Peak	37.22	-7.14	30.08	46.00	-15.92
622.670	Peak	36.76	-5.20	31.55	46.00	-14.45

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Report Number :TERF2303000711ER

Test Site :SAC 2

Operation Mode :802.11a + BR

Test Date :2023-03-22

Test Frequency :5240 + 2402 MHz

Temp./Humi. :25.8/60

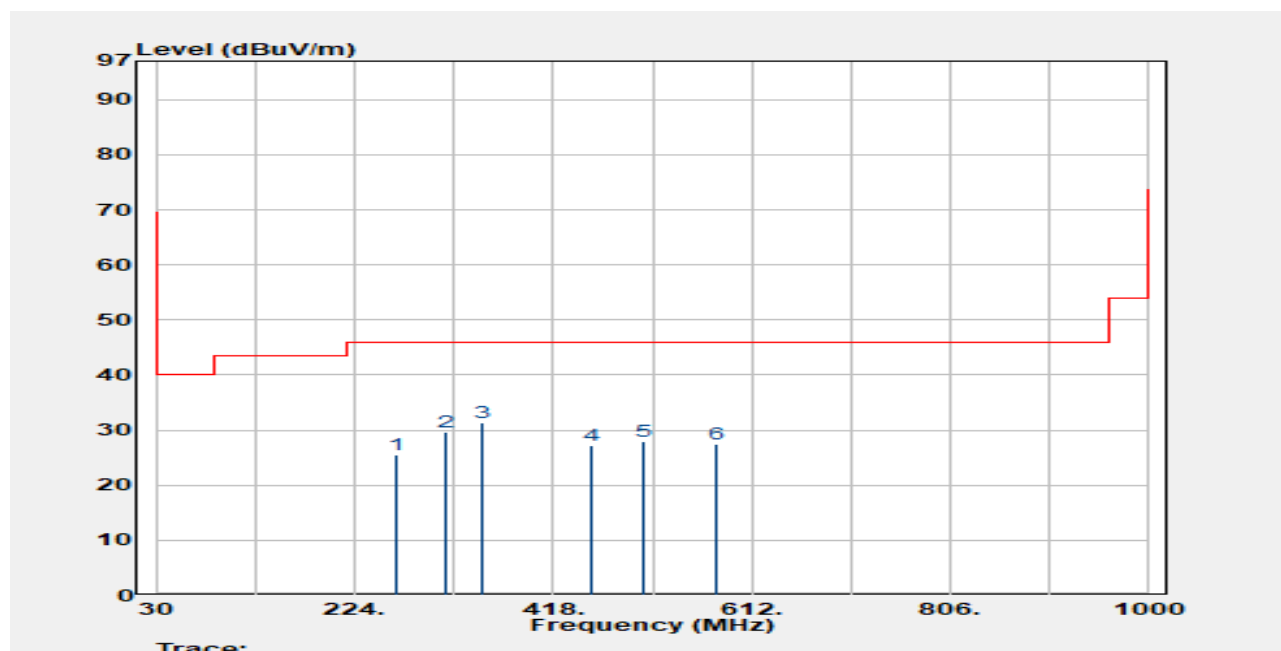
Test Mode :Tx

Antenna Pol. :Vertical

EUT Pol :H Plane

Engineer :Ricky Chen

Note :Wi-Fi 5G(Antenna: 146153)+ Bluetooth(Antenna: 146153)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
264.740	Peak	38.64	-13.21	25.43	46.00	-20.57
313.240	Peak	41.66	-12.06	29.60	46.00	-16.40
348.160	Peak	42.66	-11.19	31.47	46.00	-14.53
454.860	Peak	35.27	-8.12	27.15	46.00	-18.85
505.300	Peak	35.72	-7.69	28.04	46.00	-17.96
577.080	Peak	33.62	-6.20	27.42	46.00	-18.58

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Report Number :TERF2303000711ER

Test Site :SAC 2

Operation Mode :802.11a + BR

Test Date :2023-03-22

Test Frequency :5240 + 2402 MHz

Temp./Humi. :25.8/60

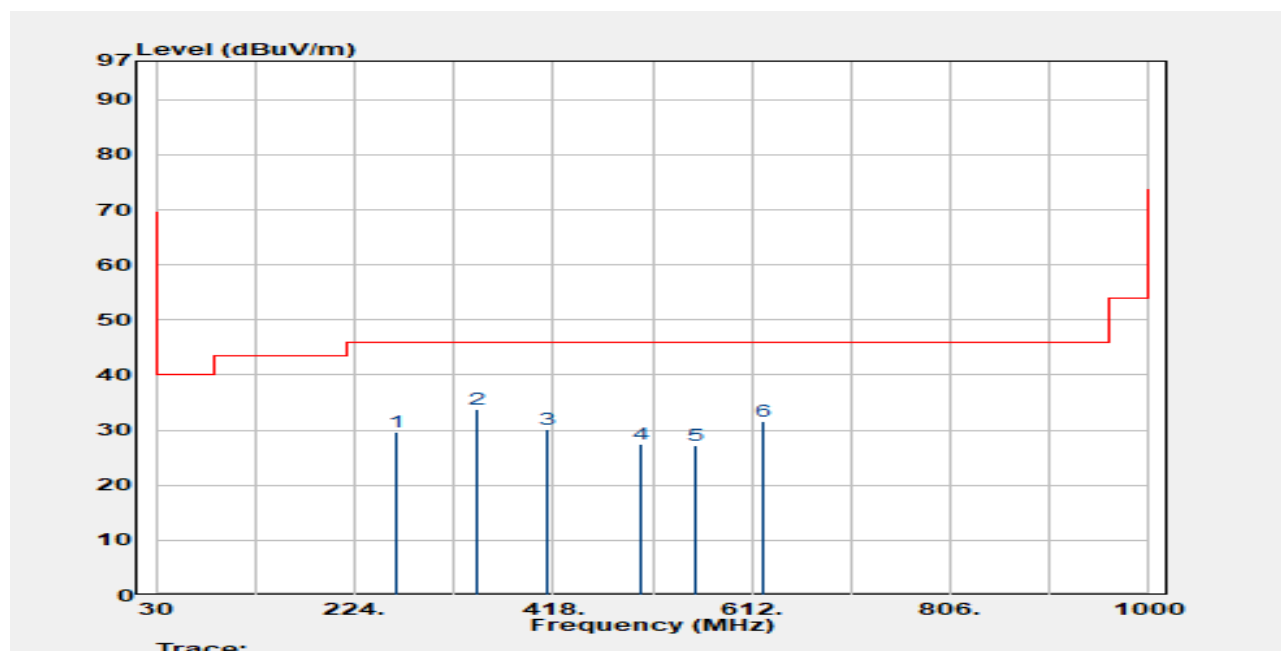
Test Mode :Tx

Antenna Pol. :Horizontal

EUT Pol :H Plane

Engineer :Ricky Chen

Note :Wi-Fi 5G(Antenna: 146153)+ Bluetooth(Antenna: 146153)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
264.740	Peak	42.90	-13.21	29.69	46.00	-16.31
344.280	Peak	44.92	-11.11	33.81	46.00	-12.19
413.150	Peak	39.81	-9.60	30.21	46.00	-15.79
504.330	Peak	35.11	-7.68	27.43	46.00	-18.57
557.680	Peak	33.69	-6.55	27.14	46.00	-18.86
622.670	Peak	36.90	-5.20	31.69	46.00	-14.31

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Report Number :TERF2303000711ER

Test Site :SAC 2

Operation Mode :802.11a + BR

Test Date :2023-03-22

Test Frequency :5240 + 2402 MHz

Temp./Humi. :25.8/60

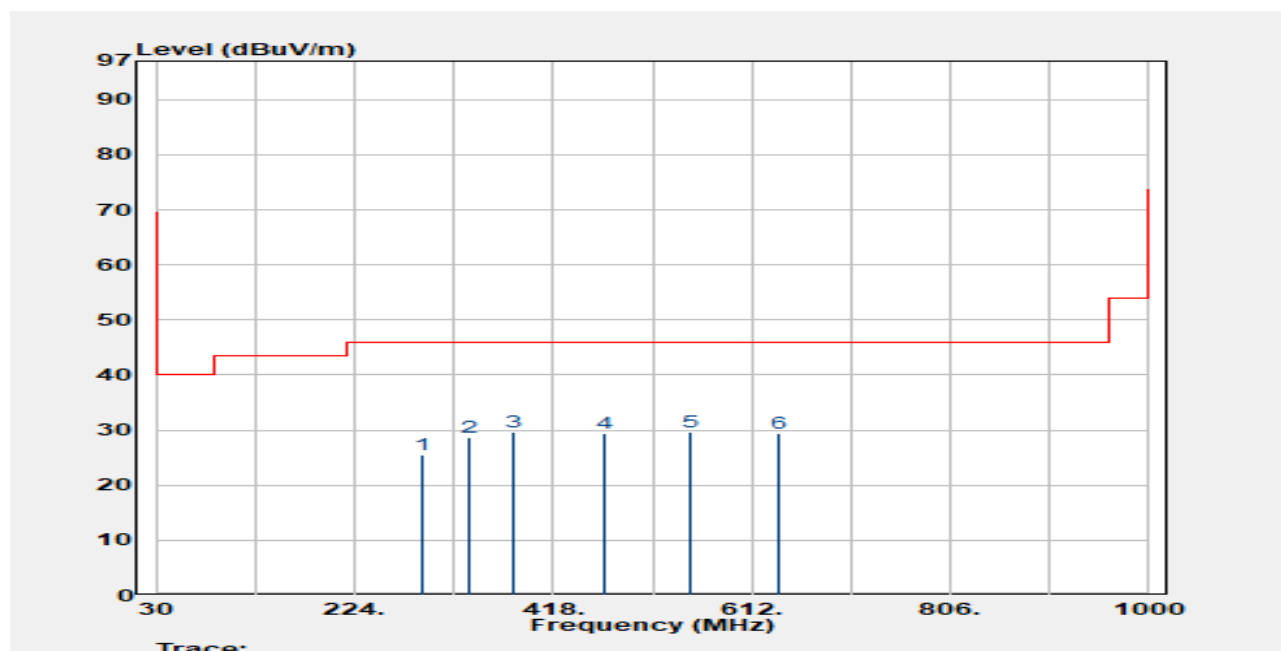
Test Mode :Tx

Antenna Pol. :Vertical

EUT Pol :H Plane

Engineer :Ricky Chen

Note. : Wi-Fi 5G(Antenna: Type2EA_Antenna)+Bluetooth(Antenna: Type2EA_Antenna)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
288.990	Peak	37.97	-12.55	25.42	46.00	-20.58
336.520	Peak	39.86	-11.14	28.72	46.00	-17.28
379.200	Peak	39.96	-10.35	29.62	46.00	-16.38
467.470	Peak	37.40	-8.03	29.37	46.00	-16.63
551.860	Peak	36.40	-6.76	29.65	46.00	-16.35
637.220	Peak	34.74	-5.43	29.30	46.00	-16.70

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Report Number :TERF2303000711ER

Test Site :SAC 2

Operation Mode :802.11a + BR

Test Date :2023-03-22

Test Frequency :5240 + 2402 MHz

Temp./Humi. :25.8/60

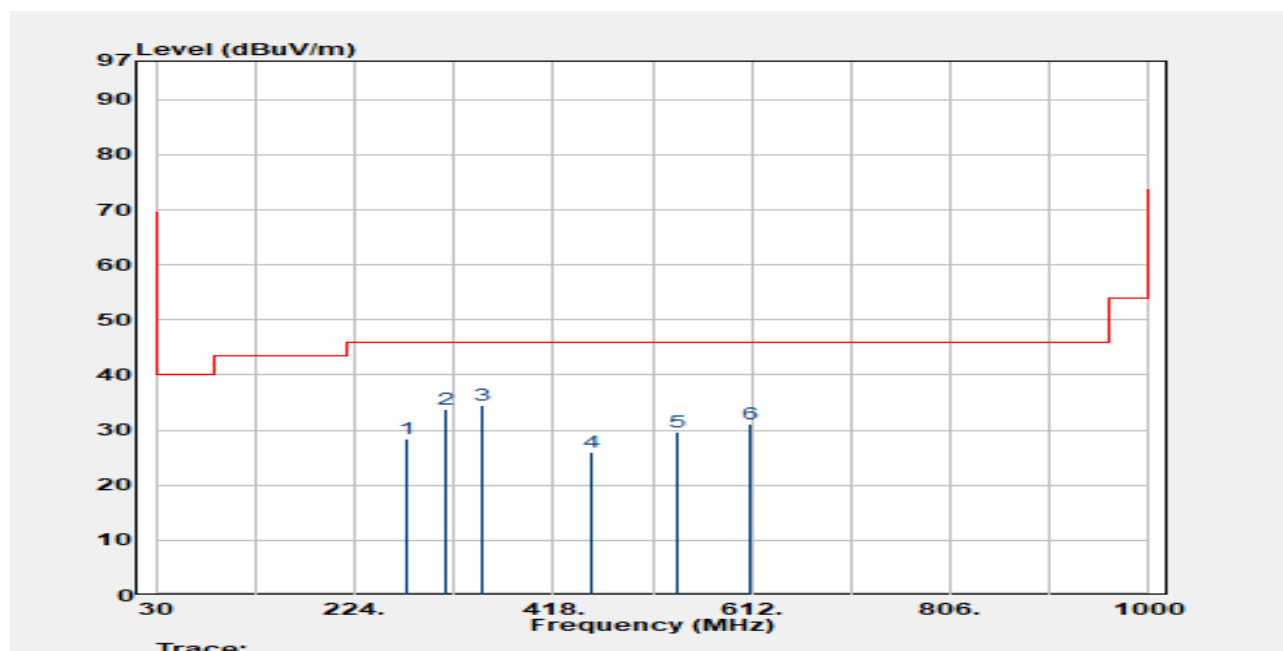
Test Mode :Tx

Antenna Pol. :Horizontal

EUT Pol :H Plane

Engineer :Ricky Chen

Note. : Wi-Fi 5G(Antenna: Type2EA_Antenna)+Bluetooth(Antenna: Type2EA_Antenna)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
275.410	Peak	41.29	-12.91	28.38	46.00	-17.62
313.240	Peak	45.86	-12.06	33.80	46.00	-12.20
348.160	Peak	45.80	-11.19	34.61	46.00	-11.39
455.830	Peak	34.05	-8.13	25.92	46.00	-20.08
539.250	Peak	36.86	-7.14	29.73	46.00	-16.27
611.030	Peak	35.99	-4.82	31.17	46.00	-14.83

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Report Number :TERF2303000711ER

Test Site :SAC 2

Operation Mode :802.11a + BR

Test Date :2023-03-22

Test Frequency :5745 + 2402 MHz

Temp./Humi. :25.8/60

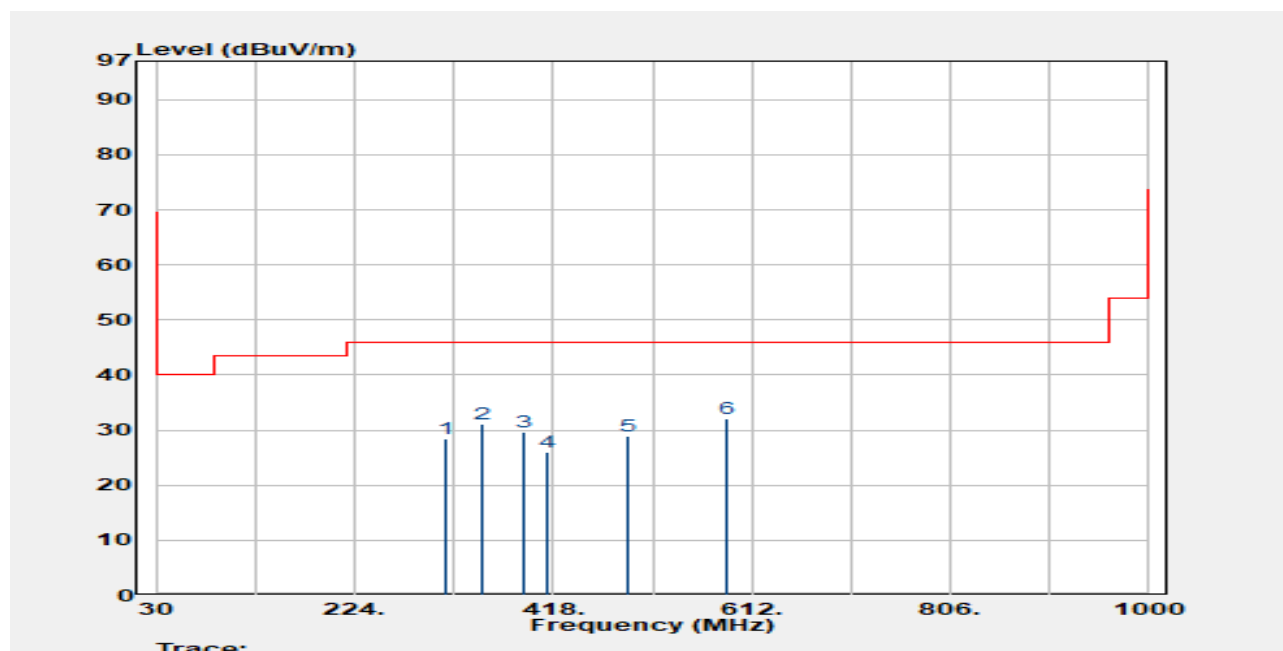
Test Mode :Tx

Antenna Pol. :Vertical

EUT Pol :H Plane

Engineer :Ricky Chen

Note. : Wi-Fi 5G(Antenna: WT32D1-KX series)+ Bluetooth(Antenna: WT32D1-KX series)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
312.270	Peak	40.44	-12.10	28.34	46.00	-17.66
348.160	Peak	42.21	-11.19	31.03	46.00	-14.97
389.870	Peak	39.50	-9.95	29.56	46.00	-16.44
413.150	Peak	35.66	-9.60	26.06	46.00	-19.94
491.720	Peak	36.72	-7.84	28.88	46.00	-17.12
586.780	Peak	37.70	-5.65	32.04	46.00	-13.96

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Report Number :TERF2303000711ER

Test Site :SAC 2

Operation Mode :802.11a + BR

Test Date :2023-03-22

Test Frequency :5745 + 2402 MHz

Temp./Humi. :25.8/60

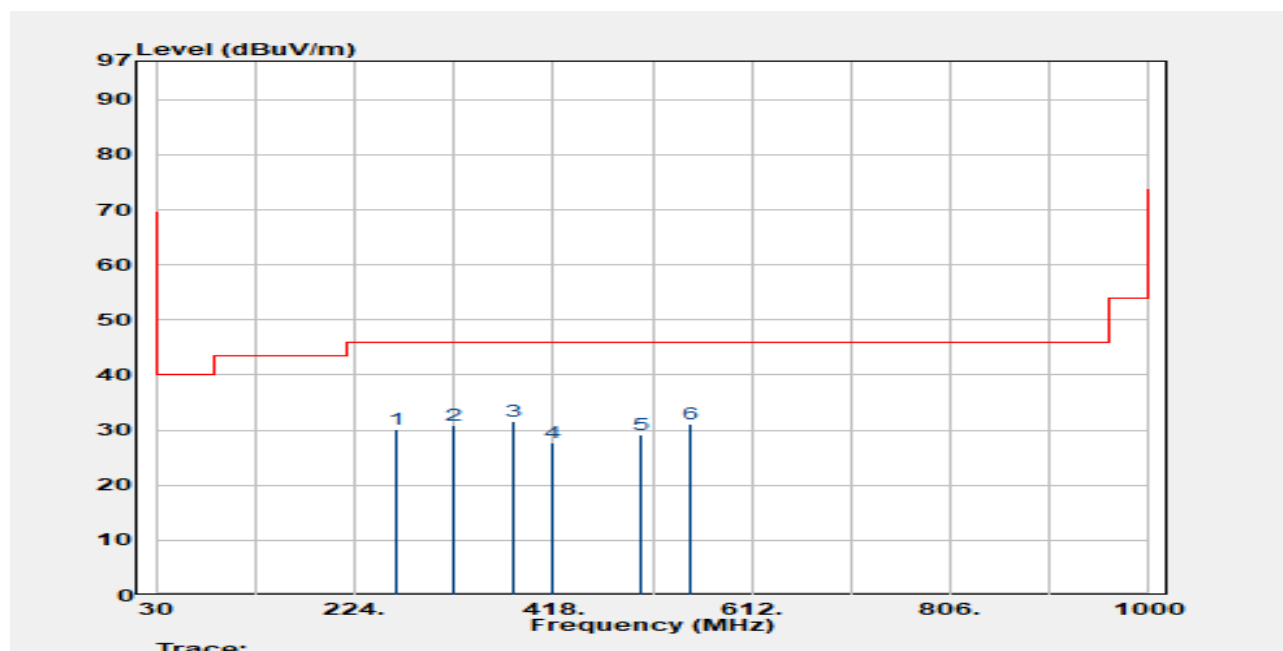
Test Mode :Tx

Antenna Pol. :Horizontal

EUT Pol :H Plane

Engineer :Ricky Chen

Note. : Wi-Fi 5G(Antenna: WT32D1-KX series)+ Bluetooth(Antenna: WT32D1-KX series)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
264.740	Peak	43.31	-13.21	30.10	46.00	-15.90
321.000	Peak	42.54	-11.78	30.76	46.00	-15.24
379.200	Peak	42.06	-10.35	31.71	46.00	-14.29
416.060	Peak	37.41	-9.59	27.82	46.00	-18.18
504.330	Peak	36.85	-7.68	29.17	46.00	-16.83
551.860	Peak	37.98	-6.76	31.22	46.00	-14.78

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Member of SGS Group

Report Number :TERF2303000711ER

Test Site :SAC 2

Operation Mode :802.11g + BR

Test Date :2023-03-22

Test Frequency :2422 + 2480 MHz

Temp./Humi. :25.8/60

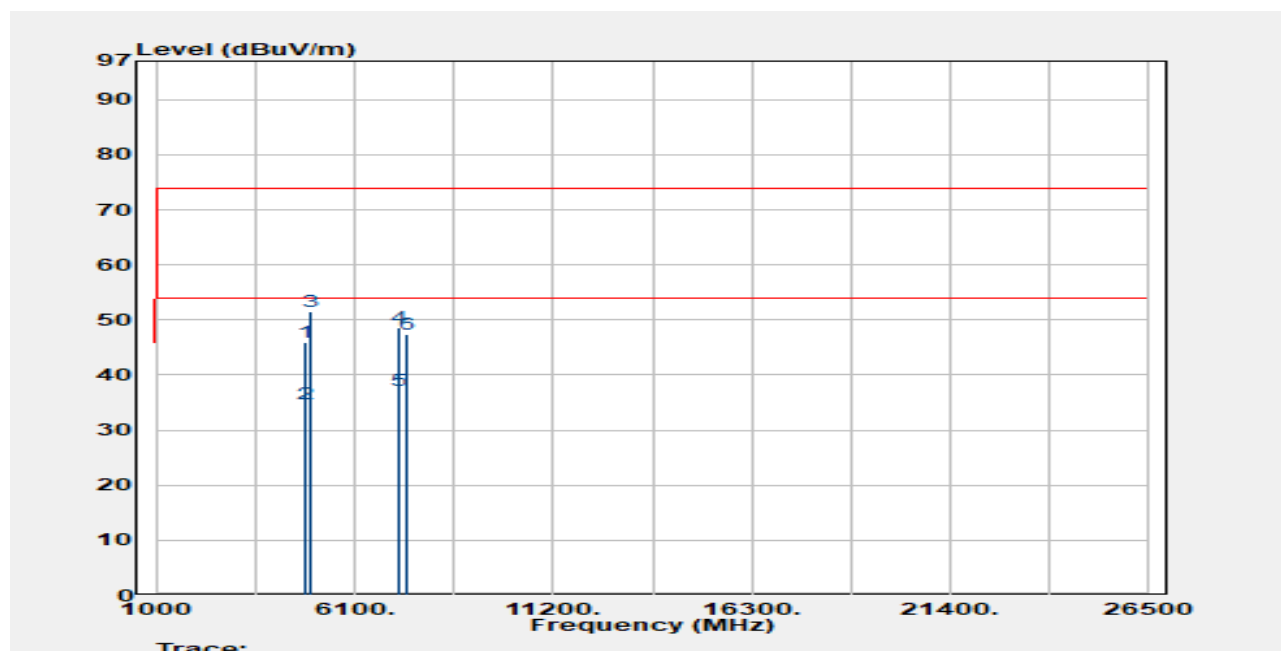
Test Mode :Tx

Antenna Pol. :Vertical

EUT Pol :H Plane

Engineer :Ricky Chen

Note. :Wi-Fi 2.4G(Antenna: W24P-U) +Bluetooth(Antenna: 146153)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
4844.000	Peak	43.46	2.37	45.83	74.00	-28.17
4844.000	Average	32.36	2.37	34.73	54.00	-19.27
4960.000	Peak	48.72	2.80	51.52	74.00	-22.48
7266.000	Peak	41.59	7.12	48.71	74.00	-25.29
7266.000	Average	30.19	7.12	37.31	54.00	-16.69
7440.000	Peak	39.42	7.97	47.40	74.00	-26.60

Freq. (MHz)	Detector	Peak Actual FS (dBμV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4960.000	Average	51.52	-24.73	26.79	54.00	-27.21
7440.000	Average	47.40	-24.73	22.67	54.00	-31.33

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Member of SGS Group

Report Number :TERF2303000711ER

Test Site :SAC 2

Operation Mode :802.11g + BR

Test Date :2023-03-22

Test Frequency :2422 + 2480 MHz

Temp./Humi. :25.8/60

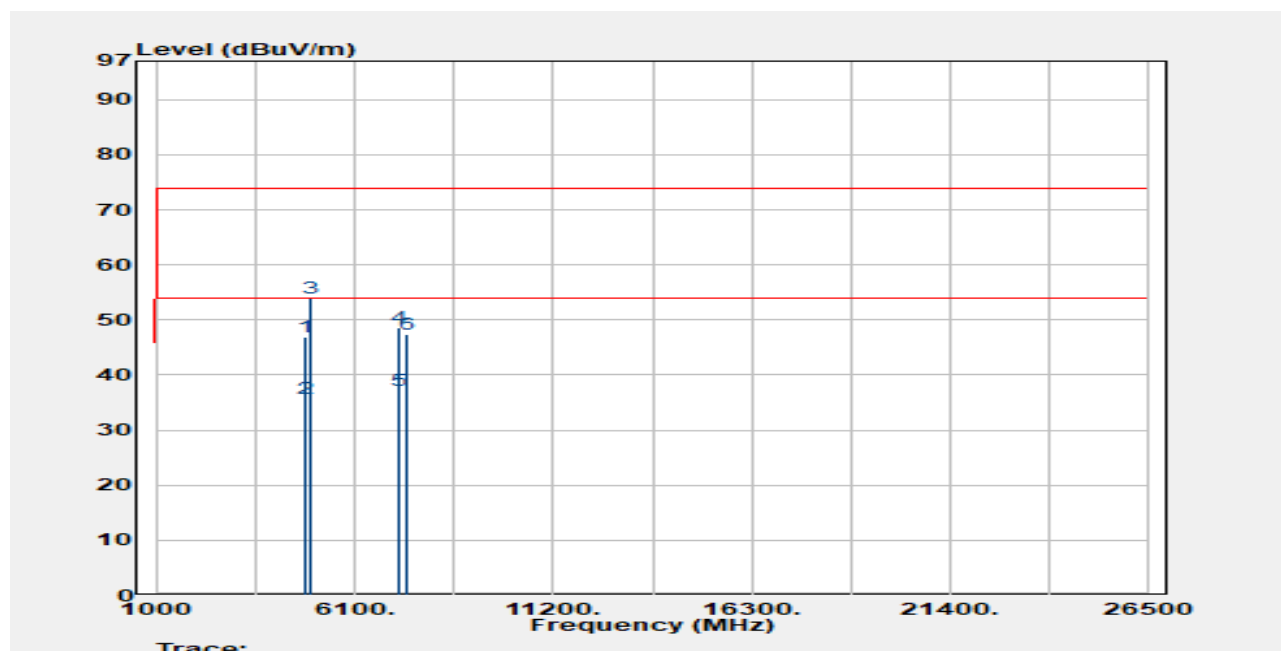
Test Mode :Tx

Antenna Pol. :Horizontal

EUT Pol :H Plane

Engineer :Ricky Chen

Note. :Wi-Fi 2.4G(Antenna: W24P-U) +Bluetooth(Antenna: 146153)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
--------------	------------------------------	-----------------------------------	--------------	------------------------	------------------------	--------------

4844.000	Peak	44.53	2.37	46.90	74.00	-27.10
4844.000	Average	33.30	2.37	35.67	54.00	-18.33
4960.000	Peak	51.11	2.80	53.91	74.00	-20.09
7266.000	Peak	41.55	7.12	48.67	74.00	-25.33
7266.000	Average	30.12	7.12	37.24	54.00	-16.76
7440.000	Peak	39.37	7.97	47.34	74.00	-26.66

Freq. (MHz)	Detector	Peak Actual FS (dBuV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4960.000	Average	53.91	-24.73	29.18	54.00	-24.82
7440.000	Average	47.34	-24.73	22.61	54.00	-31.39

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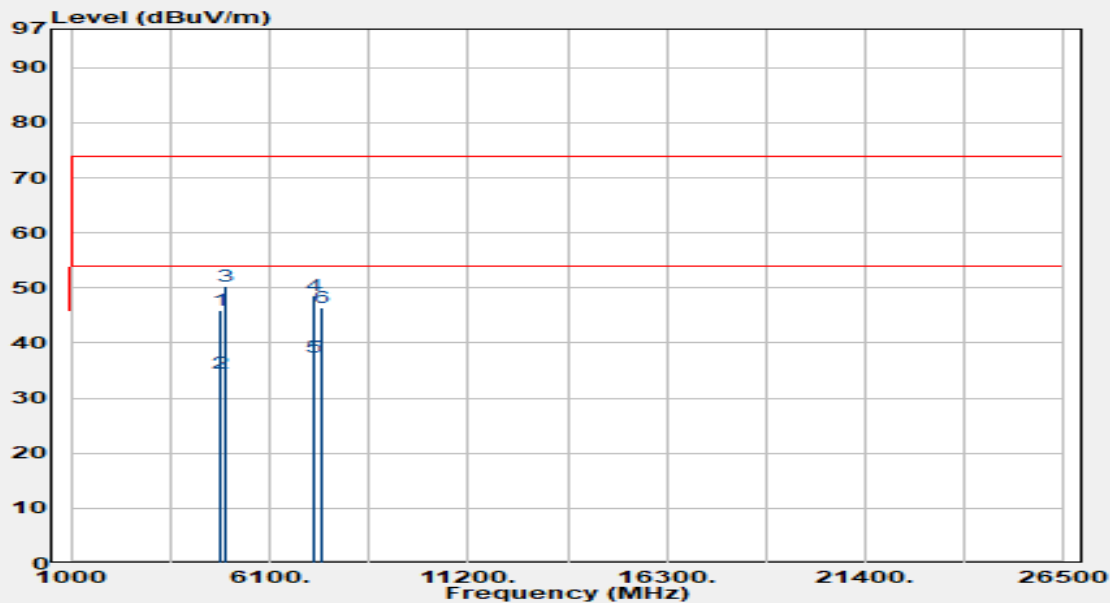
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Member of SGS Group

Report Number :TERF2303000711ER
 Operation Mode :802.11g + BR
 Test Frequency :2422 + 2480 MHz
 Test Mode :Tx
 EUT Pol :H Plane
 Note. :Wi-Fi 2.4G(Antenna: W24P-U) +Bluetooth(Antenna: W24P-U)

Test Site :SAC 2
 Test Date :2023-03-22
 Temp./Humi. :25.8/60
 Antenna Pol. :Vertical
 Engineer :Ricky Chen



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
4844.000	Peak	43.49	2.37	45.86	74.00	-28.14
4844.000	Average	32.16	2.37	34.53	54.00	-19.47
4960.000	Peak	47.47	2.80	50.26	74.00	-23.74
7266.000	Peak	41.61	7.12	48.73	74.00	-25.27
7266.000	Average	30.21	7.12	37.33	54.00	-16.67
7440.000	Peak	38.54	7.97	46.51	74.00	-27.49

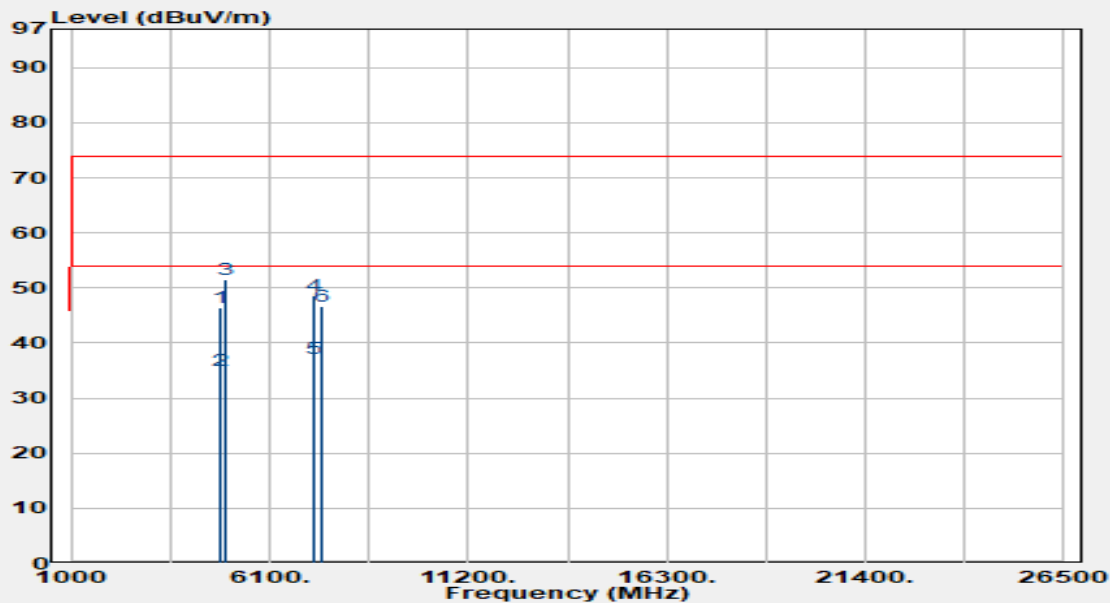
Freq. (MHz)	Detector	Peak Actual FS (dBuV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4960.000	Average	50.26	-24.73	25.53	54.00	-28.47
7440.000	Average	46.51	-24.73	21.78	54.00	-32.22

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Report Number :TERF2303000711ER
 Operation Mode :802.11g + BR
 Test Frequency :2422 + 2480 MHz
 Test Mode :Tx
 EUT Pol :H Plane
 Note. :Wi-Fi 2.4G(Antenna: W24P-U) +Bluetooth(Antenna: W24P-U)

Test Site :SAC 2
 Test Date :2023-03-22
 Temp./Humi. :25.8/60
 Antenna Pol. :Horizontal
 Engineer :Ricky Chen



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
4844.000	Peak	44.06	2.37	46.43	74.00	-27.57
4844.000	Average	32.67	2.37	35.04	54.00	-18.96
4960.000	Peak	48.85	2.80	51.65	74.00	-22.35
7266.000	Peak	41.43	7.12	48.55	74.00	-25.45
7266.000	Average	30.10	7.12	37.22	54.00	-16.78
7440.000	Peak	38.73	7.97	46.71	74.00	-27.29

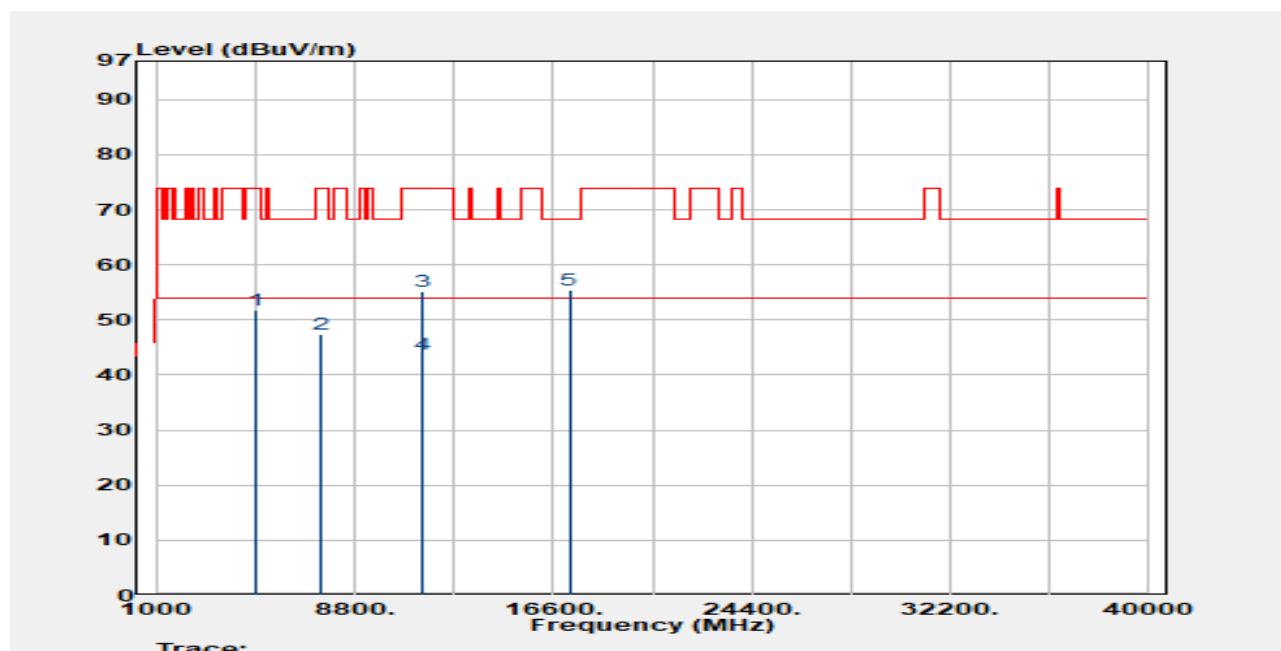
Freq. (MHz)	Detector	Peak Actual FS (dBuV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4960.000	Average	51.65	-24.73	26.92	54.00	-27.08
7440.000	Average	46.71	-24.73	21.98	54.00	-32.02

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Report Number :TERF2303000711ER
 Operation Mode :802.11a + BR
 Test Frequency :5745 + 2480 MHz
 Test Mode :Tx
 EUT Pol :H Plane
 Note. :Wi-Fi 5G(Antenna: WT32D1-KX series)+ Bluetooth(Antenna: 146153)

Test Site :SAC 2
 Test Date :2023-03-22
 Temp./Humi. :25.8/60
 Antenna Pol. :Vertical
 Engineer :Ricky Chen



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
4960.000	Peak	49.01	2.80	51.81	74.00	-22.19
7440.000	Peak	39.39	7.97	47.36	74.00	-26.64
11490.000	Peak	45.14	10.00	55.14	74.00	-18.86
11490.000	Average	33.76	10.00	43.76	54.00	-10.24
17235.000	Peak	45.50	9.81	55.31	68.20	-12.89

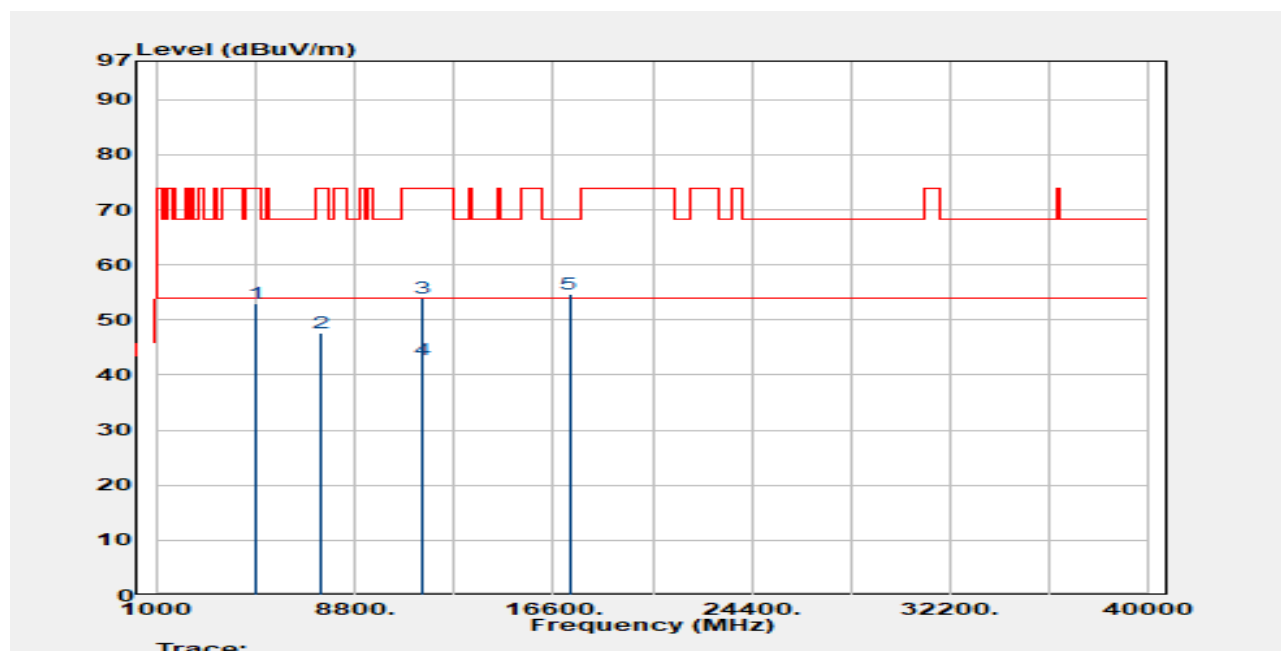
Freq. (MHz)	Detector	Peak Actual FS (dBμV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4960.000	Average	51.81	-24.73	27.08	54.00	-26.92
7440.000	Average	47.36	-24.73	22.63	54.00	-31.37

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Report Number	:TERF2303000711ER	Test Site	:SAC 2
Operation Mode	:802.11a + BR	Test Date	:2023-03-22
Test Frequency	:5745 + 2480 MHz	Temp./Humi.	:25.8/60
Test Mode	:Tx	Antenna Pol.	:Horizontal
EUT Pol	:H Plane	Engineer	:Ricky Chen
Note.	:Wi-Fi 5G(Antenna: WT32D1-KX series)+ Bluetooth(Antenna: 146153)		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
4960.000	Peak	50.09	2.80	52.89	74.00	-21.11
7440.000	Peak	39.75	7.97	47.72	74.00	-26.28
11490.000	Peak	43.96	10.00	53.96	74.00	-20.04
11490.000	Average	32.90	10.00	42.90	54.00	-11.10
17235.000	Peak	44.88	9.81	54.69	68.20	-13.51

Freq. (MHz)	Detector	Peak Actual FS (dBμV/m)	Duty Cycle Factor (dB)	Average Value (dBμV/m)	Average Limit@3m (dBμV/m)	Margin (dB)
4960.000	Average	52.89	-24.73	28.16	54.00	-25.84
7440.000	Average	47.72	-24.73	22.99	54.00	-31.01

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Report Number :TERF2303000711ER

Test Site :SAC 2

Operation Mode :802.11a + BR

Test Date :2023-03-22

Test Frequency :5745 + 2480 MHz

Temp./Humi. :25.8/60

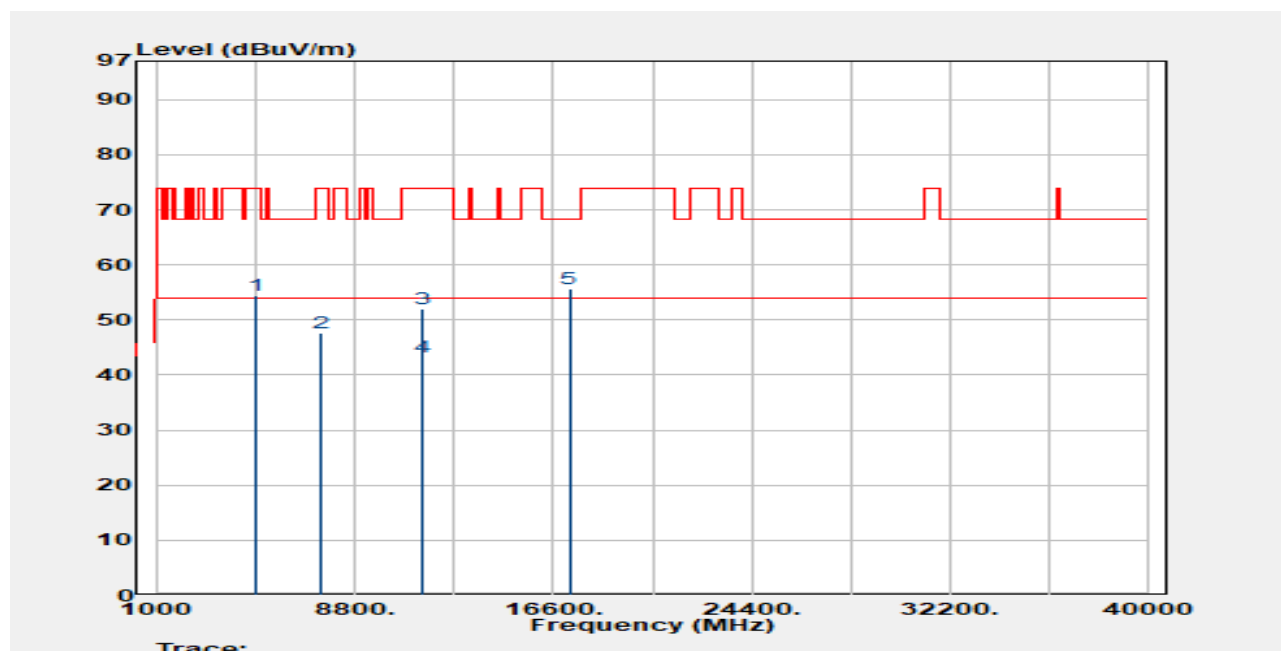
Test Mode :Tx

Antenna Pol. :Vertical

EUT Pol :H Plane

Engineer :Ricky Chen

Note. :Wi-Fi 5G(Antenna: WT32D1-KX series)+ Bluetooth(Antenna: W24P-U)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
4960.000	Peak	51.57	2.80	54.37	74.00	-19.63
7440.000	Peak	39.61	7.97	47.59	74.00	-26.41
11490.000	Peak	42.12	10.00	52.11	74.00	-21.89
11490.000	Average	33.25	10.00	43.25	54.00	-10.75
17235.000	Peak	45.80	9.81	55.60	68.20	-12.60

Freq. (MHz)	Detector	Peak Actual FS (dBμV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4960.000	Average	54.37	-24.73	29.64	54.00	-24.36
7440.000	Average	47.59	-24.73	22.86	54.00	-31.14

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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Report Number :TERF2303000711ER

Test Site :SAC 2

Operation Mode :802.11a + BR

Test Date :2023-03-22

Test Frequency :5745 + 2480 MHz

Temp./Humi. :25.8/60

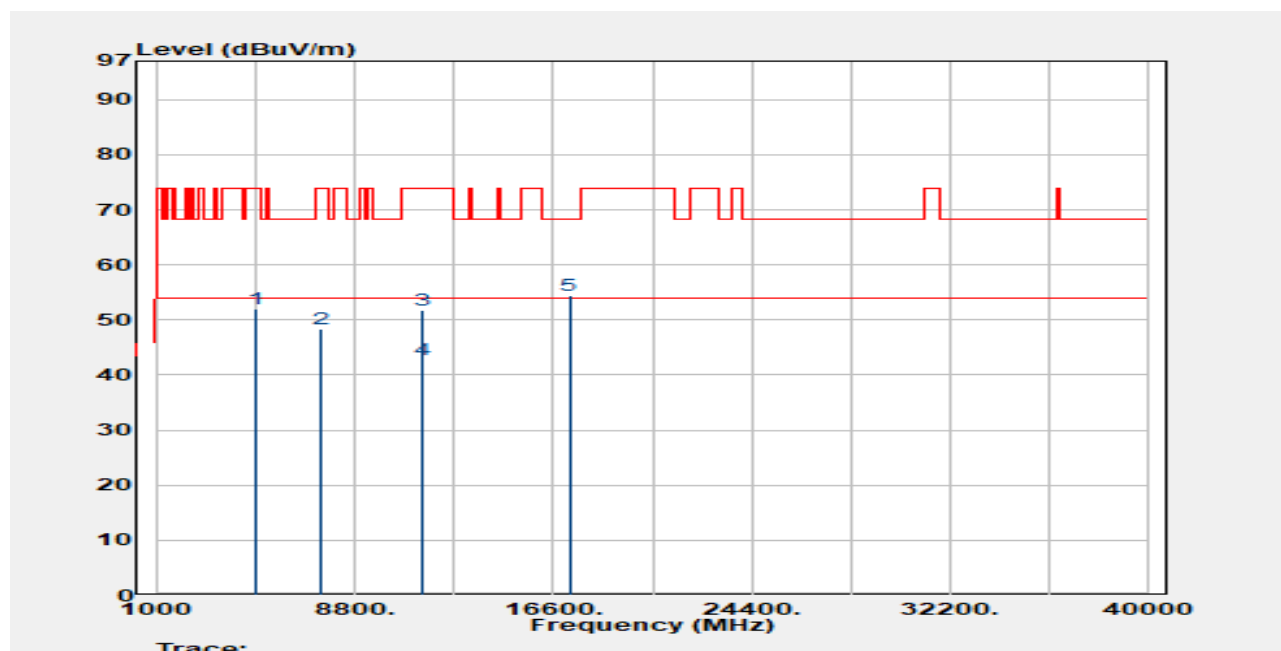
Test Mode :Tx

Antenna Pol. :Horizontal

EUT Pol :H Plane

Engineer :Ricky Chen

Note. :Wi-Fi 5G(Antenna: WT32D1-KX series)+ Bluetooth(Antenna: W24P-U)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
4960.000	Peak	49.11	2.80	51.90	74.00	-22.10
7440.000	Peak	40.32	7.97	48.30	74.00	-25.70
11490.000	Peak	41.76	10.00	51.76	74.00	-22.24
11490.000	Average	32.83	10.00	42.83	54.00	-11.17
17235.000	Peak	44.77	9.81	54.57	68.20	-13.63

Freq. (MHz)	Detector	Peak Actual FS (dBuV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4960.000	Average	51.90	-24.73	27.17	54.00	-26.83
7440.000	Average	48.30	-24.73	23.57	54.00	-30.43

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Report Number :TERF2303000711ER

Test Site :SAC 2

Operation Mode :802.11a + BR

Test Date :2023-03-22

Test Frequency :5240 + 2402 MHz

Temp./Humi. :25.8/60

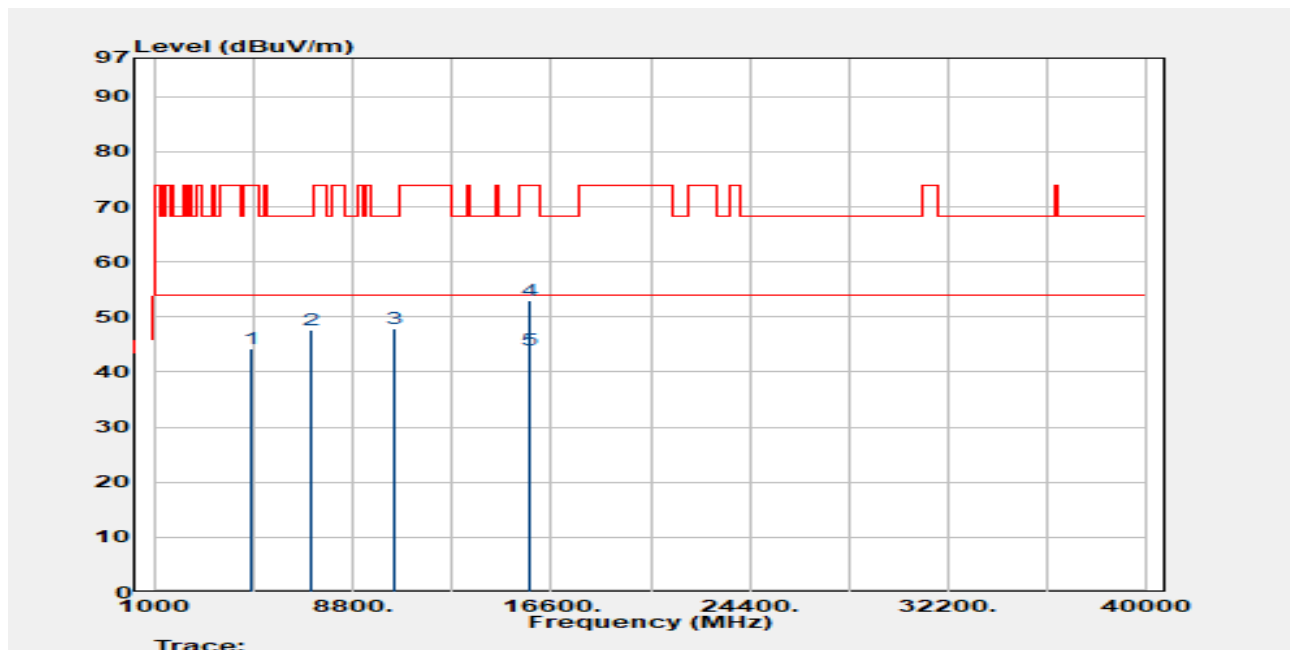
Test Mode :Tx

Antenna Pol. :Vertical

EUT Pol :H Plane

Engineer :Ricky Chen

Note. :Wi-Fi 5G(Antenna: 146153)+ Bluetooth(Antenna: 146153)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
4804.000	Peak	42.08	2.10	44.18	74.00	-29.82
7206.000	Peak	40.19	7.56	47.75	68.20	-20.45
10480.000	Peak	40.84	7.16	48.00	68.20	-20.20
15720.000	Peak	42.76	10.33	53.08	74.00	-20.92
15720.000	Average	33.60	10.33	43.93	54.00	-10.07

Freq. (MHz)	Detector	Peak Actual FS (dBuV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4804.000	Average	44.18	-25.04	19.14	54.00	-34.86
7206.000	Average	47.75	-25.04	22.71	54.00	-31.29

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Report Number :TERF2303000711ER

Operation Mode :802.11a + BR

Test Frequency :5240 + 2402 MHz

Test Mode :Tx

EUT Pol :H Plane

Note. :Wi-Fi 5G(Antenna: 146153)+ Bluetooth(Antenna: 146153)

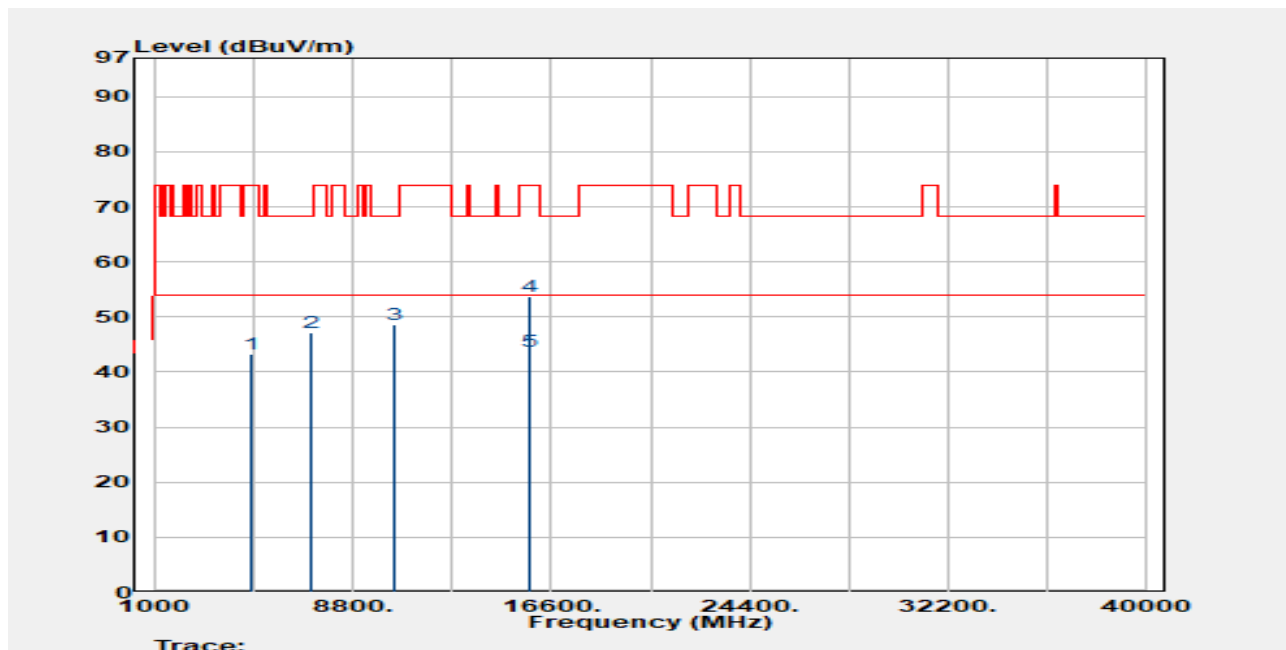
Test Site :SAC 2

Test Date :2023-03-22

Temp./Humi. :25.8/60

Antenna Pol. :Horizontal

Engineer :Ricky Chen



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBUV	Factor dB	Actual FS dBUV/m	Limit @3m dBUV/m	Margin dB
4804.000	Peak	41.29	2.10	43.39	74.00	-30.61
7206.000	Peak	39.57	7.56	47.13	68.20	-21.07
10480.000	Peak	41.50	7.16	48.66	68.20	-19.54
15720.000	Peak	43.47	10.33	53.80	74.00	-20.20
15720.000	Average	33.53	10.33	43.86	54.00	-10.14

Freq. (MHz)	Detector	Peak Actual FS (dBUV/m)	Duty Cycle Factor (dB)	Average Value (dBUV/m)	Average Limit@3m (dBUV/m)	Margin (dB)
4804.000	Average	43.39	-25.04	18.35	54.00	-35.65
7206.000	Average	47.13	-25.04	22.09	54.00	-31.91

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Report Number : TERF2303000711ER

Test Site : SAC 2

Operation Mode : 802.11a + BR

Test Date : 2023-03-22

Test Frequency : 5240 + 2402 MHz

Temp./Humi. : 25.8/60

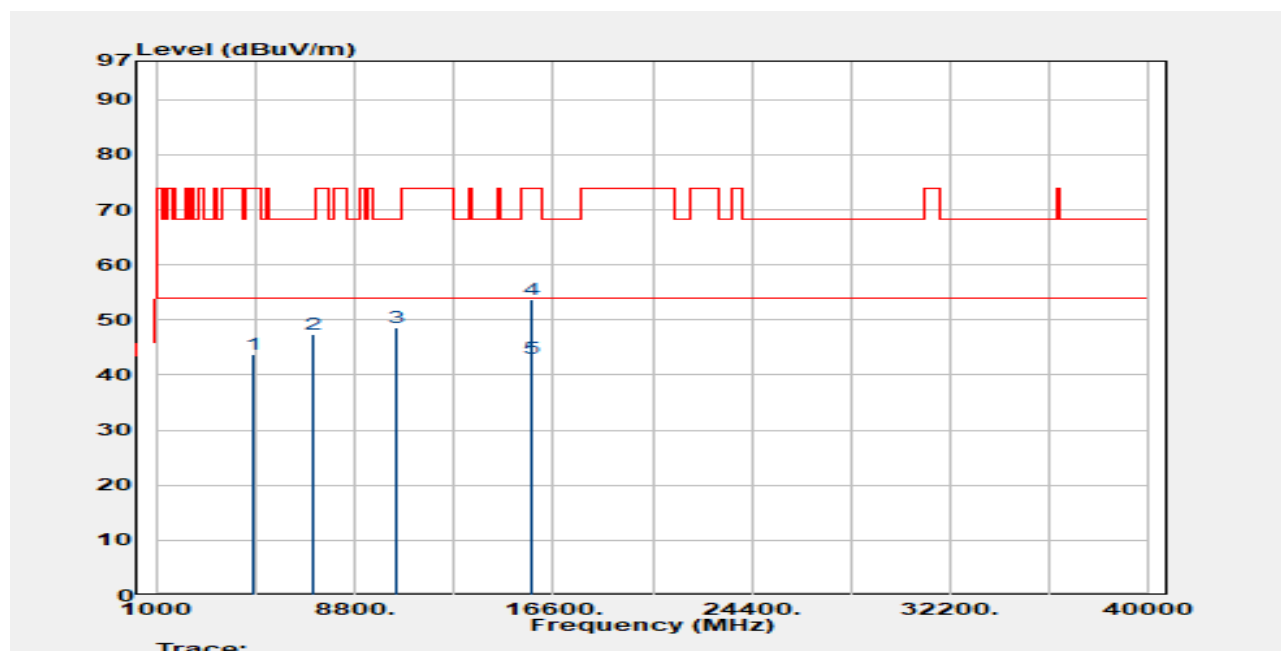
Test Mode : Tx

Antenna Pol. : Vertical

EUT Pol : H Plane

Engineer : Ricky Chen

Note. : Wi-Fi 5G(Antenna: Type2EA_Antenna)+Bluetooth(Antenna: Type2EA_Antenna)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
4804.000	Peak	41.71	2.10	43.81	74.00	-30.19
7206.000	Peak	39.82	7.56	47.38	68.20	-20.82
10480.000	Peak	41.55	7.16	48.71	68.20	-19.49
15720.000	Peak	43.43	10.33	53.75	74.00	-20.25
15720.000	Average	32.61	10.33	42.94	54.00	-11.06

Freq. (MHz)	Detector	Peak Actual FS (dBμV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4804.000	Average	43.81	-25.04	18.77	54.00	-35.23
7206.000	Average	47.38	-25.04	22.34	54.00	-31.66

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Report Number :TERF2303000711ER

Test Site :SAC 2

Operation Mode :802.11a + BR

Test Date :2023-03-22

Test Frequency :5240 + 2402 MHz

Temp./Humi. :25.8/60

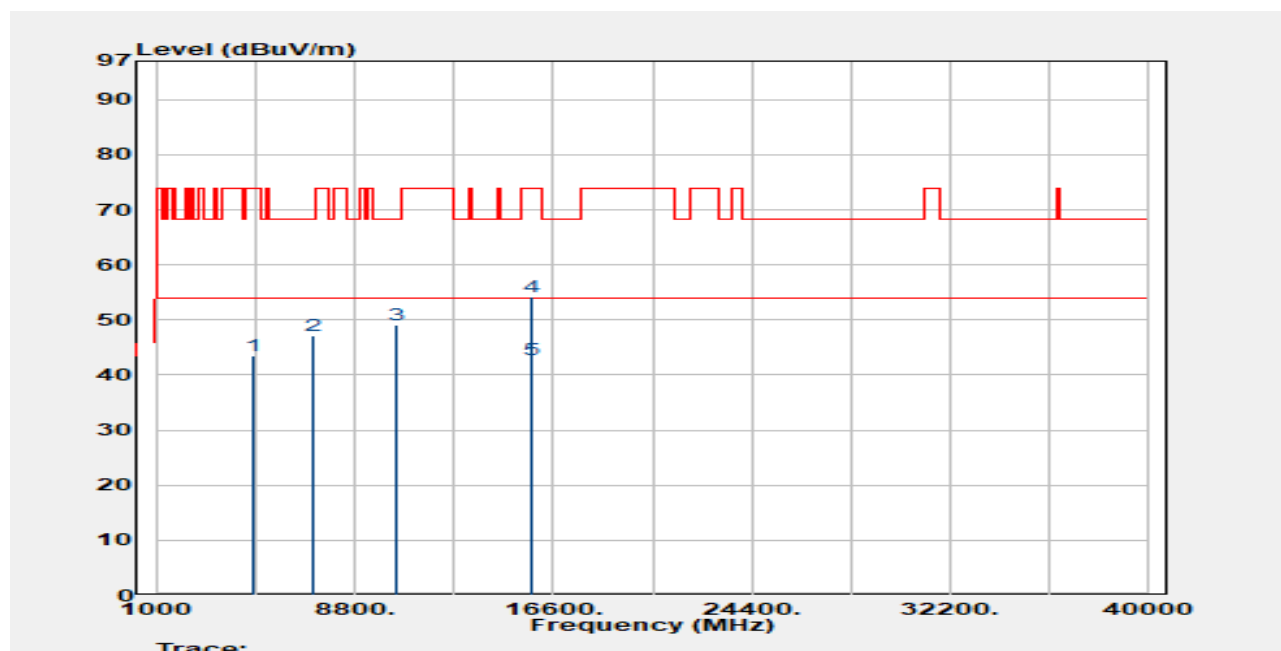
Test Mode :Tx

Antenna Pol. :Horizontal

EUT Pol :H Plane

Engineer :Ricky Chen

Note. : Wi-Fi 5G(Antenna: Type2EA_Antenna)+Bluetooth(Antenna: Type2EA_Antenna)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
4804.000	Peak	41.44	2.10	43.54	74.00	-30.46
7206.000	Peak	39.54	7.56	47.10	68.20	-21.10
10480.000	Peak	41.91	7.16	49.06	68.20	-19.14
15720.000	Peak	43.80	10.33	54.12	74.00	-19.88
15720.000	Average	32.42	10.33	42.75	54.00	-11.25

Freq. (MHz)	Detector	Peak Actual FS (dBμV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4804.000	Average	43.54	-25.04	18.50	54.00	-35.50
7206.000	Average	47.10	-25.04	22.06	54.00	-31.94

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Report Number : TERF2303000711ER

Test Site : SAC 2

Operation Mode : 802.11a + BR

Test Date : 2023-03-22

Test Frequency : 5745 + 2402 MHz

Temp./Humi. : 25.8/60

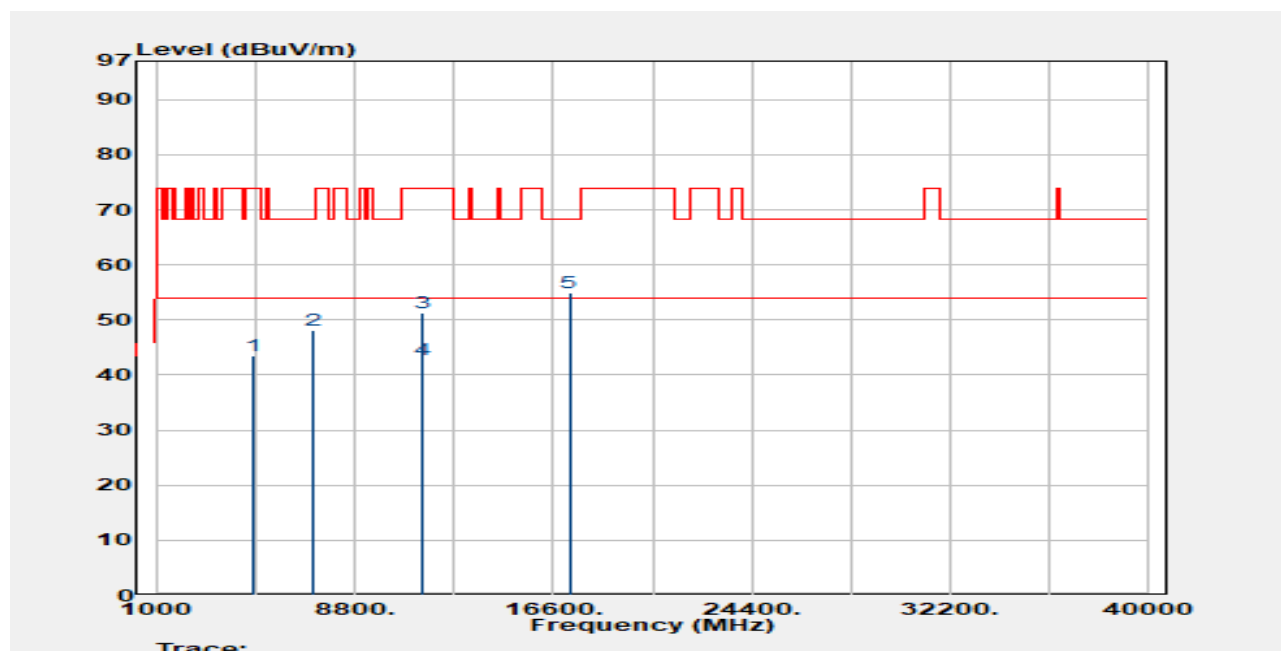
Test Mode : Tx

Antenna Pol. : Vertical

EUT Pol : H Plane

Engineer : Ricky Chen

Note. : Wi-Fi 5G(Antenna: WT32D1-KX series)+ Bluetooth(Antenna: WT32D1-KX series)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
4804.000	Peak	41.37	2.10	43.47	74.00	-30.53
7206.000	Peak	40.64	7.56	48.20	68.20	-20.00
11490.000	Peak	41.25	10.00	51.25	74.00	-22.75
11490.000	Average	32.77	10.00	42.77	54.00	-11.23
17235.000	Peak	45.12	9.81	54.93	68.20	-13.27

Freq. (MHz)	Detector	Peak Actual FS (dBμV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4804.000	Average	43.47	-25.04	18.43	54.00	-35.57
7206.000	Average	48.20	-25.04	23.16	54.00	-30.84

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Report Number :TERF2303000711ER

Test Site :SAC 2

Operation Mode :802.11a + BR

Test Date :2023-03-22

Test Frequency :5745 + 2402 MHz

Temp./Humi. :25.8/60

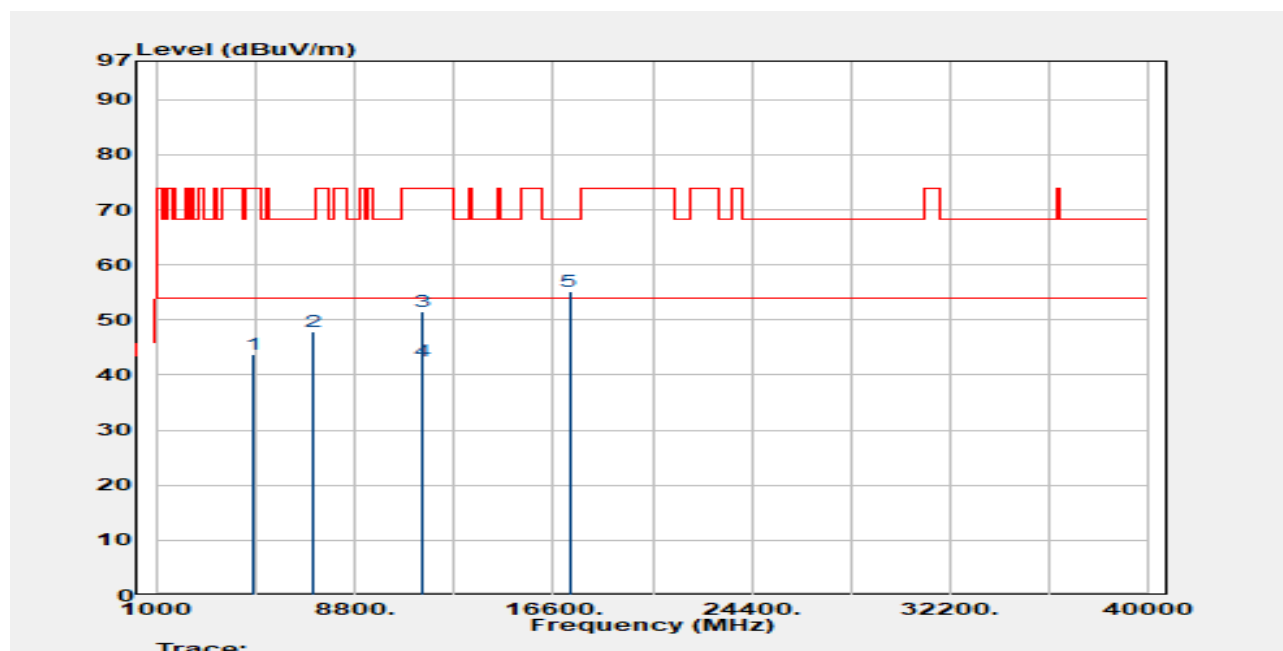
Test Mode :Tx

Antenna Pol. :Horizontal

EUT Pol :H Plane

Engineer :Ricky Chen

Note. : Wi-Fi 5G(Antenna: WT32D1-KX series)+ Bluetooth(Antenna: WT32D1-KX series)



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
4804.000	Peak	41.70	2.10	43.80	74.00	-30.20
7206.000	Peak	40.45	7.56	48.00	68.20	-20.20
11490.000	Peak	41.62	10.00	51.62	74.00	-22.38
11490.000	Average	32.50	10.00	42.50	54.00	-11.50
17235.000	Peak	45.48	9.81	55.29	68.20	-12.91

Freq. (MHz)	Detector	Peak Actual FS (dBμV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4804.000	Average	43.80	-25.04	18.76	54.00	-35.24
7206.000	Average	48.00	-25.04	22.96	54.00	-31.04

~ End of Report ~

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