

ELECTROMAGNETIC EMISSIONS  
COMPLIANCE TEST REPORT

**Applicant:** CASTLES TECHNOLOGY CO., LTD.  
6F, NO. 207-5, SEC. 3, BEIXIN RD., XINDIAN DISTRICT,  
NEW TAIPEI CITY 231030, TAIWAN (R.O.C)

**Manufacturer:** CASTLES TECHNOLOGY CO., LTD.  
6F, NO. 207-5, SEC. 3, BEIXIN RD., XINDIAN DISTRICT,  
NEW TAIPEI CITY 231030, TAIWAN (R.O.C)

**Product Name:** Smart module

**Brand Name:** 

**Model No.:** SLM500

**Report Number:** TERF2408002258E2

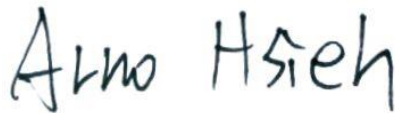
**FCC ID** WIYSLM500QA

**IC:** 27350-SLM500QA

**Date of EUT Received:** August 1, 2024

**Date of Test:** August 12, 2024 ~ September 3, 2024

**Issue Date:** October 8, 2024

Approved By   
Arno Hsieh

**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, ISSED RSS-247.

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Revision History					
Report Number	Revision	Description	Issue Date	Revised By	Remark
TERF2408002258E2	00	Original	September 5, 2024	Susan Lin	
TERF2408002258E2	01	Update section 8.2.2	October 8, 2024	Susan Lin	*

**Note:**

- 1、The remark "\*" indicates modification of the report upon requests from certification body.

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## 1 GENERAL INFORMATION

### 1.1 Product description

Product Name:	Smart module
Brand Name:	
Model No.:	SLM500
Hardware Version:	V1F.00
Firmware Version:	N/A
EUT Series No.:	196242025224
Product Name of Host:	POS Terminal
Brand Name of Host:	
Model No. of Host:	S1E2-UPT
Power Supply:	9Vdc from Adapter
Test Software (Name/Version):	Qualcomm Radio Control Tool 4.0.00161.0

### 1.2 RF Specification

Radio Technology:	BT BR+EDR
Channel number:	79 channels
Modulation type:	GFSK + $\pi/4$ DQPSK + 8DPSK
Transmit Power:	12.43 dBm
Frequency Range:	2.402GHz – 2.480GHz
Dwell Time:	$\leq 0.4s$

### 1.3 Antenna Designation

Antenna Type	Supplier	Antenna Part No.	Freq. (MHz)	Peak Antenna Gain (dBi)
Dipole	ADVANCED WIRELESS & ANTENNA INC.	S1E2-UPT-WiFi	2402~2480	2.42

**Note:** Antenna information is provided by the applicant.

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## 1.4 Test Methodology of Applied Standards

FCC Part 15, Subpart C §15.247  
KDB 558074 D01 v05r02 DSS Meas. Guidance  
RSS-247 issue 3 Aug. 2023  
RSS-Gen, Issue 5 April 2018  
ANSI C63.10:2013

## 1.5 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				
<b>Note:</b> 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.				

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## 1.6 Special Accessories

There is no special accessory used while test was conducted.

## 1.7 Equipment Modifications

There was no modification incorporated into the EUT.

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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 Conducted Test (RF)

The active antenna port of the unlicensed wireless device is connected to the spectrum analyzer with attenuator to protect the instrumentation. If a second antenna port is available, it is tested at one operating frequency, with other port(s) appropriately terminated, to verify it has similar output characteristics as the fully tested port.

#### 2.3.2 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.

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## 2.4 Measurement Results Explanation Example

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

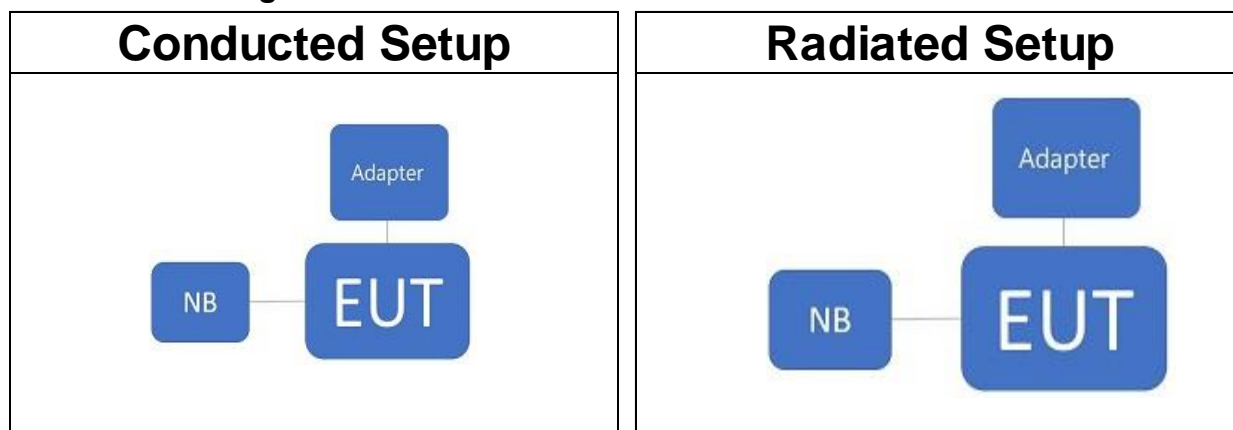
Radiated emission below 30MHz is measured in a 9m\*6m\*6m semi-anechoic chamber, the measurements correspond to those obtained at an open-field test site.

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

### 2.4.2 For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuation factor between EUT conducted port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly EUT RF output level.

## 2.5 Test Configuration



## 2.6 Control Unit(s)

Conducted Emission Test Site: Conducted D					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
USB Cable	I Max	USB-C1200	N/A	N/A	N/A
AC Adapter	Castles	PW04-945A	N/A	N/A	N/A
Cable	HOMESHUN	CABLE FOR S1U2 HSG 4.2PITCH 2X3P FEMALE AND RJ45 8P8C FEMALE X2 TO HSG 2X10P 2.0PITCH L:750MM	N/A	N/A	N/A
Cable	TAI-CHING	CABLE FOR MARS1000 DC JACK	N/A	N/A	N/A
Notebook	Lenovo	T470	P0001293	N/A	N/A

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Radiated Emission Test Site: SAC G					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
USB Cable	ASUS	ASUS USB-C Cable	N/A	N/A	N/A
Cable	HOMESHUN	CABLE FOR S1U2 HSG 4.2PITCH 2X3P FEMALE AND RJ45 8P8C FEMALE X2 TO HSG 2X10P 2.0PITCH L:750MM	N/A	N/A	N/A
Cable	TAI-CHING	CABLE FOR MARS1000 DC JACK	N/A	N/A	N/A
AC Adapter	Castles	PW04-945A	N/A	N/A	N/A
Notebook	Lenovo	T420	S0012599	N/A	N/A

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### 3 SUMMARY OF TEST RESULTS

FCC Rules	ISED Rules	Description Of Test	Result
§15.247(b)(1)	RSS-247 §5.4 b	Peak Output Power	Compliant
§15.247(d) §15.205	RSS-247 §5.5 RSS-Gen §8.10	Radiated Band Edge	Compliant
§15.247(d) §15.209	RSS-247 §5.5 RSS-Gen §8.9	Radiated Spurious Emission	Compliant

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## 4 DESCRIPTION OF TEST MODES

### 4.1 Operated in 2400 ~ 2483.5MHz Band

79 channels are provided for Bluetooth

ITEM	FREQUENCY	ITEM	FREQUENCY	ITEM	FREQUENCY	ITEM	FREQUENCY
1	2402 MHz	21	2422 MHz	41	2442 MHz	71	2462 MHz
2	2403 MHz	22	2423 MHz	42	2443 MHz	72	2463 MHz
3	2404 MHz	23	2424 MHz	43	2444 MHz	73	2464 MHz
4	2405 MHz	24	2425 MHz	44	2445 MHz	74	2465 MHz
5	2406 MHz	25	2426 MHz	45	2446 MHz	75	2466 MHz
6	2407 MHz	26	2427 MHz	46	2447 MHz	76	2467 MHz
7	2408 MHz	27	2428 MHz	47	2448 MHz	77	2468 MHz
8	2409 MHz	28	2429 MHz	48	2449 MHz	78	2469 MHz
9	2410 MHz	29	2430 MHz	49	2450 MHz	79	2470 MHz
10	2411 MHz	30	2431 MHz	50	2451 MHz	70	2471 MHz
11	2412 MHz	31	2432 MHz	51	2452 MHz	71	2472 MHz
12	2413 MHz	32	2433 MHz	52	2453 MHz	72	2473 MHz
13	2414 MHz	33	2434 MHz	53	2454 MHz	73	2474 MHz
14	2415 MHz	34	2435 MHz	54	2455 MHz	74	2475 MHz
15	2416 MHz	35	2436 MHz	55	2456 MHz	75	2476 MHz
16	2417 MHz	36	2437 MHz	56	2457 MHz	76	2477 MHz
17	2418 MHz	37	2438 MHz	57	2458 MHz	77	2478 MHz
18	2419 MHz	38	2439 MHz	58	2459 MHz	78	2479 MHz
19	2420 MHz	39	2440 MHz	59	2460 MHz	79	2480 MHz
20	2421 MHz	40	2441 MHz	60	2461 MHz		

### 4.2 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 and receiving mode is programmed.
- 3 The field strength of radiated emission was measured as the EUT positioned in different orthogonal planes (E1/E2/H) based on actual usage of the EUT to pre-scan the emissions for determining the worst case scenario.
- 4 Investigation has been done on all the possible configurations for searching the worst case.

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ANTNNA PORT CONDUCTED TEST				
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	PACKET TYPE
Peak Output Power				
Bluetooth	0 to 78	0,39,78	GFSK	DH5
	0 to 78	0,39,78	$\pi/4$ -DQPSK	2DH5
	0 to 78	0,39,78	8-DPSK	3DH5
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	PACKET TYPE
TRANSMIT RADIATED EMISSION TEST (BELOW 1 GHz)				
Bluetooth	0 to 78	39	GFSK	DH5
TRANSMIT RADIATED EMISSION TEST (ABOVE 1 GHz)				
Bluetooth	0 to 78	0,39,78	GFSK/8-DPSK	DH5/3DH5
<b>Note:</b> The field strength of radiation emission was measured as EUT stand-up position (H mode) and lie down position (E1, E2 mode) for channel Low, Mid and High, the worst case position was reported.				

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## 5 MEASUREMENT UNCERTAINTY

Test Items	Uncertainty
Output Power measurement	+/- 0.97 dB
Conducted emission measurement	+/- 0.77 dB
Temperature	+/- 0.6 °C
Humidity	+/- 3 %
DC / AC Power Source	+/- 1 %

Radiated Spurious Emission Measurement Uncertainty				
Polarization: Vertical	+/-	1.89	dB	9kHz~30MHz
	+/-	4.15	dB	30MHz - 1000MHz
	+/-	3.43	dB	1GHz - 18GHz
	+/-	3.86	dB	18GHz - 40GHz
Polarization: Horizontal	+/-	1.89	dB	9kHz~30MHz
	+/-	4.02	dB	30MHz - 1000MHz
	+/-	3.43	dB	1GHz - 18GHz
	+/-	3.86	dB	18GHz - 40GHz
Radiated Spurious Emission	+/-	2	dB	33GHz-50GHz
	+/-	1.59	dB	50GHz-60GHz
	+/-	1.7	dB	60GHz-90GHz
	+/-	1.64	dB	90GHz-140GHz
	+/-	3.83	dB	140GHz-220GHz

### 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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## 6 MEASUREMENT EQUIPMENT USED

### 6.1 Conducted Measurement

Conducted Emission Test Site: Conducted D					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Attenuator	Marvelous	MVE2213-10	RF10	11/15/2023	11/14/2024
DC Block	MITEQ	W70289-5108	RF159	11/15/2023	11/14/2024
Power Meter	Anritsu	ML2496A	1804002	04/26/2024	04/25/2025
Power Sensor	Anritsu	MA2411B	1726105	04/26/2024	04/25/2025
Power Sensor	Anritsu	MA2411B	1726106	04/26/2024	04/25/2025
Spectrum Analyzer	KEYSIGHT	N9010A	MY57120290	04/10/2024	04/09/2025
Test Software	SGS Taiwan	Dynamic Frequency Selection Test	Ver. 22.01.24	N.C.R	N.C.R

### 6.2 Radiated Measurement

Radiated Emission Test Site: SAC G					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
3m Site NSA	SGS	966 chamber G	N/A	03/30/2024	03/29/2025
Active Loop Antenna	COM-POWER	AL-130R	10160105	12/04/2023	12/03/2024
Broadband Antenna	SCHWARZBECK	VULB 9168	1208	07/17/2024	07/16/2025
Coaxial Cable	EMC Instruments	EMC104-SM-SM-8000-5000-5000	210219 、 210220 、 210221	03/13/2024	03/12/2025
Coaxial Cable	EMC Instruments	EMCCFD400-NM-NM-8000-5000-2000	210216 、 210217 、 210218	03/13/2024	03/12/2025
High Pass Filter	WI	WHKX10-2624-3200-18000-80SS	RF210	11/15/2023	11/14/2024
Horn Antenna	RF SPIN	DRH18-E	210105A18E	04/12/2024	04/11/2025
Horn Antenna	Schwarzbeck	BBHA9170	184	12/28/2023	12/27/2024
Lowpass Filter	Woken	EWI-56-0019	RF173	11/15/2023	11/14/2024
Pre-Amplifier	EMC Instruments	EMC118A45SE	980815	05/08/2024	05/07/2025
Pre-Amplifier	EMC Instruments	EMC18405SEE	980881	11/15/2023	11/14/2024
Pre-Amplifier	EMC Instruments	EMC330N	980781	03/13/2024	03/12/2025
Spectrum Analyzer	KEYSIGHT	N9010B	MY63440390	02/16/2024	02/15/2025
Test Software	audix	e3	E3 20923 SGS Ver.9 (C)	N.C.R	N.C.R

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

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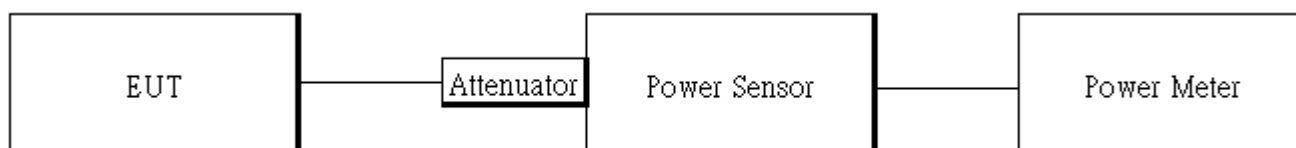
## 7 PEAK OUTPUT POWER MEASUREMENT

### 7.1 Standard Applicable

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 hopping channels, The Limit: 1Watt. For all other frequency hopping systems in the 2400 – 2483.5MHz band: The Limit: 0.125 Watts. The power limit for 1Mbps is 1watt, and 2Mbps, 3Mbps and AFH mode are 0.125 watts.

The e.i.r.p. shall not exceed 4 W.

### 7.2 Test Set-up:



### 7.3 Measurement Procedure:

1. Place the EUT on the table and set it in transmitting mode.
2. The testing follows ANSI C63.10 Measurement Guidelines.
3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the power meter or spectrum. (Max Hold, Detector = Peak, RBW  $\geq$  20dB bandwidth)
4. Record the max. reading.
5. Repeat above procedures until all default test channel is completed.

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## 7.4 Peak & Average Power Measurement Result

Duty Cycle		
	Duty Cycle (%) = Ton / (Ton+Toff)	Duty Factor (dB) =10*log ( 1/Duty Cycle )
DH5	76.80	1.15
2DH5	76.80	1.15
3DH5	77.20	1.12

1M BR mode (Peak):

CH	Freq. (MHz)	Power Setting	Peak Output Power (dBm)	Output Power (mW)	Limit (mW)
0	2402	9	12.43	17.498	1000
39	2441	9	11.91	15.524	1000
78	2480	9	11.60	14.454	1000

1M BR mode (Average):

CH	Freq. (MHz)	Power Setting	Avg. Output Power (dBm)	Output Power (mW)	Limit (mW)
0	2402	9	12.29	16.929	1000
39	2441	9	11.79	15.088	1000
78	2480	9	11.40	13.792	1000

2M EDR mode (Peak):

CH	Freq. (MHz)	Power Setting	Peak Output Power (dBm)	Output Power (mW)	Limit (mW)
0	2402	8	9.17	8.260	125
39	2441	9	11.98	15.776	125
78	2480	9	11.66	14.655	125

2M EDR mode (Average):

CH	Freq. (MHz)	Power Setting	Avg. Output Power (dBm)	Output Power (mW)	Limit (mW)
0	2402	8	6.22	4.188	125
39	2441	9	9.96	9.900	125
78	2480	9	9.58	9.071	125

3M EDR mode (Peak):

CH	Freq. (MHz)	Power Setting	Peak Output Power (dBm)	Output Power (mW)	Limit (mW)
0	2402	8	9.36	8.630	125
39	2441	9	12.19	16.558	125
78	2480	9	11.88	15.417	125

3M EDR mode (Average):

CH	Freq. (MHz)	Power Setting	Avg. Output Power (dBm)	Output Power (mW)	Limit (mW)
0	2402	8	6.45	4.420	125
39	2441	9	9.89	9.758	125
78	2480	9	9.50	8.920	125

\*Note: Avg. output power has been calculated with duty factor.

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## 7.5 EIRP Measurement Result

### 1M BR mode EIRP

Channel	Frequency (MHz)	Power Setting	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	Limit (mW)
0	2402	9	12.29	2.42	29.556	4000
39	2441	9	11.79	2.42	26.341	4000
78	2480	9	11.40	2.42	24.079	4000

### 2M EDR mode EIRP

Channel	Frequency (MHz)	Power Setting	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	Limit (mW)
0	2402	8	6.22	2.42	7.311	4000
39	2441	9	9.96	2.42	17.284	4000
78	2480	9	9.58	2.42	15.836	4000

### 3M EDR mode EIRP

Channel	Frequency (MHz)	Power Setting	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	Limit (mW)
0	2402	8	6.45	2.42	7.716	4000
39	2441	9	9.89	2.42	17.037	4000
78	2480	9	9.50	2.42	15.573	4000

\* **Note:** EIRP = Average Power + Gain

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## 8 RADIATED BANDEDGE AND SPURIOUS EMISSION MEASUREMENT

### 8.1.1 Duty Cycle Correction Factor

According to 15. 35(c) and RSS-Gen §8.2, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value. The exact method of calculating the average field strength shall be submitted with any application for certification.

### 8.1.2 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:**

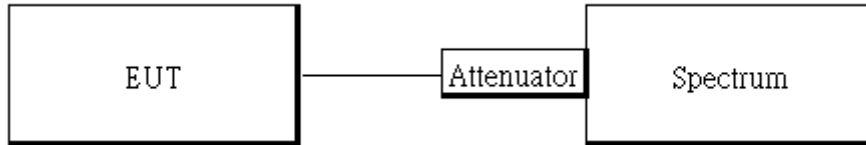
1. The lower limit shall apply at the transition frequencies.

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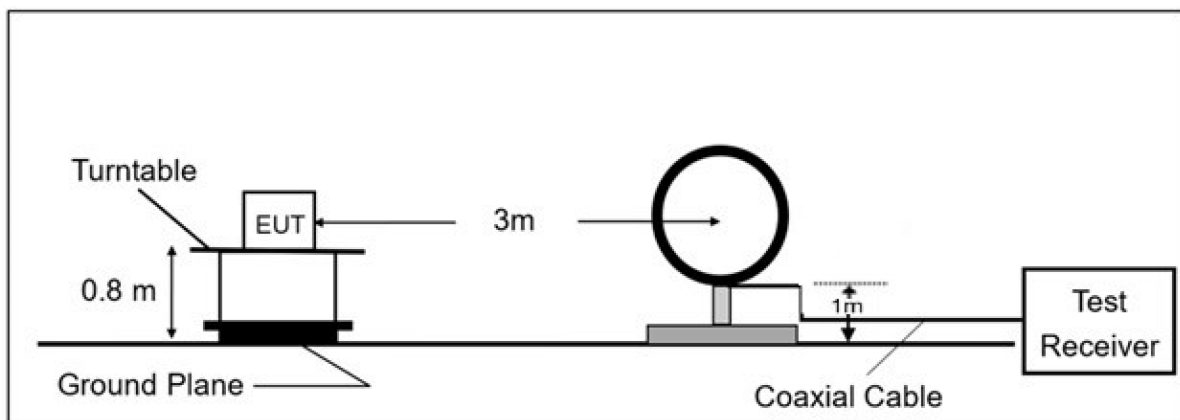
## 8.2 Test Setup

### 8.2.1 Duty Cycle Correction Factor

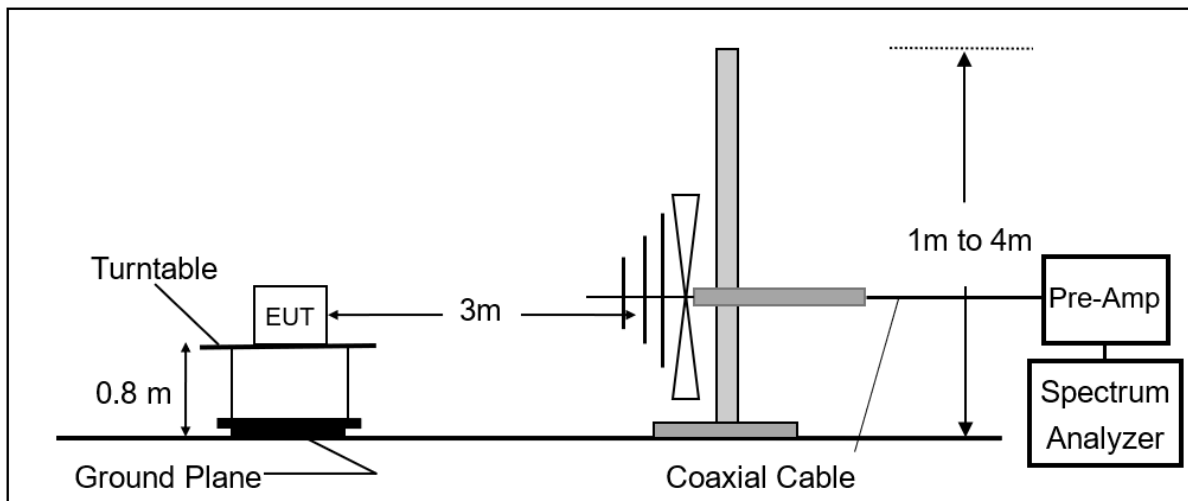


### 8.2.2 Radiated Emission

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



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

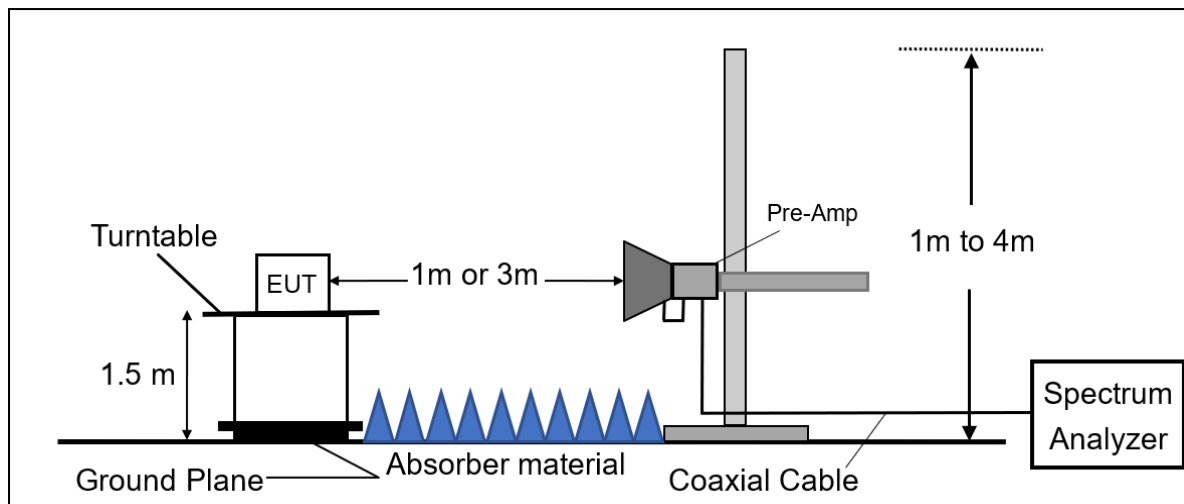


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### (C) Radiated Emission Test Set-Up, Frequency Above 1 GHz.



## 8.3 Measurement Procedure

### 8.3.1 Duty Cycle Correction Factor

1. Adjust and configure any EUT switches, controls, or input data streams to ensure that the EUT is transmitting or encoded to obtain the “worst-case” pulse ON time.
2. The testing follows ANSI C63.10:2013.
3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
4. Set center frequency of spectrum analyzer = operating frequency.
5. Set the spectrum analyzer as RBW, VBW=1MHz, 3MHz, Span = 0Hz , Detector = Peak, Adjust Sweep=100ms.
6. Repeat above procedures until all frequency of the interest measured were complete.

### 8.3.2 Radiated Emission

1. The testing follows the Measurement Procedure of ANSI C63.10:2013.
2. The EUT was placed on a turn table with 0.8m for frequency < 1GHz and 1.5m for frequency > 1GHz above ground plane.
3. The turn table shall rotate 360 degrees to determine the position of maximum emission level.
4. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
5. Set the spectrum analyzer as RBW=100 kHz and VBW=300 kHz for Peak Detector (PK) at frequency between 30MHz and 1 GHz.
6. Use receiver mode as RBW=120 kHz for Quasi-peak (QP) at frequency between 30MHz and 1 GHz.

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7. Set the spectrum analyzer as RBW=1 MHz, VBW=3 MHz for Maximum Emission Measurements at frequency above 1 GHz.
8. According to C63.10:2013 Section 7.5 Procedure for determining the average value of pulsed emissions with duty cycle correction factor  $20 \log (T_{on}/100ms)$ .
9. 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.
10. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
11. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
12. Repeat above procedures until all default test channel measured were complete.

#### 8.4 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 dBuV/m, which converts  $20 \log(uV/m)$*

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

Factor(dB) = Antenna Factor(dBμV/m) + Cable Loss(dB) – Pre\_Amplifier Gain(dB)

Average value(dBμV/m)=Peak Actual FS(dBμV/m)+ Duty Cycle Correction Factor(dB)

Duty Cycle Correction Factor(dB) =  $20 \log (T_{on}/100 \text{ ms})$

#### 8.5 Test Results of Radiated Spurious Emissions form 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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## 8.6 Measurement Result:

### 8.6.1 Duty Cycle Correction Factor

<b>BR</b>			
Time ON of 100ms:	5.800	ms	
Duty Cycle=5.8ms / 100ms=	0.058		
Duty Cycle correction factor=20 LOG 0.058=	-24.73	dB	

<b>EDR</b>			
Time ON of 100ms:	5.800	ms	
Duty Cycle=5.8ms / 100ms=	0.058		
Duty Cycle correction factor=20 LOG 0.058=	-24.73	dB	

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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SGS Taiwan Ltd.

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台灣檢驗科技股份有限公司

t (886-2) 2299-3279

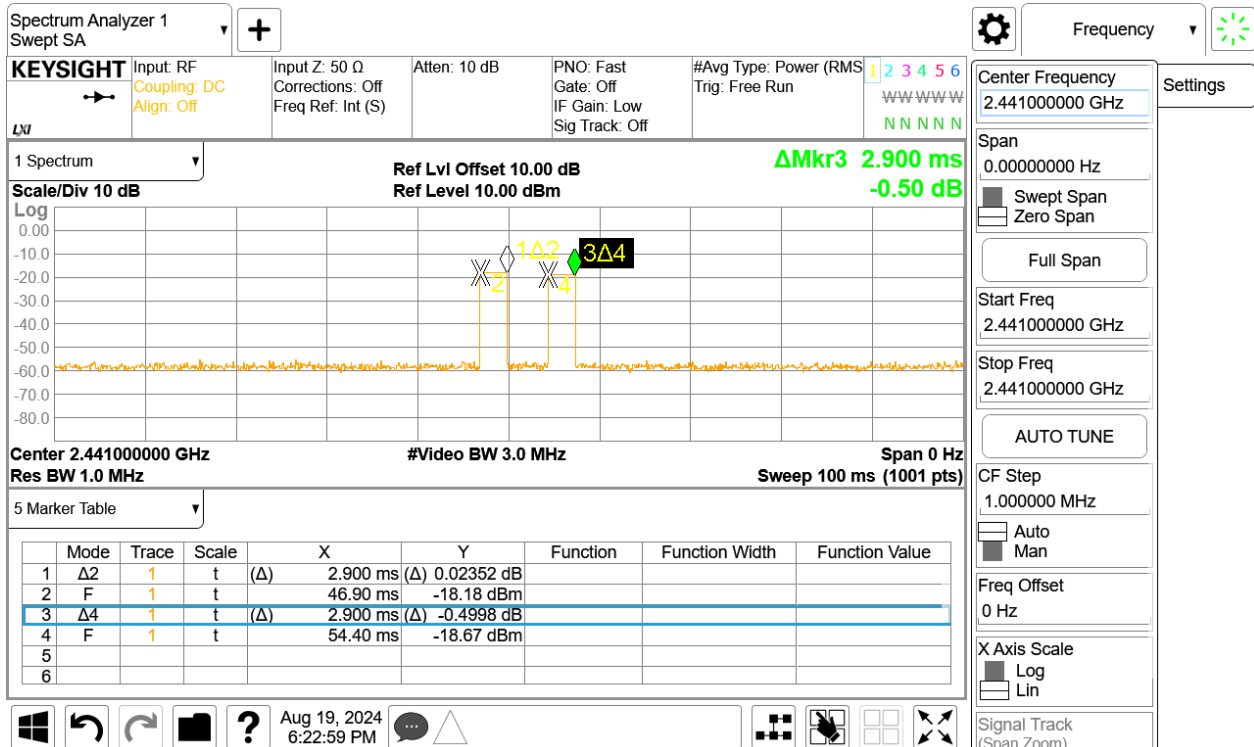
f (886-2) 2298-0488

[www.sgs.com.tw](http://www.sgs.com.tw)

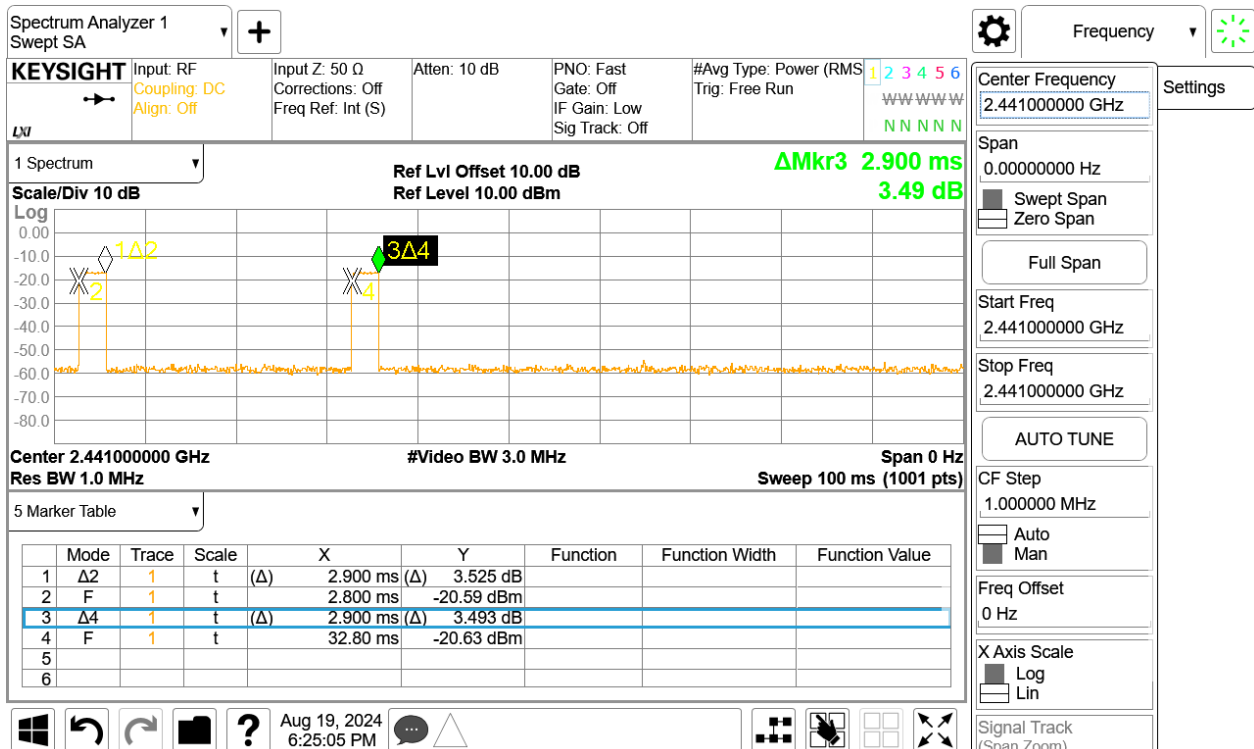
Member of SGS Group

## 8.6.2 Duty Cycle test plot

BR



EDR



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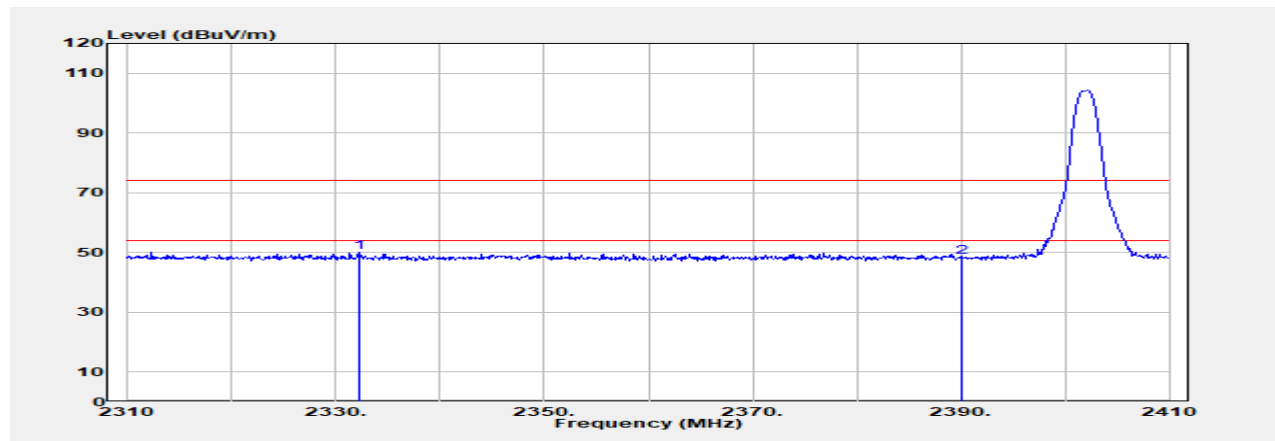
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## 8.6.3 Bandedge Result

Report Number :TERF2408002258E2  
Operation Mode :BR  
Test Frequency :2402 MHz  
Test Mode :Bandedge  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-16  
Temp./Humi. :21.9°C/62%  
Antenna Pol. :Vertical  
Engineer :Temo Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
2332.200	Peak	53.20	-3.19	50.01	74.00	-23.99
2390.000	Peak	51.85	-3.28	48.57	74.00	-25.43

Freq. MHz	Detector Mode AV	Peak Actual FS (dB $\mu$ V/m)	Duty Cycle Factor (dB)	Average Value (dB $\mu$ V/m)	Average Limit@3m (dB $\mu$ V/m)	Margin (dB)
2332.200	Average	50.01	-24.73	25.28	54.00	-28.72
2390.000	Average	48.57	-24.73	23.84	54.00	-30.16

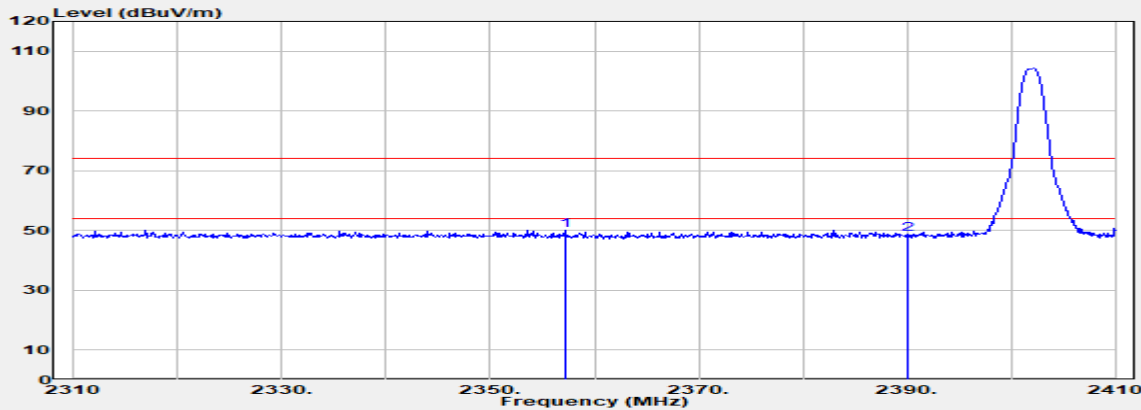
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Report Number :TERF2408002258E2  
Operation Mode :BR  
Test Frequency :2402 MHz  
Test Mode :Bandedge  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-16  
Temp./Humi. :21.9°C/62%  
Antenna Pol. :Horizontal  
Engineer :Temo Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
2357.200	Peak	53.34	-3.23	50.11	74.00	-23.89
2390.000	Peak	52.00	-3.28	48.73	74.00	-25.27

Freq. MHz	Detector Mode AV	Peak Actual FS (dB $\mu$ V/m)	Duty Cycle Factor (dB)	Average Value (dB $\mu$ V/m)	Average Limit@3m (dB $\mu$ V/m)	Margin (dB)
2357.200	Average	50.11	-24.73	25.38	54.00	-28.62
2390.000	Average	48.73	-24.73	24.00	54.00	-30.00

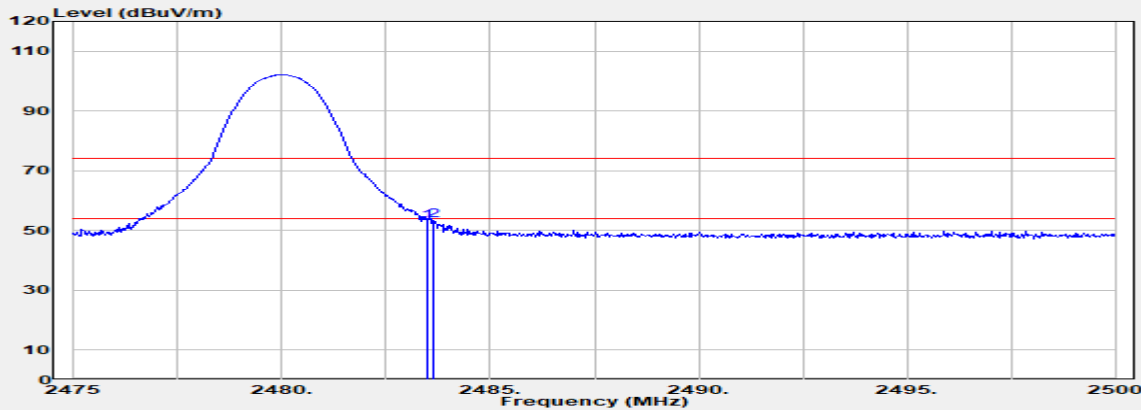
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Report Number :TERF2408002258E2  
Operation Mode :BR  
Test Frequency :2480 MHz  
Test Mode :Bandedge  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-16  
Temp./Humi. :21.9°C/62%  
Antenna Pol. :Vertical  
Engineer :Temo Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
2483.500	Peak	56.27	-3.31	52.95	74.00	-21.05
2483.625	Peak	56.77	-3.31	53.46	74.00	-20.54

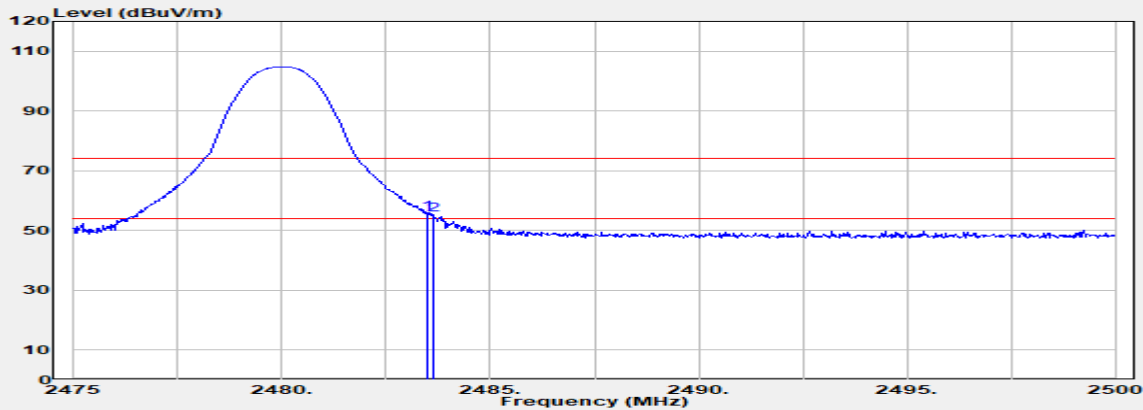
Freq. MHz	Detector Mode AV	Peak Actual FS (dB $\mu$ V/m)	Duty Cycle Factor (dB)	Average Value (dB $\mu$ V/m)	Average Limit@3m (dB $\mu$ V/m)	Margin (dB)
2483.500	Average	52.95	-24.73	28.22	54.00	-25.78
2483.625	Average	53.46	-24.73	28.73	54.00	-25.27

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Report Number :TERF2408002258E2  
Operation Mode :BR  
Test Frequency :2480 MHz  
Test Mode :Bandedge  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-16  
Temp./Humi. :21.9°C/62%  
Antenna Pol. :Horizontal  
Engineer :Temo Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
2483.500	Peak	59.30	-3.31	55.99	74.00	-18.01
2483.625	Peak	58.69	-3.31	55.38	74.00	-18.62

Freq. MHz	Detector Mode AV	Peak Actual FS (dB $\mu$ V/m)	Duty Cycle Factor (dB)	Average Value (dB $\mu$ V/m)	Average Limit@3m (dB $\mu$ V/m)	Margin (dB)
2483.500	Average	55.99	-24.73	31.26	54.00	-22.74
2483.625	Average	55.38	-24.73	30.65	54.00	-23.35

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Report Number :TERF2408002258E2

Test Site :SAC G Chamber

Operation Mode :BR Hopping

Test Date :2024-08-16

Test Frequency :2402 MHz

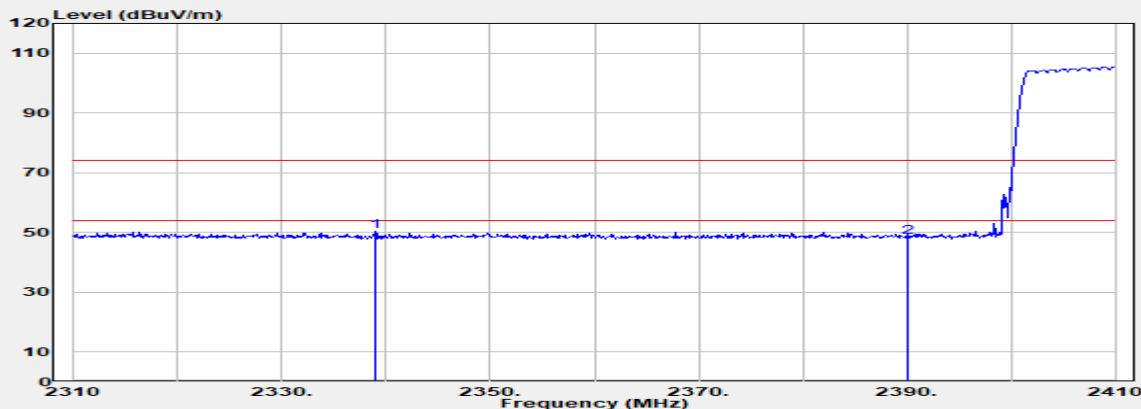
Temp./Humi. :21.9°C/62%

Test Mode :Bandedge

Antenna Pol. :Vertical

EUT Pol :H Plane

Engineer :Temo Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
2388.900	Peak	53.66	-3.20	50.47	74.00	-23.53
2390.000	Peak	51.65	-3.28	48.37	74.00	-25.63

Freq. MHz	Detector Mode AV	Peak Actual FS (dBuV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
2388.900	Average	50.47	-24.73	25.74	54.00	-28.26
2390.000	Average	48.37	-24.73	23.64	54.00	-30.36

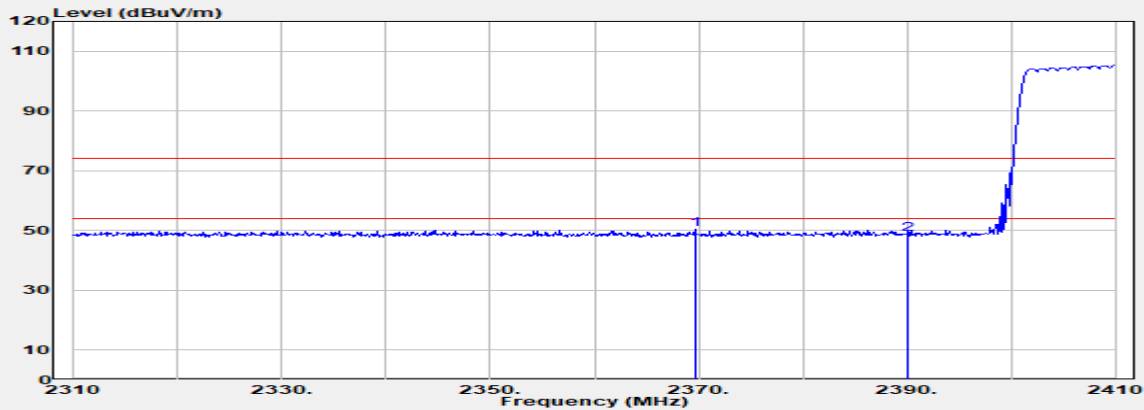
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Report Number :TERF2408002258E2  
Operation Mode :BR Hopping  
Test Frequency :2402 MHz  
Test Mode :Bandedge  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-16  
Temp./Humi. :21.9°C/62%  
Antenna Pol. :Horizontal  
Engineer :Temo Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
2369.700	Peak	53.77	-3.24	50.52	74.00	-23.48
2390.000	Peak	52.14	-3.28	48.86	74.00	-25.14

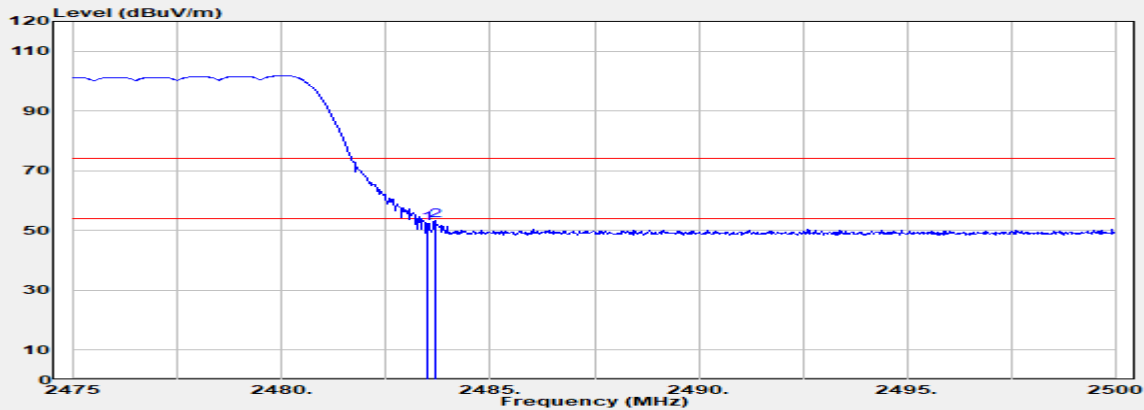
Freq. MHz	Detector Mode AV	Peak Actual FS (dB $\mu$ V/m)	Duty Cycle Factor (dB)	Average Value (dB $\mu$ V/m)	Average Limit@3m (dB $\mu$ V/m)	Margin (dB)
2369.700	Average	50.52	-24.73	25.79	54.00	-28.21
2390.000	Average	48.86	-24.73	24.13	54.00	-29.87

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Report Number :TERF2408002258E2  
Operation Mode :BR Hopping  
Test Frequency :2480 MHz  
Test Mode :Bandedge  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-16  
Temp./Humi. :21.9°C/62%  
Antenna Pol. :Vertical  
Engineer :Temo Chen



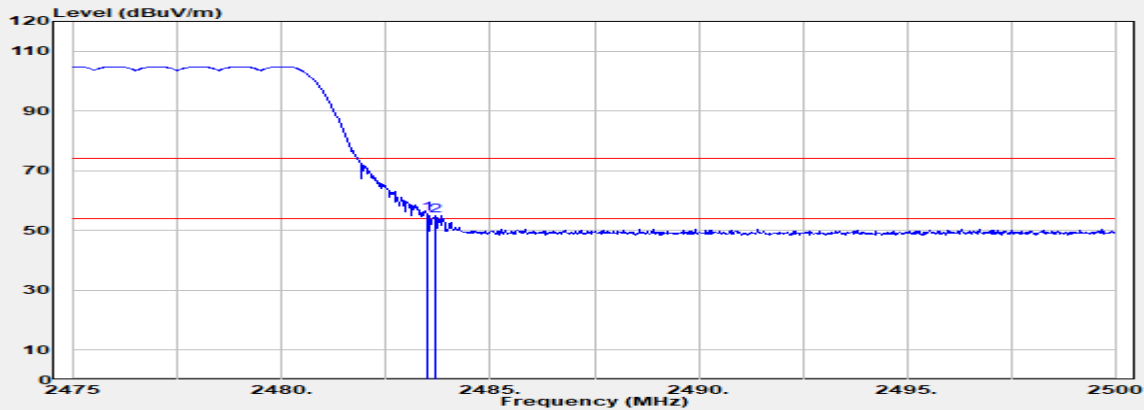
Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
2483.500	Peak	55.59	-3.31	52.27	74.00	-21.73
2483.675	Peak	56.70	-3.31	53.39	74.00	-20.61
Freq. MHz	Detector Mode AV	Peak Actual FS (dB $\mu$ V/m)	Duty Cycle Factor (dB)	Average Value (dB $\mu$ V/m)	Average Limit@3m (dB $\mu$ V/m)	Margin (dB)
2483.500	Average	52.27	-24.73	27.54	54.00	-26.46
2483.675	Average	53.39	-24.73	28.66	54.00	-25.34

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Report Number :TERF2408002258E2  
Operation Mode :BR Hopping  
Test Frequency :2480 MHz  
Test Mode :Bandedge  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-16  
Temp./Humi. :21.9°C/62%  
Antenna Pol. :Horizontal  
Engineer :Temo Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
2483.500	Peak	59.07	-3.31	55.75	74.00	-18.25
2483.675	Peak	58.37	-3.31	55.06	74.00	-18.94

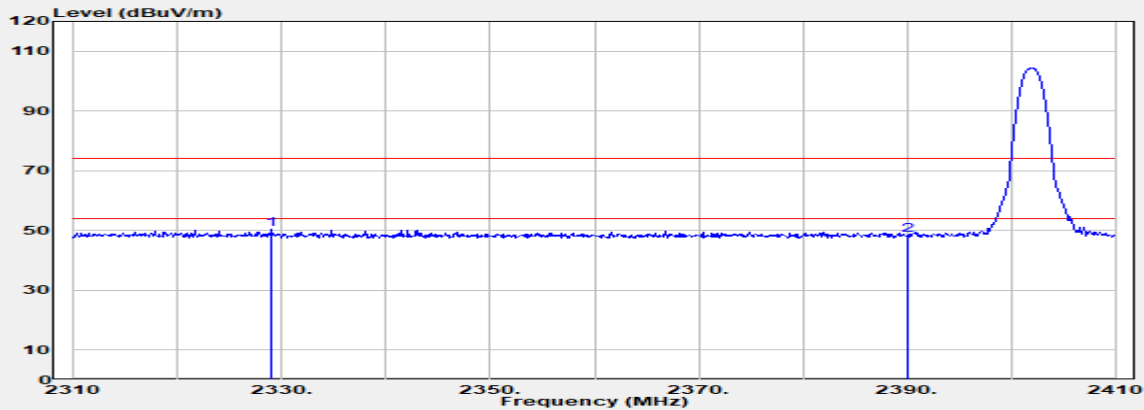
Freq. MHz	Detector Mode AV	Peak Actual FS (dB $\mu$ V/m)	Duty Cycle Factor (dB)	Average Value (dB $\mu$ V/m)	Average Limit@3m (dB $\mu$ V/m)	Margin (dB)
2483.500	Average	55.75	-24.73	31.02	54.00	-22.98
2483.675	Average	55.06	-24.73	30.33	54.00	-23.67

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Report Number :TERF2408002258E2  
Operation Mode :EDR 3M  
Test Frequency :2402 MHz  
Test Mode :Bandedge  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-19  
Temp./Humi. :21.2°C/65%  
Antenna Pol. :Vertical  
Engineer :Temo Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
2329.000	Peak	53.70	-3.18	50.52	74.00	-23.48
2390.000	Peak	51.73	-3.28	48.45	74.00	-25.55

Freq. MHz	Detector Mode AV	Peak Actual FS (dB $\mu$ V/m)	Duty Cycle Factor (dB)	Average Value (dB $\mu$ V/m)	Average Limit@3m (dB $\mu$ V/m)	Margin (dB)
2329.000	Average	50.52	-24.73	25.79	54.00	-28.21
2390.000	Average	48.45	-24.73	23.72	54.00	-30.28

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Report Number :TERF2408002258E2

Test Site :SAC G Chamber

Operation Mode :EDR 3M

Test Date :2024-08-19

Test Frequency :2402 MHz

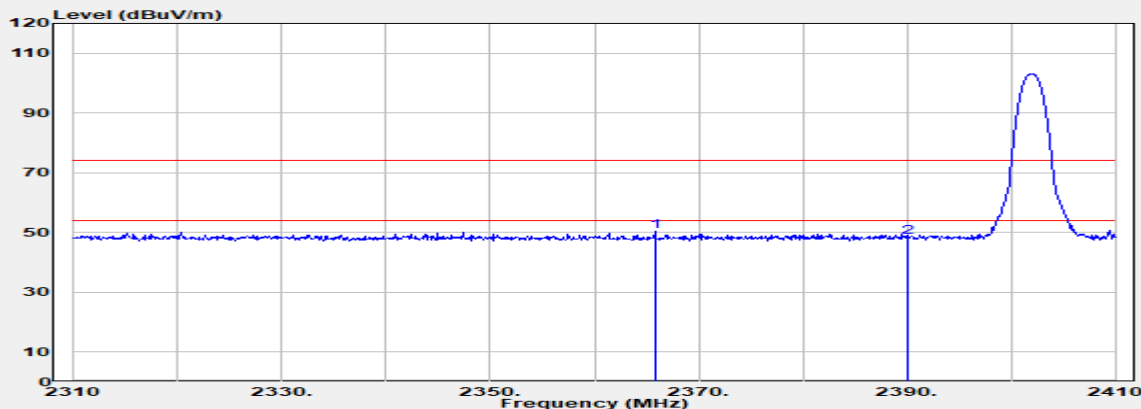
Temp./Humi. :21.2°C/65%

Test Mode :Bandedge

Antenna Pol. :Horizontal

EUT Pol :H Plane

Engineer :Temo Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
2365.800	Peak	53.52	-3.24	50.28	74.00	-23.72
2390.000	Peak	51.72	-3.28	48.44	74.00	-25.56

Freq. MHz	Detector Mode AV	Peak Actual FS (dB $\mu$ V/m)	Duty Cycle Factor (dB)	Average Value (dB $\mu$ V/m)	Average Limit@3m (dB $\mu$ V/m)	Margin (dB)
2365.800	Average	50.28	-24.73	25.55	54.00	-28.45
2390.000	Average	48.44	-24.73	23.71	54.00	-30.29

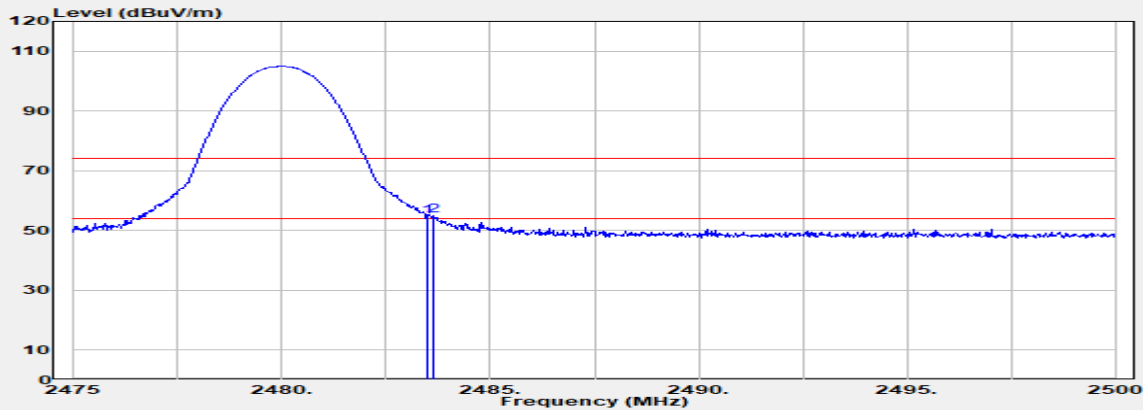
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Report Number :TERF2408002258E2  
Operation Mode :EDR 3M  
Test Frequency :2480 MHz  
Test Mode :Bandedge  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-19  
Temp./Humi. :21.2°C/65%  
Antenna Pol. :Vertical  
Engineer :Temo Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
2483.500	Peak	58.02	-3.31	54.71	74.00	-19.29
2483.650	Peak	58.11	-3.31	54.80	74.00	-19.20

Freq. MHz	Detector Mode AV	Peak Actual FS (dBuV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
2483.500	Average	54.71	-24.73	29.98	54.00	-24.02
2483.650	Average	54.80	-24.73	30.07	54.00	-23.93

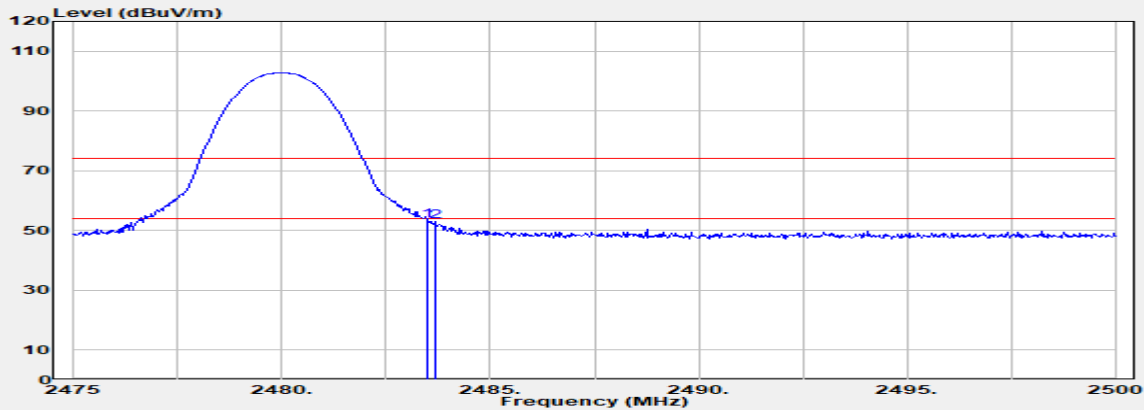
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Report Number :TERF2408002258E2  
Operation Mode :EDR 3M  
Test Frequency :2480 MHz  
Test Mode :Bandedge  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-19  
Temp./Humi. :21.2°C/65%  
Antenna Pol. :Horizontal  
Engineer :Temo Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
2483.500	Peak	56.62	-3.31	53.31	74.00	-20.69
2483.675	Peak	56.30	-3.31	52.99	74.00	-21.01

Freq. MHz	Detector Mode AV	Peak Actual FS (dBuV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
2483.500	Average	53.31	-24.73	28.58	54.00	-25.42
2483.675	Average	52.99	-24.73	28.26	54.00	-25.74

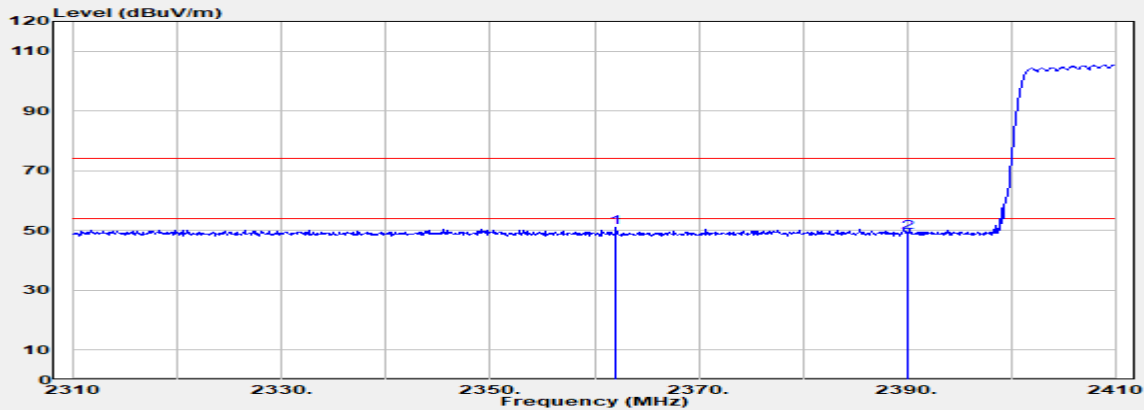
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Report Number :TERF2408002258E2  
Operation Mode :EDR 3M Hopping  
Test Frequency :2402 MHz  
Test Mode :Bandedge  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-19  
Temp./Humi. :21.2°C/65%  
Antenna Pol. :Vertical  
Engineer :Temo Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
2362.100	Peak	54.31	-3.23	51.08	74.00	-22.92
2390.000	Peak	52.62	-3.28	49.34	74.00	-24.66

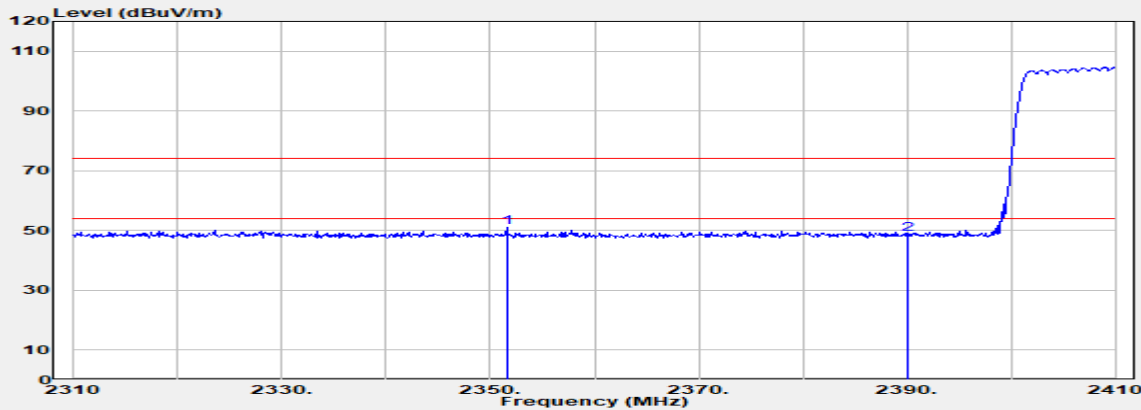
Freq. MHz	Detector Mode AV	Peak Actual FS (dB $\mu$ V/m)	Duty Cycle Factor (dB)	Average Value (dB $\mu$ V/m)	Average Limit@3m (dB $\mu$ V/m)	Margin (dB)
2362.100	Average	51.08	-24.73	26.35	54.00	-27.65
2390.000	Average	49.34	-24.73	24.61	54.00	-29.39

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Report Number :TERF2408002258E2  
Operation Mode :EDR 3M Hopping  
Test Frequency :2402 MHz  
Test Mode :Bandedge  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-19  
Temp./Humi. :21.2°C/65%  
Antenna Pol. :Horizontal  
Engineer :Temo Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
2351.600	Peak	54.39	-3.22	51.17	74.00	-22.83
2390.000	Peak	52.05	-3.28	48.78	74.00	-25.22

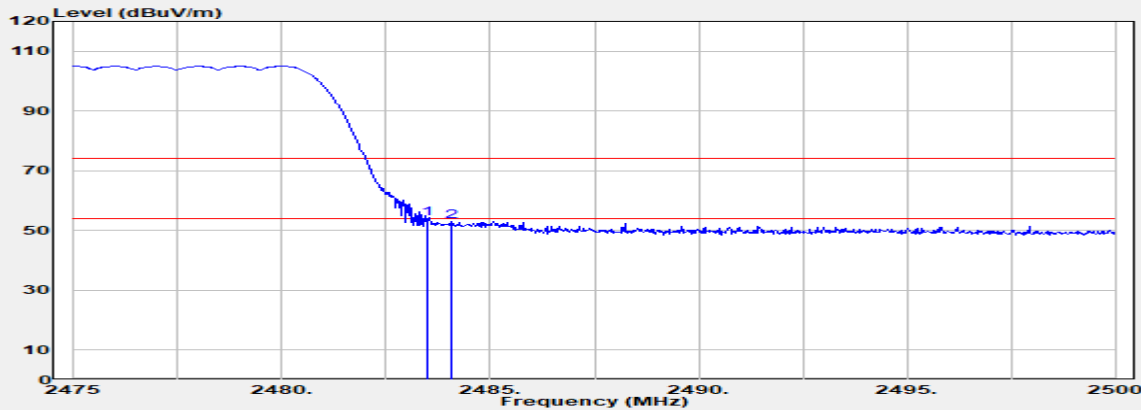
Freq. MHz	Detector Mode AV	Peak Actual FS (dB $\mu$ V/m)	Duty Cycle Factor (dB)	Average Value (dB $\mu$ V/m)	Average Limit@3m (dB $\mu$ V/m)	Margin (dB)
2351.600	Average	51.17	-24.73	26.44	54.00	-27.56
2390.000	Average	48.78	-24.73	24.05	54.00	-29.95

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Report Number :TERF2408002258E2  
Operation Mode :EDR 3M Hopping  
Test Frequency :2480 MHz  
Test Mode :Bandedge  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-19  
Temp./Humi. :21.2°C/65%  
Antenna Pol. :Vertical  
Engineer :Temo Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
2483.500	Peak	57.42	-3.31	54.11	74.00	-19.89
2484.050	Peak	56.40	-3.31	53.09	74.00	-20.91

Freq. MHz	Detector Mode AV	Peak Actual FS (dB $\mu$ V/m)	Duty Cycle Factor (dB)	Average Value (dB $\mu$ V/m)	Average Limit@3m (dB $\mu$ V/m)	Margin (dB)
2483.500	Average	54.11	-24.73	29.38	54.00	-24.62
2484.050	Average	53.09	-24.73	28.36	54.00	-25.64

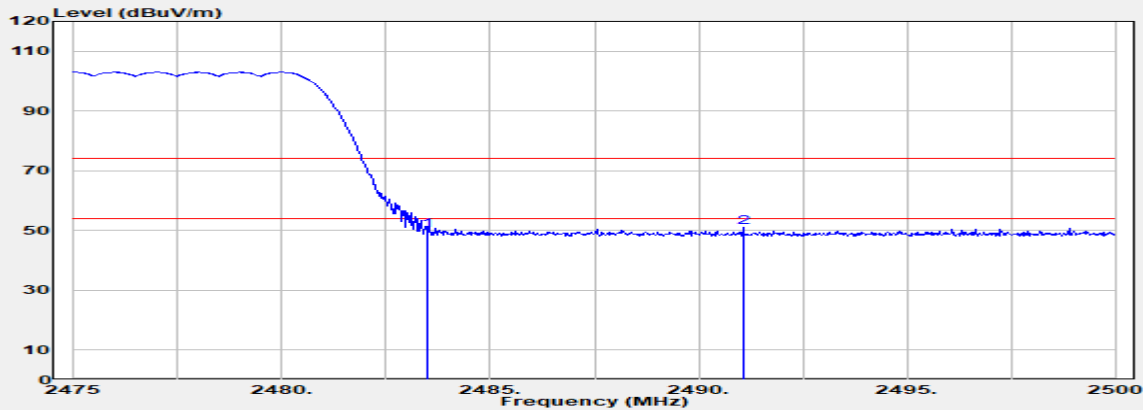
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Report Number :TERF2408002258E2  
Operation Mode :EDR 3M Hopping  
Test Frequency :2480 MHz  
Test Mode :Bandedge  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-19  
Temp./Humi. :21.2°C/65%  
Antenna Pol. :Horizontal  
Engineer :Temo Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
2483.500	Peak	53.46	-3.31	50.15	74.00	-23.85
2491.075	Peak	54.27	-3.29	50.98	74.00	-23.02

Freq. MHz	Detector Mode AV	Peak Actual FS (dB $\mu$ V/m)	Duty Cycle Factor (dB)	Average Value (dB $\mu$ V/m)	Average Limit@3m (dB $\mu$ V/m)	Margin (dB)
2483.500	Average	50.15	-24.73	25.42	54.00	-28.58
2491.075	Average	50.98	-24.73	26.25	54.00	-27.75

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#### 8.6.4 Radiated Spurious Emission

Report Number :TERF2408002258E2

Test Site :SAC G Chamber

Operation Mode :BR

Test Date :2024-08-21

Test Frequency :2441 MHz

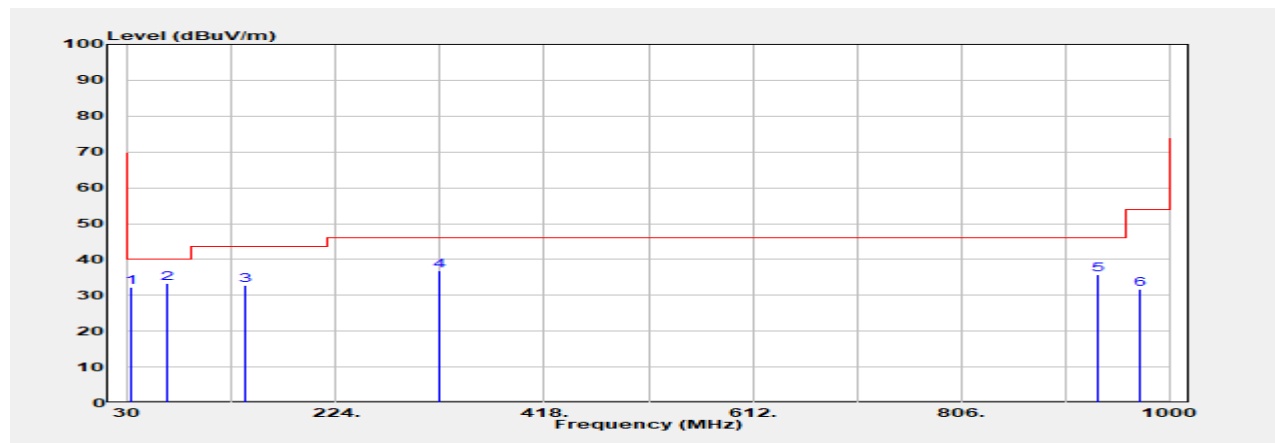
Temp./Humi. :21.5°C/66%

Test Mode :Tx

Antenna Pol. :Vertical

EUT Pol :H Plane

Engineer :Jacky Chen



Freq. MHz	Detector Mode PK/QP/AVG	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
32.910	Peak	46.80	-14.56	32.24	40.00	-7.76
65.890	Peak	47.48	-14.18	33.30	40.00	-6.70
138.640	Peak	46.45	-13.63	32.81	43.50	-10.69
321.000	Peak	48.11	-11.21	36.90	46.00	-9.10
934.040	Peak	35.94	-0.24	35.70	46.00	-10.30
972.840	Peak	30.41	1.17	31.59	54.00	-22.41

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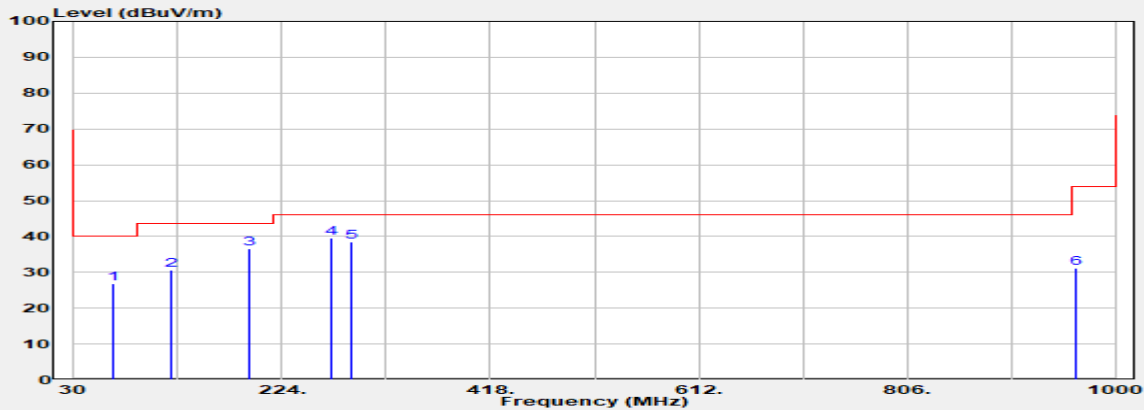
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Report Number :TERF2408002258E2  
Operation Mode :BR  
Test Frequency :2441 MHz  
Test Mode :Tx  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-21  
Temp./Humi. :21.5°C/66%  
Antenna Pol. :Horizontal  
Engineer :Jacky Chen



Freq. MHz	Detector Mode PK/QP/AVG	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
66.860	Peak	40.96	-14.22	26.73	40.00	-13.27
120.210	QP	46.20	-15.56	30.64	43.50	-12.86
192.960	Peak	51.93	-15.44	36.49	43.50	-7.01
269.590	Peak	52.49	-12.94	39.55	46.00	-6.45
288.990	Peak	50.57	-12.16	38.41	46.00	-7.59
964.110	Peak	30.14	1.07	31.21	54.00	-22.79

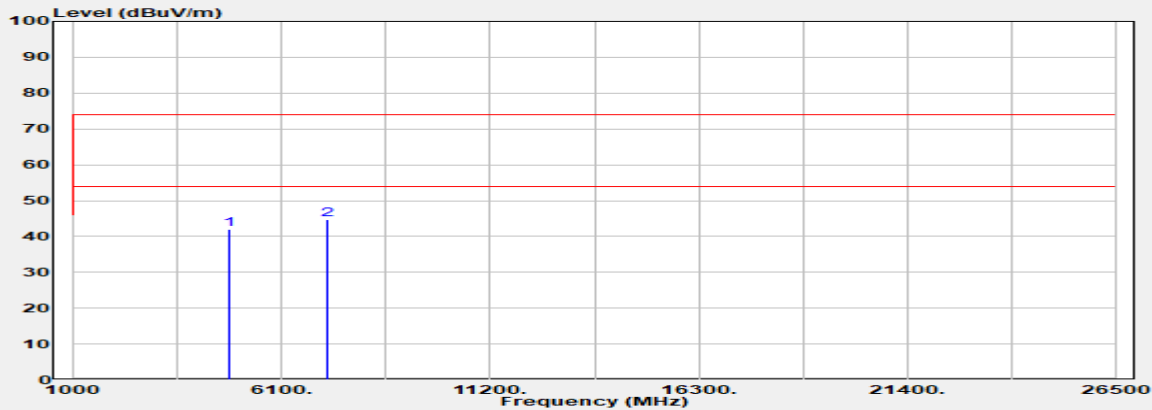
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Report Number :TERF2408002258E2  
Operation Mode :BR  
Test Frequency :2402 MHz  
Test Mode :Tx  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-19  
Temp./Humi. :21.2°C/65%  
Antenna Pol. :Vertical  
Engineer :Jacky Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
4804.000	Peak	38.62	3.33	41.96	74.00	-32.04
7206.000	Peak	35.44	9.17	44.61	74.00	-29.39

Freq. MHz	Detector Mode AV	Peak Actual FS (dBuV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4804.000	Average	41.96	-24.73	17.23	54.00	-36.77
7206.000	Average	44.61	-24.73	19.88	54.00	-34.12

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Report Number :TERF2408002258E2

Test Site :SAC G Chamber

Operation Mode :BR

Test Date :2024-08-19

Test Frequency :2402 MHz

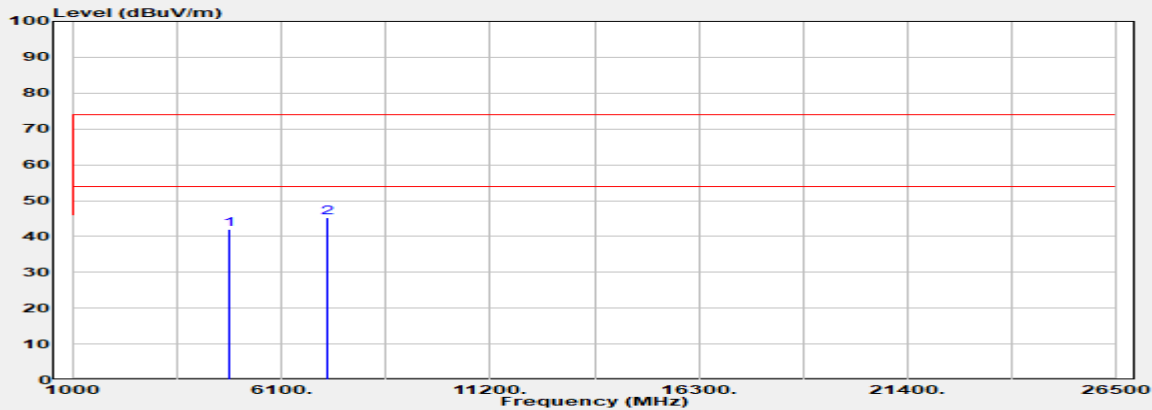
Temp./Humi. :21.2°C/65%

Test Mode :Tx

Antenna Pol. :Horizontal

EUT Pol :H Plane

Engineer :Jacky Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
4804.000	Peak	38.59	3.33	41.92	74.00	-32.08
7206.000	Peak	36.15	9.17	45.32	74.00	-28.68
Freq. MHz	Detector Mode AV	Peak Actual FS (dB $\mu$ V/m)	Duty Cycle Factor (dB)	Average Value (dB $\mu$ V/m)	Average Limit@3m (dB $\mu$ V/m)	Margin (dB)
4804.000	Average	41.92	-24.73	17.19	54.00	-36.81
7206.000	Average	45.32	-24.73	20.59	54.00	-33.41

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Report Number :TERF2408002258E2

Test Site :SAC G Chamber

Operation Mode :BR

Test Date :2024-08-19

Test Frequency :2441 MHz

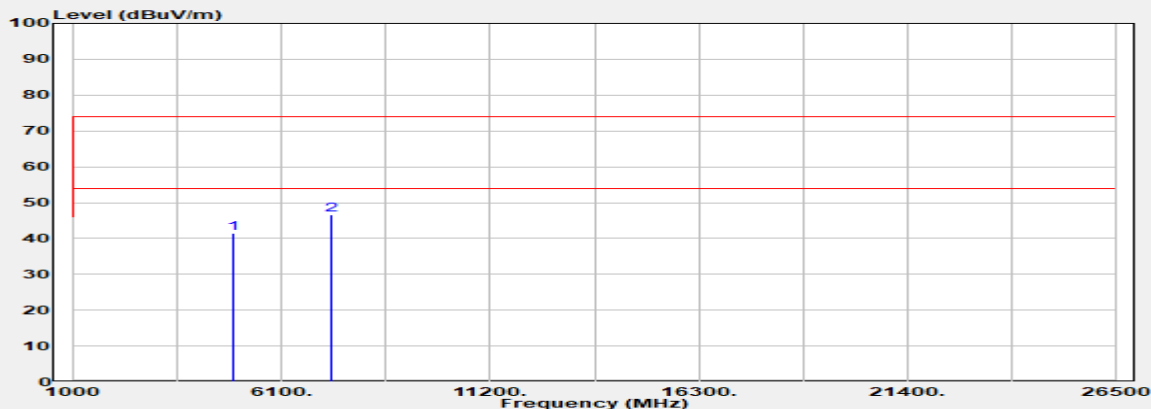
Temp./Humi. :21.2°C/65%

Test Mode :Tx

Antenna Pol. :Vertical

EUT Pol :H Plane

Engineer :Jacky Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
4882.000	Peak	37.94	3.52	41.47	74.00	-32.53
7323.000	Peak	36.82	9.80	46.62	74.00	-27.38

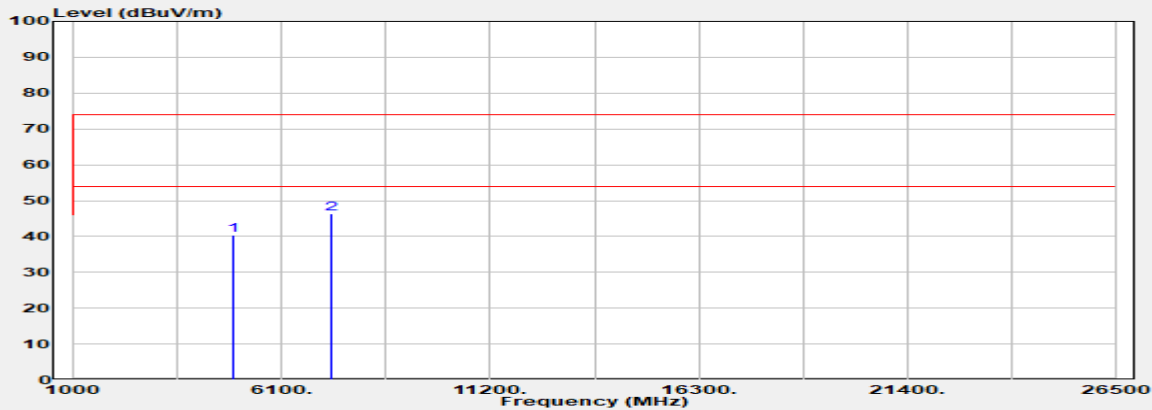
Freq. MHz	Detector Mode AV	Peak Actual FS (dB $\mu$ V/m)	Duty Cycle Factor (dB)	Average Value (dB $\mu$ V/m)	Average Limit@3m (dB $\mu$ V/m)	Margin (dB)
4882.000	Average	41.47	-24.73	16.74	54.00	-37.26
7323.000	Average	46.62	-24.73	21.89	54.00	-32.11

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Report Number :TERF2408002258E2  
Operation Mode :BR  
Test Frequency :2441 MHz  
Test Mode :Tx  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-19  
Temp./Humi. :21.2°C/65%  
Antenna Pol. :Horizontal  
Engineer :Jacky Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
4882.000	Peak	36.93	3.52	40.45	74.00	-33.55
7323.000	Peak	36.59	9.80	46.39	74.00	-27.61

Freq. MHz	Detector Mode AV	Peak Actual FS (dBuV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4882.000	Average	40.45	-24.73	15.72	54.00	-38.28
7323.000	Average	46.39	-24.73	21.66	54.00	-32.34

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Report Number :TERF2408002258E2

Test Site :SAC G Chamber

Operation Mode :BR

Test Date :2024-08-19

Test Frequency :2480 MHz

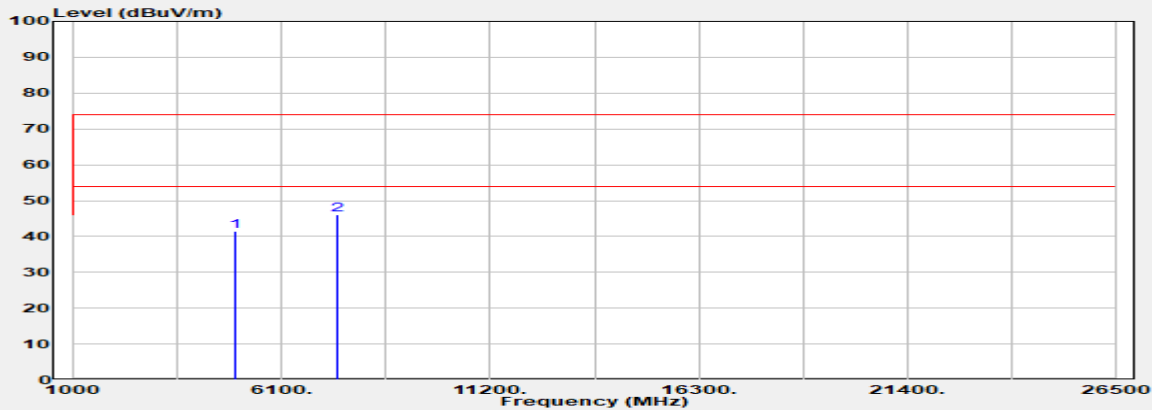
Temp./Humi. :21.2°C/65%

Test Mode :Tx

Antenna Pol. :Vertical

EUT Pol :H Plane

Engineer :Jacky Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
4960.000	Peak	37.58	3.86	41.44	74.00	-32.56
7440.000	Peak	36.01	10.14	46.15	74.00	-27.85

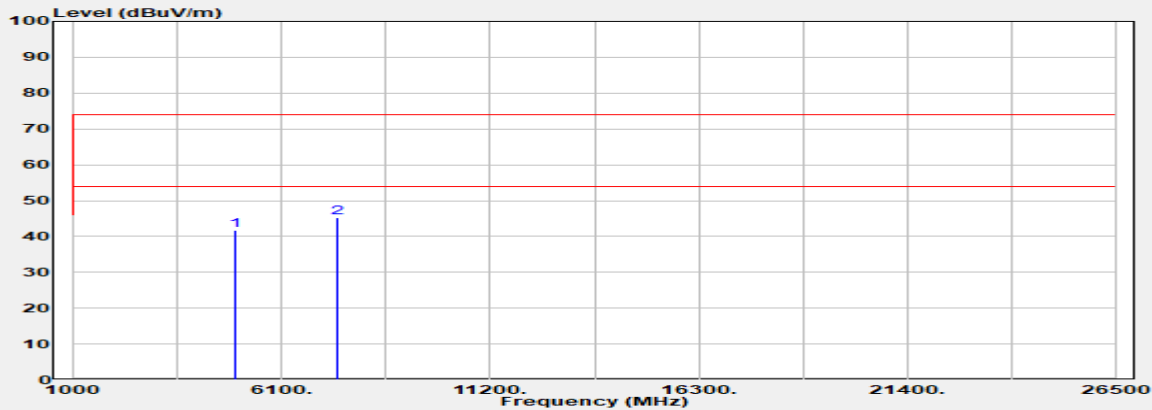
Freq. MHz	Detector Mode AV	Peak Actual FS (dBuV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4960.000	Average	41.44	-24.73	16.71	54.00	-37.29
7440.000	Average	46.15	-24.73	21.42	54.00	-32.58

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Report Number :TERF2408002258E2  
Operation Mode :BR  
Test Frequency :2480 MHz  
Test Mode :Tx  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-19  
Temp./Humi. :21.2°C/65%  
Antenna Pol. :Horizontal  
Engineer :Jacky Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
4960.000	Peak	37.97	3.86	41.82	74.00	-32.18
7440.000	Peak	35.22	10.14	45.36	74.00	-28.64

Freq. MHz	Detector Mode AV	Peak Actual FS (dB $\mu$ V/m)	Duty Cycle Factor (dB)	Average Value (dB $\mu$ V/m)	Average Limit@3m (dB $\mu$ V/m)	Margin (dB)
4960.000	Average	41.82	-24.73	17.09	54.00	-36.91
7440.000	Average	45.36	-24.73	20.63	54.00	-33.37

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Report Number :TERF2408002258E2

Test Site :SAC G Chamber

Operation Mode :EDR 3M

Test Date :2024-08-19

Test Frequency :2402 MHz

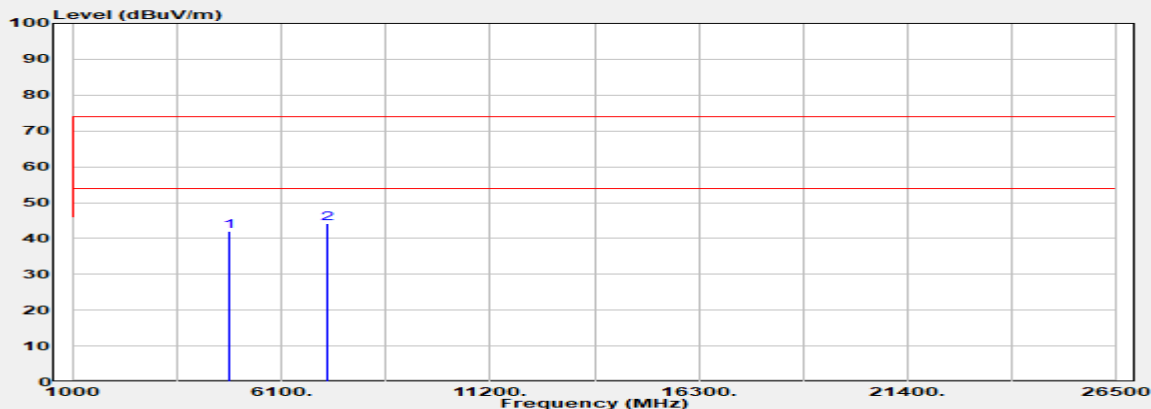
Temp./Humi. :21.2°C/65%

Test Mode :Tx

Antenna Pol. :Vertical

EUT Pol :H Plane

Engineer :Jacky Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
4804.000	Peak	38.60	3.33	41.93	74.00	-32.07
7206.000	Peak	34.96	9.17	44.13	74.00	-29.87

Freq. MHz	Detector Mode AV	Peak Actual FS (dBuV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4804.000	Average	41.93	-24.73	17.20	54.00	-36.80
7206.000	Average	44.13	-24.73	19.40	54.00	-34.60

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Report Number :TERF2408002258E2

Test Site :SAC G Chamber

Operation Mode :EDR 3M

Test Date :2024-08-19

Test Frequency :2402 MHz

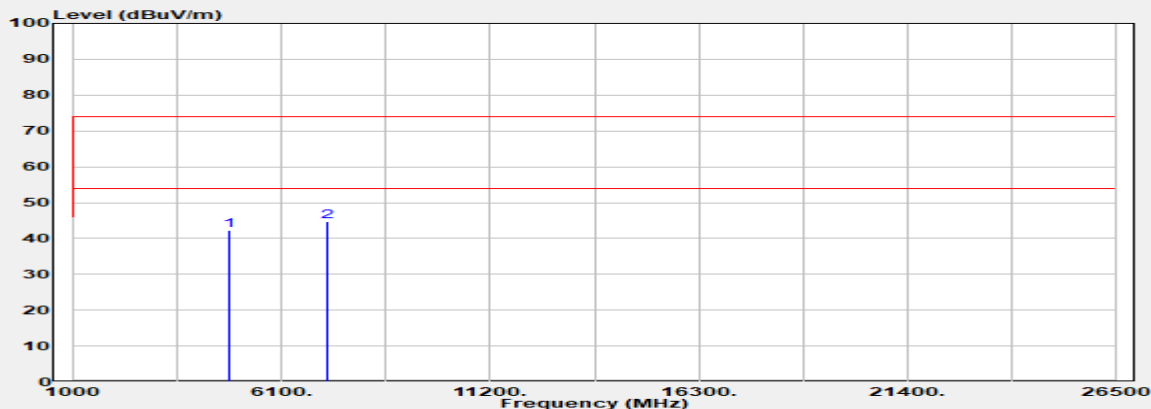
Temp./Humi. :21.2°C/65%

Test Mode :Tx

Antenna Pol. :Horizontal

EUT Pol :H Plane

Engineer :Jacky Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
4804.000	Peak	38.92	3.33	42.25	74.00	-31.75
7206.000	Peak	35.46	9.17	44.64	74.00	-29.36

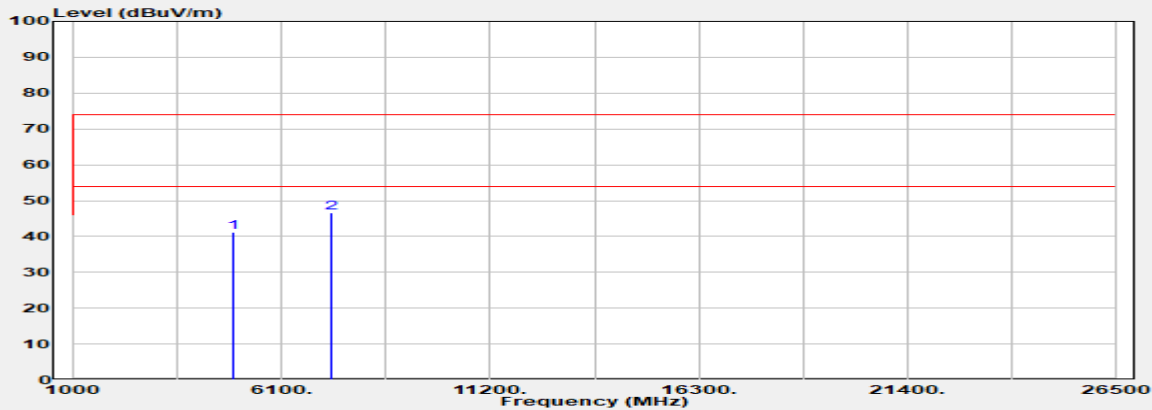
Freq. MHz	Detector Mode AV	Peak Actual FS (dB $\mu$ V/m)	Duty Cycle Factor (dB)	Average Value (dB $\mu$ V/m)	Average Limit@3m (dB $\mu$ V/m)	Margin (dB)
4804.000	Average	42.25	-24.73	17.52	54.00	-36.48
7206.000	Average	44.64	-24.73	19.91	54.00	-34.09

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Report Number :TERF2408002258E2  
Operation Mode :EDR 3M  
Test Frequency :2441 MHz  
Test Mode :Tx  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-19  
Temp./Humi. :21.2°C/65%  
Antenna Pol. :Vertical  
Engineer :Jacky Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Margin dB
4882.000	Peak	37.55	3.52	41.07	74.00	-32.93
7323.000	Peak	36.79	9.80	46.59	74.00	-27.41

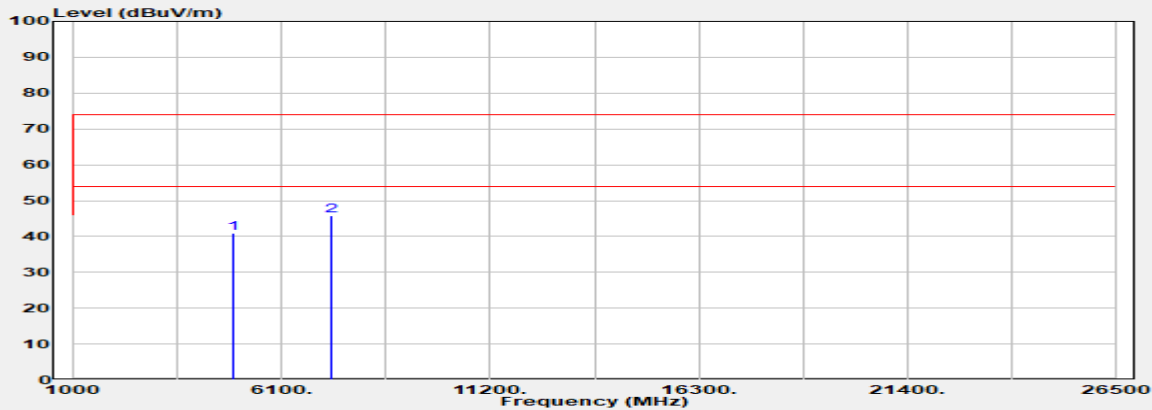
Freq. MHz	Detector Mode AV	Peak Actual FS (dB $\mu$ V/m)	Duty Cycle Factor (dB)	Average Value (dB $\mu$ V/m)	Average Limit@3m (dB $\mu$ V/m)	Margin (dB)
4882.000	Average	41.07	-24.73	16.34	54.00	-37.66
7323.000	Average	46.59	-24.73	21.86	54.00	-32.14

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Report Number :TERF2408002258E2  
Operation Mode :EDR 3M  
Test Frequency :2441 MHz  
Test Mode :Tx  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-19  
Temp./Humi. :21.2°C/65%  
Antenna Pol. :Horizontal  
Engineer :Jacky Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
4882.000	Peak	37.38	3.52	40.90	74.00	-33.10
7323.000	Peak	36.13	9.80	45.92	74.00	-28.08

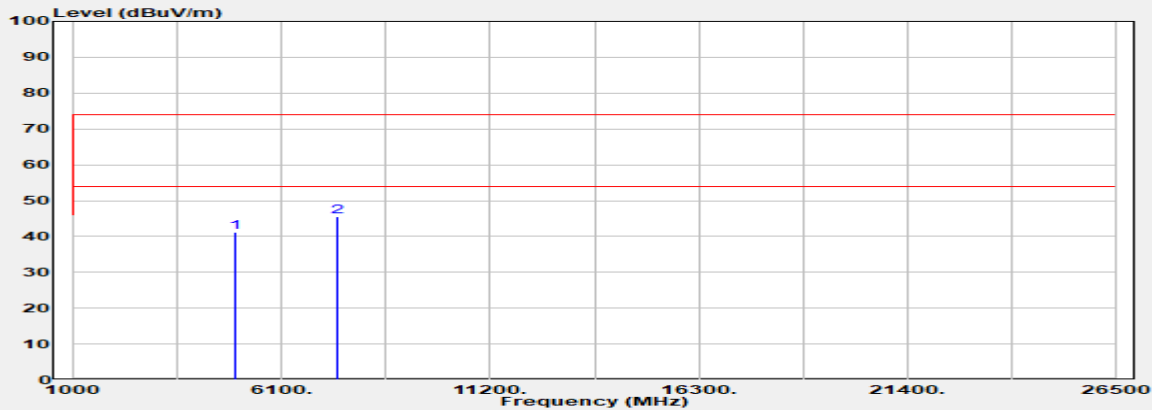
Freq. MHz	Detector Mode AV	Peak Actual FS (dBuV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4882.000	Average	40.90	-24.73	16.17	54.00	-37.83
7323.000	Average	45.92	-24.73	21.19	54.00	-32.81

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Report Number :TERF2408002258E2  
Operation Mode :EDR 3M  
Test Frequency :2480 MHz  
Test Mode :Tx  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-19  
Temp./Humi. :21.2°C/65%  
Antenna Pol. :Vertical  
Engineer :Jacky Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
4960.000	Peak	37.40	3.86	41.26	74.00	-32.74
7440.000	Peak	35.37	10.14	45.50	74.00	-28.50

Freq. MHz	Detector Mode AV	Peak Actual FS (dBuV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4960.000	Average	41.26	-24.73	16.53	54.00	-37.47
7440.000	Average	45.50	-24.73	20.77	54.00	-33.23

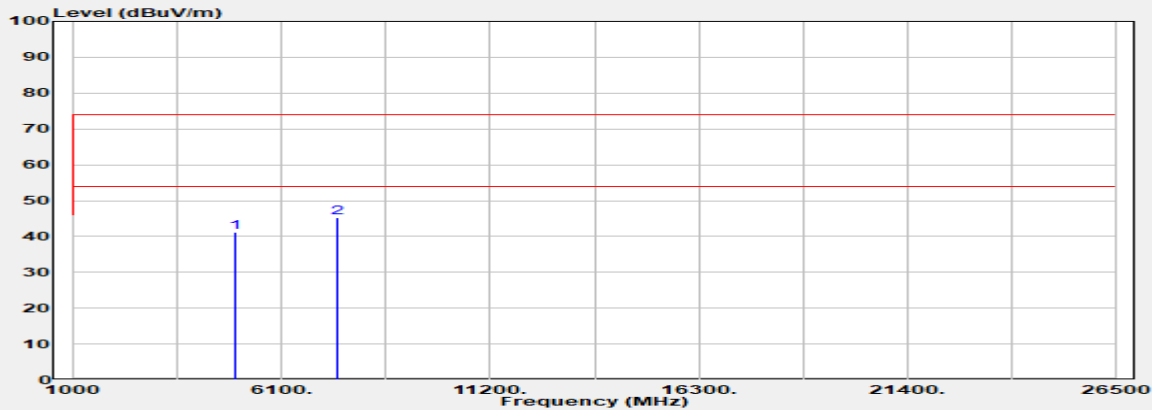
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Report Number :TERF2408002258E2  
Operation Mode :EDR 3M  
Test Frequency :2480 MHz  
Test Mode :Tx  
EUT Pol :H Plane

Test Site :SAC G Chamber  
Test Date :2024-08-19  
Temp./Humi. :21.2°C/65%  
Antenna Pol. :Horizontal  
Engineer :Jacky Chen



Freq. MHz	Detector Mode PK/QP	Spectrum Reading Level dBuV	Factor dB	Actual FS dBuV/m	Limit @3m dBuV/m	Margin dB
4960.000	Peak	37.36	3.86	41.21	74.00	-32.79
7440.000	Peak	35.02	10.14	45.16	74.00	-28.84

Freq. MHz	Detector Mode AV	Peak Actual FS (dBuV/m)	Duty Cycle Factor (dB)	Average Value (dBuV/m)	Average Limit@3m (dBuV/m)	Margin (dB)
4960.000	Average	41.21	-24.73	16.48	54.00	-37.52
7440.000	Average	45.16	-24.73	20.43	54.00	-33.57

~ End of Report ~

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