

### Report No.: TERF2206000815E2 Page: 1 of 40

# ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT



Applicant:	HP Inc.
Manufacturer:	1501 Page Mill Road, Palo Alto, CA 94304, USA HP Inc. 1501 Page Mill Road, Palo Alto, CA 94304, USA
Product Name:	Notebook PC
Brand Name:	HP
Model No.:	R2022
Model Difference:	N/A
Report Number:	TERF2206000815E2
FCC ID	B94R2022GPKV
Issue Date:	Sep. 05, 2022
Date of Test:	Jun. 22, 2022~Sep. 02, 2022
Date of EUT Received:	Jun. 07, 2022

Vit, Pei

Approved By\_\_\_\_

Vito Pei

### 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 ANSI C63.26-2015 and the energy emitted by the sample EUT comply with FCC rule part 2, 96.

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	<b>Revised By</b>	Remark
TERF2206000815E2	00	Original.	Aug. 10, 2022	Yami Kuo	
TERF2206000815E2	01	Add RF EIRP Power	Sep. 05, 2022	Yami Kuo	*

Note:

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

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# **1 GENERAL PRODUCT INFORMATION**

# 1.1 **Product Description**

Product Name:	Notebook PC
Brand Name:	HP
Model No.:	R2022
Model Difference:	N/A
Hardware Version:	N/A
Firmware Version:	N/A
EUT Series No.:	5CD21235KV
Power Supply:	7.68 Vdc from Rechargeable Li-Polymer Battery or 5 / 9 / 12 / 15 Vdc from AC/DC Adapter
Test Software (Name/Version)	Default (link UXM)

## 1.2 Antenna Designation

Antenna Type	Antenna Model No.	
	Ant5	
PIFA –	Ant8	
Note: Transmission	frequencies in this test report are only available by the above antenna(s).	

Modulation	Frequency	Peak Anter	Peak Antenna Gain (dBi)		
	(MHz)	Ant5	Ant8		
LTE-Band 48	3550 ~ 370	0 -2.47			
5G NR Band 2	1850 ~ 19 <sup>-</sup>	0 0.21	0.07		
5G NR Band 5	824 ~ 84	9 -0.64			
5G NR Band 13	777 ~ 78	7 -0.46			
5G NR Band 66	1710 ~ 178	0 -0.63	0.73		

Note: Antenna information is provided by the applicant.

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#### 1.3 **Operation Frequencies**

LTE Band 48				
BW (MHz)	Operation	Frequ	uency (MHz)	
5	3552.5	-	3697.5	
10	3555.0	-	3695.0	
15	3557.5	-	3692.5	
20	3560.0	-	3690.0	

NR Band 2				
BW (MHz)	Operation F	requ	ency (MHz)	
5	1852.5	-	1907.5	
10	1855.0	-	1905.0	
15	1857.5	-	1902.5	
20	1860.0	-	1900.0	
25	1862.5	-	1897.5	
30	1865.0	-	1895.0	
35	1867.5	-	1892.5	
40	1870.0	-	1890.0	

NR Band 5				
BW (MHz)	Operation Frequency (MHz)			
5	826.5	-	846.5	
10	829.0	-	844.0	
15	831.5	-	841.5	
20	834.0	-	839.0	
25	836.5	-	836.5	

NR Band 13			
BW (MHz)	Operation I	Freque	ency (MHz)
5	779.5	-	784.5
10	782.0	-	782.0

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NR Band 66				
BW (MHz)	Operation Frequency (MHz)			
5	1712.5 -	1777.5		
10	1715.0 -	1775.0		
15	1717.5 -	1772.5		
20	1720.0 -	1770.0		
25	1722.5 -	1767.5		
30	1725.0 -	1765.0		
35	1727.5 -	1762.5		
40	1730.0 -	1760.0		
45	1732.5 -	1757.5		

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# 1.4 Test Methodology of Applied Standards

FCC 47 CFR Part 2, Part 96E ANSI C63.26-2015 ANSI/ITA C603-E.2016 KDB 971168 D01 Power Meas license Digital System v03r01 KDB 940660 D01 Part 96 CBRS Eqpt v02 KDB 412172 D01 Determining ERP and EIRP V01r01

### 1.5 Test Facility

Laboratory	Test Site Address	Test Site Name	FCC Designa- tion number	IC CAB identifier
	-	SAC 1		
		SAC 3		
		Conduction 1		
	No.134, Wu Kung Road, New Taipei	Conducted 1		
	Industrial Park, Wuku District, New	Conducted 2	TW0027	
	Taipei City, Taiwan.	Conducted 3		
		Conducted 4		TW3702
		Conducted 5		
SGS Taiwan Ltd.		Conducted 6		
Central RF Lab.		Conduction C	TW0028	
(TAF code 3702)		SAC C		
		SAC D		
		SAC G		
	No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333	Conducted A		
		Conducted B		
		Conducted C		
		Conducted D		
		Conducted E		
		Conducted F		
		Conducted G		

tion where measurements occurred in specific test site and address.

### 1.6 Special Accessories

No special accessories were used during testing.

### 1.7 Equipment Modifications

There was no modifications incorporated into the EUT.

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

Radiated emission below 30MHz is measured in a 9m\*9m\*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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# 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

The EUT (Transmitter) was operated in the continuous transmission mode employed with the simulator of the Base Station that fixates at test default channels to fix the Tx frequency which was for the purpose of the measurements.

# 2.3 Test Procedure

# 2.3.1 Radiated Emissions (ERP/EIRP)

The EUT is placed on a turn table, for emission measurements below 1 GHz is 0.8 m above 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 hand-held 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

## 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.

# Note:

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

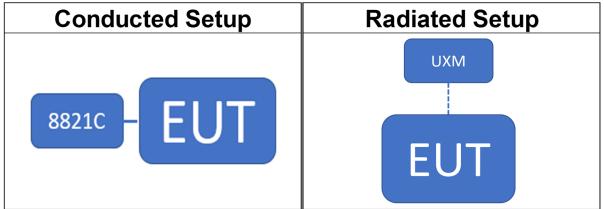
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### 2.5 Test Configuration



**Note:** Radio Communication Analyzer is placed in remote side for radiated test.

2.6 Control Unit(s)

N/A

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#### 3 SUMMARY OF TEST RESULTS

FCC Rules	Description Of Test	Result	
§2.1046(a) §96.41(b)	Maximum Power Output	Compliant	
§2.1053, §96.41(e)	FIELD STRENGTH OF SPURIOUS RADIATION	Compliant	

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#### **DESCRIPTION OF TEST MODES** 4

#### 4.1 The Worst Test Modes and Channel Details

- 1. The EUT has been tested under operating condition.
- 2. Pre-Scan has been conducted to determine the worst-case scenario from all possible combinations among available modulations, data rates and antenna ports, the worst case configurations listed below for the final test.
- 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.

#### 4.2 **Measurement Configuration**

	Т	est Ite	ms										N	lax. O	utput	Power					
Band	Те	st Ch	nann	el		Bandwidth (MHz)					Modulation				RB #						
Band		L	N	1	Н	1.4	1	3	5		10	15	2	20	QPSK	16QAM	64QAM	256QAM	1	Half	Full
48		V	v		V	-		-	V		V	v		v	V	V	V	V	v	V	V
	Test Ch			nel			Bandwidth (MHz)			Modulation				RB#							
Test Items	Band	L	М	н	10	15	20	25	30	35	40	QPSK	16QAM	64QAM	256QAM	Edge left + Edge right			ight + right	Edge right + Edge left	Full
Max. Output	48C	v	v	V				v	V	v	v	v	v	۷	v					v	v

### LTE Band 48

Parameter	Test Condition
Test Channel	Low
Channel Bandwidth	20 MHz
Modulation	QPSK
Resource Block Allocation	UL: 1 RBs allocated, RB start = 0

### 2A-48A

Parameter	Test Condition	Parameter	Test Condition
Test Channel	Mid	Test Channel	Mid
Channel Bandwidth	20 MHz	Channel Bandwidth	20 MHz
Modulation	QPSK	Modulation	QPSK
	UL: 1 RBs allocated, RB start = 0	Resource Block Al- location	UL: 100 RBs allo- cated, RB start = 0

### 5A-48A

Parameter	Test Condition	Parameter	Test Condition		
Test Channel	Mid	Test Channel	Mid		
Channel Bandwidth	10 MHz	Channel Bandwidth	20 MHz		
Modulation	QPSK	Modulation	QPSK		
Resource Block Al-	UL: 50 RBs allocated,	Resource Block Al-	UL: 50 RBs allocated,		
location	RB start = 0	location	RB start = 0		

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### 13A-48A

Parameter	Test Condition	Parameter	Test Condition		
Test Channel	Mid	Test Channel	Mid		
Channel Bandwidth	10 MHz	Channel Bandwidth	20 MHz		
Modulation	QPSK	Modulation	QPSK		
Resource Block Al-	UL: 50 RBs allocated,	Resource Block Al-	UL: 1 RBs allocated,		
location	RB start = 0	location	RB start = 0		

### 48A-66A

Parameter	Test Condition	Parameter	Test Condition	
Test Channel	Mid	Test Channel	Mid	
Channel Bandwidth	20 MHz	Channel Bandwidth	20 MHz	
Modulation	QPSK	Modulation	QPSK	
Resource Block Al-	UL: 100 RBs allocated,	Resource Block Al-	UL: 1 RBs allocated,	
location	RB start = 0	location	RB start = 0	

48C

Parameter	Test Condition	Parameter	Test Condition
Test Channel	Mid	Test Channel	Mid
Channel Bandwidth	20 MHz	Channel Bandwidth	20 MHz
Modulation	QPSK	Modulation	QPSK
	UL: 1 RBs allocated, RB start = 99	Resource Block Al- location	UL: 1 RBs allocated, RB start = 0

**5G ENDC** 

E-UTRA	SCS Test		Channel	Modulation	Resource Blo	ck Allocation
Band	303	Channel	Bandwidth	wouldton	RBs allocated	RB Start
B48A-n5A	15K	55830+167300	20+20	DFT-S-OFDM Pi/2 BPSK	Full	
B48A-n66A	15K	55830+349000	20+20	DFT-S-OFDM Pi/2 BPSK	Full	

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No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號



#### **MEASUREMENT UNCERTAINTY** 5

Test Items	Une	certair	nty
Output Power measurement	+/-	1	dB
ERP/ EIRP measurement	+/-	3	dB
	+/-	3	dB
Emission Bandwidth	+/-	1.53	Hz
Undesignable radiated emission measurement	+/-	1.68	dB
Peak to Average Ratio	+/-	1	dB
Frequency Stability vs. Temperature	+/-	1.53	Hz
Frequency Stability vs. Voltage	+/-	1.53	Hz
Temperature	+/-	0.4	°C
Humidity	+/-	3.5	%
DC / AC Power Source	+/-	1	%

Radiated Spurious Emission Measurement Uncertainty							
	+/-	2.57	dB	9kHz~30MHz			
Polarization: Vertical	+/-	4.85	dB	30MHz - 1000MHz			
Polarization: vertical	+/-	4.45	dB	1GHz - 18GHz			
	+/-	4.24	dB	18GHz - 40GHz			
	+/-	2.57	dB	9kHz~30MHz			
Polarization: Horizontal	+/-	4.37	dB	30MHz - 1000MHz			
	+/-	4.45	dB	1GHz - 18GHz			
	+/-	4.24	dB	18GHz - 40GHz			

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

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#### **MEASUREMENT EQUIPMENT USED** 6

#### 6.1 **Conducted Measurement**

Conducted Emission Test Site: Conducted E									
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.				
Radio Communication Analyer	Anritsu	MT8821C	6262044732	12/29/2021	12/28/2022				

#### 6.2 **Radiated Measurement**

	Radiated Emission Test Site: SAC D							
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.			
Broadband Antenna	SCHWARZBECK	VULB 9168	9168-300	10/19/2021	10/18/2022			
Broadband Antenna	SCHWARZBECK	VULB 9168	9168-617	11/12/2021	11/11/2022			
Horn Antenna	Schwarzbeck	BBHA9170	184	12/16/2021	12/15/2022			
Horn Antenna	Schwarzbeck	BBHA9170	185	08/06/2021	08/05/2022			
Horn Antenna	Schwarzbeck	BBHA9120D	1187	01/06/2022	01/05/2023			
Horn Antenna	Schwarzbeck	BBHA9120D	1341	05/31/2022	05/30/2023			
3m Site NSA	SGS	966 chamber D	N/A	07/12/2021	07/11/2022			
3m Site NSA	SGS	966 chamber D	N/A	07/12/2022	07/11/2023			
Spectrum Analyzer	KEYSIGHT	N9010A	MY57120200	03/24/2022	03/23/2023			
UXM 5G Wireless Test Platform	KEYSIGHT	E7515B	MY60192462	12/21/2021	12/20/2022			
Test Software	audix	e3	E3 20923 SGS Ver.9 ( C )	N.C.R	N.C.R			
Pre-Amplifier	EMC Instruments	EM26400	971576	10/02/2021	10/01/2022			
Pre-Amplifier	EMC Instruments	EMC9135	980234	11/18/2021	11/17/2022			
Pre-Amplifier	EMC Instruments	EMC12630SE	980273	11/18/2021	11/17/2022			
Coaxial Cable	Huber+Suhner	RG 214/U	W21.01	11/18/2021	11/17/2022			
Coaxial Cable	Huber Suhner	EMC106-SM-SM-7200	150703	11/18/2021	11/17/2022			
Coaxial Cable	Huber Suhner	SUCOFLEX 104	MY17413/4	11/18/2021	11/17/2022			

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# 7 MAXIMUM OUTPUT POWER MEASUREMENT

## 7.1 Standard Applicable

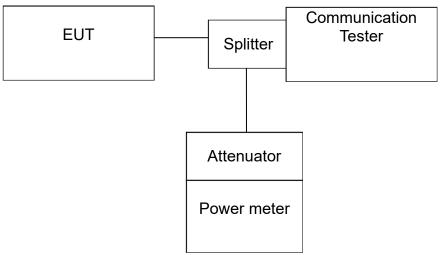
FCC §2.1046 & 96.41

- (a) FCC 96.41(a) Digital modulation. Systems operating in the Citizens Broadband Radio Service must use digital modulation techniques.
- (b) FCC 96.41(b) Power limits. Unless otherwise specified in this section, the maximum effective iso tropic radiated power (EIRP) of any CBSD and End User Device must comply with the limits shown in the table in this paragraph (b):

Device	Maximum EIRP (dBm/10 MHz)
End User Device	23
Category A CBSD	30
Category B CBSD <sup>1</sup>	47

Category B CBSDs will only be authorized for use after an ESC is approved and commercially deployed consistent with §§96.15 and 96.67.

## 7.2 Test Set-up



Note: Measurement setup for testing on Antenna connector

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### 7.3 Measurement Procedure

The transmitter output was connected to a calibrated attenuator, the other end of which was connected to a power meter. Transmitter output was read off the power meter in dBm. The power output at the transmitter antenna port was determined by adding the value of the attenuator to the power meter reading.

### **Determining ERP and/or EIRP from conducted RF output power measurements** ERP/EIRP = PMeas + GT-LC

Where:

ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as PMeas, typically dBW or dBm);

PMeas = measured transmitter output power or PSD, in dBm or dBW;

GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

LC = signal attenuation in the connecting cable between the transmitter and antenna, in dB.2

For devices utilizing multiple antennas, KDB 662911 provides guidance for determining the effective array transmit antenna gain term to be used in the above equation.

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#### 7.4 **Measurement Result:**

Antenna	gain (dBi)	-2.47	]							
			LTE Band 48_Up	olink freq	luency ba	and : 3550 to 370	0 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dBm)	
	55265	3552.5	QP5K	1	0 24	18.26 18.12	15.79 15.65	23 23	-7.21 -7.35	
	33203	3332.5	u-ak	12 25	6 0	17.97 18.20	15.50 15.73	23 23	-7.5 -7.27	
5	55990	3625	QPSK	1 1 12	0 24 6	18.13 18.01 17.98	15.66 15.54 15.51	23 23 23	-7.34 -7.46 -7.49	
				25 1	0 0 24	18.07 18.23 18.06	15.60 15.76 15.59	23 23 23	-7.4 -7.24 -7.41	
	56715	3697.5	QPSK	12 25	24 6 0	18.00	15.53	23 23 23	-7.41 -7.47 -7.39	
	55265	3552.5	16QAM	1 1 12	0 24 6	18.10 18.02 18.19	15.63 15.55 15.72	23 23 23	-7.37 -7.45 -7.28	
				25	0	18.03	15.56	23 23 23	-7.44	
5	55990	3625	16QAM	1 12 25	24 6 0	18.05 18.05 17.97	15.58 15.58 15.50	23 23 23	-7.42 -7.42 -7.5	
	56715	3697.5	3697.5	16QAM	1 1 12	0 24 6	18.02 18.06 18.04	15.55 15.59 15.57	23 23 23	-7.45 -7.41 -7.43
				25 1	0	18.15 18.05	15.68 15.58	23 23	-7.32 -7.42	
	55265	3552.5	64QAM	1 12 25	24 6 0	18.13 18.09 18.04	15.66 15.62 15.57	23 23 23	-7.34 -7.38 -7.43	
5	55990	3625	64QAM	1 1 12	0 24 6	18.01 17.96 18.19	15.54 15.49 15.72	23 23 23	-7.46 -7.51 -7.28	
				25 1	0	18.11 18.19	15.64 15.72	23 23	-7.36 -7.28	
	56715	3697.5	64QAM	1 12 25	24 6 0	18.15 18.14 18.11	15.68 15.67 15.64	23 23 23	-7.32 -7.33 -7.36	
	55265	3552.5	256QAM	1 1 12	0 24 6	18.06 18.07 18.09	15.59 15.60 15.62	23 23 23	-7.41 -7.4 -7.38	
5	55990	3625	256QAM	25 1 1	0 0 24	18.15 18.19 17.98	15.68 15.72 15.51	23 23 23	-7.32 -7.28 -7.49	
5				12 25 1	6 0 0	18.09 18.08 18.15	15.62 15.61 15.68	23 23 23	-7.38 -7.39 -7.32	
	56715	3697.5	256QAM	1 12 25	24 6 0	18.10 18.09 18.11	15.63 15.62 15.64	23 23 23	-7.37 -7.38 -7.36	

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Antenna	gain (dBi)	-2.47	]						
			LTE Band 48_Up	plink freq	luency ba	and : 3550 to 370	0 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dBm)
				1	0 49	18.28 18.16	15.81 15.69	23 23	-7.19 -7.31
	55290	3555	QPSK	25 50	12 0	18.03 18.22	15.56 15.75	23 23	-7.44
10	56170	3643	QP5K	1	0 49	18.13 18.03	15.66 15.56	23 23	-7.34 -7.44
				25 50 1	12 0 0	18.01 18.08 18.21	15.54 15.61 15.74	23 23 23	-7.46 -7.39 -7.26
	56690	3695	QP5K	1 25	49 12	18.08 18.01	15.61 15.54	23 23	-7.39 -7.46
				50 1 1	0 49	18.14 18.15 18.04	15.67 15.68 15.57	23 23 23	-7.33 -7.32 -7.43
	55290	3555	16QAM	25 50	12 0	18.17 18.05	15.70 15.58	23 23	-7.3 -7.42
10	56170	3643	16QAM	1 1 25	0 49 12	18.19 18.07 18.04	15.72 15.60 15.57	23 23 23	-7.28 -7.4 -7.43
				50 1 1	0 49	18.00 18.04 18.10	15.53 15.57 15.63	23 23 23	-7.47 -7.43 -7.37
	56690	3695	16QAM	25 50	12 0	18.09 18.16	15.62 15.69	23 23	-7.38 -7.31
	55290	3555	64QAM	1 1 25	0 49 12	18.05 18.16 18.10	15.58 15.69 15.63	23 23 23	-7.42 -7.31 -7.37
10	56170	3643	64QAM	50 1 1	0 0 49	18.06 18.08 17.99	15.59 15.61 15.52	23 23 23	-7.41 -7.39 -7.48
10	30170	0040	0+4000	25 50 1	12 0 0	18.21 18.10 18.17	15.74 15.63 15.70	23 23 23	-7.26 -7.37 -7.3
	56690	3695	64QAM	1 25	49 12	18.18 18.11	15.71 15.64	23 23	-7.29 -7.36
	55290	3555	256QAM	50 1 1	0 49 12	18.12 18.06 18.08	15.65 15.59 15.61	23 23 23	-7.35 -7.41 -7.39
				25 50 1	12 0 0	18.12 18.12 18.22	15.65 15.65 15.75	23 23 23	-7.35 -7.35 -7.25
10	56170	3643	256QAM	1 25 50	49 12 0	18.02 18.16 18.07	15.55 15.69 15.60	23 23 23	-7.45 -7.31 -7.4
	56690 3695 23		256QAM	1	0 49	18.15 18.14	15.68 15.67	23 23	-7.32 -7.33
				25 50	12 0	18.10 18.09	15.63 15.62	23 23	-7.37 -7.38

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Antenna	gain (dBi)	-2.47							
			LTE Band 48_U	plink freq	luency ba	and : 3550 to 370	0 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dBm)
				1	0	18.36	15.89	23	-7.11
				1	74	18.21	15.74	23	-7.26
	55315	3557.5	QPSK	36	18	18.09	15.62	23	-7.38
				75	0	18.26	15.79	23	-7.21
				1	0	18.19	15.72	23	-7.28
15	56160	3642	QPSK	1	74	18.10	15.63	23	-7.37
10	20100	3042	QPOK	36	18	18.04	15.57	23	-7.43
				75	0	18.13	15.66	23	-7.34
				1	0	18.31	15.84	23	-7.16
	56665	3692.5	QPSK	1	74	18.14	15.67	23	-7.33
	30003	3052.3	QF-SK	36	18	18.05	15.58	23	-7.42
				75	0	18.15	15.68	23	-7.32
				1	0	18.17	15.70	23	-7.3
	55315	3557.5	16QAM	1	74	18.09	15.62	23	-7.38
	33313	0001.0	105phill	36	18	18.22	15.75	23	-7.25
				75	0	18.11	15.64	23	-7.36
				1	0	18.26	15.79	23	-7.21
15	56160	3642	16QAM	1	74	18.10	15.63	23	-7.37
19	5 56160 3642	105phill	36	18	18.06	15.59	23	-7.41	
				75	0	18.05	15.58	23	-7.42
				1	0	18.10	15.63	23	-7.37
	56665	3692.5	16QAM	1	74	18.15	15.68	23	-7.32
		0052.0	105phill	36	18	18.15	15.68	23	-7.32
				75	0	18.24	15.77	23	-7.23
				1	0	18.11	15.64	23	-7.36
	55315	3557.5	64QAM	1	74	18.23	15.76	23	-7.24
	00010	0001.0	64QAM	36	18	18.16	15.69	23	-7.31
				75	0	18.15	15.68	23	-7.32
				1	0	18.10	15.63	23	-7.37
15	56160	3642	64QAM	1	74	18.06	15.59	23	-7.41
				36	18	18.26	15.79	23	-7.21
				75	0	18.14	15.67	23	-7.33
				1	0	18.23	15.76	23	-7.24
	56665	3692.5	64QAM	1	74	18.25	15.78	23	-7.22
				36	18	18.21	15.74	23	-7.26
				75	0	18.14	15.67	23	-7.33
				1	0	18.14	15.67	23	-7.33
	55315	3557.5	256QAM	1	74	18.16	15.69	23	-7.31
	55315 3557.5		36	18	18.20	15.73	23	-7.27	
			75	0	18.18	15.71	23	-7.29	
				1	0	18.24	15.77	23	-7.23
15	56160	3642	256QAM	1	74	18.08	15.61	23	-7.39
	56160 3642		36	18	18.20	15.73	23	-7.27	
				75	0	18.14	15.67	23	-7.33
			- <u> </u>	1	0	18.19	15.72	23	-7.28
	56665	3692.5	2560AM	1	74	18.15	15.68	23	-7.32
00000			256QAM	36	18	18.17	15.70	23	-7.3
				75	0	18.13	15.66	23	-7.34

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Antenna	gain (dBi)	-2.47							
			LTE Band 48_U	plink freq	juency ba	ind : 3550 to 370	0 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dBm)
				1	0	18.38	15.91	23	-7.09
				1	99	18.20	15.73	23	-7.27
	55340	3560	QPSK	50	25	18.08	15.61	23	-7.39
				100	0	18.25	15.78	23	-7.22
				1	0	18.43	15.96	23	-7.04
~			oper	1	99	18.12	15.65	23	-7.35
20	56150	3641	QPSK	50	25	18.04	15.57	23	-7.43
				100	0	18.16	15.69	23	-7.31
				1	0	18.39	15.92	23	-7.08
				1	99	18.11	15.64	23	-7.36
	56640	3690	QP5K	50	25	18.05	15.58	23	-7.42
				100	0	18.19	15.72	23	-7.28
				1	0	18.20	15.73	23	-7.27
				1	99	18.06	15.59	23	-7.41
	55340	3560	16QAM	50	25	18.22	15.75	23	-7.25
				100	0	18.08	15.61	23	-7.39
				1	0	18.26	15.79	23	-7.21
				1	99	18.14	15.67	23	-7.33
20	56150	3641	16QAM	50	25	18.11	15.64	23	-7.36
				100	0	18.04	15.57	23	-7.43
				1	0	18.13	15.66	23	-7.34
				1	99	18.13	15.66	23	-7.34
	56640	3690	16QAM	50	25	18.12	15.65	23	-7.35
				100	0	18.26	15.79	23	-7.21
				1	0	18.12	15.65	23	-7.35
				1	99	18.20	15.73	23	-7.27
	55340	3560	64QAM	50	25	18.14	15.67	23	-7.33
				100	0	18.15	15.68	23	-7.32
				1	0	18.07	15.60	23	-7.4
				1	99	18.05	15.58	23	-7.42
20	56150	3641	64QAM	50	25	18.24	15.77	23	-7.23
				100	0	18.19	15.72	23	-7.28
				1	0	18.23	15.76	23	-7.24
				1	99	18.25	15.78	23	-7.22
	56640	3690	64QAM	50	25	18.22	15.75	23	-7.25
				100	0	18.14	15.67	23	-7.33
				1	0	18.14	15.67	23	-7.33
				1	99	18.15	15.68	23	-7.32
	55340	3560	256QAM	50	25	18.18	15.71	23	-7.29
				100	0	18.23	15.76	23	-7.24
				1	0	18.28	15.81	23	-7.19
				1	99	18.10	15.63	23	-7.37
20	56150	3641	256QAM	50	25	18.21	15.74	23	-7.26
			100	0	18.15	15.68	23	-7.32	
				1	0	18.21	15.74	23	-7.26
				1	99	18.20	15.74	23	-7.20
	56640 36		256QAM	50	25	18.17	15.70	23	-7.3
				100	0		15.67	23	-7.33
				100	U	18.14	10.07	23	-1.33

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Part 27_EIRP	PLimit (dBn	n/10MHz)	23		OUTPUT POWER FOR LTE BAND 48C (10MHz + 20MHz)								
Antenna Gaiı	n		-2.47	-						400 (10			
	PC	C	SC	C1			20		:C1	Conducte	EIRP	EIRP	
Bandwidth					Modulation		B	-	B	d	Average	Average	
	Earfcn	MHz	Earfcn	MHz		Size	Offset	Size	Offset	Total	(dBm/10MHz)	(W/10MHz)	
	55295	3555.5	55439	3569.9	QPSK	1	49	1	0	17.74	15.27	0.034	
						50	0	100	0	17.61	15.14	0.033	
10MHz+	55896	3615.6	56040	3630.0	QPSK	1	49	1	0	17.84	15.37	0.034	
20MHz						50	0	100	0	17.73	15.26	0.034	
	56496	3675.6	56640	3690.0	QPSK	1	49	1	0	17.83	15.36	0.034	
						50	0	100	0	17.71	15.24	0.033	
	55295	3555.5	55439	3569.9	16QAM	1	49	1	0	17.63	15.16	0.033	
	00200	0000.0	00400	0000.0	1002/101	50	0	100	0	17.54	15.07	0.032	
10MHz+	55896	3615.6	56040	3630.0	16QAM	1	49	1	0	17.68	15.21	0.033	
20MHz	55050	5015.0	500+0	5050.0	IUQAN	50	0	100	0	17.64	15.17	0.033	
	56496	3675.6	56640	3690.0 16QAM	1	49	1	0	17.72	15.25	0.033		
	50450	5075.0	50040	5050.0	IUQAM	50	0	100	0	17.64	15.17	0.033	
	55295	3555.5	55439	3569.9	64QAM	1	49	1	0	17.59	15.12	0.033	
	55255	5555.5	00400	5505.5	040/10	50	0	100	0	17.58	15.11	0.032	
10MHz+	55896	3615.6	56040	3630.0	64QAM	1	49	1	0	17.63	15.16	0.033	
20MHz	55050	5015.0	50040	5050.0	040/10	50	0	100	0	17.65	15.18	0.033	
	56496	3675.6	56640	3690.0	64QAM	1	49	1	0	17.62	15.15	0.033	
	50490	3075.0	50040	3090.0	04QAW	50	0	100	0	17.62	15.15	0.033	
	55295	3555.5	55439	3569.9	256QAM	1	49	1	0	17.51	15.04	0.032	
	00290	5555.5	00409	5509.9	ZUUQAW	50	0	100	0	17.53	15.06	0.032	
10MHz+	55896	3615.6	56040	3630.0	256QAM	1	49	1	0	17.59	15.12	0.033	
20MHz	00090	3013.0	50040	3030.0	ZUQAW	50	0	100	0	17.63	15.16	0.033	
	56496	3675.6	56640	3690.0	256QAM	1	49	1	0	17.65	15.18	0.033	
	00490	3075.0	00040	3090.0	ZUQAW	50	0	100	0	17.59	15.12	0.033	

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Part 27_ EIRP	Limit (dBm/	10MHz)	23		OUTPUT POWER FOR LTE BAND 48C (15MHz + 20MHz)								
Antenna Gain			-2.47	2								_	
	PC	C C	SC	C1			CC	SC		Conducted	EIRP	EIRP	
Bandwidth	Farfar		<b>F</b> (		Modulation	R Size	RB		B Offset	Average		Average	
	Earfon	MHz	Earfon	MHz			Offset 74	Size 1	0 0	Total	(dBm/10MHz)	(W/10MHz)	
	55318	3557.8	55489	3574.9	QPSK	1 75	0	100	0	17.68	15.21 15.12	0.033	
151.01						15	74	100	0	17.59		0.033	
15MHz+	55893	3615.3	56064	3632.4	QPSK	75		100	0	17.82 17.71	15.35	0.034	
20MHz							0	100	-		15.24	0.033	
	56469	3672.9	56640	3690.0	QPSK	1 75	74		0	17.88	15.41	0.035	
						L	0	100	0	17.82	15.35	0.034	
	55318	3557.8	55489	3574.9	16QAM	1	74		0	17.55	15.08	0.032	
45.41						75	0	100	0	17.54	15.07	0.032	
15MHz+	55893	3615.3	56064	3632.4 16QAM	1	74	1	0	17.65	15.18	0.033		
20MHz						75	0	100	0	17.62	15.15	0.033	
	56469	3672.9	56640	3690.0	16QAM	1	74		0	17.76	15.29	0.034	
						75	0	100	0	17.69	15.22	0.033	
	55318	3557.8	55489	3574.9	64QAM	1	74	1	0	17.49	15.02	0.032	
15.00						75	0	100	0	17.54	15.07	0.032	
15MHz+	55893	3615.3	56064	3632.4	64QAM	1	74	1	0	17.67	15.20	0.033	
20MHz						75	0	100	0	17.64	15.17	0.033	
	56469	3672.9	56640	3690.0	64QAM	1	74	1	0	17.70	15.23	0.033	
						75	0	100	0	17.71	15.24	0.033	
	55318	3557.8	55489	3574.9	256QAM	1	74	1	0	17.48	15.01	0.032	
15.00						75	0	100	0	17.44	14.97	0.031	
15MHz+	55893	3615.3	56064	3632.4	256QAM	1	74	1	0	17.62	15.15	0.033	
20MHz					4 230QAM	75	0	100	0	17.54	15.07	0.032	
	56469	3672.9	56640	3690.0	256QAM	1	74	1	0	17.67	15.20	0.033	
						75	0	100	0	17.61	15.14	0.033	

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Part 27_EIRF	•	n/10MHz)	23					) I TE		190 /201	MHz + 20M	U)
Antenna Gair	n		-2.47									
	PC	C	SC	C1			20		:C1	Conducted	EIRP	EIRP
Bandwidth	- /		- /		Modulation		B	RB		Average	Average	Average
	Earfcn	MHz	Earfcn	MHz		Size	Offset	Size	Offset		(dBm/10MHz)	(W/10MHz)
	55340	3560.0	55538	3579.8	QPSK	1	99	1	0	17.84	15.37	0.034
						100	0	100	0	17.76	15.29	0.034
20MHz+	55891	3615.1	56089	3634.9	QPSK	1	99	1	0	17.89	15.42	0.035
20MHz						100	0	100	0	17.80	15.33	0.034
	56442	3670.2	56640	3690.0 QPSK		1	99	1	0	17.79	15.32	0.034
						100	0	100	0	17.66	15.19	0.033
	55340	3560.0	55538	3579.8	16QAM	1	99	1	0	17.73	15.26	0.034
	00010	0000.0	00000	0010.0	i o q/ m	100	0	100	0	17.70	15.23	0.033
20MHz+	55891	3615.1	56089	3634.9 16QAM	1	99	1	0	17.73	15.26	0.034	
20MHz	00001	0010.1	00000	0004.0	3634.9 16QAM	100	0	100	0	17.69	15.22	0.033
	56442	3670.2	56640	3600.0	3690.0 16QAM	1	99	1	0	17.65	15.18	0.033
	30442	5070.2	500+0	5050.0	IUQAW	100	0	100	0	17.60	15.13	0.033
	55340	3560.0	55538	3579.8	64QAM	1	99	1	0	17.66	15.19	0.033
	000+0	5500.0	00000	0070.0		100	0	100	0	17.67	15.20	0.033
20MHz+	55891	3615.1	56089	3634.9	64QAM	1	99	1	0	17.71	15.24	0.033
20MHz	55051	5015.1	30003	5054.5		100	0	100	0	17.69	15.22	0.033
	56442	3670.2	56640	3690.0	64QAM	1	99	1	0	17.62	15.15	0.033
	J0442	3070.2	50040	3090.0		100	0	100	0	17.59	15.12	0.033
	55340	3560.0	55538	3579.8	256QAM	1	99	1	0	17.60	15.13	0.033
	00040	3300.0	00000	3319.0	ZUUQAW	100	0	100	0	17.56	15.09	0.032
20MHz+	55891	3615.1	56089	3634.9	4.9 256QAM	1	99	1	0	17.65	15.18	0.033
20MHz	00091	3013.1	00009	5054.9		100	0	100	0	17.63	15.16	0.033
	56442	3670.2	56640	3690.0	256QAM	1	99	1	0	17.56	15.09	0.032
	0044Z	30/0.2	20040	2090.0	ZOOQAW	100	0	100	0	17.52	15.05	0.032

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# 8 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT

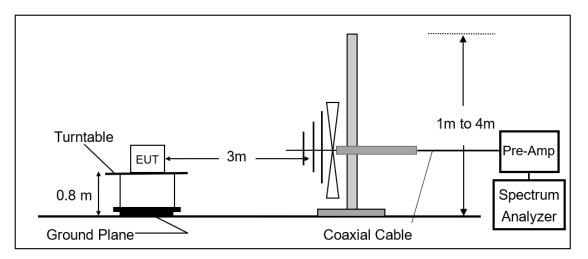
### 8.1 Standard Applicable

FCC Part 2.1053, Part 96.41, C63.26 Clause 5.7

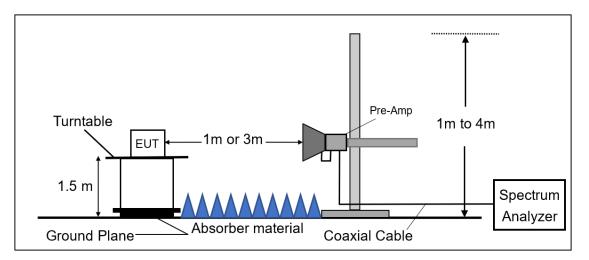
- within 0 MHz to 10 MHz above and below the assigned channel ≤ -13 dBm/MHz
- 2. greater than 10 MHz above and below the **assigned channel**  $\leq$  -25 dBm/MHz
- 3. any emission below 3530 MHz and above 3720 MHz ≤ -40 dBm/MHz

### 8.2 EUT Setup

Radiated Emission Test Set-Up, Frequency From 30MHz to 1000MHz.



Radiated Emission Test Set-Up, Frequency Above 1GHz.



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### 8.3 Measurement Procedure:

The EUT was placed on a non-conductive; the measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

The frequency range up to tenth harmonic was investigated for each of three fundamental frequencies (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method.

The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency.

ERP (dBm) = SG Level(dBm) + Antenna Gain(dBd) + Cable Loss(dB)

EIRP (dBm) = SG Level(dBm) + Antenna Gain(dBi) + Cable Loss(dB)

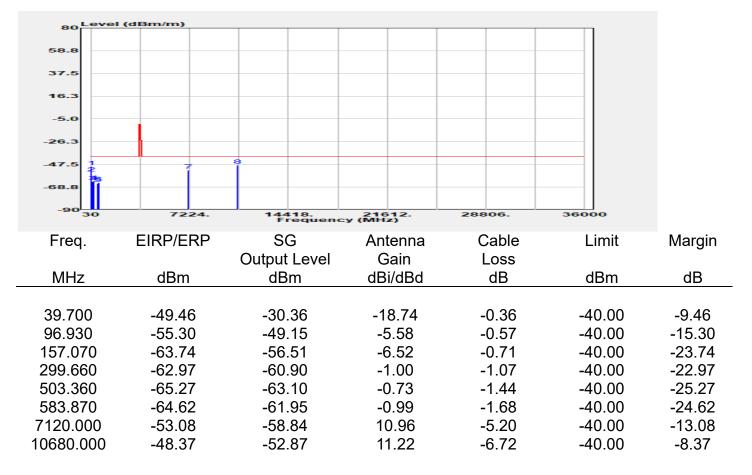
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#### 8.4 Measurement Result:

Report Number	:TERF2206000815E2	Test Site	:SAC D
Operation Mode	:LTE B48	Test Date	:2022-06-22
Test Mode	:TX	Temp./Humi.	:23.8/68
EUT Pol	:NB Plane	Antenna Pol.	:Vertical
Test Frequency	:3560 MHz	Engineer	:Howard Huang



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Report Number Operation Mode Test Mode EUT Pol Test Frequency	:LTE B48 :TX :NB Plane	000815E2	Test Terr Ante	t Date :2 np./Humi. :2 enna Pol. :H	SAC D 2022-06-22 23.8/68 Horizontal Howard Huang	
80 Level ( 58.8 37.5 16.3 -5.0 -26.3 -47.5 -68.8 -90 30	1Bm/m)	8 8 14418. Frequency	21612. y (MHZ)	28806.	36000	
Freq. MHz	EIRP/ERP dBm	SG Output Level dBm	Antenna Gain dBi/dBd	Cable Loss dB	Limit dBm	Margin dB
36.790 101.780 175.500 224.970 284.140 504.330 7120.000 10680.000	-50.41 -65.71 -69.20 -67.82 -67.68 -68.00 -53.98 -49.10	-31.09 -59.20 -63.77 -67.23 -65.62 -65.83 -59.74 -53.60	-18.97 -5.92 -4.65 0.30 -1.05 -0.76 10.96 11.22	-0.35 -0.59 -0.78 -0.89 -1.01 -1.41 -5.20 -6.72	-40.00 -40.00 -40.00 -40.00 -40.00 -40.00 -40.00 -40.00	-10.41 -25.71 -29.20 -27.82 -27.68 -28.00 -13.98 -9.10

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Report Number	:TERF2206000815E2	Te
Operation Mode	:48C	Te
Test Mode	:TX	Te
EUT Pol	:NB Plane	A
Test Frequency	:3615.1 MHz+3634.9 MHz	E

Test Site	:SAC D
Test Date	:2022-07-14
Temp./Humi.	:24.3/66
Antenna Pol.	:Vertical
Engineer	:Howard Huang

(dBm/m)					
	-190				
7224.	14418. Frequency	21612. y (MHz)	28806.	36000	
EIRP/ERP	SG	Antenna	Cable	Limit	Margin
	Output Level	Gain	Loss		-
dBm	dBm	dBi/dBd	dB	dBm	dB
					-6.07
-59.55	-53.55	-5.43	-0.57	-40.00	-19.55
-65.57	-63.87	-0.86	-0.84	-40.00	-25.57
-64 04	-61 97	-1.00	-1.07	-40.00	-24.04
-00-	01.01				
-63.70	-61.19	-1.18	-1.33	-40.00	-23.70
-63.70	-61.19	-1.18	-1.33	-40.00	-23.70
-63.70 -66.16	-61.19 -62.83	-1.18 -1.48	-1.33 -1.85	-40.00 -40.00	-23.70 -26.16
-63.70 -66.16 -52.18	-61.19 -62.83 -57.72	-1.18 -1.48 10.80	-1.33 -1.85 -5.26	-40.00 -40.00 -40.00	-23.70 -26.16 -12.18
	-46.07 -59.55 -65.57	7224       1418         7224       1418         EIRP/ERP       SG         Output Level       000000000000000000000000000000000000	7224       14118       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1<	7224.       111118:       28806.         FIRP/ERP       SG       Antenna       Cable         Output Level       Gain       Loss         dBm       dBm       dBi/dBd       dB         -46.07       -25.83       -19.92       -0.32         -59.55       -53.55       -5.43       -0.57         -65.57       -63.87       -0.86       -0.84	7224       11119       28805       36000         FIRP/ERP       SG       Antenna       Cable       Limit         Output Level       Gain       Loss       dBm         dBm       dBm       dBm       dBm       dBm         -46.07       -25.83       -19.92       -0.32       -40.00         -59.55       -53.55       -5.43       -0.57       -40.00         -65.57       -63.87       -0.86       -0.84       -40.00

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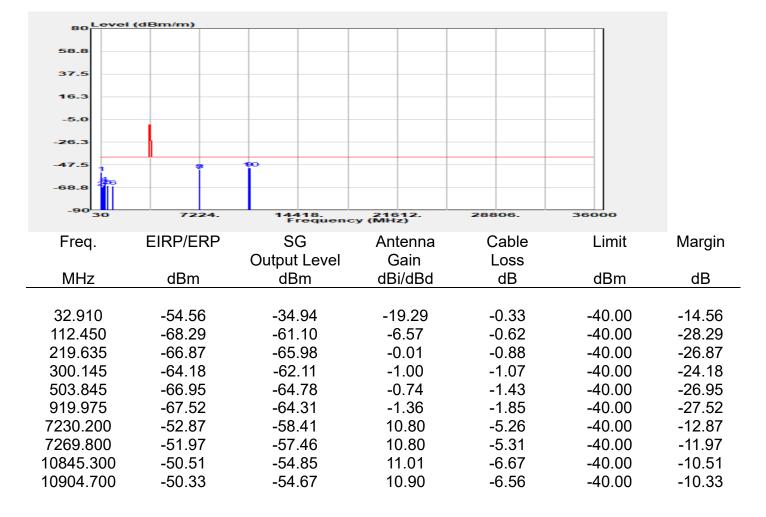
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Report Number	:TERF2206000815E2
Operation Mode	:48C
Test Mode	:TX
EUT Pol	:NB Plane
Test Frequency	:3615.1 MHz+3634.9 MHz

Test Site	:SAC D
Test Date	:2022-07-14
Temp./Humi.	:24.3/66
Antenna Pol.	:Horizontal
Engineer	:Howard Huang



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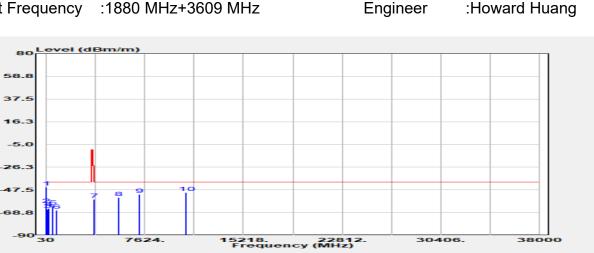
:SAC D

:24.5/65 :Vertical

:2022-07-22



Report Number	:TERF2206000815E2	Test Site
<b>Operation Mode</b>	:2A-48A	Test Date
Test Mode	:TX	Temp./Humi.
EUT Pol	:NB Plane	Antenna Pol.
Test Frequency	:1880 MHz+3609 MHz	Engineer



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
30.970	-44.69	-24.45	-19.92	-0.32	-40.00	-4.69
96.445	-60.83	-54.83	-5.43	-0.57	-40.00	-20.83
204.115	-65.65	-63.97	-0.84	-0.84	-40.00	-25.65
299.660	-65.04	-62.97	-1.00	-1.07	-40.00	-25.04
595.025	-62.88	-60.37	-1.15	-1.36	-40.00	-22.88
908.335	-66.74	-63.58	-1.24	-1.92	-40.00	-26.74
3760.000	-56.26	-64.92	12.40	-3.74	-40.00	-16.26
5640.000	-54.45	-62.70	13.00	-4.75	-40.00	-14.45
7218.000	-51.50	-57.03	10.80	-5.27	-40.00	-11.50
10827.000	-50.06	-54.41	11.05	-6.70	-40.00	-10.06

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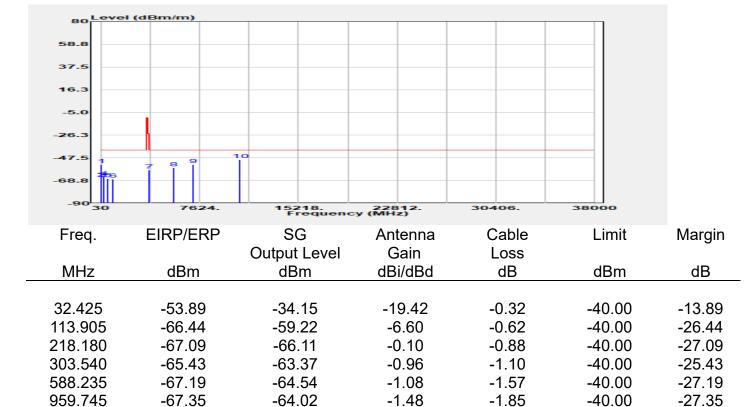
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SGS Taiwanil td.



Report Number	:TERF2206000815E2	Test Site
Operation Mode	:2A-48A	Test Date
Test Mode	:TX	Temp./Humi.
EUT Pol	:NB Plane	Antenna Pol.
Test Frequency	:1880 MHz+3609 MHz	Engineer

Test Site	:SAC D
Test Date	:2022-07-22
Temp./Humi.	:24.5/65
Antenna Pol.	:Horizontal
Engineer	:Howard Huang



12.40

13.00

10.96

11.22

-3.74

-4.75

-5.20

-6.72

-40.00

-40.00

-40.00

-40.00

-18.87

-16.61

-13.98

-9.10

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-67.53

-64.86

-59.74

-53.60

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3760.000

5640.000

7120.000

10680.000

-58.87

-56.61

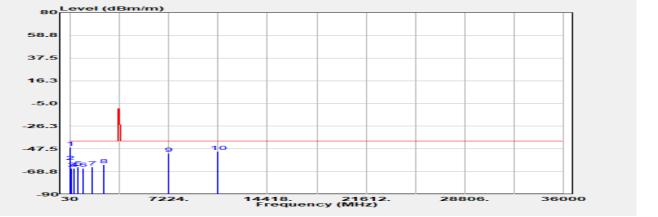
-53.98

-49.10



Report Number	:TERF2206000815E2	Test Site
Operation Mode	:5A-48A	Test Date
Test Mode	:TX	Temp./Hum
EUT Pol	:NB Plane	Antenna Po
Test Frequency	:836.5 MHz+3609 MHz	Engineer

Test Site	:SAC D
Test Date	:2022-07-22
Temp./Humi.	:24.5/65
Antenna Pol.	:Vertical
Engineer	:Howard Huang



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
30.970	-45.93	-25.69	-19.92	-0.32	-40.00	-5.93
110.025	-45.95	-52.20	-6.60	-0.52	-40.00	-19.41
203.145	-65.86	-64.14	-0.88	-0.84	-40.00	-25.86
310.815	-65.52	-63.38	-1.00	-1.14	-40.00	-25.52
588.720	-64.38	-61.74	-1.09	-1.55	-40.00	-24.38
994.665	-65.88	-62.76	-1.18	-1.94	-40.00	-25.88
1673.000	-64.56	-71.61	9.55	-2.50	-40.00	-24.56
2509.500	-62.10	-69.66	10.62	-3.06	-40.00	-22.10
7218.000	-51.69	-57.22	10.80	-5.27	-40.00	-11.69
10827.000	-49.75	-54.10	11.05	-6.70	-40.00	-9.75

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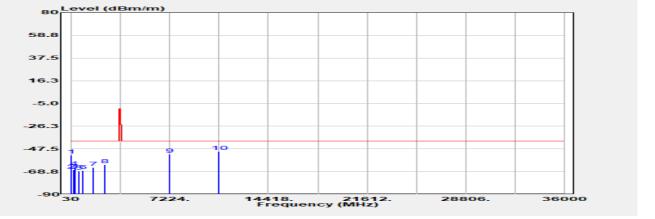
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GS Taiwanil td.



Report Number	:TERF2206000815E2	Test Site
Operation Mode	:5A-48A	Test Date
Test Mode	:TX	Temp./H
EUT Pol	:NB Plane	Antenna
Test Frequency	:836.5 MHz+3609 MHz	Enginee

Test Site	:SAC D
Test Date	:2022-07-22
Temp./Humi.	:24.5/65
Antenna Pol.	:Horizontal
Engineer	:Howard Huang



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
32.910	-53.16	-33.54	-19.29	-0.33	-40.00	-13.16
110.995	-67.30	-60.36	-6.33	-0.61	-40.00	-27.30
220.605	-67.02	-66.19	0.05	-0.88	-40.00	-27.02
300.145	-64.46	-62.39	-1.00	-1.07	-40.00	-24.46
587.265	-68.32	-65.68	-1.05	-1.59	-40.00	-28.32
956.350	-67.66	-64.45	-1.38	-1.83	-40.00	-27.66
1673.000	-64.87	-71.92	9.55	-2.50	-40.00	-24.87
2509.500	-62.41	-69.97	10.62	-3.06	-40.00	-22.41
7218.000	-52.36	-57.89	10.80	-5.27	-40.00	-12.36
10827.000	-50.10	-54.45	11.05	-6.70	-40.00	-10.10

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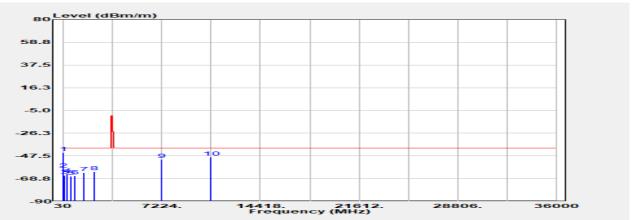
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GS Taiwanil td.



:TERF2206000815E2	Test Site	:SAC D
:13A-48A	Test Date	:2022-07-22
:TX	Temp./Humi.	:24.5/65
:NB Plane	Antenna Pol.	:Vertical
:782 MHz+3609 MHz	Engineer	:Howard Huang
	:TERF2206000815E2 :13A-48A :TX :NB Plane :782 MHz+3609 MHz	:13A-48ATest Date:TXTemp./Humi.:NB PlaneAntenna Pol.



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
31.455	-44.29	-24.23	-19.74	-0.32	-40.00	-4.29
95.475	-59.75	-53.84	-5.34	-0.57	-40.00	-19.75
202.660	-65.88	-64.14	-0.90	-0.84	-40.00	-25.88
330.700	-64.46	-62.48	-0.77	-1.21	-40.00	-24.46
601.815	-66.59	-64.07	-1.32	-1.20	-40.00	-26.59
912.700	-66.33	-63.14	-1.29	-1.90	-40.00	-26.33
1564.000	-63.33	-70.10	9.18	-2.41	-40.00	-23.33
2346.000	-62.13	-68.77	9.58	-2.94	-40.00	-22.13
7218.000	-50.80	-56.33	10.80	-5.27	-40.00	-10.80
10827.000	-48.51	-52.86	11.05	-6.70	-40.00	-8.51

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SGS Taiwanil td.

:SAC D

:24.5/65 :Horizontal

:2022-07-22



Report Number	:TERF2206000815E2	Test Site
Operation Mode	:13A-48A	Test Date
Test Mode	:TX	Temp./Humi.
EUT Pol	:NB Plane	Antenna Pol.
Test Frequency	:782 MHz+3609 MHz	Engineer

est Frequency	:782 MHz+360	9 MHz	Eng	ineer	:Howard Huang
80 Level (d	Bm/m)				
58.8					
37.5					
16.3					
-5.0					
-26.3					
-47.5	9 10				
-68.8 2 <sup>5578</sup>					
-90 30	7224.	14418. Frequenc	21612. v (MHz)	28806	. 36000

Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
32.910	-53.92	-34.30	-19.29	-0.33	-40.00	-13.92
107.600	-68.35	-61.45	-6.30	-0.60	-40.00	-28.35
222.060	-67.90	-67.15	0.13	-0.88	-40.00	-27.90
314.695	-66.14	-64.01	-0.97	-1.16	-40.00	-26.14
587.265	-67.28	-64.64	-1.05	-1.59	-40.00	-27.28
955.380	-67.40	-64.23	-1.35	-1.82	-40.00	-27.40
1564.000	-64.47	-71.24	9.18	-2.41	-40.00	-24.47
2346.000	-62.54	-69.18	9.58	-2.94	-40.00	-22.54
7218.000	-51.44	-56.97	10.80	-5.27	-40.00	-11.44
10827.000	-49.16	-53.51	11.05	-6.70	-40.00	-9.16

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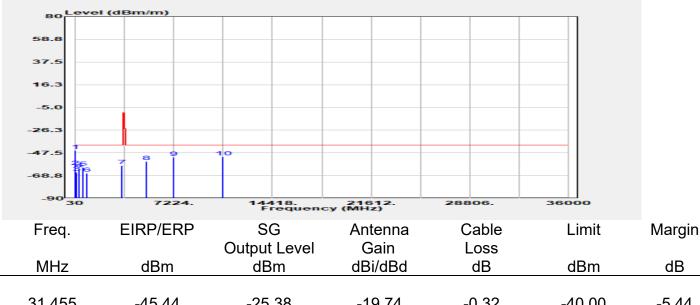
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Report Number	:TERF2206000815E2	Test Site	:SAC D
Operation Mode	:48A-66A	Test Date	:2022-07-22
Test Mode	:TX	Temp./Humi.	:24.5/65
EUT Pol	:NB Plane	Antenna Pol.	:Vertical
Test Frequency	:3609 MHz+1745 MHz	Engineer	:Howard Huang



31.455	-45.44	-25.38	-19.74	-0.32	-40.00	-5.44
95.475	-60.26	-54.35	-5.34	-0.57	-40.00	-20.26
204.600	-65.68	-64.02	-0.82	-0.84	-40.00	-25.68
305.965	-62.37	-60.30	-0.96	-1.11	-40.00	-22.37
590.660	-61.14	-58.52	-1.12	-1.50	-40.00	-21.14
908.820	-66.45	-63.28	-1.25	-1.92	-40.00	-26.45
3490.000	-59.50	-68.31	12.42	-3.61	-40.00	-19.50
5235.000	-55.62	-63.82	12.68	-4.48	-40.00	-15.62
7218.000	-51.68	-57.21	10.80	-5.27	-40.00	-11.68
10827.000	-51.02	-55.37	11.05	-6.70	-40.00	-11.02

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220.120

300.145

490.750

962.655

3490.000

5235.000

7218.000

10827.000

-67.28

-64.23

-71.03

-67.19

-57.99

-56.16

-53.07

-50.07

Report Number	:TERF2206000815E2	Test Site	:SAC D
Operation Mode	:48A-66A	Test Date	:2022-07-22
Test Mode	:TX	Temp./Humi.	:24.5/65
EUT Pol	:NB Plane	Antenna Pol.	:Horizontal
Test Frequency	:3609 MHz+1745 MHz	Engineer	:Howard Huang

a Level	(dBm/m)					
80						
58.8						
37.5						
16.3						
-5.0						
-26.3						
-47.5	7 8 9	10				
-68.8						
-90 30	7224.	14418. Frequenc	21612. y (MHz)	28806.	36000	
Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Mar
		Output Level	Gain	Loss		
MHz	dBm	dBm	dBi/dBd	dB	dBm	dE
31.455	-53.89	-33.83	-19.74	-0.32	-40.00	-13.
109.540	-66.83	-59.76	-6.46	-0.61	-40.00	-26.

0.02

-1.00

-0.66

-1.47

12.42

12.68

10.80

11.05

-0.88

-1.07

-1.64

-1.87

-3.61

-4.48

-5.27

-6.70

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-66.42

-62.16

-68.73

-63.85

-66.80

-64.36

-58.60

-54.42

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-27.28

-24.23

-31.03

-27.19

-17.99

-16.16

-13.07

-10.07

-40.00

-40.00

-40.00

-40.00

-40.00

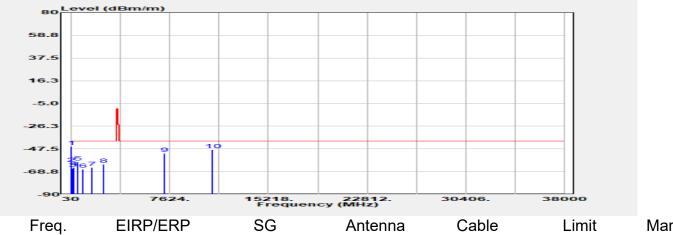
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Report Number	:TERF2206000815E2	Test Site	:8
Operation Mode	:B48A-n5	Test Date	:2
Test Mode	:TX	Temp./Humi.	:2
EUT Pol	:NB Plane	Antenna Pol.	:\
Test Frequency	:3625 MHz+836.5 MHz	Engineer	:⊢

Test Site	:SAC D
Test Date	:2022-07-08
Temp./Humi.	:24.5/66
Antenna Pol.	:Vertical
Engineer	:Howard Huang



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
30.970	-45.31	-25.07	-19.92	-0.32	-40.00	-5.31
109.540	-60.94	-53.87	-6.46	-0.61	-40.00	-20.94
194.900	-65.90	-63.64	-1.44	-0.82	-40.00	-25.90
306.450	-64.93	-62.84	-0.97	-1.12	-40.00	-24.93
589.690	-59.94	-57.30	-1.11	-1.53	-40.00	-19.94
917.550	-66.51	-63.30	-1.34	-1.87	-40.00	-26.51
1673.000	-64.88	-71.93	9.55	-2.50	-40.00	-24.88
2509.500	-61.78	-69.34	10.62	-3.06	-40.00	-21.78
7250.000	-51.73	-57.30	10.80	-5.23	-40.00	-11.73
10875.000	-48.23	-52.57	10.95	-6.61	-40.00	-8.23

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GS Taiwanil td.



Report Number	:TERF2206000815E2	Test Site
Operation Mode	:B48A-n5	Test Date
Test Mode	:TX	Temp./Humi.
EUT Pol	:NB Plane	Antenna Pol.
Test Frequency	:3625 MHz+836.5 MHz	Engineer

Test Site	:SAC D
Test Date	:2022-07-08
Temp./Humi.	:24.5/66
Antenna Pol.	:Horizontal
Engineer	:Howard Huang



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
31.940	-53.69	-33.81	-19.56	-0.32	-40.00	-13.69
105.660	-66.40	-59.54	-6.26	-0.60	-40.00	-26.40
220.120	-66.12	-65.26	0.02	-0.88	-40.00	-26.12
299.660	-64.57	-62.50	-1.00	-1.07	-40.00	-24.57
730.340	-65.93	-62.76	-1.17	-2.00	-40.00	-25.93
955.380	-67.36	-64.19	-1.35	-1.82	-40.00	-27.36
1673.000	-64.83	-71.88	9.55	-2.50	-40.00	-24.83
2509.500	-62.68	-70.24	10.62	-3.06	-40.00	-22.68
7250.000	-52.26	-57.83	10.80	-5.23	-40.00	-12.26
10875.000	-46.98	-51.32	10.95	-6.61	-40.00	-6.98

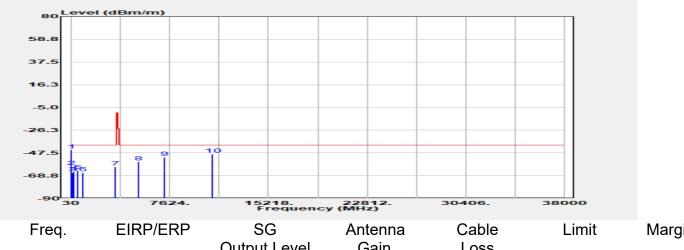
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Report Number	:TERF2206000815E2	Test Site	:SAC D
Operation Mode	:B48A-n66	Test Date	:2022-07-08
Test Mode	:TX	Temp./Humi.	:24.5/66
EUT Pol	:NB Plane	Antenna Pol.	:Vertical
Test Frequency	:3625 MHz+1745 MHz	Engineer	:Howard Huang



Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
		Output Level	Gain	Loss		
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
31.455	-44.66	-24.60	-19.74	-0.32	-40.00	-4.66
109.540	-60.08	-53.01	-6.46	-0.61	-40.00	-20.08
204.600	-65.93	-64.27	-0.82	-0.84	-40.00	-25.93
304.995	-65.31	-63.25	-0.95	-1.11	-40.00	-25.31
586.295	-64.21	-61.56	-1.03	-1.62	-40.00	-24.21
992.725	-66.17	-63.03	-1.20	-1.94	-40.00	-26.17
3490.000	-60.43	-69.24	12.42	-3.61	-40.00	-20.43
5235.000	-55.88	-64.08	12.68	-4.48	-40.00	-15.88
7250.000	-51.52	-57.09	10.80	-5.23	-40.00	-11.52
10875.000	-48.52	-52.86	10.95	-6.61	-40.00	-8.52

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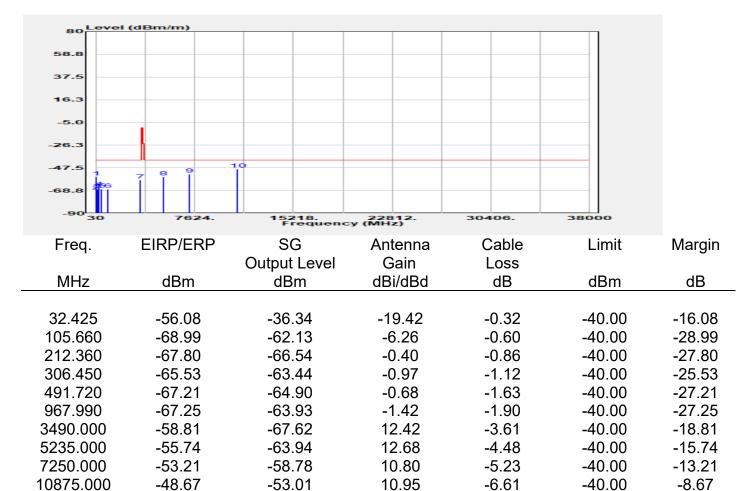
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GS Taiwanil td.



Report Number	:TERF2206000815E2	Test Site	:SAC D
Operation Mode	:B48A-n66	Test Date	:2022-07-08
Test Mode	:TX	Temp./Humi.	:24.5/66
EUT Pol	:NB Plane	Antenna Pol.	:Horizontal
Test Frequency	:3625 MHz+1745 MHz	Engineer	:Howard Huang



# ~ End of Report ~

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