

# ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT



	Partial
Applicant:	Telit Communications S.p.A.
	Via Stazione di Prosecco 5/b 34010 Sgonico - Trieste
Manufacturer:	Telit Wireless Solutions. Co. Ltd.
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	Yeongdeungpo-gu, Seoul, 07330, South Korea
Product Name:	LN920A12-WW / LN920A6-WW
Brand Name:	Telit
Model No.:	LN920A12-WW / LN920A6-WW
Model Difference:	Refer to Page 4
Report Number:	TERF2206000792ER
FCC ID	RI7LN920
IC:	5131A-LN920
Issue Date:	July 5, 2022
Date of Test:	June 8, 2022 ~ June 15, 2022
Date of EUT Received:	June 6, 2022

Men Lay Approved By

Blue Yang

#### 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, 22H & 24E & 27 C and ISED RSS-Gen, 132, 133, 139.

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

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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Revision History						
Report Number	Revision	Description	Issue Date	<b>Revised By</b>	Remark	
TERF2206000792ER	00	HW change from 1.0 to 1.1	July 5, 2022	Yuri Tsai		

#### Note:

- 1 The remark "\*" indicates modification of the report upon requests from certification body.
- 2 Variant information of model numbers is provided by the applicant, test results of this report are applicable to the sample EUT(s) received, and are assessed as electrically identical in RF characteristics, therefore, no further assessment required for the variant(s).
- 3 This is a partial test report with modification from HW1.0 to HW 1.1 based on the EUT in the original report ER/2021/A0026-01 to demonstrate compliance of modification of RF switches and passive filters with identical specification. Maximum output power, conducted out of band emissions and spurious emissions are tested in this report.

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# **1 GENERAL PRODUCT INFORMATION**

## **1.1 Product Description**

Product Name:	LN920A12-WW / LN920A6-WW
Brand Name:	Telit
Model No.:	LN920A12-WW / LN920A6-WW
Model Difference:	<ol> <li>Internal Component is different between two models.</li> <li>Capability is different between two models.</li> </ol>
Hardware Version:	1.1
Firmware Version:	LN920A12-WW: M0L.000002 / LN920A6-WW : M0L.010002
EUT Series No.:	354175753009531
Power Supply:	3.3Vdc
Test Software (Name/Version)	Default

#### 1.2 Model difference

- a) The mobile data modem chip on U200 between two models are pin for pin compatible with identical internal circuits.
- b) The **LN920A6-WW** uses MOBILE DATA MODEM SDX12-2 with CAT12 features disabled by a fuse bit with different FVIN.
- c) The LN920A12-WW is tested as the representative sample with the most modem capabilities.

Model	FVIN	Component on U200	Modem Capability
LN920A12-WW	M0L.000002	MOBILE DATA MODEM SDX12-0	LTE, 4 × 4 MIMO, CA 60 MHz DL 256QAM DL, CA 40 MHz UL, 64 QAM UL,
LN920A6-WW	M0L.010002	MOBILE DATA MODEM SDX12-2	LTE, 4 × 4 MIMO, CA 40 MHz DL, 64 QAM DL, CA 20 MHz UL, 16 QAM UL

### 1.3 Operation Frequency Range

Operating Frequency (MHz)					
WCDMA / HSPA+ Band II 1852.4 - 1907.6					
WCDMA / HSPA+ Band IV	1712.4	-	1752.6		
WCDMA / HSPA+ Band V 826.4 - 846.6					

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#### 1.4 Antenna Designation

Antenna Type	Antenna Model No.		
Monopole	TG.55.8113		
<b>Note:</b> Transmission in frequencies in this test report are only available by the above antenna(s).			

Modulation	Frequency (MHz)		•	Peak Antenna Gain (dBi)
WCDMA / HSPA+ Band II	1852.4	-	1907.6	3.05
WCDMA / HSPA+ Band IV	1712.4	-	1752.6	3.40
WCDMA / HSPA+ Band V	826.4	-	846.6	3.20

Note: Antenna information is provided by the applicant.

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#### 1.5 Test Methodology of Applied Standards

FCC 47 CFR Part 2, 22H, 24E, 27C ISED RSS-132 Issue 3 Jan. 2013 ISED RSS-133 Issue 6, Amendment 1 Jan. 18, 2018 ISED RSS-139 Issue 3 July 16, 2015 ANSI C63.26-2015 KDB971168 D01 Power Meas license Digital System v03r01 KDB941225 D01 SAR test for 3G devices v03r01 (SAR Measurement Procedures for 3G Devices, WCDMA / HSPA) was used for EUT and Base station setting. KDB412172 D01 Determining ERP and EIRP v01r01 TS 151 010-1 is used to set, and measure the output power.

#### 1.6 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			
		Conducted 5		TW3702	
SGS Taiwan Ltd.		Conducted 6			
Central RF Lab.		Conduction C	TW0028		
(TAF code 3702)		SAC C			
$(1AI \ COUE \ 5102)$		SAC D			
	No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333	SAC G			
		Conducted A			
		Conducted B			
	Tabyuan City, Taiwan 555	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 indica- tion where measurements occurred in specific test site and address.					

#### 1.7 Special Accessories

No special accessories were used during testing.

### **1.8 Equipment Modifications**

There was no modifications incorporated into the EUT.

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

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

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

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# **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 Conducted Measurement at Antenna Port

The EUT is placed on a table which is 0.8 m above ground plane. A low loss of RF cable was used to connect the antenna port of EUT to measurement equipment.

## 2.3.2 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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Test mode	DC voltage (V)	DC current (mA)
WCDMA B2	3.3	520
HSUPA B2	3.3	550
HSDPA B2	3.3	510
WCDMA B4	3.3	570
HSUPA B4	3.3	560
HSDPA B4	3.3	560
WCDMA B5	3.3	580
HSUPA B5	3.3	560
HSDPA B5	3.3	540

## 2.5 Final Amplifier Voltage and Current Information:

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#### **TEST CONFIGURATION** 3

Conducted Setup	Radiated Setup		
DC Power Supply EUT	EUT Test kit		

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

#### Control Unit(s) 3.1

Conducted Emission Test Site: Conducted 3						
EQUIPMENT TYPE MFR MODEL NUMBER SERIAL NUMBER LAST CAL. CAL DUE.						
Test Software	WORLD PALLAS	Dr.E	Ver. 3.0	N.C.R	N.C.R	
	Radiated Emission Test Site: SAC 1					
EQUIPMENT TYPE MFR MODEL NUMBER SERIAL NUMBER LAST CAL. CAL DUE.						
Test Software	Audix	e3	Ver. 9.210322	N.C.R	N.C.R	

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#### SUMMARY OF TEST RESULTS 4

FCC Rules	IC Rules	<b>Description Of Test</b>	Result
§2.1046(a)	RSS-GEN §6.12	RF Power Output	Compliant
§22.913(a)(5) §24.232(c) §27.50(d)(4)	RSS-132 §5.4 RSS-133 §6.4 RSS-139 §6.5	ERP/ EIRP measure- ment	Compliant
§2.1051 §22.917(a) §24.238(a) §27.53(h)	RSS-GEN §6.13 RSS-132 §5.5 RSS-133 §6.5 RSS-139 §6.6	Out of Band Emissions at Antenna Terminals and Band Edge requirements	Compliant
§2.1053 §22.917(a) §24.238(a) §27.53(h)	RSS-GEN §6.13 RSS-132 §5.5 RSS-133 §6.5 RSS-139 §6.6	Field Strength of Spurious Radiation	Compliant

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# **5 DESCRIPTION OF TEST MODES**

## 5.1 The Worst Test Modes and Channel Details

- 1. The EUT has been tested under operating condition.
- 2. 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.

#### 5.2 Measurement Configuration

Test Items	WCDMA/HSPA	Test Channel			
rest items	Bands	L	М	Н	
ERP	Band V	V	V	V	
EIRP	Bnad II	V	٧	V	
LIKF	Band IV	V	V	V	
	Bnad II	V	-	V	
BAND EDGE	Band IV	V	-	V	
	Band V	V	-	V	

#### Radiated Emission

E-UTRA	Test	Modulation
Band	Channel	wouldwon
2	Low, Mid, High	WCDMA
4	Low, Mid, High	WCDMA
5	Low, Mid, High	WCDMA

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## **6 MEASUREMENT UNCERTAINTY**

Test Items	Und	certair	nty
RF Power Output	+/-	1	dB
ERP/ EIRP measurement	+/-	3	dB
	+/-	3	dB
Emission Bandwidth	+/-	1.53	Hz
Out of Band Emissions at Antenna Terminals and Band Edge	+/-	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	С°
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				
	+/-	4.45	dB	1GHz - 18GHz				
	+/-	4.24	dB	18GHz - 40GHz				
	+/-	2.57	dB	9kHz~30MHz				
Polarization: Horizontal	+/-	4.37	dB	30MHz - 1000MHz				
Polarization. Horizontai	+/-	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** 7

#### 7.1 **Conducted Measurement**

Conducted Emission Test Site: Conducted 3											
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.						
EXA Spectrum Analyzer	Agilent	N9010A	MY54200716	10/13/2021	10/12/2022						
Radio Communication Analyer	Anritsu	MT8815B	6200711454	04/12/2022	04/11/2023						
DC Power Supply	Agilent	E3640A	KR93300208	09/08/2021	09/07/2022						
Attenuator	Mini-Circuit	BW-S10W2+	4	12/14/2021	12/13/2022						
DC Block	Mini-Circuits	BLK-18-S+	1	12/14/2021	12/13/2022						
Power Divider	RF-LAMBAD	RFLT2W1G18G	11-JSPF412-020	12/14/2021	12/13/2022						

#### 7.2 **Radiated Measurement**

Radiated Emission Test Site: SAC 1									
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.				
Bi-log Antenna	SCHWARZBECK	VULB9168	300	10/19/2021	10/18/2022				
Horn Antenna	SCHWARZBECK	BBHA9120D	D803	12/20/2021	12/19/2022				
Bi-log Antenna	TESEO	CBL 6112D	35242 & AT-N0555	01/03/2022	01/02/2023				
Horn Antenna	SCHWARZBECK	BBHA9120D	603	05/16/2022	05/15/2023				
Horn Antenna	SCHWARZBECK	BBHA9170	184	12/16/2021	12/15/2022				
Horn Antenna	SCHWARZBECK	BBHA9170	185	08/06/2021	08/05/2022				
Site Cal	SGS	SAC1 chamber	N/A	01/01/2022	12/31/2022				
Spectrum Analyzer	Agilent	E4446A	MY51100003	10/26/2021	10/25/2022				
Signal Generator	R&S	SMBV100A	263084	01/11/2022	01/10/2023				
Radio Communication Analyer	Anritsu	MT8815A	6200429620	01/12/2022	01/11/2023				
DC Power Supply	Gwinstek	SPS-3610	GEV856750	08/04/2021	08/03/2022				
Pre-Amplifier	EMC Instruments	EMC184045B	980135	10/27/2021	10/26/2022				
Pre-Amplifier	HP	8449B	3008A01973	12/16/2021	12/15/2022				
Pre-Amplifier	HP	8447D	2944A09469	12/16/2021	12/15/2022				
Bandreject Filter 800- 1000	Micro-Tronics	EWT	M1	12/14/2021	12/13/2022				
Bandreject Filter 1700-2000	Micro-Tronics	EWT	M3	12/14/2021	12/13/2022				
1.3G-15GHz High Pass Filter	WI	WHKX10-1066-80SS	19	12/14/2021	12/13/2022				
3.2GHz High Pass Filter	WI	WHKX10-2624-80SS	3	12/14/2021	12/13/2022				
Coaxial Cable	Huber Suhner	succoflex 102	MY2622/2	12/16/2021	12/15/2022				
Coaxial Cable	Huber Suhner	succoflex 104A	800086/4a	12/16/2021	12/15/2022				
Coaxial Cable	Huber Suhner	EMC 104-SM-SM-2000	160123	12/16/2021	12/15/2022				
Coaxial Cable	Huber Suhner	SUCOFLEX 104	160125	12/16/2021	12/15/2022				
Coaxial Cable	Huber Suhner	SUCOFLEX 106	76096/6	12/16/2021	12/15/2022				
Coaxial Cable	Huber Suhner	SUCOFLEX 102	MY2630/2	12/16/2021	12/15/2022				
Coaxial Cable	Huber Suhner	SUCOFLEX 102	MY22962/2	12/16/2021	12/15/2022				
Coaxial Cable	Huber Suhner	SUCOFLEX 102	SN 520430/2	12/16/2021	12/15/2022				

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# 8 MAXIMUM OUTPUT POWER

### 8.1 Standard Applicable

A base station simulator was used to establish communication with the EUT. Its parameters were set to transmit the maximum power on the EUT. The measured power in the radio frequency on the transmitter output terminals.

According to FCC §2.1046

### FCC 22.913(a)

(5) mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

### FCC 24.232(c)

Mobile and portable stations are limited to 2 W EIRP.

### FCC 27.50(d)

(4) Mobile, and portable (hand-held) stations operating in the 1710-1755 MHz, 1695-1710 MHz and 1755-1780 MHz bands are limited to 1W EIRP.

## RSS-132 §5.4

The equivalent isotropically radiated power (e.i.r.p.) for mobile equipment in operating in the Bands 824-849 and 869-894MHz shall not exceed 11.5 watts.

### RSS-133 §6.4

The equivalent isotropically radiated power (e.i.r.p.) for transmitters shall not exceed the limits given in SRSP-510.

According to section 5.1.2 of SRSP-510, Mobile stations and hand-held portables are limited to 2 watts maximum e.i.r.p. The equipment shall employ means to limit the power to the minimum necessary for successful communication.

### RSS-139 §6.5

The equivalent isotropically radiated power (e.i.r.p.) for mobile and portable transmitters in the Bands 1710-1780MHz shall not exceed one watt.

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Note: Measurement setup for testing on Antenna connector

#### 8.3 **Output Power Measurement Applicable Guideance**

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.

The Procedure of KDB941225 (SAR Measurement Procedures for 3G devices, (WCDMA/HSPA) was used for EUT and RMC 12.2kps is used for Base station setting.

KDB 971168 D01 Power Meas License Digital System as the supplemental test methodology to adjust the proper setting obtaining the measurement results.

Conducted average power is obtained from the simulator telecommunication test set.

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# 8.4 Determining ERP and/or EIRP from conducted RF output power measurements

According to KDB 412172 D01 Power Approach,

 $EIRP = P_{\tau} + G_{\tau} - L_c,$ 

ERP= EIRP-2.15,

Where:

ERP or EIRP	= effective radiated power or equivalent isotropically radiated power (expressed in the same units as PT, typically dBW, dBm, or power spectral density (PSD)2), relative to either a dipole antenna (ERP) or an isotropic antenna (EIRP);
Ρτ	= transmitter output power, expressed in dBW, dBm, or PSD;
G⊤ Lc	<ul> <li>gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);</li> <li>signal attenuation in the connecting cable between the transmitter and antenna, in dB.</li> </ul>

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#### 8.5 **Measurement Results**

#### WCDMA & HSPA Measurement Results: 8.5.1

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1 specification. The EUT supports power Class 3, which has a nominal maximum output power of 24 dBm. RMC 12.2kps is used for this testing.

EUT Mode	Freq. (MHz)	СН	Conducted Avg. Power (dBm)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
	1852.4	9262	22.83	3.05	23.73	25.88	33.00	-7.12
WCDMA	1880.0	9400	23.05	3.05	23.95	26.10	33.00	-6.90
	1907.6	9538	23.01	3.05	23.91	26.06	33.00	-6.94
	1852.4	9262	21.69	3.05	22.59	24.74	33.00	-8.26
HSDPA	1880.0	9400	22.44	3.05	23.34	25.49	33.00	-7.51
	1907.6	9538	23.22	3.05	24.12	26.27	33.00	-6.73
	1852.4	9262	22.61	3.05	23.51	25.66	33.00	-7.34
HSUPA	1880.0	9400	21.98	3.05	22.88	25.03	33.00	-7.97
	1907.6	9538	20.83	3.05	21.73	23.88	33.00	-9.12

WCDMA/HSUPA/HSDPA Band II Result:

#### WCDMA/HSUPA/HSDPA Band IV Result:

EUT Mode	Freq. (MHz)	СН	Conducted Avg. Power (dBm)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
	1712.4	1312	23.22	3.40	24.47	26.62	30.00	-3.38
WCDMA	1732.6	1413	23.00	3.40	24.25	26.40	30.00	-3.60
	1752.6	1513	22.86	3.40	24.11	26.26	30.00	-3.74
	1712.4	1312	22.23	3.40	23.48	25.63	30.00	-4.37
HSDPA	1732.6	1413	22.02	3.40	23.27	25.42	30.00	-4.58
	1752.6	1513	21.94	3.40	23.19	25.34	30.00	-4.66
	1712.4	1312	22.72	3.40	23.97	26.12	30.00	-3.88
HSUPA	1732.6	1413	21.63	3.40	22.88	25.03	30.00	-4.97
	1752.6	1513	21.24	3.40	22.49	24.64	30.00	-5.36

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#### WCDMA/HSUPA/HSDPA Band V Result:

EUT Mode	Freq. (MHz)	СН	Conducted Avg. Power (dBm)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
	826.4	4132	23.22	3.20	24.27	26.42	38.50	-12.08
WCDMA	836.6	4183	23.18	3.20	24.23	26.38	38.50	-12.12
	846.6	4233	23.25	3.20	24.30	26.45	38.50	-12.05
	826.4	4132	22.26	3.20	23.31	25.46	38.50	-13.04
HSDPA	836.6	4183	22.59	3.20	23.64	25.79	38.50	-12.71
	846.6	4233	22.33	3.20	23.38	25.53	38.50	-12.97
	826.4	4132	21.35	3.20	22.40	24.55	38.50	-13.95
HSUPA	836.6	4183	21.95	3.20	23.00	25.15	38.50	-13.35
	846.6	4233	22.14	3.20	23.19	25.34	38.50	-13.16

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## 8.5.2 HSPA (HSDPA & HSUPA) Release 6:

The following 4 Sub-Tests were completed according to the test requirements outlined in section 5.2A of the 3GPP TS34.121-1 specification. All TX RMS power requirements for Power Class 3 were met according to table 5.2AA.5 and 5.2B.5 All UE channels and power ratio's are set according to table C10.1.4 & C11.1.3 in the 3GPP TS34.121-1. RMC 12.2kps is used for this testing.

#### 8.5.3 HSDPA SUB-TEST Setting

Table C.10.1.4: β values for transmitter characteristics tests with HS-DPCCH(FOR HSDPA)

Sub-test	βc	βd	β₀ (SF)	β <sub>c</sub> /β <sub>d</sub>	βнs (Note1, Note 2)	<b>CM (dB)</b> (Note 3)	MPR (dB) (Note 3)	RMC (Kbps)
1	2/15	15/15	64	2/15	4/15	0.0	0.0	12.2
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0	12.2
3	15/15	8/15	64	15/8	30/15	1.5	0.5	12.2
4	15/15	4/15	64	15/4	30/15	1.5	0.5	12.2

Note: The recommended HSDPA MPRs are implemented as per following sub-tests.

	Cul	Avg. Power (dBm)			
Mode	Sub test	Channel			
		9262.00	9400.00	9538.00	
	1	21.69	22.44	23.22	
HSDPA II	2	21.65	22.32	23.21	
II II II	3	21.18	21.87	22.76	
	4	21.17	21.85	22.77	

Mode	Sub test	Av	g. Power (dE Channel	ßm)
	1031	1312.00	1413.00	1513.00
	1	22.23	22.02	21.94
HSDPA IV	2	22.26	22.08	21.98
ΠΟΟΡΑΙΝ	3	21.78	21.60	21.50
	4	21.79	21.61	21.51

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	Curk	Avg. Power (dBm)			
Mode	Sub test	Channel			
		4132.00	4183.00	4233.00	
	1	22.26	22.59	22.33	
HSDPA V	2	22.28	22.60	22.34	
	3	21.80	22.12	21.86	
	4	21.79	22.13	21.86	

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#### 8.5.4 **HSPA SUB-TEST Setting**

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH(FOR HSUPA)

Sub- test	βc	βα	β <sub>đ</sub> (SF)	βc/βa	βнs	βec	βed	β <sub>ed</sub> (SF)	β <sub>ed</sub> (Code s)	CM (dB)	MPR (dB)	AG Index	E-TFCI	RMC (Kbps )
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/22 5	1309/225	4	1	1.0	0.0	20	75	12.2
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67	12.2
3	15/15	9/15	64	15/9	30/15	30/15	β <sub>ed</sub> 1: 47/15 β <sub>ed</sub> 2: 47/15	4 4	2	2.0	1.0	15	92	12.2
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71	12.2
5	15/15 (Note 4)	15/15 (Note 4)	64	15/15 (Note 4)	30/15	24/15	134/15	4	1	1.0	0.0	21	81	12.2

Note: The recommended HSUPA MPRs are implemented as per following sub-tests.

Mode	Sub test	Αν	/g. Power (dBi Channel	m)
	1031	9262.00	9400.00	9538.00
	1	22.61	21.98	20.83
	2	22.27	21.59	20.36
HSUPA II	3	22.53	21.91	20.82
	4	22.76	22.06	20.85
	5	22.58	21.94	20.83

Mode	Sub tost	Avg. Power (dBm) Sub test			
	1031	1312.00	1413.00	1513.00	
	1	22.72	21.63	21.24	
	2	22.20	21.06	20.71	
HSUPA IV	3	22.73	21.65	21.26	
	4	22.71	21.56	21.21	
	5	22.73	21.63	21.26	

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SGS Taiwan Ltd.



	Cub	Avg. Power (dBm)					
Mode	Sub test		Channel				
	1051	4132.00	4183.00	4233.00			
	1	21.35	21.95	22.14			
	2	20.86	21.43	21.65			
HSUPA V	3	21.37	21.97	22.15			
	4	21.35	21.93	22.14			
	5	21.38	21.98	22.14			

## 8.5.5 WCDMA/HSDPA/HSUPA band II, IV, V

The EUT output power was controlled by simulator and enter max rated power 24dBm. The EUT is going to be set to max output power to 24dBm then record the read. The min. power was measures by a function key "minimum power" then record the read. It is -52.3dBm. The power variation can be 0.1dB step by setting.

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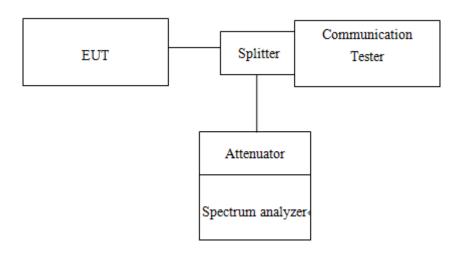
# 9 OUT OF BAND EMISSION AT ANTENNA TERMINALS

### 9.1 Standard Applicable

#### FCC §22.917(a), §24.238(a), §27.53(h) and RSS-132 §5.5, RSS-133 §6.5.1, RSS-139 §6.6

Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P) dB$ .

#### 9.2 Test SET-UP



#### 9.3 Measurement Procedure

### 9.3.1 Conducted Emission

The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation The resolution bandwidth of the spectrum analyzer was set at 1MHz, sufficient scans were taken to show the out of band Emissions if any up to 10th harmonic.

- 1. To connect Antenna Port of EUT to Spectrum.
- 2. Set RBW = 1MHz & VBW = 1MHz on Spectrum.
- 3. Allow trace to fully stabilize
- 4. Repeat above procedures until all default test channel measured were complete.

#### 9.3.2 Band Edge

- 1. To connect Antenna Port of EUT to Spectrum.
- 2. The band edge of low and high channels for the highest RF powers was measured. Setting RBW ≥ 1% EBW.
- 3. Allow trace to fully stabilize
- 4. Repeat above procedures until all default test channel measured were complete.

### 9.4 Measurement Result:

Refer to next pages.

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## Report No.: TERF2206000792ER Page: 25 of 47

#### Band Edge WCDMA\_B2\_LowCH9262-1852.4



#### Band Edge WCDMA\_B2\_HighCH9538-1907.6



#### Band Edge HSDPA B2 LowCH9262-1852.4



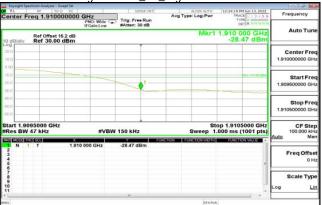
#### Band Edge HSDPA\_B2\_HighCH9538-1907.6



#### Band Edge HSUPA\_B2\_LowCH9262-1852.4



#### Band Edge HSUPA\_B2\_HighCH9538-1907.6



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## Report No.: TERF2206000792ER Page: 26 of 47

#### Band Edge WCDMA\_B4\_LowCH1312-1712.4



#### Band Edge WCDMA\_B4\_HighCH1513-1752.6



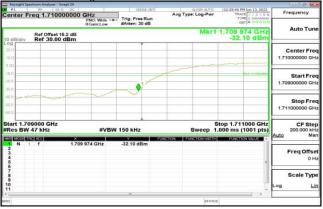
#### Band Edge HSDPA B4 LowCH1312-1712.4



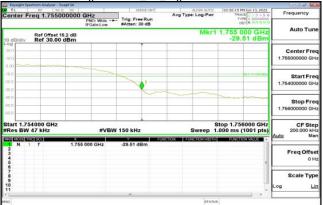
## Band Edge HSDPA\_B4\_HighCH1513-1752.6



#### Band Edge HSUPA\_B4\_LowCH1312-1712.4



#### Band Edge HSUPA\_B4\_HighCH1513-1752.6



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## Report No.: TERF2206000792ER Page: 27 of 47

#### Band Edge WCDMA\_B5\_LowCH4132-826.4



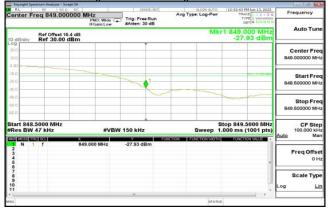
#### Band Edge WCDMA\_B5\_HighCH4233-846.6



#### Band Edge HSDPA\_B5\_LowCH4132-826.4



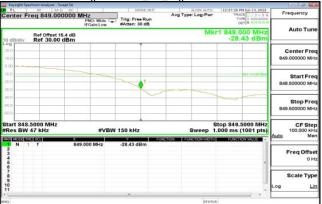
#### Band Edge HSDPA\_B5\_HighCH4233-846.6



#### Band Edge HSUPA\_B5\_LowCH4132-826.4



#### Band Edge HSUPA\_B5\_HighCH4233-846.6



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# **10 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT**

#### 10.1 Standard Applicable

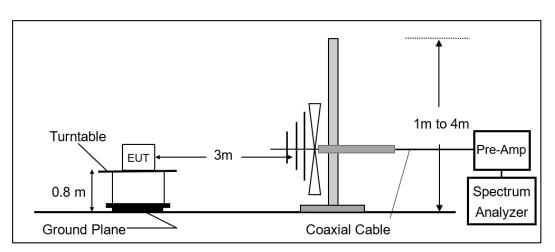
According to FCC §2.1053,

# FCC §22.917(a), §24.238(a), §27.53(h) and RSS-132 §5.5, RSS-133 §6.5.1, RSS-139 §6.6

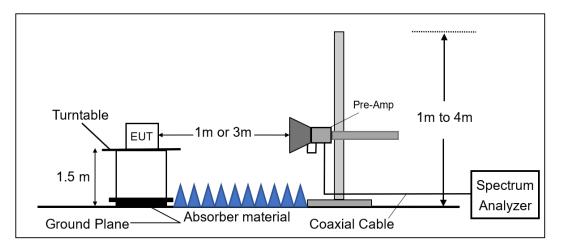
Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P) dB$ .

#### 10.2 EUT Setup

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



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



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#### **10.3 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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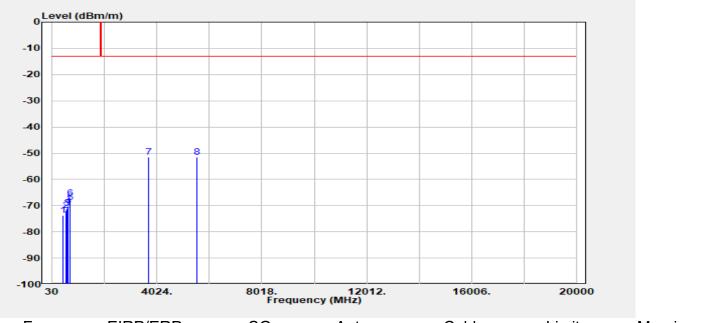
(株計方分 就) 「し根守部末 (注力列 執人(株 前 見 )」)「可能(株 前 注 新 部 以入) う 本 紙 守 永 年 本 近 句 音 副 計 う ・ 大 う 部 汚 表 そ This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>http://www.sgs.com.tw/Terms-and-Conditions</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>http://www.sgs.com.tw/Terms-and-Conditions</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.





#### 10.4 **Measurement Result:**

Report Number	:TERF2206000792ER	Test Site	:SAC 1
Operation Mode	:WCDMA B2	Test Date	:2022-06-15
Test Mode	:Tx	Temp./Humi.	:24.8/66
EUT Pol	:H Plane	Antenna Pol.	:VERTICAL
Test Frequency	:1852.4 MHz	Engineer	:GN Lin



Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
430.61	-73.61	-77.94	6.39	-2.06	-13.00	-60.61
543.13	-71.92	-76.18	6.62	-2.36	-13.00	-58.92
587.75	-71.01	-74.46	6.25	-2.81	-13.00	-58.01
636.25	-70.10	-73.76	6.00	-2.34	-13.00	-57.10
702.21	-68.75	-72.07	6.25	-2.93	-13.00	-55.75
715.79	-67.32	-70.72	6.27	-2.87	-13.00	-54.32
3704.80	-51.43	-57.61	12.59	-6.41	-13.00	-38.43
5557.20	-51.37	-56.13	13.00	-8.24	-13.00	-38.37

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3704.80

5557.20

-67.73

-52.69

-50.32

### Report No.: TERF2206000792ER Page: 31 of 47

Report Number	:TERF2206000792ER
Operation Mode	:WCDMA B2
Test Mode	:Tx
EUT Pol	:H Plane
Test Frequency	:1852.4 MHz

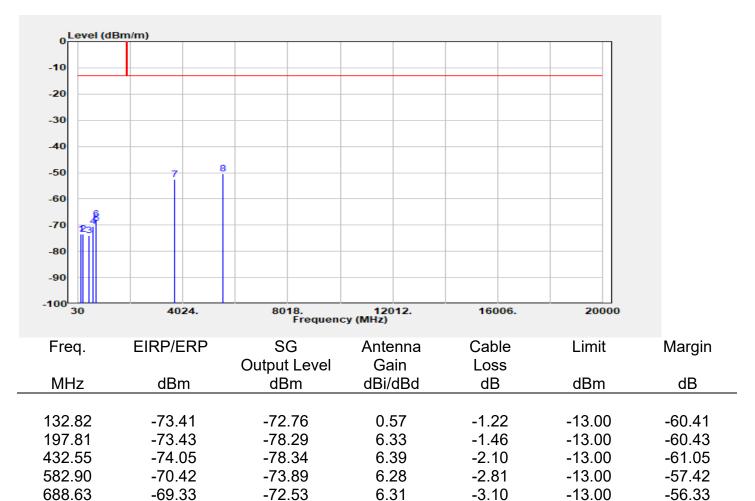
Test Site	:SAC 1
Test Date	:2022-06-15
Temp./Humi.	:24.8/66
Antenna Pol.	:HORIZONTAL
Engineer	:GN Lin

-3.10

-2.71

-6.41

-8.24



6.55

12.59

13.00

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-71.57

-58.86

-55.08

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-13.00

-13.00

-13.00

-54.73

-39.69

-37.32



5640.00

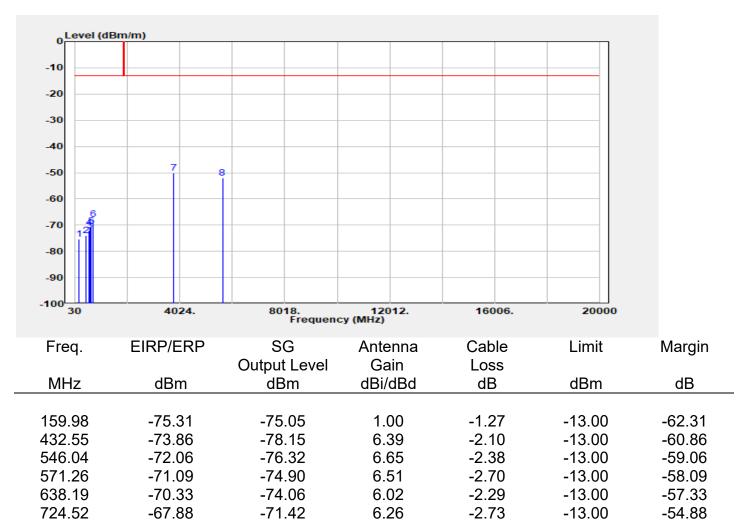
-50.26

-52.03

#### Report No.: TERF2206000792ER Page: 32 of 47

Report Number	:TERF2206000792ER
Operation Mode	:WCDMA B2
Test Mode	:Tx
EUT Pol	:H Plane
Test Frequency	:1880 MHz

Test Site	:SAC 1
Test Date	:2022-06-15
Temp./Humi.	:24.8/66
Antenna Pol.	:VERTICAL
Engineer	:GN Lin



12.50

13.08

-6.77

-8.48

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-55.99

-56.63

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-13.00

-13.00

-37.26

-39.03



5640.00

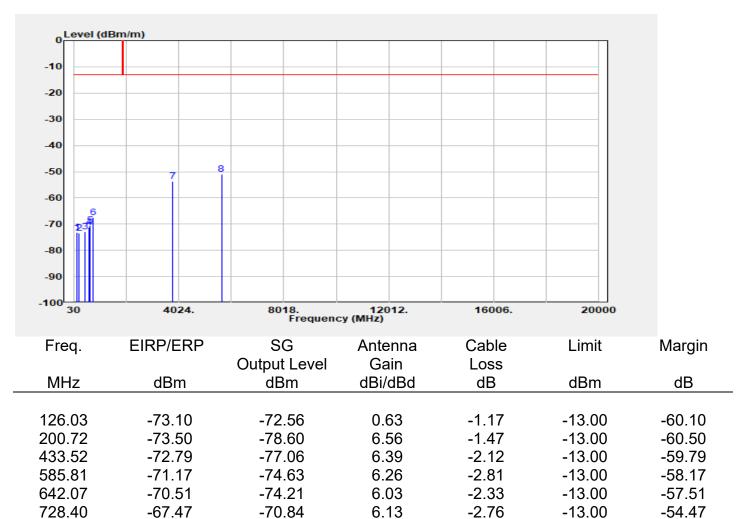
-53.63

-50.90

### Report No.: TERF2206000792ER Page: 33 of 47

Report Number	:TERF2206000792ER
Operation Mode	:WCDMA B2
Test Mode	:Tx
EUT Pol	:H Plane
Test Frequency	:1880 MHz

Test Site	:SAC 1
Test Date	:2022-06-15
Temp./Humi.	:24.8/66
Antenna Pol.	:HORIZONTAL
Engineer	:GN Lin



12.50

13.08

-6.77

-8.48

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.

-59.37

-55.50

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-13.00

-13.00

-40.63

-37.90



721.61

3815.20

5722.80

-70.00

-67.76

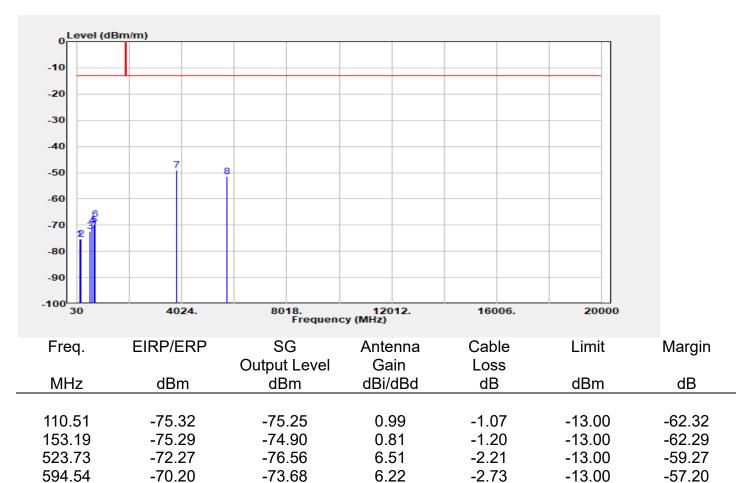
-49.01

-51.37

#### Report No.: TERF2206000792ER Page: 34 of 47

Report Number	:TERF2206000792ER	Tes
Operation Mode	:WCDMA B2	Tes
Test Mode	:Tx	Ter
EUT Pol	:H Plane	Ant
Test Frequency	:1907.6 MHz	Eng

Test Site	:SAC 1
Test Date	:2022-06-15
Temp./Humi.	:24.8/66
Antenna Pol.	:VERTICAL
Engineer	:GN Lin



6.47

6.46

12.44

13.01

-2.93

-2.71

-6.55

-8.60

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-73.54

-71.51

-54.90

-55.78

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-13.00

-13.00

-13.00

-13.00

-57.00

-54.76

-36.01



5722.80

-52.11

-50.58

#### Report No.: TERF2206000792ER Page: 35 of 47

Report Number	:TERF2206000792ER	Te
Operation Mode	:WCDMA B2	Te
Test Mode	:Tx	Te
EUT Pol	:H Plane	A
Test Frequency	:1907.6 MHz	E

Test Site	:SAC 1
Test Date	:2022-06-15
Temp./Humi.	:24.8/66
Antenna Pol.	:HORIZONTAL
Engineer	:GN Lin

n/m)					
4024.	8018. Frequenc	12012. y (MHz)	16006.	20000	
EIRP/ERP	SG	Antenna	Cable	Limit	Margin
	Output Level	Gain	Loss		
dBm	dBm	dBi/dBd	dB	dBm	dB
70.00	70.00	0.54	4.40	40.00	<u> </u>
					-60.96
					-60.86 -60.54
					-57.30
-//////////////////////////////////////	-10.12	0.00	-2.04	-13.00	-57.50
-69.47	-73.08	6.02	-2.41	-13.00	-56.47
	4024. EIRP/ERP dBm -73.96 -73.86 -73.54	4024.       8018.         Frequence         4024.       8018.         Frequence         4024.       8018.         Frequence         4024.       8018.         Frequence         4024.       8018.         73.96       -73.28         -73.86       -78.99	4024.       8018. Cutput Level dBm       12012. Cain dBm         4024.       8018. Cutput Level dBm       12012. Cain dBm         4024.       8018. Cutput Level dBm       12012. Cain dBm	4024.       8018. Frequency (MHz)       12012. 16006.       16006. 1000         4024.       8018. Frequency (MHz)       12012. 16006.       16006. 1000         4024.       8018. 12012.       112012.         4024.       8018. 12012.       12012.         4024.       8018. 12012.       12012.         4024.       8018. 12012.       12012.         4024.       8018. 12012.       12012.	4024.       8018. Frequency (MHz)       12012. Image: Cable base base base base base base base bas

12.44

13.01

-6.55

-8.60

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.

-58.01

-54.98

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-13.00

-13.00

-39.11 -37.58



653.71

705.12

3424.80

5137.20

-70.70

-70.58

-67.91

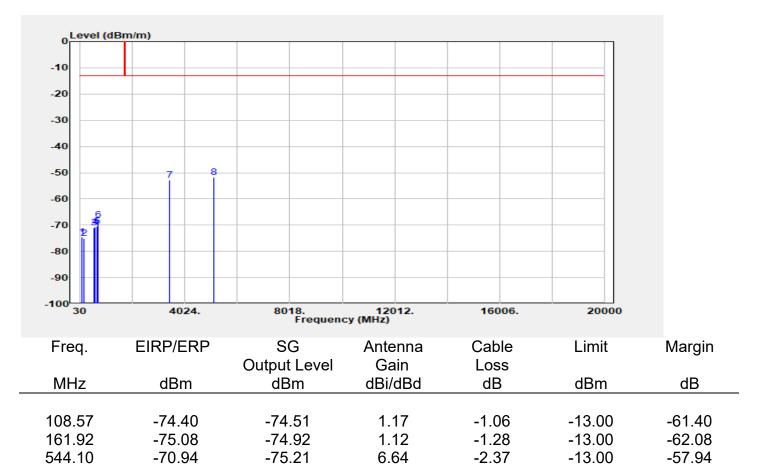
-52.98

-51.63

#### Report No.: TERF2206000792ER Page: 36 of 47

Report Number	:TERF2206000792ER	Test Site
Operation Mode	:WCDMA B4	Test Date
Test Mode	:Tx	Temp./Hum
EUT Pol	:H Plane	Antenna Po
Test Frequency	:1712.4 MHz	Engineer

Test Site	:SAC 1
Test Date	:2022-06-15
Temp./Humi.	:24.8/66
Antenna Pol.	:VERTICAL
Engineer	:GN Lin



6.44

6.13

6.28

12.50

12.17

-2.73

-2.57

-3.01

-6.38

-8.01

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.

-74.41

-74.14

-71.19

-59.10

-55.79

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-13.00

-13.00

-13.00

-13.00

-13.00

-57.70

-57.58

-54.91

-39.98



629.46

727.43

3424.80

5137.20

-71.06

-70.67

-67.50

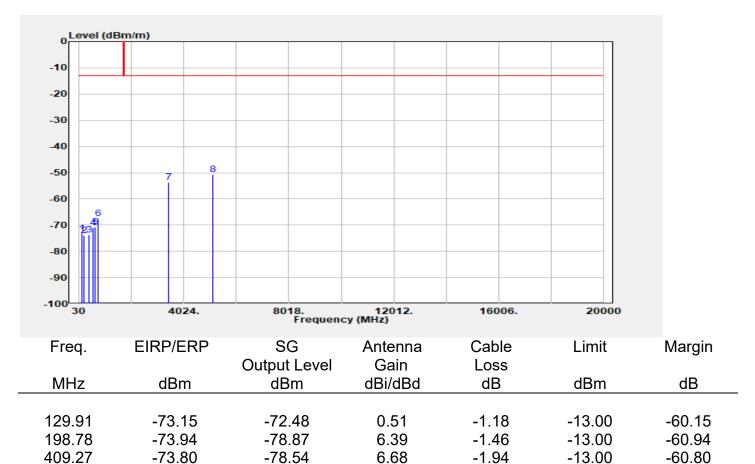
-53.75

-50.74

#### Report No.: TERF2206000792ER Page: 37 of 47

Report Number	:TERF2206000792ER	Test Site
Operation Mode	:WCDMA B4	Test Da
Test Mode	:Tx	Temp./ŀ
EUT Pol	:H Plane	Antenna
Test Frequency	:1712.4 MHz	Enginee

Test Site	:SAC 1
Test Date	:2022-06-15
Temp./Humi.	:24.8/66
Antenna Pol.	:HORIZONTAL
Engineer	:GN Lin



6.65

6.01

6.16

12.50

12.17

-2.38

-2.48

-2.75

-6.38

-8.01

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.

-75.32

-74.21

-70.91

-59.87

-54.90

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-13.00

-13.00

-13.00

-13.00

-13.00

-58.06

-57.67

-54.50

-40.75

-37.74



503.36

576.11

633.34

721.61

3464.80

5197.20

-75.36

-73.84

-71.21

-69.42

-67.51

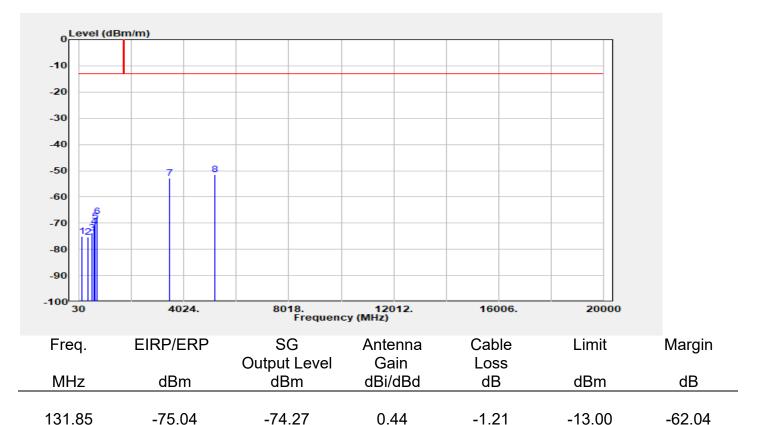
-52.72

-51.57

#### Report No.: TERF2206000792ER Page: 38 of 47

Report Number	:TERF2206000792ER	Te
Operation Mode	:WCDMA B4	Te
Test Mode	:Tx	Te
EUT Pol	:H Plane	Ar
Test Frequency	:1732.4 MHz	Er

Test Site	:SAC 1
Test Date	:2022-06-15
Temp./Humi.	:24.8/66
Antenna Pol.	:VERTICAL
Engineer	:GN Lin



6.72

6.53

6.39

5.99

6.46

12.47

12.58

-2.00

-2.33

-2.76

-2.40

-2.71

-6.52

-8.01

-13.00

-13.00

-13.00

-13.00

-13.00

-13.00

-13.00

-62.36

-60.84

-58.21

-56.42

-54.51

-39.72

-38.57

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.

-80.08

-78.04

-74.84

-73.00

-71.26

-58.67

-56.14

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622.67

729.37

3464.80

5197.20

-73.64

-70.16

-68.16

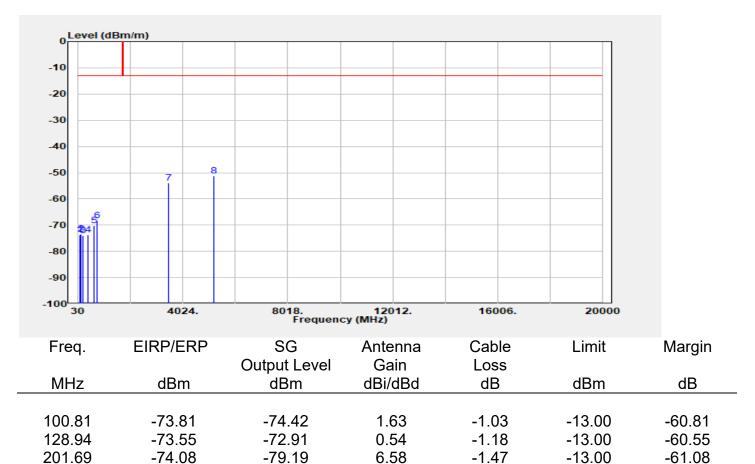
-53.90

-51.22

#### Report No.: TERF2206000792ER Page: 39 of 47

Report Number	:TERF2206000792ER
<b>Operation Mode</b>	:WCDMA B4
Test Mode	:Tx
EUT Pol	:H Plane
Test Frequency	:1732.4 MHz

Test Site	:SAC 1
Test Date	:2022-06-15
Temp./Humi.	:24.8/66
Antenna Pol.	:HORIZONTAL
Engineer	:GN Lin



6.67

6.05

6.11

12.47

12.58

-2.12

-2.44

-2.77

-6.52

-8.01

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.

-78.19

-73.78

-71.50

-59.85

-55.78

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-13.00

-13.00

-13.00

-13.00

-13.00

-60.64

-57.16

-55.16

-40.90



656.62

718.70

3505.20

5257.80

-70.59

-70.14

-67.28

-51.77

-51.73

### Report No.: TERF2206000792ER Page: 40 of 47

Report Number	:TERF2206000792ER	Test Site
Operation Mode	:WCDMA B4	Test Da
Test Mode	:Tx	Temp./H
EUT Pol	:H Plane	Antenna
Test Frequency	:1752.6 MHz	Enginee

Test Site	:SAC 1
Test Date	:2022-06-15
Temp./Humi.	:24.8/66
Antenna Pol.	:VERTICAL
Engineer	:GN Lin

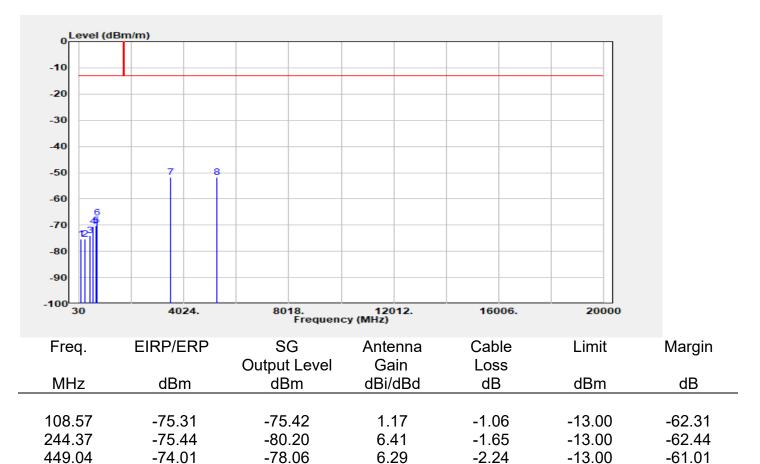
-2.58

-2.51

-2.75

-6.41

-8.11



6.61

6.23

6.48

12.38

12.93

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-74.62

-73.87

-71.01

-57.74

-56.56

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-13.00

-13.00

-13.00

-13.00

-13.00

-57.59

-57.14

-54.28

-38.77



5257.80

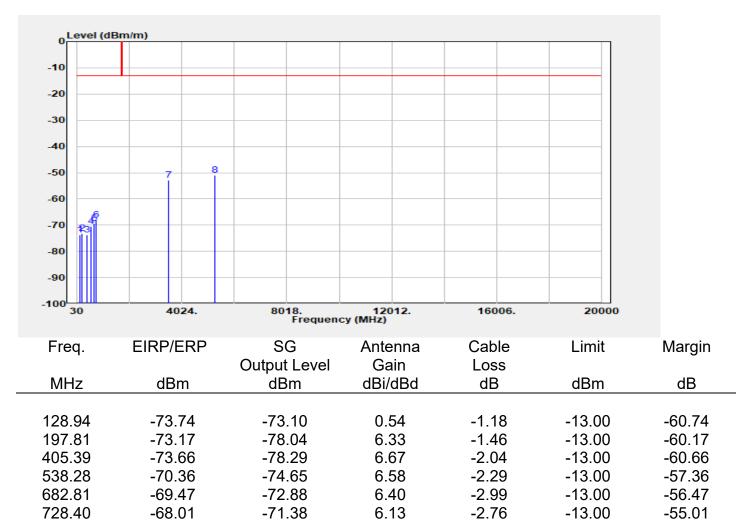
-52.81

-51.08

### Report No.: TERF2206000792ER Page: 41 of 47

Report Number	:TERF2206000792ER	Test S
Operation Mode	:WCDMA B4	Test I
Test Mode	:Tx	Temp
EUT Pol	:H Plane	Anter
Test Frequency	:1752.6 MHz	Engir

Test Site	:SAC 1
Test Date	:2022-06-15
Temp./Humi.	:24.8/66
Antenna Pol.	:HORIZONTAL
Engineer	:GN Lin



12.38

12.93

-6.41

-8.11

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.

-58.78

-55.90

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-13.00

-13.00

-39.81



574.17

636.25

713.85

729.37

1652.80

2479.20

### Report No.: TERF2206000792ER Page: 42 of 47

Report Number	:TERF2206000792ER
Operation Mode	:WCDMA B5
Test Mode	:Tx
EUT Pol	:H Plane
Test Frequency	:826.4 MHz

-75.51

-71.51

-70.66

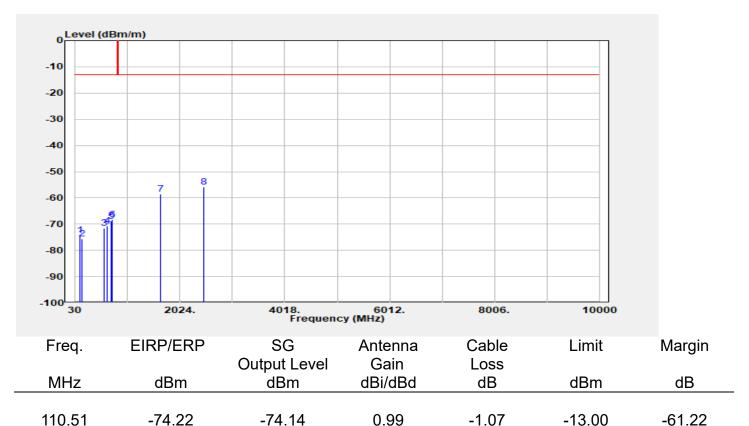
-68.73

-68.22

-58.47

-55.85

Test Site	:SAC 1
Test Date	:2022-06-15
Temp./Humi.	:24.8/66
Antenna Pol.	:VERTICAL
Engineer	:GN Lin



0.85

6.44

6.00

6.20

6.11

9.61

10.56

-1.24

-2.73

-2.34

-2.96

-2.77

-4.36

-5.37

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for	
Unless otherwise stated the results shown in this test report reier only to the sample(s) tested and such sample(s) are retained to	a gu davs oniv.

-75.13

-75.21

-74.32

-71.96

-71.57

-63.72

-61.04

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-13.00

-13.00

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-13.00

-13.00

-62.51

-58.51

-57.66

-55.73

-55.22

-45.47

-42.85



590.66

684.75

723.55

1652.80

2479.20

### Report No.: TERF2206000792ER Page: 43 of 47

Report Number	:TERF2206000792ER
Operation Mode	:WCDMA B5
Test Mode	:Tx
EUT Pol	:H Plane
Test Frequency	:826.4 MHz

-70.67

-69.60

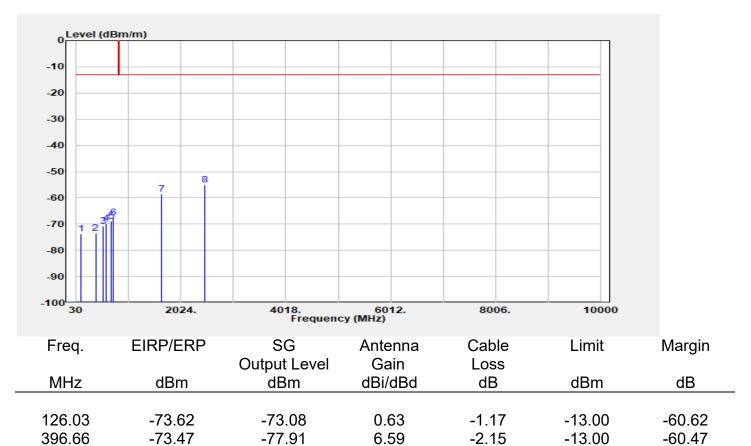
-68.72

-67.56

-58.53

-54.89

Test Site	:SAC 1
Test Date	:2022-06-15
Temp./Humi.	:24.8/66
Antenna Pol.	:HORIZONTAL
Engineer	:GN Lin



6.63

6.24

6.34

6.33

9.61

10.56

-2.41

-2.80

-3.03

-2.72

-4.36

-5.37

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.

-74.90

-73.04

-72.04

-71.17

-63.77

-60.08

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-13.00

-13.00

-13.00

-13.00

-13.00

-13.00

-57.67

-56.60

-55.72

-54.56

-45.53

-41.89



640.13

694.45 727.43

1673.20

2509.80

-71.45

-69.96

-68.83

-67.58

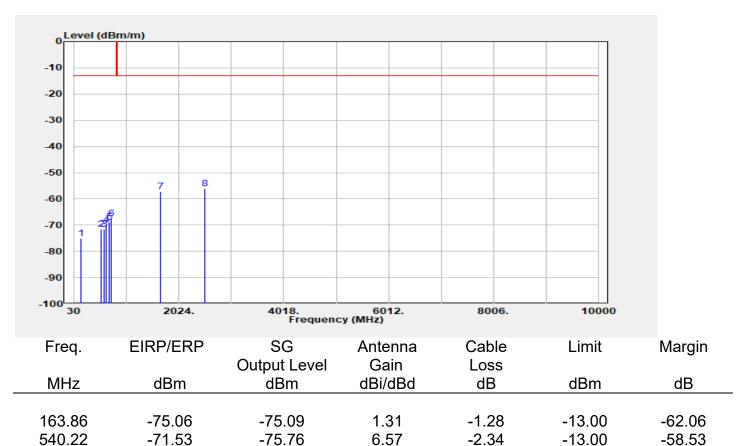
-57.20

-56.05

### Report No.: TERF2206000792ER Page: 44 of 47

Report Number	:TERF2206000792ER
Operation Mode	:WCDMA B5
Test Mode	:Tx
EUT Pol	:H Plane
Test Frequency	:836.6 MHz

Test Site	:SAC 1
Test Date	:2022-06-15
Temp./Humi.	:24.8/66
Antenna Pol.	:VERTICAL
Engineer	:GN Lin



6.24

6.05

6.27

6.16

9.69

10.64

-2.80

-2.26

-3.02

-2.75

-4.40

-5.41

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.

-74.89

-73.75

-72.08

-70.99

-62.50

-61.29

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-13.00

-13.00

-13.00

-13.00

-13.00

-13.00

-58.45

-56.96

-55.83

-54.58

-44.20

-43.05



402.48

545.07

575.14 726.46

1673.20

2509.80

### Report No.: TERF2206000792ER Page: 45 of 47

Report Number	:TERF2206000792ER
Operation Mode	:WCDMA B5
Test Mode	:Tx
EUT Pol	:H Plane
Test Frequency	:836.6 MHz

-74.63

-73.25

-71.19

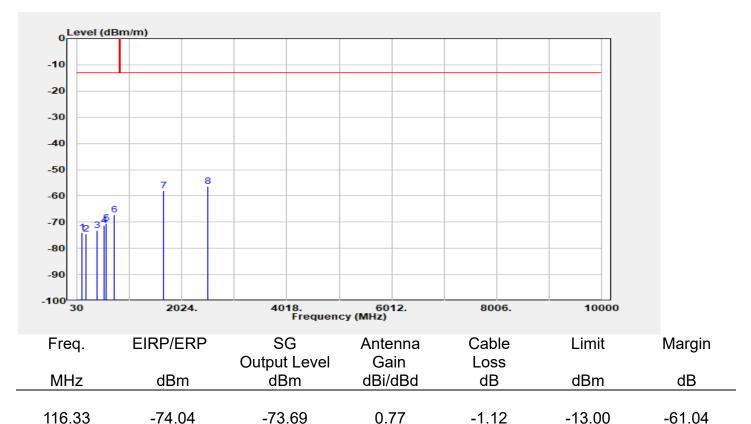
-70.40

-67.13

-58.02

-56.36

Test Site	:SAC 1
Test Date	:2022-06-15
Temp./Humi.	:24.8/66
Antenna Pol.	:HORIZONTAL
Engineer	:GN Lin



6.58

6.67

6.65

6.41

6.19

9.69

10.64

-1.47

-2.12

-2.38

-2.75

-2.74

-4.40

-5.41

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.

-79.74

-77.79

-75.47

-74.06

-70.57

-63.32

-61.59

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-13.00

-13.00

-13.00

-13.00

-13.00

-13.00

-13.00

-61.63

-60.25

-58.19

-57.40

-54.13

-45.02

-43.36



582.90

640.13

731.31

1693.20

2539.80

-71.36

-70.37

-70.15

-67.93

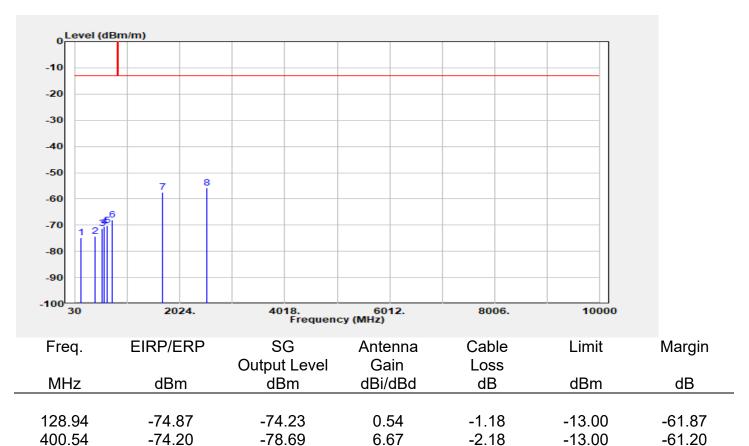
-57.45

-55.91

### Report No.: TERF2206000792ER Page: 46 of 47

Report Number	:TERF2206000792ER
Operation Mode	:WCDMA B5
Test Mode	:Tx
EUT Pol	:H Plane
Test Frequency	:846.6 MHz

Test Site	:SAC 1
Test Date	:2022-06-15
Temp./Humi.	:24.8/66
Antenna Pol.	:VERTICAL
Engineer	:GN Lin



6.64

6.28

6.05

6.08

9.77

10.76

-2.40

-2.81

-2.26

-2.74

-4.42

-5.41

-13.00

-13.00

-13.00

-13.00

-13.00

-13.00

-58.36

-57.37

-57.15

-54.93

-44.45

-42.91

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.

-75.60

-73.84

-73.94

-71.27

-62.81

-61.26

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### Report No.: TERF2206000792ER Page: 47 of 47

Report Number	:TERF2206000792ER
Operation Mode	:WCDMA B5
Test Mode	:Tx
EUT Pol	:H Plane
Test Frequency	:846.6 MHz

Test Site	:SAC 1
Test Date	:2022-06-15
Temp./Humi.	:24.8/66
Antenna Pol.	:HORIZONTAL
Engineer	:GN Lin

-10 -20 -30 -40 -50 -60 -70 -80 -90	7 8 7 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
30	2024.	4018. Frequenc	6012. sy (MHz)	8006.	10000	
Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
95.96 200.72	-72.13 -73.90	-73.09 -78.99	1.97 6.56	-1.01 -1.47	-13.00 -13.00	-59.13 -60.90
470.38	-73.61	-77.63	6.36	-2.35	-13.00	-60.61
579.99	-71.27	-74.76	6.29	-2.81	-13.00	-58.27
627.52	-71.27 -70.05	-73.61	6.03	-2.47	-13.00	-57.05
	-71.27			-		

#### ~ End of Report ~

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