

## **ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT**



Applicant: Manufacturer:	CASTLES TECHNOLOGY CO., LTD. 6F, NO. 207-5, SEC. 3, BEIXIN RD., XINDIAN DISTRICT, NEW TAIPEI CITY 23143, TAIWAN (R.O.C) CASTLES TECHNOLOGY CO., LTD. 6F, NO. 207-5, SEC. 3, BEIXIN RD., XINDIAN DISTRICT, NEW TAIPEI CITY 23143, TAIWAN (R.O.C)
Product Name:	Smart module
Brand Name:	CASTLES TECHNOLOGY
Model No.:	SLM500
Model Difference:	N/A
Report Number:	TERF2210002035E2
FCC ID	WIYSLM500QA
IC:	27350-SLM500QA
Issue Date:	December 08, 2022
Date of Test:	November 15, 2022
Date of EUT Received:	: October 20, 2022

Approved By

## 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   Revised By   Revised By								
TERF2210002035E2	00	Original.	December 08, 2022	Susan Lin				

Note:

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

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#### **GENERAL PRODUCT INFORMATION** 1

#### 1.1 **Product Description**

Product Name:	Smart module
Brand Name:	CASTLES TECHNOLOGY
Model No.:	SLM500
Model Difference:	N/A
Hardware Version:	V1.00
Firmware Version:	N/A
EUT Series No.:	TE_SP_20221007118
Product Name of Host:	POS Terminal
Brand Name of Host:	CASTLES TECHNOLOGY
Model No. of Host:	S1U2
Power Supply:	9Vdc from Adapter
Test Software (Name/Version):	N/A

#### 1.2 **Operation Frequency Range**

Operating Frequency (MHz)			Operating Freq	uency (MHz	<u>z)</u>	
GSM/GPRS/EDGE 850	824.2 -	824.2 - 848.8 WCDMA / HSPA+ Band II 1852.4 -				1907.6
GSM/GPRS/EDGE 1900	1850.2 -	1909.8	WCDMA / HSPA+ Band IV	1712.4	-	1752.6
		WCDMA / HSPA+ Band V	826.4	-	846.6	

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#### **Antenna Designation** 1.3

Antenna Type	Antenna Model No.			
Monopole	Ant0			
<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)
				Ant0
GSM/GPRS/EDGE 850	824.2	-	848.8	1.71
GSM/GPRS/EDGE 1900	1850.2	-	1909.8	3.41
WCDMA / HSPA+ Band II	1852.4	-	1907.6	3.41
WCDMA / HSPA+ Band IV	1712.4	-	1752.6	3.41
WCDMA / HSPA+ Band V	826.4	-	846.6	1.71

Note: Antenna information is provided by the applicant.

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#### Test Methodology of Applied Standards 1.4

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.

#### 1.5 **Test Facility**

Laboratory	Test Site Address	Test Site Name	FCC Designa- tion number	IC CAB identifier		
		SAC 1				
		SAC 2				
		SAC 3				
	No. 124 Mu Kung Dood, Now Toingi	Conduction 1				
	No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New	Conducted 1	TW0027			
	Taipei City, Taiwan.	Conducted 2	100027			
	Taiper City, Taiwan.	Conducted 3		TW3702		
		Conducted 4	_			
		Conducted 5				
SGS Taiwan Ltd.		Conducted 6				
Central RF Lab.		Conduction C	-			
(TAF code 3702)		SAC C				
		SAC D				
		SAC G				
	No 2 Kaji 1st Rd. Cujshan District	Conducted A				
	No.2, Keji 1st Rd., Guishan District,	Conducted B	TW0028			
	Taoyuan City, Taiwan 333	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.						

#### 1.6 Special Accessories

No special accessories were used during testing.

#### 1.7 **Equipment Modifications**

There was no modifications incorporated into the EUT.

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#### 1.8 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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#### SYSTEM TEST CONFIGURATION 2

#### 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.

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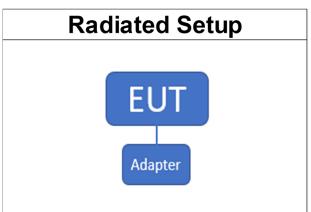
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#### **TEST CONFIGURATION** 3



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

#### 3.1 Control Unit(s)

Radiated Emission Test Site: SAC G							
EQUIPMENT TYPE	UIPMENT TYPE MFR MODEL NUMBER SERIAL NUMBER LAST CAL. CAL DUE.						
USB Cable	CHANG YANG ELECTRONICS CO., LTD	CY-AS-HK0059	N/A	N/A	N/A		
Adaptor	CASTLE TECHNOLOGY	PW04-945A	N/A	N/A	N/A		

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#### SUMMARY OF TEST RESULTS 4

FCC Rules	IC Rules	Description Of Test	Result
§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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#### **DESCRIPTION OF TEST MODES** 5

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

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

RADIATED EMISSION	GSM	Test Channel			
RADIATED EMISSION	Bands	L	М	Н	
ERP	850	-	-	-	
EIRP	1900	-	-	-	
FREQUENCY STABILITY	850	1	1	-	
	1900	I	I	-	
OCCUPIED BANDWIDTH	850	I	I	-	
OCCOPIED BANDWIDTH	1900	I	I	-	
PEAK TO AVERAGE RATIO	850	I	I	-	
PEAK TO AVERAGE RATIO	1900	I	I	-	
BAND EDGE	850	I	I	-	
DAND EDGE	1900	1	1	-	
CONDCUDETED EMISSION	850	-	-	-	
	1900	-	-	-	
RADIATED EMISSION	850	v	v	V	
	1900	v	v	v	

Test Items	WCDMA / HSPA	Test Channel			
i est items	Bands	L	М	Н	
ERP	Band V	-	-	-	
EIRP	Bnad II	1	-	-	
	Band IV	I	-	-	
	Bnad II	I	-	-	
FREQUENCY STABILITY	Band IV	I	-	-	
	Band V	I	-	-	
	Bnad II	I	-	-	
OCCUPIED BANDWIDTH	Band IV	I	-	-	
	Band V	-	-	-	
	Bnad II	I	-	-	
PEAK TO AVERAGE RATIO	Band IV	-	-	-	
	Band V	-	-	-	
	Bnad II	1	-	-	
BAND EDGE	Band IV	-	-	-	
	Band V	-	-	-	
	Bnad II	-	-	-	
CONDCUDETED EMISSION	Band IV	-	-	-	
	Band V	-	-	-	
	Bnad II	٧	V	V	
RADIATED EMISSION	Band IV	٧	V	V	
	Band V	٧	v	V	

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#### MEASUREMENT UNCERTAINTY 6

Test Items	Und	certair	nty
RF Power Output	+/-	1	dB
EPD/ EIPD magaurament	+/-	3	dB
ERP/ EIRP measurement	+/-	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	°C
Humidity	+/-	3.5	%
DC / AC Power Source	+/-	1	%

Radiated Spurious Emission Measurement Uncertainty						
Polarization: Vertical	+/-	2.57	dB	9kHz~30MHz		
	+/-	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		
	+/-	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 **Radiated Measurement**

Radiated Emission Test Site: SAC G							
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.		
Broadband Antenna	SCHWARZBECK	VULB 9168	1206	02/15/2022	02/14/2023		
Horn Antenna	Schwarzbeck	BBHA9170	184	12/15/2022	12/14/2023		
Horn Antenna	RF SPIN	DRH18-E	210105A18E	04/08/2022	04/07/2023		
3m Site NSA	SGS	966 chamber G	N/A	03/30/2022	03/29/2023		
Spectrum Analyzer	KEYSIGHT	N9010A	MY51440113	07/13/2022	07/14/2023		
Test Software	audix	e3	E3 20923 SGS Ver.9 ( C )	N.C.R	N.C.R		
Pre-Amplifier	EMC Instruments	EMC18405SEE	980881	10/25/2022	10/24/2023		
Pre-Amplifier	EMC Instruments	EMC330N	980781	03/15/2022	03/14/2023		
Pre-Amplifier	EMC Instruments	EMC118A45SE	980815	03/15/2022	03/14/2023		
Coaxial Cable	EMC Instruments	EMCCFD400-NM-NM- 8000-5000-2000	210216 \ 210217 \ 210218	03/15/2022	03/14/2023		
Coaxial Cable	EMC Instruments	EMC104-SM-SM- 8000-5000-5000	210219 \ 210220 \ 210221	03/15/2022	03/14/2023		
Coaxial Cable	EMC Instruments	EMC105-NM-NM- 5000-15000	210224 ` 210306	03/15/2022	03/14/2023		

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

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#### FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT 8

#### 8.1 Standard Applicable

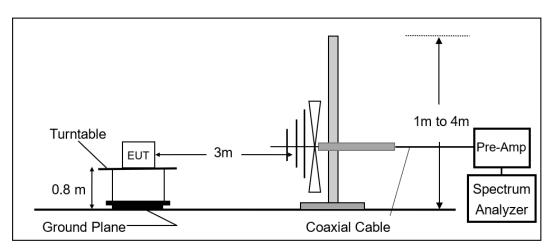
## According to FCC §2.1053,

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

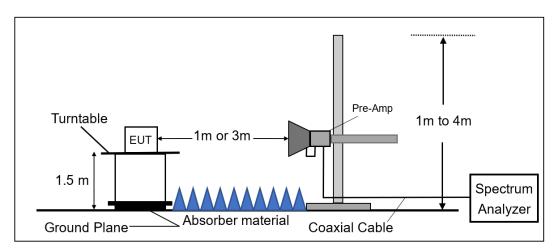
Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

#### 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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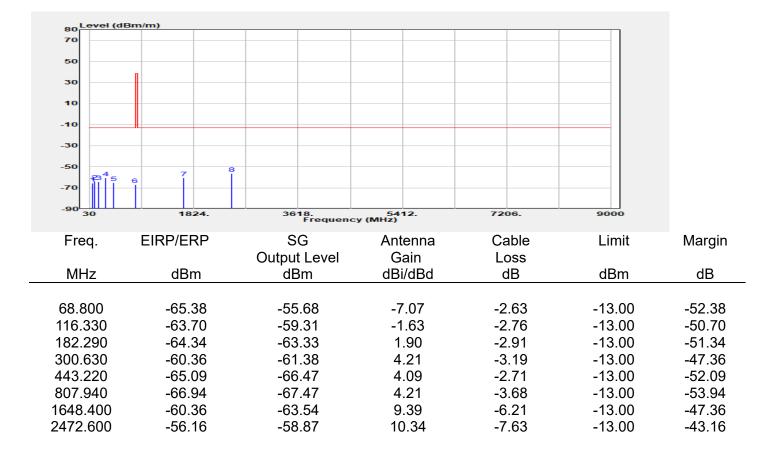
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#### 8.4 Measurement Result:

Report Number	:TERF2210002035E2	Test Site	:SAC G
Operation Mode	:GPRS850	Test Date	:2022-11-15
Test Mode	:Tx	Temp./Humi.	:21.1/62
EUT Pol	:H Plane	Antenna Pol.	:Vertical
Test Frequency	:824.2 MHz	Engineer	:Temo Chen



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www.sqs.com.tw



30 10 -10 -30 -50 -70

Freq.

MHz

205.570

261.830

297.720

382.110

455.830

807.940

1648.400

2472.600

Report Number	:TERF2210002035E2	Test Site	:SAC G
Operation Mode	:GPRS850	Test Date	:2022-11-15
Test Mode	:Tx	Temp./Humi.	:21.1/62
EUT Pol	:H Plane	Antenna Pol.	:Horizontal
		<b>—</b> ·	
Test Frequency	:824.2 MHz	Engineer	:Temo Chen
Test Frequency	:824.2 MHz	Engineer	:Temo Chen
Test Frequency		Engineer	:Temo Chen
Lovel (dRm)		Engineer	: I emo Chen

3618. 5412. Frequency (MHz)

Antenna

Gain

dBi/dBd

4.52

4.35

4.14

4.36

4.12

4.21

9.39

10.34

SG

**Output Level** 

dBm

-67.40

-58.56

-57.77

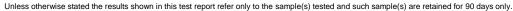
-63.78

-66.47

-69.67

-62.66

-58.97



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1824.

**EIRP/ERP** 

dBm

-65.86

-57.29

-56.80

-62.24

-65.03

-69.14

-59.48

-56.26

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7206.

Cable

Loss

dB

-2.98

-3.08

-3.17

-2.82

-2.68

-3.68

-6.21

-7.63

9000

Limit

dBm

-13.00

-13.00

-13.00

-13.00

-13.00

-13.00

-13.00

-13.00

Margin

dB

-52.86

-44.29

-43.80

-49.24-52.03

-56.14

-46.48

-43.26



Report Number	:TERF2210002035E2	Test Site	:SAC G
Operation Mode	:GPRS850	Test Date	:2022-11-15
Test Mode	:Tx	Temp./Humi.	:21.1/62
EUT Pol	:H Plane	Antenna Pol.	:Vertical
Test Frequency	:836.6 MHz	Engineer	:Temo Chen
80 Level (dBm/	/m)		
70			
50			
30			
10			
-10			
-30			
- <b>50</b>	7 8		
-70			
-90 30	1824. 3618. Frequency (M	5412. 720 IHz)	6. 9000

-90 30	1824.	3618. Frequency	5412. / (MHz)	7206.	9000	
Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
		Output Level	Gain	Loss		-
 MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
85.290	-69.58	-65.62	-1.33	-2.63	-13.00	-56.58
116.330	-63.18	-58.79	-1.63	-2.76	-13.00	-50.18
204.600	-60.53	-62.04	4.48	-2.97	-13.00	-47.53
299.660	-57.48	-58.48	4.19	-3.19	-13.00	-44.48
437.400	-64.55	-65.76	3.98	-2.77	-13.00	-51.55
804.060	-65.48	-66.00	4.15	-3.63	-13.00	-52.48
1673.200	-59.17	-62.28	9.40	-6.29	-13.00	-46.17
2509.800	-56.15	-59.07	10.58	-7.66	-13.00	-43.15

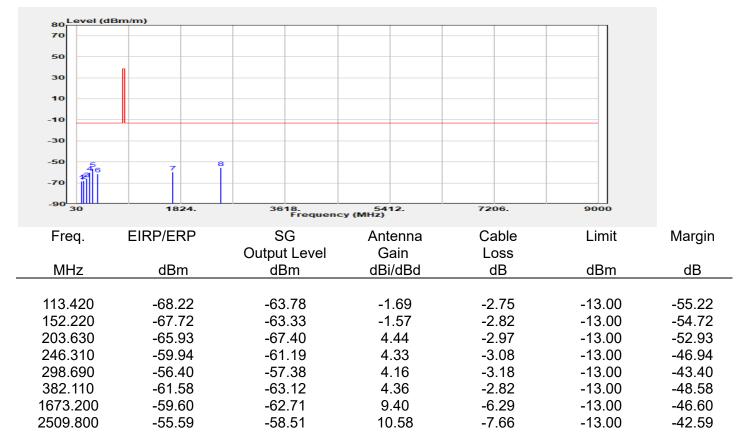
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Report Number	:TERF2210002035E2	Test Site	:SAC G
Operation Mode	:GPRS850	Test Date	:2022-11-15
Test Mode	:Tx	Temp./Humi.	:21.1/62
EUT Pol	:H Plane	Antenna Pol.	:Horizontal
Test Frequency	:836.6 MHz	Engineer	:Temo Chen



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-46.18

-43.01

:SAC G



**Report Number** 

1697.600

2546.400

:TERF2210002035E2

Operation Mode	:GPRS850		Test	Date :202	2-11-15	
Test Mode	:Tx			o./Humi. :21.		
			•			
EUT Pol	:H Plane		Anter	nna Pol. :Ver	tical	
Test Frequency	:848.8 MHz		Engir	neer :Ten	no Chen	
80 Level (dBm	/m)			1		
70						
50						
30						
10						
-10						
-30						
-50	- 8					
-70	Í					
-90						
30	1824.	3618. Frequenc	5412. cy (MHz)	7206.	9000	
Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
		Output Level	Gain	Loss		
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
115.360	-62.10	-57.61	-1.73	-2.76	-13.00	-49.10
182.290	-60.76	-59.75	1.90	-2.91	-13.00	-47.76
206.540	-60.19	-61.77	4.56	-2.98	-13.00	-47.19
300.630	-57.99	-59.01	4.21	-3.19	-13.00	-44.99
431.580	-64.63	-65.76	3.93	-2.80	-13.00	-51.63
804.060	-66.18	-66.70	4.15	-3.63	-13.00	-53.18

**Test Site** 

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-62.26

-59.14

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-59.18

-56.01

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9.40

10.87

-6.32

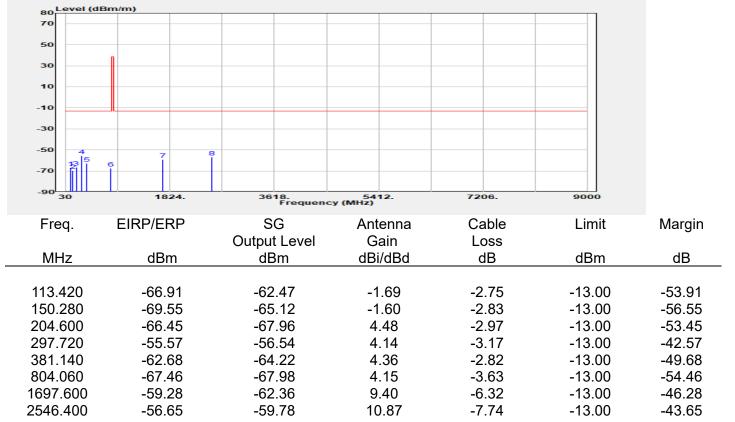
-7.74

-13.00

-13.00



Report Number	:TERF2210002035E2	Test Site	:SAC G
Operation Mode	:GPRS850	Test Date	:2022-11-15
Test Mode	:Tx	Temp./Humi.	:21.1/62
EUT Pol	:H Plane	Antenna Pol.	:Horizontal
Test Frequency	:848.8 MHz	Engineer	:Temo Chen



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Report No.: TERF2210002035E2 Page: 22 of 45



Report Number Operation Mode	:TERF221000 :GPRS1900	)2035E2		st Site st Date	:SAC G :2022-11-15	
Test Mode	:Tx		Ter	np./Humi.	:21.1/62	
EUT Pol	:H Plane			enna Pol.	:Vertical	
Test Frequency	:1850.2 MHz			gineer	:Temo Chen	
rootrioquonoy	1000.2 1112		213	ginoon		
80 Level (dBn	n/m)					7
70						
50						
30						
10						
-10	J					
-30						
-50	Ĩ					
-70						
-90 30	3824.	7618. Frequenc	11412. y (MHz)	1520	6. 190	
Freq.	EIRP/ERP	SG	Antenna	Cab	ole Lir	nit Margin
		Output Level	Gain	Los		5
MHz	dBm	dBm	dBi/dBd	dE	3 dE	3m dB
115.360	-62.68	-58.19	-1.73	-2.7	76 _13	.00 -49.68
183.260	-59.93	-59.07	2.05	-2.9	-	-46.93
205.570	-59.97	-61.51	4.52	-2.9		-46.97
300.630	-57.78	-58.80	4.21	-3.1		.00 -44.78
439.340	-64.49	-65.76	4.02	-2.7		.00 -51.49
804.060	-66.40	-66.92	4.15	-3.6		-53.40
3700.400 5550.600	-53.86 -46.41	-56.57 -48.09	12.20 13.30	-9.4 -11.		.00 -40.86 .00 -33.41
3330.000	-40.41	-+0.03	10.00	-11.	-13	.00 -00.41

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Report Number	:TERF221000	2035E2	-	Test Site	:SAC G		
Operation Mode	:GPRS1900		-	Test Date	:2022-11-	15	
Test Mode	:Tx		-	Temp./Humi.	:21.1/62		
EUT Pol	:H Plane			Antenna Pol.	:Horizonta	al	
Test Frequency	:1850.2 MHz		I	Engineer	:Temo Ch	en	
80 Level (dBm/r 70 50 30 10 -10 -30 -50 5 -70	m)						
-90 30	3824.	7618. Frequenc	11412. y (MHz)	152	206.	19000	
Freq. E	IRP/ERP	SG Output Level	Antenı Gain		able oss	Limit	Margin
MHz	dBm	dBm	dBi/dE	Bd c	B	dBm	dB
113.420	-67.80	-63.36	-1.69		.75	-13.00	-54.80
152.220	-68.41	-64.02	-1.57		.82	-13.00	-55.41
183.260 264.740	-67.03 -57.36	-66.17 -58.60	2.05 4.32		.91 .08	-13.00 -13.00	-54.03 -44.36
296.750	-55.95	-56.90	4.32	-	.08	-13.00	-44.30
806.000	-68.01	-68.54	4.19	-	.66	-13.00	-55.01
3700.400	-53.78	-56.49	12.20		.49	-13.00	-40.78

13.30

-11.62

-13.00

-33.82

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-48.50

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-46.82

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Report No.: TERF2210002035E2 Page: 24 of 45



Report Number Operation Mode Test Mode EUT Pol	:TERF221000 :GPRS1900 :Tx :H Plane	02035E2	Anten	Date   :2022-     ./Humi.   :21.1/6     na Pol.   :Vertical	11-15 :2 al	
Test Frequency	:1880 MHz		Engin	eer :Temo	Chen	
30						
-10 -30 -50 -70 -90	7 8					
30	3824.	7618. Frequency	11412. y (MHz)	15206.	19000	
Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
112.450 151.250	-61.76 -63.11	-57.34 -58.71	-1.67 -1.57	-2.75 -2.83	-13.00 -13.00	-48.76 -50.11
182.290	-60.34	-59.33	1.90	-2.91	-13.00	-47.34
207.510	-60.02	-61.64	4.60	-2.98	-13.00	-47.02
296.750	-55.13	-56.08	4.11	-3.16	-13.00	-42.13
804.060	-66.85	-67.37	4.15	-3.63	-13.00	-53.85
3760.000	-52.47	-55.14	12.10	-9.43	-13.00	-39.47
5640.000	-47.45	-49.23	13.46	-11.68	-13.00	-34.45

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Report Number Operation Mode Test Mode EUT Pol	:TERF221000 :GPRS1900 :Tx :H Plane	02035E2	•	_	-11-15 62	
Test Frequency	:1880 MHz		Engir	neer :Temo	o Chen	
80 Level (dBm 70 50 30	/m)					
-10						
-30 -50 -70		• • • • • • • • • • • • • • • • • • •				
-90 30	3824.	7618. Frequency	11412. y (MHz)	15206.	19000	
Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
111.480 182.290	-67.42 -67.85	-63.13 -66.84	-1.54 1.90	-2.75 -2.91	-13.00 -13.00	-54.42 -54.85
266.680	-57.42	-00.84 -58.57	4.24	-2.91	-13.00	-54.85 -44.42
299.660	-56.43	-57.43	4.19	-3.19	-13.00	-43.43
382.110	-62.17	-63.71	4.36	-2.82	-13.00	-49.17
807.940	-68.06	-68.59	4.21	-3.68	-13.00	-55.06
3760.000	-52.81	-55.48	12.10	-9.43	-13.00	-39.81
5640.000	-46.66	-48.44	13.46	-11.68	-13.00	-33.66

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:SAC G



**Report Number** 

:TERF2210002035E2

			1001			
Operation Mode	:GPRS1900		Test	Date :202	2-11-15	
Test Mode	:Tx		Tem	p./Humi. :21.	1/62	
EUT Pol	:H Plane		Ante	nna Pol.     :Ver	tical	
Test Frequency	:1909.8 MHz		Engi	neer :Ter	no Chen	
80 Level (dBm/r	m)					
70						
50						
30						
10						
-10						
-30						
-50 4	7 8					
-70						
-90 30	4024.	8018.	12012.	16006.	20000	
		Frequence	cy (MHz)			
Freq. E	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
		Output Level	Gain	Loss		
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
86.260	-68.44	-64.81	-1.00	-2.63	-13.00	-55.44
113.420	-61.93	-57.49	-1.69	-2.75	-13.00	-48.93
182.290	-60.29	-59.28	1.90	-2.91	-13.00	-47.29
300.630	-55.00	-56.02	4.21	-3.19	-13.00	-42.00
438.370	-64.62	-65.86	4.00	-2.76	-13.00	-42.00
807.940	-66.43	-66.96	4.21	-3.68	-13.00	-53.43
3819.600	-53.68	-56.19	12.10	-9.59	-13.00	-40.68
						-

**Test Site** 

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-49.49

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-47.88

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13.34

-11.73

-13.00

-34.88

5729.400

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-33.62

:SAC G



**Report Number** 

:TERF2210002035E2

Operation Mode	:GPRS1900	20002	Test		2-11-15	
•						
Test Mode	:Tx		-	o./Humi. :21.		
EUT Pol	:H Plane		Anter	nna Pol. :Hor	izontal	
Test Frequency	:1909.8 MHz		Engir	neer :Ter	no Chen	
80 Level (dBm/	m)					
70						
50						
30						
10						
-10						
-30						
-50 3	7 8					
-70						
-90 30	4024.	8018.	12012.	16006.	20000	
		Frequen	cy (MHz)			
Freq. E	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
N 41 1		Output Level	Gain	Loss	10	
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
183.260	-67.62	-66.76	2.05	-2.91	-13.00	-54.62
202.660	-65.83	-67.26	4.40	-2.97	-13.00	-52.83
263.770	-57.53	-58.78	4.33	-3.08	-13.00	-44.53
298.690	-55.43	-56.41	4.16	-3.18	-13.00	-42.43
807.940	-69.42	-69.95	4.21	-3.68	-13.00	-56.42
980.600	-71.13	-70.41	3.80	-4.52	-13.00	-58.13
3819.600	-53.13	-55.64	12.10	-9.59	-13.00	-40.13

**Test Site** 

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-48.23

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-46.62

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13.34

-11.73

-13.00

5729.400

Report No.: TERF2210002035E2 Page: 28 of 45



Report Number Operation Mode Test Mode EUT Pol	:Tx :H Plane	2	Tem Ante	Date :2022 p./Humi. :21.1/ nna Pol. :Verti	-11-15 /62 cal	
Test Frequency	:1852.4 MHz	<u>-</u>	Engi	neer :Tem	o Chen	
80 Level (dBr	n/m)					
70						
30						
10						
-10						
-30						
-50	- Í · · · ·	8				
-70						
-90 30	3824.	7618. Frequency	11412. / (MHz)	15206.	19000	
Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
N 41 1	-ID	Output Level	Gain	Loss	ID	
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
114.390	-62.64	-58.14	-1.75	-2.75	-13.00	-49.64
152.220	-63.65	-59.26	-1.57	-2.82	-13.00	-50.65
182.290	-59.86	-58.85	1.90	-2.91	-13.00	-46.86
204.600	-60.17	-61.68	4.48	-2.97	-13.00	-47.17
298.690	-55.73	-56.71	4.16	-3.18	-13.00	-42.73
807.940	-66.40	-66.93	4.21	-3.68	-13.00	-53.40
3704.800	-41.84	-44.54	12.19	-9.49	-13.00	-28.84
5557.200	-42.86	-44.51	13.30	-11.65	-13.00	-29.86

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Report No.: TERF2210002035E2 Page: 29 of 45



Report Number Operation Mode Test Mode EUT Pol	:TERF22100 :WCDMA B2 :Tx :H Plane		-	_	11-15 52	
Test Frequency	:1852.4 MHz		Engin			
Test Flequency	. 1052.4 10112		Engi		Chen	
80 Level (dBm	1/m)					
70						
50						
30						
10						
-10						
-30	7 8	β				
-50						
-70						
-90 30	3824.	7618. Frequency	11412. (MHz)	15206.	19000	
Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
		Output Level	Gain	Loss		
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
114.390	-67.64	-63.14	-1.75	-2.75	-13.00	-54.64
202.660	-66.14	-67.57	4.40	-2.97	-13.00	-53.14
266.680	-57.64	-58.79	4.24	-3.09	-13.00	-44.64
298.690	-56.41	-57.39	4.16	-3.18	-13.00	-43.41
321.970	-58.80	-59.74	4.18	-3.24	-13.00	-45.80
384.050	-62.53	-64.08	4.37	-2.82	-13.00	-49.53
3704.800	-44.93	-47.63	12.19	-9.49	-13.00	-31.93
5557.200	-40.98	-42.63	13.30	-11.65	-13.00	-27.98

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Report No.: TERF2210002035E2 Page: 30 of 45



Report Number Operation Mode Test Mode EUT Pol	:TERF22100 :WCDMA B2 :Tx :H Plane		Te Te	st Site st Date mp./Humi. itenna Pol.	:SAC G :2022-11-15 :21.1/62 :Vertical		
Test Frequency	:1880 MHz		En	igineer	:Temo Chen		
80 Level (dBm	n/m)					-	
50						-	
30						-	
10							
-10							
-50	7	3					
-70						_	
-90 30	3824.	7618.	11412.	1520	06. 19	0000	
		Frequency	(MHz)				
Freq.	EIRP/ERP	SG	Antenna			imit	Margin
MHz	dBm	Output Level dBm	Gain dBi/dBd	Lo dl		IBm	dB
	UDIII	UDIII	udi/udu	u	<u> </u>	IDIII	UD
113.420	-62.64	-58.20	-1.69	-2.	75 -1	3.00	-49.64
151.250	-62.99	-58.59	-1.57	-2.	83 -1	3.00	-49.99
204.600	-59.83	-61.34	4.48	-2.	97 -1	3.00	-46.83
298.690	-56.04	-57.02	4.16	-3.	-	3.00	-43.04
325.850	-59.74	-60.70	4.21	-3.		3.00	-46.74
806.000	-66.32	-66.85	4.19	-3.		3.00	-53.32
3760.000	-44.52	-47.19	12.10	-9.4	-	3.00	-31.52
5640.000	-43.80	-45.58	13.46	-11.	.68 -1	3.00	-30.80

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Report No.: TERF2210002035E2 Page: 31 of 45



Report Number Operation Mode Test Mode EUT Pol Test Frequency	:TERF22100 :WCDMA B2 :Tx :H Plane :1880 MHz		Test Tem Ante	np./Humi. :21.1 enna Pol. :Hori	2-11-15	
80 Level (dBm	1/m)					
30 10 -10						
-30 -50 -70		8				
-90 30	3824.	7618. Frequency	11412. / (MHz)	15206.	19000	
Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
204.600 298.690	-65.36 -56.57	-66.87 -57.55	4.48 4.16	-2.97 -3.18	-13.00 -13.00	-52.36 -43.57
327.790	-59.14	-60.11	4.22	-3.25	-13.00	-46.14
381.140	-62.82	-64.36	4.36	-2.82	-13.00	-49.82
518.880	-69.45	-70.76	4.08	-2.77	-13.00	-56.45
807.940	-68.26	-68.79	4.21	-3.68	-13.00	-55.26
3760.000 5640.000	-46.70 -42.90	-49.37 -44.68	12.10 13.46	-9.43 -11.68	-13.00 -13.00	-33.70 -29.90
3040.000	-42.30	-44.00	15.40	-11.00	-13.00	-29.90

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Report No.: TERF2210002035E2 Page: 32 of 45



Report Number Operation Mode Test Mode EUT Pol	:TERF221000 :WCDMA B2 :Tx :H Plane	02035E2	Tem	Date p./Humi.	:SAC G :2022-11-15 :21.1/62 :Vertical	
Test Frequency	:1907.6 MHz		Engi	neer	:Temo Chen	
80 Level (dBm 70 50 30 10 -10 -30 -50 -70	/m)					
-90 30	4024.	8018. Frequency	12012. y (MHz)	16006	. 20000	
Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cabl Loss		Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
111.480 182.290 300.630	-63.31 -60.53 -55.78	-59.02 -59.52 -56.80	-1.54 1.90 4.21	-2.75 -2.9 -3.15	1 -13.00	-50.31 -47.53 -42.78
322.940 523.730	-59.38 -69.33	-60.32 -70.75	4.18 4.14	-3.24 -2.72	4 -13.00 2 -13.00	-46.38 -56.33
804.060 3815.200	-66.78 -42.52	-67.30 -45.03	4.15 12.10	-3.63 -9.59		-53.78 -29.52

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-46.39

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-44.78

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5722.800

f (886-2) 2298-0488

13.35

-11.74

-13.00

-31.78

Report No.: TERF2210002035E2 Page: 33 of 45



Report Number Operation Mode Test Mode EUT Pol Test Frequency	:TERF221000 :WCDMA B2 :Tx :H Plane :1907.6 MHz	02035E2		Date o./Humi. nna Pol.	:SAC G :2022-11-15 :21.1/62 :Horizontal :Temo Chen		
80 Level (dBm 70 50 30 10 -10 -30 -50 4 -70	1/m)						
-90 30	4024.	8018. Frequency	12012. / (MHz)	1600	6. 200	000	
Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cat Los		mit Margin	۱
MHz	dBm	dBm	dBi/dBd	dE	3 dE	Bm dB	
113.420 151.250 206.540 297.720 383.080	-68.09 -67.84 -66.16 -56.23 -62.99	-63.65 -63.44 -67.74 -57.20 -64.54	-1.69 -1.57 4.56 4.14 4.37	-2.7 -2.8 -2.9 -3.1 -2.8	33 -13 98 -13 17 -13	3.00 -55.09   3.00 -54.84   3.00 -53.16   3.00 -43.23   3.00 -49.99	4 5 3
450.980 3815.200	-65.58 -42.36	-64.54 -67.07 -44.87	4.12 12.10	-2.6 -2.6 -9.5	63 -13	3.00 -49.99 3.00 -52.58 3.00 -29.36	3

13.35

-11.74

-13.00

-28.29

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-42.90

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-41.29

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5722.800

Report No.: TERF2210002035E2 Page: 34 of 45



Report Number Operation Mode	:TERF221000 :WCDMA B4	02035E2			C G 22-11-15	
Test Mode	:Tx			-	1/62	
				•		
EUT Pol	:H Plane		Ante	nna Pol. :Ve	rtical	
Test Frequency	:1712.4 MHz		Engi	neer :Tei	mo Chen	
80 Level (dBm	/m)					
70						
50						
30						
10						
-10						
-30	7 8					
-50						
-70						
-90 30	3624.	7218. Frequency	10812. y (MHz)	14406.	18000	
Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
		Output Level	Gain	Loss		-
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
112.450	-62.57	-58.15	-1.67	-2.75	-13.00	-49.57
182.290	-60.71	-59.70	1.90	-2.91	-13.00	-47.71
203.630	-59.97	-61.44	4.44	-2.97	-13.00	-46.97
298.690	-55.53	-56.51	4.16	-3.18	-13.00	-42.53
325.850	-59.31	-60.27	4.21	-3.25	-13.00	-46.31
804.060	-66.21	-66.73	4.15	-3.63	-13.00	-53.21
3424.800	-42.42	-45.78	12.45	-9.09	-13.00	-29.42
5137.200	-44.33	-45.68	12.45	-11.10	-13.00	-31.33

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Report No.: TERF2210002035E2 Page: 35 of 45



Report Number	:TERF221000	2035E2	Test	Site	:SAC G	
Operation Mode	:WCDMA B4		Test	Date	:2022-11-15	
Test Mode	:Tx		Tem	p./Humi.	:21.1/62	
EUT Pol	:H Plane		Ante	enna Pol.	:Horizontal	
Test Frequency	:1712.4 MHz		Eng	ineer	:Temo Chen	
80 Level (dBm	/m)				<b>1</b>	
50						
30						
10						
-10						
-30	7 8					
-50	ÍÍ					
-70						
-90 30	3624.	7218. Frequenc	10812. y (MHz)	14406	. 18000	
Freq.	EIRP/ERP	SG	Antenna	Cabl	e Limit	Margin
		Output Level	Gain	Loss		15
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
182.290	-68.25	-67.24	1.90	-2.9	1 -13.00	-55.25
245.340	-59.91	-61.18	4.34	-3.0	7 -13.00	-46.91
296.750	-56.37	-57.32	4.11	-3.10	6 -13.00	-43.37
326.820	-59.70	-60.66	4.21	-3.2	5 -13.00	
676.990	-72.43	-72.78	3.83	-3.48		
807.940	-70.45	-70.98	4.21	-3.68		-57.45
3424.800	-44.66	-48.02	12.45	-9.09	9 -13.00	-31.66

12.45

-11.10

-13.00

-30.32

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-44.67

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-43.32

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5137.200

Report No.: TERF2210002035E2 Page: 36 of 45



Report Number Operation Mode Test Mode EUT Pol Test Frequency	:TERF22100 :WCDMA B4 :Tx :H Plane :1732.4 MHz		Te Te An	st Date mp./Humi. tenna Pol.	:SAC G :2022-11-15 :21.1/62 :Vertical :Temo Chen	
80 Level (dBm 70	/m)					
30 10 -10						
-30 -50 -70 -90 30	3624.		10812.	14406	18000	
50	5024.	7218. Frequency	(MHz)	11100		
Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cabl Loss		Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
112.450 182.290	-62.41 -60.67	-57.99 -59.66	-1.67 1.90	-2.75 -2.9		-49.41 -47.67
205.570	-59.22	-60.76	4.52	-2.98	3 -13.00	-46.22
298.690	-55.70	-56.68	4.16	-3.18	-13.00	-42.70
440.310	-65.08	-66.37	4.04	-2.75		-52.08
806.970	-66.16	-66.69	4.20	-3.67		-53.16
3464.800	-44.61	-47.78	12.34	-9.17		-31.61
5197.200	-42.81	-44.52	12.88	-11.1	7 -13.00	-29.81

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:WCDMA B4 :Tx :H Plane :1732.4 MHz	200022	Te Te Al	emp./Humi. ntenna Pol.	:SAC G :2022-11-15 :21.1/62 :Horizontal :Temo Chen		
7 8	7218. Frequenc:	10812. y (MHz)		6. 180		
RP/ERP	SG	Antenna			mit	Margin
dBm	dBm				Зm	dB
-68.86 -65.63 -57.72 -56.49 -62.75 -67.54 -46.64	-64.36 -67.17 -58.92 -57.47 -64.29 -68.07 -49.81	-1.75 4.52 4.29 4.16 4.37 4.21 12.34	-2.9 -3.0 -3.7 -2.8 -3.0 -9.7	98 -13 09 -13 18 -13 83 -13 68 -13 17 -13	3.00 3.00 3.00 3.00 3.00 3.00 3.00	-55.86 -52.63 -44.72 -43.49 -49.75 -54.54 -33.64 -28.38
	WCDMA B4 Tx H Plane 1732.4 MHz 1732.4 MHz 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Tx H Plane 1732.4 MHz 7 8 7 8 7 8 7 8 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 7 7 8 7 7 7 8 7 7 7 7 8 7 7 7 7 8 7 7 7 7 8 7 7 7 7 7 8 7 7 7 7 7 7 8 7 7 7 7 7 8 7	WCDMA B4 Telestical   Tx Telestical   H Plane Au   1732.4 MHz En   Interview Interview   Interview Interview<	WCDMA B4 Test Date   Tx Temp./Humi.   H Plane Antenna Pol.   1732.4 MHz Engineer   Image: Second Sec	WCDMA B4 Test Date :2022-11-15   Tx Temp./Humi. :21.1/62   H Plane Antenna Pol. :Horizontal   1732.4 MHz Engineer :Temo Chen   Image: Seg Colspan="2">Antenna Pol.   100000000000000000000000000000000000	WCDMA B4 Test Date :2022-11-15   Tx Temp./Humi. :21.1/62   H Plane Antenna Pol. :Horizontal   1732.4 MHz Engineer :Temo Chen   Image: Second Character Stress   100000000000000000000000000000000000

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Report Number Operation Mode Test Mode EUT Pol Test Frequency	:TERF22100 :WCDMA B4 :Tx :H Plane :1752.6 MHz		Te Te Ar	est Site est Date emp./Humi. ntenna Pol. ngineer	:SAC G :2022-11-15 :21.1/62 :Vertical :Temo Chen	
80 Level (dBm	I/m)					]
50 30 10						
-10 -30 -50	7 8	3				
-70 -90 30	3624.	7218. Frequency	10812.	1440	6. 1800	00
			(MHz)			
Freq.	EIRP/ERP	SG Output Level	Antenna Gain	i Cat Los		nit Margin
MHz	dBm	dBm	dBi/dBd	dE	3 dB	m dB
113.420	-62.71	-58.27	-1.69	-2.7		
151.250	-63.68	-59.28	-1.57	-2.8		
183.260	-60.30	-59.44	2.05	-2.9		
246.310	-59.24	-60.49	4.33	-3.0		
297.720	-56.19	-57.16	4.14	-3.		
807.940	-66.68	-67.21	4.21	-3.6		
3505.200	-41.97	-45.05	12.18	-9.1		
5257.800	-42.03	-44.11	13.30	-11.	<b>22</b> -13.	.00 -29.03

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Report Number	:TERF22100	02035E2	Test			
Operation Mode	:WCDMA B4		Test	Date :2022	2-11-15	
Test Mode	:Tx		Tem	o./Humi. :21.1	/62	
EUT Pol	:H Plane		Antei	nna Pol. :Horiz	zontal	
Test Frequency	:1752.6 MHz		Engir	neer :Tem	o Chen	
80 Level (dBm	/m)					
70 50						
30						
-10						
-30	7 8	3				
-50 31 110 6						
-70						
-90 30	3624.	7218. Frequency	10812. / (MHz)	14406.	18000	
Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
		Output Level	Gain	Loss		
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
111.480	-67.74	-63.45	-1.54	-2.75	-13.00	-54.74
246.310	-59.97	-61.22	4.33	-3.08	-13.00	-46.97
298.690	-56.98	-57.96	4.16	-3.18	-13.00	-43.98
381.140	-62.96	-64.50	4.36	-2.82	-13.00	-49.96
454.860	-66.16	-67.61	4.12	-2.67	-13.00	-53.16
806.000	-67.65	-68.18	4.19	-3.66	-13.00	-54.65
3505.200	-43.85	-46.93	12.18	-9.10	-13.00	-30.85
5257.800	-43.21	-45.29	13.30	-11.22	-13.00	-30.21

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Report Number Operation Mode	:TERF221000 :WCDMA B5	02035E2		Γest Site Γest Date	:SAC G :2022-11- <sup>-</sup>	15	
Test Mode	:Tx		1	ſemp./Humi.	:21.1/62		
EUT Pol	:H Plane		ŀ	Antenna Pol.	:Vertical		
Test Frequency	:826.4 MHz		E	Engineer	:Temo Ch	en	
80 Level (dBm/r 70 50 30 10 -10 -50 -70	m)						
-90 30	1824.	3618. Frequenc	5412. y (MHz)	720	06.	9000	
Freq. E	EIRP/ERP	SG Output Level	Antenr Gain		able oss	Limit	Margin
MHz	dBm	dBm	dBi/dE	d c	IB	dBm	dB
113.420	-61.91	-57.47	-1.69		.75	-13.00	-48.91
182.290	-60.35	-59.34	1.90		.91	-13.00	-47.35
204.600	-60.92	-62.43	4.48		.97	-13.00	-47.92
245.340	-58.24	-59.51	4.34		.07	-13.00	-45.24
298.690	-55.83	-56.81	4.16		.18	-13.00	-42.83
804.060	-66.51	-67.03	4.15		.63	-13.00	-53.51
1652.500	-53.44	-56.61	9.40		.23	-13.00	-40.44

10.37

-7.62

-13.00

-40.23

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

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Report No.: TERF2210002035E2 Page: 41 of 45



Report Number	:TERF22100020	35E2	Test Site	:SAC G	
Operation Mode	:WCDMA B5		Test Date	:2022-11-15	
Test Mode	:Tx		Temp./Humi.	:21.1/62	
EUT Pol	:H Plane		Antenna Pol.	:Horizontal	
Test Frequency	:826.4 MHz	:826.4 MHz		:Temo Chen	
80 Level (dBm/	m)				
70					
50					
30					
10					
-10					
-30	8				
-50					
-70					
-90 30	1824.	3618. 541 Frequency (MHz)	12. 720	6. 9000	

Freq.	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
203.630	-66.03	-67.50	4.44	-2.97	-13.00	-53.03
248.250	-59.87	-61.10	4.33	-3.10	-13.00	-46.87
297.720	-55.86	-56.83	4.14	-3.17	-13.00	-42.86
382.110	-62.57	-64.11	4.36	-2.82	-13.00	-49.57
519.850	-69.21	-70.53	4.08	-2.76	-13.00	-56.21
807.940	-68.36	-68.89	4.21	-3.68	-13.00	-55.36
1652.500	-49.71	-52.88	9.40	-6.23	-13.00	-36.71
2478.600	-45.33	-48.08	10.37	-7.62	-13.00	-32.33

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Report No.: TERF2210002035E2 Page: 42 of 45



Report Number Operation Mode Test Mode EUT Pol	:TERF221000 :WCDMA B5 :Tx :H Plane	02035E2	-		2-11-15 1/62	
Test Frequency	:836.6 MHz		Engir	neer :Ten	no Chen	
80 Level (dBm/ 70 50 30 10 -10 -30 -50 -70 6	m)					
-90 30	1824.	3618. Frequency	5412. y (MHz)	7206.	9000	
Freq. E	EIRP/ERP	SG Output Level	Antenna Gain	Cable Loss	Limit	Margin
MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
111.480 203.630 247.280 298.690	-63.09 -59.99 -59.54 -55.83	-58.80 -61.46 -60.78 -56.81	-1.54 4.44 4.33 4.16	-2.75 -2.97 -3.09 -3.18	-13.00 -13.00 -13.00 -13.00	-50.09 -46.99 -46.54 -42.83
320.030	-58.60	-59.53	4.16	-3.23	-13.00	-45.60

4.21

9.40

10.58

-3.68

-6.29

-7.66

-13.00

-13.00

-13.00

-53.80

-39.91

-41.25

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-56.02

-57.17

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-66.80

-52.91

-54.25

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Report No.: TERF2210002035E2 Page: 43 of 45



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Report Number	:TERF2210002035E2	Test Site	:SAC G
Operation Mode	:WCDMA B5	Test Date	:2022-11-15
Test Mode	:Tx	Temp./Humi.	:21.1/62
EUT Pol	:H Plane	Antenna Pol.	:Horizontal
Test Frequency	:836.6 MHz	Engineer	:Temo Chen
80 Level (dBm/	m)		
80 Level (dBm/	m)		
	m)		
70	m)		
50	m)		

-90						
30 1824. 3618.		3618. Frequency	5412. (MHz)	7206.	9000	
Freq.	EIRP/ERP	SG	Antenna	Cable	Limit	Margin
		Output Level	Gain	Loss		
 MHz	dBm	dBm	dBi/dBd	dB	dBm	dB
114.390	-62.71	-60.96	-1.75	0.00	-13.00	-49.71
244.370	-57.09	-61.43	4.34	0.00	-13.00	-44.09
297.720	-52.67	-56.81	4.14	0.00	-13.00	-39.67
326.820	-55.38	-59.59	4.21	0.00	-13.00	-42.38
383.080	-59.07	-63.44	4.37	0.00	-13.00	-46.07
805.030	-64.20	-68.38	4.18	0.00	-13.00	-51.20
1673.200	-48.06	-51.17	9.40	-6.29	-13.00	-35.06
2509.800	-46.05	-48.97	10.58	-7.66	-13.00	-33.05

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Report No.: TERF2210002035E2 Page: 44 of 45



Report Number	:TERF221000	)2035E2		Test Site	:SAC	G	
Operation Mode	:WCDMA B5			Test Date	:2022	2-11-15	
Test Mode	:Tx			Temp./Hur	mi. :21.1/	/62	
EUT Pol	:H Plane			Antenna P	ol. :Verti	cal	
Test Frequency	:846.6 MHz			Engineer	:Tem	o Chen	
80 Level (dBm/ 70	m)						
30							
-10							
-30							
-50 4 125 6	7 8						
-70							
-90 30	1824.	3618. Frequenc	5412. y (MHz)		7206.	9000	
Freq. E	EIRP/ERP	SG	Anten	na	Cable	Limit	Margin
·		Output Level	Gair	n	Loss		· ·
MHz	dBm	dBm	dBi/d	3d	dB	dBm	dB
114.390	-60.04	-58.29	-1.7	5	0.00	-13.00	-47.04
182.290	-57.90	-59.80	1.90	)	0.00	-13.00	-44.90
204.600	-57.74	-62.22	4.48	3	0.00	-13.00	-44.74
298.690	-52.77	-56.93	4.16	6	0.00	-13.00	-39.77
323.910	-56.00	-60.19	4.19	)	0.00	-13.00	-43.00
804.060	-61.64	-65.79	4.15	5	0.00	-13.00	-48.64
1693.200	-51.82	-54.91	9.40	)	-6.31	-13.00	-38.82

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10.82

-7.75

-13.00

-42.05

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Report No.: TERF2210002035E2 Page: 45 of 45



Report Number Operation Mode Test Mode EUT Pol	:TERF221000 :WCDMA B5 :Tx :H Plane	02035E2	Tes Ten Ante	t Site t Date np./Humi. enna Pol.	:SAC G :2022-11-15 :21.1/62 :Horizontal		
Test Frequency	:846.6 MHz		Eng	lineer	:Temo Chen		
80 Level (dBm	/m)						
50						-	
30							
10							
-10						-	
-30	7 8						
-50 -70						-	
-90 30	1824.	3618. Frequency	5412. / (MHz)	720	6. 90	000	
Freq.	EIRP/ERP	SG	Antenna	Cal	ble Li	mit	Margin
•		Output Level	Gain	Lo			C C
MHz	dBm	dBm	dBi/dBd	d	B dl	Bm	dB
114.390	-64.88	-63.13	-1.75	0.0		3.00	-51.88
182.290	-64.71	-66.61	1.90	0.0		3.00	-51.71
268.620	-54.45	-58.60	4.15	0.0	.00 -13	3.00	-41.45
297.720	-53.00	-57.14	4.14	0.0		3.00	-40.00
321.970	-56.01	-60.19	4.18	0.0		3.00	-43.01
807.940	-63.51	-67.72	4.21	0.0		3.00	-50.51
1693.200	-46.73	-49.82	9.40	-6.		3.00	-33.73
2539.800	-48.26	-51.33	10.82	-7.	75 -13	3.00	-35.26

~ End of Report ~

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