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FCC REPORT

For WCDMA

Report No. ..... :	**CHTW24080063**	Report Verification:
Project No.....:	**SHT2407091302W**	
FCC ID ..... :	**2ASWW-GT32**	
Applicant ..... :	**XINCHUANGXIN INTERNATIONAL CO. LTD**	
Address.....:	ROOM 605 6/F, FA YUEN COMMERCIAL BUILDING, 75-77 FA YUEN STREET MONGKOK KL	
Product Name ..... :	**Feature phone**	
Trade Mark .....:	CORN	
Model No. .....:	GT32	
Listed Model(s) .....:	-	
Standard ..... :	**FCC CFR Title 47 Part 2** **FCC CFR Title 47 Part 22 Subpart H** **FCC CFR Title 47 Part 24 Subpart E**	
Date of receipt of test sample.....:	Aug. 01, 2024	
Date of testing.....:	Aug. 02, 2024- Aug. 14, 2024	
Date of issue.....:	Aug. 21, 2024	
Result.....:	**Pass**	

Compiled by (position+printedname+signature)...:	File administrators Xiaodong Zhao	Xiaodong Zhao
Supervised by (position+printedname+signature)....:	Project Engineer Xiaodong Zhao	Xiaodong Zhao
Approved by (position+printedname+signature)....:	RF Manager Xu yang	Xu Yang

Testing Laboratory Name ..... :	**Shenzhen Huatongwei International Inspection Co., Ltd.**
Address.....:	Building 7, Baiwang Idea Factory, No.1051, Songbai Road, Yangguang Community, Xili Subdistrict, Nanshan District, Shenzhen, Guangdong, China

Contents

1. TEST STANDARDS AND REPORT VERSION

1.1. Applicable Standards

The tests were performed according to following standards:

FCC CFR Title 47 Part 2: Frequency Allocations and Radio Treaty Matters; General Rules and Regulations

FCC CFR Title 47 Part 22 Subpart H: Cellular Radiotelephone Service

FCC CFR Title 47 Part 24 Subpart E: Broadband PCS

ANSI C63.26-2015: American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

KDB 971168 D01 Power Meas License Digital Systems v03: MEASUREMENT GUIDANCE FOR CERTIFICATION OF LICENSED DIGITAL TRANSMITTERS

1.2. Report version information

Revision No.	Date of issue	Description
N/A	2024-08-21	Original

2. TEST DESCRIPTION

Section	Test Item	Section in CFR 47	Result #1	Test Engineer
5.1	Conducted Output Power	Part 2.1046 Part 22.913(a) Part 24.232(c)	Pass	Xiaodong Zhao
5.2	Peak-to-Average Ratio	Part 24.232	Pass	Xiaodong Zhao
5.3	99% Occupied Bandwidth & 26 dB Bandwidth	Part 2.1049 Part 22.917(b) Part 24.238(b)	Pass	Xiaodong Zhao
5.4	Band Edge	Part 2.1051 Part 22.917 Part 24.238	Pass	Xiaodong Zhao
5.5	Conducted Spurious Emissions	Part 2.1051 Part 22.917 Part 24.238	Pass	Xiaodong Zhao
5.6	Frequency stability vs temperature	Part 2.1055(a)(1)(b) Part 22.355 Part 24.235	Pass	Xiaodong Zhao
5.7	Frequency stability vs voltage	Part 2.1055(d)(1)(2) Part 22.355 Part 24.235	Pass	Xiaodong Zhao
5.8	ERP and EIRP	Part 22.913(a) Part 24.232(b)	Pass	Xiaodong Zhao
5.9	Radiated Spurious Emissions	Part 2.1053 Part 22.917 Part 24.238	Pass	Yifan Wang

Note:

#1: The test result does not include measurement uncertainty value

3. SUMMARY

3.1. Client Information

Applicant:	XINCHUANGXIN INTERNATIONAL CO. LTD
Address:	ROOM 605 6/F, FA YUEN COMMERCIAL BUILDING, 75-77 FA YUEN STREET MONGKOK KL
Manufacturer:	Shenzhen Chiteng Technology Co.,LTD
Address:	Second Floor,Area A, Building 4, Huiye Technology Workshop, Guanguang Road, Tangjia Community, Gongming Street, Guangming New District, Shenzhen, Guangdong

3.2. Product Description

Main unit information:	
Product Name:	Feature phone
Trade Mark:	CORN
Model No.:	GT32
Listed Model(s):	-
Power supply:	DC 3.7V from Battery
Hardware version:	ZS621TLF_MB_V1.0
Software version:	ZS621TLF_128160_A18413TLF_GT32_CORN_EnFrPoSp_V01_20240710
Accessory unit information:	
Battery information:	BL-5C Voltage:3.7V Capcaity:1000mAh 3.7V Li-ion BATTERY 3.7 Wh
Adapter information:	Input: AC100-240Vac 50/60Hz 150mA Output: DC 5.2V 500mA

3.3. Radio Specification Description

Support Operating Band:	☒ Band II	☐ Band IV	☒ Band V	
Operating Frequency Range:	Please refer to note #2			
Support Type:	☒ WCDMA	☒ HSDPA	☒ HSUPA	☐DC-HSUPA
Modulation Type:	☒ QPSK	☐ 16QAM		
Power Class:	☒ Class 3	☐ Class 4		
Antenna type:	PIFA			
Antenna gain #3:	Band II: 0.5dBi	Band V: -0.7dBi		

Note:

- ☒: means that this feature is supported; ☐: means that this feature is not supported
- #2: Operating frequency range is as follow:

WCDMA Band	Uplink frequency	Downlink frequency
Band II	1852.40~1907.60MHz	1932.40~1987.60MHz

Band V	826.40~846.60MHz	871.40~891.60MHz

○ #3: The antenna gain is provided by the applicant, and the applicant should be responsible for its authenticity, HTW lab has not verified the authenticity of its information

3.4. Testing Laboratory Information

Laboratory Name	Shenzhen Huatongwei International Inspection Co., Ltd.	
Laboratory Location	Building 7, Baiwang Idea Factory, No.1051, Songbai Road, Yangguang Community, Xili Subdistrict, Nanshan District, Shenzhen, Guangdong, China	
Contact information:	Phone: 86-755-26715499 E-mail: cs@szhtw.com.cn http://www.szhtw.com.cn	
Qualifications	Type	Accreditation Number
	FCC Registration Number	762235
	FCC Designation Number	CN1181

4. TEST CONFIGURATION

4.1. Test frequency list

FDD Band II		FDD Band V	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
9262	1852.40	4132	826.40
9400	1880.00	4182	836.40
9538	1907.60	4233	846.60

4.2. Test mode

Test mode	Link mode

1) Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems and ANSI C63.26 with maximum output power.
2) Radiated measurements were performed with rotating EUT in different three orthogonal test planes to find the maximum emission.

All modes and data rates and positions were investigated, test modes are chosen to be reported as the worst case configuration below:

Band	Radiated test items	Conducted test items
WCDMA Band V	RMC 12.2Kbps Link	RMC 12.2Kbps Link
WCDMA Band II	RMC 12.2Kbps Link	RMC 12.2Kbps Link

4.3. Test sample information

Test item	HTW sample no.
Conducted test items	Please refer to the description in the appendix report
Radiated test items	YPHT24070913001_02

Note:

Conducted test items: Conducted Output Power, Peak-Average Ratio, 99% Occupied Bandwidth & 26 dB Bandwidth, Band Edge, Conducted Spurious Emissions, Frequency stability, ERP and EIRP

Radiated test items: Radiated Spurious Emission

4.4. Support unit used in test configuration and system

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

The following peripheral devices and interface cables were connected during the measurement:

Whether support unit is used?				
✓ No				
Item	Equipment	Trade Name	Model No.	Other
1				
2				

4.5. Testing environmental condition

Voltage	VN=Nominal Voltage	DC 3.70V
	VL=Lower Voltage	DC 3.33V
	VH=Higher Voltage	DC 4.07V
Temperature	TN=Normal Temperature	25 °C
	Extreme Temperature	From −30°C to + 50°C
Humidity	30~60 %	
Air Pressure	950-1050 hPa	

4.6. Statement of the measurement uncertainty

No.	Test Items	Measurement Uncertainty
1	Conducted Output Power	0.66
2	Peak-to-Average Ratio	-
3	99% Occupied Bandwidth & 26 dB Bandwidth	0.002%
4	Band Edge	1.68dB
5	Conducted Spurious Emissions	1.68dB
6	Frequency stability	0.02ppm
7	Radiated Spurious Emission	4.54dB for 30MHz-1GHz 5.10dB for above 1GHz

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

4.7. Equipments Used during the Test

● RF Conducted test item							
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Spectrum Analyzer	Agilent	HTWE0286	N9020A	MY50510187	2023/08/22	2024/08/21
●	Radio communication tester	R&S	HTWE0287	CMW500	137688-Lv	2023/08/25	2024/08/24
●	Test software	Tonscend	N/A	JS1120	N/A	N/A	N/A
●	T-Cock	Weinschel	HTWE0289	1580	SC329	2023/08/22	2024/08/21

● Auxiliary Equipment							
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Climate chamber	ESPEC	HTWS0715	GPL-2	N/A	2023/08/21	2024/08/20
●	DC Power Supply	Gwinstek	HTWE0274	SPS-2415	GER835793	N/A	N/A

● Radiated Spurious Emission							
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Semi-Anechoic Chamber	Albatross projects	HTWE0122	SAC-3m-01	C11121	2023/4/17	2026/4/16
●	Spectrum Analyzer	R&S	HTWE0098	FSP40	100597	2023/8/22	2024/8/21
●	Spectrum Analyzer	R&S	HTWE0385	N9020A	MY54486658	2023/8/22	2024/8/21
●	Ultra-Broadband Antenna	SCHWARZBECK	HTWE0123	VULB9163	538	2024/4/8	2027/4/7
●	Horn Antenna	SCHWARZBECK	HTWE0126	BBHA 9120D	1011	2023/2/14	2026/2/13
●	Broadband Horn Antenna	SCHWARZBECK	HTWE0103	BBHA9170	BBHA9170472	2023/2/20	2026/2/19
●	Pre-Amplifer	CD	HTWE0071	PAP-0102	12004	2024/6/6	2025/6/5
●	Broadband Pre-amplifier	SCHWARZBECK	HTWE0551	SCU18F	100855	2024/6/6	2025/6/5
●	Test Software	Audix	N/A	E3	N/A	N/A	N/A

● Auxiliary Equipment							
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
●	Radio communication tester	R&S	HTWE0287	CMW500	137688-Lv	2023/08/25	2024/08/24
●	High pass filter	Wainwright	HTWE0297	WHKX3.0/18G-10SS	38	2024/03/26	2025/03/25
●	Band Stop filter	-	HTWE0039	N/A	N/A	2024/01/23	2025/01/24

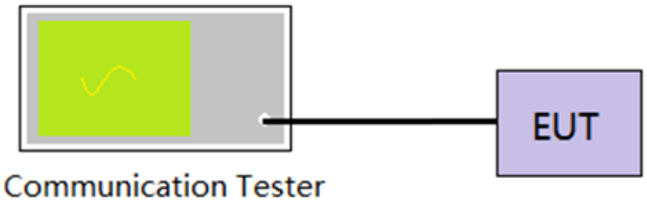
5. TEST CONDITIONS AND RESULTS

5.1. Conducted Output Power

LIMIT

N/A

TEST CONFIGURATION



TEST PROCEDURE

1. The EUT output port was connected to communication tester.
2. Set EUT at maximum power through communication tester.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure the maximum burst average power.

TEST MODE

Please refer to the clause 4.2

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

TEST DATA

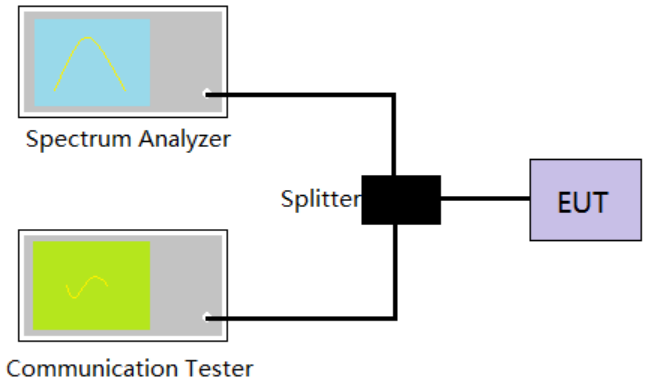
Refer to the appendix report

5.2. Peak-Average Ratio

LIMIT

13dB

TEST CONFIGURATION



TEST PROCEDURE

1. The EUT was connected to the spectrum analyzer and communication tester via a power splitter
2. Set EUT in maximum power output.
3. Center Frequency = Carrier frequency, RBW > Emission bandwidth of signal
4. The signal analyzer was set to collect one million samples to generate the CCDF curve
5. The measurement interval was set depending on the type of signal analyzed.
   i. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms.
   ii. For bursttransmissions, the spectrum analyzer is set to use an internal " RF Burst" trigger that issynced with an incoming pulse and the measurement interval is set to less than the durationof the " on time" of one burst to ensure that energy is only captured during a time in whichthetransmitter is operating at maximum power
6. Record the maximum PAPR level associated with a probability of 0.1%.

TEST MODE

Please refer to the clause 4.2

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

TEST DATA

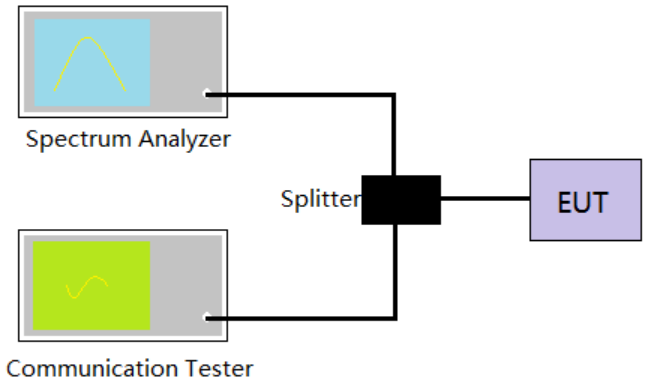
Refer to the appendix report

5.3. 99% Occupied Bandwidth & 26 dB Bandwidth

LIMIT

N/A

TEST CONFIGURATION



TEST PROCEDURE

1. The EUT was connected to the spectrum analyzer and communication tester via a power splitter
2. Set EUT in maximum power output.
3. Spectrum analyzer setting as follow:

   Center Frequency= Carrier frequency, RBW=1% to 5% of anticipated OBW, VBW= 3 * RBW, Detector=Peak, Trace maximum hold.
4. Record the value of 99% Occupied bandwidth and -26dB bandwidth.

TEST MODE

Please refer to the clause 4.2

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

TEST DATA

Refer to the appendix report

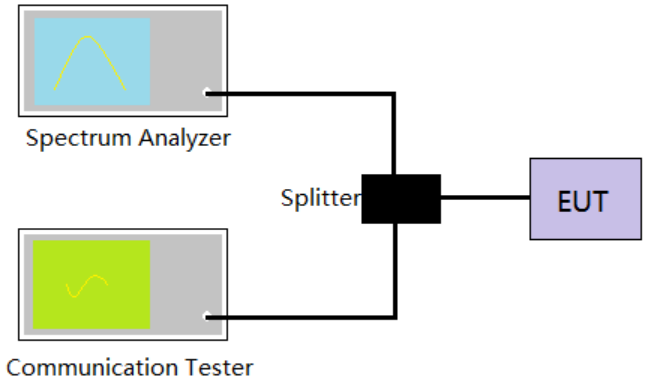
5.4. Band Edge

LIMIT

Part 24.238 and Part 22.917 specify that 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.

The specification that emissions shall be attenuated below the transmitter power (P) by at least 43 + 10 log (P) dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

TEST CONFIGURATION



TEST PROCEDURE

1. The EUT was connected to the spectrum analyzer and communication tester via a power splitter
2. Set EUT in maximum power output.
3. The band edges of low and high channels were measured.
4. Spectrum analyzer setting as follow:
   RBW=100KHz, VBW = 300KHz, Sweep time= Auto
5. Record the test plot.

TEST MODE

Please refer to the clause 4.2

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

TEST DATA

Refer to the appendix report

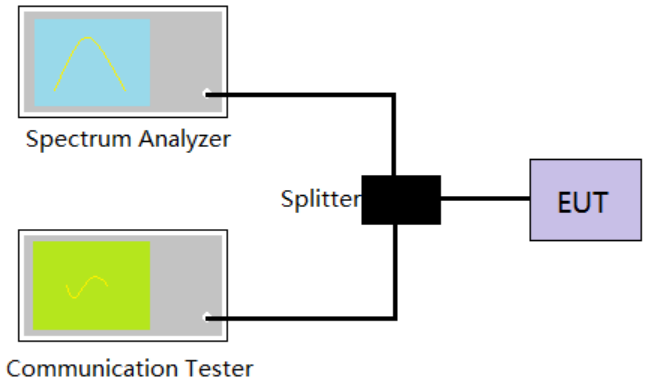
5.5. Conducted Spurious Emissions

LIMIT

Part 24.238 and Part 22.917 specify that 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.

The specification that emissions shall be attenuated below the transmitter power (P) by at least 43 + 10 log (P) dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

TEST CONFIGURATION



TEST PROCEDURE

1. The EUT was connected to the spectrum analyzer and communication tester via a power splitter
2. Set EUT in maximum power output.
3. Spectrum analyzer setting as follow:
   Below 1GHz, RBW=100KHz, VBW = 300KHz, Detector=Peak, Sweep time= Auto
   Above 1GHz, RBW=1MHz, VBW=3MHz, Detector=Peak, Sweep time= Auto
   Scan frequency range up to 10th harmonic.
4. Record the test plot.

TEST MODE

Please refer to the clause 4.2

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

TEST DATA

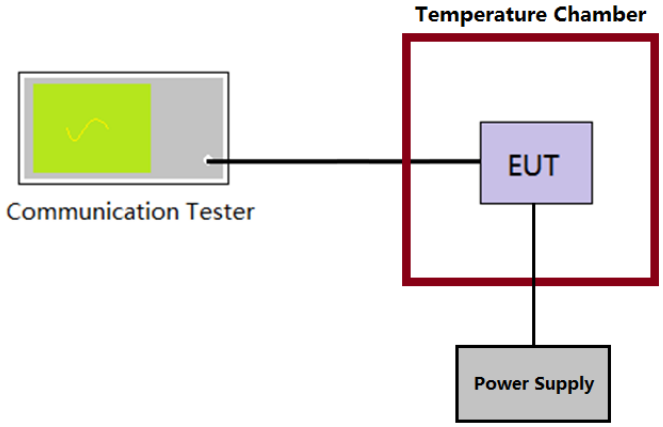
Refer to the appendix report

5.6. Frequency stability VS Temperature measurement

LIMIT

2.5ppm

TEST CONFIGURATION



TEST PROCEDURE

1. The equipment under test was connected to an external DC power supply and input rated voltage.
2. The EUT output port was connected to communication tester.
3. The EUT was placed inside the temperature chamber.
4. Turn EUT off and set the chamber temperature to –30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency.
5. Repeat step 4 measure with 10°C increased per stage until the highest temperature of +50°C reached.

TEST MODE

Please refer to the clause 4.2

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

TEST DATA

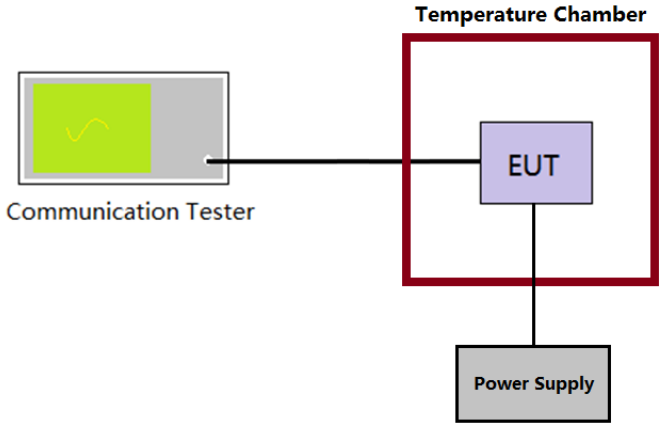
Refer to the appendix report

5.7. Frequency stability VS Voltage measurement

LIMIT

2.5ppm

TEST CONFIGURATION



TEST PROCEDURE

1. The equipment under test was connected to an external DC power supply and input rated voltage.
2. The EUT output port was connected to communication tester.
3. The EUT was placed inside the temperature chamber at 25°C
4. The power supply voltage to the EUT was varied ±15% of the nominal value measured at the input to the EUT
5. Record the maximum frequency change.

TEST MODE

Please refer to the clause 4.2

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

TEST DATA

Refer to the appendix report

5.8. ERP and EIRP

LIMIT

WCDMA Band V: 7W (38.45dBm) ERP

WCDMA Band II: 2W (33dBm) EIRP

TEST PROCEDURE

1. According to the power tested in section 5.1, select the maximum power in each mode, and use the following formula to calculate the corresponding ERP/EIRP.
2. ERP = conducted power + Gain(dBd)
3. EIRP = conducted power + Gain(dBi)

   ERP = EIRP - 2.15

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

TEST DATA

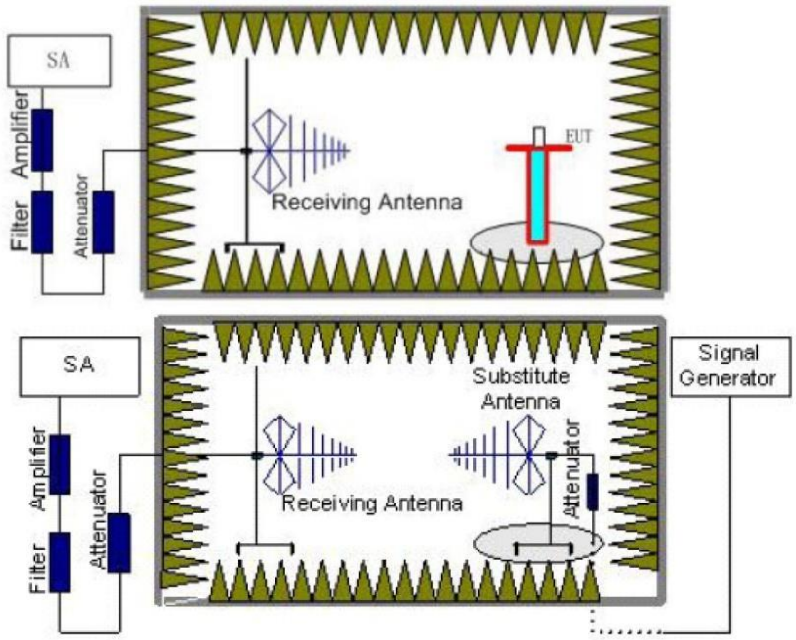
Refer to the appendix report

5.9. Radiated Spurious Emission

LIMIT

-13dBm

TEST CONFIGURATION



TEST PROCEDURE

1. Place the EUT in the center of the turntable.
   a) For radiated emissions measurements performed at frequencies less than or equal to 1 GHz, the EUT shall be placed on a RF-transparent table at a nominal height of 80 cm above the reference ground plane
   b) For radiated measurements performed at frequencies above 1 GHz, the EUT shall be placed on an RF transparent table at a nominal height of 1.5 m above the ground plane.
2. Unless the EUT uses an integral antenna, the EUT shall be terminated with a non-radiating transmitter load. In cases where the EUT uses an adjustable antenna, the antenna shall be adjusted through typical positions and lengths to maximize emissions levels.
3. The EUT shall be tested while operating on the frequency per manufacturer specification. Set the transmitter to operate in continuous transmit mode.
4. Receiver or Spectrum set as follow:

   Below 1GHz, RBW=100kHz, VBW=300kHz, Detector=Peak, Sweep time=Auto

   Above 1GHz, RBW=1MHz, VBW=3MHz, Detector=Peck, Sweep time=Auto
5. Each emission under consideration shall be evaluated:
   a) Raise and lower the measurement antenna from 1 m to 4 m, as necessary to enable detection of the maximum emission amplitude relative to measurement antenna height.
   b) Rotate the EUT through 360° to determine the maximum emission level relative to the axial position.
   c) Return the turntable to the azimuth where the highest emission amplitude level was observed.
   d) Vary the measurement antenna height again through 1 m to 4 m again to find the height associated with the maximum emission amplitude.
   e) Record the measured emission amplitude level and frequency
6. Repeat step 5 for each emission frequency with the measurement antenna oriented in both the horizontal and vertical polarizations to determine the orientation that gives the maximum emissions amplitude.
7. Set-up the substitution measurement with the reference point of the substitution antenna located as near

as possible to where the center of the EUT radiating element was located during the initial EUT measurement.

8. Maintain the previous measurement instrument settings and test set-up, with the exception that the EUT is removed and replaced by the substitution antenna.
9. Connect a signal generator to the substitution antenna; locate the signal generator so as to minimize any potential influences on the measurement results. Set the signal generator to the frequency where emissions are detected, and set an output power level such that the radiated signal can be detected by the measurement instrument, with sufficient dynamic range relative to the noise floor.
10. For each emission that was detected and measured in the initial test
    a) Vary the measurement antenna height between 1 m to 4 m to maximize the received (measured) signal amplitude.
    b) Adjust the signal generator output power level until the amplitude detected by the measurement instrument equals the amplitude level of the emission previously measured directly in step 5 and step 6.
    c) Record the output power level of the signal generator when equivalence is achieved in step b).
11. Repeat step 8 through step 10 with the measurement antenna oriented in the opposite polarization.
12. Calculate the emission power in dBm referenced to a half-wave dipole using the following equation:

    Pe = Ps(dBm) − cable loss (dB) + antenna gain (dBd)

    where

    Pe = equivalent emission power in dBm

    Ps = source (signal generator) power in dBm

    NOTE—dBd refers to the measured antenna gain in decibels relative to a half-wave dipole.
13. Correct the antenna gain of the substitution antenna if necessary to reference the emission power to a half-wave dipole. When using measurement antennas with the gain specified in dBi, the equivalent dipole-referenced gain can be determined from:

    gain (dBd) = gain (dBi) − 2.15 dB.

    If necessary, the antenna gain can be calculated from calibrated antenna factor information
14. Provide the complete measurement results as a part of the test report.

TEST MODE

Please refer to the clause 4.2

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

WCDMA Band II			
Test channel:	9262	Polarization:	Horizontal

Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	32.99	-76.05	26.67	1.04	30.99	-79.33	-13.00	-66.33	Peak
2	784.08	-77.39	29.80	5.73	29.23	-71.09	-13.00	-58.09	Peak
3	3709.69	-49.69	42.28	5.22	40.74	-42.93	-13.00	-29.93	Peak
4	4996.69	-63.11	44.35	6.00	40.20	-52.96	-13.00	-39.96	Peak
5	7470.56	-64.39	48.22	7.76	39.92	-48.33	-13.00	-35.33	Peak
6	10916.26	-65.41	52.71	8.83	40.62	-44.49	-13.00	-31.49	Peak

Test channel:	9262	Polarization:	Vertical

Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	158.30	-74.13	21.01	2.38	30.30	-81.04	-13.00	-68.04	Peak
2	506.98	-80.13	26.09	4.48	29.75	-79.31	-13.00	-66.31	Peak
3	3700.26	-46.78	42.32	5.22	40.76	-40.00	-13.00	-27.00	Peak
4	5836.04	-64.70	44.24	6.72	39.28	-53.02	-13.00	-40.02	Peak
5	7209.02	-64.84	48.64	7.52	39.69	-48.37	-13.00	-35.37	Peak
6	11486.41	-65.61	53.20	9.19	40.21	-43.43	-13.00	-30.43	Peak

Test channel:	9400	Polarization:	Horizontal

Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	39.75	-77.40	27.74	1.15	30.96	-79.47	-13.00	-66.47	Peak
2	765.02	-76.73	29.30	5.64	29.34	-71.13	-13.00	-58.13	Peak
3	3766.79	-52.40	42.22	5.25	40.65	-45.58	-13.00	-32.58	Peak
4	6363.65	-65.73	45.97	6.88	39.20	-52.08	-13.00	-39.08	Peak
5	7880.77	-65.14	47.98	8.02	39.97	-49.11	-13.00	-36.11	Peak
6	10888.51	-66.48	52.64	8.84	40.59	-45.59	-13.00	-32.59	Peak

Test channel:	9400	Polarization:	Vertical

Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	137.05	-77.62	21.76	2.21	30.55	-84.20	-13.00	-71.20	Peak
2	583.55	-80.26	26.81	4.85	29.57	-78.17	-13.00	-65.17	Peak
3	3757.21	-49.82	42.15	5.24	40.66	-43.09	-13.00	-30.09	Peak
4	4996.69	-61.64	44.50	6.00	40.20	-51.34	-13.00	-38.34	Peak
5	7470.56	-65.10	48.47	7.76	39.92	-48.79	-13.00	-35.79	Peak
6	11428.08	-66.12	53.15	9.14	40.27	-44.10	-13.00	-31.10	Peak

Test channel:	9538	Polarization:	Horizontal

Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	32.99	-77.48	26.67	1.04	30.99	-80.76	-13.00	-67.76	Peak
2	678.81	-79.82	28.03	5.27	29.42	-75.94	-13.00	-62.94	Peak
3	3815.03	-58.09	42.12	5.27	40.57	-51.27	-13.00	-38.27	Peak
4	4996.69	-62.61	44.35	6.00	40.20	-52.46	-13.00	-39.46	Peak
5	7451.57	-64.89	48.31	7.75	39.92	-48.75	-13.00	-35.75	Peak
6	11457.21	-66.01	52.97	9.17	40.24	-44.11	-13.00	-31.11	Peak

Test channel:	9538	Polarization:	Vertical

Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	89.87	-78.96	25.83	1.78	30.71	-82.06	-13.00	-69.06	Peak
2	759.66	-75.38	29.06	5.61	29.35	-70.06	-13.00	-57.06	Peak
3	3815.03	-55.06	41.98	5.27	40.57	-48.38	-13.00	-35.38	Peak
4	4996.69	-62.74	44.50	6.00	40.20	-52.44	-13.00	-39.44	Peak
5	7761.32	-65.28	48.50	8.00	40.00	-48.78	-13.00	-35.78	Peak
6	10944.09	-65.10	52.74	8.82	40.64	-44.18	-13.00	-31.18	Peak

WCDMA Band V			
Test channel:	4132	Polarization:	Horizontal

Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	159.42	-74.34	19.17	2.39	30.30	-83.08	-13.00	-70.08	Peak
2	477.56	-80.31	25.25	4.35	29.80	-80.51	-13.00	-67.51	Peak
3	4996.69	-63.69	44.35	6.00	40.20	-53.54	-13.00	-40.54	Peak
4	8002.06	-65.62	48.12	8.04	39.94	-49.40	-13.00	-36.40	Peak
5	9134.58	-66.21	48.99	8.45	39.95	-48.72	-13.00	-35.72	Peak
6	11428.08	-67.18	52.97	9.14	40.27	-45.34	-13.00	-32.34	Peak

Test channel:	4132	Polarization:	Vertical

Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	89.87	-79.09	25.83	1.78	30.71	-82.19	-13.00	-69.19	Peak
2	445.13	-79.41	25.44	4.18	29.98	-79.77	-13.00	-66.77	Peak
3	3003.17	-58.42	41.03	4.54	40.95	-53.80	-13.00	-40.80	Peak
4	4996.69	-62.11	44.50	6.00	40.20	-51.81	-13.00	-38.81	Peak
5	7470.56	-65.89	48.47	7.76	39.92	-49.58	-13.00	-36.58	Peak
6	10971.98	-67.21	52.76	8.81	40.67	-46.31	-13.00	-33.31	Peak

Test channel:	4183	Polarization:	Horizontal

Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	60.40	-78.06	24.20	1.43	30.69	-83.12	-13.00	-70.12	Peak
2	445.13	-79.22	25.99	4.18	29.98	-79.03	-13.00	-66.03	Peak
3	4501.49	-63.71	43.20	5.87	40.43	-55.07	-13.00	-42.07	Peak
4	6032.40	-66.45	44.68	6.70	39.22	-54.29	-13.00	-41.29	Peak
5	8042.90	-65.32	47.97	8.04	39.93	-49.24	-13.00	-36.24	Peak
6	11283.55	-67.97	52.95	9.03	40.42	-46.41	-13.00	-33.41	Peak

Test channel:	4183	Polarization:	Vertical

Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	100.57	-80.67	25.67	1.88	30.48	-83.60	-13.00	-70.60	Peak
2	420.77	-78.75	25.38	4.05	29.88	-79.20	-13.00	-66.20	Peak
3	1676.56	-49.78	36.18	3.36	41.44	-51.68	-13.00	-38.68	Peak
4	4996.69	-62.85	44.50	6.00	40.20	-52.55	-13.00	-39.55	Peak
5	7338.62	-65.75	48.61	7.65	39.84	-49.33	-13.00	-36.33	Peak
6	11283.55	-68.59	53.03	9.03	40.42	-46.95	-13.00	-33.95	Peak

Test channel:	4233	Polarization:	Horizontal

Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	37.84	-78.15	27.46	1.12	30.97	-80.54	-13.00	-67.54	Peak
2	454.62	-79.46	25.90	4.23	29.81	-79.14	-13.00	-66.14	Peak
3	4946.07	-66.57	44.17	5.97	40.22	-56.65	-13.00	-43.65	Peak
4	7338.62	-67.67	48.34	7.65	39.84	-51.52	-13.00	-38.52	Peak
5	9809.40	-67.75	50.59	8.60	39.86	-48.42	-13.00	-35.42	Peak
6	11457.21	-69.23	52.97	9.17	40.24	-47.33	-13.00	-34.33	Peak

Test channel:	4233	Polarization:	Vertical

Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	92.76	-79.77	25.85	1.81	30.65	-82.76	-13.00	-69.76	Peak
2	360.46	-78.56	24.26	3.73	30.01	-80.58	-13.00	-67.58	Peak
3	3709.69	-64.09	42.29	5.22	40.74	-57.32	-13.00	-44.32	Peak
4	5164.81	-65.21	44.02	6.14	40.01	-55.06	-13.00	-42.06	Peak
5	7413.73	-66.22	48.57	7.72	39.91	-49.84	-13.00	-36.84	Peak
6	10427.37	-68.23	52.06	8.94	40.16	-47.39	-13.00	-34.39	Peak

6. TEST SETUP PHOTOS OF THE EUT

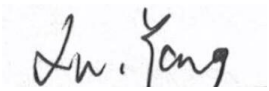
Refer to the test report No.: CHTW24080063

7. EXTERNAL AND INTERNAL PHOTOS OF THE EUT

Refer to the test report No.: CHTW24080063

8. APPENDIX REPORT

APPENDIX REPORT

Project No.	SHT2407091302W	Radio Specification	WCDMA
Test sample No.	YPHT24070913001_01	Model No.	GT32
Start test date	2024-08-13	Finish date	2024-08-13
Temperature	23.5℃	Humidity	56%
Test Engineer	Xiaodong Zhao	Auditor	

Appendix clause	Test item	Result
A	Conducted Output Power	PASS
B	Peak-to-Average Ratio	PASS
C	26 dB Bandwidth and Occupied Bandwidth	PASS
D	Band edge	PASS
E	Conducted Spurious Emission	PASS
F	Frequency Stability	PASS
G	ERP and EIRP	PASS

AppendixA: Conducted Output Power

Test Result

Band	Channel	Power(dBm)	Limit(dBm)	Verdict
Band2	9262	23.00	33.01	PASS
Band2	9400	23.08	33.01	PASS
Band2	9538	22.97	33.01	PASS
Band5	4132	21.41	38.45	PASS
Band5	4182	21.36	38.45	PASS
Band5	4233	21.38	38.45	PASS

Band	Channel	SubTest	Power(dBm)	Limit(dBm)	Verdict
Band2	9262	1	23.96	33.01	PASS
Band2	9400	1	24.04	33.01	PASS
Band2	9538	1	23.79	33.01	PASS
Band2	9262	2	23.77	33.01	PASS
Band2	9400	2	23.86	33.01	PASS
Band2	9538	2	23.57	33.01	PASS
Band2	9262	3	22.44	33.01	PASS
Band2	9400	3	22.56	33.01	PASS
Band2	9538	3	22.34	33.01	PASS
Band2	9262	4	22.48	33.01	PASS
Band2	9400	4	22.60	33.01	PASS
Band2	9538	4	22.38	33.01	PASS
Band5	4132	1	22.22	38.5	PASS
Band5	4182	1	22.18	38.5	PASS
Band5	4233	1	22.09	38.5	PASS
Band5	4132	2	21.40	38.5	PASS
Band5	4182	2	21.36	38.5	PASS
Band5	4233	2	21.23	38.5	PASS
Band5	4132	3	19.84	38.5	PASS
Band5	4182	3	19.93	38.5	PASS
Band5	4233	3	19.85	38.5	PASS
Band5	4132	4	19.87	38.5	PASS
Band5	4182	4	19.94	38.5	PASS
Band5	4233	4	19.84	38.5	PASS

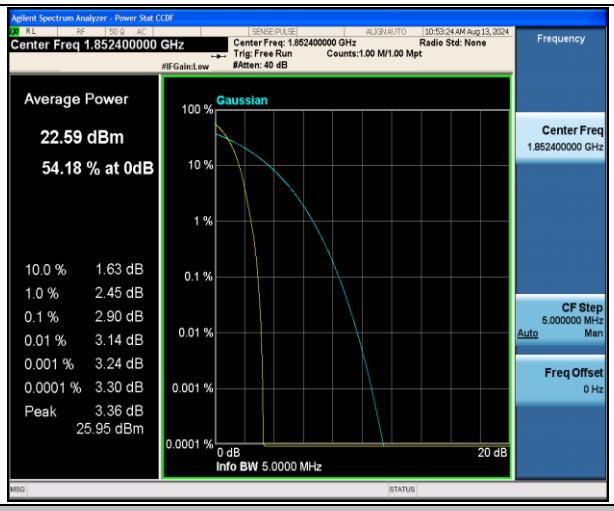
Band	Channel	SubTest	Power(dBm)	Limit(dBm)	Verdict
Band2	9262	1	20.32	33.01	PASS
Band2	9400	1	20.42	33.01	PASS
Band2	9538	1	20.29	33.01	PASS
Band2	9262	2	20.84	33.01	PASS
Band2	9400	2	20.96	33.01	PASS
Band2	9538	2	20.81	33.01	PASS
Band2	9262	3	21.28	33.01	PASS
Band2	9400	3	20.94	33.01	PASS
Band2	9538	3	20.80	33.01	PASS
Band2	9262	4	21.31	33.01	PASS
Band2	9400	4	21.22	33.01	PASS
Band2	9538	4	21.08	33.01	PASS
Band2	9262	5	22.89	33.01	PASS
Band2	9400	5	23.03	33.01	PASS
Band2	9538	5	22.86	33.01	PASS
Band5	4132	1	18.89	38.5	PASS
Band5	4182	1	18.67	38.5	PASS
Band5	4233	1	18.44	38.5	PASS
Band5	4132	2	18.86	38.5	PASS
Band5	4182	2	18.77	38.5	PASS
Band5	4233	2	18.67	38.5	PASS
Band5	4132	3	19.38	38.5	PASS
Band5	4182	3	18.81	38.5	PASS
Band5	4233	3	18.68	38.5	PASS
Band5	4132	4	19.00	38.5	PASS
Band5	4182	4	18.68	38.5	PASS
Band5	4233	4	18.48	38.5	PASS
Band5	4132	5	22.11	38.5	PASS
Band5	4182	5	22.02	38.5	PASS
Band5	4233	5	22.03	38.5	PASS

AppendixB:Peak-to-Average Ratio

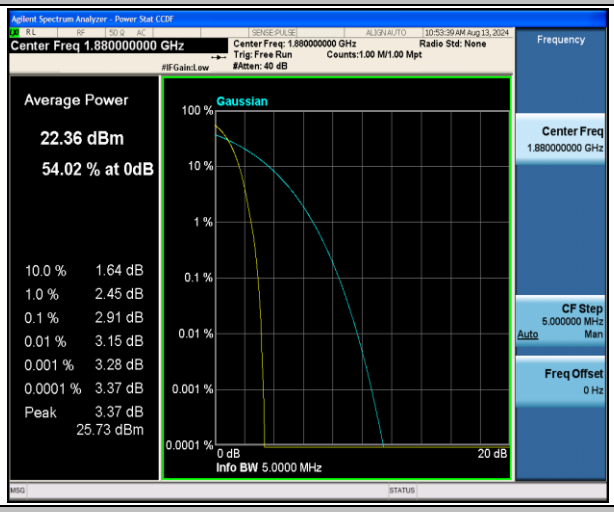
Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band2	9262	2.90	13	PASS
Band2	9400	2.91	13	PASS
Band2	9538	2.85	13	PASS
Band5	4132	2.98	13	PASS
Band5	4182	2.77	13	PASS
Band5	4233	2.92	13	PASS

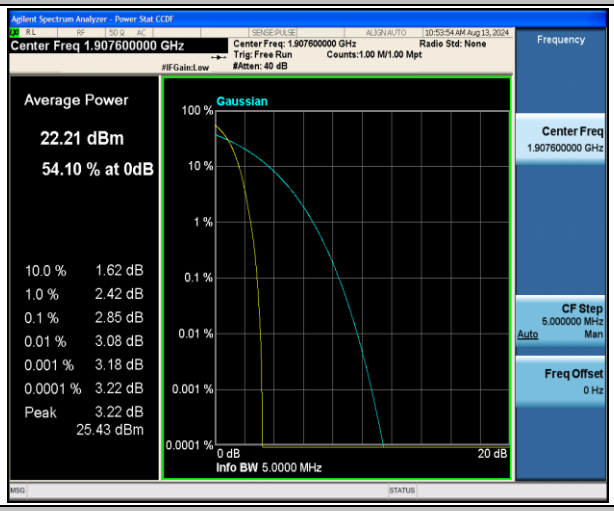
Test Graphs



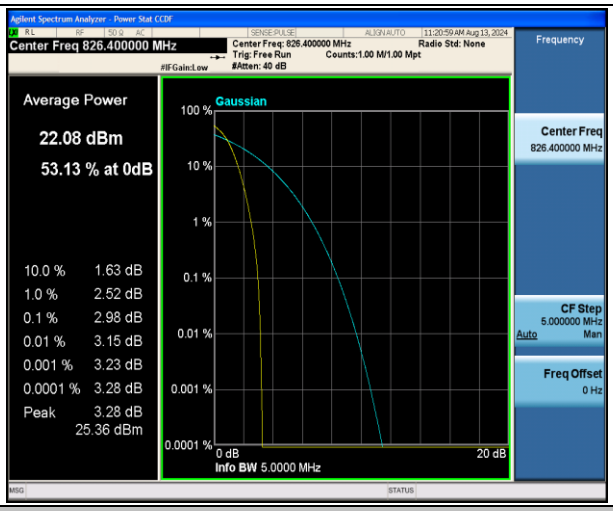
Band2-9262-PASS



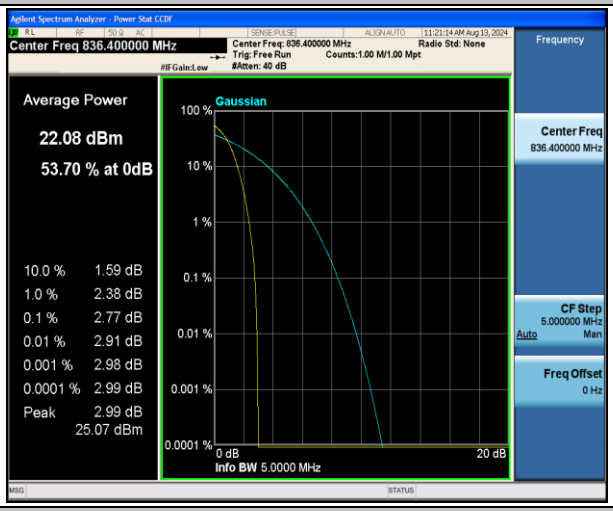
Band2-9400-PASS



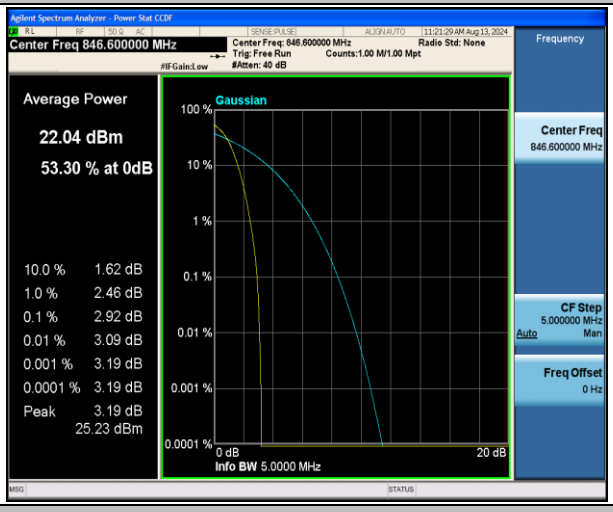
Band2-9538-PASS



Band5-4132-PASS



Band5-4182-PASS



Band5-4233-PASS

AppendixC:26dB Bandwidth andOccupied Bandwidth

Test Result

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(kHz)	Verdict
Band2	9262	4.1481	4.672	---	PASS
Band2	9400	4.1484	4.674	---	PASS
Band2	9538	4.1449	4.682	---	PASS
Band5	4132	4.1482	4.667	---	PASS
Band5	4182	4.1439	4.679	---	PASS
Band5	4233	4.1568	4.681	---	PASS

Test Graphs

Band2-9262-PASS

Band2-9400-PASS

Band2-9538-PASS

Band5-4132-PASS

Band5-4182-PASS

Band5-4233-PASS

AppendixD:Band Edge

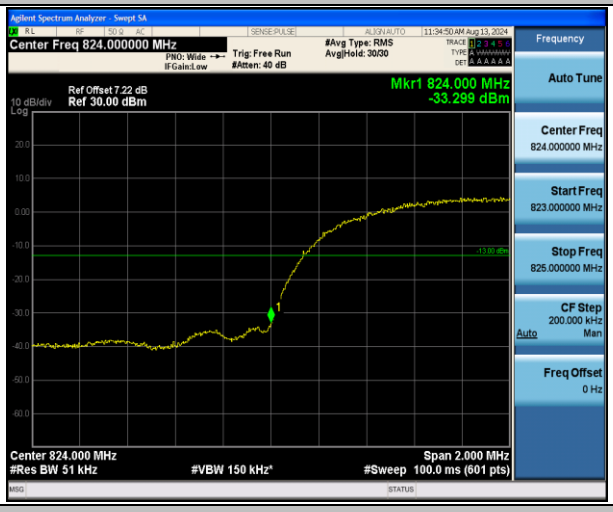
Test Result

Band	Channel	Frequency (MHz)	Result (dBm)	Limit(dBm)	Verdict
Band2	9262	1850.00	-33.42	-13	PASS
Band2	9538	1910.00	-31.58	-13	PASS
Band5	4132	824.00	-33.30	-13	PASS
Band5	4233	849.00	-32.00	-13	PASS

Test Graphs

Band2-9262-PASS

Band2-9538-PASS



Band5-4132-PASS

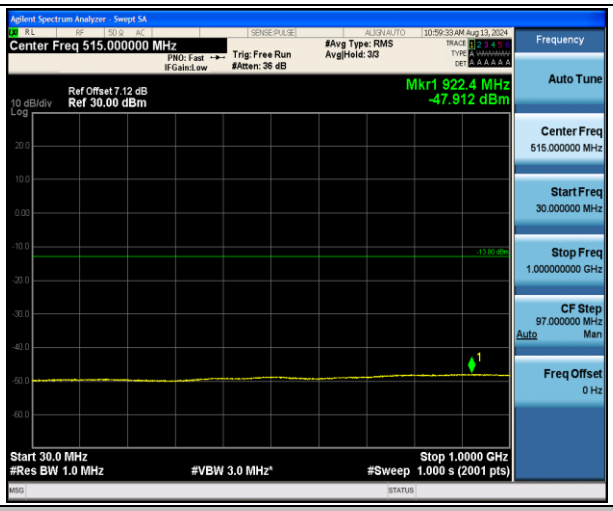
Band5-4233-PASS

AppendixE:Conducted SpuriousEmission

Test Result

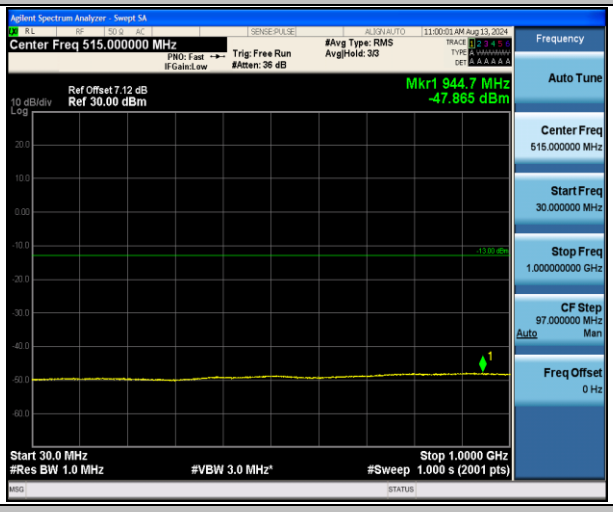
Band	Channel	Frequency Range (Mhz)	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	30~1000MHz	922.4	-47.91	-13	PASS
Band2	9262	1000~20000MHz	18936.48	-36.77	-13	PASS
Band2	9400	30~1000MHz	944.71	-47.87	-13	PASS
Band2	9400	1000~20000MHz	18891.35	-36.64	-13	PASS
Band2	9538	30~1000MHz	909.31	-47.77	-13	PASS
Band2	9538	1000~20000MHz	18928.88	-36.78	-13	PASS
Band5	4132	30~1000MHz	971.87	-57.24	-13	PASS
Band5	4132	1000~10000MHz	5761.9	-43.89	-13	PASS
Band5	4182	30~1000MHz	969.93	-57.3	-13	PASS
Band5	4182	1000~10000MHz	5754.25	-43.99	-13	PASS
Band5	4233	30~1000MHz	953.93	-57.52	-13	PASS
Band5	4233	1000~10000MHz	5791.6	-44.13	-13	PASS

Test Graphs



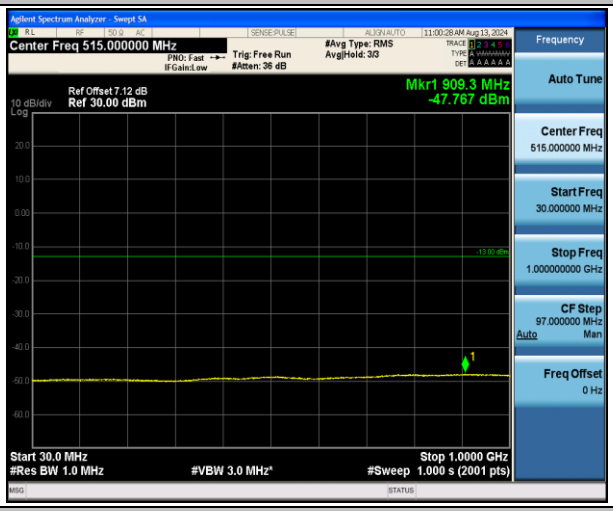
Band2-9262-30~1000MHz-PASS

Band2-9262-1000~20000MHz-PASS



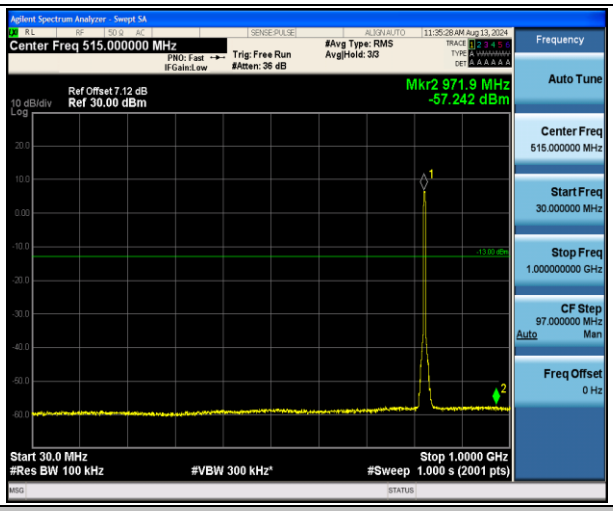
Band2-9400-30~1000MHz-PASS

Band2-9400-1000~20000MHz-PASS

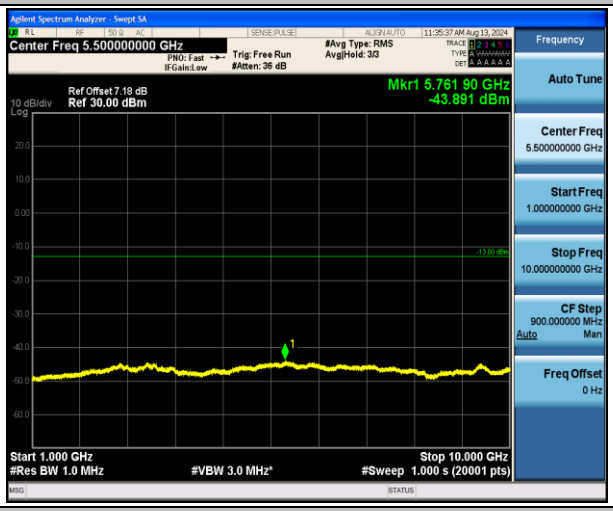


Band2-9538-30~1000MHz-PASS

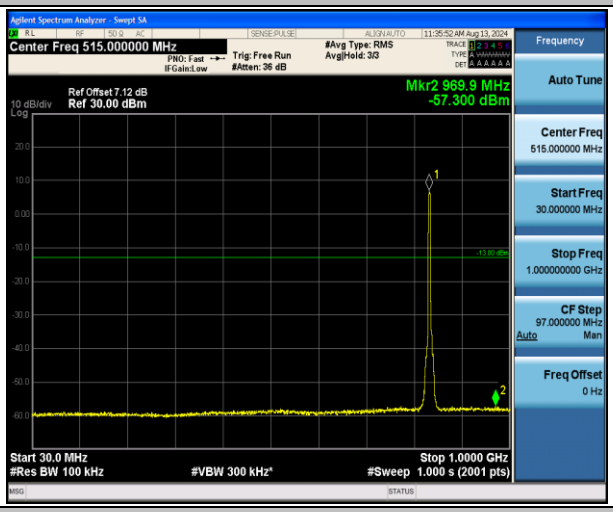
Band2-9538-1000~20000MHz-PASS



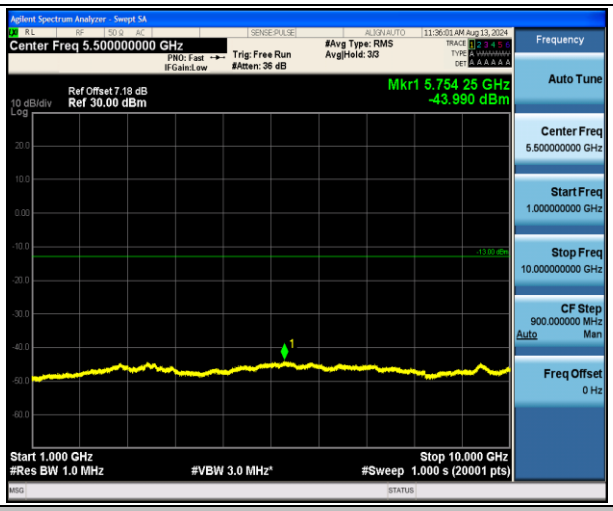
Band5-4132-30~1000MHz-PASS



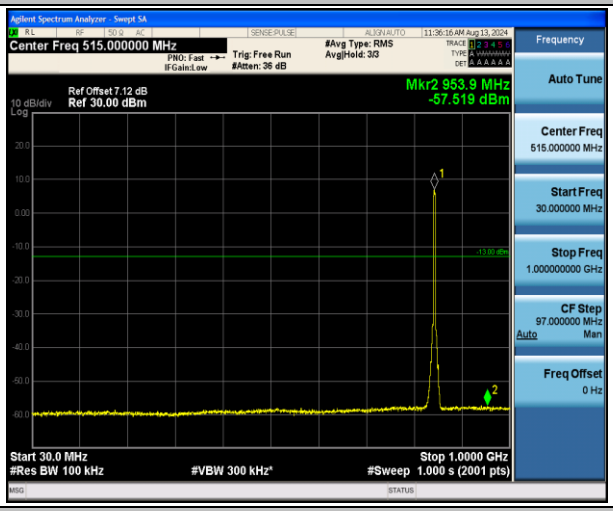
Band5-4132-1000~10000MHz-PASS



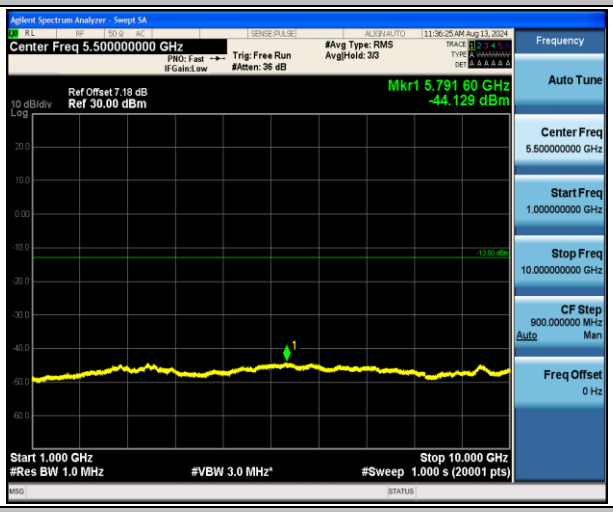
Band5-4182-30~1000MHz-PASS



Band5-4182-1000~10000MHz-PASS



Band5-4233-30~1000MHz-PASS



Band5-4233-1000~10000MHz-PASS

AppendixF:Frequency Stability

Test Result

Voltage							
Band	Channel	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band2	9262	VN	NT	-1.86	-0.001004	±2.5	PASS
Band2	9262	VL	NT	-4.27	-0.002305	±2.5	PASS
Band2	9262	VH	NT	-4.64	-0.002505	±2.5	PASS
Band2	9400	VN	NT	1.81	0.000963	±2.5	PASS
Band2	9400	VL	NT	-0.60	-0.000319	±2.5	PASS
Band2	9400	VH	NT	2.89	0.001537	±2.5	PASS
Band2	9538	VN	NT	0.89	0.000467	±2.5	PASS
Band2	9538	VL	NT	-1.12	-0.000587	±2.5	PASS
Band2	9538	VH	NT	13.06	0.006846	±2.5	PASS
Band5	4132	VN	NT	-0.29	-0.000351	±2.5	PASS
Band5	4132	VL	NT	-1.22	-0.001476	±2.5	PASS
Band5	4132	VH	NT	-1.12	-0.001355	±2.5	PASS
Band5	4182	VN	NT	0.83	0.000992	±2.5	PASS
Band5	4182	VL	NT	0.92	0.001100	±2.5	PASS
Band5	4182	VH	NT	0.42	0.000502	±2.5	PASS
Band5	4233	VN	NT	-0.94	-0.001110	±2.5	PASS
Band5	4233	VL	NT	-0.02	-0.000024	±2.5	PASS
Band5	4233	VH	NT	1.17	0.001382	±2.5	PASS

Temperature							
Band	Channel	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band2	9262	NV	-30	-4.45	-0.002402	±2.5	PASS
Band2	9262	NV	-20	1.99	0.001074	±2.5	PASS
Band2	9262	NV	-10	7.32	0.003952	±2.5	PASS
Band2	9262	NV	0	10.22	0.005517	±2.5	PASS
Band2	9262	NV	10	11.12	0.006003	±2.5	PASS
Band2	9262	NV	20	7.86	0.004243	±2.5	PASS
Band2	9262	NV	30	8.10	0.004373	±2.5	PASS
Band2	9262	NV	40	9.00	0.004859	±2.5	PASS
Band2	9262	NV	50	10.94	0.005906	±2.5	PASS
Band2	9400	NV	-30	-1.18	-0.000628	±2.5	PASS
Band2	9400	NV	-20	-3.83	-0.002037	±2.5	PASS
Band2	9400	NV	-10	-3.04	-0.001617	±2.5	PASS
Band2	9400	NV	0	-4.60	-0.002447	±2.5	PASS

Band2	9400	NV	10	0.92	0.000489	±2.5	PASS
Band2	9400	NV	20	-0.37	-0.000197	±2.5	PASS
Band2	9400	NV	30	9.87	0.005250	±2.5	PASS
Band2	9400	NV	40	10.26	0.005457	±2.5	PASS
Band2	9400	NV	50	8.98	0.004777	±2.5	PASS
Band2	9538	NV	-30	3.59	0.001882	±2.5	PASS
Band2	9538	NV	-20	-7.37	-0.003863	±2.5	PASS
Band2	9538	NV	-10	-5.84	-0.003061	±2.5	PASS
Band2	9538	NV	0	-6.34	-0.003324	±2.5	PASS
Band2	9538	NV	10	5.69	0.002983	±2.5	PASS
Band2	9538	NV	20	6.49	0.003402	±2.5	PASS
Band2	9538	NV	30	5.01	0.002626	±2.5	PASS
Band2	9538	NV	40	2.17	0.001138	±2.5	PASS
Band2	9538	NV	50	-14.67	-0.007690	±2.5	PASS
Band5	4132	NV	-30	-0.66	-0.000799	±2.5	PASS
Band5	4132	NV	-20	-0.99	-0.001198	±2.5	PASS
Band5	4132	NV	-10	-2.95	-0.003570	±2.5	PASS
Band5	4132	NV	0	0.54	0.000653	±2.5	PASS
Band5	4132	NV	10	0.26	0.000315	±2.5	PASS
Band5	4132	NV	20	-0.80	-0.000968	±2.5	PASS
Band5	4132	NV	30	-0.71	-0.000859	±2.5	PASS
Band5	4132	NV	40	-2.09	-0.002529	±2.5	PASS
Band5	4132	NV	50	-3.07	-0.003715	±2.5	PASS
Band5	4182	NV	-30	0.17	0.000203	±2.5	PASS
Band5	4182	NV	-20	0.59	0.000705	±2.5	PASS
Band5	4182	NV	-10	0.89	0.001064	±2.5	PASS
Band5	4182	NV	0	0.81	0.000968	±2.5	PASS
Band5	4182	NV	10	0.64	0.000765	±2.5	PASS
Band5	4182	NV	20	1.06	0.001267	±2.5	PASS
Band5	4182	NV	30	-0.12	-0.000143	±2.5	PASS
Band5	4182	NV	40	1.02	0.001220	±2.5	PASS
Band5	4182	NV	50	1.42	0.001698	±2.5	PASS
Band5	4233	NV	-30	0.65	0.000768	±2.5	PASS
Band5	4233	NV	-20	-2.41	-0.002847	±2.5	PASS
Band5	4233	NV	-10	-0.41	-0.000484	±2.5	PASS
Band5	4233	NV	0	-0.78	-0.000921	±2.5	PASS
Band5	4233	NV	10	-0.55	-0.000650	±2.5	PASS
Band5	4233	NV	20	0.65	0.000768	±2.5	PASS
Band5	4233	NV	30	-0.07	-0.000083	±2.5	PASS
Band5	4233	NV	40	-2.45	-0.002894	±2.5	PASS
Band5	4233	NV	50	-1.19	-0.001406	±2.5	PASS

8.7 Appendix G: ERP and EIRP

Test Result

Band	Mode	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP		Limit (W)	Verdict
				(dBm)	(W)		
Band II	WCDMA	23.08	0.50	23.58	0.2280	2	PASS
	HSDPA	24.04	0.50	24.54	0.2844	2	PASS
	HSUPA	23.03	0.50	23.53	0.2254	2	PASS

Band	Mode	Conducted Power (dBm)	Antenna Gain (dBi)	ERP		Limit (W)	Verdict
				(dBm)	(W)		
Band V	WCDMA	21.41	-0.70	18.56	0.0718	7	PASS
	HSDPA	22.22	-0.70	19.37	0.0865	7	PASS
	HSUPA	22.11	-0.70	19.26	0.0843	7	PASS

----------End of the Report ----------