




# FCC REPORT

## For WCDMA

**Report No.** ..... : **CHTEW23110074** Report Verification: 


**Project No.**..... : **SHT2306080101EW**

**FCC ID**..... : **2A8OE-F8926-GW-02**

**Applicant** ..... : **Xiamen Four-Faith Communication Technology Co., Ltd.**

**Address**..... : 11th Floor,A-06 Area,No.370,Chengyi Street,Jimei,Xiamen,Fujian,China.

**Product Name** ..... : **LoRaWAN Gateway**

**Trade Mark** ..... : 

**Model No.** ..... : F8926-GW-02

**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  
 FCC CFR Title 47 Part 27**

**Date of receipt of test sample**..... : Aug. 07, 2023

**Date of testing**..... : Aug. 14, 2023- Nov. 24, 2023

**Date of issue**..... : Nov. 27, 2023

**Result**..... : **Pass**

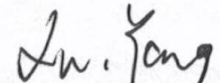
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**Testing Laboratory Name** ..... : **Shenzhen Huatongwei International Inspection Co., Ltd.**

**Address**..... : 1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China

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*The test report merely correspond to the test sample.*

## Contents

<b>1.</b>	<b><u>TEST STANDARDS AND REPORT VERSION</u></b>	<b>3</b>
1.1.	Applicable Standards	3
1.2.	Report version information	3
<b>2.</b>	<b><u>TEST DESCRIPTION</u></b>	<b>4</b>
<b>3.</b>	<b><u>SUMMARY</u></b>	<b>5</b>
3.1.	Client Information	5
3.2.	Product Description	5
3.3.	Radio Specification Description	6
3.4.	Testing Laboratory Information	6
<b>4.</b>	<b><u>TEST CONFIGURATION</u></b>	<b>7</b>
4.1.	Test frequency list	7
4.2.	Test mode	7
4.3.	Test sample information	7
4.4.	Support unit used in test configuration and system	8
4.5.	Testing environmental condition	8
4.6.	Statement of the measurement uncertainty	8
4.7.	Equipments Used during the Test	9
<b>5.</b>	<b><u>TEST CONDITIONS AND RESULTS</u></b>	<b>10</b>
5.1.	ERP and EIRP	10
5.2.	Radiated Spurious Emission	11
<b>6.</b>	<b><u>TEST SETUP PHOTOS OF THE EUT</u></b>	<b>19</b>
<b>7.</b>	<b><u>EXTERNAL AND INTERNAL PHOTOS OF THE EUT</u></b>	<b>19</b>
<b>8.</b>	<b><u>APPENDIX REPORT</u></b>	<b>19</b>

# **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

[FCC CFR Title 47 Part 27](#): Miscellaneous Wireless Communications Services

[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	2023-11-27	Original

## 2. TEST DESCRIPTION

Section	Test Item	Section in CFR 47	Result #1	Test Engineer
-	Conducted Output Power	Part 2.1046 Part 22.913(a) Part 24.232(c) Part 27.50	Pass*	-
-	Peak-to-Average Ratio	Part 24.232 Part 27.50	Pass*	-
-	99% Occupied Bandwidth & 26 dB Bandwidth	Part 2.1049 Part 22.917(b) Part 24.238(b) Part 27.53	Pass*	-
-	Band Edge	Part 2.1051 Part 22.917 Part 24.238 Part 27.53	Pass*	-
-	Conducted Spurious Emissions	Part 2.1051 Part 22.917 Part 24.238 Part 27.53	Pass*	-
-	Frequency stability vs temperature	Part 2.1055(a)(1)(b) Part 22.355 Part 24.235 Part 27.54	Pass*	-
-	Frequency stability vs voltage	Part 2.1055(d)(1)(2) Part 22.355 Part 24.235 Part 27.54	Pass*	-
5.8	ERP and EIRP	Part 22.913(a) Part 24.232(b) Part 27.50	Pass	Caspar Chen
5.9	Radiated Spurious Emissions	Part 2.1053 Part 22.917 Part 24.238 Part 27.53	Pass	Yifan Wang

Note:


- 1) #1: The test result does not include measurement uncertainty value
- 2) \*: Refer to module FCC ID: ZMONL668LA05.

### 3. SUMMARY

#### 3.1. Client Information

Applicant:	Xiamen Four-Faith Communication Technology Co., Ltd.
Address:	11th Floor,A-06 Area,No.370,Chengyi Street,Jimei,Xiamen,Fujian,China.
Manufacturer:	Xiamen Four-Faith Communication Technology Co., Ltd.
Address:	11th Floor,A-06 Area,No.370,Chengyi Street,Jimei,Xiamen,Fujian,China.

#### 3.2. Product Description

Main unit information:	
Product Name:	LoRaWAN Gateway
Trade Mark:	 Four-Faith
Model No.:	F8926-GW-02
Listed Model(s):	-
Power supply:	DC 12V from Adapter
Hardware version:	V 1.0.0.2
Software version:	F8926GW-V2-IOTGW-32M-STD-VPN-20230313.flash
Accessory unit information:	
Adapter information:	MODEL: KL-AD3060VA INPUT: 100-240V~50/60Hz 0.7A OUTPUT: DC 12V, 1.5A

### 3.3. Radio Specification Description

Support Operating Band:	<input checked="" type="checkbox"/> Band II	<input checked="" type="checkbox"/> Band IV	<input checked="" type="checkbox"/> Band V
Operating Frequency Range:	Please refer to note #2		
Support Type:	<input checked="" type="checkbox"/> WCDMA	<input checked="" type="checkbox"/> HSDPA	<input checked="" type="checkbox"/> HSUPA <input type="checkbox"/> DC-HSUPA
Modulation Type:	<input checked="" type="checkbox"/> QPSK	<input type="checkbox"/> 16QAM	
Power Class:	<input checked="" type="checkbox"/> Class 3	<input type="checkbox"/> Class 4	
Antenna type:	Stick Antenna		
Antenna gain #3:	Band II: 1.57dBi	Band IV: 1.57dBi	Band V: 1.73dBi

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 IV	1712.40~1752.60MHz	2112.40~2152.60MHz
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	1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China	
Connect information:	Tel: 86-755-26715499 E-mail: <a href="mailto:cs@szhtw.com.cn">cs@szhtw.com.cn</a> <a href="http://www.szhtw.com.cn">http://www.szhtw.com.cn</a>	
Qualifications	Type	Accreditation Number
	FCC	762235

## 4. TEST CONFIGURATION

### 4.1. Test frequency list

FDD Band II		FDD Band IV		FDD Band V	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
9262	1852.40	1312	1712.40	4132	826.40
9400	1880.00	1413	1732.60	4182	836.40
9538	1907.60	1513	1752.60	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
WCDMA Band IV	RMC 12.2Kbps Link	RMC 12.2Kbps Link

### 4.3. Test sample information

Test item	HTW sample no.
Radiated test items	YPHT23060801007

Note:

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	AC 120V
Temperature	TN=Normal Temperature	25 °C
Humidity	30~60 %	
Air Pressure	950-1050 hPa	

#### 4.6. Statement of the measurement uncertainty

No.	Test Items	Measurement Uncertainty
1	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

● 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	2023/08/22	2024/08/21
●	Spectrum Analyzer	R&S	HTWE0385	N9020A	MY54486658	2023/08/22	2024/08/21
●	Ultra-Broadband Antenna	SCHWARZBECK	HTWE0123	VULB9163	538	2021/4/6	2024/4/5
●	Horn Antenna	SCHWARZBECK	HTWE0126	BBHA 9120D	1011	2023/2/14	2026/2/13
●	Pre-Amplifier	CD	HTWE0071	PAP-0102	12004	2023/5/25	2024/5/24
●	Broadband Pre-amplifier	SCHWARZBECK	HTWE0201	BBV 9718	9718-248	2023/5/25	2024/5/24
●	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	2023/05/15	2024/05/14
○	Band Stop filter	-	HTWE0039	N/A	N/A	2023/01/26	2024/01/25

## **5. TEST CONDITIONS AND RESULTS**

### **5.1. ERP and EIRP**

#### **LIMIT**

WCDMA Band V: 7W (38.45dBm) ERP

WCDMA Band II: 2W (33dBm) EIRP

WCDMA Band IV: 1W (30dBm) 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.  $ERP = \text{conducted power} + \text{Gain(dBd)}$
3.  $EIRP = \text{conducted power} + \text{Gain(dBi)}$   
 $ERP = EIRP - 2.15$

#### **TEST RESULTS**

**Passed**       **Not Applicable**

#### **TEST DATA**

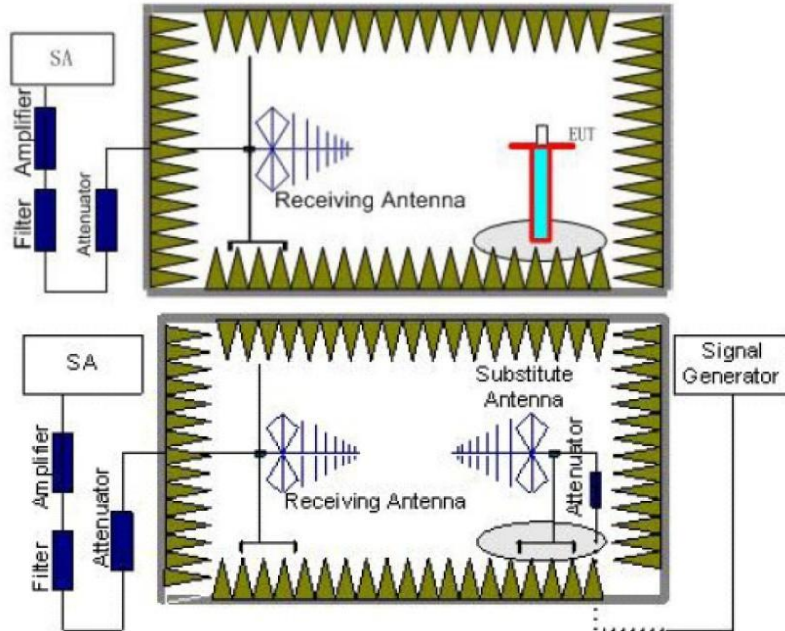
Refer to the appendix report

## 5.2. 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:  
$$P_e = P_s(\text{dBm}) - \text{cable loss (dB)} + \text{antenna gain (dBd)}$$
where  
 $P_e$  = equivalent emission power in dBm  
 $P_s$  = 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:  
$$\text{gain (dBd)} = \text{gain (dBi)} - 2.15 \text{ dB.}$$
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	39.75	-82.15	27.74	1.15	30.61	-83.87	-13.00	-70.87	Peak
2	800.80	-81.43	29.86	5.77	29.66	-75.46	-13.00	-62.46	Peak
3	1538.27	-70.88	36.31	8.34	28.78	-55.01	-13.00	-42.01	Peak
4	2287.03	-70.90	40.46	10.50	28.70	-48.64	-13.00	-35.64	Peak
5	6851.19	-68.60	46.98	7.29	34.05	-48.38	-13.00	-35.38	Peak
6	11428.08	-71.45	52.97	10.31	36.12	-44.29	-13.00	-31.29	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	104.54	-80.57	25.14	1.92	30.62	-84.13	-13.00	-71.13	Peak
2	792.40	-81.12	29.35	5.74	29.69	-75.72	-13.00	-62.72	Peak
3	1440.14	-70.85	37.76	8.02	28.76	-53.83	-13.00	-40.83	Peak
4	2212.88	-71.18	41.57	10.30	29.05	-48.36	-13.00	-35.36	Peak
5	6851.19	-68.78	47.39	7.29	34.05	-48.15	-13.00	-35.15	Peak
6	11341.14	-70.86	53.08	10.25	36.08	-43.61	-13.00	-30.61	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	40.74	-82.10	27.43	1.16	30.59	-84.10	-13.00	-71.10	Peak
2	832.39	-81.12	29.92	5.89	29.30	-74.61	-13.00	-61.61	Peak
3	1349.75	-71.09	37.06	7.74	29.12	-55.41	-13.00	-42.41	Peak
4	2227.52	-71.07	40.81	10.34	28.84	-48.76	-13.00	-35.76	Peak
5	7009.96	-68.75	47.66	7.35	34.24	-47.98	-13.00	-34.98	Peak
6	11197.71	-70.92	52.94	10.14	36.00	-43.84	-13.00	-30.84	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	90.82	-81.95	25.88	1.78	30.69	-84.98	-13.00	-71.98	Peak
2	746.42	-80.49	29.44	5.54	29.51	-75.02	-13.00	-62.02	Peak
3	1526.48	-70.75	37.76	8.30	28.81	-53.50	-13.00	-40.50	Peak
4	2234.87	-70.37	41.29	10.38	28.71	-47.41	-13.00	-34.41	Peak
5	6851.19	-68.35	47.39	7.29	34.05	-47.72	-13.00	-34.72	Peak
6	11226.25	-71.42	52.98	10.16	36.02	-44.30	-13.00	-31.30	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	39.75	-83.02	27.74	1.15	30.61	-84.74	-13.00	-71.74	Peak	
2	521.44	-79.28	25.14	4.54	30.08	-79.68	-13.00	-66.68	Peak	
3	1355.70	-71.07	37.07	7.76	29.15	-55.39	-13.00	-42.39	Peak	
4	2274.50	-70.71	40.53	10.48	28.71	-48.41	-13.00	-35.41	Peak	
5	6816.39	-68.28	46.82	7.25	34.41	-48.62	-13.00	-35.62	Peak	
6	11370.05	-70.71	52.96	10.27	36.09	-43.57	-13.00	-30.57	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	101.64	-81.97	25.53	1.89	30.64	-85.19	-13.00	-72.19	Peak	
2	407.67	-79.37	25.30	3.97	29.91	-80.01	-13.00	-67.01	Peak	
3	1440.14	-70.67	37.76	8.02	28.76	-53.65	-13.00	-40.65	Peak	
4	2242.25	-70.73	41.20	10.38	28.65	-47.80	-13.00	-34.80	Peak	
5	6833.77	-69.01	47.40	7.27	34.22	-48.56	-13.00	-35.56	Peak	
6	11197.71	-71.28	52.96	10.14	36.00	-44.18	-13.00	-31.18	Peak	

WCDMA Band IV									
Test channel:	1312			Polarization:			Horizontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	35.89	-82.22	27.16	1.08	30.66	-84.64	-13.00	-71.64	Peak
2	829.47	-82.06	29.92	5.88	29.31	-75.57	-13.00	-62.57	Peak
3	1396.51	-69.86	37.15	7.90	29.09	-53.90	-13.00	-40.90	Peak
4	2297.11	-70.69	40.40	10.53	28.64	-48.40	-13.00	-35.40	Peak
5	7319.96	-68.77	48.28	7.74	34.46	-47.21	-13.00	-34.21	Peak
6	9834.41	-71.41	50.57	9.50	34.13	-45.47	-13.00	-32.47	Peak
Test channel:	1312			Polarization:			Vertical		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	93.74	-82.41	25.84	1.81	30.67	-85.43	-13.00	-72.43	Peak
2	751.69	-80.06	29.29	5.56	29.45	-74.66	-13.00	-61.66	Peak
3	1345.31	-69.72	37.52	7.72	29.02	-53.50	-13.00	-40.50	Peak
4	2200.76	-70.89	41.72	10.29	29.11	-47.99	-13.00	-34.99	Peak
5	6868.65	-68.75	47.39	7.34	34.20	-48.22	-13.00	-35.22	Peak
6	10507.31	-70.64	52.33	9.76	36.04	-44.59	-13.00	-31.59	Peak
Test channel:	1413			Polarization:			Horizontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	42.79	-80.47	26.49	1.19	30.56	-83.35	-13.00	-70.35	Peak
2	738.59	-81.53	29.43	5.50	29.63	-76.23	-13.00	-63.23	Peak
3	1490.03	-71.11	36.60	8.18	28.82	-55.15	-13.00	-42.15	Peak
4	2294.58	-70.51	40.41	10.53	28.60	-48.17	-13.00	-35.17	Peak
5	7009.96	-67.62	47.66	7.35	34.24	-46.85	-13.00	-33.85	Peak
6	12653.00	-70.45	52.75	11.16	35.87	-42.41	-13.00	-29.41	Peak
Test channel:	1413			Polarization:			Vertical		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	102.36	-80.32	25.43	1.89	30.63	-83.63	-13.00	-70.63	Peak
2	826.55	-81.14	29.80	5.87	29.32	-74.79	-13.00	-61.79	Peak
3	1486.76	-69.97	37.76	8.17	28.82	-52.86	-13.00	-39.86	Peak
4	2279.51	-70.15	40.75	10.48	28.78	-47.70	-13.00	-34.70	Peak
5	6921.30	-68.33	47.37	7.39	34.41	-47.98	-13.00	-34.98	Peak
6	11370.05	-70.63	53.10	10.27	36.09	-43.35	-13.00	-30.35	Peak

Test channel:		1513			Polarization:		Horizontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	34.90	-82.76	27.00	1.07	30.68	-85.37	-13.00	-72.37	Peak
2	756.99	-81.47	29.19	5.59	29.45	-76.14	-13.00	-63.14	Peak
3	1398.05	-69.15	37.16	7.90	29.08	-53.17	-13.00	-40.17	Peak
4	2400.30	-69.74	39.82	10.80	27.81	-46.93	-13.00	-33.93	Peak
5	6851.19	-68.43	46.98	7.29	34.05	-48.21	-13.00	-35.21	Peak
6	10888.51	-70.55	52.64	9.95	35.93	-43.89	-13.00	-30.89	Peak
Test channel:		1513			Polarization:		Vertical		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	100.57	-82.33	25.67	1.88	30.64	-85.42	-13.00	-72.42	Peak
2	754.33	-80.66	29.21	5.57	29.45	-75.33	-13.00	-62.33	Peak
3	1316.07	-70.26	37.39	7.62	29.05	-54.30	-13.00	-41.30	Peak
4	2225.07	-70.87	41.42	10.33	28.88	-48.00	-13.00	-35.00	Peak
5	6379.86	-67.00	46.60	7.15	34.32	-47.57	-13.00	-34.57	Peak
6	10916.26	-71.25	52.71	9.96	35.92	-44.50	-13.00	-31.50	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	120.33	-67.60	16.43	2.06	30.61	-79.72	-13.00	-66.72	Peak
2	171.04	-71.35	21.23	2.48	30.37	-78.01	-13.00	-65.01	Peak
3	1307.43	-70.24	36.97	7.59	29.07	-54.75	-13.00	-41.75	Peak
4	2472.57	-52.55	39.42	11.02	27.28	-29.39	-13.00	-16.39	Peak
5	4117.79	-57.26	41.85	5.60	36.89	-46.70	-13.00	-33.70	Peak
6	6561.03	-68.19	46.41	7.12	34.50	-49.16	-13.00	-36.16	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	122.03	-63.29	21.91	2.08	30.61	-69.91	-13.00	-56.91	Peak
2	179.04	-69.76	20.34	2.54	30.20	-77.08	-13.00	-64.08	Peak
3	1536.58	-69.63	37.76	8.33	28.79	-52.33	-13.00	-39.33	Peak
4	2472.57	-55.09	39.26	11.02	27.28	-32.09	-13.00	-19.09	Peak
5	4117.79	-55.13	42.12	5.60	36.89	-44.30	-13.00	-31.30	Peak
6	6851.19	-68.91	47.39	7.29	34.05	-48.28	-13.00	-35.28	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	121.18	-65.91	16.42	2.07	30.61	-78.03	-13.00	-65.03	Peak
2	823.65	-80.51	29.93	5.85	29.34	-74.07	-13.00	-61.07	Peak
3	1342.36	-69.83	37.04	7.71	28.95	-54.03	-13.00	-41.03	Peak
4	2508.13	-59.42	39.23	11.13	26.85	-35.91	-13.00	-22.91	Peak
5	4181.16	-54.50	42.18	5.61	36.73	-43.44	-13.00	-30.44	Peak
6	6921.30	-68.08	47.30	7.39	34.41	-47.80	-13.00	-34.80	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	120.33	-67.34	22.04	2.06	30.61	-73.85	-13.00	-60.85	Peak
2	703.10	-80.17	28.55	5.38	29.69	-75.93	-13.00	-62.93	Peak
3	1486.76	-69.83	37.76	8.17	28.82	-52.72	-13.00	-39.72	Peak
4	2508.13	-55.39	39.23	11.13	26.85	-31.88	-13.00	-18.88	Peak
5	4181.16	-54.85	42.44	5.61	36.73	-43.53	-13.00	-30.53	Peak
6	6645.07	-67.68	47.00	7.21	34.37	-47.84	-13.00	-34.84	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	179.04	-69.75	20.97	2.54	30.20	-76.44	-13.00	-63.44	Peak	
2	847.15	-74.50	29.80	5.96	29.33	-68.07	-13.00	-55.07	Peak	
3	1653.95	-70.25	36.17	8.68	28.76	-54.16	-13.00	-41.16	Peak	
4	2535.84	-57.36	39.08	11.21	26.86	-33.93	-13.00	-20.93	Peak	
5	4223.95	-55.30	42.36	5.79	36.70	-43.85	-13.00	-30.85	Peak	
6	6974.36	-67.51	47.53	7.34	34.15	-46.79	-13.00	-33.79	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	121.18	-63.55	21.97	2.07	30.61	-70.12	-13.00	-57.12	Peak	
2	847.15	-78.80	29.82	5.96	29.33	-72.35	-13.00	-59.35	Peak	
3	1390.39	-69.93	37.72	7.87	29.06	-53.40	-13.00	-40.40	Peak	
4	2538.63	-59.87	39.20	11.21	26.85	-36.31	-13.00	-23.31	Peak	
5	4234.72	-61.99	42.61	5.79	36.66	-50.25	-13.00	-37.25	Peak	
6	6974.36	-67.45	47.36	7.34	34.15	-46.90	-13.00	-33.90	Peak	

## **6. TEST SETUP PHOTOS OF THE EUT**

Refer to the test report No.: CHTEW23110072

## **7. EXTERNAL AND INTERNAL PHOTOS OF THE EUT**

Refer to the test report No.: CHTEW23110070

## **8. APPENDIX REPORT**

# APPENDIX REPORT

Project No.	SHT2306080101EW	Radio Specification	WCDMA
Test sample No.	YPHT23060801007	Model No.	F8926-GW-02
Start test date	2023-08-14	Finish date	2023-08-18
Temperature	25.4°C	Humidity	49%
Test Engineer	<i>Casper Chen</i>	Auditor	<i>Xiaodong Zhu</i>

Appendix clause	Test item	Result
A	ERP and EIRP	PASS

## 8.1 Appendix A: ERP and EIRP

### Test Result

Band	Mode	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP		Limit (W)	Verdict
				(dBm)	(W)		
Band II	WCDMA	23.73	1.57	25.30	0.3388	2	PASS
	HSDPA	22.46	1.57	24.03	0.2529	2	PASS
	HSUPA	22.76	1.57	24.33	0.2710	2	PASS
Band IV	WCDMA	23.64	1.57	25.21	0.3319	1	PASS
	HSDPA	22.39	1.57	23.96	0.2489	1	PASS
	HSUPA	22.34	1.57	23.91	0.2460	1	PASS

Band	Mode	Conducted Power (dBm)	Antenna Gain (dBi)	ERP		Limit (W)	Verdict
				(dBm)	(W)		
Band V	WCDMA	23.78	1.73	23.36	0.2168	7	PASS
	HSDPA	22.81	1.73	22.39	0.1734	7	PASS
	HSUPA	22.77	1.73	22.35	0.1718	7	PASS

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