RF MEASUREMENT REPORT

FCC ID:	WIYS1U2M4001
Applicant:	CASTLES TECHNOLOGY CO., LTD.
Product:	POS Terminal
Model No.:	S1U2-M4
Trademark:	CASTLES TECHNOLOGY
FCC Rule(s):	Part 2, 22 (H), 24 (E), 27
Result:	Complies
Received Date:	2025-02-12
Test Date:	2025-02-13 ~ 2025-03-03

Reviewed By: Yuri Li

Approved By: Robin Wu

ACCREDITED
TESTING LABORATORY
CERTIFICATE #3628.01

The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.26-2015. Test results reported herein relate only to the item(s) tested.

Revision History

Report No.	Version	Description	Issue Date	Note
R25S1016023-U301	V01	Initial Report	2025-03-07	Valid

CONTENTS

1. General Information

1.1. Applicant

CASTLES TECHNOLOGY CO., LTD.

6F, NO. 207-5, SEC. 3, BEIXIN RD., XINDIAN DISTRICT, NEW TAIPEI CITY 231030, TAIWAN (R.O.C.)

1.2. Manufacturer

CASTLES TECHNOLOGY CO., LTD.

6F, NO. 207-5, SEC. 3, BEIXIN RD., XINDIAN DISTRICT, NEW TAIPEI CITY 231030, TAIWAN (R.O.C.)

1.3. Testing Facility

☒	**Test Site – MRT Suzhou Laboratory**				
	Laboratory Location (Suzhou - Wuzhong)				
	D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China				
	Laboratory Location (Suzhou - SIP)				
	4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China				
	Laboratory Location (Suzhou - Wujiang)				
	Building 1, No.1 Xingdong Road, Wujiang, Suzhou, Jiangsu, People's Republic of China				
	Laboratory Accreditations				
	A2LA: 3628.01		CNAS: L10551		
	FCC: CN1166		ISED: CN0001		
	VCCI:	☐R-20025	☐G-20034	☐C-20020	☐T-20020
		☐R-20141	☐G-20134	☐C-20103	☐T-20104
☐	**Test Site – MRT Shenzhen Laboratory**				
	Laboratory Location (Shenzhen)				
	1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China				
	Laboratory Accreditations				
	A2LA: 3628.02		CNAS: L10551		
	FCC: CN1284		ISED: CN0105		
☐	**Test Site – MRT Taiwan Laboratory**				
	Laboratory Location (Taiwan)				
	No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)				
	Laboratory Accreditations				
	TAF: 3261				
	FCC: 291082, TW3261		ISED: TW3261		

1.4. Product Information

Product Name	POS Terminal
Model No.	S1U2-M4
Trademark	CASTLES TECHNOLOGY
Serial Number	115244802968 (Radiated) 115244802974 (Conducted)
NFC Specification	13.56MHz
Wi-Fi Specification	802.11a/b/g/n/ac
Bluetooth Specification	BT5.0
GNSS Specification	GPS, GLONASS, GALILEO, BEIDOU
3GPP Specification	WCDMA Band II/IV/V LTE Band 2/4/12/17/25/66
Operating Temperature Range	-20 ~ 70 °C
Supply Voltage Rating	9 ~ 48Vdc, Normal 9Vdc
Antenna Specification	Refer to Section 1.6
Remark: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

1.5. Radio Specification under Testing

UMTS Specification	
TX Frequency Range:	WCDMA Band II: 1850 ~ 1910MHz, WCDMA Band IV: 1710 ~ 1755MHz WCDMA Band V: 824 ~ 849MHz
RX Frequency Range:	WCDMA Band II: 1930 ~ 1990MHz, WCDMA Band IV: 2110 ~ 2155MHz WCDMA Band V: 869 ~ 894MHz
Support Power Class	PC3
Modulation	QPSK
Category	HSDPA: 24; HSUPA: 7

1.6. Description of Available Antennas

Technology	Frequency Range (MHz)	Antenna Type	Max Peak Gain (dBi)
WCDMA Band II	1850 ~ 1910	Monopole Antenna	2.53
WCDMA Band IV	1710 ~ 1755		2.53
WCDMA Band V	824 ~ 849		3.89
Note: All antenna information (Antenna type and Peak Gain) is provided by the manufacturer.			

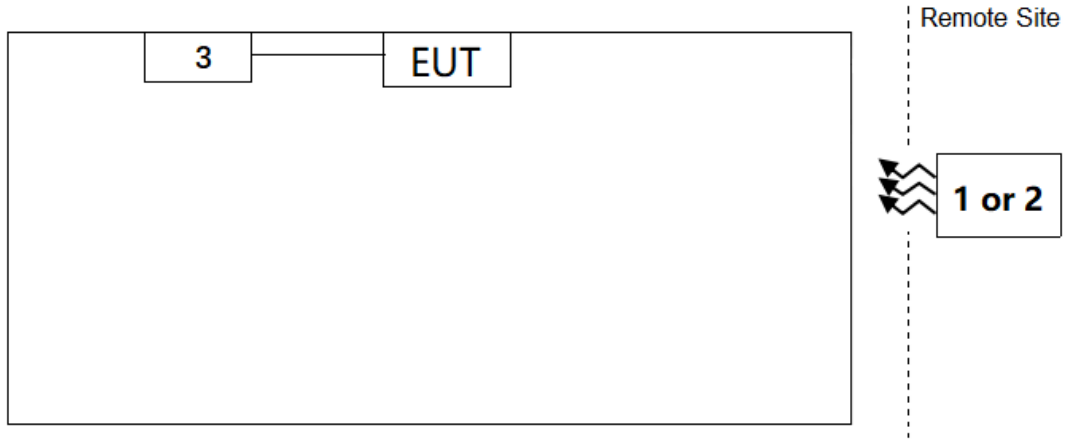
1.7. Test Methodology

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ANSI C63.26:2015
- FCC CFR 47 Part 2, Part 22, Part 24, Part 27
- FCC KDB 971168 D01 v03r01: Power Meas License Digital Systems
- FCC KDB 971168 D02 v02r02: Misc Rev Approv License Devices
- FCC KDB 412172 D01 v01r01: Determining ERP and EIRP

2. Test Configuration

2.1. Test System Connection Diagram



Product		Manufacturer	Model No.
1	Communication Tester	R&S	CMW500
2	Radio Communication Analyzer	Anritsu	MT8821C
3	Adapter	CASTLES	PW04-945A

2.2. Test Environment Condition

Ambient Temperature	15 ~ 35°C
Relative Humidity	20% ~ 75%RH

3. Measuring Instrument

Instrument	Manufacturer	Model No.	Asset No.	Cali. Interval	Cali. Due Date	Test Site
Temperature Chamber	BAOYT	BYH-150CL	MRTSUE06051	1 year	2025-09-02	WZ-TR3
Thermohygrometer	testo	608-H1	MRTSUE11268	1 year	2025-12-10	WZ-TR3
Thermohygrometer	testo	608-H1	MRTSUE06362	1 year	2026-01-23	WZ-SR6
Shielding Room	HUAMING	WZ-SR6	MRTSUE06443	N/A	N/A	WZ-SR6
Signal Analyzer	Keysight	N9020B	MRTSUE06583	1 year	2025-12-23	WZ-SR6
Radio Communication Analyzer	Anritsu	MT8821C	MRTSUE06960	1 year	2025-06-18	WZ-SR6
Communication Tester	R&S	CMW500	MRTSUE06108	1 year	2025-10-13	WZ-SR6
USB Power Sensor	Keysight	U2021XA	MRTSUE06446	1 year	2025-05-08	WZ-SR6
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2025-12-05	WZ-AC1
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2025-07-26	WZ-AC1
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06024	1 year	2025-09-23	WZ-AC1
Preamplifier	Agilent	83017A	MRTSUE06076	1 year	2025-11-08	WZ-AC1
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2025-05-15	WZ-AC1
Anechoic Chamber	TDK	WZ-AC1	MRTSUE06212	1 year	2025-04-19	WZ-AC1
Signal Analyzer	Keysight	N9010B	MRTSUE06607	1 year	2025-10-13	WZ-AC1
Loop Antenna	Schwarzbeck	FMZB 1519 B	MRTSUE06937	1 year	2026-01-04	WZ-AC1
Thermohygrometer	testo	608-H1	MRTSUE11039	1 year	2025-10-16	WZ-AC1

Software	Version	Function
e3	230711	EMI Test Software
Controller_MF 7802	2.03C	RE Antenna & Turntable
UCTS	V 6.23.217.99	license 3G & 4G & 5G
Agilent Power Analyzer/Agilent Power Panel	V R03.09.00	Power

4. Decision Rules and Measurement Uncertainty

4.1. Decision Rules

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4: 2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

4.2. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Radiated Spurious Emissions
Measurement Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): Coaxial: 9kHz~30MHz: 2.35dB Coplanar: 9kHz~30MHz: 2.37dB Horizontal: 30MHz~200MHz: 3.46dB 200MHz~1GHz: 3.78dB 1GHz~40GHz: 4.97dB Vertical: 30MHz~200MHz: 4.07dB 200MHz~1GHz: 5.28dB 1GHz~40GHz: 4.78dB
Conducted Spurious Emissions
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 1.47dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 0.66dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 69.28kHz
Frequency Stability
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 8.04Hz

5. Test Result

5.1. Summary

FCC Part Section(s)	Test Description	Test Condition	Test Result
2.1049	Occupied Bandwidth	Conducted	Pass
2.1055, 22.355, 24.235, 27.54	Frequency Stability		Pass
22.913(a)(5), 24.232(c) 27.50(d)(4)	Equivalent Radiated Power		Pass
22.913(d), 24.232(d), 27.50(d)(5)	Peak-to-Average Power Ratio		Pass
2.1051, 22.917(a), 24.238(a) 27.53(c)	Transmitter unwanted emissions (band-edge)		Pass
2.1051, 22.917(a), 24.238(a) 27.53(c)	Transmitter unwanted emissions (spurious)		
2.1053, 22.917(a), 24.238(a) 27.53(c)	Transmitter Spurious Emissions	Radiated	Pass

Notes:

1) The analyzer plots shown in this section were captured using a correction table to account for cable and attenuator losses in the system connecting the EUT to the analyzer across relevant frequencies.
2) All supported modulation types were evaluated, and the worst-case emission from modulation types was selected. The power of HSDPA/HSUPA is lower than that of WCDMA.Therefore, the worst-case results for Frequency Stability, Channel Band Edge, Conducted Spurious Emission, and Radiated Spurious Emission were presented in the test report.
3) For the radiated emission tests, each axis (X, Y, Z) was also verified. The test results shown in the following sections represent the worst-case emissions.

5.2. Occupied Bandwidth Measurement

5.2.1. Test Limit

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured.

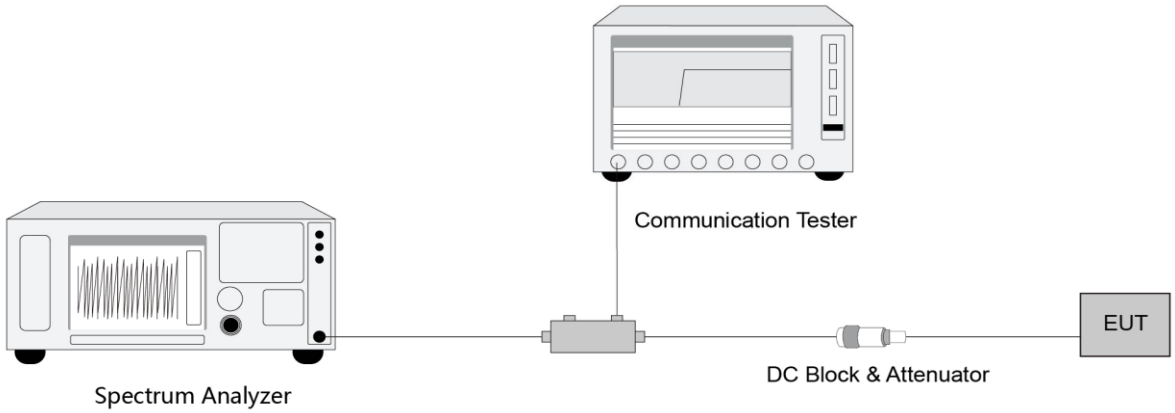
5.2.2. Test Procedure

ANSI C63.26-2015 - Section 5.4.4

5.2.3. Test Setting

1. Set center frequency to the nominal EUT channel center frequency
2. RBW = The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW
3. VBW ≥ 3 × RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. Allow the trace to stabilize
8. Use the 99% power bandwidth function of the instrument and report the measured bandwidth.

5.2.4. Test Setup



5.2.5. Test Result

Refer to Appendix A.1.

5.3. Frequency Stability Measurement

5.3.1. Test Limit

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block.

5.3.2. Test Procedure

ANSI C63.26-2015 - Section 5.6

5.3.3. Test Setting

1. A reference point shall be established at the applicable unwanted emissions limit using a RBW equal to the RBW required by the unwanted emissions specification of the applicable regulatory standard. These reference points measured using the lowest and highest channel of operation shall be identified as f_L and f_H respectively.
2. Use the frequency error function of the instrument and record the frequency error.
3. Change the temperature of equipment and repeat Steps 2.
4. Change the Voltage of equipment and repeat Steps 2.
5. The frequency error offset determined in the above methods shall be added or subtracted from the values of f_L and f_H and the resulting frequencies must remain within the band

Frequency Stability Under Temperature Variations:

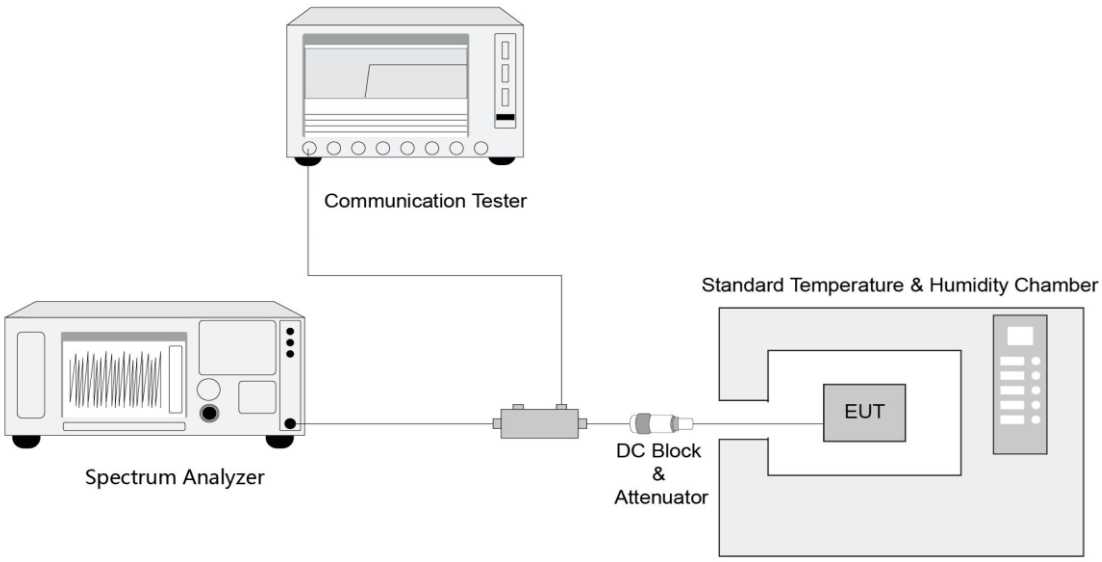
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized recorded the frequency. Repeat step measure with 10°C decreased per stage until the lowest temperature reached.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation (±15%) and endpoint, recordthe maximum frequency change.

5.3.4. Test Setup



5.3.5. Test Result

Refer to Appendix A.2.

5.4. Equivalent Isotropically Radiated Power Measurement

5.4.1. Test Limit

WCDMA Band II:

Mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

WCDMA Band IV:

Fixed, mobile stations operating in the 1710-1755 MHz band and mobile in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

WCDMA Band V:

The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

5.4.2. Test Procedure

ANSI C63.26-2015 - Section 5.2.4.2

5.4.3. Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation (1) as follows:

ERP or EIRP = P_{Meas} + G_T

where

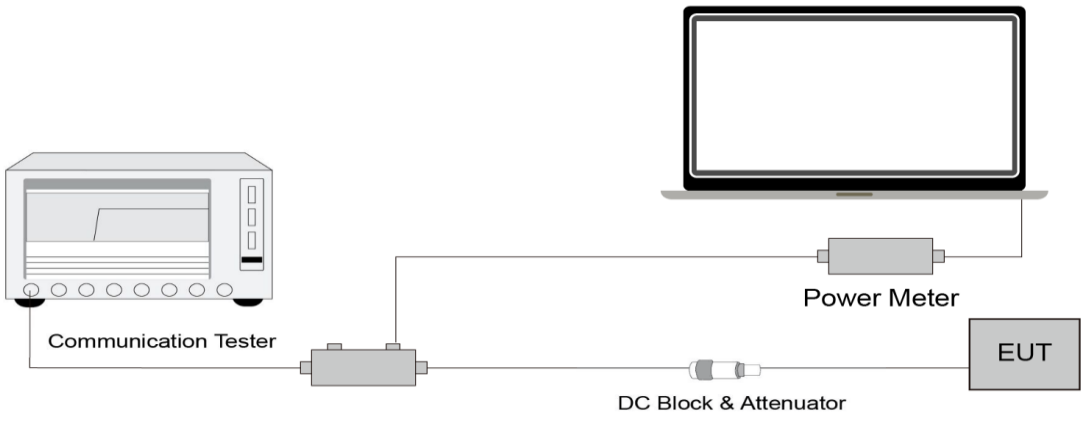
ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as P_{Meas}, e.g., dBm or dBW)

P_{Meas} measured transmitter output power or PSD, in dBm or dBW

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

ERP = EIRP -2.15

5.4.4. Test Setup



5.4.5. Test Result

Refer to Appendix A.3.

5.5. Peak-to-Average Power Ratio Measurement

5.5.1. Test Limit

The peak-to-average power ratio (PAPR) of the transmission must not exceed 13 dB.

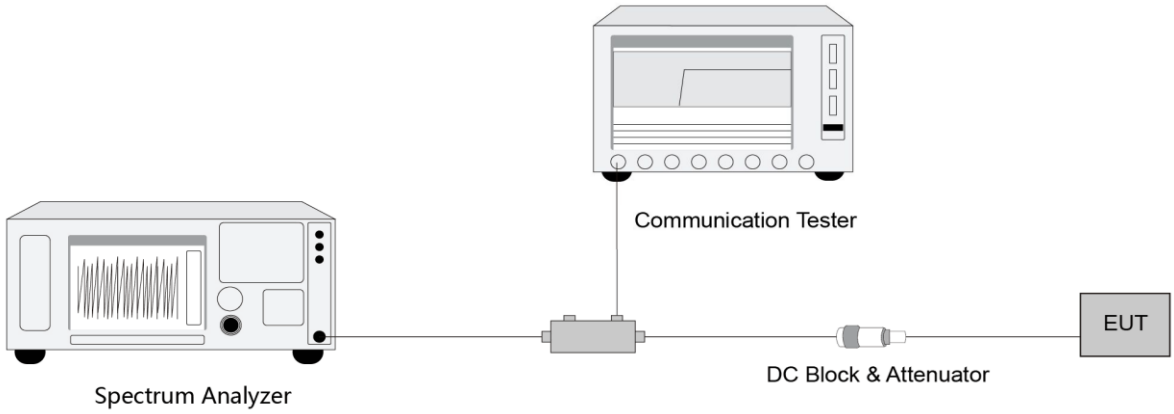
5.5.2. Test Procedure

ANSI C63.26-2015 - Section 5.2.3.4 (CCDF).

5.5.3. Test Setting

1. Set the resolution / measurement bandwidth ≥ signal's occupied bandwidth
2. Set the number of counts to a value that stabilizes the measured CCDF curve
3. Record the maximum PAPR level associated with a probability of 0.1%

5.5.4. Test Setup



5.5.5. Test Result

Refer to Appendix A.4

5.6. Conducted Band-Edge Measurement

5.6.1. Test Limit

22.917 (a), 24.238 (a), 27.53 (h)

For operations in the 824 ~ 849 MHz, 1850 ~ 1910 MHz, 1930 ~ 1990 MHz and 1710 ~ 1755 MHz, 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.

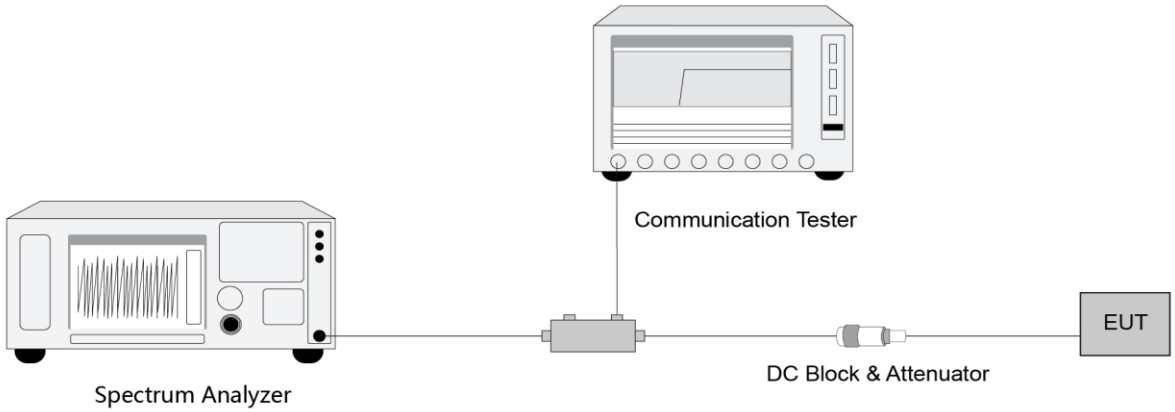
5.6.2. Test Procedure

ANSI C63.26-2015 - Section 5.7

5.6.3. Test Setting

1. Set the analyzer frequency to Low or High channel
2. RBW = specified resolution bandwidth, for improvement of the accuracy in the measurement of the average power of a noise-like emission, a RBW narrower than the specified reference bandwidth can be used (generally limited to no less than 1% of the frequency block group, provided that a subsequent integration is performed over the full required measurement bandwidth. This integration should be performed using the spectrum analyzer's band power functions.
3. VBW ≥ 3*RBW
4. Sweep time = auto
5. Detector = power averaging (rms)
6. If the EUT can be configured to transmit continuously, then set the trigger to free run
7. If the EUT cannot be configured to transmit continuously, then use a sweep trigger with the level set to enable triggering only on full power bursts and configure the EUT to transmit at full power for the entire duration of each sweep. Verify that the sweep time is less than or equal to the transmission burst duration. Time gating can also be used under similar constraints
8. Compute the power by integrating the spectrum across the specified resolution bandwidth using the instrument's band or channel power measurement function, with the band/channel limits set equal to the specified resolution bandwidth, when using a measurement bandwidth smaller than the specified bandwidth. Otherwise, Use the peak marker function to determine the maximum amplitude level.

5.6.4. Test Setup



5.6.5. Test Result

Refer to Appendix A.5.

5.7. Conducted Spurious Emissions Measurement

5.7.1. Test Limit

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst-case configuration. All modes of operation were investigated and the worst-case configuration results are reported in this section.

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.

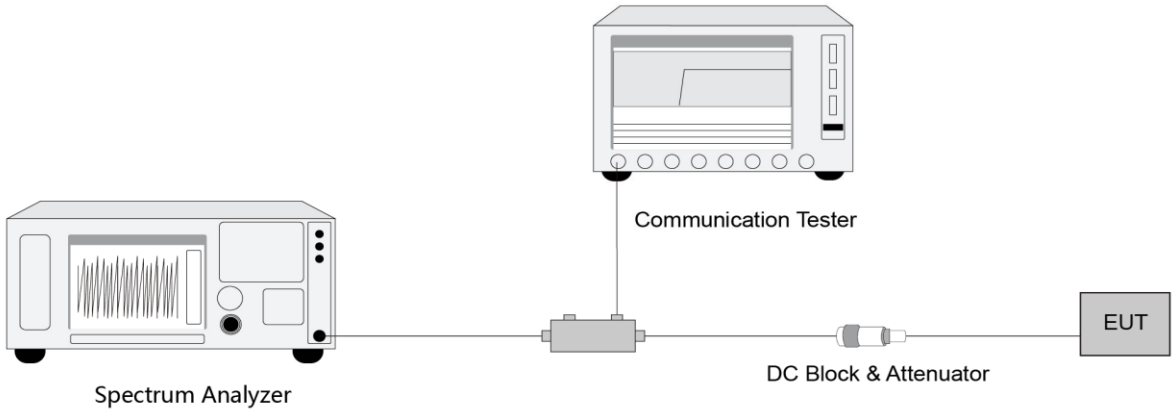
5.7.2. Test Procedure

ANSI C63.26-2015 - Section 5.7

5.7.3. Test Setting

1. Set the analyzer frequency to low, Mid or high channel.
2. RBW = specified resolution bandwidth
3. VBW ≥ 3*RBW
4. Sweep time = auto
5. Detector = power averaging (rms)
6. If the EUT can be configured to transmit continuously, then set the trigger to free run
7. If the EUT cannot be configured to transmit continuously, then use a sweep trigger with the level set to enable triggering only on full power bursts and configure the EUT to transmit at full power for the entire duration of each sweep. Verify that the sweep time is less than or equal to the transmission burst duration. Time gating can also be used under similar constraints
8. Use the peak marker function to determine the maximum amplitude level.

5.7.4. Test Setup



5.7.5. Test Result

Refer to Appendix A.6

5.8. Radiated Spurious Emissions Measurement

5.8.1. Test Limit

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factorof at least 43 + 10 log(P) dB. The emission limit equal to -13dBm.

E (dBμV/m) = EIRP (dBm) - 20 log D + 104.8; where D is the measurement distance in meters. The emission limit equal to 82.3dBμV/m.

5.8.2. Test Procedure

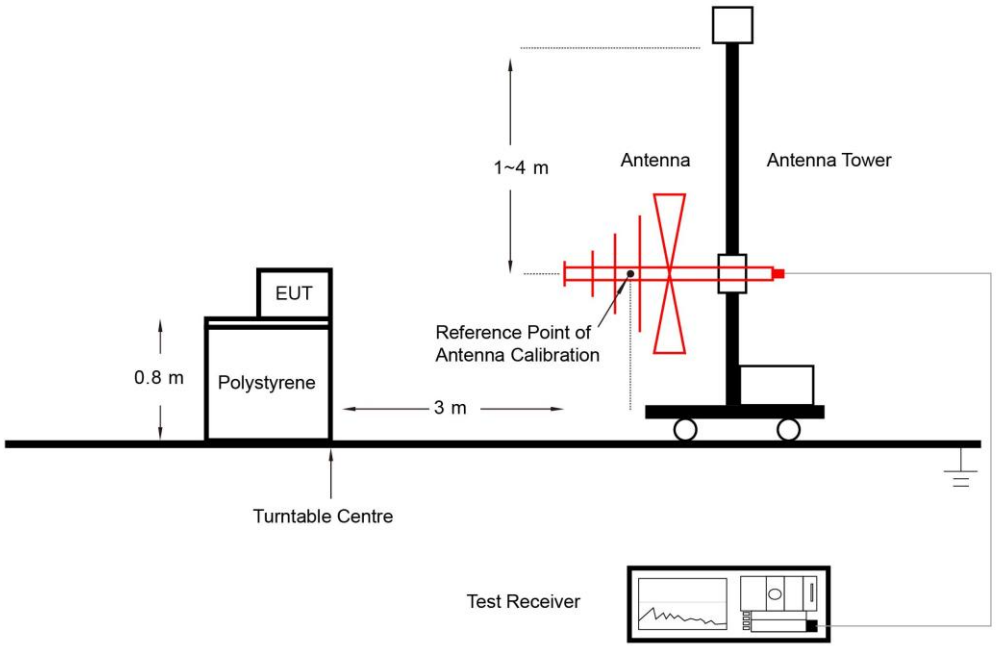
ANSI C63.26-2015 - Section 5.2.7 & 5.5

5.8.3. Test Setting

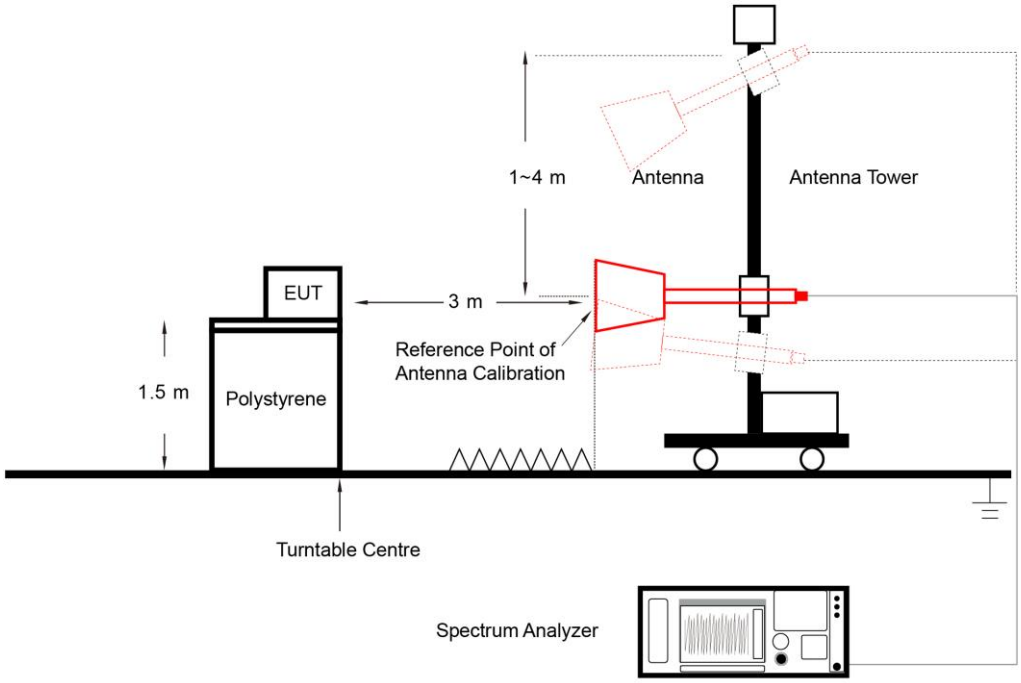
1. RBW = 120kHz or 1MHz
2. VBW ≥ 3*RBW
3. Sweep time ≥ 10 × (number of points in sweep) × (transmission symbol period)
4. Detector = CISPR quasi-peak/average detector (Below 1 GHz, compliance with the limits shall be demonstrated using a CISPR quasi-peak detector and the related measurement bandwidth. Above 1 GHz, compliance with the limits shall be demonstrated using a linear average detector with a minimum resolution bandwidth of 1 MHz.)
5. The trace was allowed to stabilize

5.8.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



5.8.5. Test Result

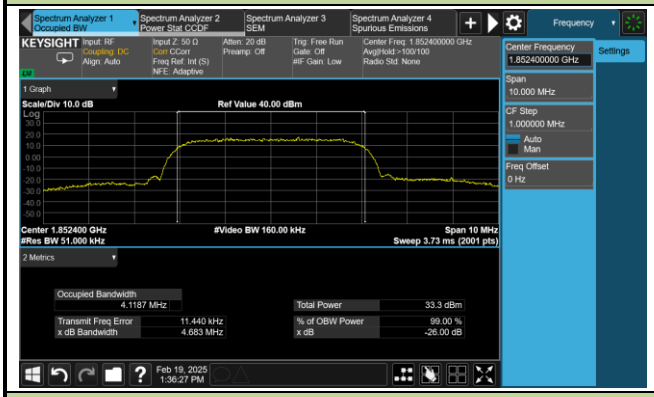
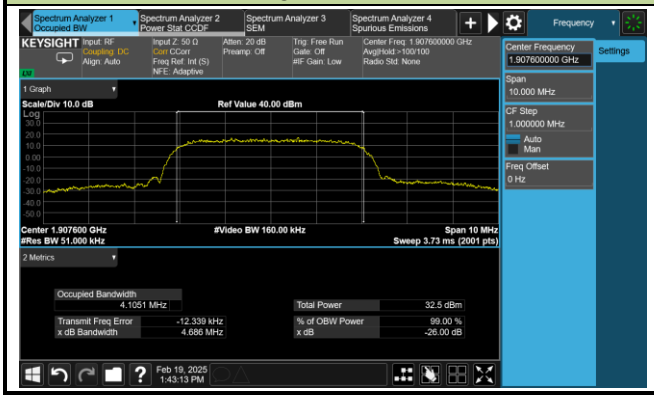
Refer to Appendix A.7.

Appendix A - Test Result

A.1 Occupied Bandwidth Test Result

Test Site	WZ-SR6	Test Engineer	Edith Yu
Test Date	2025-02-19	Test Band	WCDMA Band II

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	1852.4	4.1187
Middle	1880.0	4.1126
High	1907.6	4.1051

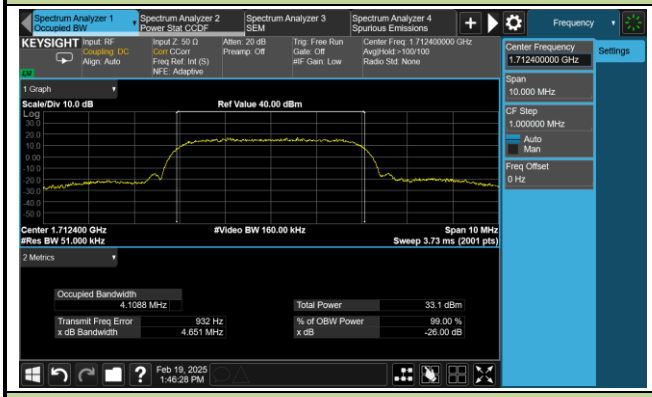
99% Bandwidth	
Low Channel	Middle Channel
	
High Channel	
	

Test Site	WZ-SR6	Test Engineer	Edith Yu
Test Date	2025-02-19	Test Band	WCDMA Band IV

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	1712.4	4.1088
Middle	1732.4	4.1153
High	1752.6	4.1077

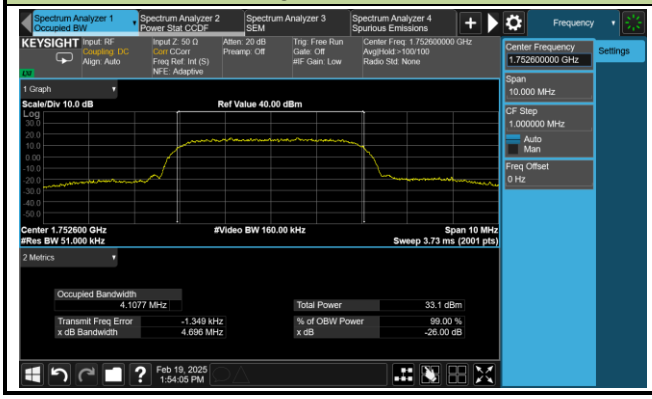
99% Bandwidth

Low Channel



Middle Channel

High Channel

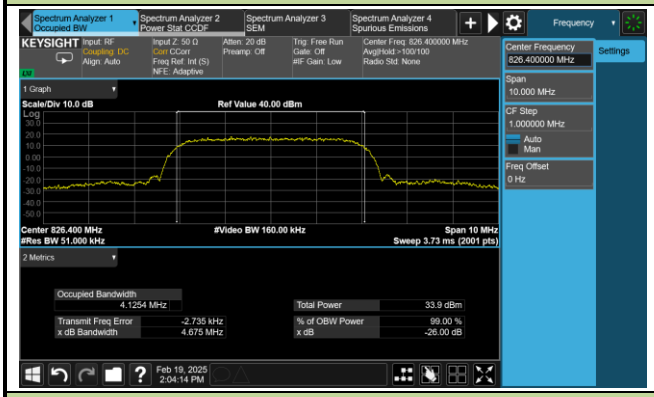


Test Site	WZ-SR6	Test Engineer	Edith Yu
Test Date	2025-02-19 ~ 2025-02-27	Test Band	WCDMA Band V

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	826.4	4.1254
Middle	836.4	4.1129
High	846.6	4.0891

99% Bandwidth

Low Channel



Middle Channel

High Channel

A.2 Frequency Stability Test Result

Test Site	WZ-TR3	Test Engineer	Edith Yu
Test Date	2025-02-19	Test Band	WCDMA Band II

Voltage	Temp (°C)	Frequency Range (MHz)		Delta (Hz)	Frequency stability (ppm)	Within Authorized Frequency Block
		1850	1910			
		f_L	f_H			
Normal	+ 20 (Ref)	1850.110	1909.895	0.0	0.0000	Pass
	+ 50	1850.110	1909.895	0.1	0.0001	Pass
	+ 40	1850.110	1909.895	0.9	0.0005	Pass
	+ 30	1850.110	1909.895	0.5	0.0003	Pass
	+ 10	1850.110	1909.895	0.7	0.0004	Pass
	0	1850.110	1909.895	0.5	0.0003	Pass
	- 10	1850.110	1909.895	1.8	0.0010	Pass
	- 20	1850.110	1909.895	0.3	0.0002	Pass
	- 30	1850.110	1909.895	1.1	0.0006	Pass
10.35Vdc	+ 20	1850.110	1909.895	0.9	0.0005	Pass
9Vdc	+ 20	1850.110	1909.895	0.0	0.0000	Pass

Note: The operating voltage is provided by the manufacturer.

Test Site	WZ-TR3	Test Engineer	Edith Yu
Test Date	2025-02-19	Test Band	WCDMA Band IV

Voltage	Temp (°C)	Frequency Range (MHz)		Delta (Hz)	Frequency stability (ppm)	Within Authorized Frequency Block
		1710	1755			
		f_L	f_H			
Normal	+ 20 (Ref)	1710.110	1754.900	0.0	0.0000	Pass
	+ 50	1710.110	1754.900	0.2	0.0001	Pass
	+ 40	1710.110	1754.900	0.7	0.0004	Pass
	+ 30	1710.110	1754.900	0.8	0.0005	Pass
	+ 10	1710.110	1754.900	1.7	0.0010	Pass
	0	1710.110	1754.900	2.0	0.0012	Pass
	- 10	1710.110	1754.900	2.2	0.0013	Pass
	- 20	1710.110	1754.900	1.7	0.0010	Pass
	- 30	1710.110	1754.900	2.7	0.0016	Pass
10.35Vdc	+ 20	1710.110	1754.900	1.0	0.0006	Pass
9Vdc	+ 20	1710.110	1754.900	0.0	0.0000	Pass

Note: The operating voltage is provided by the manufacturer.

Test Site	WZ-TR3	Test Engineer	Edith Yu
Test Date	2025-02-19	Test Band	WCDMA Band V

Voltage	Temp (°C)	Frequency Range (MHz)		Delta (Hz)	Frequency stability (ppm)	Within Authorized Frequency Block
		824	849			
		f_L	f_H			
Normal	+ 20 (Ref)	824.085	848.890	0.0	0.0000	Pass
	+ 50	824.085	848.890	0.8	0.0010	Pass
	+ 40	824.085	848.890	0.3	0.0004	Pass
	+ 30	824.085	848.890	0.5	0.0006	Pass
	+ 10	824.085	848.890	0.6	0.0007	Pass
	0	824.085	848.890	1.8	0.0022	Pass
	- 10	824.085	848.890	1.0	0.0012	Pass
	- 20	824.085	848.890	1.6	0.0019	Pass
	- 30	824.085	848.890	0.9	0.0011	Pass
10.35Vdc	+ 20	824.085	848.890	1.0	0.0012	Pass
9Vdc	+ 20	824.085	848.890	0.0	0.0000	Pass

Note: The operating voltage is provided by the manufacturer.

A.3 Equivalent Isotropically Radited Power Test Result

Test Site	WZ-SR6	Test Engineer	Edith Yu
Test Date	2025-02-13 ~ 2025-02-17	Test Band	WCDMA Band II

Mode	3GPP Subtest	Conducted Power (dBm)			Antenna Gain (dBi)	EIRP (dBm)		
		Channel				Channel		
		Low	Middle	High		Low	Middle	High
WCDMA R99	1	23.14	23.11	23.08	2.53	25.67	25.64	25.61
HSDPA	1	22.21	22.25	22.07	2.53	24.74	24.78	24.60
	2	22.32	22.19	22.14	2.53	24.85	24.72	24.67
	3	21.86	21.73	21.67	2.53	24.39	24.26	24.20
	4	21.86	21.74	21.68	2.53	24.39	24.27	24.21
HSUPA	1	22.36	22.27	22.18	2.53	24.89	24.80	24.71
	2	20.32	20.19	20.15	2.53	22.85	22.72	22.68
	3	21.33	21.18	21.16	2.53	23.86	23.71	23.69
	4	20.31	20.32	20.14	2.53	22.84	22.85	22.67
	5	22.31	22.28	22.24	2.53	24.84	24.81	24.77
Limit	33.01dBm							
Note: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi)								

Test Site	WZ-SR6	Test Engineer	Edith Yu
Test Date	2025-02-13 ~ 2025-02-17	Test Band	WCDMA Band IV

Mode	3GPP Subtest	Conducted Power (dBm)			Antenna Gain (dBi)	EIRP (dBm)		
		Channel				Channel		
		Low	Middle	High		Low	Middle	High
WCDMA R99	1	23.22	23.34	23.06	2.53	25.75	25.87	25.59
HSDPA	1	22.19	22.36	22.14	2.53	24.72	24.89	24.67
	2	22.31	22.46	22.21	2.53	24.84	24.99	24.74
	3	21.83	22.00	21.58	2.53	24.36	24.53	24.11
	4	21.85	22.02	21.75	2.53	24.38	24.55	24.28
HSUPA	1	22.34	22.48	22.17	2.53	24.87	25.01	24.70
	2	20.34	20.54	20.21	2.53	22.87	23.07	22.74
	3	21.30	21.47	21.22	2.53	23.83	24.00	23.75
	4	20.32	20.52	20.23	2.53	22.85	23.05	22.76
	5	22.32	22.46	22.15	2.53	24.85	24.99	24.68
Limit	30.00dBm							
Note: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi)								

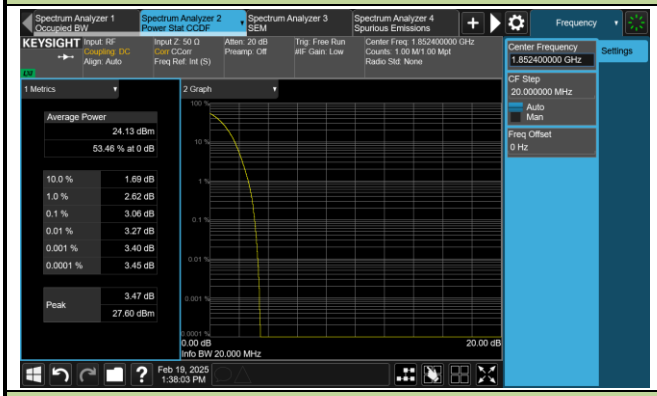
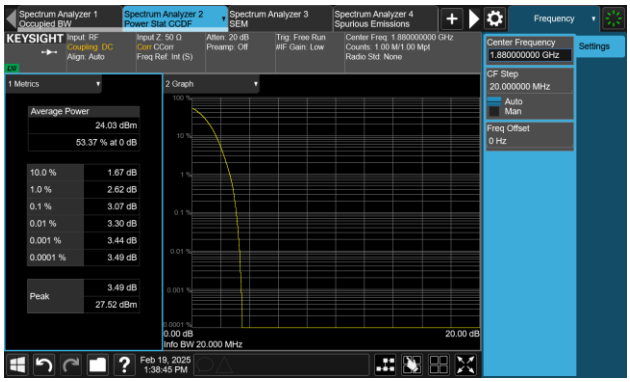
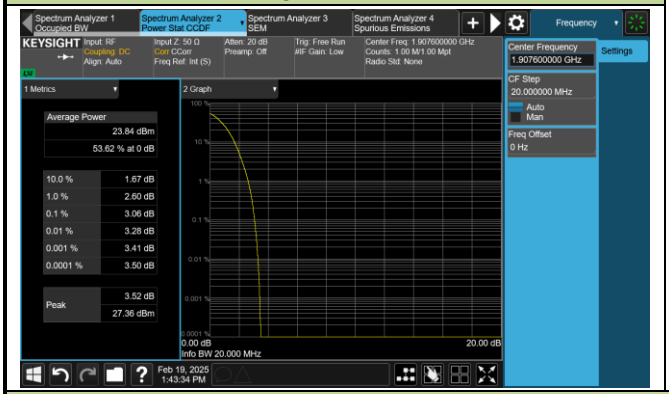
Test Site	WZ-SR6	Test Engineer	Edith Yu
Test Date	2025-02-13 ~ 2025-02-17	Test Band	WCDMA Band V

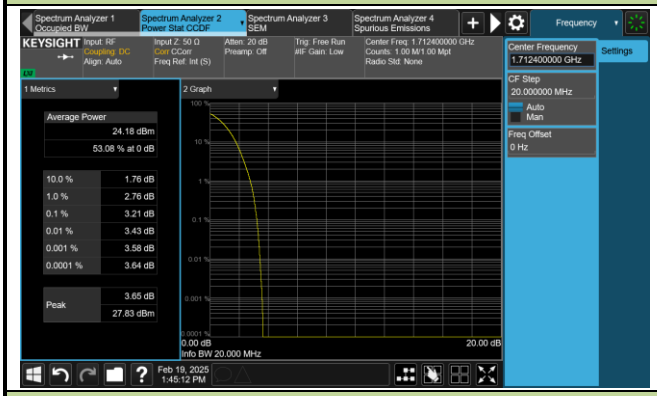
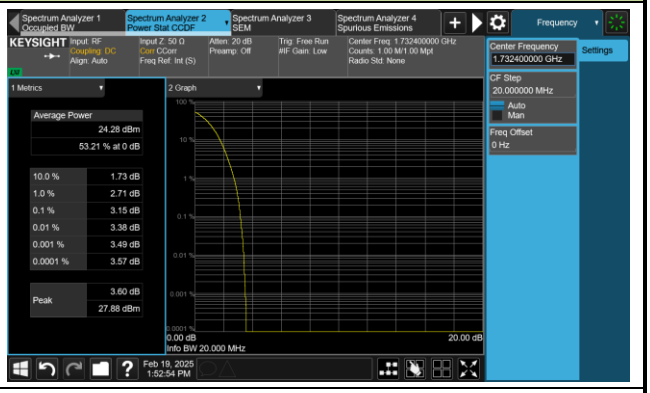
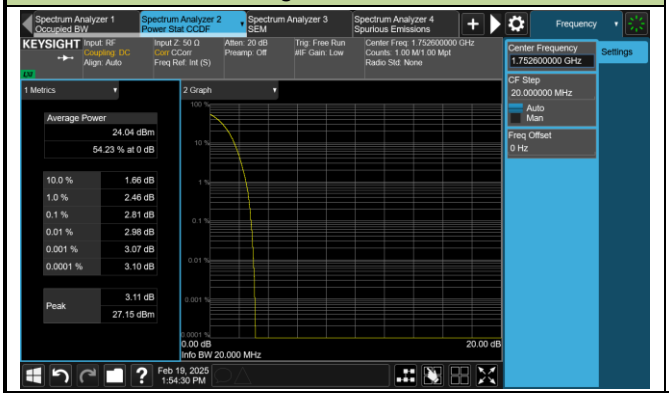
Mode	3GPP Subtest	Conducted Power (dBm)			Antenna Gain (dBi)	ERP (dBm)		
		Channel				Channel		
		Low	Middle	High		Low	Middle	High
WCDMA R99	1	24.19	24.20	24.06	3.89	25.93	25.94	25.80
HSDPA	1	23.33	23.21	23.09	3.89	25.07	24.95	24.83
	2	23.26	23.23	23.11	3.89	25.00	24.97	24.85
	3	22.81	22.75	22.63	3.89	24.55	24.49	24.37
	4	22.80	22.75	22.63	3.89	24.54	24.49	24.37
HSUPA	1	23.19	23.30	23.19	3.89	24.93	25.04	24.93
	2	21.27	21.40	21.19	3.89	23.01	23.14	22.93
	3	22.22	22.33	22.23	3.89	23.96	24.07	23.97
	4	21.33	21.41	21.20	3.89	23.07	23.15	22.94
	5	23.20	23.36	23.21	3.89	24.94	25.10	24.95
Limit	38.45dBm							
Note: The ERP (dBm) = Output Power (dBm) + Antenna Gain (dBi) – 2.15								

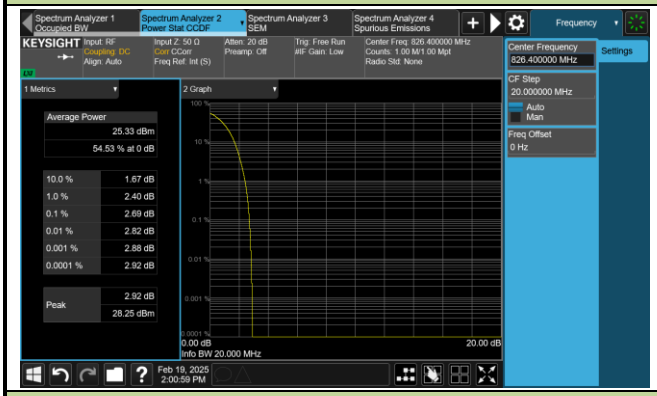
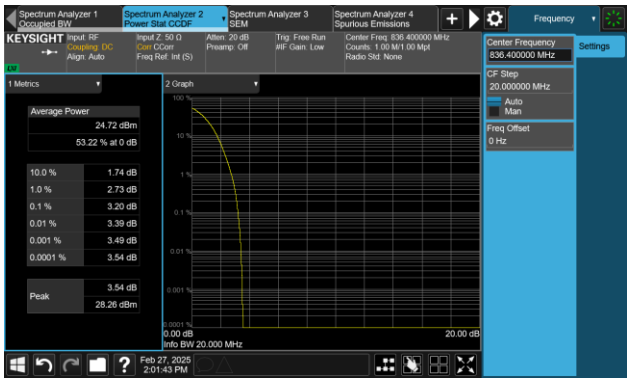
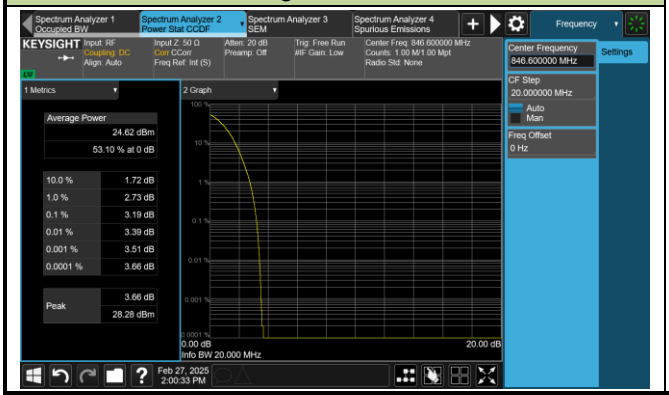
A.4 Peak-to-Average Power Radio Test Result

Test Site	WZ-SR6	Test Engineer	Edith Yu
Test Date	2025-02-19 ~ 2025-02-27	Test Band	WCDMA Band II, IV, V

Frequency (MHz)	Channel Bandwidth (MHz)	Peak to Average Ratio (dB)	Limit (dB)	Result
1852.4	5	3.06	≤ 13.00	Pass
1880.0	5	3.07	≤ 13.00	Pass
1907.6	5	3.06	≤ 13.00	Pass
1712.4	5	3.21	≤ 13.00	Pass
1732.4	5	3.15	≤ 13.00	Pass
1752.6	5	2.81	≤ 13.00	Pass
826.4	5	2.69	≤ 13.00	Pass
836.4	5	3.20	≤ 13.00	Pass
846.6	5	3.19	≤ 13.00	Pass

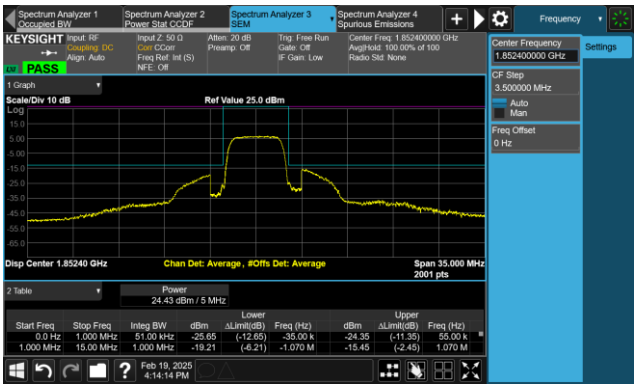
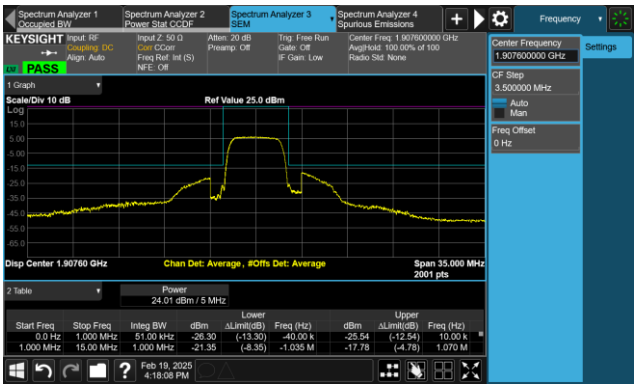
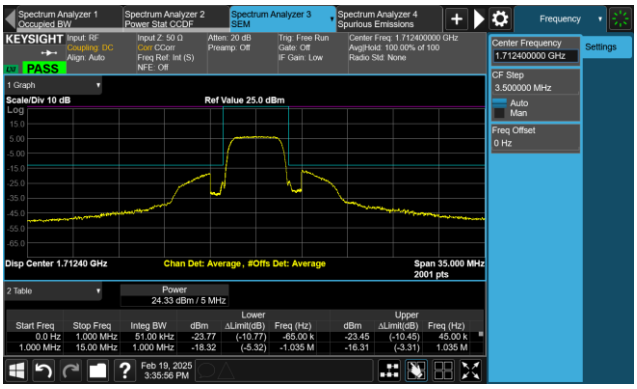
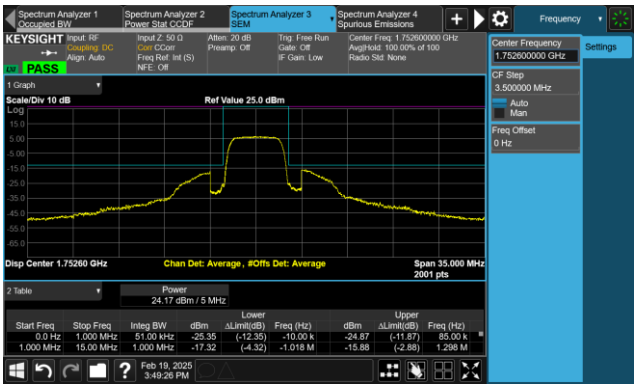
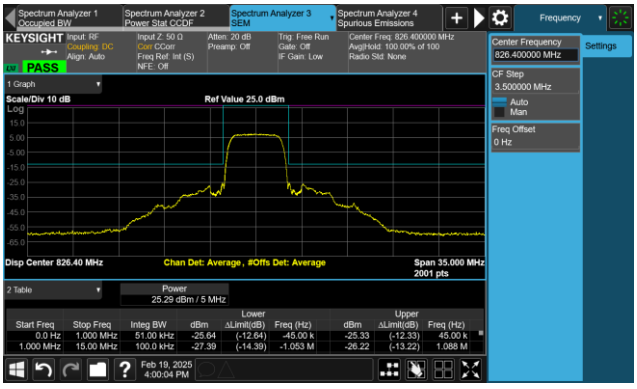
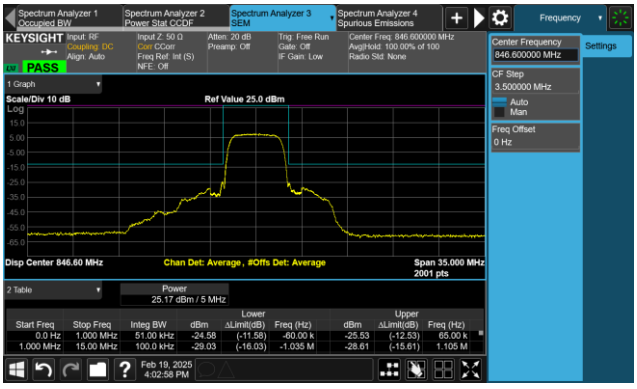
WCDMA Band II	
Low Channel	Middle Channel
	
High Channel	
	

WCDMA Band IV	
Low Channel	Middle Channel
	
High Channel	
	

WCDMA Band V	
Low Channel	Middle Channel
	
High Channel	
	

A.5 Conducted Band-Edge Test Result

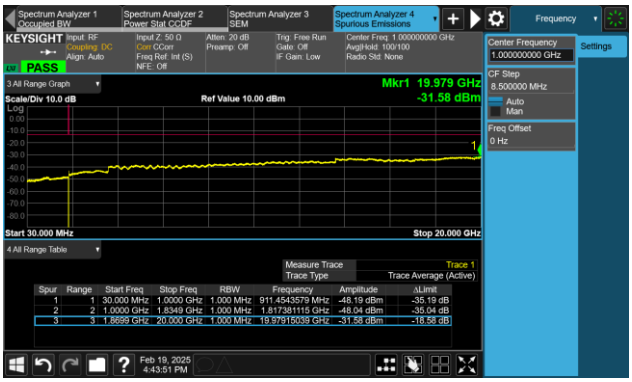
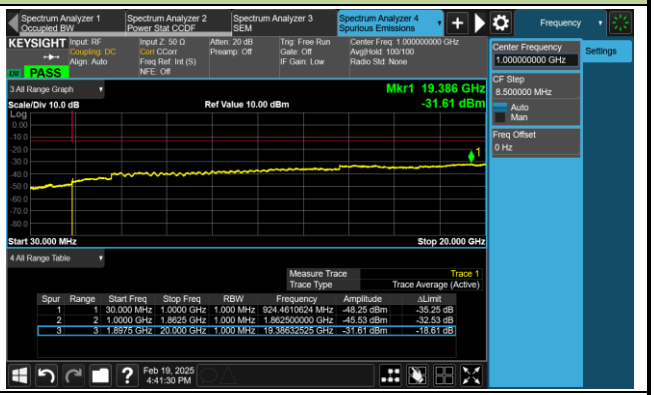
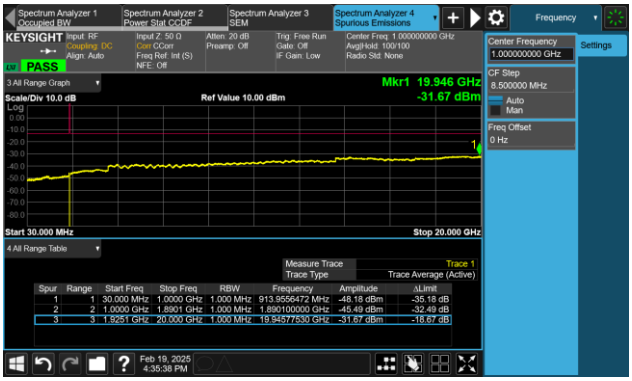
Test Site	WZ-SR6	Test Engineer	Edith Yu
Test Date	2025-02-19	Test Band	WCDMA Band II, IV, V

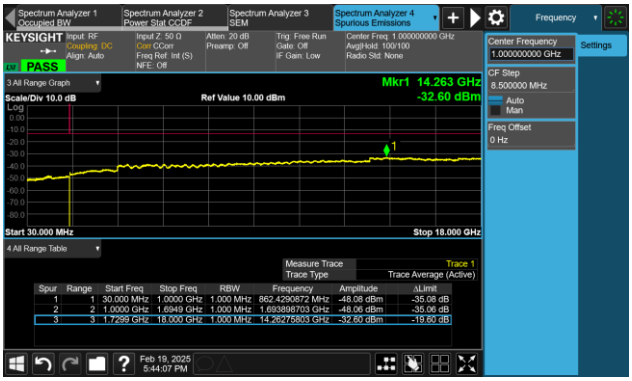
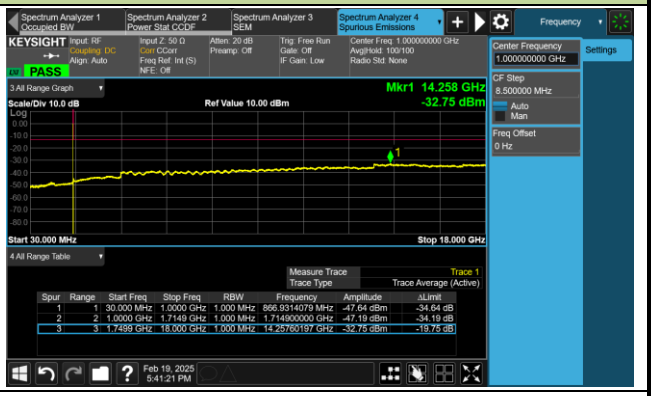
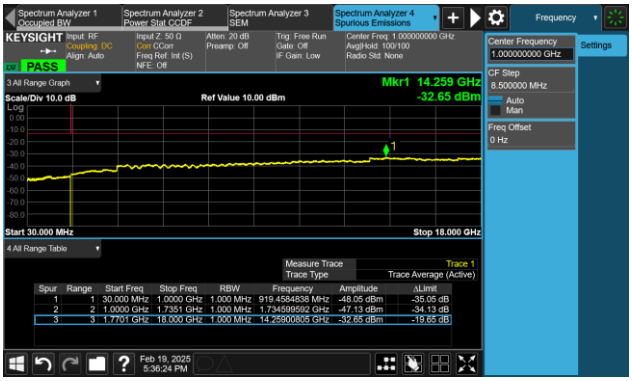
WCDMA Band II	
Lower Band Edge	Upper Band Edge
	
WCDMA Band IV	
Lower Band Edge	Upper Band Edge
	
WCDMA Band V	
Lower Band Edge	Upper Band Edge
	

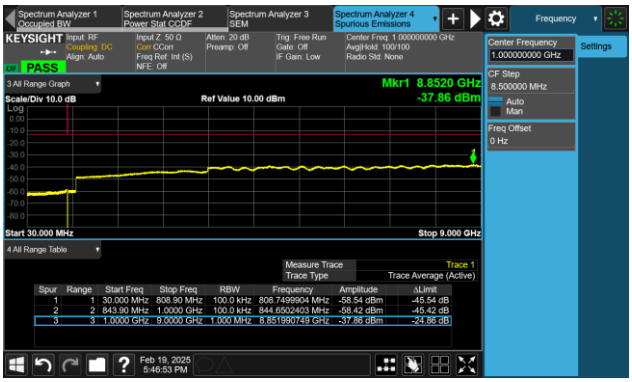
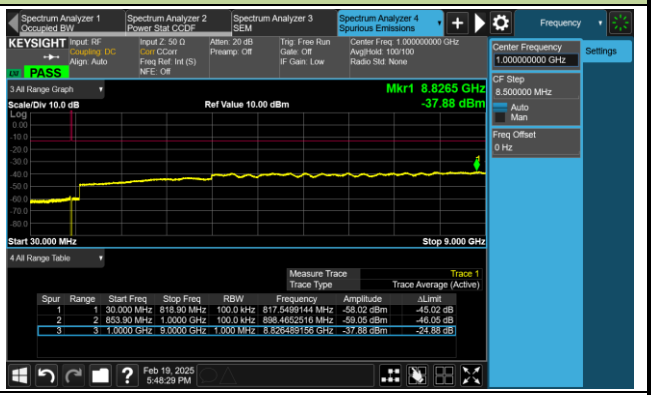
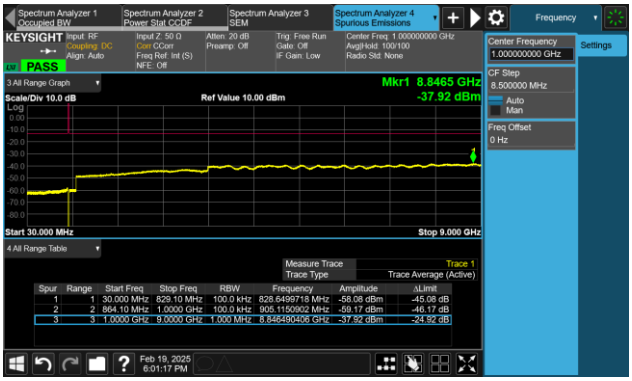
A.6 Conducted Spurious Emissions Test Result

Test Site	WZ-SR6	Test Engineer	Edith Yu
Test Date	2025-02-19	Test Band	WCDMA Band II, IV, V

Channel Bandwidth (MHz)	Frequency (MHz)	Frequency Range (MHz)	Max Spurious Emissions (dBm)	Limit (dBm)	Result
WCDMA Band II	1852.4	30 ~ 20000	-31.58	≤ -13.00	Pass
	1880.0	30 ~ 20000	-31.61	≤ -13.00	Pass
	1907.6	30 ~ 20000	-31.67	≤ -13.00	Pass
WCDMA Band IV	1712.4	30 ~ 18000	-32.60	≤ -13.00	Pass
	1732.4	30 ~ 18000	-32.75	≤ -13.00	Pass
	1752.6	30 ~ 18000	-32.65	≤ -13.00	Pass
WCDMA Band V	826.4	30 ~ 9000	-37.86	≤ -13.00	Pass
	836.4	30 ~ 9000	-37.88	≤ -13.00	Pass
	846.6	30 ~ 9000	-37.92	≤ -13.00	Pass
Note: The amplitude of Conducted Spurious emissions (frequency range from 9kHz to 30MHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.					

WCDMA Band II	
Low Channel	Middle Channel
	
High Channel	
	

WCDMA Band IV	
Low Channel	Middle Channel
	
High Channel	
	

WCDMA Band V	
Low Channel	Middle Channel
	
High Channel	
	

A.7 Radiated Spurious Emissions Test Result

Test Site	WZ-AC1	Test Engineer	Lucas Wang
Test Date	2025-02-23 ~ 2025-03-03	Test Band	WCDMA Band II

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Low Channel							
119.7250	10.5	16.2	26.7	82.3	-55.6	Quasi-peak	Horizontal
144.5570	9.5	18.0	27.5	82.3	-54.8	Quasi-peak	Horizontal
35.3350	16.1	17.6	33.7	82.3	-48.6	Quasi-peak	Vertical
62.3980	14.1	17.9	32.0	82.3	-50.3	Quasi-peak	Vertical
7405.6000	50.4	8.7	59.1	82.3	-23.2	Peak	Horizontal
9258.6000	42.2	13.4	55.6	82.3	-26.7	Peak	Horizontal
7407.3000	46.7	8.7	55.4	82.3	-26.9	Peak	Vertical
9267.1000	38.0	13.5	51.5	82.3	-30.8	Peak	Vertical
Middle Channel							
118.2700	11.6	16.1	27.7	82.3	-54.6	Quasi-peak	Horizontal
143.4900	8.9	18.0	26.9	82.3	-55.4	Quasi-peak	Horizontal
35.5290	16.1	17.7	33.8	82.3	-48.5	Quasi-peak	Vertical
61.2340	13.5	18.1	31.6	82.3	-50.7	Quasi-peak	Vertical
3762.5000	46.7	0.5	47.2	82.3	-35.1	Peak	Horizontal
7526.3000	50.5	8.8	59.3	82.3	-23.0	Peak	Horizontal
5637.6000	42.7	4.4	47.1	82.3	-35.2	Peak	Vertical
7524.6000	46.4	8.8	55.2	82.3	-27.1	Peak	Vertical
High Channel							
120.5980	11.2	16.3	27.5	82.3	-54.8	Quasi-peak	Horizontal
145.7210	8.2	18.1	26.3	82.3	-56.0	Quasi-peak	Horizontal
32.1340	17.0	17.4	34.4	82.3	-47.9	Quasi-peak	Vertical
61.6220	15.1	18.0	33.1	82.3	-49.2	Quasi-peak	Vertical
10565.9000	36.7	15.1	51.8	82.3	-30.5	Peak	Horizontal
17989.8000	35.0	22.8	57.8	82.3	-24.5	Peak	Horizontal
14428.3000	36.3	15.6	51.9	82.3	-30.4	Peak	Vertical
17950.7000	36.3	22.0	58.3	82.3	-24.0	Peak	Vertical

Note1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note2: The peak-detection value will always be equal to or greater than the average-detection value. As a result, the peak-detection value measured by spectrum analyzer shall represent the worst-case result.

Note 3: The amplitude of Radiated transmitter spurious emissions (Frequency range from 9 kHz to 30 MHz and above 18 GHz) is that proximity to ambient noise, which is also attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Test Site	WZ-AC1	Test Engineer	Lucas Wang
Test Date	2025-02-23 ~ 2025-03-03	Test Band	WCDMA Band IV

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Low Channel							
120.0160	11.6	16.2	27.8	82.3	-54.5	Quasi-peak	Horizontal
143.3930	9.7	17.9	27.6	82.3	-54.7	Quasi-peak	Horizontal
32.0370	15.1	17.4	32.5	82.3	-49.8	Quasi-peak	Vertical
61.7190	15.2	18.0	33.2	82.3	-49.1	Quasi-peak	Vertical
6846.3000	47.9	7.3	55.2	82.3	-27.1	Peak	Horizontal
8559.9000	43.6	10.6	54.2	82.3	-28.1	Peak	Horizontal
5139.5000	41.0	4.2	45.2	82.3	-37.1	Peak	Vertical
6853.1000	47.4	7.2	54.6	82.3	-27.7	Peak	Vertical
Middle Channel							
62.9800	5.1	17.8	22.9	82.3	-59.4	Quasi-peak	Horizontal
120.4040	12.0	16.2	28.2	82.3	-54.1	Quasi-peak	Horizontal
61.3310	14.2	18.0	32.2	82.3	-50.1	Quasi-peak	Vertical
145.0420	15.0	18.0	33.0	82.3	-49.3	Quasi-peak	Vertical
14593.2000	36.2	15.7	51.9	82.3	-30.4	Peak	Horizontal
17991.5000	35.2	22.8	58.0	82.3	-24.3	Peak	Horizontal
14329.7000	36.0	15.7	51.7	82.3	-30.6	Peak	Vertical
17984.7000	35.0	22.7	57.7	82.3	-24.6	Peak	Vertical
High Channel							
120.2100	11.1	16.2	27.3	82.3	-55.0	Quasi-peak	Horizontal
143.9750	8.3	18.0	26.3	82.3	-56.0	Quasi-peak	Horizontal
32.2310	15.1	17.4	32.5	82.3	-49.8	Quasi-peak	Vertical
61.6220	15.2	18.0	33.2	82.3	-49.1	Quasi-peak	Vertical
14380.7000	35.9	16.0	51.9	82.3	-30.4	Peak	Horizontal
18000.0000	34.7	22.9	57.6	82.3	-24.7	Peak	Horizontal
14885.6000	36.6	15.3	51.9	82.3	-30.4	Peak	Vertical
17940.5000	35.4	21.9	57.3	82.3	-25.0	Peak	Vertical

Note1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note2: The peak-detection value will always be equal to or greater than the average-detection value. As a result, the peak-detection value measured by spectrum analyzer shall represent the worst-case result.

Note 3: The amplitude of Radiated transmitter spurious emissions (Frequency range from 9 kHz to 30 MHz and

above 18 GHz) is that proximity to ambient noise, which is also attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Test Site	WZ-AC1	Test Engineer	Lucas Wang
Test Date	2025-02-23 ~ 2025-03-03	Test Band	WCDMA Band V

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Low Channel							
119.6280	11.3	16.2	27.5	82.3	-54.8	Quasi-peak	Horizontal
143.5870	9.1	18.0	27.1	82.3	-55.2	Quasi-peak	Horizontal
32.0370	14.3	17.4	31.7	82.3	-50.6	Quasi-peak	Vertical
59.6820	14.9	18.2	33.1	82.3	-49.2	Quasi-peak	Vertical
1655.2000	47.1	-5.7	41.4	82.3	-40.9	Peak	Horizontal
5210.4000	37.1	4.1	41.2	82.3	-41.1	Peak	Horizontal
1655.2000	45.8	-5.7	40.1	82.3	-42.2	Peak	Vertical
7106.4000	37.2	8.2	45.4	82.3	-36.9	Peak	Vertical
Middle Channel							
120.3070	11.2	16.2	27.4	82.3	-54.9	Quasi-peak	Horizontal
144.9450	8.3	18.0	26.3	82.3	-56.0	Quasi-peak	Horizontal
61.2340	14.5	18.1	32.6	82.3	-49.7	Quasi-peak	Vertical
144.1690	14.2	18.0	32.2	82.3	-50.1	Quasi-peak	Vertical
7120.0000	37.6	8.5	46.1	82.3	-36.2	Peak	Horizontal
8848.0000	36.4	11.7	48.1	82.3	-34.2	Peak	Horizontal
7640.0000	37.4	8.9	46.3	82.3	-36.0	Peak	Vertical
8824.8000	36.7	11.7	48.4	82.3	-33.9	Peak	Vertical
High Channel							
119.6280	11.6	16.2	27.8	82.3	-54.5	Quasi-peak	Horizontal
144.6540	9.1	18.0	27.1	82.3	-55.2	Quasi-peak	Horizontal
32.1340	15.1	17.4	32.5	82.3	-49.8	Quasi-peak	Vertical
61.8160	14.1	18.0	32.1	82.3	-50.2	Quasi-peak	Vertical
8056.8000	36.5	10.1	46.6	82.3	-35.7	Peak	Horizontal
8742.4000	36.7	11.6	48.3	82.3	-34.0	Peak	Horizontal
7990.4000	37.4	9.7	47.1	82.3	-35.2	Peak	Vertical
8875.2000	36.1	11.6	47.7	82.3	-34.6	Peak	Vertical

Note1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note2: The peak-detection value will always be equal to or greater than the average-detection value. As a result, the peak-detection value measured by spectrum analyzer shall represent the worst-case result.

Note 3: The amplitude of Radiated transmitter spurious emissions (Frequency range from 9 kHz to 30 MHz and

above 18 GHz) is that proximity to ambient noise, which is also attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Appendix B - Test Setup Photograph

Refer to “R25S1016023-UT” file.

Appendix C - EUT Photograph

Refer to “R25S1016023-UE” file.

The End