

TEST REPORT

Applicant: Sercomm Corporation

EUT Description: G5SEM-V

Model: G5SEM-V

Brand: N/A

FCC ID: P27-TMOG5SEM

Standards: FCC CFR Title 47 Part 2
FCC CFR Title 47 Part 24
FCC CFR Title 47 Part 27
FCC CFR Title 47 Part 96

Date of Receipt: 2026/03/02

Date of Test: 2026/03/02 to 2026/03/24

Date of Issue: 2026/03/25

TOWE. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

the results documented in this report apply only the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility assure that additional production units of the model are manufactured with identical electrical and mechanical components. All sample tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise. without written approval of TOWE, the test report shall not be reproduced except in full.



Jim Huang
Approved By:



Carey Chen
Reviewed By:

Revision History

Rev.	Issue Date	Description	Revised by
01	2026/03/25	Original	Carey Chen

Summary of Test Results

FCC Part	Test Band	Test Item	Test Result
§2.1046, §27.50(c)(10)	NR Band n71	Effective Radiated Power	Reference report TCWA25010004602
§2.1046, §27.50(h)(2) §24.232(c) §27.50(d)(4) §27.50(k)(3) §27.50(j)(3)	NR Band n41 NR Band n25 NR Band n66 NR Band n77 (3450-3550MHz) NR Band n77 (3550-3980MHz)	Effective Isotropic Radiated Power	
§96.41	NR Band n48	Maximum EIRP and Maximum PSD	
§24.232(d) §27.50(d)(5) §96.41	NR Band n25 Others NR Band NR Band n48	Peak-Average Ratio	
§2.1049	All NR Band	Occupied Bandwidth	
§2.1051 §27.53(m4) §24.238(a) §27.53(g) §27.53(h) §27.50(n)(2) §27.53(l)(2) §96.41	NR Band n41 NR Band n25 NR Band n71 NR Band n66 NR Band n77 (3450-3550MHz) NR Band n77 (3550-3980MHz) NR Band n48	Band Edge	
§2.1051 §27.53(m) §24.238(a) §27.53(g) §27.53(h) §27.50(n)(2) §27.53(l)(2) §96.41	NR Band n41 NR Band n25 NR Band n71 NR Band n66 NR Band n77 (3450-3550MHz) NR Band n77 (3550-3980MHz) NR Band n48	Spurious Emission at Antenna Terminals	
§2.1055 §24.235 §27.54 §96.41	NR Band n25 Others NR Band NR Band n48	Frequency Stability	
§96.41	NR Band n48	Adjacent Channel Leakage Ratio	
§2.1051 §27.53(m) §24.238(a) §27.53(g) §27.53(h) §27.50(n)(2) §27.53(l)(2) §96.41	NR Band n41 NR Band n25 NR Band n71 NR Band n66 NR Band n77 (3450-3550MHz) NR Band n77 (3550-3980MHz) NR Band n48	Field Strength of Spurious Radiation	Pass
Remark: Pass: Meet the requirement.			

Remark:

In this report the worst data of Field Strength of Spurious Radiation was sport checked, all the other data please refer to the previous report with report number TCWA25010004602 (FCC ID: P27-TMOG5SEM).

Table of Contents

1	General Description	5
1.1	Lab Information	5
1.1.1	Testing Location	5
1.1.2	Test Facility / Accreditations	5
1.2	Client Information	5
1.2.1	Applicant	5
1.2.2	Manufacturer	5
1.3	Product Information	6
2	Test Configuration	8
2.1	Test Channel	8
2.2	Worst-case configuration and Mode	14
2.3	Support Unit used in test	14
2.4	Test Environment	14
2.5	Test RF Cable	14
2.6	Modifications	14
2.7	Test Setup Diagram	15
2.7.1	Radiated Configuration	15
3	Equipment and Measurement Uncertainty	16
3.1	Test Equipment List	16
3.2	Measurement Uncertainty	16
4	Test Results	17
4.1	Field Strength of Spurious Radiation	17
5	Test Setup Photos	19
	Appendix	20

1 General Description

1.1 Lab Information

1.1.1 Testing Location

These measurements tests were conducted at the Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. facility located at F401 and F101, Building E, Hongwei Industrial Zone, Liuxian 3rd Road, Bao'an District, Shenzhen, China. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014

Tel.: +86-755-27212361

Contact Email: info@towewireless.com

1.1.2 Test Facility / Accreditations

A2LA (Certificate Number: 7088.01)

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

FCC Designation No.: CN1353

Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. has been recognized as an accredited testing laboratory.

Test Firm Registration Number: 684095

Designation Number: CN1353.

ISED CAB identifier: CN0152

Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0152

Company Number: 31000

1.2 Client Information

1.2.1 Applicant

Applicant:	Sercomm Corporation
Address:	8F, No. 3-1, YuanQu St., NanKang, Taipei 115, Taiwan, R.O.C.

1.2.2 Manufacturer

Manufacturer:	Sercomm Corporation
Address:	8F, No. 3-1, YuanQu St., NanKang, Taipei 115, Taiwan, R.O.C.

1.3 Product Information

EUT Description:	G5SEM-V																
Model:	G5SEM-V																
Brand:	N/A																
Hardware Version:	V1.0																
Software Version:	0.01.22																
IMEI:	353241330000574																
Technical specification:																	
Operation Frequency Range:	Band		TX Frequency						RX Frequency								
	NR Band n25		1850 to 1915MHz						1930 to 1995 MHz								
	NR Band n41		2496 to 2690 MHz						2496 to 2690 MHz								
	NR Band n48		3550 to 3700 MHz						3550 to 3700 MHz								
	NR Band n66		1710 to 1780 MHz						2110 to 2200 MHz								
	NR Band n71		663 to 698 MHz						617 to 652 MHz								
	NR Band n77		3450 to 3550 MHz						3450 to 3550 MHz								
			3700 to 3980 MHz						3700 to 3980 MHz								
	NSA: DC_2A_n41A; DC_66A_n41A; DC_2A_n71A; DC_66A_n71A; NR CA: n25A-n41A; n25A-n48A; n25A-n66A; n41A-n66A; n48A-n66A; n25A-n71A; n41A-n71A; n48A-n71A; n66A-n71A; n25A-n77A; n66A-n77A; n71A-n77A;																
Power Class:	Class 2: n41/77 for NSA; n25/66/71 for SA UL MIMO/TXD Class 1.5: n41 and n77 for SA UL MIMO/TXD Class 3: All																
Feature:	UL 2*2 MIMO: NR Band n25; NR Band n41; NR Band n48; NR Band n66; NR Band n71; NR Band n77;																
Type of Modulation:	☒ DFT-s-OFDM:		Pi/2-BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM														
	☒ CP-OFDM:		QPSK, 16-QAM, 64-QAM, 256-QAM														
Operation Bandwidth:	NR Band	SCS (kHz)	Bandwidth (MHz)														
			5	10	15	20	25	30	35	40	45	50	60	70	80	90	100
	n25	15	√	√	√	√	√	√	√	√	/	/	/	/	/	/	/
	n41	30	/	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	n48	30	/	√	√	√	/	√	/	√	/	/	/	/	/	/	/
	n66	15	√	√	√	√	√	√	√	√	√	/	/	/	/	/	/
	n71	15	√	√	√	√	√	√	√	/	/	/	/	/	/	/	/
	n77	30	/	√	√	√	√	√	√	/	√	/	√	√	√	√	√
Antenna Type:	☒ External, ☐ Integrated																
Antenna Gain:	Band		Ant1(dBi)				Ant2(dBi)				Ant7(dBi)				Ant8(dBi)		
	NR Band n25		4.5				/				4.5				/		
	NR Band n41		2.5				/				2.5				/		

	NR Band n48	2	/	2	/
	NR Band n66	1.5	/	1.5	/
	NR Band n71	/	4.4	/	4.4
	NR Band n77 (3450 to 3550 MHz)	2	/	2	/
	NR Band n77 (3700 to 3980 MHz)	2	/	2	/
Remark: The above EUT's information was declared by applicant, please refer to the specifications or user manual for more detailed description.					

2 Test Configuration

2.1 Test Channel

5G NR Band n25 and SCS 15 kHz						
Bandwidth	TX Frequency			RX Frequency		
	Range	Carrier centre (ARFCN)	Carrier centre (MHz)	Range	Carrier centre (ARFCN)	Carrier centre (MHz)
5MHz	Low	370500	1852.5	Low	386500	1932.5
	Middle	376500	1882.5	Middle	392500	1962.5
	High	382500	1912.5	High	398500	1992.5
10MHz	Low	371000	1855	Low	387000	1935
	Middle	376500	1882.5	Middle	392500	1962.5
	High	382000	1910	High	398000	1990
15MHz	Low	371500	1857.5	Low	387500	1937.5
	Middle	376500	1882.5	Middle	392500	1962.5
	High	381500	1907.5	High	397500	1987.5
20MHz	Low	372000	1860	Low	388000	1940
	Middle	376500	1882.5	Middle	392500	1962.5
	High	381000	1905	High	397000	1985
25MHz	Low	372500	1862.5	Low	388500	1942.5
	Middle	376500	1882.5	Middle	392500	1962.5
	High	380500	1902.5	High	396500	1982.5
30MHz	Low	373000	1865	Low	389000	1945
	Middle	376500	1882.5	Middle	392500	1962.5
	High	380000	1900	High	396000	1980
35MHz	Low	373500	1867.5	Low	389500	1947.5
	Middle	376500	1882.5	Middle	392500	1962.5
	High	379500	1897.5	High	395500	1977.5
40MHz	Low	374000	1870	Low	390000	1950
	Middle	376500	1882.5	Middle	392500	1962.5
	High	379000	1895	High	395000	1975

5G NR Band n41, SCS 30 kHz and ΔF_{Raster} 30 kHz			
Bandwidth	TX & RX Frequency		
	Range	Carrier centre (ARFCN)	Carrier centre (MHz)
10MHz	Low	500202	2501.01
	Middle	518598	2592.99
	High	537000	2685
15MHz	Low	500700	2503.5
	Middle	518598	2592.99
	High	536496	2682.48
20MHz	Low	501204	2506.02
	Middle	518598	2592.99
	High	535998	2679.99
25MHz	Low	501702	2508.51
	Middle	518598	2592.99
	High	535500	2677.5
30MHz	Low	502200	2511
	Middle	518598	2592.99
	High	534996	2674.98
35MHz	Low	502704	2513.52
	Middle	518598	2592.99
	High	534498	2672.49
40MHz	Low	503202	2516.01
	Middle	518598	2592.99
	High	534000	2670
45MHz	Low	503700	2518.50
	Middle	518598	2592.99
	High	533496	2667.48
50MHz	Low	504204	2521.02
	Middle	518598	2592.99
	High	532998	2664.99
60MHz	Low	505200	2526
	Middle	518598	2592.99
	High	531996	2659.98
70MHz	Low	506200	2531
	Middle	518598	2592.29
	High	531000	2655
80MHz	Low	507204	2536.02
	Middle	518598	2592.99
	High	529998	2649.99
90MHz	Low	508200	2541
	Middle	518598	2592.99
	High	528996	2644.98
100MHz	Low	509202	2546.01
	Middle	518598	2592.99
	High	528000	2640

5G NR Band n48, SCS 30 kHz and ΔF_{Raster} 30 kHz			
Bandwidth	TX & RX Frequency		
	Range	Carrier centre (ARFCN)	Carrier centre (MHz)
10MHz	Low	637000	3555
	Middle	641666	3624.99
	High	646332	3694.98
15MHz	Low	637168	3557.52
	Middle	641666	3624.99
	High	646166	3692.49
20MHz	Low	637334	3560.01
	Middle	641666	3624.99
	High	646000	3690
30MHz	Low	637668	3565.02
	Middle	641666	3624.99
	High	645666	3684.99
40MHz	Low	638000	3570
	Middle	641666	3624.99
	High	645332	3679.98

5G NR Band n66, SCS 15 kHz						
Bandwidth	TX Frequency			RX Frequency		
	Range	Carrier centre (ARFCN)	Carrier centre (MHz)	Range	Carrier centre (ARFCN)	Carrier centre (MHz)
5MHz	Low	435500	1712.5	Low	422500	2112.5
	Middle	342500	1745	Middle	431000	2155
	High	349000	1777.5	High	439500	2197.5
10MHz	Low	343000	1715	Low	423000	2115
	Middle	349000	1745	Middle	431000	2155
	High	355000	1775	High	439000	2195
15MHz	Low	343500	1717.5	Low	423500	2117.5
	Middle	349000	1745	Middle	431000	2155
	High	354500	1772.5	High	438500	2192.5
20MHz	Low	344000	1720	Low	424000	2120
	Middle	349000	1745	Middle	431000	2155
	High	354000	1770	High	438000	2190
25MHz	Low	344500	1722.5	Low	424500	2122.5
	Middle	349000	1745	Middle	431000	2155
	High	353500	1767.5	High	437500	2187.5
30MHz	Low	345000	1725	Low	425000	2125
	Middle	349000	1745	Middle	431000	2155
	High	353000	1765	High	437000	2185
35MHz	Low	345500	1727.5	Low	425500	2127.5
	Middle	349000	1745	Middle	431000	2155
	High	352500	1762.5	High	436500	2182.5
40MHz	Low	346000	1730	Low	426000	2130
	Middle	349000	1745	Middle	431000	2155
	High	352000	1760	High	436000	2180
45MHz	Low	346500	1732.5	Low	426500	2132.5
	Middle	349000	1745	Middle	431000	2155
	High	351500	1757.5	High	435500	2177.5

5G NR Band n71, SCS 15 kHz						
Bandwidth	TX Frequency			RX Frequency		
	Range	Carrier centre (ARFCN)	Carrier centre (MHz)	Range	Carrier centre (ARFCN)	Carrier centre (MHz)
5MHz	Low	133100	665.5	Low	123900	619.5
	Middle	136100	680.5	Middle	126900	634.5
	High	139100	695.5	High	129900	649.5
10MHz	Low	133600	668	Low	124400	622
	Middle	136100	680.5	Middle	126900	634.5
	High	138600	693	High	129400	647
15MHz	Low	134100	670.5	Low	124900	624.5
	Middle	136100	680.5	Middle	126900	634.5
	High	138100	690.5	High	128900	644.5
20MHz	Low	134600	673	Low	125400	627
	Middle	136100	680.5	Middle	126900	634.5
	High	137600	688	High	128400	642
25MHz	Low	135100	675.5	Low	125900	629.5
	Middle	136100	680.5	Middle	126900	634.5
	High	137100	685.5	High	127900	639.5
30MHz	Low	135600	678	Low	126400	632
	Middle	136100	680.5	Middle	126900	634.5
	High	136600	683	High	127400	637
35MHz	Low	136100	680.5	Low	126900	634.5
	Middle			Middle		
	High			High		

5G NR Band n77(3450~3550MHz), SCS 30 kHz and ΔF_{Raster} 30 kHz			
Bandwidth	TX & RX Frequency		
	Range	Carrier centre (ARFCN)	Carrier centre (MHz)
10MHz	Low	630334	3455.01
	Middle	633334	3500.01
	High	636334	3545.01
15MHz	Low	630500	3457.5
	Middle	633334	3500.01
	High	636166	3542.49
20MHz	Low	630668	3460.02
	Middle	633334	3500.01
	High	636000	3540
25MHz	Low	630835	3462.52
	Middle	633334	3500.01
	High	635833	3537.50
30MHz	Low	631000	3465
	Middle	633334	3500.01
	High	635666	3534.99
40MHz	Low	631334	3470.01
	Middle	633334	3500.01
	High	635334	3530.01
50MHz	Low	631668	3475.02
	Middle	633334	3500.01
	High	635000	3525
60MHz	Low	632000	3480
	Middle	633334	3500.01
	High	634666	3519.99
70MHz	Low	632334	3485.01
	Middle	633334	3500.01
	High	634334	3515.01
80MHz	Low	632668	3490.02
	Middle	633334	3500.01
	High	634000	3510
90MHz	Low	633000	3495
	Middle	633334	3500.01
	High	633666	3504.99
100MHz	Low	633334	3500.01
	Middle		
	High		

5G NR Band n77(3700~3980MHz), SCS 30 kHz and ΔF_{Raster} 30 kHz			
Bandwidth	TX & RX Frequency		
	Range	Carrier centre (ARFCN)	Carrier centre (MHz)
10MHz	Low	647000	3705
	Middle	656000	3840
	High	665000	3975
15MHz	Low	647168	3707.52
	Middle	656000	3840
	High	664832	3972.48
20MHz	Low	647334	3710.01
	Middle	656000	3840
	High	664666	3969.99
25MHz	Low	647501	3712.515
	Middle	656000	3840
	High	664499	3967.485
30MHz	Low	647666	3714.99
	Middle	656000	3840
	High	664334	3965.01
40MHz	Low	648000	3720
	Middle	656000	3840
	High	664000	3960
50MHz	Low	648334	3725.01
	Middle	656000	3840
	High	663666	3954.99
60MHz	Low	648668	3730.02
	Middle	656000	3840
	High	663332	3949.98
70MHz	Low	649000	3735
	Middle	656000	3840
	High	663000	3945
80MHz	Low	649334	3740.01
	Middle	656000	3840
	High	662666	3939.99
90MHz	Low	649668	3745.02
	Middle	656000	3840
	High	662332	3934.98
100MHz	Low	650000	3750
	Middle	656000	3840
	High	662000	3930

2.2 Worst-case configuration and Mode

Test Mode	Description
TM 1	EUT communication with simulated station in DFT-s-OFDM BPSK mode
TM 2	EUT communication with simulated station in DFT-s-OFDM QPSK mode
TM 3	EUT communication with simulated station in DFT-s-OFDM 16QAM mode
TM 4	EUT communication with simulated station in DFT-s-OFDM 64QAM mode
TM 5	EUT communication with simulated station in DFT-s-OFDM 256QAM mode
TM 6	EUT communication with simulated station in CP QPSK mode
TM 7	EUT communication with simulated station in CP 16QAM mode
TM 8	EUT communication with simulated station in CP 64QAM mode
TM 9	EUT communication with simulated station in CP 256QAM mode

2.3 Support Unit used in test

Description	Manufacturer	Model	Serial Number
Development Board *	N/A	DBG-G5SEM	/

Remark: * the information of table is provided by client.

2.4 Test Environment

Temperature:	Normal: 15°C ~ 35°C
Relative Humidity:	45 ~ 56 % RH Ambient
Voltage:	Nominal: 3.8 Vdc

2.5 Test RF Cable

For all conducted test items: The offset level is set spectrum analyzer to compensate the RF cable loss and attenuator factor between RF conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level will be exactly the RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

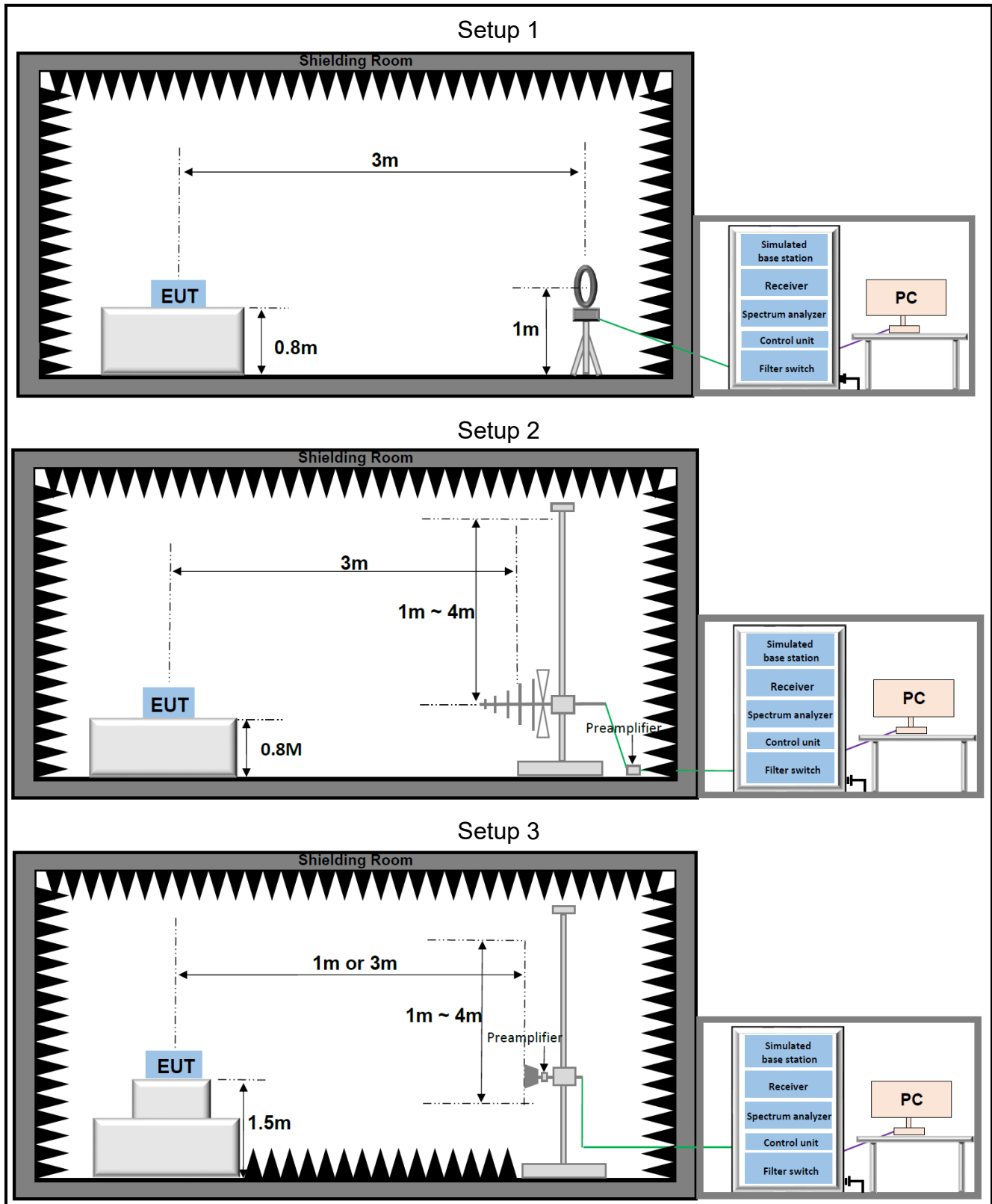
Offset = RF cable loss + attenuator factor.

2.6 Modifications

No modifications were made during testing.

2.7 Test Setup Diagram

2.7.1 Radiated Configuration



3 Equipment and Measurement Uncertainty

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, whichever is less, and where applicable is traceable recognized national standards.

3.1 Test Equipment List

Radiated Emission					
Description	Manufacturer	Model	SN	Last Due	Cal Due
Biconic Logarithmic Periodic Antennas	Schwarzbeck	VULB9163	1643	2023/06/25	2026/06/24
Double-Ridged Horn Antennas	Schwarzbeck	BBHA 9120D	2809	2023/06/25	2026/06/24
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	1290	2023/06/25	2026/06/24
Loop Antenna	Schwarzbeck	FMZB 1519C	1519C-028	2023/06/29	2026/06/28
Signal Analyzer*	Keysight	N9020A	MY50200055	2026/03/06	2027/03/05
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY63440541	2025/05/29	2026/05/28
Wideband Radio Communication Tester	R&S	CMW500	150645	2025/03/11	2026/03/10
				2026/03/06	2027/03/05
Low Noise Amplifier	Tonscend	TAP9K3G40	AP23A8060273	2025/03/11	2027/03/10
Low Noise Amplifier	Tonscend	TAP01018050	AP22G806258	2025/03/11	2027/03/10
Low Noise Amplifier	Tonscend	TAP18040048	AP22G806247	2025/03/11	2027/03/10
Hygrometer	BINGYU	HTC-1	N/A	2025/07/25	2026/07/24
Test Software	Tonscend	TS+	Version: 5.0.0	N/A	N/A
N/A: Not applicable, confirmed internally by the laboratory					
*There were no testing before 2026/03/06.					

3.2 Measurement Uncertainty

Parameter	U _{lab}
Radiated Emissions(9kHz~30MHz)	2.40dB
Radiated Emissions(30MHz~1000MHz)	4.66dB
Radiated Emissions(1GHz~18GHz)	5.42dB
Radiated Emissions(18GHz~40GHz)	5.46dB

Uncertainty figures are valid to a confidence level of 95%

4 Test Results

4.1 Field Strength of Spurious Radiation

Limits

Band	Limit
NR Band n25 NR Band n71 NR Band n66 NR Band n77 (3450-3550MHz) NR Band n77 (3550-3980MHz)	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.
NR Band n41	All frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log(P)$ dB at or below 2490.5 MHz.
NR Band n48	for channel and frequency assignments made by the SAS to CBSDs, the conducted power of any emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed -13 dBm/MHz within 0-10 megahertz above the upper SAS-assigned channel edge and within 0-10 megahertz below the lower SAS-assigned channel edge. At all frequencies greater than 10 megahertz above the upper SAS assigned channel edge and less than 10 MHz below the lower SAS assigned channel edge, the conducted power of any emission shall not exceed -25 dBm/MHz. (2) Additional protection levels. Notwithstanding paragraph (d)(1) of this section, the conducted power of any emissions below 3530 MHz or above 3720 MHz shall not exceed -40 dBm/MHz.

Test Procedure

FCC KDB 971168 D01 V03r01 Section 7

Test Settings

- For radiated emissions measurements performed at frequencies less than or equal to 1GHz, the EUT shall be placed on a RF-transparent table or support at a nominal height of 80cm above the reference ground plane.
- For radiated emissions measurements performed at frequencies above 1GHz, the EUT shall be placed on a RF-transparent table or support at a nominal height of 80cm above the ground plane.
- Radiated measurements shall be made with the measurement antenna positioned in both horizontal and vertical polarization. The measurement antenna shall be varied from 1m to 4m in height above the reference ground in a search for the relative positioning that produces the maximum radiated signal level (i.e, field strength or received power), when orienting the measurement antenna in vertical polarization, the minimum height of the lowest element of the antenna shall clear the site reference ground plane by at least 25cm.
- For each suspected emission, the EUT was ranged its worst case and then tune the antenna tower(from 1~4m) and turntable(from 0~360°) find the maximum reading. Preamplifier and a high pass filter are used for the test in order get better signal level comply with the guidelines.
- The simulated base station was set to force the EUT to its maximum transmitting power.
- spectrum analyzer setting:
Measurements 9kHz ~150kHz: RBW = 300Hz; VBW $\geq$ 3 kHz; Detector = RMS
Measurements 150kHz ~30MHz: RBW = 10kHz; VBW $\geq$ 30 kHz; Detector = RMS
Measurements 30MHz~1000MHz: RBW = 100kHz or 1MHz; VBW $\geq$ 1MHz or 3MHz; Detector = RMS
Measurements Above 1000MHz: RBW = 1 MHz; VBW $\geq$ 3 MHz; Detector = RMS
- The field strength is calculated by adding the Antenna Factor, Cable Factor. The basic equation with a sample calculation is as follows:
 $E(\text{dB}\mu\text{V/m}) = \text{Measured amplitude level (dB}\mu\text{V)} + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}.$
 $E(\text{dB}\mu\text{V/m}) = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}.$

$E(\text{dB}\mu\text{V}/\text{m}) = \text{EIRP}(\text{dBm}) - 20\log(D) + 104.8$; where D is the measurement distance(in the far field region) in m.

$\text{EIRP}(\text{dBm}) = E(\text{dB}\mu\text{V}/\text{m}) + 20\log(D) - 104.8$; where D is the measurement distance(in the far field region) in m.

So, from d: The measuring distance is usually at 3m, then $20\log(3)=9.5424$*

Then, $\text{EIRP}(\text{dBm}) = E(\text{dB}\mu\text{V}/\text{m}) + 9.5424 - 104.8 = E(\text{dB}\mu\text{V}/\text{m}) - 95.2576$

8. Repeat above procedures until all frequencies measured was complete.
9. Measure and record the results in the test report.

Test notes

1. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst-case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
2. Emissions below 18GHz were measured at a 3-meter test distance while emissions above 18GHz were measured at a 1-meter test distance with the application of a distance correction factor.
3. Radiated spurious emissions were investigated from 9kHz to 30MHz, 30MHz-1GHz and above 1GHz. the disturbance between 9kHz to 30MHz, 30MHz-1GHz and 18GHz to 40GHz was very low. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be recorded, so only the harmonics had been displayed.
4. The "-" shown in the following RSE tables are used to denote a noise floor measurement.

Test Setup

Refer to section 2.7.1 for details.

Measuring Instruments

The measuring equipment is listed in the section 3.1 of this test report.

Test Result

The detailed test data see: **Appendix.**

5 Test Setup Photos

The detailed test data see: **Appendix-A WWAN Setup Photos.**

Appendix

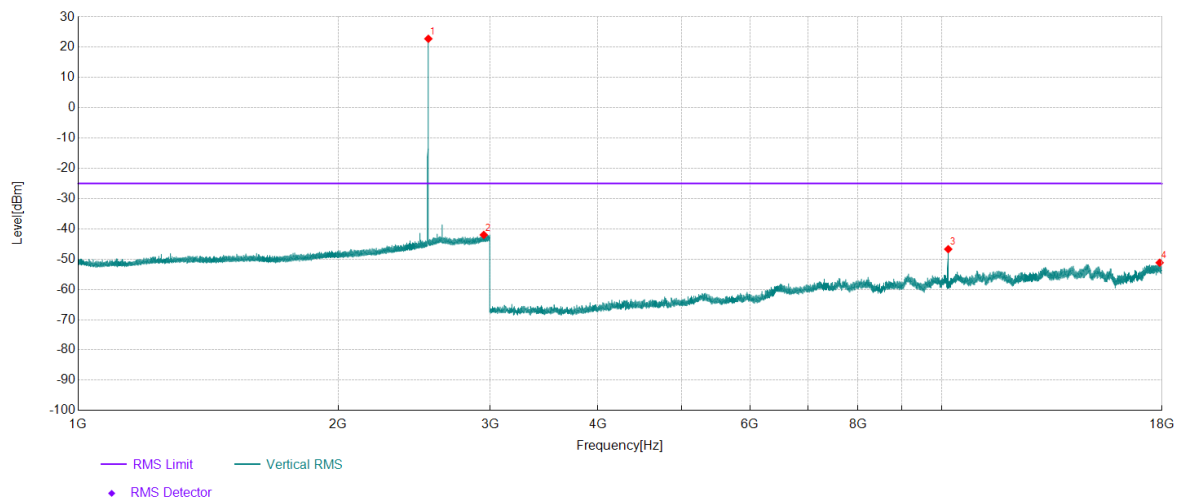
Test for spot check:

Field Strength of Spurious Radiation

Test Result NR SA

Project Information			
Mode:	NR SA(UL MIMO)	Band:	n41
Bandwidth:	100MHz	Channel:	Mid
IMEI:	353241330000574	Engineer:	Tian shuo
Remark:			

Test Graph

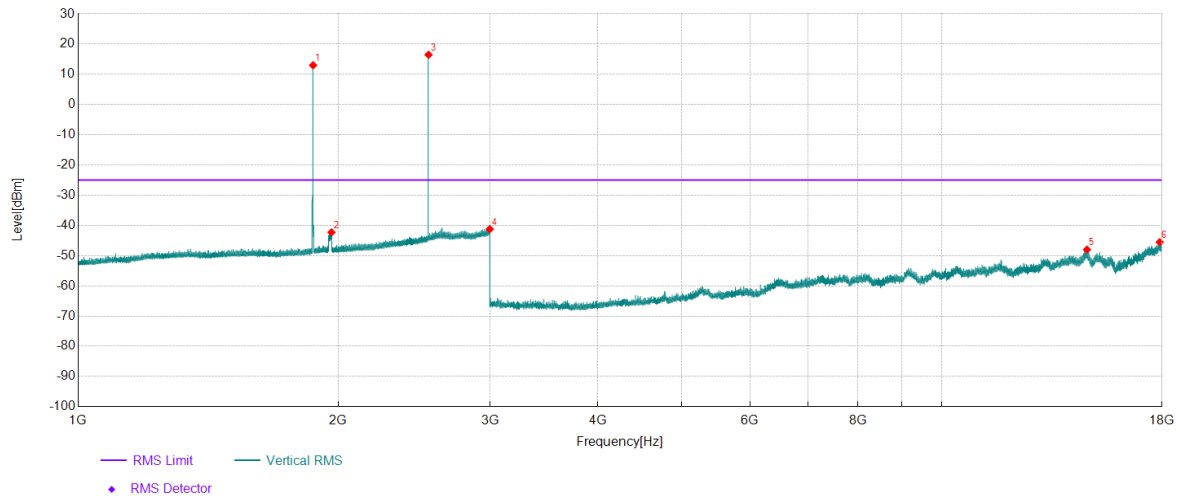


Data List									
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Angle [°]	Polarity	Verdict
1	2544.30	116.27	-93.46	22.81	-	-	32	Vertical	NA
2	2949.60	48.88	-90.87	-41.99	-25.00	16.99	0	Vertical	PASS
3	10177.50	44.58	-91.28	-46.70	-25.00	21.70	105	Vertical	PASS
4	17885.50	30.50	-81.67	-51.17	-25.00	26.17	318	Vertical	PASS

Test Result ENDC

Project Information			
Mode:	NR NSA	Band:	EN DC_2A_n41A
Bandwidth:	20MHz+100MHz	Channel:	Mid
IMEI:	353241330000574	Engineer:	Tian shuo
Remark:			

Test Graph

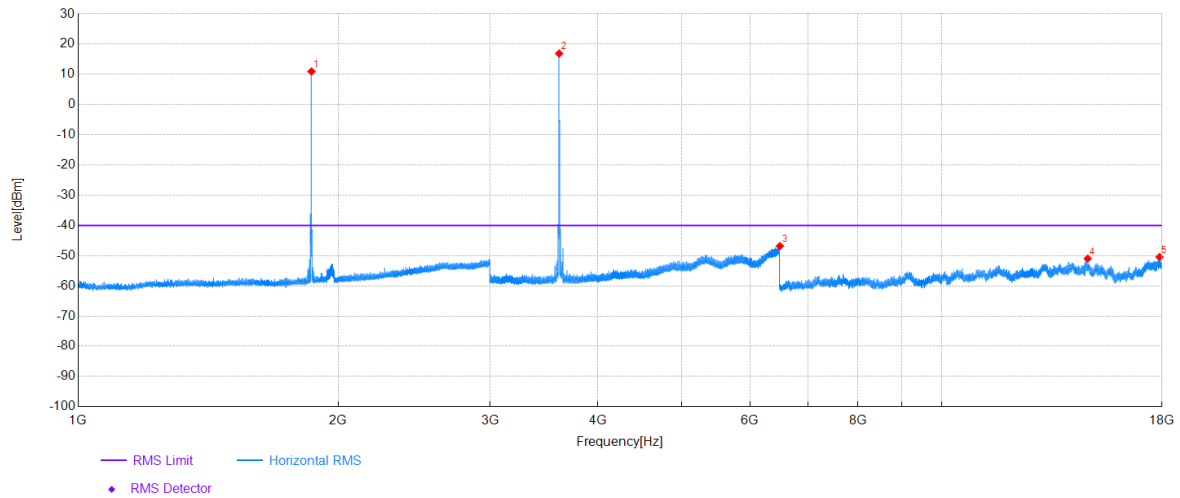


Data List									
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Angle [°]	Polarity	Verdict
1	1871.10	98.40	-85.38	13.02	-	-	309	Vertical	NA
2	1965.10	42.92	-85.21	-42.29	-	-	182	Vertical	NA
3	2545.80	99.94	-83.45	16.49	-	-	25	Vertical	NA
4	2996.90	39.64	-80.85	-41.21	-25.00	16.21	309	Vertical	PASS
5	14733.50	36.03	-84.04	-48.01	-25.00	23.01	58	Vertical	PASS
6	17887.00	36.11	-81.66	-45.55	-25.00	20.55	284	Vertical	PASS

Test Result NR CA

Project Information			
Mode:	NR CA	Band:	CA_n25A_n48A
Bandwidth:	40MHz+40MHz	Channel:	Mid
IMEI:	353241330000574	Engineer:	Tian shuo
Remark:			

Test Graph

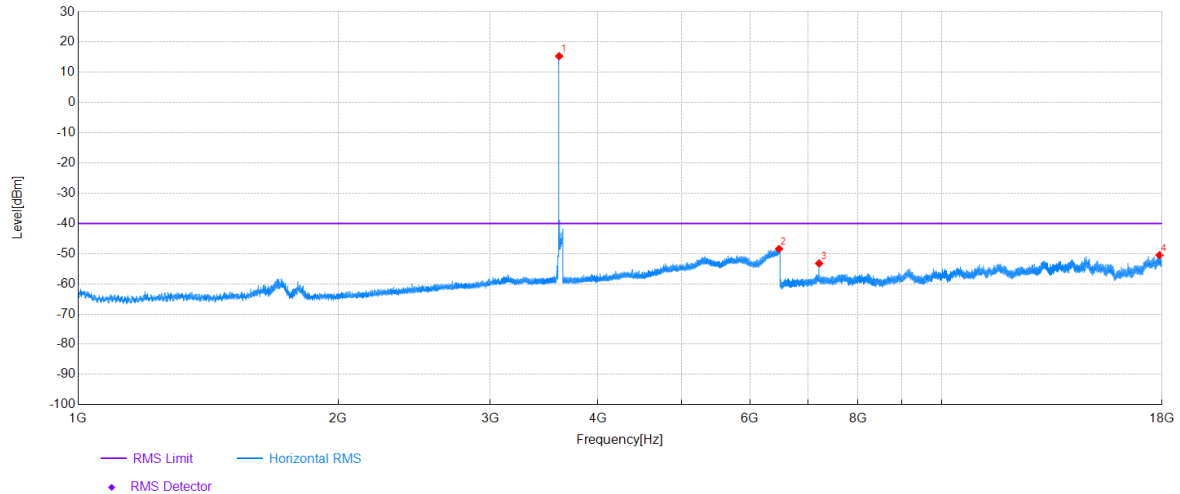


Data List									
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Angle [°]	Polarity	Verdict
1	1863.20	106.20	-95.24	10.96	-	-	290	Horizontal	NA
2	3606.43	105.83	-88.93	16.90	-	-	254	Horizontal	NA
3	6497.20	33.67	-80.51	-46.84	-40.00	6.84	275	Horizontal	PASS
4	14764.18	33.51	-84.49	-50.98	-40.00	10.98	0	Horizontal	PASS
5	17883.85	31.08	-81.54	-50.46	-40.00	10.46	32	Horizontal	PASS

Project Information

Mode:	NR CA	Band:	CA_n48A_n71A
Bandwidth:	40MHz+20MHz	Channel:	Mid
IMEI:	353241330000574	Engineer:	Tian shuo
Remark:			

Test Graph



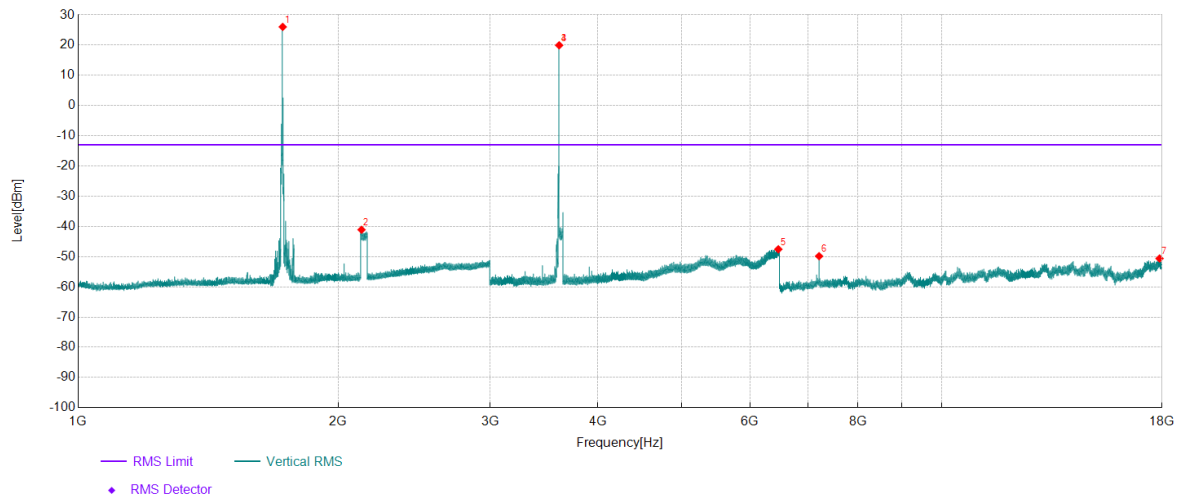
Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Angle [°]	Polarity	Verdict
1	3606.45	104.70	-89.32	15.38	-	-	118	Horizontal	NA
2	6481.58	32.52	-80.96	-48.44	-40.00	8.44	89	Horizontal	PASS
3	7212.64	41.91	-95.15	-53.24	-40.00	13.24	146	Horizontal	PASS
4	17880.78	31.07	-81.58	-50.51	-40.00	10.51	14	Horizontal	PASS

Project Information

Mode:	NR CA	Band:	CA_n47A_n71A
Bandwidth:	40MHz+20MHz	Channel:	Mid
IMEI:	353241330000574	Engineer:	Tian shuo
Remark:			

Test Graph



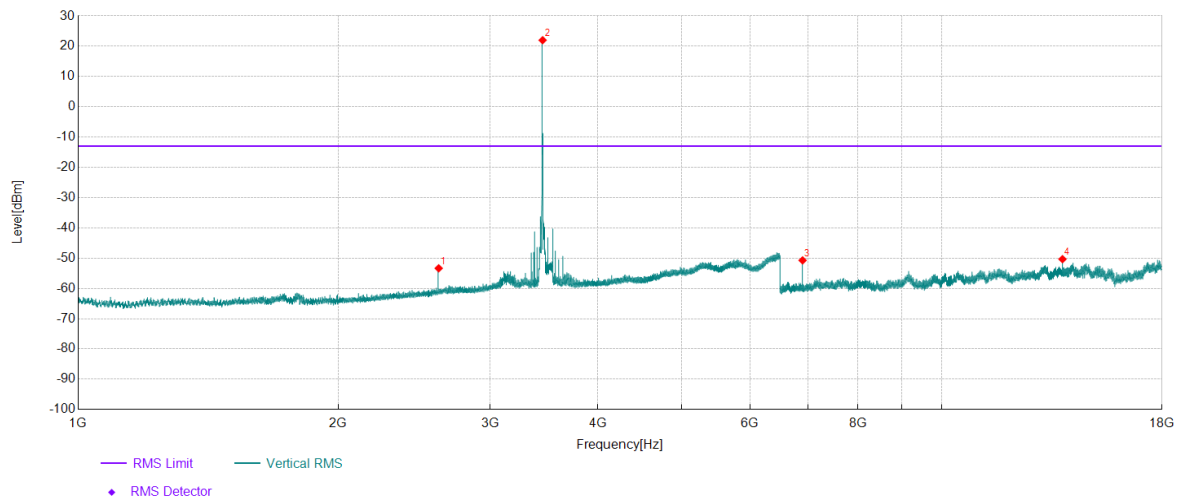
Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Angle [°]	Polarity	Verdict
1	1725.60	121.51	-95.46	26.05	-	-	292	Vertical	NA
2	2129.10	53.84	-94.93	-41.09	-	-	98	Vertical	NA
3	3606.32	108.89	-88.93	19.96	-	-	357	Vertical	NA
4	3606.32	108.89	-88.93	19.96	-	-	357	Vertical	NA
5	6470.13	33.35	-80.91	-47.56	-40.00	7.56	35	Vertical	PASS
6	7212.64	45.30	-95.15	-49.85	-40.00	9.85	46	Vertical	PASS
7	17879.63	30.98	-81.59	-50.61	-40.00	10.61	157	Vertical	PASS

Project Information

Mode:	NR CA	Band:	CA_n71A_n77A(3450-3550MHz)
Bandwidth:	20MHz+100MHz	Channel:	Mid
IMEI:	353241330000574	Engineer:	Tian shuo
Remark:			

Test Graph



Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	Level [dBm]	Limit [dBm]	Margin [dB]	Angle [°]	Polarity	Verdict
1	2615.35	39.45	-92.80	-53.35	-13.00	40.35	142	Vertical	PASS
2	3450.80	111.94	-89.92	22.02	-	-	318	Vertical	NA
3	6902.12	45.40	-96.12	-50.72	-13.00	37.72	102	Vertical	PASS
4	13804.03	36.26	-86.59	-50.33	-13.00	37.33	280	Vertical	PASS

~The End~