



FCC RADIO TEST REPORT

FCC ID : GKRRMLV1
Equipment : 5G LGA Module
Brand Name : COMPAL
Model Name : RML-N1v
Marketing Name : 5G LGA Module
Applicant : Compal Electronics, Inc.
No.581 & 581-1, Ruiguang Rd., Neihu
District, Taipei, (114) Taiwan
Manufacturer : Compal Electronics, Inc.
No.581 & 581-1, Ruiguang Rd., Neihu
District, Taipei, (114) Taiwan
Standard : FCC 47 CFR Part 2, 22(H), 24(E), 27

The product was received on Jan. 21, 2022 and testing was performed from Jan. 28, 2022 and completed on Feb. 25, 2022. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA-603-E and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)



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History of this test report

Report No.	Version	Description	Issued Date
FG210421-02D	01	Initial issue of report	Apr. 28, 2022
FG210421-02D	02	Revise Summary of Test Result and Test Mode	May 26, 2022
FG210421-02D	03	Add remark description in section 1.1	Jul. 14, 2022

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
-	§2.1046	Conducted Output Power	Not Required	-
	§22.913 (a)(2)	Effective Radiated Power (n5)	Not Required	
	§24.232 (c) §27.50 (h)(2)	Equivalent Isotropic Radiated Power (n2)		
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power (n66)		
	§27.50 (j)(3) §27.50 (k)(3)	Equivalent Isotropic Radiated Power (n77)		
-	§24.232 (d) §27.50 (d)(5) §27.50 (j)(4) §27.50 (k)(4)	Peak-to-Average Ratio	Not Required	-
-	§2.1049	Occupied Bandwidth	Not Required	-
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (h) §27.53 (l)(2) §27.53 (n)(2)	Conducted Band Edge Measurement (n2) (n5) (n66) (n77)	Not Required	-
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (h) §27.53 (l)(2) §27.53 (n)(2)	Conducted Spurious Emission (n2) (n5) (n66) (n77)	Not Required	-
-	§2.1055 §22.355 §24.235 §27.54	Frequency Stability Temperature & Voltage	Not Required	-
3.2	§2.1051 §2.1053 §22.917 (a) §24.238 (a) §27.53 (h) §27.53 (l)(2) §27.53 (n)(2)	Radiated Spurious Emission (n2) (n5) (n66) (n77)	Pass	Under limit 3.45 dB at 3747.000 MHz

Remark: Not required means after assessing, test items are not necessary to carry out.



Declaration of Conformity:
1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
2. The measurement uncertainty please refer to this report "Uncertainty of Evaluation".
Comments and Explanations:
The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Keven Cheng

Report Producer: Ruby Zou



1 General Description

1.1 Product Feature of Equipment Under Test

LTE/5G NR/GNSS

Product Specification is subject to this standard	
Test Antenna Type	Monopole Antenna
Test Antenna Gain	<Ant. 0> 5G NR n5: 2.14 dBi <Ant. 2> 5G NR n2: 3.39 dBi 5G NR n66: 1.35 dBi 5G NR n77: -1.67 dBi <Ant. 4> 5G NR n2: 3.66 dBi 5G NR n66: 3.19 dBi 5G NR n77: -1.3 dBi <Ant. 5> 5G NR n77: -1.94 dBi <Ant. 6> 5G NR n77: -1.32 dBi

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.
2. The above antenna information was declared by manufacturer and used for Radiated Spurious Emission test

1.2 Modification of EUT

No modifications are made to the EUT during all test items.



1.3 Testing Location

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	Sporton Site No.
	03CH12-HY
Test Engineer	Jack Cheng, Lance Chiang and Chuan Chu
Temperature (°C)	21.2~24.2
Relative Humidity (%)	58.2~68.8

Note: The test site complies with ANSI C63.4 2014 requirement.

FCC Designation No.: TW3786

1.4 Applicable Standards

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

- ♦ ANSI C63.26-2015
- ♦ ANSI / TIA-603-E
- ♦ FCC 47 CFR Part 2, 22(H), 24(E), 27
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.
3. The TAF code is not including all the FCC KDB listed without accreditation.



2 Test Configuration of Equipment Under Test

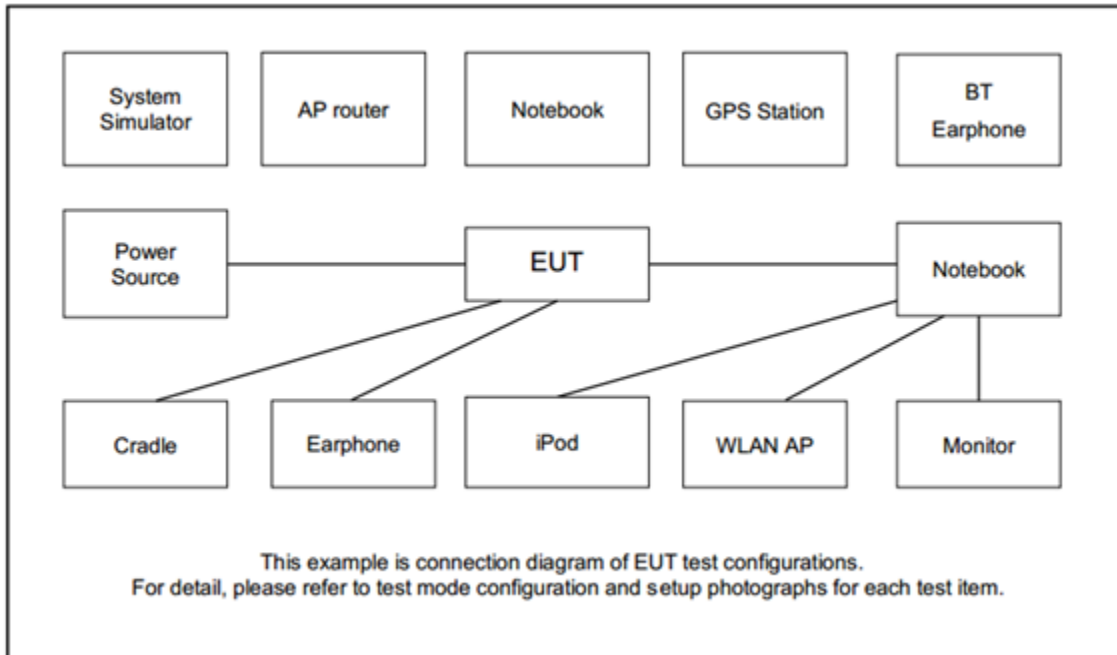
2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

For radiated measurement, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.26 exploratory test procedures. The worst cases as below table were recorded in this report.

Test Items	Antenna combination	Band	Bandwidth (MHz)				Modulation	RB #	Test Channel			Worse Plan
			20+20	20+40	20+100	40+100			BPSK	1	L	
Radiated Spurious Emission	Ant. 2+0	n2A+n5A	v				v	v	-	v	-	Y
	Ant. 0+2	n5A+n66A		v			v	v	-	v	-	Z
	Ant. 4+5	n2A+n77A			v		v	v	-	v	-	Y
	Ant. 0+5	n5A+n77A			v		v	v	-	v	-	Y
	Ant. 4+5	n66A+n77A				v	v	v	-	v	-	Y
Remark	<ol style="list-style-type: none"> The mark "v" means that this configuration is chosen for testing The mark "-" means that this bandwidth is not supported. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported. For radiated measurement, pre-scanned in two modes, DFT-s OFDM and CP OFDM. The worst cases (DFT-s OFDM) were recorded in this report, and the worst modes of FR1 and LTE for simultaneous transmission were verified and compliant. 											

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Radio Communication Analyzer	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
2.	5G Wireless Test Platform	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m
3.	Fixture	Compal	ZM32	N/A	N/A	N/A



2.4 Frequency List of Low/Middle/High Channels

5G NR Band n2 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	372000	376000	380000
	Frequency	1860	1880	1900
15	Channel	371500	376000	380500
	Frequency	1857.5	1880	1902.5
10	Channel	371000	376000	381000
	Frequency	1855	1880	1905
5	Channel	370500	376000	381500
	Frequency	1852.5	1880	1907.5

5G NR Band n5 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	166800	167300	167800
	Frequency	834	836.5	839
15	Channel	166300	167300	168300
	Frequency	831.5	836.5	841.5
10	Channel	165800	167300	168800
	Frequency	829	836.5	844
5	Channel	165300	167300	169300
	Frequency	826.5	836.5	846.5



5G NR Band n66 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
40	Channel	346000	349000	352000
	Frequency	1730	1745	1760
20	Channel	344000	349000	354000
	Frequency	1720	1745	1770
15	Channel	343500	349000	354500
	Frequency	1717.5	1745	1772.5
10	Channel	343000	349000	355000
	Frequency	1715	1745	1775
5	Channel	342500	349000	355500
	Frequency	1712.5	1745	1777.5

5G NR Band n77 Channel and Frequency List_Part 270				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
100	Channel	650000	656000	662000
	Frequency	3750	3840	3930
90	Channel	649668	656000	662332
	Frequency	3745.02	3840	3934.98
80	Channel	649334	656000	662666
	Frequency	3740.01	3840	3939.99
60	Channel	648668	656000	663332
	Frequency	3730.02	3840	3949.98
50	Channel	648334	656000	663666
	Frequency	3725.01	3840	3954.99
40	Channel	648000	656000	664000
	Frequency	3720	3840	3960
20	Channel	647334	656000	664666
	Frequency	3710.01	3840	3969.99
15	Channel	647168	656000	664832
	Frequency	3707.52	3840	3972.48
10	Channel	647000	656000	665000
	Frequency	3705	3840	3975



5G NR Band n77 Channel and Frequency List_Part 27Q				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
100	Channel	-	633334	-
	Frequency	-	3500.01	-
90	Channel	633000	633334	633666
	Frequency	3495	3500.01	3504.99
80	Channel	632668	633334	634000
	Frequency	3490.02	3500.01	3510
60	Channel	632000	633334	634666
	Frequency	3480	3500.01	3519.99
50	Channel	631668	633334	635000
	Frequency	3475.02	3500.01	3525
40	Channel	631334	633334	635332
	Frequency	3470.01	3500.01	3529.98
20	Channel	630668	633334	636000
	Frequency	3460.02	3500.01	3540
15	Channel	630500	633334	636166
	Frequency	3457.5	3500.01	3542.49
10	Channel	630334	633334	636332
	Frequency	3455.01	3500.01	3544.98

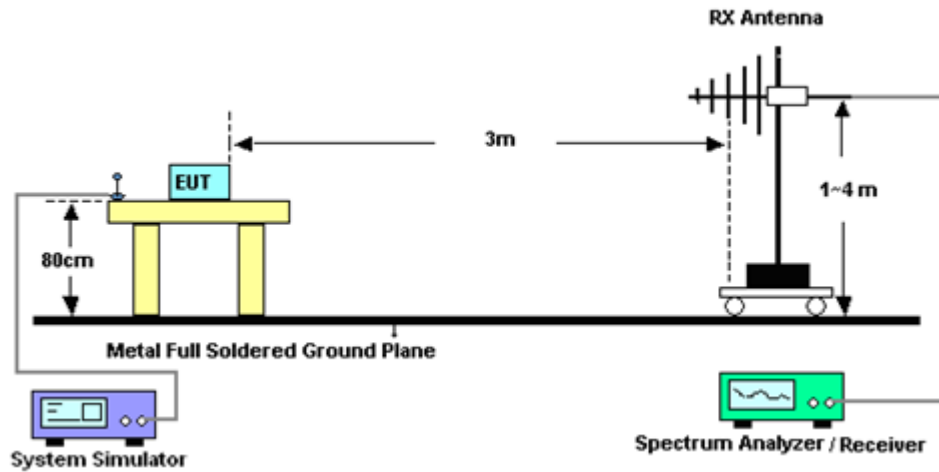
3 Radiated Test Items

3.1 Measuring Instruments

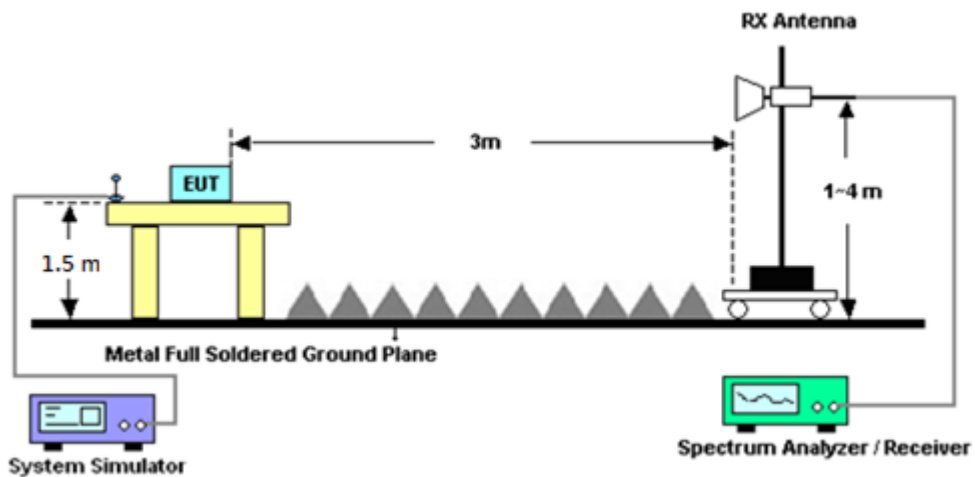
See list of measuring instruments of this test report.

3.1.1 Test Setup

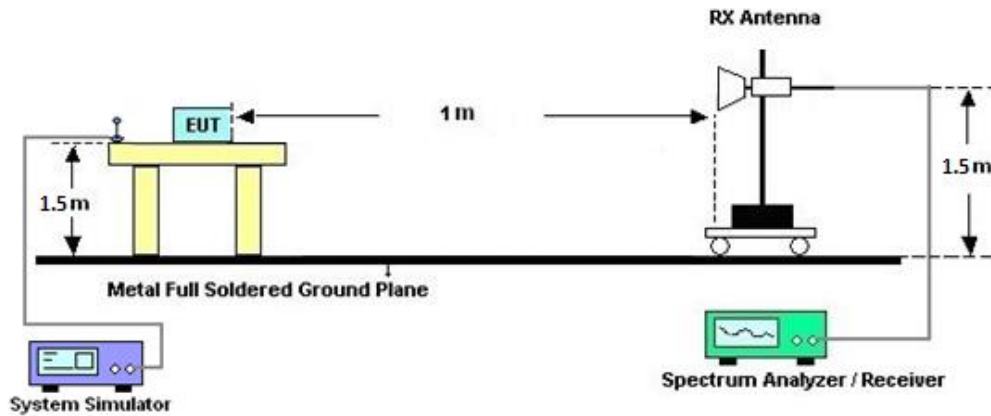
For radiated test from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



3.1.2 Test Result of Radiated Test

Please refer to Appendix A.

Note:

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.



3.2 Radiated Spurious Emission Measurement

3.2.1 Description of Radiated Spurious Emission Measurement

The radiated spurious emission was measured by substitution method according to ANSI / TIA-603-E. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

3.2.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI / TIA-603-E Section 2.2.12.

1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)

$EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$

$ERP \text{ (dBm)} = EIRP - 2.15$



4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N-06	37059 & 01	30MHz~1GHz	Oct. 09, 2021	Jan. 28, 2022~Feb. 25, 2022	Oct. 08, 2022	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 09, 2021	Jan. 28, 2022~Feb. 25, 2022	Oct. 08, 2022	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1326	1GHz~18GHz	Oct. 25, 2021	Jan. 28, 2022~Feb. 25, 2022	Oct. 24, 2022	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1212	1GHz~18GHz	May 18, 2021	Jan. 28, 2022~Feb. 25, 2022	May 17, 2022	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz~40GHz	Nov. 30, 2021	Jan. 28, 2022~Feb. 25, 2022	Nov. 29, 2022	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170576	18GHz~40GHz	May 21, 2021	Jan. 28, 2022~Feb. 25, 2022	May 20, 2022	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 24, 2021	Jan. 28, 2022~Feb. 25, 2022	Mar. 23, 2022	Radiation (03CH12-HY)
Preamplifier	Aglient	8449B	3008A02375	1GHz~26.5GHz	May 25, 2021	Jan. 28, 2022~Feb. 25, 2022	May 24, 2022	Radiation (03CH12-HY)
Preamplifier	E-INSTRUMENT TECH LTD.	ERA-100M-18G-56-01-A70	EC1900270	1GHz-18GHz	Dec. 27, 2021	Jan. 28, 2022~Feb. 25, 2022	Dec. 26, 2022	Radiation (03CH12-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 22, 2021	Jan. 28, 2022~Feb. 25, 2022	Jun. 21, 2022	Radiation (03CH12-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz~44GHz	Oct. 15, 2021	Jan. 28, 2022~Feb. 25, 2022	Oct. 14, 2022	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30MHz~18GHz	Dec. 10, 2021	Jan. 28, 2022~Feb. 25, 2022	Dec. 09, 2022	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz~40GHz	Feb. 22, 2021	Jan. 28, 2022~Feb. 20, 2022	Feb. 21, 2022	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz~40GHz	Feb. 21, 2022	Feb. 21, 2022~Feb. 25, 2022	Feb. 20, 2023	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz~40GHz	Feb. 22, 2021	Jan. 28, 2022~Feb. 20, 2022	Feb. 21, 2022	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz~40GHz	Feb. 21, 2022	Feb. 21, 2022~Feb. 25, 2022	Feb. 20, 2023	Radiation (03CH12-HY)
Filter	Wainwright	WLKS1200-12SS	SN2	1.2GHz Low Pass Filter	Mar. 17, 2021	Jan. 28, 2022~Feb. 25, 2022	Mar. 16, 2022	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-1080-1200-15000-60SS	SN1	1.2GHz High Pass Filter	Mar. 17, 2021	Jan. 28, 2022~Feb. 25, 2022	Mar. 16, 2022	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-2700-3000-18000-60ST	SN2	3GHz High Pass Filter	Jul. 12, 2021	Jan. 28, 2022~Feb. 25, 2022	Jul. 11, 2022	Radiation (03CH12-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN2	6.75GHz High Pass Filter	Mar. 17, 2021	Jan. 28, 2022~Feb. 25, 2022	Mar. 16, 2022	Radiation (03CH12-HY)



Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	TECPEL	DTM-303B	TP140349	N/A	Sep. 30, 2021	Jan. 28, 2022~ Feb. 25, 2022	Sep. 29, 2022	Radiation (03CH12-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Jan. 28, 2022~ Feb. 25, 2022	N/A	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Jan. 28, 2022~ Feb. 25, 2022	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Jan. 28, 2022~ Feb. 25, 2022	N/A	Radiation (03CH12-HY)
Software	Audix	E3 6.2009-8-24	RK-000989	N/A	N/A	Jan. 28, 2022~ Feb. 25, 2022	N/A	Radiation (03CH12-HY)



5 Uncertainty of Evaluation

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.10 dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.39 dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.34 dB
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Appendix A. Test Results of Radiated Test

<Ant. 2 + Ant. 0>

5G NR n2A+n5A

5G NR n2A / 20MHz / PI/2 BPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3747	-21.73	-13	-8.73	-49.81	-32.95	1.42	12.65	H
	5621	-34.05	-13	-21.05	-66.87	-45.61	1.74	13.30	H
	7495	-45.27	-13	-32.27	-72.22	-54.39	1.99	11.11	H
									H
									H
	3747	-16.45	-13	-3.45	-44.74	-27.67	1.42	12.65	V
	5621	-29.45	-13	-16.45	-61.91	-41.01	1.74	13.30	V
	7495	-45.15	-13	-32.15	-72.07	-54.27	1.99	11.11	V
									V
									V
5G NR n5A / 20MHz / PI/2 BPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1655	-51.15	-13	-38.15	-70.81	-56.77	0.92	8.69	H
	2483	-47.40	-13	-34.40	-71.38	-54.78	1.15	10.68	H
	3311	-45.23	-13	-32.23	-71.28	-53.80	1.33	12.05	H
									H
									H
	1655	-51.44	-13	-38.44	-70.54	-57.06	0.92	8.69	V
	2483	-46.71	-13	-33.71	-70.87	-54.09	1.15	10.68	V
	3311	-44.81	-13	-31.81	-71.33	-53.38	1.33	12.05	V
									V
									V



<Ant. 0 + Ant. 2>

5G NR n5A+n66A

5G NR n5A / 20MHz / PI/2 BPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1655	-51.20	-13	-38.20	-70.86	-56.82	0.92	8.69	H
	2483	-47.05	-13	-34.05	-71.03	-54.43	1.15	10.68	H
	3311	-45.26	-13	-32.26	-71.31	-53.83	1.33	12.05	H
									H
									H
	1655	-52.11	-13	-39.11	-71.21	-57.73	0.92	8.69	V
	2483	-46.69	-13	-33.69	-70.85	-54.07	1.15	10.68	V
	3311	-44.90	-13	-31.90	-71.41	-53.47	1.33	12.05	V
									V
									V
5G NR n66A / 40MHz / PI/2 BPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3454	-16.93	-13	-3.93	-43.35	-27.97	1.35	12.39	H
	5181	-30.38	-13	-17.38	-61.86	-41.58	1.66	12.85	H
	6909	-37.17	-13	-24.17	-72.7	-47.46	1.73	12.03	H
									H
									H
	3454	-18.47	-13	-5.47	-45.29	-29.51	1.35	12.39	V
	5181	-31.11	-13	-18.11	-62.4	-42.31	1.66	12.85	V
	6909	-37.32	-13	-24.32	-72.41	-47.61	1.73	12.03	V
									V
									V



<Ant. 4 + Ant. 5>

5G NR n2A+n77A

5G NR n2A / 20MHz / PI/2 BPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3747	-41.30	-13	-28.30	-69.97	-52.52	1.42	12.65	H
	5621	-37.95	-13	-24.95	-70.84	-49.51	1.74	13.30	H
	7495	-34.04	-13	-21.04	-70.67	-43.16	1.99	11.11	H
									H
	3747	-39.50	-13	-26.50	-68.38	-50.72	1.42	12.65	V
	5621	-38.11	-13	-25.11	-70.64	-49.67	1.74	13.30	V
	7495	-34.40	-13	-21.40	-71	-43.52	1.99	11.11	V
									V
5G NR n77A / 100MHz / PI/2 BPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	7579	-34.21	-13	-21.21	-70.42	-41.17	2.00	11.12	H
	11375	-29.68	-13	-16.68	-71.57	-36.39	2.49	11.35	H
	15162	-22.02	-13	-9.02	-70.09	-30.53	3.04	13.70	H
	18954	-54.67	-13	-41.67	-73.89	-68.67	1.75	17.90	H
	22747	-51.91	-13	-38.91	-76.09	-66.24	1.97	18.45	H
	26535	-50.02	-13	-37.02	-77.42	-64.30	2.37	18.79	H
									H
	7579	-32.55	-13	-19.55	-68.71	-39.51	2.00	11.12	V
	11375	-29.38	-13	-16.38	-71.11	-36.09	2.49	11.35	V
	15162	-23.84	-13	-10.84	-69.9	-32.35	3.04	13.70	V
	18954	-55.35	-13	-42.35	-73.86	-69.35	1.75	17.90	V
	22747	-51.42	-13	-38.42	-75.63	-65.75	1.97	18.45	V
	26535	-48.81	-13	-35.81	-77.71	-63.09	2.37	18.79	V
									V



<Ant. 0 + Ant. 5>

5G NR n5A+n77A

5G NR n5A / 20MHz / PI/2 BPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1660	-50.85	-13	-37.85	-70.53	-56.48	0.92	8.71	H
	2485	-46.92	-13	-33.92	-70.91	-54.30	1.15	10.68	H
	3310	-45.52	-13	-32.52	-71.57	-54.09	1.33	12.04	H
									H
	1660	-51.74	-13	-38.74	-70.84	-57.37	0.92	8.71	V
	2485	-46.76	-13	-33.76	-70.93	-54.14	1.15	10.68	V
	3310	-40.47	-13	-27.47	-66.98	-49.04	1.33	12.04	V
									V
5G NR n77A / 100MHz / PI/2 BPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	7578	-35.67	-13	-22.67	-71.57	-42.63	2.00	11.12	H
	11375	-30.25	-13	-17.25	-71.87	-36.96	2.49	11.35	H
	15162	-32.96	-13	-19.96	-71.18	-41.47	3.04	13.70	H
	18954	-54.29	-13	-41.29	-73.51	-68.29	1.75	17.90	H
	22747	-51.85	-13	-38.85	-76.03	-66.18	1.97	18.45	H
	26535	-49.94	-13	-36.94	-77.34	-64.22	2.37	18.79	H
									H
	7578	-32.01	-13	-19.01	-67.87	-38.97	2.00	11.12	V
	11375	-30.59	-13	-17.59	-72.05	-37.30	2.49	11.35	V
	15162	-35.32	-13	-22.32	-71.53	-43.83	3.04	13.70	V
	18954	-55.11	-13	-42.11	-73.62	-69.11	1.75	17.90	V
	22747	-51.83	-13	-38.83	-76.04	-66.16	1.97	18.45	V
	26535	-48.55	-13	-35.55	-77.45	-62.83	2.37	18.79	V
									V



<Ant. 4 + Ant. 5>

5G NR n66A+n77A

5G NR n66A / 40MHz / PI/2 BPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3468	-43.44	-13	-30.44	-70.75	-54.51	1.35	12.42	H
	5208	-40.31	-13	-27.31	-71.98	-51.54	1.66	12.89	H
	6942	-36.37	-13	-23.37	-72.35	-46.62	1.73	11.98	H
									H
	3468	-39.98	-13	-26.98	-67.67	-51.05	1.35	12.42	V
	5208	-40.22	-13	-27.22	-71.73	-51.45	1.66	12.89	V
	6942	-36.77	-13	-23.77	-72.29	-47.02	1.73	11.98	V
									V
5G NR n77A / 100MHz / PI/2 BPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	7581	-36.12	-13	-23.12	-72.33	-43.08	2.00	11.12	H
	11379	-29.90	-13	-16.90	-71.79	-36.61	2.49	11.35	H
	15162	-32.49	-13	-19.49	-70.71	-41.00	3.04	13.70	H
	18954	-54.56	-13	-41.56	-73.78	-68.56	1.75	17.90	H
	22747	-52.08	-13	-39.08	-76.26	-66.41	1.97	18.45	H
	26535	-50.40	-13	-37.40	-77.8	-64.68	2.37	18.79	H
									H
	7581	-36.02	-13	-23.02	-72.18	-42.98	2.00	11.12	V
	11379	-30.15	-13	-17.15	-71.88	-36.86	2.49	11.35	V
	15162	-35.12	-13	-22.12	-71.33	-43.63	3.04	13.70	V
	18954	-55.75	-13	-42.75	-74.26	-69.75	1.75	17.90	V
	22747	-51.78	-13	-38.78	-75.99	-66.11	1.97	18.45	V
	26535	-48.34	-13	-35.34	-77.24	-62.62	2.37	18.79	V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.