



FCC RADIO TEST REPORT

FCC ID : B94HNI61KLR
Equipment : Notebook Computer
Brand Name : HP
Model Name : HSN-I61C
Applicant : HP Inc.
1501 Page Mill Road, Palo Alto CA 94304 USA
Standard : FCC 47 CFR Part 2, 96

The product was received on Sep. 09, 2024 and testing was performed from Sep. 20, 2024 to Sep. 28, 2024. We, Sporton International Inc. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)



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Appendix A. Test Results of Conducted Test



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Pass	-
-	§96.41	Peak-to-Average Ratio	Pass	See Note
-	§96.41	Effective Isotropic Radiated Power	Pass	See Note
-	§2.1049 §96.41	Occupied Bandwidth	Pass	See Note
-	§2.1051 §96.41	Conducted Band Edge Measurement	Pass	See Note
-	§2.1051 §96.41	Conducted Spurious Emission	Pass	See Note
-	§2.1055	Frequency Stability for Temperature & Voltage	Pass	See Note
-	§2.1053 §96.41	Radiated Spurious Emission	Pass	See Note

Note:

- For host device, Radiated Spurious Emission and Effective Radiated Power are verified and complies with the limit in this test report.
- For host device, the Conducted Output Power is no difference after compared to module (Model: RW350R-GL)
- The measurement evaluation of Radiation Spurious Emissionis based on the module report measurement results, with the worst case from module report. The measurement results of RSE are included in the Sporton report: FG490504D.

Conformity Assessment Condition:

The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Sheng Kuo
Report Producer: Lucy Wu



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
General Specs	WCDMA/LTE/5G NR, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ax/be, Wi-Fi 5GHz 802.11a/n/ac/ax/be, Wi-Fi 6GHz 802.11ax/be, NFC, and GNSS
Sample 1	Host with Vendor 2 Antenna
Sample 2	Host with Vendor 1 Antenna
Integrated WWAN Module	Brand Name: Rolling Wireless Model Name: RW350R-GL FCC ID: 2AX2URW350RGL
Integrated WLAN Module	Brand Name: Intel Model Name: BE201NGW FCC ID: PD9BE201NG
Integrated NFC Module	Brand Name: WNC Model Name: XRAV-1 FCC ID: NKR-XRAV1
Antenna Type	WWAN: PIFA Antenna WLAN: <Main>: PIFA Antenna <Aux.>: PIFA Antenna Bluetooth: PIFA Antenna GPS/Glonass/BDS/Galileo: PIFA Antenna NFC: Loop Antenna

Support band and evaluated information	
Supported band	n48
Evaluated and Tested band	n48

WWAN Antenna Information for Notebook Mode				
Antenna 5	Brand Name	Vendor 2	Peak gain (dBi)	5G NR n48: -1.03
	Part number	6036B0361301 (81ELBF15.G04)	Type	PIFA
	Brand Name	Vendor 1	Peak gain (dBi)	5G NR n48: -0.87
	Part number	6036B0361401 (00-350270155N)	Type	PIFA
Antenna 8	Brand Name	Vendor 2	Peak gain (dBi)	5G NR n48: -2.00
	Part number	6036B0361301 (81ELBF15.G04)	Type	PIFA
	Brand Name	Vendor 1	Peak gain (dBi)	5G NR n48: 0.96
	Part number	6036B0361401 (00-350270155N)	Type	PIFA



WWAN Antenna Information for Tablet Mode				
Antenna 5	Brand Name	Vendor 2	Peak gain (dBi)	5G NR n48: 0.06
	Part number	6036B0361301 (81ELBF15.G04)	Type	PIFA
	Brand Name	Vendor 1	Peak gain (dBi)	5G NR n48: -1.00
	Part number	6036B0361401 (00-350270155N)	Type	PIFA
Antenna 8	Brand Name	Vendor 2	Peak gain (dBi)	5G NR n48: -2.55
	Part number	6036B0361301 (81ELBF15.G04)	Type	PIFA
	Brand Name	Vendor 1	Peak gain (dBi)	5G NR n48: -2.23
	Part number	6036B0361401 (00-350270155N)	Type	PIFA

Remark: The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.

1.2 Modification of EUT

No modifications made to the EUT during the testing.

1.3 Testing Site

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	Sporton Site No. TH03-HY
Test Engineer	Ivy Yeh and Kelvin Lu
Temperature (°C)	20.3~22.8
Relative Humidity (%)	49.6~58.4

FCC Designation No.: TW1190



1.4 Applied Standards

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

- ♦ ANSI C63.26-2015
- ♦ FCC 47 CFR Part 2, 96
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01

Remark:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. 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 Tablet Type (three orthogonal axis (X: flat, Y: portrait, Z: landscape)) and Notebook Type, and adjusting the measurement antenna orientation, following C63.26 exploratory test procedures and only the worst case emissions were reported in this report.

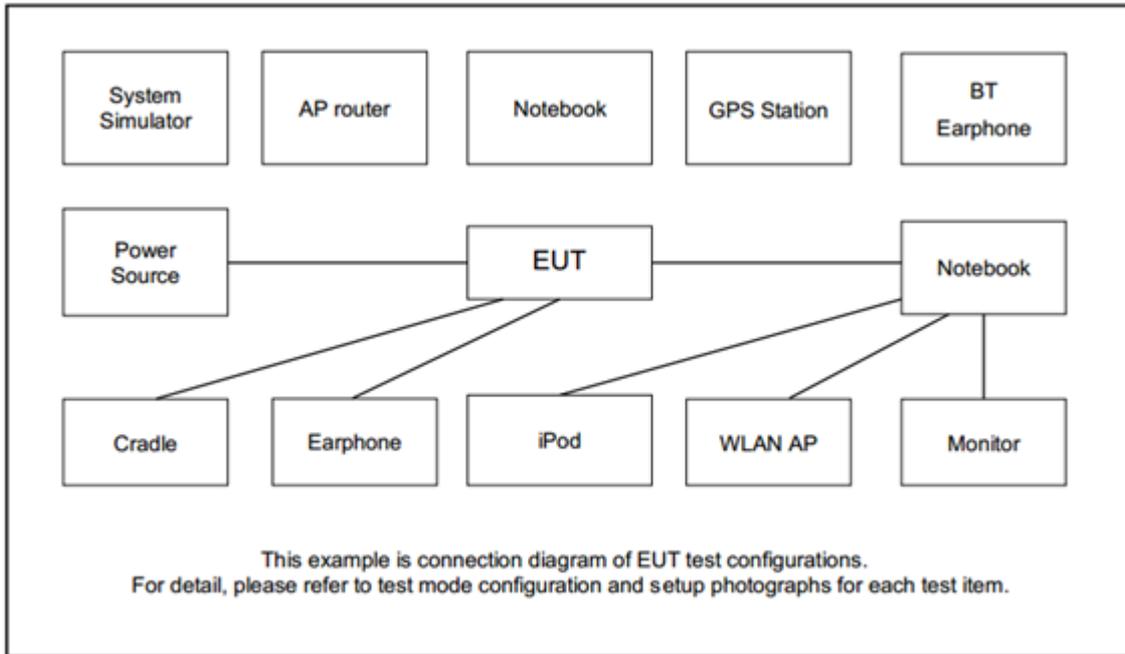
Modulation Type	Modulation	Modulation Type	Modulation
A	DFT-s-OFDM pi/2 BPSK	N/A	N/A
B	DFT-s-OFDM QPSK	F	CP-OFDM QPSK
C	DFT-s-OFDM 16QAM	G	CP-OFDM 16QAM
D	DFT-s-OFDM 64QAM	H	CP-OFDM 64QAM
E	DFT-s-OFDM 256QAM	I	CP-OFDM 256QAM

Test Item	Modulation Type	Bandwidth	RB Size	Channel
Conducted Power	A, B, C	All	1RB	L, M, H
EIRP	A, B, C	All	1RB	L, M, H

Remark:

1. Evaluated all the transmitter signal and reporting worst-case configuration among all modulation types.
2. For modulation of Pi/2 BPSK & QPSK & 16QAM, the maximum power of Pi/2 BPSK & QPSK & 16QAM is higher than other modulation(64QAM/256QAM), therefore, according to engineering evaluation , we choose higher power (Pi/2 BPSK & QPSK & 16QAM) to perform tests and show in the report.

2.2 Connection Diagram of Test System



2.3 Frequency List of Low/Middle/High Channels

<For SCS15k>

NR Band n48 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
40	Channel	638000	641666	645332
	Frequency	3570.0	3624.99	3679.98
30	Channel	637668	641666	645666
	Frequency	3565.02	3624.99	3684.99
20	Channel	637334	641666	646000
	Frequency	3560.01	3624.99	3690.0
15	Channel	637168	641666	646166
	Frequency	3557.52	3624.99	3692.49
10	Channel	637000	641666	646332
	Frequency	3555.0	3624.99	3694.98
5	Channel	636834	641666	646500
	Frequency	3552.51	3624.99	3697.5



<For SCS30k>

NR Band n48 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
40	Channel	638000	641666	645332
	Frequency	3570.0	3624.99	3679.98
30	Channel	637668	641666	645666
	Frequency	3565.02	3624.99	3684.99
20	Channel	637334	641666	646000
	Frequency	3560.01	3624.99	3690.0
15	Channel	637168	641666	646166
	Frequency	3557.52	3624.99	3692.49
10	Channel	637000	641666	646332
	Frequency	3555.0	3624.99	3694.98

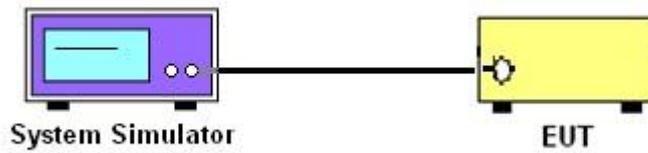
3 Conducted Test Items

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.1.1 Test Setup

3.1.2 Conducted Output Power



3.1.3 Test Result of Conducted Test

Please refer to Appendix A.



3.2 Conducted Output Power Measurement

3.2.1 Description of the Conducted Output Power Measurement

A base station simulator was used to establish communication with the EUT. Its parameters were set to transmit the maximum power on the EUT. The measured power in the radio frequency on the transmitter output terminals shall be reported.

3.2.2 Test Procedures

1. The transmitter output port was connected to base station.
2. Set EUT at maximum power through base station.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure and record the power level from the system simulator.



3.3 EIRP

3.3.1 Description of the EIRP Measurement

The EIRP of mobile transmitters must not exceed 23 dBm /10 megahertz for 5G NR n48.

The testing follows ANSI C63.26-2015 Section 5.2.5.5.

According to KDB 412172 D01 Power Approach,

$EIRP = P_T + G_T - LC$, where

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

LC = signal attenuation in the connecting cable between the transmitter and antenna in dB

Device	Maximum EIRP (dBm/10 MHz)	Maximum PSD (dBm/MHz)
End User Device	23	n/a

Remark: Total channel power is complied with EIRP limit 23dBm/10MHz.

3.3.2 Test Procedures

The testing follows procedure in Section 5.2 of ANSI C63.26-2015 and KDB 940660 D01 Part 96 CBRS Eqpt v03 Section 3.2(b)(2)

Determine the EIRP by adding the effective antenna gain to the measured average conducted power level.



4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	TECPEL	DTM-303B	TP200886	NA	Mar. 14, 2024	Sep. 20, 2024~ Sep. 28, 2024	Mar. 13, 2025	Conducted (TH03-HY)
Base Station (Measure)	Anritsu	MT8000A	6262148275	FR1	Oct. 24, 2023	Sep. 20, 2024~ Sep. 28, 2024	Oct. 23, 2024	Conducted (TH03-HY)
Base Station (Measure)	Anritsu	MT8821C	6262116725	LTE	Oct. 25, 2023	Sep. 20, 2024~ Sep. 28, 2024	Oct. 24, 2024	Conducted (TH03-HY)
Software 1	Sporton	FCC 5G NR_FSV30 44_20231106	N/A	Conducted Test Item	N/A	Sep. 20, 2024~ Sep. 28, 2024	N/A	Conducted (TH03-HY)



Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power and EIRP)

<SCS15k>

NR n48 Maximum Average Power [dBm] (GT - LC = 0.96 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
5	1	1	PI/2 BPSK	21.17	21.24	21.29	22.25	0.1679
5	1	1	QPSK	21.27	21.26	21.25		
5	1	1	16-QAM	20.27	20.30	20.24		
Limit	EIRP < 23dBm/10MHz			Result			Pass	

NR n48 Maximum Average Power [dBm] (GT - LC = 0.96 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	21.30	21.36	21.16	22.40	0.1738
10	1	1	QPSK	21.42	21.44	21.22		
10	1	1	16-QAM	20.14	20.17	19.93		
Limit	EIRP < 23dBm/10MHz			Result			Pass	

NR n48 Maximum Average Power [dBm] (GT - LC = 0.96 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	21.50	21.52	21.16	22.49	0.1774
15	1	1	QPSK	21.53	21.42	21.26		
15	1	1	16-QAM	20.22	20.29	20.02		
Limit	EIRP < 23dBm/10MHz			Result			Pass	

NR n48 Maximum Average Power [dBm] (GT - LC = 0.96 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	21.49	21.48	21.28	22.50	0.1778
20	1	1	QPSK	21.50	21.54	21.32		
20	1	1	16-QAM	20.22	20.44	20.08		
Limit	EIRP < 23dBm/10MHz			Result			Pass	

NR n48 Maximum Average Power [dBm] (GT - LC = 0.96 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
30	1	1	PI/2 BPSK	21.48	21.46	21.02	22.44	0.1754
30	1	1	QPSK	21.40	21.48	21.14		
30	1	1	16-QAM	20.18	20.25	19.88		
Limit	EIRP < 23dBm/10MHz			Result			Pass	

NR n48 Maximum Average Power [dBm] (GT - LC = 0.96 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
40	1	1	PI/2 BPSK	21.18	21.16	20.93	22.25	0.1679
40	1	1	QPSK	21.23	21.29	20.93		
40	1	1	16-QAM	20.18	20.03	19.68		
Limit	EIRP < 23dBm/10MHz			Result			Pass	

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



<SCS30k>

NR n48 Maximum Average Power [dBm] (GT - LC = 0.96 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	21.30	21.33	21.10	22.30	0.1698
10	1	1	QPSK	21.29	21.34	21.10		
10	1	1	16-QAM	20.36	20.41	20.12	21.37	0.1371
Limit	EIRP < 23dBm/10MHz			Result			Pass	

NR n48 Maximum Average Power [dBm] (GT - LC = 0.96 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	21.30	21.41	21.02	22.37	0.1726
15	1	1	QPSK	21.25	21.28	21.03		
15	1	1	16-QAM	20.24	20.37	20.10	21.33	0.1358
Limit	EIRP < 23dBm/10MHz			Result			Pass	

NR n48 Maximum Average Power [dBm] (GT - LC = 0.96 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	21.27	21.33	21.02	22.30	0.1698
20	1	1	QPSK	21.24	21.34	21.00		
20	1	1	16-QAM	20.41	20.35	20.06	21.37	0.1371
Limit	EIRP < 23dBm/10MHz			Result			Pass	

NR n48 Maximum Average Power [dBm] (GT - LC = 0.96 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
30	1	1	PI/2 BPSK	21.25	21.36	20.97	22.32	0.1706
30	1	1	QPSK	21.25	21.36	20.98		
30	1	1	16-QAM	20.34	20.39	20.03	21.35	0.1365
Limit	EIRP < 23dBm/10MHz			Result			Pass	

NR n48 Maximum Average Power [dBm] (GT - LC = 0.96 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
40	1	1	PI/2 BPSK	21.05	21.14	20.86	22.10	0.1622
40	1	1	QPSK	21.06	21.11	20.79		
40	1	1	16-QAM	20.17	20.21	19.93	21.17	0.1309
Limit	EIRP < 23dBm/10MHz			Result			Pass	

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

————THE END————