RF Exposure Report

Report No.:	SABHQC-WTW-P21100439 R1
FCC ID:	2AQ68RPQN7801
Test Model:	RPQN-7801E, RPQN-7801I
Received Date:	Sep. 10, 2021
Test Date:	Sep. 10 ~ Sep. 16, 2021
Issued Date:	Mar. 04, 2022
Applicant:	Hon Lin Technology Co., Ltd.
Address:	11F, No. 32, Jihu Rd., Neihu Dist., Taipei City 114, Taiwan R.O.C.
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
	Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan
FCC Registration / Designation Number:	788550 / TW0003

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Release Control Record

Issue No.	Description	Date Issued
SABHQC-WTW-P21100439	Original release	Nov. 30, 2021
SABHQC-WTW-P21100439 R1	Item 3 modified	Mar. 04, 2022

1 Certificate of Conformity

Product:	5G NR indoor O-RU S4 RPQN-7801
Brand:	Foxconn
Test Model:	RPQN-7801E, RPQN-7801I
Sample Status:	Mass Production
Applicant:	Hon Lin Technology Co., Ltd.
Test Date:	Sep. 10 ~ Sep. 16, 2021
Standards:	FCC Part 2 (Section 2.1091)
References Test Guidance:	KDB 447498 D01 General RF Exposure Guidance v06

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : Pettie Chen , **Date:** Mar. 04, 2022

Pettie Chen / Senior Specialist

Approved by : Jeremy Lin , **Date:** Mar. 04, 2022

Jeremy Lin / Project Engineer

2 RF Exposure

2.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Average Time (minutes)
Limits For General Population / Uncontrolled Exposure				
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	…	…	f/1500	30
1500-100,000	…	…	1.0	30

f = Frequency in MHz; *Plane-wave equivalent power density

2.2 MPE Calculation Formula

$Pd = (Pout*G) / (4*pi*r^2)$
where
Pd = power density in mW/cm^2
Pout = output power to antenna in mW
G = gain of antenna in linear scale
pi = 3.1416
r = distance between observation point and center of the radiator in cm

2.3 Classification

The antenna of this product, under normal use condition, is at least 35cm away from the body of the user. So, this device is classified as fixed station and installations by professional service persionnel device.

3 Calculation Result of Maximum Conducted Power

For 5G NR Band n78
100MHz: QPSK

Frequency Band (MHz)	Conducted Average Power - Per Chain (dBm)				Max Conducted Average Power - Totaol (dBm)	Directional Gain (dBi)	Max EIRP Power (dBm)	Max EIRP Power (W)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
	ANT0	ANT1	ANT2	ANT3							
3750	24.11	24.24	24.67	24.73	30.47	11.32	41.79	15.10	35	0.981	1

Note:
1. Directional gain=5.3 dBi +Array Gain(6.02)= 11.32 dBi
2. EIRP = Conducted + antenna gain (11.32dBi)
3. The antenna gain was declared by client.
4. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

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