

## RF Exposure Report

**Report No.:** SABHQC-WTW-P21123448

**FCC ID:** 2AQ68RPQN7800

**Test Model:** RPQN-7800E, RPQN-7800I

**Received Date:** Dec. 28, 2021

**Test Date:** Dec. 23 ~ Dec. 28, 2021

**Issued Date:** Feb. 09, 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 (1):** No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City  
33383, Taiwan

**FCC Registration /  
Designation Number:** 788550 / TW0003

**Test Location (2):** No. 70, Wenming Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)

**FCC Registration /  
Designation Number:** 281270 / TW0032



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### Release Control Record

Issue No.	Description	Date Issued
SABHQC-WTW-P21123448	Original release	Feb. 09, 2022

## 1 Certificate of Conformity

**Product:** 5G NR indoor O-RU S4 RPQN-7800

**Brand:** Foxconn

**Test Model:** RPQN-7800E, RPQN-7800I

**Sample Status:** Mass Production

**Applicant:** Hon Lin Technology Co., Ltd.

**Test Date:** Dec. 23 ~ Dec. 28, 2021

**Standards:** FCC Part 2 (Section 2.1091)

**References Test KDB 447498 D01 General RF Exposure Guidance v06  
Guidance:**

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 :** Celine Chou , **Date:** Feb. 09, 2022  
Celine Chou / Senior Specialist

**Approved by :** Jeremy Lin , **Date:** Feb. 09, 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 <sup>2</sup> )	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 <sup>2</sup> )*	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

$$P_d = (P_{out} * G) / (4 * \pi * r^2)$$

where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = 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 33cm away from the body of the user. So, this device is classified as fixed station and installations by professional service personnel 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 - Total (dBm)	Directional Gain (dBi)	Max EIRP Power (dBm)	Max EIRP Power (W)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
	Ant.0	Ant.1	Ant.2	Ant.3							
3500.01	24.20	24.10	24.12	24.23	30.18	11.14	41.32	13.56	33	0.990	1.00

Note:

1. Directional Gain = 5.12dBi + Array Gain (6.02) = 11.14dBi
2. EIRP = Conducted + Directional gain (11.14dBi)
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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