RF EXPOSURE EVALUATION REPORT

FCC ID	:	VUIPR2400-48EA
Equipment	:	Radio Unit
Brand Name	:	PEGATRON
Model Name	:	PR2400-48EA
Applicant	:	PEGATRON CORPORATION 5F., NO. 76, LIGONG ST., BEITOU DISTRICT, TAIPEI CITY, TAIWAN 11259
Manufacturer	:	PEGATRON CORPORATION 5F., NO. 76, LIGONG ST., BEITOU DISTRICT, TAIPEI CITY, TAIWAN 11259
Standard	:	47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC has been evaluated this product in accordance with 47 CFR Part2.1091 and it complies with applicable limit.

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC evaluation.

The results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Laboratory, the test report shall not be reproduced except in full

Approved by: Cona Huang / Deputy Manager

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FA3N0925-01	Rev. 01	Initial issue of report	Jan. 12, 2024

1. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	Radio Unit
Brand Name	PEGATRON
Model Name	PR2400-48EA
FCC ID	VUIPR2400-48EA
Wireless Technology and Frequency Range	5G NR n48 : 3550 MHz ~ 3700 MHz
Mode	5G NR: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM/256QAM
EUT Stage	Identical Prototype
Remark: 1. Since the test result is not affected by changing ID, the FA3N0925-01 report reuses test data from the FA3N0925 report.	

Reviewed by: Jason Wang

Report Producer: Daisy Peng

2. Maximum RF average output power among production units

Radio Tech	Band Number	Maximum Transmit Power Level (dBm)
FR1	n48	37

Note:

1. This device is equipped with 4 WWAN antennas, and the maximum combined output power of these four antennas is 37 dBm.

3. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f2)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f2)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

The MPE was calculated at 150 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:
S = Power Density
P = Output Power at Antenna Terminals
G = Gain of Transmit Antenna (linear gain)
R = Distance from Transmitting Antenna

4. Radio Frequency Radiation Exposure Evaluation

4.1. Standalone Power Density Calculation

Band	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum EIRP (W)	Average EIRP (mW)	Power Density at 150cm (mW/cm^2)	Limit (mW/cm^2)
5G NR n48	17.5	37.0	54.5	281.84	281838.29	0.997	1.000

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.