RF EXPOSURE EVALUATION REPORT

FCC ID	:	VUIM2U350
Equipment	:	5G FR2 ODU
Brand Name	:	PEGATRON
Model Name	:	M2U350
Seried Model Name	:	M2U300, M2UXXX-XXX(where X can be a combination of alphanumeric, none or blank)
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

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History of this test report

Report No.	Version	Description	Issued Date
FA470412-01	Rev. 01	Initial issue of report	Nov. 15, 2024

1. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	5G FR2 ODU
Brand Name	PEGATRON
Model Name	M2U350
Seried Model Name	M2U300, M2UXXX-XXX(where X can be a combination of alphanumeric, none or blank)
FCC ID	VUIM2U350
Wireless Technology and Frequency Range	5G NR n258 : 24.2501 GHz ~ 27.5 GHz 5G NR n260 : 37 GHz ~ 40 GHz 5G NR n261 : 27.5 GHz ~ 28.35 GHz WLAN 2.4 GHz Band: 2400 MHz ~ 2483.5 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz
Mode	5G NR: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM WLAN: 802.11b/g/n HT20/HT40 Bluetooth BR/EDR/LE

Reviewed by: Jason Wang

Report Producer: Paula Chen

2. Maximum RF average output power among production units

Mode		Maximum EIRP Average power(dBm)
5G NR	n258	46.47
	n260	47.85
	n261	48.26

Mode	Maximum Average power(dBm)
WLAN 2.4GHz	19.63
Bluetooth	5.54

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 80 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 PG (mW)	Power Density at 80cm (mW/cm^2)	Limit (mW/cm^2)	Power Density / Limit
5G NR n258			46.47	44360.86	0.552	1.000	0.552
5G NR n260			47.85	60953.69	0.758	1.000	0.758
5G NR n261			48.26	66988.46	0.833	1.000	0.833
WLAN2.4GHz Band	4.45	19.63	24.08	255.86	0.003	1.000	0.003
Bluetooth	4.45	5.54	9.99	9.98	0.000	1.000	0.0001

4.2. Collocated Power Density Calculation

WWAN Power Density / Limit	WLAN 2.4GHz Power Density / Limit	Bluetooth Power Density / Limit	Σ(Power Density / Limit) of WWAN + WLAN 2.4GHz + Bluetooth
0.833	0.003	0.0001	0.8361

Note:

1. Σ(Power Density / Limit): This is a summation of [(power density for each transmitter/antenna included in the simultaneous transmission)/ (corresponding MPE limit)], for WWAN + WLAN 2.4GHz + Bluetooth.
2. Considering the WWAN collocation with the WLAN 2.4GHz and Bluetooth transmitter of the EIRP performance listed in the table above, the aggregated (power density /limit) is smaller than 1, and MPE of 3 collocated transmitters is compliant.

Conclusion:

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