RF EXPOSURE EVALUATION REPORT

FCC ID : QYLEM9190B

Equipment: Wireless Module

Brand Name : Getac

Model Name : EM9190

Applicant: Getac Technology Corporation.

5F., Building A, No. 209, Sec.1, Nangang

Rd., Nangang Dist., Taipei City 11568, Taiwan, R.O.C.

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

Gua Guang





Report No. : FA0D2108-01B

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History of this test report

Report No.: FA0D2108-01B

Report No. Version		Description	Issued Date	
FA0D2108-01B	Rev. 01	Initial issue of report	Sep. 28, 2023	

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1. <u>Description of Equipment Under Test (EUT)</u>

Product Feature & Specification					
EUT Type	Wireless Module				
Brand Name	Getac				
Model Name	EM9190				
FCC ID	QYLEM9190B				
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				

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Reviewed by: <u>Jason Wang</u> Report Producer: <u>Daisy Peng</u>

2. Maximum RF average output power among production units

Radio Tech	Band Number	Primary Transmitter Maximum Transmit Power Level (dBm)
FR1	n48	24.50

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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.

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Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)	
800 St.	(A) Limits for O	ccupational/Controlled Expos	sures	W	
0.3-3.0	614	1.63	*(100)	6	
3.0-30	1842/	f 4.89/1	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 Gene	ral Population/Uncontrolled I	Exposure		
0.3-1.34	614	1.63	*(100)	30	
1.34-30 824		f 2.19/1	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 20 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 20cm (mW/cm^2)	Limit (mW/cm^2)
5G NR n48	-1.80	24.50	22.7	0.19	186.21	0.037	1.000

Conclusion:

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

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