

RF Exposure Report

Report No.: SABHDI-WTW-P21120081-1

FCC ID: 2ATM8EG25G

Test Model: EG25-G MINIPCIE

Received Date: Dec. 24, 2021

Date of Evaluation: Apr. 07, 2022

Issued Date: May 10, 2022

Applicant: Hawkeye Tech Co., Ltd.

Address: 13F. No.736, Zhongzheng Rd., Zhonghe Dist., New Taipei City 235, Taiwan

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
SABHDI-WTW-P21120081-1	Original Release	May 10, 2022

1 Certificate of Conformity

Product: LTE Module

Brand: Hawkeye Tech Co., Ltd.

Test Model: EG25-G MINIPCIE

Sample Status: Engineering Sample

Applicant: Hawkeye Tech Co., Ltd.

Date of Evaluation: Apr. 07, 2022

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 : Lena Wang , Date: May 10, 2022
Lena Wang / Specialist

Approved by : Jeremy Lin , Date: May 10, 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

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

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 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 33 cm away from the body of the user.
So, this device is classified as **Mobile Device**.

2.4 Calculation Result of Maximum Conducted Power

WWAN (module model: EG25G MINPCIE)

Band	Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
GSM850	824-849	32.60	0.3	33	0.142	0.55
PCS1900	1850-1910	28.54	1.7	33	0.077	1.00
WCDMA II	1850-1910	23.49	1.7	33	0.024	1.00
WCDMA IV	1710-1755	23.60	1.7	33	0.025	1.00
WCDMA V	824-849	23.68	0.3	33	0.018	0.55
LTE 2	1850-1910	22.72	1.7	33	0.020	1.00
LTE 4	1710-1755	22.96	1.7	33	0.021	1.00
LTE 5	824-849	23.41	0.3	33	0.017	0.55
LTE 7	2500-2570	22.50	2.3	33	0.022	1.00
LTE 12	699-716	22.96	0.3	33	0.015	0.47
LTE 13	777-787	23.56	0.3	33	0.018	0.52
LTE 25	1850-1915	22.88	1.7	33	0.021	1.00
LTE 26	814-849	23.48	0.3	33	0.017	0.54
LTE 38	2575-2610	22.52	2.3	33	0.022	1.00
LTE 41	2496-2690	22.51	2.3	33	0.022	1.00

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible

Conclusion:

The formula of calculated the MPE is:

$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$

CPD = Calculation power density

LPD = Limit of power density

WLAN 2.4G + WLAN 5G + Zigbee + Bluetooth + LoRa + WWAN (module model: EG25G MINPCIE) =
 $0.158/1+0.437/1+0.007/1+0.0003/1+0.068/0.616+0.142/0.55=0.971$

*For WLAN power density data, please refer to report no.: SABHDI-WTW-P21120081.

Therefore the maximum calculations of above situations are less than the "1" limit.

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