

RF Exposure Report

Report No.: SA200511C02

FCC ID: 2ATM8EC25AF

Test Model: EC25-AF

Received Date: May 11, 2020

Test Date: May 22 ~ May 29, 2020

Issued Date: Jun. 05, 2020

Applicant: HAWKEYE TECH CO LTD

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories

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FCC Registration / 788550 / TW0003

Designation Number:



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Release Control Record

Issue No.	Description	Date Issued
SA200511C02	Original release	Jun. 05, 2020

1 Certificate of Conformity

Product: LTE Module

Brand: Quectel

Test Model: EC25-AF

Sample Status: Engineering Sample

Applicant: HAWKEYE TECH CO LTD

Test Date: May 22 ~ May 29, 2020

Standards: FCC Part 2 (Section 2.1091)
IEEE C95.3 -2002

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 : Celine Chou , **Date:** Jun. 05, 2020
Celine Chou / Senior Specialist

Approved by : Bruce Chen , **Date:** Jun. 05, 2020
Bruce Chen / Senior 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

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

where

Pd = power density in mW/cm²

Pout = 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 20cm away from the body of the user. So, this device is classified as Mobile Device.

3 Calculation Result of Maximum Conducted Power

Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
WCDMA Bnad 2	25.00	3.00	20	0.126	1.00
WCDMA Bnad 4	25.00	3.00	20	0.126	1.00
WCDMA Bnad 5	25.00	2.00	20	0.100	0.55
LTE Band 2	25.00	3.00	20	0.126	1.00
LTE Band 4	25.00	3.00	20	0.126	1.00
LTE Band 5	25.00	2.00	20	0.100	0.54
LTE Band 12	25.00	2.00	20	0.100	0.46
LTE Band 13	25.00	2.00	20	0.100	0.51
LTE Band 14	25.00	2.00	20	0.100	0.52
LTE Band 66	25.00	3.00	20	0.126	1.00
LTE Band 71	25.00	2.00	20	0.100	0.44

Note:

1. The above Max Power is Tune-up Power which client declared.
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

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