

RF Exposure Report

Report No.: SA180131C32

FCC ID: NKR-CB1GI21M2

Test Model: UMC-I21M2

Received Date: Jan. 31, 2018

Date of Evaluation: Mar. 16, 2018

Issued Date: Mar. 21, 2018

Applicant: Wistron Neweb Corporation

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

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FCC Registration /
Designation Number: 788550 / TW0003



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Table of Contents

Release Control Record	3
1 Certificate of Conformity	4
2 RF Exposure	5
2.1 Limits For Maximum Permissible Exposure (MPE)	5
2.2 MPE Calculation Formula	5
2.3 Classification	5
2.4 Calculation Result Of Maximum Conducted Power	5

Release Control Record

Issue No.	Description	Date Issued
SA180131C32	Original Release	Mar. 21, 2018

1 Certificate of Conformity

Product: LTE CAT M1 communication board

Brand: WNC

Test Model: UMC-I21M2

Sample Status: Identical Prototype

Applicant: Wistron Neweb Corporation

Date of Evaluation: Mar. 16, 2018

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

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 EMC characteristics under the conditions specified in this report.

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Vera Huang / Specialist

Approved by : Dylan Chiou , **Date:** Mar. 21, 2018
Dylan Chiou / 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

$$Pd = (Pout * G) / (4 * \pi * r^2)$$

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.

2.4 Calculation Result Of Maximum Conducted Power

Band	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
LTE Band 13	25.7	2.49	20	0.131	0.52
Zigbee	20.0	4	20	0.050	1.00

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