RF Exposure Report

Report No.:	SA190319E02C
FCC ID:	NKR-LVSK-IDU
Test Model:	LVSKIDU
Received Date:	May 19, 2019
Test Date:	May 19, 2019
Issued Date:	July 01, 2019
Applicant:	Wistron NeWeb Corp.
Address:	20 Park Avenue II, Hsinchu Science Park,Hsinchu 308, Taiwan, R.O.C.
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
Test Location:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
FCC Registration / Designation Number:	723255 / TW2022

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Release Control Record

Issue No.	Description	Date Issued
SA190319E02C	Original release.	July 01, 2019

1 Certificate of Conformity

Product:	LVSKIDU
Brand:	WNC
Test Model:	LVSKIDU
Sample Status:	ENGINEERING SAMPLE
Applicant:	Wistron NeWeb Corp.
Test Date:	May 19, 2019
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.

Prepared by : Phoenix Huang , **Date:** July 01, 2019

Phoenix Huang / Specialist

Approved by : , **Date:** July 01, 2019

May Chen / Manager

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/cm^2

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

2.4 Antenna Gain

Frequency (MHz)	5500		5600		5700		5745		5785		5825		Antenna Type	Antenna Connector
	Directional Antenna Gain (dBi)													
Vertical-Pol	**XZ**	**4.27**	**XZ**	**4.27**	**XZ**	**4.47**	**XZ**	**4.69**	**XZ**	**4.84**	**XZ**	**4.79**	PCB	i-pex(MHF)
	YZ	3.35	YZ	2.70	YZ	2.73	YZ	2.93	YZ	2.60	YZ	2.49		
	XY	3.24	XY	3.58	XY	4.02	XY	4.12	XY	4.08	XY	4.20		
Horizontal-pol	**XZ**	**4.53**	XZ	4.44	XZ	4.34	XZ	4.41	XZ	4.67	XZ	4.36	PCB	i-pex(MHF)
	YZ	2.19	YZ	1.56	YZ	1.39	YZ	1.24	YZ	1.43	YZ	1.51		
	XY	4.47	**XY**	**4.82**	XY	**4.89**	**XY**	**4.94**	XY	**5.09**	XY	**4.73**		
Note: More detailed information, please refer to operating description.														

2.5 Calculation Result of Maximum Conducted Power

For 5GHz (U-NII-2C band) the Maximum power was refer to the FCC test report (Report No.: RF190319E02B-1)
For 5GHz (U-NII-3 band) data was copied from the original test report (Report No.: SA190319E02)

Operation Mode	Evaluation Frequency (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
WLAN (U-NII-2C)	5610	248.291	4.89	20	0.15230	1
WLAN (U-NII-3)	5795	992.471	5.09	20	0.63745	1

Note:
1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. 5GHz (U-NII-2C): The directional gain = 4.89dBi
   5GHz (U-NII-3): The directional gain = 5.09dBi
3. The Max. Power = Max. tune up power including tolerance declared by client.

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