

FCC RF Exposure Report

FCC ID : NKRDNXA-GO1
Equipment : 802.11 b/g/n 3*3 PCIe module
Model No. : DNXA-GO1
Brand Name : WNC
Applicant : Wistron NeWeb Corporation
Address : 20 Park Avenue II, Hsinchu Science Park,
Hsinchu 308,Taiwan,R.O.C.
Standard : 47 CFR FCC Part 2.1091
Received Date : Feb. 17, 2014
Tested Date : Apr. 23 ~ May 02, 2014

We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Approved & Reviewed by:



Gary Chang / Manager



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Release Record

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FA421101-02	Rev. 01	Initial issue	Jun. 06, 2014

1 MPE EVALUATION OF MOBILE DEVICES

Human exposure to RF emissions from mobile devices (47 CFR §2.1091) may be evaluated based on the MPE limits adopted by the FCC for electric and magnetic field strength and/or power density, as appropriate, since exposures are assumed to occur at distances of 20 cm or more from persons.

1.1 LIMITS FOR GENERAL POPULATION/UNCONTROLLED EXPOSURE

Frequency Range (MHz)	Power Density (mW /cm ²)	Averaging Time (minutes)
300~1500	F/1500	30
1500~100000	1.0	30

1.2 MPE EVALUATION FORMULA

$$Pd = \frac{Pt}{4 * Pi * R^2}$$

Where

Pd= Power density in mW/cm²

Pt= EIRP in Mw

Pi= 3.1416

R= Measurement distance

1.3 MPE EVALUATION RESULTS

The EUT will be installed in below host

Brand Name	Model Name	Product Name	Antenna type	Ant. No.	Antenna Gain (dBi)		
					2400~2483.5 (MHz)	5150~5250 (MHz)	5725-5850 (MHz)
Google	GFRG210	Platform	Printed	1 for 2.4G	2.19	-	-
				2 for 2.4G	3.33	-	-
				3 for 2.4G	4.21	-	-
				1 for 5G	-	3.88	4.20
				2 for 5G	-	2.62	4.02
				3 for 5G	-	4.16	3.43

Note: Above host contain FCC ID: NKRDNXA-GO1 (EUT) and FCC ID: NKRDAXA-GO1

MPE Evaluation of Single Transmission

Evaluation result of FCC ID: NKRDNXA-GO1 (EUT)

Frequency Range (MHz)	Maximum Conducted Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412~2462	28.44	4.21	20	0.366	1

Evaluation result of FCC ID: NKRDAXA-GO1

Frequency Range (MHz)	Maximum Conducted Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
5180~5240	16.42	4.16	20	0.023	1
5745~5825	26.57	4.20	20	0.238	1

MPE Evaluation of Simultaneous Transmission

2.4 and 5GHz can transmit at the same time, MPE evaluation is as below formula

$PD1 / \text{Limit1} + PD2 / \text{Limit 2} + \dots < 1$, PD = Power density

MPE Evaluation = Maximum MPE of 2.4GHz + Maximum MPE of 5 GHz = $0.366 / 1 + 0.238 / 1 = 0.604 < 1$

Conclusion

MPE evaluations of single and simultaneous transmission meet the requirement of standard.

2 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp, it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan Hsiang. Location map can be found on our website <http://www.icertifi.com.tw>.

Linkou

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Kwei Shan

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If you have any suggestion, please feel free to contact us as below information

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