

# FCC RF Exposure Report

**FCC ID** : 2AD8UFTHC01  
**Equipment** : Dual Band UE Relay  
**Model No.** : FTHC  
**Brand Name** : Nokia  
**Applicant** : Nokia Solutions and Networks,OY  
**Address** : 1455 W Shure Drive Arlington Heights, Illinois  
United States 60004  
**Standard** : 47 CFR FCC Part 2.1091  
**Received Date** : Jan. 07, 2016  
**Tested Date** : Jan. 14 ~ Feb. 02, 2016

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:

  
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Gary Chang / Manager



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## Release Record

Report No.	Version	Description	Issued Date
FA610705	Rev. 01	Initial issue	Mar. 17, 2016
FA610705	Rev. 02	Modified applicant name (Page 1)	Apr. 06, 2016

# 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 21 cm or more from persons.

## 1.1 LIMITS

Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Power Density (mW /cm <sup>2</sup> )	Averaging Time (minutes)
300~1500	F/300	6
1500~100000	5	6

Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Power Density (mW /cm <sup>2</sup> )	Averaging Time (minutes)
300~1500	F/1500	30
1500~100000	1	30

## 1.2 MPE EVALUATION FORMULA

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

Where

Pd= Power density in mW/cm<sup>2</sup>

Pt= EIRP in mW

Pi= 3.1416

R= Measurement distance

### 1.3 MPE EVALUATION RESULTS

For General Population/Uncontrolled Exposure

Mode	Frequency Range (MHz)	Maximum Conducted Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limits (mW/cm <sup>2</sup> )
LTE Band 25	1860.0	23.44	8	21	0.251	1
	1882.5	23.30	8	21	0.243	1
	1905.0	23.29	8	21	0.243	1
LTE Band 41	2506	26.38	11	21	0.987	1
	2533	25.77	11	21	0.858	1
	2560	25.46	11	21	0.799	1
LTE Band 41	2630	26.35	11	21	0.980	1
	2655	26.07	11	21	0.919	1
	2680	26.16	11	21	0.938	1

### 1.4 SEPERATION DISTANCE BOUNDARY LIMITS

Mode	Frequency Range (MHz)	Maximum Conducted Power (dBm)	Antenna Gain (dBi)	General Population /Uncontrolled Exposure		Occupational/Controlled Exposure	
				Distance (cm)	Limits (mW/cm <sup>2</sup> )	Distance (cm)	Limits (mW/cm <sup>2</sup> )
LTE Band 25	1860.0	23.44	8	10.529	1	4.709	5
	1882.5	23.30	8	10.361	1	4.634	5
	1905.0	23.29	8	10.349	1	4.628	5
LTE Band 41	2506	26.38	11	20.864	1	9.331	5
	2533	25.77	11	19.449	1	8.698	5
	2560	25.46	11	18.767	1	8.393	5
LTE Band 41	2630	26.35	11	20.792	1	9.298	5
	2655	26.07	11	20.132	1	9.003	5
	2680	26.16	11	20.342	1	9.097	5

## 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**

Tel: 886-2-2601-1640

No. 30-2, Ding Fwu Tsuen, Lin Kou  
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R.O.C.

### **Kwei Shan**

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### **Kwei Shan Site II**

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

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