



# RF EXPOSURE EVALUATION REPORT

**FCC ID** : LHJ-FE4NA0210  
**Equipment** : FE4NA0110  
**Brand Name** : Continental  
**Model Name** : FE4NA0110  
**Applicant** : Continental Automotive Systems, Inc.  
21440 W Lake Cook Rd.  
**Manufacturer** : Continental Automotive Systems, Inc.  
21440 W Lake Cook Rd.  
**Standard** : 47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC has been evaluated this product in accordance with 47 CFR Part2.1091 and it complies with applicable limit.

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC evaluation.

The results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Laboratory, the test report shall not be reproduced except in full

Cona Huang

Approved by: Cona Huang / Deputy Manager



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## History of this test report



## 1. Description of Equipment Under Test (EUT)

Product Feature & Specification	
<b>EUT Type</b>	FE4NA0110
<b>Brand Name</b>	Continental
<b>Model Name</b>	FE4NA0110
<b>FCC ID</b>	LHJ-FE4NA0210
<b>Wireless Technology and Frequency Range</b>	WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 66: 1710 MHz ~ 1780 MHz
<b>Mode</b>	RMC 12.2Kbps HSDPA HSUPA LTE: QPSK, 16QAM, 64QAM
<b>HW Version</b>	P4
<b>EUT Stage</b>	Identical Prototype

**Remark:** The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

**Reviewed by: Jason Wang**

**Report Producer: Daisy Peng**

Host Information	
<b>Equipment Name</b>	G12N400G1
<b>Brand Name</b>	Continental
<b>Model Name</b>	G12N400G1
<b>HW Version</b>	P5



## 2. Maximum RF average output power among production units

Mode		Maximum Average power(dBm)
WCDMA	Band II	24
	Band IV	24
	Band V	24
LTE	Band 2	24
	Band 4	24
	Band 5	24
	Band 12	24
	Band 13	23
	Band 14	24
	Band 66	24

## 3. RF Exposure Limit Introduction

According to Part1.1307b, Or the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold Pth (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by:

$$Pth \text{ (mW)} = ERP_{20cm} (d / 20)^x \text{ for distance } d \leq 20cm$$

$$Pth \text{ (mW)} = ERP_{20cm} \text{ for distance } 20cm < d \leq 40cm$$

$$x = -\log_{10} \left( \frac{60}{ERP_{20cm}\sqrt{f}} \right)$$

$$ERP_{20cm} \text{ (mW)} \quad 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz}: \quad 2040 \quad f \\ 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz}: \quad 3060$$



## 4. RF Exposure Evaluation

### 4.1. Standalone assessment

**General Note:**

1.  $P_i$  is mean the available maximum time-averaged power or the ERP, whichever is greater, for fixed, mobile, or portable RF source  $i$  at a distance between 0.5 cm and 40 cm
2.  $P_{th}$  is mean the exemption threshold power ( $P_{th}$ ) according to the § 1.1307(b)(3)(i)(B) formula for fixed, mobile, or portable RF source  $i$ .
3. The distance of 20cm is for this device

Band	Antenna Gain (dBi)	Maximum Conducted Power (dBm)	Maximum EIRP (dBm)	Maximum ERP (dBm)	Maximum EIRP (mW)	Maximum ERP (mW)	$P_i$ (dBm)	$P_i$ (mW)	Part1.1307 option(b) Threshold (mW)
WCDMA Band 2	2.63	24.00	26.6	24.48	460.26	280.54	24.48	280.54	3060.000
WCDMA Band 4	3.14	24.00	27.1	24.99	517.61	315.50	24.99	315.50	3060.000
WCDMA Band 5	-1.17	24.00	22.8	20.68	191.87	116.95	24.00	251.19	1680.960
LTE Band 2	2.63	24.00	26.6	24.48	460.26	280.54	24.48	280.54	3060.000
LTE Band 4	3.14	24.00	27.1	24.99	517.61	315.50	24.99	315.50	3060.000
LTE Band 5	-1.17	24.00	22.8	20.68	191.87	116.95	24.00	251.19	1680.960
LTE Band 12	1.73	24.00	25.7	23.58	374.11	228.03	24.00	251.19	1425.960
LTE Band 13	0.77	23.00	23.8	21.62	238.23	145.21	23.00	199.53	1585.080
LTE Band 14	0.77	24.00	24.8	22.62	299.92	182.81	24.00	251.19	1607.520
LTE Band 66	3.14	24.00	27.1	24.99	517.61	315.50	24.99	315.50	3060.000

**Conclusion:**

According to 47 CFR §1.1307, the RF exposure analysis concludes that the RF Exposure is FCC compliant.