

# 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



Approved by: Cona Huang / Deputy Manager



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### History of this test report

Report No.	Version	Description	Issued Date
FA260854-01B	Rev. 01	Initial issue of report	Mar. 07, 2023



1. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	FE4NA0110
Brand Name	Continental
Model Name	FE4NA0110
FCC ID	LHJ-FE4NA0210
Wireless Technology and Frequency Range	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
Mode	RMC 12.2Kbps HSDPA HSUPA LTE: QPSK, 16QAM, 64QAM
HW Version	P4
EUT Stage	Identical Prototype
<b>Remark:</b> 1. Based on the original RF Exposure test report No.: FA260854B, to update LTE B13 maximum power and add two external antennas to additional evaluation MPE calculation.	

Reviewed by: Jason Wang

Report Producer: Daisy Peng

Host Information	
Equipment Name	G12N400G1
Brand Name	Continental
Model Name	G12N400G1
HW Version	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	24
	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:

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

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

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

ERP <sub>20cm</sub> (mW)	0.3 GHz ≤ f < 1.5 GHz:	2040 f
	1.5 GHz ≤ f ≤ 6 GHz:	3060



4. RF Exposure Evaluation

4.1. Standalone assessment

General Note:

- 1. Pi 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. Pth is mean the exemption threshold power (Pth) 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

<Ant. External Conti>

Table with 10 columns: Band, Antenna Gain (dBi), Maximum Conducted Power (dBm), Maximum EIRP (dBm), Maximum ERP (dBm), Maximum EIRP (mW), Maximum ERP (mW), Pi (dBm), Pi (mW), Part1.1307 option(b) Threshold (mW). Rows include WCDMA and LTE bands 2, 4, 5, 12, 13, 14, and 66.

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Table with 10 columns: Band, Antenna Gain (dBi), Maximum Conducted Power (dBm), Maximum EIRP (dBm), Maximum ERP (dBm), Maximum EIRP (mW), Maximum ERP (mW), Pi (dBm), Pi (mW), Part1.1307 option(b) Threshold (mW). Rows include WCDMA and LTE bands 2, 4, 5, 12, 13, 14, and 66.

Conclusion:

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