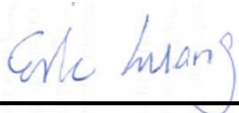


RF Exposure Evaluation Report

APPLICANT : Texas Instruments Incorporated
EQUIPMENT : BOOSTXL-CC3120MOD
BRAND NAME : Texas Instruments
MODEL NAME : BOOSTXL-CC3120MOD
MARKETING NAME : BOOSTXL-CC3120MOD SimpleLink™
BoosterPack™
STANDARD : EN 62311:2008

We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures and shown the compliance with the applicable technical standards.

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



Reviewed by: Eric Huang / Manager



Approved by: Jones Tsai / Manager



SPORTON INTERNATIONAL INC.

No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Taoyuan City, Taiwan (R.O.C.)



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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
EA731627-01	Rev. 01	Initial issue of report	Jun. 08, 2017

**1. Administration Data****1.1. Testing Laboratory**

Testing Laboratory	
Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978

Applicant	
Company Name	Texas Instruments Incorporated
Address	12500 TI BLVD., Dallas Texas, 75243

Manufacturer	
Company Name	Texas Instruments Incorporated
Address	12500 TI BLVD., Dallas Texas, 75243

2. General Information

2.1. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	BOOSTXL-CC3120MOD
Brand Name	Texas Instruments
Model Name	BOOSTXL-CC3120MOD
Marketing Name	BOOSTXL-CC3120MOD SimpleLink™ BoosterPack™
Wireless Technology and Frequency Range	WLAN2.4GHz Band: 2412 MHz ~ 2472 MHz
Mode	802.11b/g/n HT20
Ant. Type	Chip Antenna
Ant. Gain	1.9dBi
EUT Stage	Production Unit

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

3. Maximum RF Output Power (Unit: dBm)

Mode		Maximum Average Power (dBm)
2.4GHz WLAN	802.11b	15.8
	802.11g	16.6
	802.11n-HT20	16.4

4. RF Exposure Limit Introduction

The table of the reference field levels shown as below is given in Annex III of the Council Recommendation 1999/519/EC.

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (μT)	Equivalent plane wave power density S_{eq} (W/m ²)
0-1 Hz	—	$3,2 \times 10^4$	4×10^4	—
1-8 Hz	10 000	$3,2 \times 10^4/f^{1/2}$	$4 \times 10^4/f^{1/2}$	—
8-25 Hz	10 000	$4\,000/f$	$5\,000/f$	—
0,025-0,8 kHz	$250/f$	$4/f$	$5/f$	—
0,8-3 kHz	$250/f$	5	6,25	—
3-150 kHz	87	5	6,25	—
0,15-1 MHz	$87/f$	$0,73/f$	$0,92/f$	—
1-10 MHz	$87/f^{1/2}$	$0,73/f$	$0,92/f$	—
10-400 MHz	28	0,073	0,092	2
400-2 000 MHz	$1,375\ f^{1/2}$	$0,0037\ f^{1/2}$	$0,0046\ f^{1/2}$	$f/200$
2-300 GHz	61	0,16	0,20	10

Notes:

1. f as indicated in the frequency range column.
2. For frequencies between 100 kHz and 10 GHz, S_{eq} , E^2 , H^2 , and B^2 are to be averaged over any six-minute period.
3. For frequencies exceeding 10 GHz, S_{eq} , E^2 , H^2 , and B^2 are to be averaged over any $68/f^{1.05}$ -minute period (f in GHz).
4. No E-field value is provided for frequencies < 1 Hz, which are effectively static electric fields. For most people the annoying perception of surface electric charges will not occur at field strengths less than 25 kV/m. Spark discharges causing stress or annoyance should be avoided.

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna



5. RF Exposure Evaluation

5.1. Power Density Calculations

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Average EIRP (mW)	Power Density at 20cm (W/m ²)	Limit (W/m ²)
WLAN 2.4GHz	2412.0	1.9	16.6	18.50	70.79	0.14	10.00

Note: For conservativeness, the lowest uplink frequency of each band is used to determine the MPE limit of that band.

Conclusion:

According to Council Recommendation 1999/519/EC, the RF exposure analysis concludes that the RF Exposure is CE compliant.