

EN 62311 Test Report

Project No. : 1910C136
Equipment : WiFi Module
Brand Name : Dialog
Test Model : DA16200MOD-AAC4WA32
Series Model : N/A
Applicant : Dialog Semiconductor Korea Inc.
Address : 7th SiliconPark, 35, Pangyo-ro 255 beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do (Zip 13486), Korea
Manufacturer : Iton Technology Corp.
Address : 7 Floor East, Building C, Shenzhen International Innovation Center, No. 1006 Shennan Road, Futian District, Shenzhen, China
Factory : Iton Technology Corp.
Address : Building E, Weixinda Industrial Park, Ainan Road 95, Longgang District, Shenzhen, Guangdong Province, China
Date of Receipt : Oct. 31, 2019
Date of Test : Nov. 04, 2019 ~ Nov. 23, 2019
Issued Date : Dec. 13, 2019
Report Version : R00
Test Sample : Engineering Sample No.: DG2019110415
Standard(s) : EN 62311:2008

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue	Dec. 13, 2019

1. GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF EUT

Equipment	WiFi Module	
Brand Name	Dialog	
Test Model	DA16200MOD-AAC4WA32	
Series Model	N/A	
Model Difference(s)	N/A	
Power Source	DC voltage supplied from external power supply.	
Power Rating	DC 3.3V	
Product Description	Operation Frequency	2412MHz ~ 2472MHz
	Modulation Technology	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM
	Bit Rate of Transmitter	IEEE 802.11b: 11/5.5/2/1 Mbps IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 72.2 Mbps
	Max. e.i.r.p.	IEEE 802.11b: 18.29 dBm IEEE 802.11g: 19.30 dBm IEEE 802.11n (HT20): 18.41 dBm

Note:

- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. Channel List:

CH01 - CH13 for IEEE 802.11b, IEEE 802.11g, IEEE 802.11n(HT20)					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	06	2437	11	2462
02	2417	07	2442	12	2467
03	2422	08	2447	13	2472
04	2427	09	2452		
05	2432	10	2457		

3. Table for Filed Antenna:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Chip	N/A	2

3. MAXIMUM PERMISSIBLE EXPOSURE

3.1 Applicable Standard

According to its specifications, the EUT must comply with the requirements of the following standards:

EN 62311 - Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz)

1 LIMIT

Council Recommendation 99/519EC Annex III

Reference levels for electric, magnetic and electromagnetic fields (0Hz to 300GHz)

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (μ T)	Equivalent plane wave power density Seq (W/m ²)
0-1 Hz	-	3.2×10^4	4×10^4	-
1-8 Hz	10000	$3.2 \times 10^4/f^2$	$4 \times 10^4/f^2$	-
8-25 Hz	10000	$4000/f$	$4000/f$	-
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	$0.73/f$	$0.92/f$	-
1-10 MHz	$87/f^{1/2}$	$0.73/f$	$0.92/f$	-
10-400 MHz	28	0.073	0.092	2
400-2000 MHz	$1.375 f^{1/2}$	$0.0037 f^{1/2}$	$0.0046 f^{1/2}$	$f/200$
2-300 GHz	61	0.16	0.2	10

2 MPE Calculation Method

$$E \text{ (V/m)} = (30 \cdot P \cdot G) / d$$

E = Electric Field (V/m)

P = Peak RF output Power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

d=0.2m, as the calculated distance.

4. TEST RESULTS

Max. e.i.r.p. (dBm)	Max. e.i.r.p. (mW)	Electric Field (V/m)	Limit of Electric Field (V/m)	Result
19.30	85.114	7.990	61	Pass

RF exposure assessment has been performed above to prove that this unit will not generate the harmful EM emission above the reference level as specified in EC Council Recommendation (1999/519/EC).

End of Test Report