



RF Exposure Report

Report No.: SA150415E06H

FCC ID: HEDIRAC750

Test Model: IR-AC750

Series Model: IR-AC750-EU

Received Date: Dec. 28, 2015

Test Date: Jan. 14, 2016

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Applicant: Accton Technology Corporation

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Release Control Record

Issue No.	Description	Date Issued
SA150415E06H	Original release.	Jan. 25, 2016

2 RF Exposure

2.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (minutes)
Limits For General Population / Uncontrolled Exposure				
300-1500	F/1500	30
1500-100,000	1.0	30

F = Frequency in MHz

2.2 MPE Calculation Formula

$$P_d = (P_{out} * G) / (4 * \pi * r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

2.3 Classification

The antenna of this product, under normal use condition, is at least 20m away from the body of the user.

So, this device is classified as **Mobile Device**.

2.4 Antenna Gain

The antennas provided to the EUT, please refer to the following table:

2.4GHz Band						
Antenna No.	PCB Chain No.	Ant. Gain(dBi)	Frequency Range (GHz to GHz)	Ant. Type	Connector Type	Cable Length (mm)
1 (White)	Chain (0)	4.3	2.4~2.4835	PCB	i-pex(MHF)	130
2 (Gray)	Chain (1)	4.01	2.4~2.4835	PCB	i-pex(MHF)	90
**For 802.11bg mode will fix transmission on Chain (0).						
5GHz Band						
Antenna No.	Ant. Gain(dBi)	Frequency Range (GHz to GHz)	Ant. Type	Connector Type	Cable Length (mm)	
3 (Black)	5	5.15~5.85	PCB	MMCX-plug	60	

2.5 Calculation Result of Maximum Conducted Power

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412-2462	967.697	4.3	20	0.51817	1
5180-5240	212.814	5	20	0.13388	1
5745-5825	197.242	5	20	0.12409	1

Conclusion:

Both of the 2.4GHz and 5GHz can transmit simultaneously, the formula of calculated the MPE is:

$$CPD_1 / LPD_1 + CPD_2 / LPD_2 + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

Therefore, the worst-case situation is $0.51817 / 1 + 0.13388 / 1 = 0.65205$, which is less than "1".

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