

RF Exposure Report

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Test Model: LBEQ6ZZ1CL

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Release Control Record

Issue No.	Description	Date Issued
SA150713C13	Original release	Sep. 21, 2015

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

$$Pd = (Pout * G) / (4 * pi * r^2)$$

where

Pd = power density in mW/cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 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 20cm away from the body of the user.

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

3 Calculation Result Of Maximum Conducted Power

Frequency Band	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
WLAN: 2412-2462 MHz	23.42	2.07	20	0.070	1
WLAN: 5180-5240 MHz	13.58	2.43	20	0.008	1
WLAN: 5260-5320 MHz	12.96	2.43	20	0.007	1
WLAN: 5500-5700 MHz	12.74	2.43	20	0.007	1
WLAN: 5745-5825 MHz	12.44	2.43	20	0.006	1
Bluetooth EDR	8.27	2.07	20	0.002	1
Bluetooth LE	8.54	2.07	20	0.002	1

Conclusion:

The formula of calculated the MPE is:

$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$

CPD = Calculation power density

LPD = Limit of power density

WLAN+ Bluetooth = $0.070 + 0.002 = 0.072$

Therefore, the maximum calculation of this situation is 0.072, which is less than the "1" limit.

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