RF Exposure Evaluation declaration

Product Name : zoomBox

Model No. : ZB-DM-001

FCC ID : 2AJ4QZBP802C1G04GC0

Applicant : DIGIT MOBILE INC.

Address : 5F, No. 550, Ruei Guang Rd., Nei Hu Dist.,
Taipei City 114, Taiwan

Date of Receipt : Oct. 13, 2016

Date of Declaration : Nov. 04, 2016

Report No. : 16A0226R-RFUSP04V00-A

Issued Date: Nov. 04, 2016
Report No.: 16A0226R-RFUSP04V00-A

Product Name	zoomBox
Applicant	DIGIT MOBILE INC.
Address	5F, No. 550, Ruei Guang Rd., Nei Hu Dist., Taipei City 114, Taiwan
Manufacturer	ZINWELL CORPORATION
Model No.	ZB-DM-001
FCC ID.	2AJ4QZBP802C1G04GC0
EUT Rated Voltage	DC 5V, 2A
EUT Test Voltage	AC 120V/60Hz
Trade Name	zoomBox
Applicable Standard	FCC 47 CFR 1.1310
Test Result	Complied

Documented By : Anita Chou

(Senior Engineering Adm. Specialist / Anita Chou)

Tested By : Tom chiu

(Engineer / Tom Chiu)

Approved By :

(Director / Vincent Lin)

1. RF Exposure Evaluation

1.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)
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)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula
Friis transmission formula: $Pd = (Pout*G)/(4*pi*r^2)$

Where
Pd = power density in mW/cm^2
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

Pd id the limit of MPE, 1 mW/cm^2. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.
The temperature and related humidity: 18℃ and 78％ RH.

1.3. Test Result of RF Exposure Evaluation

Product : zoomBox
Test Item : RF Exposure Evaluation
Test Site : No.3 OATS

Operation Frequency	2412-2462MHz 2402-2480MHz
Maximum Conducted output power	23.71 dBm
Antenna gain	3.1 dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm2)
234.9632821	0.09544

Power density is lower than the limit (1 mW/cm2).