

RF EXPOSURE REPORT

Applicant	BLACK BOX Corporation
Address	1000 Park Drive Lawrence, Pennsylvania 15055-1018

Manufacturer or Supplier	BLACK BOX Corporation
Address	1000 Park Drive Lawrence, Pennsylvania 15055-1018
Product	AC750 Wireless Dual Band Gigabit Router
Brand Name	BLACK BOX
Model	WRT750A
Additional Model & Model Difference	N/A
Date of tests	Mar. 23, 2016 ~ Apr. 29, 2016

- ☒ FCC Part 2 (Section 2.1091)
☒ KDB 447498 D01
☒ IEEE C95.1

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Tested by Harry Li Project Engineer/ EMC Department	Approved by Chris Chen Manager / EMC Department
	 Date: Apr. 29, 2016

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Test Report No.: FS160323N065

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FS160323N065	Original release	Apr. 29, 2016

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1. CERTIFICATION

PRODUCT: AC750 Wireless Dual Band Gigabit Router

BRAND NAME: BLACK BOX

MODEL NO.: WRT750A

ADDITIONAL MODEL: N/A

FCC ID: EHX-WRT750A

TEST SAMPLE: ENGINEERING SAMPLE

APPLICANT: BLACK BOX Corporation

TESTED DATE: Apr. 29, 2016

STANDARDS: FCC Part 2 (Section 2.1091)

KDB 447498 D01

IEEE C95.1



2. RF EXPOSURE LIMIT

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

3. 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

4. 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**.



5. ANTENNA GAIN

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

Transmitter Circuit	Peak Gain (dBi)	ANT Number	Total Gain (dBi)	Antenna Type
2.4G	2.7	2	5.71	Dipole Antenna
5G	2.5	1	2.5	Dipole Antenna

Note: For 2.4GHz, Total Gain=2.7+10log(N=2)=1.5+(3.01)=5.71dBi

6. 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)
WLAN 2.4GHz	181.633	5.71	20	0.1345	1.0
WLAN 5G Band 1	65.013	2.5	20	0.0230	1.0
WLAN 5G Band 4	63.387	2.5	20	0.0224	1.0

2.4GHz and 5GHz transmit simultaneously: 0.1345+0.0230=0.1575<1, which is less than the "1" limit.

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