



**BUREAU
VERITAS**

Test Report No.: FS160217N002



RF EXPOSURE REPORT

Applicant	MTRLC LLC
Address	PO Box 121147 Boston, MA 02112-1147

Manufacturer or Supplier	MTRLC LLC
Address	PO Box 121147 Boston, MA 02112-1147
Product	8x4 DOCSIS 3.0 Cable Modem plus N450 Router
Brand Name	Motorola
Model	MG7315
Additional Model & Model Difference	MG7315XY(Where X can be A, B, C, D or blank, and Y can be A, B, C, D or blank.)
Date of tests	Feb. 17, 2016 ~ Mar. 15, 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 Breeze Jiang Project Engineer / EMC Department	Approved by Chris Chen Manager / EMC Department
	
Date: Mar. 15, 2016	

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FS160217N002	Original release	Mar. 15, 2016



1. CERTIFICATION

FCC ID:	2AF5PMG7315
PRODUCT:	8x4 DOCSIS 3.0 Cable Modem plus N450 Router
BRAND NAME:	Motorola
MODEL NO.:	MG7315
ADDITIONAL NO.:	MG7315XY (Where X can be A, B, C, D or blank, and Y can be A, B, C, D or blank)
TEST SAMPLE:	Engineering Sample
APPLICANT:	MTRLC LLC
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

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

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

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)	Total Gain(dBi)	Antenna Type
Chain 0 for 802.11b/11g	3.0	3	Wire Antenna
Chain 0/1/2 for 802.11n	3.0	7.77	Wire Antenna

Note: Total Gain=3.0+10log(N=3)=3.0+(4.77)=7.77dBi

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	597.499	7.77	20	0.71	1.0

--- END ---