



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 DepartmentApproved by Chris Chen
Manager / EMC Department

Date: Mar. 15, 2016

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification



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RELEASE CONTROL RECORD

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



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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

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

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)	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 ---