



BUREAU
VERITAS

Test Report No.: FS110721N017

RF EXPOSURE REPORT

Applicant	Zoom Telephonics, Inc
Address	Zoom Telephonics, Inc., 207 South Street, Boston, MA 02111 USA

Manufacturer or Supplier	ZOOM TELEPHONICS, INC	
Address	Zoom Telephonics, Inc., 207 South Street, Boston, MA 02111 USA	
Product	ZOOM ADSL MODEM/ROUTER W/ WIRELESS-N	
Model	SERIES 1093 MODEL 5790XY WHERE X=A,B,C,D,E,F OR NOTHING AND Y=G,H,J,K,L,M OR NOTHING	
Date of tests	Jun. 12 ~ Jul. 10 , 2011	

FCC Part 2 (Section 2.1091)
 FCC OET Bulletin 65, Supplement C (01-01)
 IEEE C95.1

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

Reviewed by Jade Yang Supervisor / EMC Department	Approved by Sam Tung Manager / EMC Department

Date: Sep. 30, 2011

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



**BUREAU
VERITAS** Test Report No.: FS110721N017

Table of Contents

RELEASE CONTROL RECORD	3
1. CERTIFICATION.....	4
2. RF Exposure Limit	5
3. MPE calculation Formula	5
4. Classification.....	5
5. calculation result of maximum conducted power	6



**BUREAU
VERITAS** Test Report No.: FS110721N017

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	N/A	Sep. 30, 2011

**Bureau Veritas Shenzhen Co., Ltd.
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1. CERTIFICATION

PRODUCT: ZOOM ADSL MODEM/ROUTER W/ WIRELESS-N

MODEL: SERIES 1093 MODEL 5790XY WHERE X=A,B,C,D,E,F OR
NOTHING AND Y=G,H,J,K,L,M OR NOTHING

APPLICANT: Zoom Telephonics, Inc

TESTED: Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch

TEST SAMPLE: ENGINEERING SAMPLE

STANDARDS: FCC Part 2 (Section 2.1091)

FCC OET Bulletin 65, Supplement C (01-01)

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

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**.



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5. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

FREQUENCY BAND (MHz)	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
802.11b max 2462MHz	17.76	5.1	20	0.0384	1.00
802.11g Max 2412MHz	20.60	5.1	20	0.0739	1.00
802.11n 20MHz Max 2412MHz	23.34	5.1	20	0.1387	1.00
802.11n 40MHz Max 2452MHz	21..22	5.1	20	0.0853	1.00