



RF EXPOSURE REPORT

REPORT NO.: SA130429C10

MODEL NO.: WMIA-198N

FCC ID: SZR-HD800W

RECEIVED: Apr. 29, 2013

TESTED: May 03 ~ May 10, 2013

ISSUED: May 10, 2013

APPLICANT: Radio Engineering Industries Inc.

ADDRESS: 6534 L Street Omaha Nebraska 68117 USA

ISSUED BY: Bureau Veritas Consumer Products Services
(H.K.) Ltd., Taoyuan Branch

LAB ADDRESS: No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist.,
New Taipei City, Taiwan, R.O.C.

TEST LOCATION: No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei
Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA130429C10	Original release.	May 10, 2013

1. CERTIFICATION

PRODUCT: 802.11n Mini PCI module
MODEL: WMIA-198N
APPLICANT: Radio Engineering Industries Inc.
TESTED: May 03 ~ May 10, 2013
TEST SAMPLE: ENGINEERING SAMPLE
STANDARDS: **FCC Part 2 (Section 2.1091)**
FCC OET Bulletin 65, Supplement C (01-01)
IEEE C95.1

The above equipment (Model: WMIA-198N) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Suntee Liu , DATE : May 10, 2013
Suntee Liu / Specialist

APPROVED BY : Ken Liu , DATE : May 10, 2013
Ken Liu / Senior Manager

2. RF EXPOSURE

2.1 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

2.2 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

2.3 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**.

2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

MODULATION MODE	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
802.11b	17.71	2	20	0.019	1
802.11g	19.96	2	20	0.031	1
802.11n (20MHz)	17.97	2	20	0.020	1
802.11n (20MHz)	17.07	5.01	20	0.032	1
802.11n (40MHz)	17.82	2	20	0.019	1
802.11n (40MHz)	17.18	5.01	20	0.033	1

NOTE: For 802.11n 2TX: Directional gain = 2dBi + 10log(2) = 5.01dBi

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