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RF EXPOSURE REPORT

REPORT NO.: SA110322C11

MODEL NO.: MBR95

FCC ID: UXX-MBR95

ACCORDING: FCC Guidelines for Human Exposure
IEEE C95.1

APPLICANT: Cradlepoint, Inc.

ADDRESS: 805 West Franklin Street. Boise, ID 83702

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

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	N/A	Apr. 13, 2011



1. CERTIFICATION

PRODUCT: Mobile Broadband Router

MODEL NO.: MBR95

BRAND: cradlepoint

APPLICANT: Cradlepoint, Inc.

TESTED: Mar. 30 ~ Apr. 11, 2011

TEST SAMPLE: ENGINEERING SAMPLE

STANDARDS: FCC Guidelines for Human Exposure

IEEE C95.1

The above equipment (Model: MBR95) 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 : Polly Chien, DATE: Apr. 13, 2011
Polly Chien / Specialist

APPROVED BY : Gary Chang, DATE: Apr. 13, 2011
Gary Chang / Assistant Manager



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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

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

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

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**.



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2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

For FCC ID: UXX-MBR95

FREQUENCY BAND (MHz)	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/ cm ²)	LIMIT (mW/cm ²)	CPD/LPD
2412-2462	20.9	-2	20	0.015	1.00	0.015

For FCC ID: TARCMU-300 (USB Dongle) 850 Band

MODE	ERP(dBm)	EIRP(dBm)	SOURCE TIME AVERAGE POWER (dBm)	MPE	LIMIT	CPD/LPD
CDMA 850	25.32	27.47	27.47	0.11	0.55	0.20

1900 Band / 2507.5~2684.5MHz

MODE	EIRP(dBm)	SOURCE TIME AVERAGE POWER (dBm)	MPE	LIMIT	CPD/LPD
CDMA 1900	27.8	27.8	0.12	1	0.12
WIMAX 2507.5~2684.5MHz	25.02	25.02	0.06	1	0.06

CONCULSION:

The Product has 1 USB ports to connect 3G device for support 3G function. Transmit simultaneously is evaluated for this product + 1 usb dongle.

The formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 +etc. < 1

CPD = Calculation power density

LPD = Limit of power density

There are many combinations of transmitting simultaneously, only the worst combination will be calculated and mentioned as below:

Maximum CPD/LPD of FCC ID: UXX-MBR95 is 0.015

Maximum CPD/LPD of FCC ID: TARCMU-300 is 0.2

Therefore, maximum MPE is

0.015 + 0.2 = 0.215

Therefore, the maximum calculation of this situation is 0.215, which is less than the “1” limit.