RF EXPOSURE REPORT

REPORT NO.:	SA130911C29A
MODEL NO.:	MR18-HW
FCC ID:	UDX-60026010
RECEIVED:	Sep. 11, 2013
TESTED:	Nov. 04 ~ Dec. 16, 2013
ISSUED:	Dec. 18, 2013

APPLICANT:	Cisco Systems, Inc.
ADDRESS:	170 West Tasman Drive, San Jose, CA 95134

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.

This report should not be used by the client to claim product certification, approval, or endorsement by any government agencies.

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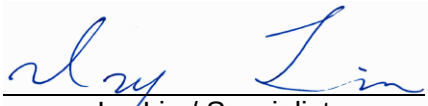
RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA130911C29A	Original release.	Dec. 18, 2013

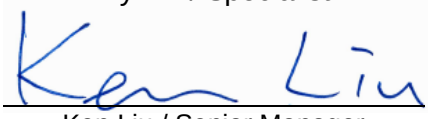
1. CERTIFICATION

PRODUCT:	Wireless 802.11 abgn AP
MODEL:	MR18-HW
BRAND:	Cisco
APPLICANT:	Cisco Systems, Inc.
TESTED:	Nov. 04 ~ Dec. 16, 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: MR18-HW) 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 :  **, DATE :** Dec. 18, 2013

Ivy Lin / Specialist

APPROVED BY :  **, DATE :** Dec. 18, 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

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

where

Pd = power density in mW/cm^2

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

2.3 CLASSIFICATION

The antenna of this product, under normal use condition, is at least 23cm away from the body of the user. So, this device is classified as **Mobile Device**.

2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

RADIO	FREQUENCY BAND (MHz)	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm^2)	LIMIT (mW/cm^2)
1	2412 ~ 2462	29.25	4	23	0.318	1
2	5250 ~ 5350	23.12	4	23	0.078	1
	5470 ~ 5725	23.16	4	23	0.078	1
	5745 ~ 5825	29.79	6	23	0.571	1
3	2412 ~ 2462	25.28	2	23	0.080	1
	5250 ~ 5350	19.88	2	23	0.023	1
	5470 ~ 5725	19.20	2	23	0.020	1
	5745 ~ 5825	20.56	2	23	0.027	1

CONCLUSION:

The formula of calculated the MPE is:

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

CPD = Calculation power density

LPD = Limit of power density

Radio 1 + Radio 2 + Radio 3 = 0.318 + 0.571 + 0.080 = 0.969

Therefore all the maximum calculations of above situations are less than the “1” limit.

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