

RF EXPOSURE REPORT

REPORT NO.: SA980723L08A

MODEL NO.: WES610N

FCC ID: Q87-WES610N

ACCORDING: FCC Guidelines for Human Exposure
IEEE C95.1

APPLICANT: Cisco Consumer Products LLC

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	NA	Mar. 03, 2011

1. 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

2. MPE CALCULATION FORMULA

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

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

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**.

4. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

MODULATION MODE	FREQUENCY BAND (MHz)	MAX CONDUCTED POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
2.4GHz Band						
802.11b	2412 ~ 2462	20.6	3	20	0.046	1
802.11g	2412 ~ 2462	25.3	6	20	0.266	1
802.11n (20MHz)	2412 ~ 2462	21.8	3	20	0.060	1
802.11n (40MHz)	2412 ~ 2462	22.2	3	20	0.065	1
5.0GHz Band						
802.11a	5180 ~ 5320	14.8	8.5	20	0.043	1
802.11n (20MHz)	5180 ~ 5320	12.8	5.5	20	0.013	1
802.11n (40MHz)	5180 ~ 5320	12.5	5.5	20	0.013	1
802.11a	5500 ~ 5700	14.4	8.5	20	0.038	1
802.11n (20MHz)	5500 ~ 5700	12.5	5.5	20	0.013	1
802.11n (40MHz)	5500 ~ 5700	12.8	5.5	20	0.013	1
802.11a	5745 ~ 5825	23.6	8.5	20	0.323	1
802.11n (20MHz)	5745 ~ 5825	23.7	5.5	20	0.165	1
802.11n (40MHz)	5745 ~ 5825	22.6	5.5	20	0.128	1

NOTE:

802.11 g: Directional gain = 3dBi + 10log(2) = 6dBi

802.11 a: Directional gain = 5.5dBi + 10log(2) = 8.5dBi