

# RF Exposure Evaluation Declaration

Product Name : Wireless LAN access Point  
Model No. : H3C WA3620i-AGN; H3C WA3628i-AGN  
FCC ID : O9C-WA3620I  
IC : 2299L-WA3620I

Applicant : Hewlett Packard Corporation  
Address : 350 Campus Drive, Marlborough, MA United States

Date of Receipt : 01/11/2011  
Issued Date : 20/12/2011  
Report No. : 11BS004R-RF-US  
Report Version : V1.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF, NVLAP, NIST or any agency of the Government.

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# Test Report Certification

Issued Date : 20/12/2011

Report No. : 11BS004R-RF-US



Product Name : Wireless LAN access Point  
 Applicant : Hewlett Packard Corporation  
 Address : 350 Campus Drive, Marlborough, MA United States  
 Manufacturer : Hewlett Packard Corporation  
 Address : 350 Campus Drive, Marlborough, MA United States  
 Model No. : H3C WA3620i-AGN; H3C WA3628i-AGN  
 FCC ID : O9C-WA3620I  
 IC : 2299L-WA3620I  
 EUT Voltage : 48Vdc, 0.27A (or POE input)  
 Brand Name : H3C  
 Applicable Standard : FCC OET 65  
 RSS-102: Issue 4, March, 2010  
 Test Result : Complied  
 Performed Location : Suzhou EMC Laboratory  
 No.99 Hongye Rd., Suzhou Industrial Park Loufeng  
 Hi-Tech Development Zone., Suzhou, China  
 TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098  
 FCC Registration Number: 800392; IC Lab Code: 4075B

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 (Engineering Manager: Marlin Chen)

## Laboratory Information

We, **Quietek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted(audited or listed) by the following related bodies in compliance with ISO 17025, EN 45001 and specified testing scope:

<b>Taiwan R.O.C.</b>	<b>: BSMI, NCC, TAF</b>
<b>Germany</b>	<b>: TUV Rheinland</b>
<b>Norway</b>	<b>: Nemko, DNV</b>
<b>USA</b>	<b>: FCC, NVLAP</b>
<b>Japan</b>	<b>: VCCI</b>

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation's Web Site : <http://www.quietek.com/tw/ctg/cts/accreditations.htm>  
 The address and introduction of Quietek Corporation's laboratories can be founded in our Web site : <http://www.quietek.com/>  
 If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

### HsinChu Testing Laboratory :

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 TEL : 886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : [service@quietek.com](mailto:service@quietek.com)



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No. 99 Hongye Rd., Suzhou Industrial Park Loufeng Hi-Tech Development Zone., Suzhou,China.  
 TEL : +86-512-6251-5088 / FAX : +86-512-6251-5098 E-Mail : [service@quietek.com](mailto:service@quietek.com)



## 1. RF Exposure Evaluation

### 1.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

#### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (Minutes)
<b>(A) Limits for Occupational/ Control Exposures</b>				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
<b>(B) Limits for General Population/ Uncontrolled Exposures</b>				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula

Friis transmission formula:  $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = 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

$P_d$  is the limit of MPE, 1 mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

**1.2. Test Procedure**

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

The temperature and related humidity: 18°C and 78% RH.

**1.3. Test Result of RF Exposure Evaluation**

Product	:	Wireless LAN access Point
Test Item	:	RF Exposure Evaluation
Test Site	:	AC-6

**Antenna Gain:**

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 6dBi o for 2.4G and 6.3dBi for 5G.

**Output Power into Antenna & RF Exposure Evaluation Distance:**

Test Mode	Frequency Band (MHz)	Maximum Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
802.11b/g/n	2412~2462	313.3286	0.248159
802.11a/n	5180~5320	46.45150	0.039421
802.11a/n	5500~5580 5660~5700	44.46310	0.037734
802.11a/n	5745~5825	521.1947	0.442314

Note:

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.