



中国认可  
国际互认  
检测  
TESTING  
CNAS L8469

APPLICATION FOR CERTIFICATION

On Behalf of

Hewlett Packard Enterprise  
Server

Model No. : HSTNS-5231  
Brand : HEWLETT PACKARD ENTERPRISE  
FCC ID : 2ARBSEL8000530S

Prepared for

**Hewlett Packard Enterprise**

11445 Compaq Center Dr W Houston TX 77070 United States

Prepared by

**Audix Technology (Wujiang) Co., Ltd. EMC Dept.**

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Report No. : ACWE-F1906008  
Date of Test : May 18~27, 2019  
Date of Report : Jun.13, 2019

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## TEST REPORT CERTIFICATION

Applicant : Hewlett Packard Enterprise  
 Manufacturer : Hewlett Packard Enterprise  
 Factory : Refer to section 3.1  
 EUT Description : Server  
 FCC ID : 2ARBSEL8000530S  
     (A) Model No. : HSTNS-5231  
     (B) Brand : HEWLETT PACKARD ENTERPRISE  
     (C) Power Supply : AC 120V/60Hz  
     (D) Test Voltage : AC 120V/60Hz

The measurement results are contained in this test report and Audix Technology (Wujiang) Co., Ltd. EMC Dept. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this test report shows that the EUT to be technically compliant with the FCC limits.

This test report applies to above tested sample only. This test report shall not be reproduced in part without written approval of Audix Technology (Wujiang) Co., Ltd. EMC Dept.

Date of Test: May 18~27, 2019

Date of Report: Jun.13, 2019

Prepared by :

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(Emma Hu/Assistant Administrator)

Approved & Authorized Signer :

*Ken Lu*

(Ken Lu/Assistant General Manager)



## 1. DESCRIPTION OF VERSION

Edition No.	Date of Rev.	Summary	Report No.
0	Jun.13, 2019	Original Report.	ACWE-F1906008

## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

Description : Server

Model No. : HSTNS-5231

FCC ID : 2ARBSEL8000530S

Brand : HEWLETT PACKARD ENTERPRISE

Applicant : Hewlett Packard Enterprise  
11445 Compaq Center Dr W Houston TX 77070 United States

Manufacturer : Hewlett Packard Enterprise  
11445 Compaq Center Dr W Houston TX 77070 United States

Factory#1 : INVENTEC (PUDONG) TECHNOLOGY CORPORATION  
NO.789, PUXING ROAD, CAOHEJING EXPORT PROCESSING  
ZONE, MINHANG DISTRICT, SHANGHAI, CHINA

Factory#2 : IEC TECHNOLOGIES, S. DE R.L. DE C.V.  
DEL NORTE INDUSTRIAL CENTER #1,BOULEVARD  
INDEPENDENCIA #10150,COL. MUNICIPIO LIBRE, C.P. 32450  
GIUDAD JUAREZ, CHIHUAHUA, MEXICO

Factory#3 : FOXCONN CZ S R O  
KARLOV 245 284 01 KUTNA HORA CZECH REPUBLIC

Factory#4 : HEWLETT PACKARD ENTERPRISE SINGAPORE PTE LTD  
452 ALEXANDRA RD SINGAPORE 119961 SINGAPORE

Factory#5 : ECMMS S A DE C V  
BLVD OSCAR FLORES SANCHEZ 8951 COL PUENTE ALTO  
32690 JUAREZ CHIH MEXICO

Factory#6 : HEWLETT PACKARD ENTERPRISE COMPANY  
100 NORTH CASHMAN DRIVE,CHIPPEWA FALLS, WI 54729,  
USA

Factory#7 : FLEXTRONICS AMERICA, LLC  
12455 RESEARCH BOULEVARD AUSTIN TX 78759 UNITED  
STATES OF AMERICA

Factory#8 : FLEXTRONICS INTERNATIONAL TECNOLOGIA LTDA.  
AV LIBERDADE N6315.BAIRRO IPORANGA SP  
SOROCABA.18087-170 BRAZIL

Factory#9 : NEC PLATFORMS LTD  
1088-3 OTSU-MACHI, KOFU-SHI YAMANASHI, 400-0055  
JAPAN

## 2.2. Antenna Information

Frequency (MHz)	Gain(dBi)
2400-2500	2.38
5150-5250	3.25
5250-5350	3.25
5470-5725	3.78
5725-5850	3.94

## 2.3. EUT Specification Assessed in Current Report

Mode	Fundamental Range (MHz)	Channel Number
802.11b	2412-2462	11
802.11g		
802.11n-HT20		11

Mode	UNII Band	Fundamental Range (MHz)	Channel Number
802.11a	I	5180-5240	4
	II-2A	5260-5320	4
	II-2C	5500-5700	11
	III	5745-5825	5
802.11n-HT20	I	5180-5240	4
	II-2A	5260-5320	4
	II-2C	5500-5700	11
	III	5745-5825	5
802.11n-HT40	I	5190-5230	2
	II-2A	5270-5310	2
	II-2C	5510-5670	5
	III	5755-5795	2

2.4. Description of Test Facility

Name of Firm : **Audix Technology (Wujiang) Co., Ltd. EMC Dept.**

Site Location : No. 1289 Jiangxing East Road, the Eastern Part of Wujiang Economic Development Zone  
Jiangsu China 215200

Test Facilities : **RF Fully Chamber**

NVLAP Lab Code : 200786-0  
Valid until on Sep.30, 2019  
(NVLAP is a signatory member of ILAC MRA)  
Remark: This report shall not be imply endorsement, certification or approval by NVLAP, NIST, or any agency of the U.S. Federal Government.

2.5. Measurement Uncertainty

Test Item	Uncertainty
Maximum Peak Output Power	± 0.12dB

Remark: Uncertainty =  $ku_c(y)$

### 3. SUMMARY OF STADARDS AND RESULTS

#### 3.1. Specification Limits

According to FCC CFR 47 §1.1310, the criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b).

Limits for Maximum Permissible Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (Minutes)
(A) Limits For Occupational / Control Exposures (f = frequency)				
30-300	61.4	0.163	1.0	6
300-1500	...	...	f/300	6
1500-100,000	...	...	5.0	6
(B) Limits For General Population / Uncontrolled Exposure (f = frequency)				
30-300	27.5	0.073	0.2	30
300-1500	...	...	f/1500	30
1500-100,000	...	...	1.0	30

NOTE: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

#### 3.2. MPE Calculator Method

$$S = PG/(4 R^2)$$

$$R = [PG/(4 S)]^{0.5}$$

where: S = power density (in appropriate units, e.g. mW/ cm<sup>2</sup>)

P = power input to the antenna (in appropriate units, e.g., mW) (the measured power value see Report: F12124 Section 6.6)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)



## 3.3. Calculated Result

## WIFI 2.4GHz MPE

Based on safety distance (r)=	20cm
Highest Power Output (P)=	15.17dBm= <b>32.89</b> mW
Antenna Gain (G)=	2.38dBi= <b>1.73</b> Numerical
MPE (S) = (P*G) / (4* $\pi$ *r <sup>2</sup> ) =	= ( <b>32.89*1.73</b> )/(4* $\pi$ * <b>20</b> <sup>2</sup> )= <b>0.01133</b> mW/cm <sup>2</sup>

## WIFI 5GHz MPE

Based on safety distance (r)=	20cm
Highest Power Output (P)=	14.03dBm=25.29mW
Antenna Gain (G)=	3.78dBi=2.38Numerical
MPE (S) = (P*G) / (4* $\pi$ *r <sup>2</sup> ) =	= ( <b>25.29*2.38</b> )/(4* $\pi$ * <b>20</b> <sup>2</sup> )=0.01198mW/cm <sup>2</sup>