



BUREAU
VERITAS

Test Report No.: FS171207N043

RF EXPOSURE REPORT

Applicant	TCL Technoly Electronics(Huizhou) Co.,Ltd.
Address	Section 37, Zhongkai High-tech Development Zone, Huizhou City, Guang Dong Province, China, 516006.

Manufacturer or Supplier	HP Inc.
Address	1501 Page Mill Road, Palo Alto, CA94304, USA
Product	HP Pavilion IQ
Brand Name	HP
Model	HSA-T001S
Additional Model & Model Difference	N/A
Date of tests	Dec. 07, 2017 ~ Jan. 16, 2018

- FCC Part 2 (Section 2.1091)
- KDB 447498 D01
- IEEE C95.1

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Tested by Andy Zhu
Project Engineer / EMC Department

Approved by Glyn He
Supervisor/ EMC Department

Date: Jan. 26, 2018

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification

Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch

No. 34, Chenwulu Section, Guantai Rd., Houjie
Town, Dongguan City,
Guangdong 523942, China

Tel: +86 769 8593 5656
Fax: +86 769 8593 1080
Email: customerservice.dg@cn.bureauveritas.com



**BUREAU
VERITAS**

Test Report No.: FS171207N043

TABLE OF CONTENTS

RELEASE CONTROL RECORD	3
1. CERTIFICATION.....	4
2. RF EXPOSURE LIMIT	5
3. MPE CALCULATION FORMULA.....	5
4. CLASSIFICATION.....	5
5. ANTENNA GAIN	6
6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER.....	6



**BUREAU
VERITAS**

Test Report No.: FS171207N043

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FS171207N043	Original release	Jan. 26, 2018

**Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch**

No. 34, Chenwulu Section, Guantai Rd., Houjie
Town, Dongguan City,
Guangdong 523942, China

Tel: +86 769 8593 5656
Fax: +86 769 8593 1080
Email: customerservice.dg@cn.bureauveritas.com



**BUREAU
VERITAS**

Test Report No.: FS171207N043

1. CERTIFICATION

FCC ID:	ZVA-OH000011
PRODUCT:	HP Pavilion IQ
BRAND NAME:	HP
MODEL NO.:	HSA-T001S
ADDITIONAL NO.:	N/A
APPLICANT:	TCL Technoly Electronics(Huizhou) Co.,Ltd.
STANDARDS:	FCC Part 2 (Section 2.1091)
	KDB 447498 D01
	IEEE C95.1

**Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch**

No. 34, Chenwulu Section, Guantai Rd., Houjie
Town, Dongguan City,
Guangdong 523942, China

Tel: +86 769 8593 5656
Fax: +86 769 8593 1080
Email: customerservice.dg@cn.bureauveritas.com



2. 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

3. 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

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

4. 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**.



5. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

Transmitter Circuit	Peak Gain (dBi)	Antenna Type
Chain 0	3.7	FPCB Antenna

6. CALCULATION RESULT OF MAXIMUM CONDUCTED AV POWER

The tuned conducted Average Power (declared by client)

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
GFSK	2402-2480	6	+ -2	4	8
8DPSK	2402-2480	5	+ -2	3	7
BT-LE	2402-2480	6	+ -2	4	8
802.11b	2412-2462	15	+ -2	13	17
802.11g	2412-2462	15	+ -2	13	17
802.11n(HT20)	2412-2462	14	+ -2	12	16

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBm)
GFSK	2441	7.49
8DPSK	2402	5.61
BT-LE	2402	6.47
802.11b	2462	16.28
802.11g	2462	15.63
802.11n(HT20)	2462	14.13



FREQUENCY BAND (MHz)	MAX AVERAGE POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
BT	8	3.7	20	0.002943	1.0
BT-LE	7	3.7	20	0.002337	1.0
WIFI 2.4GHz	17	3.7	20	0.023374	1.0

CONCLUSION:

Both of the WLAN 2.4GHz and BT can transmit simultaneously, the formula of calculated the MPE is:

CPD₁ / LPD₁ + CPD₂ / LPD₂ +etc. < 1

CPD = Calculation power density

LPD = Limit of power density

Therefore, the worst-case situation is 0.002943 / 1 + 0.023374 / 1= **0.026317**, which is less than “1”. This confirmed that the device comply with FCC 1.1310 MPE limit.

--- END ---