RF Exposure Report

Report No.:	SA180731C10
FCC ID:	E2K-E42W001
Test Model:	E42W001
Series Model:	E42W, VEP1400
Received Date:	Jul. 31, 2018
Test Date:	Aug. 13 ~ Aug. 27, 2018
Issued Date:	Aug. 28, 2018
Applicant:	Dell Inc.
Address:	One Dell Way, Round Rock, Texas 78682, USA
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lab Address:	No. 47-2, 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 Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)
FCC Registration / Designation Number:	788550 / TW0003

Table of Contents

Release Control Record

Issue No.	Description	Date Issued
SA180731C10	Original release.	Aug. 28, 2018

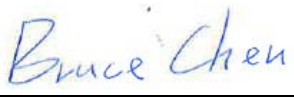
1 Certificate of Conformity

Product:	Automatic data processing machines
Brand:	DELL or Dell EMC
Test Model:	E42W001
Series Model:	E42W, VEP1400
Sample Status:	Mass production
Applicant:	Dell Inc.
Test Date:	Aug. 13 ~ Aug. 27, 2018
Standards:	FCC Part 2 (Section 2.1091) KDB 447498 D01 General RF Exposure Guidance v06 IEEE C95.1-1992

The above equipment 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 RF characteristics under the conditions specified in this report.

Prepared by :  , **Date:** Aug. 28, 2018

Suntee Liu / Specialist

Approved by :  , **Date:** Aug. 28, 2018

Bruce Chen / Project Engineer

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 20cm away from the body of the user. So, this device is classified as Mobile Device.

3 Calculation Result of Maximum Conducted Power

Function	Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
BT LE	2402~2480	4.80	2.1	20	0.001	1
WLAN	2412~2462	24.22	6.4	20	0.229	1
WLAN	5180~5240	21.85	3.8	20	0.073	1
WLAN	5260~5320	22.89	3.8	20	0.093	1
WLAN	5500~5700	22.91	4.3	20	0.105	1
WLAN	5745~5825	24.63	5.2	20	0.191	1
WCDMA Band 2 & LTE Band 2	1850~1910	23.64	1.75	20	0.069	1
WCDMA Band 4	1710~1755	23.45	1.75	20	0.066	1
WCDMA Band 5 & LTE Band 5	824~849	23.51	1	20	0.056	0.549
LTE Band 4	1710~1755	23.99	1.75	20	0.075	1
LTE Band 7	2500~2570	22.93	3.5	20	0.087	1
LTE Band 12	699~716	23.99	1	20	0.063	0.466
LTE Band 13	777~787	23.93	1	20	0.062	0.518
LTE Band 25	1850~1915	23.99	1.75	20	0.075	1
LTE Band 26	814~849	23.98	1	20	0.063	0.543
LTE Band 30	2305~2315	22.95	0.3	20	0.042	1
LTE Band 41	2496~2690	22.95	3.5	20	0.088	1

Conclusion:
The formula of calculated the MPE is:
CPD1 / LPD1 + CPD2 / LPD2 + ……etc. < 1
CPD = Calculation power density
LPD = Limit of power density

Max. BT + WLAN + WWAN = 0.001/1 + 0.229/1 + 0.063/0.466 = 0.365 < 1

---END---