



# RF EXPOSURE REPORT

**REPORT NO.:** SA140612E02  
**MODEL NO.:** DWA-582  
**FCC ID:** KA2WA582A1  
**RECEIVED:** June 12, 2014  
**TESTED:** June 17 to 26, 2014  
**ISSUED:** July 17, 2014

**APPLICANT:** D-Link Corporation

**ADDRESS:** No.289, Sinhu 3rd Rd., Neihu District,  
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**ISSUED BY:** Bureau Veritas Consumer Products Services  
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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA140612E02	Original release	July 17, 2014

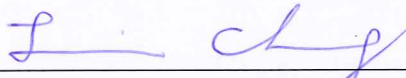


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## 1. CERTIFICATION

**PRODUCT:** Wireless AC1200 Dual Band PCI Express Adapter  
**BRAND NAME:** D-Link  
**MODEL NO.:** DWA-582  
**TEST SAMPLE:** ENGINEERING SAMPLE  
**APPLICANT:** D-Link Corporation  
**TESTED DATE:** June 17 to 26, 2014  
**STANDARDS:** FCC Part 2 (Section 2.1091)  
FCC OET Bulletin 65, Supplement C (01-01)  
IEEE C95.1

The above equipment (Model: DWA-582) 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 EMC characteristics under the conditions specified in this report.

**PREPARED BY** :  , **DATE:** July 17, 2014  
( Lori Chung, Specialist )

**APPROVED BY** :  , **DATE:** July 17, 2014  
( May Chen, Manager )

## 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 <sup>2</sup> )	AVERAGE TIME (minutes)
<b>LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE</b>				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

### 3. MPE CALCULATION 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

### 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:

Antenna No.	Transmitter Circuit	Antenna Gain(dBi) < including cable loss>	Frequency range (GHz ~ GHz)	Antenna Type	Connector Type
1	Chain (0)	3.5	2.4~2.4835	Dipole	R-SMA
		4.5	5.15~5.850		
2	Chain (1)	3.5	2.4~2.4835	Dipole	R-SMA
		4.5	5.15~5.850		

## 6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

For WLAN: 15.247(2.4GHz)

### 802.11b

FREQUENCY (MHz)	CONDUCTED POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
2412 - 2462	126.183	3.50	20	0.05620	1.00

### 802.11g

FREQUENCY (MHz)	CONDUCTED POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
2412 - 2462	430.527	3.50	20	0.19175	1.00

### 802.11n (HT20)

FREQUENCY BAND (MHz)	CONDUCTED POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
2412 - 2462	738.584	3.50	20	0.32895	1.00

### 802.11n (HT40)

FREQUENCY BAND (MHz)	CONDUCTED POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
2422 - 2452	483.42	3.50	20	0.21530	1.00



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### For WLAN: 15.407(5GHz)

#### 802.11a

FREQUENCY (MHz)	CONDUCTED POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
5180 - 5240, 5260 - 5320, 5470 - 5600, 5650 - 5725 & 5745 - 5825	191.867	4.50	20	0.10758	1.00

#### 802.11ac (VHT20)

FREQUENCY (MHz)	CONDUCTED POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
5180 - 5240, 5260 - 5320, 5470 - 5600, 5650 - 5725 & 5745 - 5825	236.671	4.50	20	0.13270	1.00

#### 802.11ac (VHT40)

FREQUENCY (MHz)	CONDUCTED POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
5190 - 5230, 5270 - 5310, 5510-5550, 5670 & 5755 - 5795	135.001	4.50	20	0.07569	1.00

#### 802.11ac (VHT80)

FREQUENCY (MHz)	CONDUCTED POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
5210 - 5290, 5530 & 5775	31.959	4.50	20	0.01792	1.00

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