

## RF EXPOSURE REPORT

**REPORT NO.:** SA110927C30

MODEL NO.: DWL-6600AP

FCC ID: KA2WL6600APA1

**RECEIVED:** Jul. 25, 2011

**TESTED:** Jul. 25 ~ Nov. 01, 2011

**ISSUED:** Nov. 07, 2011

**APPLICANT:** D-Link Corporation

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U.S.A.

**ISSUED BY:** Bureau Veritas Consumer Products Services (H.K.)

Ltd., Taoyuan Branch

LAB ADDRESS: No. 47, 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 Tsuen, Kwei

Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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Report No.: SA110927C30 1 Report Format Version 4.0.0



# **TABLE OF CONTENTS**

RELE	EASE CONTROL RECORD	3
1.	CERTIFICATION	4
2.	RF EXPOSURE	5
2.1	LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)	5
2.2	MPE CALCULATION FORMULA	5
2.3	CLASSIFICATION	5
2.4	CALCULATION RESULT OF MAXIMUM CONDUCTED POWER	6



### **RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	N/A	Nov. 07, 2011

Report No.: SA110927C30 3 Report Format Version 4.0.0



#### 1. CERTIFICATION

**PRODUCT:** Unified Concurrent Dual-band Access Point

MODEL: DWL-6600AP

**BRAND:** D-Link

**APPLICANT:** D-Link Corporation

**TESTED:** Jul. 25 ~ Nov. 01, 2011

TEST SAMPLE: ENGINEERING SAMPLE

STANDARDS: FCC Part 2 (Section 2.1091)

FCC OET Bulletin 65, Supplement C (01-01)

**IEEE C95.1** 

The above equipment (model: DWL-6600AP) 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 : Nov. 07, 2011

Joanna Wang / Senior Specialist

APPROVED BY : ( ), DATE : Nov. 07, 2011

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#### 2. RF EXPOSURE

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

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)		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\*r2)

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

#### 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**.



#### 2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

FREQUENCY BAND (MHz)	MODULATION MODE	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm²)	LIMIT (mW/cm²)
	802.11b	22.7	3.47	20	0.082	1
2412-2462	802.11g	26.9	6	20	0.388	1
2412-2402	802.11n (20MHz)	28.0	6	20	0.500	1
	802.11n (40MHz)	27.3	6	20	0.425	1
	802.11a	14.2	8	20	0.033	1
5180-5240	802.11n (20MHz)	14.3	8	20	0.034	1
	802.11n (40MHz)	14.6	8	20	0.036	1
	802.11a	24.9	8	20	0.388	1
5745-5825	802.11n (20MHz)	24.7	8	20	0.370	1
	802.11n (40MHz)	25.6	8	20	0.456	1

#### NOTE:

Antenna gain for Internal and External antenna

#### **Internal antenna**

Frequency band (GHz)	Gain of TX antenna 1 (dBi)	Gain of TX antenna 2 (dBi)	Total gain (dBi)
2.4	3.47	2.23	5.88
5.2	1.43	4.09	5.87
5.8	4.19	5.23	7.74

#### **External antenna**

Frequency band (GHz)	Gain of TX antenna 1 (dBi)	Gain of TX antenna 2 (dBi)	Total gain (dBi)
2.4	3	3	6
5.2	5	5	8
5.8	5	5	8

Highest antenna gain for each frequency band is selected to calculate power density.



#### **CONCULSION:**

Both of the WLAN 2.4G & 5.0G 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

WLAN 2.4G + WLAN 5.0G = 0.500 + 0.456 = 0.956

Therefore, the maximum calculation of this situation is 0.956, which is less than the "1" limit.