



RF EXPOSURE REPORT

REPORT NO.: SA110914C18

MODEL NO.: DIR-857MO1

FCC ID: KA2IR857MO1

RECEIVED: Sep. 07, 2011

TESTED: Sep. 17 ~ Oct. 27, 2011

ISSUED: Oct. 28, 2011

APPLICANT: D-Link Corporation

ADDRESS: 17595 Mt. Herrmann, Fountain Valley, CA
92708, 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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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	NA	Oct. 28, 2011



1. CERTIFICATION

PRODUCT: HD Media Router 3000
MODEL: DIR-857MO1
BRAND: D-Link
APPLICANT: D-Link Corporation
TESTED: Sep. 17 ~ Oct. 27, 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: DIR-857MO1) 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 : Andrea Hsia , DATE : Oct. 28, 2011
Andrea Hsia / Specialist

APPROVED BY : Gary Chang , DATE : Oct. 28, 2011
Gary Chang / Assistant Manager

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

$$P_d = (P_{out} * G) / (4 * \pi * r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 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 25cm 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/cm ²)	LIMIT (mW/cm ²)
2412-2462	802.11b	26.1	7.8	25	0.313	1
	802.11g	28.1	7.8	25	0.495	1
	802.11n (20MHz)	28.1	7.8	25	0.495	1
	802.11n (40MHz)	27.9	7.8	25	0.473	1
5180-5240	802.11a	14.4	7.8	25	0.021	1
	802.11n (20MHz)	14.5	7.8	25	0.022	1
	802.11n (40MHz)	15.1	7.8	25	0.025	1
5745-5825	802.11a	27.9	7.8	25	0.473	1
	802.11n (20MHz)	28.0	7.8	25	0.484	1
	802.11n (40MHz)	28.0	7.8	25	0.484	1

NOTE: Directional gain = 3dBi + 10log(3)=7.8dBi

CONCLUSION:

Both of the WLAN 2.4G & 5.0G can transmit simultaneously, the formula of calculated the MPE is:

$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$

CPD = Calculation power density

LPD = Limit of power density

1. WLAN 2.4G + WLAN 5.0G = 0.495 + 0.484 = 0.979.

Therefore, the maximum calculation of this situation is 0.979, which is less than the "1" limit.