

RF Exposure Report

Report No.: SA180131D03 R2

FCC ID: KA2CS2800LHA1

Test Model: DCS-2800LH

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Issued Date: May 10, 2018

Applicant: D-Link Corporation

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Release Control Record

Issue No.	Description	Date Issued
SA180131D03	Original release.	Mar. 2, 2018
SA180131D03 R1	Modify product name	Mar. 28, 2018
SA180131D03 R2	Modify Modulation Type from Z-Wave to FSK	May 10, 2018

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				
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	f/1500	30
1500-100,000	1.0	30

f = Frequency in MHz ; *Plane-wave equivalent power density

2.2 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

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)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412-2462	23.65	1.93	20	0.0719	1
922	-17.78	-	20	0.0000033	0.61

Max Power (dBm): 77.42dBuV/m=-17.78dBm

The formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 +etc. < 1

CPD = Calculation power density

LPD = Limit of power density

WLAN + FSK = 0.0719+0.0000033=0.0719033

Therefore the maximum calculations of above situations are less than the “1” limit.

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