Report No.:	SA180307E03A
FCC ID:	KA2CHG601A1
Test Model:	DCH-G601
Received Date:	Mar. 07, 2018
Test Date:	Mar. 19, 2018
Issued Date:	Apr. 24, 2018
Applicant:	D-Link Corporation
Address:	No.289, Xinhu 3rd Rd., Neihu District, Tapei City 11494, Taiwan
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
Test Location:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
FCC Registration / Designation Number:	723255 / TW2022

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Release Control Record

Issue No.	Description	Date Issued
SA180307E03A	Original release.	Apr. 24, 2018

1 Certificate of Conformity

Product:	LTE Bluetooth Hub
Brand:	D-Link
Test Model:	DCH-G601
Sample Status:	ENGINEERING SAMPLE
Applicant:	D-Link Corporation
Test Date:	Mar. 19, 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 EMC characteristics under the conditions specified in this report.

Prepared by : _____ , **Date:** Apr. 24, 2018

Wendy Wu / Specialist

Approved by : _____ , **Date:** Apr. 24, 2018

May Chen / 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				
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/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**.

2.4 Antenna Gain

WLAN & Bluetooth					
Ant No.	Model	Antenna Gain (dBi)	Frequency rang (GHz)	Antenna type	Connector type
1	290-20327	1.6	2.4~2.4835	PIFA	NA
2	C037-511302-A	4.55	2.4~2.4835	PIFA	NA
Note: Ant No. 2 was selected as representative antenna for the final test.					

WWAN						
Ant No.	Model	Antenna Gain (dBi)	Frequency rang	Antenna type	Connector type	*Cable Length (mm)
1 (Aux)	290-328	0.15	699~894MHz	PCB	i-pex(MHF)	88.7
		5.58	1.71~2.16GHz			
2 (Main)	290-329	0.39	699~894MHz	PCB	i-pex(MHF)	43.7
		4.38	1.71~2.16GHz			
Note: The WWAN mode will fix transmission on Antenna No.: 2.						

2.5 Calculation Result of Maximum Conducted Power

WLAN

Frequency (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
2412-2462	70.795	4.55	20	0.04015	1

BT-EDR

Frequency (MHz)	Max. Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
2402-2480	18.621	4.55	20	0.01056	1

BT-LE

Frequency (MHz)	Max. Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
2402-2480	18.621	4.55	20	0.01056	1

3G/LTE (LTE Band 4)

Frequency (MHz)	Max. Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
1710-1755	316.228	4.38	20	0.17248	1

NOTE: 1. This power include tune-up tolerance range that specified in DCH-G601 Tune Up power table

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Conclusion:

The formula of calculated the MPE is:

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

CPD = Calculation power density

LPD = Limit of power density

WLAN 2.4GHz + 3G/LTE = 0.04015 / 1 + 0.17248 / 1 = 0.21263

Bluetooth + 3G/LTE = 0.01056 / 1 + 0.17248 / 1 = 0.18304

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