

## RF Exposure Report

**Report No.:** FCC\_RF\_SL19081501-DGC-003\_BLE\_MPE

**FCC ID:** UJV-DIGBT

**Test Model:** 410BT

**Series Model:** BOHE-BT, BOHE-BTI, 410BT-000, 410BT-MVA, 410BT-ASV, 410BT-000, 410BT-075, 410BT-075BSP, 410BT-100, 410BT-100BSP, 410BT-150, 410BT-150BSP, 410BT-200, 410BT-200BSP

**Received Date:** 08/15/2019

**Test Date:** 10/30/2019 – 11/6/2019

**Issued Date:** 11/27/2019

**Applicant:** DIG Corporation

**Address:** 1210 Activity Drive, Vista, CA 92081 USA

**Manufacturer:** DIG Corporation

**Address:** 1210 Activity Drive, Vista, CA 92081 USA

**Issued By:** Bureau Veritas Consumer Products Services, Inc.

**Lab Address:** 775 Montague Expressway, Milpitas, CA 95035

**Test Location (1):** 775 Montague Expressway, Milpitas, CA 95035

**FCC Registration /  
Designation Number:** 540430



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### Release Control Record

Issue No.	Description	Date Issued
FCC_RF_SL19081501-DGC-003_BLE_MPE	Original Release	11/27/2019

## 1 Certificate of Conformity

**Product:** DIG Irrigation Timer w/ BT

**Brand:** DIG BT

**Test Model:** 410BT

**Series Model:** BOHE-BT, BOHE-BTI, 410BT-000, 410BT-MVA, 410BT-ASV, 410BT-000, 410BT-075, 410BT-075BSP, 410BT-100, 410BT-100BSP, 410BT-150, 410BT-150BSP, 410BT-200, 410BT-200BSP

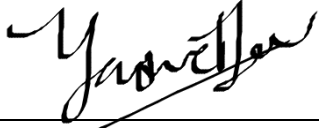
**Identification Number of EUT :** 3518, 4318

**Sample Status:** Engineering sample

**Applicant:** DIG CORPORATION

**Standards:** FCC Part 2 (Section 2.1093)  
KDB 447498 D01 General RF Exposure Guidance v06  
IEEE C95.1-1992

The above equipment has been tested by **Bureau Veritas Consumer Products Services, Inc., Milpitas 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:** 11/27/2019  
Yao-Wei Lee / Test Engineer

**Approved by :**  , **Date:** 11/27/2019  
Chen Ge / Engineer Reviewer

## 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 <sup>2</sup> )	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 <sup>2</sup> )*	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

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

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

### 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

The antenna type is an integrated antenna with 1.5 dBi gain.

## 2.5 Calculation Result of Maximum Conducted Power

Frequency Band (MHz)	Max Power (dBm)	Max Power (mW)	Tune-Up Tolerance	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2402-2480	2.54	1.795	± 1dB	1.6	20	0.000650	1

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. Calculate the Power Density thresholds from condition “1” formulas.

## 3 Conclusion

### Conclusion:

The formula of calculated the MPE is:

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

CPD = Calculation power density

LPD = Limit of power density

$$BT\_LE = 0.000650 < 1$$

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

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