

## RF EXPOSURE ANALYSIS

<b><u>Product</u></b> Bluetooth module	<b><u>FCC ID</u></b> QOQWT41E	<b><u>IC number</u></b> 5123A-BGTWT41E
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WT41-E is a class 1 Bluetooth module containing all the necessary elements from Bluetooth® radio to antenna and a fully implemented protocol stack. Therefore WT41 provides an ideal solution for developers who want to integrate Bluetooth technology into their design. Module can be operated with batteries or DC power supply.

### **Analysis for FCC**

The equipment transmits in the 2 402 – 2 480 MHz frequency range and therefore the applicable threshold is calculated as stated in FCC document KDB 447498 by using the formula  $\frac{60}{f}$  (where f is a highest frequency in used)  $\frac{60}{2.48} = 24.19mW$

### **Output power considerations:**

Max. E.I.R.P value: 18.08 dBm = 64.3 mW  
(Value is taken from the test report number: 264152-11. Value contains conducted output power and antenna gain.)

### **RF exposure evaluation:**

$$S = \frac{P * G}{4\pi R^2} = \frac{E.I.R.P}{4\pi R^2}$$

E.I.R.P (dB)	E.I.P.R (mW)	Evaluation distance (cm)	S – power density (mW/cm <sup>2</sup> )
<b>18.08</b>	<b>64.3</b>	<b>20</b>	<b>0.021</b>

### **Analysis for IC**

According to standard RSS-102, RF exposure analysis is required for devices operating at or above 1.5 GHz if the maximum E.I.R.P. of the device is 5.0 W or more. Therefore RF exposure analysis is not required for this device.

### **Result:**

Equipment complies with the FCC and IC limits for maximum permissible exposure