



RF EXPOSURE ANALYSIS

<u>Product</u>	<u>FCC ID</u>	<u>IC number</u>
Bluetooth module	QOQWT11I	5123A-BGTWT11I

WT11I is a class 1 Bluetooth module containing all the necessary elements from Bluetooth® radio to antenna and a fully implemented protocol stack. Therefore WT11I 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) $\frac{60}{2.48} = 24.19 \text{ mW}$

Output power considerations:

Max. E.I.R.P value: 20.75 dBm = 118,85 mW

(Value is taken from the test report number: 265927-1. 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 ²)
20.75	118.9	20	0.024

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