

BABT TCB
 Balfour House,
 Churchfield Road,
 Walton-on-Thames,
 Surrey,
 KT12 2TD

RF EXPOSURE ANALYSIS

<u>Product</u>	<u>FCC ID</u>	<u>IC</u>
Team2 Base Station	INWU6	6248A-N8

The product **Team2 Base Station** is designed to be used as an access point. This transmitter must be installed to provide a separation distance of at least 20 cm from all persons.

The table below is excerpted from Table 1B of 47 CFR 1.1310 titled Limits for Maximum Permissible Exposure (MPE), Limits for General Population/Uncontrolled Exposure:

Frequency Range (MHz)	Power density ($\frac{mW}{cm^2}$)	Averaging time (minutes)
300 – 1500	$\frac{f(MHz)}{1500}$	30
1500 – 100.000	1.0	30

The table below is excerpted from item 4.2 of RSS-102 Issue 3, titled RF Field Strength Limits for Devices Used by the General Public:

Frequency Range (MHz)	Power density ($\frac{W}{m^2}$)	Averaging time (minutes)
300 – 1500	$f(MHz) / 150$	6
1500 – 100.000	10	6

The equipment **Team2 Base Station** transmits in the 2400 - 2483.5 MHz frequency range, so the applicable MPE limit is 1 mW/cm².

The equipment is provided with 4 Bluetooth modules WT11 (FCC ID: QQQWT11) and one WLAN module (FCC ID: NDD9573180818).

Under the conditions stated above MPE limits can be guaranteed as the calculation below shows:

Output power considerations:

Maximum e.i.r.p. for the Bluetooth module: 13.47 dBm = 22.23 mW
 (Source: Report #: EF/2006/20016)

Maximum e.i.r.p. for the WLAN module: 24.45 dBm = 278.61 mW

RF Exposure Evaluation:

Using Equation from page 18 of OET Bulletin 65, Edition 97-01:

$$S = P \cdot G / 4\pi R^2 = \text{e.i.r.p.} / 4\pi R^2$$

Where,

S = power density in mW/cm²

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the centre of radiation of the antenna in cm (20 cm Prediction distance)

We obtain the following results:

Source	EIRP (dB)	EIRP (mW)	R - Evaluation distance (cm)	S – Power density (mW/cm ²)
BT module	13.47	22.23	20	0,00442
4 BT modules	19.49	88.93	20	0,01769
WLAN module	24.45	278.61	20	0,05543
TOTAL	25.65	367.54	20	0,07312

Conclusion:

The device *Team2 Base Station* complies with the FCC and IC limits for Maximum Permissible Exposure.