Product name: UIW4010TCH Manufacturer: **TECHNICOLOR** FCC Id: G95-UIW4010TCH

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

Prediction of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

where: S = power density

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 center of radiation of the antenna

Transmitter n°1 (Wi-Fi: 2400-2483,5 MHz)

17.11 (dBm) Maximum peak output power at the antenna terminal: Maximum peak output power at the antenna terminal: 51.40436516 (mW) 3.9 (dBi) Antenna gain(typical): 2.454708916 (numeric) Maximum antenna gain: Prediction distance: 20 (cm) Prediction frequency: 2412 (MHz) MPE limit for uncontrolled exposure at prediction frequency: 1 (mW/cm^2)

> Power density at prediction frequency: 0.025103 (mW/cm^2)

Note: Transmitter n°1 includes 2 antennas for 2.4GHz

Equivalent maximum gain for the 2 combinated antenna is equal to 3,9dBi

17,11 dBm is the maximum power delivered to the 2 combinated antennas

Transmitter n°2 (Wi-Fi: 5150-5850 MHz)

Maximum peak output power at the antenna terminal: 16.60 (dBm) 70<u>881896</u> (mW) Maximum peak output power at the antenna terminal: Antenna gain(typical): 5.7 (dBi) Maximum antenna gain: 291 (numeric) Prediction distance: 20 (cm) Prediction frequency: 5150 (MHz) MPE limit for uncontrolled exposure at prediction frequency: 1 (mW/cm^2)

Power density at prediction frequency: 0.033785 (mW/cm^2)

Note: Transmitter n°2 includes 2 antennas for 5150-5850 MHz band Equivalent maximum gain for these 2 combinated antennais equal to 5,7dBi 16,6 dBm is the maximum power delivered to the 2 combinated antennas

Transmitter n°4 (Bluetooth EDR: 2400-2483,5 MHz)

2.77 (dBm) Maximum peak output power at the antenna terminal: Maximum peak output power at the antenna terminal: 3619 (mW) 5.4 (dBi) Antenna gain(typical): Maximum antenna gain: 68505 (numeric) Prediction distance: 20 (cm) Prediction frequency: 2402 (MHz) MPE limit for uncontrolled exposure at prediction frequency: 1 (mW/cm^2)

Power density at prediction frequency: 0.001305 (mW/cm^2)

Transmitter n°4 (Bluetooth LE: 2400-2483,5 MHz)

Maximum peak output power at the antenna terminal: 2.33 (dBm) Maximum peak output power at the antenna terminal: 1.710015315 (mW) 5.4 (dBi) Antenna gain(typical): Maximum antenna gain: 8505 (numeric) Prediction distance: 20 (cm) Prediction frequency: 2402 (MHz) MPE limit for uncontrolled exposure at prediction frequency: 1 (mW/cm^2)

> 0.001180 (mW/cm^2) Power density at prediction frequency:

Transmitter n°1 + Transmitter n°2 + Transmitter n°3 + Transmitter n°4 :

[Pd(1)/LPd(1)] + [Pd(2)/LPd(2)] + [Pd(3)/LPd(3)] + [Pd(4)/LPd(4)] = 0.06137