FCC: VC3-R100V3
IC: 7160A-R100V3

Power Density of BT Module

Prediction of MPE limit at a given distance

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

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

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

Maximum peak output power at the antenna terminal:	-2.00	(dBm)
Maximum peak output power at the antenna terminal:	0.630957344	(mW)
Antenna gain(typical):	1.1	(dBi)
Maximum antenna gain:	1.288249552	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	2450	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	1	(mW/cm^2)
Power density at prediction frequency:	0.000162	(mW/cm^2)

Power Density of Zigbee Module

Prediction of MPE limit at a given distance

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

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

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

Maximum peak output power at the antenna terminal:	2.15	(dBm)
Maximum peak output power at the antenna terminal:	1.640589773	(mW)
Antenna gain(typical):	3.45	(dBi)
Maximum antenna gain:	2.21309471	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	2450	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	1	(mW/cm^2)
Power density at prediction frequency:	0.000722	(mW/cm^2)

Simultaneous collocated transmission:

0.000162/1 + 0.000722/1 < 1

The summation of the individual Power Density ratios is less than one, therefore the simultaneous collocated transmitters meet the MPE requirement for multiple transmitters.