

## **RF EXPOSURE EVALUATION**

Equipment under test: Microcontroller JN5169-001-M00 with connection ZIGBEE

Test report reference: RC-030-PTC-15-100225-2-A

## **MPE** calculation

These equations are generally accurate in the far field of an antenna but will over predict power density in the near field, where they could be used for making a "worst case" prediction.

## $S = PG/4\pi R^2$

Where: S = power density (in appropriate units, e.g. mW/cm<sup>2</sup>)

P = power input to the antenna (in appropriate units e.g. mW)

- G = power gain of the antenna in the direction of interest relative to the isotropic radiator
- R = distance to the centre of radiation of the antenna (appropriate units e.g. cm)

Or

## $S = EIRP/4\pi R^2$

Where EIRP = equivalent isotropically radiated power

Calculation:

(Calculated for max. EIRP)

EIRP: 13.15 dBm (20.65 mW)

Calculated at distance of 20 cm:

Power density = 0.004108 mW/cm<sup>2</sup>

Limit:

1mW/cm<sup>2</sup> is the reference level for general public exposure according to the OET Bulletin 65. Edition 97-01 Table1



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