## **MPE Calculation FCC ID: SDNTA-387**

Remark: Average ≤ Peak, which means that calculating the power density (general population) applying Peak power (where possible) as worst case. The worst case operation mode generating the highest power in each frequency range is taken for calculation.

Bluetooth 2.1+EDR 79Ch FHSS (GFSK, pi4-DQPSK, 8-DPSK) Mid Channel at 2441 MHz

```
Frequency Range:
                      2402 - 2480
                                       MHz
                                               ; User distance: d
                                                                    =
                                                                           20 cm
                                                  Duty Cycle
Power Density limit in this band (lowest Frequency)
                                                                         1.00 mW/cm<sup>2</sup>
Maximum measured Peak Power P(conducted)
                                                  0.768 dBm
                                                                         1.19 mW
Antenna Gain: G =
                      0
                           dBi equals
                                         1.00
                                                 linear
P(rad) = P(cond) + G(linear) =
                          0.77 + 0.00 =
                                                      0.77 dBm
                                                                         1.19 mW
Power Density S = P(rad) / (4*pi*d^2) = 1.19 / 5026.55 = 0.0002 <
                                                                         1.00 mW/cm<sup>2</sup>
```

Conclusion: At 20cm, the Power Density is far under the limit, PASS