

# FCC ID: S7JNX16W10232

## Portable device

According to §15.247(e)(i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to KDB447498 D01 General RF Exposure Guidance V05

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})]^*$

$[\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where

$f(\text{GHz})$  is the RF channel transmit frequency in GHz;

Power and distance are rounded to the nearest mW and mm before calculation;

The result is rounded to one decimal place for comparison;

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

We use 5mm as separation distance to calculate.

Maximum measured transmitter power:

802.11b/g/n HT20/n HT40:

| Transmit Frequency (GHz) | Mode     | Max Conducted Power (dBm) | tune up maximum power | Result calculation | 1-g SAR |
|--------------------------|----------|---------------------------|-----------------------|--------------------|---------|
| 2.412                    | 11b      | 8.70                      | 6.7dBm-8.7dBm         | 2.303              | 3.0     |
| 2.437                    | 11b      | 8.66                      | 6.7dBm-8.7dBm         | 2.315              | 3.0     |
| 2.462                    | 11b      | 8.57                      | 6.7dBm-8.7dBm         | 2.326              | 3.0     |
| 2.412                    | 11g      | 8.47                      | 6.7dBm-8.7dBm         | 2.303              | 3.0     |
| 2.437                    | 11g      | 8.49                      | 6.7dBm-8.7dBm         | 2.315              | 3.0     |
| 2.462                    | 11g      | 8.41                      | 6.7dBm-8.7dBm         | 2.326              | 3.0     |
| 2.412                    | 11n HT20 | 8.29                      | 6.7dBm-8.7dBm         | 2.303              | 3.0     |
| 2.437                    | 11n HT20 | 8.22                      | 6.7dBm-8.7dBm         | 2.315              | 3.0     |
| 2.462                    | 11n HT20 | 8.26                      | 6.7dBm-8.7dBm         | 2.326              | 3.0     |
| 2.422                    | 11n HT40 | 8.07                      | 6.7dBm-8.7dBm         | 2.307              | 3.0     |
| 2.437                    | 11n HT40 | 8.09                      | 6.7dBm-8.7dBm         | 2.315              | 3.0     |
| 2.452                    | 11n HT40 | 8.11                      | 6.7dBm-8.7dBm         | 2.322              | 3.0     |

BT DTS:

| Transmit Frequency (GHz) | Mode | Max Conducted Power (dBm) | tune up maximum power | Result calculation | 1-g SAR |
|--------------------------|------|---------------------------|-----------------------|--------------------|---------|
| 2.402                    | GFSK | 6.632                     | 5.2dBm-7.2dBm         | 1.627              | 3.0     |
| 2.440                    | GFSK | 6.651                     | 5.2dBm-7.2dBm         | 1.640              | 3.0     |
| 2.480                    | GFSK | 7.116                     | 5.2dBm-7.2dBm         | 1.653              | 3.0     |

BT DSS:

| Transmit Frequency (GHz) | Mode           | Max Conducted Power (dBm) | tune up maximum power | Result calculation | 1-g SAR |
|--------------------------|----------------|---------------------------|-----------------------|--------------------|---------|
| 2.402                    | GFSK           | 3.181                     | 2dBm-4dBm             | 0.779              | 3.0     |
| 2.441                    | GFSK           | 3.266                     | 2dBm-4dBm             | 0.785              | 3.0     |
| 2.480                    | GFSK           | 3.212                     | 2dBm-4dBm             | 0.791              | 3.0     |
| 2.402                    | $\pi/4$ -DQPSK | 4.600                     | 3dBm-5dBm             | 0.980              | 3.0     |
| 2.441                    | $\pi/4$ -DQPSK | 4.684                     | 3dBm-5dBm             | 0.988              | 3.0     |
| 2.480                    | $\pi/4$ -DQPSK | 4.572                     | 3dBm-5dBm             | 0.996              | 3.0     |
| 2.402                    | 8DPSK          | 4.796                     | 3dBm-5dBm             | 0.980              | 3.0     |
| 2.441                    | 8DPSK          | 4.860                     | 3dBm-5dBm             | 0.988              | 3.0     |
| 2.480                    | 8DPSK          | 4.734                     | 3dBm-5dBm             | 0.996              | 3.0     |

**Conclusion:**

For the max result :  $2.326 \leq 3.0$  for 1-g SAR extremity SAR, No SAR is required.

Signature: 

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