

## RF Exposure Requirements

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Product Description: Tactile Reader

Model No.: IT01118

FCC ID: 2A34H-IT01118S

According to the KDB 447498 D01 v06 section 4.3.1, for 100 MHz to 6 GHz and test separation distances  $\leq 50$  mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$

-  $f(\text{GHz})$  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

### Calculation Result:

#### Bluetooth

Tx frequency range: 2402-2480MHz

Min. test separation distance: 5mm

Maximum Conducted Output Power: 5.25dBm

Tune-Up output power: 6.0dBm

RF channel transmit frequency: 2402MHz

Result: 1.23

Limit: 3.0

#### RFID

Tx frequency range: 13.56MHz

Min. test separation distance: 5mm

Max. Field Strength: 65.30dBuV/m @3m

$EIRP = E - 104.8 + 20 \log D = 65.30 - 104.8 + 20 \log 3 = -29.96 \text{ dBm}$

Maximum Conducted Output Power: -29.96 dBm

Tune-Up output power: -29.0dBm

RF channel transmit frequency: 13.56MHz

Result: 0.01

Limit: 3.0

Mode for Simultaneous Multi-band Transmission

The worst case is Bluetooth + RFID

Evaluation Result:  $1.23/3.0 + 0.01/3.0 = 0.4133$

Limit: 1

So the transmitter complies with the RF exposure requirements and the SAR is not required.