

RF Exposure Requirements

Product Description: Wireless Beltpack Transmitter

Model No.: SM-6100 IrDA

FCC ID: CINSM-6100IRDAB

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

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

Calculation Result:

Tx frequency range: 470-608MHz

Min. test separation distance: 1 mm

Maximum Conducted Output Power: 3.83 dBm

RF channel transmit frequency: 539 MHz

Result: 1.77

Limit: 3.0

The exclusion thresholds is $1.77 < 3$, so the transmitter complies with the RF exposure requirements and the SAR is not required.