

RF Exposure requirements

Product name	SMART KEY TAG
Model number	A232
FCC ID	ZE8-A232A
Radio specification	2.4 GHz ZigBee transceiver, 125 kHz RFID receiver
Antenna	2.4 GHz, integral SMD chip antenna, 125 kHz, Resonance coil
Power source	DC 3 V lithium battery

According to the KDB 447498, the following standalone SAR test exclusion was considered to qualify for the SAR test exclusion.

Tx frequency range	2405 MHz - 2462 MHz
Device category	handheld portable device
Maximum conducted output power	2.75 mW (4.39 dBm)
Limit	10 mW (distance = 5 mm)

SAR test exclusion thresholds:

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

MHz	5	10	15	20	25	30	35	40	45	50	test separation distance (mm)
2450	10	19	29	38	48	57	67	77	86	96	SAR test exclusion threshold (mW)

The source-based time-averaged maximum conducted output power of the RF channel is less than 10 mW, and therefore the transmitter complies with the RF exposure requirements and the SAR is not required.