

RF Exposure requirements

Product name	Blood Glucose Monitoring System
Model number	IGM-1001D
FCC ID	WSX-IGM-1001D
Radio specification	2.4 GHz
Antenna	Internal PCB antenna
Power source	DC 3 V(CR2032 Coin battery x 2 EA)

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

Tx frequency range	2402 MHz - 2480 MHz
Device category	Handheld portable device
Maximum conducted output power	0.37 mW (-4.35 dBm) @ 2402 MHz
Limit	10 mW (distance = 5 mm)

RF power output (measured):

unit: mW

Data rate	Operating frequency		
	2402 MHz	2440 MHz	2480 MHz
1 Mbps(Bluetooth LE)	0.37	0.27	0.21

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	29	30	35	40	45	50	test separation distance (mm)
2450	10	19	29	38	48	56	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 the minimum separation distance of 5 mm can be achieved. Therefore the transmitter complies with the RF exposure requirements and the SAR is not required.