

47 C.F.R. Part 1, Subpart I, Section 1.1310
47 C.F.R. Part 2, Subpart J, Section 2.1091
Maximum Permissible Exposure Calculations

For FCC ID: 2AXWZ-KNEEM001LO

BLE Transceiver

EUT Device Category = General Population/Uncontrolled Exposure

EUT consists of one ISM band radio transmitting operating over a range of:
2402 MHz to 2480 MHz

MPE Summary:

KDB 447498 D01 General RF Exposure Guidance v06 gives the 1-g and 10-g SAR test exclusion thresholds. The limits for 100 MHz to 6 GHz and a test separation distance of ≤ 50 mm are defined by the following equation:

$((\text{max EIRP} + \text{tune up tolerance, mW}) / (\text{minimum separation, mm})) * \sqrt{F_{\text{GHz}}} \leq 3.0 \text{ for 1-g SAR or } \leq 7.5 \text{ for 10-g SAR}$

EIRP calculations

Frequency (GHz)	Peak Power (dBuV/m)	Calculated EIRP (dBm)	Calculated EIRP (mW)
2.402	89.98	-5.25	0.298
2.440	91.38	-3.85	0.412
2.480	92.07	-3.16	0.483

MPE and Limit are calculated as follows:

Max EIRP	Separation	Frequency	Density	Limit	Result	Limit	Result
mW	(mm)	GHz	mW/mm	1-g		10-g	
0.298	5.0	2.402	0.092	3.0	Exempt	7.5	Exempt
0.412	5.0	2.440	0.129	3.0	Exempt	7.5	Exempt
0.483	5.0	2.480	0.152	3.0	Exempt	7.5	Exempt

Result: The device meets FCC MPE limit for General Population/Uncontrolled Exposure