RF EXPOSURE EVALUATION

EUT Specification

EUT	Machine Interface Board
Model Number	MIB Retro
FCC ID	2BDWJ-MIB216300
Antenna gain (Max)	2.0dBi
Operation Frequency	915MHz
Input Rating	DC 12V
Standard	47 CFR Part 1.1307 47 CFR Part 1.1310 KDB447498D01 General RF Exposure Guidance v06
Modulation	GFSK

Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by: [(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] • [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where • f(GHz) is the RF channel transmit frequency in GHz • Power and distance are rounded to the nearest mW and mm before calculation17 • The result is rounded to one decimal place for comparison The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

According to KDB447498D01 General RF Exposure Guidance v06
Standalone SAR test exclusion considerations
Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

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Calculated Result and Limit

For 915MHz SRD
Ant gain=2.0dBi
Ant numeric gain= 1.58
Field strength = 80.22dBuV/m@3m

$$P = \{[10^{\left(\frac{80.22}{20}\right)}/10^6 * 3]^2/(30 * 1.58\} * 1000\text{mw} = 0.0199\text{mW}$$

Pd= (30*0.003*1.58) / (377*20^2)=0.000000942<1

Remark: The Max Conducted Peak Output Power data refer to report Report No.:
91274-23-72-23-PP001
The Maxinum power is less than the limit, complies with the exemption requirements, SAR is exempted.