RF Exposure Requirements

Product Description: Intelligent Robot
Model No.: S1-B2
FCC ID: 2ANXY-S1B2

According to the KDB 447498 D01 v06, 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,16 where
- f(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

WIFI:

Conducted Power (dBm)	Max. Power (mW)	Distance (mm)	Frequency (GHz)	Result	Limit
9.69	9.31	10	2.412	1.45	3

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)]: 9.31/5*√2.412=1.45

BT(EDR):

Conducted Power (dBm)	Max. Power (mW)	Distance (mm)	Frequency (GHz)	Result	Limit
2.001	1.59	10	2.402	0.25	3

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)]: 1.59/5*√2.402=0.25

BT(BLE):

Conducted Power (dBm)	Max. Power (mW)	Distance (mm)	Frequency (GHz)	Result	Limit
-1.091	0.78	10	2.442	0.12	3

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)]: 0.78/5*√2.442=0.12

ZigBee:

Conducted Power (dBm)	Max. Power (mW)	Distance (mm)	Frequency (GHz)	Result	Limit
3.247	2.11	10	2.480	0.33	3

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)]: 2.11/20*√2.480=0.33

Simultaneous Transmission:

1. WIFI and BT is the use the same antenna can not simultaneous transmission;
2. WIFI/BT can not simultaneous transmission with the ZigBee

The Max. exclusion thresholds is 1.45< 3, therefore, the RF exposure evaluation is not required.