

RF Exposure Evaluation

FCC ID: 2AYQDEL-FR002A

1. Client Information

Applicant	:	Everlin International CO., LTD.
Address	:	NO. 120, Minli St, Zhonghe District New Taipei, Taiwan China
Manufacturer	:	INNO Electronics Technology CO.,LTD.
Address	:	NO.12, shunfengdi industrial district humen dongguan guangdong, China

2. General Description of EUT

EUT Name	:	SMART FITNESS RING
Model(s) No.	:	EL-FR002a
Model Different	:	----
Sample ID	:	TBBJ-20210127-06-1# & TBBJ-20210127-06-2#
Product Description	Operation Frequency:	2.4G: 2402MHz~2480MHz
	Number of Channel:	78 channels
	RF Output Power:	1.724 dBm (Max)
	Antenna Gain:	2 dB PCB Antenna
	Modulation Type:	GFSK
	Bit Rate of Transmitter:	1Mbps
Power Rating	:	Input: DC 5V DC 3.7V by 400mAh Li-ion battery
Software Version	:	V0.1
Hardware Version	:	V0.1
Connecting I/O Port(S)	:	Please refer to the User's Manual
Remark: The antenna gain provided by the applicant, the adapter and verified for the RF conduction test and adapter provided by TOBY test lab.		

Note: More test information about the EUT please refer the RF Test Report.

SAR Test Exclusion Calculations

1. FCC: According to KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v06.

(1) Clause 4.3: General SAR test reduction and exclusion guidance

Sub clause 4.31: Standalone SAR test exclusion considerations

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6GHz at test separation distance ≤ 5 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f(\text{GHz})}] \leq 7.5.0$ for 10-g SAR

2. Calculation:

Test separation: 5mm						
BLE Mode (1Mbps)						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	-0.754	0±1	1	1.259	0.390	3.0
2.441	1.724	1±1	2	1.585	0.495	3.0
2.480	1.406	1±1	2	1.585	0.499	3.0

Conclusion:

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06.

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