

RF Exposure Evaluation

FCC ID: 2ACNO-QPR-C2

1. Client Information

Applicant	:	I/O INTERCONNECT INC.
Address	:	28F.-5, No.97, Sec.1, Xintai 5th Rd., Xizhi Dist., New Taipei City 221, Taiwan
Manufacturer	:	Shenzhen Radioland Technology Co., Ltd
Address	:	203, Block A1, JianYuan Park, XiXiangTown, Bao'an district, Shenzhen, China

2. General Description of EUT

EUT Name	:	qico Dongle
Model(s)	:	QPR-C2, QPR-C202
Model Difference	:	All PCB boards and circuit diagrams are the same, the only difference is the color and appearance.
Product Description	Operation Frequency:	Bluetooth 4.0(BLE): 2402MHz~2480MHz
	Number of Channel:	Bluetooth 4.0(BLE): 40 channels
	RF Output Power:	5.615dBm (Max)
	Antenna Gain:	0 dBi PCB Antenna
	Modulation Type:	GFSK
	Bit Rate of Transmitter:	1Mbps
Power Rating	:	Input: DC 5V
Software Version	:	N/A
Hardware Version	:	N/A
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	5.615	6±1	7	5.012	1.55	3.0
2.442	4.908	5±1	6	3.981	1.23	3.0
2.480	4.287	4±1	5	3.162	1.00	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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