



RF Exposure Evaluation

FCC ID: 2A8EE-G52

1. Client Information

Applicant	:	Shenzhen Sulang Technology Co.,ltd
Address	:	Room 2508, Building 11, Tianan Yungu Park Industrial, Gangtou Community, Bantian Street, Longgang District, Shenzhen, China
Manufacturer	:	Shenzhen Sulang Technology Co.,ltd
Address	:	Room 2508, Building 11, Tianan Yungu Park Industrial, Gangtou Community, Bantian Street, Longgang District, Shenzhen, China

2. General Description of EUT

EUT Name	:	endoscope	
Model(s) No.	:	G52, G10, G20, G30, G40, G50, G60, G70, G80, G90, G51, G53, G54, G55, G56, G57, G58, G59, C10, C20, C30, C40, C50, C60, C70, C80, C90, C51, C52, C53, C54, C55, C56, C57, C58, C59, S10, S20, S30, S40, S50, S60, S70, S80, S90, S51, S52, S53, S54, S55, W100, W200, W300, W400, W500, W600, W700, W800, W900, Z10, Z20, Z30, Z40, Z50, Z60, Z70, Z80, Z90, M10, M20, M30, M40, M50, M60, M70, M80, M90, X10, X20, X30, X40, X50, X60, X70, X80, X90	
Model Different	:	All PCB boards and circuit diagrams are the same, the only difference is that appearance	
Product Description	:	Operation Frequency:	802.11b: 2412MHz~2462MHz
	:	Number of Channel:	802.11b:11 channels
	:	Antenna Gain:	3 dBi FPC Antenna
	:	Modulation Type:	802.11b: DSSS(CCK, DQPSK, DBPSK)
	:	Bit Rate of Transmitter:	802.11b:11/5.5/2/1 Mbps
Power Supply	:	Input: DC 5V DC 3.7V by 5000mAh Rechargeable Li-ion battery	
Software Version	:	1.3.1	
Hardware Version	:	1.7	
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:

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

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



2. Calculation:

2.4GWiFi 802.11b Mode						
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
2.412	8.101	8±1	9	7.943	2.467	3.0
2.437	8.303	8±1	9	7.943	2.480	3.0
2.462	8.553	8±1	9	7.943	2.493	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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