

RF Exposure Evaluation

FCC ID: 2ASHI-DT88

1. Client Information

Applicant	:	SHENZHEN XINKEYING DIGITAL CO., LIMITED
Address	:	Room 17i, Block A, HuaQiang Square, HuaQiang North Road, Futian District, Shenzhen, China
Manufacturer	:	SHENZHEN XINKEYING DIGITAL CO., LIMITED
Address	:	Room 17I, Block A, Huaqiang Square, HuaQiang North Road, FuTian District, Shenzhen, China

2. General Description of EUT

EUT Name	:	Outdoor Sports Watch	
Models No.	:	DT88,DT08,DT18,DT68,DT98,C15,C16,C19	
Model Difference	:	All these models are the same PCB, layout and electrical circuit, the only different is model.	
Product Description	:	Operation Frequency:	Bluetooth: 2402~2480 MHz
		RF Output Power:	BLE: -1.197 dBm(Max)
		Antenna Gain:	-0.89dBi wire Antenna
Power Supply	:	DC Voltage Supply from USB Cable. DC Voltage supplied by Li-ion battery.	
Power Rating	:	Input: 5VDC 3.7V by 150mAh Li-ion battery	
Software Version	:	N/A	
Hardware Version	:	V1.1	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

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:

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

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

2. Calculation:

Test separation: 5mm						
BLE Mode (GFSK)						
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	-2.746	-2±1	-1	0.794	0.246	3.0
2.442	-1.628	-2±1	-1	0.794	0.248	3.0
2.480	-1.197	-2±1	-1	0.794	0.250	3.0

Test separation: 5mm	
The worst RF Exposure Evaluation	
Worst Calculation Value	Threshold Value
0.248	3.0

The worst RF Exposure Evaluation is **0.248 / cm² < limit 3.0**, So standalone SAR measurements are not required.

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