

# RF Exposure Evaluation

## FCC ID: UH5- HLS008

### 1. Client Information

Applicant	:	National Electronics & Watch Co., Ltd
Address	:	15/F, Shing Dao Ind. Bldg. 232 Aberdeen Main Road Aberdeen Hong Kong
Manufacturer	:	National Electronics & Watch Co., Ltd
Address	:	15/F, Shing Dao Ind. Bldg. 232 Aberdeen Main Road Aberdeen Hong Kong

### 2. General Description of EUT

EUT Name	:	Smart Tracker	
Model(s) No.	:	HLS008	
Model Different	:	----	
Product Description	:	Operation Frequency:	Bluetooth V4.0(BT): 2402~2480 MHz
		Number of Channel:	Bluetooth: 40 Channels
		Antenna Gain:	1.5 dBi Wire Antenna
		Modulation Type:	GFSK
Power Rating		Input: DC5V DC 3.7V by 90mAh Rechargeable Li-ion battery	
Software Version	:	N/A	
Hardware Version	:	V10	
Remark: The antenna gain and adapter provided by the applicant, the adapter and verified for the RF conduction test 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  $\leq 5$  mm are determined by:

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

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



**2. Calculation:**

Test separation: 5mm

Bluetooth 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	-2.998	-2±1	-1	0.794	0.246	3.0
2.442	-2.344	-2±1	-1	0.794	0.248	3.0
2.480	-2.111	-2±1	-1	0.794	0.250	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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