

# RF Exposure Evaluation

## FCC ID: 2AJWO-P4001

### 1. Client Information

**Applicant** : Pred Technologies USA, Inc.  
**Address** : 7855 Fay Avenue, suite 310 La Jolla, California 92037 USA  
**Manufacturer** : Sunstar Digi (H.K.) Co.,Ltd.  
**Address** : 2-3 Floor F Building, Guanlong 1st Industrial Zone, Xili Town, Nanshan District, Shenzhen, Guangdong, China

### 2. General Description of EUT

<b>EUT Name</b>	:	PRED Smart Earbuds	
<b>Models No.</b>	:	P4001	
<b>Model Difference</b>	:	N/A	
<b>Product Description</b>	:	Operation Frequency:	Bluetooth 4.0: 2402~2480 MHz
	:	Number of Channel:	Bluetooth: 79 Channels See Note 2
	:	Max Peak Output Power:	Bluetooth: 1.150 dBm(GFSK)
	:	Antenna Gain:	1.3 dBi PCB Antenna
	:	Modulation Type:	GFSK (1 Mbps) $\pi$ /4-DQPSK (2 Mbps) 8-DPSK (2 Mbps)
<b>Power Supply</b>	:	DC Voltage supplied by USB. DC Voltage supplied by Li-ion battery.	
<b>Power Rating</b>	:	DC 5V by USB Cable. DC 3.7V by 55mAh Li-ion battery.	
<b>Connecting I/O Port(S)</b>	:	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  $\leq 5$  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	0.904	$0 \pm 1.5$	1.5	1.413	0.438	3.0
2.441	1.150	$0 \pm 1.5$	1.5	1.413	0.441	3.0
2.480	0.207	$0 \pm 1.5$	1.5	1.413	0.445	3.0
Bluetooth Mode ( $\pi/4$ -DQPSK)						
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	0.428	$0 \pm 1.5$	1.5	1.413	0.438	3.0
2.441	-0.285	$0 \pm 1.5$	1.5	1.413	0.441	3.0
2.480	-1.173	$0 \pm 1.5$	1.5	1.413	0.445	3.0
Bluetooth Mode (8-DPSK)						
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	-0.435	$0 \pm 1.5$	1.5	1.413	0.438	3.0
2.441	-0.247	$0 \pm 1.5$	1.5	1.413	0.441	3.0
2.480	-1.112	$0 \pm 1.5$	1.5	1.413	0.445	3.0

So standalone SAR measurements are not required.

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