



# Maximum Permissible Exposure Evaluation

**FCC ID: 2BNDD-SFC2**

## 1. General Information about EUT

### 1.1 Client Information

<b>Applicant</b>	:	Sensforge Inc
<b>Address</b>	:	639 Alpha Dr, Pittsburgh, PA 15238, United States
<b>Manufacturer</b>	:	Sensforge Inc
<b>Address</b>	:	639 Alpha Dr, Pittsburgh, PA 15238, United States

### 1.2 General Description of EUT (Equipment Under Test)

<b>EUT Name</b>	:	Pan-Tilt Indoor Camera	
<b>Models No.</b>	:	SF-C2	
<b>Model Different</b>	:	N/A	
<b>Brand Name</b>	:	Sensforge	
<b>Sample ID</b>	:	HC-C-202501-0221-01-01	
<b>Product Description</b>	:	Operation Frequency:	BLE: 2402MHz~2480MHz U-NII-1: 5180MHz~5240MHz U-NII-2A: 5260MHz~5320MHz U-NII-2C: 5500MHz~5700MHz U-NII-3: 5745MHz~5825MHz 802.11b/g/n(HT20)/n(HT40)/ax: (HE20)/ax(HE40)2412MHz~2462MHz
<b>Power Rating</b>	:	Adapter:(DYS05100CP-U1) Input: 100-240V~, 50/60Hz 0.15A Output: 5.0V=1.0A,5.0W	
<b>Software Version</b>	:	N/A	
<b>Hardware Version</b>	:	N/A	
<b>Remark</b>	:	N/A	

TB-RF-074-1.0

### 1.3 Antenna Information

Band	Antenna Type	Antenna Gain(dBi)
BLE	FPC	3.24
2.4G Wi-Fi		3.24
U-NII-1		5.1
U-NII-2A		5.48
U-NII-2C		5.34
U-NII-3		4.58
<b>Remark:</b> The above antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.		



## 2. Method of Measurement for FCC

### 1. EUT Operation Condition:

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

### 2. Exposure Evaluation:

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = (PG)/4\pi R^2$$

Where

S: power density

P: power input to the antenna

G: power gain of the antenna in the direction of interest relative to an isotropic radiator.

R: distance to the center of radiation of the antenna

### Simultaneous transmission MPE Considerations

According to KDB447498: All transmitters and antennas in the host must be either evaluated for MPE compliance, by measurement or computational modeling, or qualify for the standalone MPE test exclusion in section 7.1. Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modeled or measured field strengths or power density, is  $\leq 1.0$ .

This means that:

$$\sum \text{ of MPE ratios} \leq 1.0$$



## 3. Test Result:

Test Mode	Conducted Power(max) (dBm)	Turn-up Power (dB)	Max tune up power (dBm) [P]	Max. ANT Gain (dBi) [G]	Distance (cm) [R]	Power Density (mW/ cm <sup>2</sup> ) [S]
BLE	8.183	8±1	9	3.24	20	0.00333
2.4G b	16.05	16±1	17	3.24	20	0.02103
2.4G g	14.78	14±1	15	3.24	20	0.01327
2.4G n20	14.40	14±1	15	3.24	20	0.01327
2.4G n40	14.49	14±1	15	3.24	20	0.01327
2.4G ax20	12.90	12±1	13	3.24	20	0.00837
2.4G ax40	14.40	14±1	15	3.24	20	0.01327
5G a	15.11	16±1	17	5.48	20	0.03522
5G n20	15.35	16±1	17	5.48	20	0.03522
5G n40	16.02	16±1	17	5.48	20	0.03522
5G ac20	15.35	16±1	17	5.48	20	0.03522
5G ac40	16.54	16±1	17	5.48	20	0.03522
5G ax20	15.48	16±1	17	5.48	20	0.03522
5G ax40	16.23	16±1	17	5.48	20	0.03522



**4. Conclusion:**

As specified in Table 1B of 47 CFR 1.1310- Limits for Maximum Permissible Exposure (MPE),

**Limits for General Population/ Uncontrolled Exposure**

Frequency Range (MHz)	Power density (mW/ cm <sup>2</sup> )
300-1,500	F/1500
1,500-100,000	1.0

For: 2402~2480MHz&2412~2462MHz&5180~5825MHz

MPE limit S: 1mW/ cm<sup>2</sup>

The MPE is calculated as **0.03522 mW / cm<sup>2</sup> < limit 1mW / cm<sup>2</sup>**.

So, RF exposure limit warning or SAR test are not required.

The EUT will only be used with a separation of 20cm or greater between the antenna and nearby persons and can therefore be considered a mobile transmitter per 47 CFR2.1091 (b). The RF Exposure Information page from the manual is included here for reference.

--- END OF REPORT ---

