

## Maximum Permissible Exposure Evaluation

### FCC ID: 2ANJN-VT1611-EG91

#### 1. Client Information

<b>Applicant</b>	:	Anytrek Corporation
<b>Address</b>	:	4405 E Airport Dr, Suite 106, Ontario, CA 91761
<b>Manufacturer</b>	:	Shenzhen Anxingzhiyuan Technology Co., Ltd.
<b>Address</b>	:	No.302, Building No.6, COFCO(Fuan)Robot Intelligent Building Industrial Park, No.90 Dayang Road, Fuhai Street, Baoan District, Shenzhen, Guangdong, China

#### 2. General Description of EUT

<b>EUT Name</b>	:	TrackLight
<b>Models No.</b>	:	VT1611
<b>Sample ID</b>	:	20200527-07_1-01
<b>S/N</b>	:	VT-2006904-01000001
<b>Product Description</b>	:	UMTS Band II: TX:1850MHz-1910MHz, RX: 1930MHz-1990MHz UMTS Band IV: TX:1710MHz-1755MHz, RX: 2110MHz-2155MHz UMTS Band V: TX: 824MHz-849MHz, RX: 869MHz-894MHz LTE Band 2:TX: 1850MHz-1910MHz, RX: 1930MHz-1990MHz LTE Band 4:TX: 1710MHz-1755MHz, RX: 2110MHz-2155MHz LTE Band 5:TX: 824MHz-849MHz, RX: 869MHz-894MHz LTE Band 12: TX: 699MHz -716MHz, RX: 729MHz-746MHz LTE Band 13: TX: 777MHz -787MHz, RX: 746MHz-756MHz LTE Band 25:TX: 1850MHz-1915MHz, RX: 1930MHz-1995MHz LTE Band 26:TX: 814MHz-849MHz, RX: 859MHz-894MHz
		<b>Antenna Type:</b> PCB Antenna
		<b>Antenna Gain:</b> UMTS Band II: 0.46dBi UMTS Band IV: 1.43dBi UMTS Band V: 0.45dBi LTE: B2: 1.31dBi; B4: 1.35dBi; B5: 0.41dBi; B12: 0.20dBi; B13: 0.30dBi; B25: 1.32dBi; B26: 0.42dBi;
<b>Power Rating</b>	:	Input: DC 12*1A or DC 3.7V by 3000mAh Li-Po.
<b>Software Version</b>	:	V1.0.52
<b>Hardware Version</b>	:	V7.01



## MPE Calculations

### 1. Antenna Gain:

Band	Antenna Type	Antenna Gain
UMTS Band II	PCB	0.46 dBi
UMTS Band IV	PCB	1.43 dBi
UMTS Band V	PCB	0.45 dBi
LTE Band 2	PCB	1.31 dBi
LTE Band 4	PCB	1.35 dBi
LTE Band 5	PCB	0.41 dBi
LTE Band 12	PCB	0.20 dBi
LTE Band 13	PCB	0.30 dBi
LTE Band 25	PCB	1.32 dBi
LTE Band 26	PCB	0.42 dBi

### 2. EUT Operation Condition:

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

### 3. 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

### 4. Test Result:

Worst Maximum MPE Result							
Mode	N <sub>TX</sub>	Conducted Power(max) (dBm)	Turn-up Power (dB)	Max tune up power (dBm) [P]	ANT Gain (dBi) [G]	Distance (cm) [R]	Power Density (mW/cm <sup>2</sup> ) [S]
WCDMA Band II	1	22.45	22±1	23	0.46	20	0.0441
WCDMA Band IV	1	22.54	22±1	23	1.43	20	0.0552
WCDMA Band V	1	22.65	22±1	23	0.45	20	0.0440
LTE Band 2	1	22.96	23±1	24	1.31	20	0.0676
LTE Band 4	1	22.97	23±1	24	1.35	20	0.0682
LTE Band 5	1	24.22	24±1	25	0.41	20	0.0691
LTE Band 12	1	23.99	24±1	25	0.20	20	0.0659
LTE Band 13	1	24.30	24±1	25	0.30	20	0.0674
LTE Band 25	1	23.09	24±1	25	1.32	20	0.0853
LTE Band 26	1	24.46	24±1	25	0.42	20	0.0693

Note:  
 (1) N<sub>TX</sub>= Number of Transmit Antennas  
 RF Output power specifies that Maximum Conducted Peak Output Power.



**5. 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

**300-1500MHz:**

The worst MPE is calculated as  $0.0693 \text{ mW} / \text{cm}^2 < \text{limit } 846.6/1500=0.5644 \text{ mW/cm}^2$ . So, RF exposure limit warning or SAR test are not required.

**1500-100000MHz:**

The worst MPE is calculated as  $0.0853 \text{ mW} / \text{cm}^2 < \text{limit } 1\text{mW/cm}^2$ . 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.

**Note**

For a more detailed features description, please refer to the RF Test Report.

-----END OF THE REPORT-----