Maximum Permissible Exposure Evaluation

FCC ID: 2ANJN-VT1611-EG91

1. Client Information

Applicant	:	Anytrek Corporation
Address	:	4405 E Airport Dr, Suite 106, Ontario, CA 91761
Manufacturer	:	Shenzhen Anxingzhiyuan Technology Co., Ltd.
Address	:	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

EUT Name	:	TrackLight	
Models No.	:	VT1611	
Sample ID	:	20200527-07_1-01	
S/N	:	VT-2006904-01000001	
Product Description	:	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	
		Antenna Type:	PCB Antenna
		Antenna Gain:	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;
Power Rating	:	Input: DC 12*1A or DC 3.7V by 3000mAh Li-Po.	
Software Version	:	V1.0.52	
Hardware Version	:	V7.01	

1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, China
Tel: +86 75526509301 Fax: +86 75526509195

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_{TX}	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^2) [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_{TX}= 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^2)
300-1,500	F/1500
1,500-100,000	1.0

300-1500MHz:

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

1500-100000MHz:

The worst MPE is calculated as ***0.0853 mW / cm^2 < limit 1mW/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-----