

# FCC RF EXPOSURE REPORT

OPCOM O.E.(DONGGUAN) INC.

Facial mirror

Model Number: CL480P

Additional Model: CL480D、CL1309E

FCC ID: 2ADUM-CL480-CL1309

Prepared for : OPCOM O.E.(DONGGUAN) INC.

Gu Cun Industry Estate Dajing Countryside Committee Houjie Town,  
Dongguan City Guangdong, China

Prepared By :EST Technology Co., Ltd.

Santun(guantai Road), Houjie Town, DongGuan City,GuangDong, China.

Tel: 86-769-83081888-808

Report Number: ESTE-R1610038

Date of Test :August 17~ October 21, 2016

Date of Report : October 22, 2016

## 1. EXPOSURE EVALUATION OF PORTABLE OR MOBILE DEVICES

Human exposure to RF emissions from portable devices (47 CFR §2.1093), as defined by the FCC, must be evaluated with respect to the FCC-adopted limits for SAR. Evaluation of mobile devices, as defined by the FCC, may also be performed with respect to SAR limits, but in such cases it is usually simpler and more cost-effective to evaluate compliance with respect to field strength or power density limits. For certain devices that are designed to be used in both mobile and portable configurations similar to those described in 47 CFR §2.1091(d)(4), such as certain desktop phones and wireless modem modules, compliance for mobile configurations is also satisfied when the same device is evaluated for SAR compliance in portable configurations.

## 2. SAR TEST EXCLUSION THRESHOLD FOR 100MHz to 6GHz and $\leq 50$ mm

MHz	5	10	15	20	25	mm
150	39	77	116	155	194	SAR Test Exclusion Threshold (mW)
300	27	55	82	110	137	
450	22	45	67	89	112	
835	16	33	49	66	82	
900	16	32	47	63	79	
1500	12	24	37	49	61	
1900	11	22	33	44	54	
2450	10	19	29	38	48	
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19	25	31	

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$

- $f(\text{GHz})$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

**3. EVALUATION RESULTS**

Maximum measured transmitter power.

Mode	CH	Peak output Power (dBm)	Peak output Power (mW)	antenna gain (dBi)	Target power (dBm)	Results
IEEE 802.11b	2412	4.91	3.10	2	$5 \pm 1$	1.237
	2437	4.25	2.66	2	$4 \pm 1$	0.987
	2462	4.02	2.52	2	$4 \pm 1$	0.788
IEEE 802.11g	2412	-0.39	0.91	2	$-1 \pm 1$	0.311
	2437	-1.34	0.73	2	$-1 \pm 1$	0.312
	2462	-3.21	0.48	2	$-3 \pm 1$	0.198
IEEE 802.11n HT20	2412	-5.70	0.27	2	$-5 \pm 1$	0.124
	2437	-6.50	0.22	2	$-6 \pm 1$	0.099
	2462	-3.35	0.46	2	$-3 \pm 1$	0.198
IEEE 802.11n HT40	2422	-3.94	0.40	2	$-3 \pm 1$	0.196
	2437	-3.72	0.42	2	$0 \pm 1$	0.393
	2452	-4.91	0.32	2	$0 \pm 1$	0.394

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] * [\sqrt{f(\text{GHz})}] < 3.0$

SAR Test Exclusion Thresholds is 3.0 for separation distance 5mm. Therefore, SAR test is not required.

====END=====