

## FCC 47 CFR MPE REPORT

CHOICE FORTUNE HOLDINGS LIMITED

LED TV

Model Number: SC-60UK850N

FCC ID: 2AMYC-SC-60UK850N

Prepared for:	CHOICE FORTUNE HOLDINGS LIMITED
	Room 1315, 13/F, Tin King Estate, Tin Lok House,
	Tuen Mun, N.T., HongKong
Prepared By:	EST Technology Co., Ltd.
	Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China
Tel: 86-769-83081888-808	

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## Maximum Permissible Exposure

### 1、Applicable Standard

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2m normally can be maintained between the user and the device.

#### (a)、Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength E (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Times   E   2 ,   H   2 or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-10000			5	6

#### (b)、Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength E (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Times   E   2 ,   H   2 or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-10000			1.0	30

Note: f=frequency in MHz; \*Plane-wave equivalent power density

### 2、MPE Calculation Method

$$E \text{ (V/m)} = (30 \cdot P \cdot G)^{0.5} / d \quad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = E^2 / 377$$

E = Electric Field (V/m)

P = Peak RF output Power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = (30 \cdot P \cdot G) / (377 \cdot d^2)$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

### 3、Conducted Power Result

#### 3.1 Antenna 0

Mode	Frequency (MHz)	Peak output power (dBm)	Peak output power (mW)	Target power (dBm)	Antenna gain	
					(dBi)	(Linear)
IEEE 802.11b	2412	16.31	42.756	16±1	2.94	1.968
	2437	15.30	33.884	15±1	2.94	1.968
	2462	13.91	24.604	13±1	2.94	1.968
IEEE 802.11g	2412	12.98	19.861	12±1	2.94	1.968
	2437	11.80	15.136	11±1	2.94	1.968
	2462	9.80	9.550	9±1	2.94	1.968
IEEE 802.11n HT20	2412	12.38	17.298	12±1	2.94	1.968
	2437	11.40	13.804	11±1	2.94	1.968
	2462	9.36	8.630	9±1	2.94	1.968
IEEE 802.11n HT40	2422	10.59	11.455	10±1	2.94	1.968
	2437	9.33	8.570	9±1	2.94	1.968
	2452	9.41	8.730	9±1	2.94	1.968

#### 3.2 Antenna 1

Mode	Frequency (MHz)	Peak output power (dBm)	Peak output power (mW)	Target power (dBm)	Antenna gain	
					(dBi)	(Linear)
IEEE 802.11b	2412	15.48	35.318	15±1	2.94	1.968
	2437	15.24	33.420	15±1	2.94	1.968
	2462	13.45	22.131	13±1	2.94	1.968
IEEE 802.11g	2412	11.19	13.152	11±1	2.94	1.968
	2437	11.23	13.274	11±1	2.94	1.968
	2462	9.12	8.166	9±1	2.94	1.968
IEEE 802.11n HT20	2412	10.72	11.803	10±1	2.94	1.968
	2437	10.62	11.535	10±1	2.94	1.968
	2462	8.82	7.621	8±1	2.94	1.968
IEEE 802.11n HT40	2422	8.83	7.638	8±1	2.94	1.968
	2437	8.32	6.792	8±1	2.94	1.968
	2452	8.70	7.413	8±1	2.94	1.968

#### 4、 Calculated Result and Limit

##### 4.1 Antenna 0

Mode	Target power (dBm)	Antenna gain		Power Density (S) (mW/cm <sup>2</sup> )	Limited of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
		(dBi)	(Linear)			
Wi-Fi						
IEEE 802.11b	17	2.94	1.968	<b>0.01962</b>	1	Compiles
IEEE 802.11g	13	2.94	1.968	<b>0.00781</b>	1	Compiles
IEEE 802.11n HT20	13	2.94	1.968	<b>0.00781</b>	1	Compiles
IEEE 802.11n HT40	11	2.94	1.968	<b>0.00493</b>	1	Compiles

##### 4.2 Antenna 1

Mode	Target power (dBm)	Antenna gain		Power Density (S) (mW/cm <sup>2</sup> )	Limited of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
		(dBi)	(Linear)			
Wi-Fi						
IEEE 802.11b	16	2.94	1.968	<b>0.01559</b>	1	Compiles
IEEE 802.11g	12	2.94	1.968	<b>0.00620</b>	1	Compiles
IEEE 802.11n HT20	11	2.94	1.968	<b>0.00493</b>	1	Compiles
IEEE 802.11n HT40	9	2.94	1.968	<b>0.00311</b>	1	Compiles

4.3 Antenna 0+1

Mode	Power Density (S) (mW/cm2) Antenna 0	Power Density (S) (mW/cm2) Antenna 1	Power Density (S) (mW/cm2) Total	Limited of Power Density (S) (mW/cm2)	Test Result
Wi-Fi					
IEEE 802.11n HT20	<b>0.00781</b>	<b>0.00493</b>	<b>0.01274</b>	1	Compiles
IEEE 802.11n HT40	<b>0.00493</b>	<b>0.00311</b>	<b>0.00804</b>	1	Compiles