FCC 47 CFR MPE REPORT

CHOICE FORTUNE HOLDINGS LIMITED

LED TV

Model Number: SC-50UK700N

FCC ID: 2AMYC-SC-50UK700N

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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/cm2)	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/cm2)	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.o	30

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

2、MPE Calculation Method

E (V/m) = (30*P*G) 0.5/d Power Density: Pd (W/m2) = E2/377

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*P*G) / (377*d2)

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	15.07	32.137	15±1	2.94	1.968
	2437	14.13	25.882	14±1	2.94	1.968
	2462	11.90	15.488	11±1	2.94	1.968
IEEE 802.11g	2412	11.25	13.335	11±1	2.94	1.968
	2437	10.27	10.641	10±1	2.94	1.968
	2462	7.86	6.109	7±1	2.94	1.968
IEEE 802.11n HT20	2412	11.28	13.428	11±1	2.94	1.968
	2437	9.81	9.572	9±1	2.94	1.968
	2462	7.68	5.861	7±1	2.94	1.968
IEEE 802.11n HT40	2422	8.52	7.112	8±1	2.94	1.968
	2437	8.00	6.310	8±1	2.94	1.968
	2452	7.79	6.012	7±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	11.43	13.900	11±1	2.94	1.968
	2437	12.18	16.520	12±1	2.94	1.968
	2462	10.25	10.593	10±1	2.94	1.968
IEEE 802.11g	2412	8.37	6.871	8±1	2.94	1.968
	2437	8.37	6.871	8±1	2.94	1.968
	2462	6.81	4.797	6±1	2.94	1.968
IEEE 802.11n HT20	2412	8.85	7.674	8±1	2.94	1.968
	2437	8.29	6.745	8±1	2.94	1.968
	2462	6.91	4.909	6±1	2.94	1.968
IEEE 802.11n HT40	2422	6.10	4.074	6±1	2.94	1.968
	2437	6.13	4.102	6±1	2.94	1.968
	2452	5.75	3.758	5±1	2.94	1.968

4、Calculated Result and Limit

4.1 Antenna 0

Mode	Target power（dBm）	Antenna gain		Power Density (S) (mW /cm2)	Limited of Power Density (S) (mW /cm2)	Test Result
		(dBi)	(Linear)			
Wi-Fi						
IEEE 802.11b	16	2.94	1.968	**0.01559**	1	Compiles
IEEE 802.11g	12	2.94	1.968	**0.00620**	1	Compiles
IEEE 802.11n HT20	12	2.94	1.968	**0.00620**	1	Compiles
IEEE 802.11n HT40	9	2.94	1.968	**0.00311**	1	Compiles

4.2 Antenna 1

Mode	Target power（dBm）	Antenna gain		Power Density (S) (mW /cm2)	Limited of Power Density (S) (mW /cm2)	Test Result
		(dBi)	(Linear)			
Wi-Fi						
IEEE 802.11b	13	2.94	1.968	**0.00781**	1	Compiles
IEEE 802.11g	9	2.94	1.968	**0.00311**	1	Compiles
IEEE 802.11n HT20	9	2.94	1.968	**0.00311**	1	Compiles
IEEE 802.11n HT40	7	2.94	1.968	**0.00196**	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	**0.00620**	**0.00311**	**0.00931**	1	Compiles
IEEE 802.11n HT40	**0.00311**	**0.00196**	**0.00507**	1	Compiles