FCC 47 CFR MPE REPORT

CHOICE FORTUNE HOLDINGS LIMITED

LED TV

Model Number: SC-40FK700N

FCC ID: 2AMYC-SC-40FK700N

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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	11.55	14.289	11±1	2.94	1.968
	2437	10.05	10.116	10±1	2.94	1.968
	2462	13.50	22.387	13±1	2.94	1.968
IEEE 802.11g	2412	8.05	6.383	8±1	2.94	1.968
	2437	6.51	4.477	6±1	2.94	1.968
	2462	9.81	9.572	9±1	2.94	1.968
IEEE 802.11n HT20	2412	8.00	6.310	8±1	2.94	1.968
	2437	6.40	4.365	6±1	2.94	1.968
	2462	9.95	9.886	9±1	2.94	1.968
IEEE 802.11n HT40	2422	6.15	4.121	6±1	2.94	1.968
	2437	5.15	3.273	5±1	2.94	1.968
	2452	5.08	3.221	5±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	12.11	16.255	12±1	2.94	1.968
	2437	10.39	10.940	10±1	2.94	1.968
	2462	13.33	21.528	13±1	2.94	1.968
IEEE 802.11g	2412	8.35	6.839	8±1	2.94	1.968
	2437	6.47	4.436	6±1	2.94	1.968
	2462	9.58	9.078	9±1	2.94	1.968
IEEE 802.11n HT20	2412	8.28	6.730	8±1	2.94	1.968
	2437	6.43	4.395	6±1	2.94	1.968
	2462	9.54	8.995	9±1	2.94	1.968
IEEE 802.11n HT40	2422	5.86	3.855	5±1	2.94	1.968
	2437	4.95	3.126	4±1	2.94	1.968
	2452	4.51	2.825	4±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)			
2.4G Band						
IEEE 802.11b	14	2.94	1.968	**0.00983**	1	Compiles
IEEE 802.11g	10	2.94	1.968	**0.00391**	1	Compiles
IEEE 802.11n HT20	10	2.94	1.968	**0.00391**	1	Compiles
IEEE 802.11n HT40	7	2.94	1.968	**0.00196**	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)			
2.4G Band						
IEEE 802.11b	14	2.94	1.968	**0.00983**	1	Compiles
IEEE 802.11g	10	2.94	1.968	**0.00391**	1	Compiles
IEEE 802.11n HT20	10	2.94	1.968	**0.00391**	1	Compiles
IEEE 802.11n HT40	6	2.94	1.968	**0.00156**	1	Compiles

4.3Antenna 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
2.4G Band					
IEEE 802.11n HT20	0.00391	0.00391	**0.00782**	1	Compiles
IEEE 802.11n HT40	0.00196	0.00156	**0.00352**	1	Compiles