

Maximum Permissible Exposure Report

EUT.....	: LED TV
Type / Model.....	: E4SFT5017
Applicant.....	: Shenyang Tongfang Multimedia Technology Co., Limited
Address.....	: No. 10 Nanping East Road HunNan New District Shenyang, LiaoNing Province P.R. China
Telephone.....	: /
Fax.....	: /
Manufacturer.....	: Shenyang Tongfang Multimedia Technology Co., Limited
Address.....	: No. 10 Nanping East Road HunNan New District Shenyang, LiaoNing Province P.R. China
Telephone.....	: /
Fax.....	: /

RADIO FREQUENCY EXPOSURE

1. Limit

According to §1.1310 and §2.1091 RF exposure is calculated.

Table: Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Power Density (S) (mW/cm²)
0.3–1.34	*(100)
1.34–30	*(180/f ²)
30–300	0.2
300–1500	f/1500
1500–100,000	1.0

F = frequency in MHz

* = Plane-wave equivalent power density

Maximum Permissible Exposure

The MPE was calculated at 20cm to show compliance with the power density limit.

$$S = PG/4\pi R^2$$

S = Power density

P = power input to 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.

Note:

1. Manufacturer declared that the maximum antenna gain is 1.2dBi (Max.) for 2412~2462MHz.

2. Manufacturer declared that the nearest distance between human and the EUT is 20cm.

3. Only record worst case data.

2. Test Results

Conducted Power Result

Test	Channel	ANT a Power (dBm)	ANT Max. Tune Up Power (dBm)	ANT b Power (dBm)	ANT Max. Tune Up Power (dBm)
802.11b	1	15.97	15.0±1.0	14.49	14.0±1.0
	6	14.83	14.0±1.0	13.91	13.0±1.0
	11	13.51	13.0±1.0	12.58	12.0±1.0
802.11g	1	10.59	10.0±1.0	10.47	10.0±1.0
	6	10.61	10.0±1.0	9.65	9.0±1.0
	11	9.44	9.0±1.0	8.28	8.0±1.0
802.11n20	1	10.74	10.0±1.0	10.61	10.0±1.0
	6	9.83	9.0±1.0	9.11	9.0±1.0
	11	8.21	8.0±1.0	8.42	8.0±1.0
802.11n40	3	9.17	9.0±1.0	8.52	8.0±1.0
	6	8.46	8.0±1.0	7.66	7.0±1.0
	9	7.84	7.0±1.0	7.68	7.0±1.0

Standalone MPE

ANT	Mode	Max. ANT Power (dBm)	ANT Max. Tune Up Power (dBm)	ANT Max. Tune Up Power (mW)	ANT MPE (mW/cm ²)	Limit (mW/cm ²)
a	802.11b	15.97	15.0±1.0	39.811	0.0104	1.0
	802.11g	10.61	10.0±1.0	12.589	0.0033	1.0
	802.11n20	10.74	10.0±1.0	12.589	0.0033	1.0
	802.11n40	9.17	9.0±1.0	10.000	0.0026	1.0
b	802.11b	14.49	14.0±1.0	31.623	0.0083	1.0
	802.11g	10.47	10.0±1.0	12.589	0.0033	1.0
	802.11n20	10.61	10.0±1.0	12.589	0.0033	1.0
	802.11n40	8.52	8.0±1.0	7.943	0.0021	1.0
a+b	802.11n20	/	/	/	0.0066	1.0
	802.11n40	/	/	/	0.0047	1.0

Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.