# Maximum Permissible Exposure Report

EUT	: LED TV
Type / Model	: ELSJ5517
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	Power Density (S)		
(MHz)	(mW/cm2)		
0.3-1.34	*(100)		
1.34-30	*(180/f <sup>2</sup> )		
30–300	0.2		
300-1500	f/1500		
1500-100,000	1.0		

F = frequency in MHz

# 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 2.00dBi (Max.) for 2412~2462MHz.
- 2. Manufacturer declared that the nearest distance between human and the EUT is 20cm.
- 3. Only record worst case data.

<sup>\* =</sup> Plane-wave equivalent power density

# 2. Test Results

# Standalone MPE

Test	Channel	ANT Power (dBm)	ANT Max. Tune Up Power (dBm)	ANT Max. Tune Up Power (mW)	ANT MPE (mW/cm²)	Limit (mW/cm²)
802.11b	1	17.56	17.0±1.0	63.096	0.0199	1.0
	6	17.02	17.0±1.0	63.096	0.0199	1.0
	11	16.85	16.0±1.0	50.119	0.0158	1.0
802.11g	1	12.84	12.0±1.0	19.953	0.0063	1.0
	6	13.07	13.0±1.0	25.119	0.0079	1.0
	11	13.16	13.0±1.0	25.119	0.0079	1.0
802.11n20	1	13.22	13.0±1.0	25.119	0.0079	1.0
	6	12.86	12.0±1.0	19.953	0.0063	1.0
	11	13.24	13.0±1.0	25.119	0.0079	1.0
802.11n40	3	11.64	11.0±1.0	15.849	0.0050	1.0
	6	11.25	11.0±1.0	15.849	0.0050	1.0
	9	11.68	11.0±1.0	15.849	0.0050	1.0

#### Conclusion

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