

FCC RF EXPOSURE REPORT

Shenyang Tongfang Multimedia Technology Co., Limited

LED TV

Model Number: SE60FYP1T

FCC ID: 2ACWISE60FYP1T

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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 ²) | 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 ²) | 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、Calculated Result and Limit

| Mode | Frequency (MHz) | output power (dBm) | output power (mW) | Target power (dBm) | Antenna gain | | Power Density (S) (mW/cm ²) | Limited of Power Density (S) (mW/cm ²) | Test Result |
|-------------------|-----------------|--------------------|-------------------|--------------------|--------------|----------|---|--|-------------|
| | | | | | (dBi) | (Linear) | | | |
| IEEE 802.11b | 2412 | 18.49 | 70.63 | 18±1 | 2 | 1.59 | 0.02505 | 1 | Compiles |
| | 2437 | 18.98 | 79.07 | 18±1 | 2 | 1.59 | 0.02505 | 1 | Compiles |
| | 2462 | 19.18 | 82.79 | 19±1 | 2 | 1.59 | 0.03153 | 1 | Compiles |
| IEEE 802.11g | 2412 | 14.78 | 30.06 | 14±1 | 2 | 1.59 | 0.00997 | 1 | Compiles |
| | 2437 | 14.82 | 30.34 | 14±1 | 2 | 1.59 | 0.00997 | 1 | Compiles |
| | 2462 | 15.57 | 36.06 | 15±1 | 2 | 1.59 | 0.01255 | 1 | Compiles |
| IEEE 802.11n HT20 | 2412 | 14.77 | 29.99 | 14±1 | 2 | 1.59 | 0.00997 | 1 | Compiles |
| | 2437 | 15.03 | 31.84 | 15±1 | 2 | 1.59 | 0.01255 | 1 | Compiles |
| | 2462 | 15.55 | 35.89 | 15±1 | 2 | 1.59 | 0.01255 | 1 | Compiles |
| IEEE 802.11n HT40 | 2422 | 13.03 | 20.09 | 13±1 | 2 | 1.59 | 0.00792 | 1 | Compiles |
| | 2437 | 13.44 | 22.08 | 13±1 | 2 | 1.59 | 0.00792 | 1 | Compiles |
| | 2452 | 14.08 | 25.59 | 14±1 | 2 | 1.59 | 0.00997 | 1 | Compiles |