

1 Test Summary

| Test Items | Test Requirement | Result |
|---|------------------|--------|
| Maximum Permissible Exposure (Exposure of Humans to RF Fields) | 1.1307(b)(1) | PASS |

2 RF Exposure

Test Requirement: FCC Part 1.1307

Test Mode: The EUT work in test mode(Tx).

2.1 Requirements

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 levels 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 0.2 m normally can be maintained between the user and the device.

2.2 The procedures / limit

FCC Part 1.1307:

(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 Time 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 |
| 1500-100,000 | | | 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 Time 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 |
| 1500-100,000 | | | 1.0 | 30 |

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

2.3 MPE Calculation Method

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

S = power density (in appropriate units, e.g. mW/cm²)

P = power input to the antenna (in appropriate units, e.g., mW).

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

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

2.4G WIFI

| Mode | Antenna Gain (dBi) | Antenna Gain (numeric) | Max.Peak Output Power (dBm) | Peak Output Power (mW) | Power Density (mW/cm ²) | Limit of Power Density (mW/cm ²) |
|------|--------------------|------------------------|-----------------------------|------------------------|-------------------------------------|--|
| WiFi | 2.50 | 1.778 | 20.96 | 124.74 | 0.044129 | 1 |

433.92MHz

| Mode | Antenna Gain (dBi) | Antenna Gain (numeric) | Max.Peak Output Power (dBm) | Peak Output Power (mW) | Power Density (mW/cm ²) | Limit of Power Density (mW/cm ²) |
|--------|--------------------|------------------------|-----------------------------|------------------------|-------------------------------------|--|
| 433.92 | 0.00 | 1.000 | -33.31 | 0.00 | 0.000000 | 0.289 |

Note: the following is Source-based time-averaged maximum output power Calculation

| Frequency | Source-based time-averaged maximum output power | Substituted (0dBm) | Source-based time-averaged maximum output power |
|-----------|---|--------------------|---|
| (MHz) | (dBμV/m) | (dBμV/m) | (dBm) |
| 433.92 | 61.89 | 95.2 | -33.31 |

3 Photographs of test setup and EUT.

Note: Please refer to appendix: WTS18S10126788W_Photo.

=====End of Report=====