



RF Exposure Evaluation for Mobile

Model: **TIS-23**

FCC ID: **KR5TIS-23**

IC: **7812D-TIS23**

| Standards |
|---|
| OET Bulletin 65 Edition 97-01 August 1997 |
| FCC 47 CFR §1.1307 |
| FCC 47 CFR §1.1310 |
| RSS-102 Issue 5 – March 2015 |

Test limits

As specified in Table 1B of 47 CFR 1.1310 – Limits for Maximum Permissible Exposure (MPE), Limits for General Population/Uncontrolled Exposure.

| Frequency range (MHz) | Power density (mW/cm ²) |
|-----------------------|-------------------------------------|
| 300 – 1,500 | f/1500 |
| 1,500 – 100,000 | 1.0 |

Limits specified per RSS-102, Issue 5.

| Frequency range (MHz) | Power density (W/m ²) | Power density (mW/cm ²) |
|-----------------------|-----------------------------------|---|
| 300 – 6000 | 0.02619 f ^{0.6834} | mW/cm ² = W/m ² * 0.1 |

Equation OET bulletin 65, page 18, edition 97-01:
$$S = \frac{PG}{4\pi R^2} = \frac{EIRP}{4\pi R^2}$$

Where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the centre of radiation of the antenna

Distance = 20cm

| Operational Bands | Frequency (MHz) | Antenna Gain (dBi) | Antenna Gain -numeric- (mW/cm ²) | Output Power -conducted- (dBm) | Output Power -conducted- (mW) | IC Limit (mW/cm ²) | FCC Limit (mW/cm ²) | Power Density value (mW/cm ²) | Margin to FCC Limit (mW/cm ²) | Margin to IC Limit (mW/cm ²) |
|----------------------|-----------------|--------------------|--|--------------------------------|-------------------------------|--------------------------------|---------------------------------|---|---|--|
| Bluetooth Low Energy | 2480 | -3.95 | 0.4027 | -5.80 | 0.26 | 0.5469 | 1.00 | 0.000021 | 0.999979 | 0.546874 |

Yours Sincerely,

T.S. Sunar

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