

## 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 <sup>2</sup> )
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 <sup>2</sup> )	Power density (mW/cm <sup>2</sup> )
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 <sup>2</sup> )	Output Power -conducted- (dBm)	Output Power -conducted- (mW)	IC Limit (mW/cm <sup>2</sup> )	FCC Limit (mW/cm <sup>2</sup> )	Power Density value (mW/cm <sup>2</sup> )	Margin to FCC Limit (mW/cm <sup>2</sup> )	Margin to IC Limit (mW/cm <sup>2</sup> )
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*

Teoman Soner Sunar