

RF Exposure Report

1. Limits For Maximum Permissible Exposure (MPE)

According to §1.1310 and §2.1091 RF exposure is calculated.

Table: Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Power Density (S) (mW/cm ²)
0.3–1.34	*(100)
1.34–30	*(180/f ²)
30–300	0.2
300–1500	f/1500
1500–100,000	1.0

F = frequency in MHz

* = Plane-wave equivalent power density

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 antenna gain used for the EUT is 0.5dBi(Max.).
2. Manufacturer declared that the nearest distance between human and the EUT is 20cm.
3. Only record worst case data.

2. Calculation Results

Test Mode	Channel & Frequency (MHz)	Max. Tune Up Power (dBm, Average)	Max. Tune Up Power (mW)	MPE (mW/cm ²)	Limit (mW/cm ²)
GPRS 850 (1TX slot)	Low Channel 824.2MHz	32.0 ± 1.0	1995.26	0.4454	0.549
	Middle Channel 836.6MHz	32.0 ± 1.0	1995.26	0.4454	0.558
	High Channel 848.8MHz	32.0 ± 1.0	1995.26	0.4454	0.566
GPRS 1900 (1TX slot)	Low Channel 1850.2MHz	29.0 ± 1.0	1000.00	0.2232	1.0
	Middle Channel 1880.0MHz	29.0 ± 1.0	1000.00	0.2232	1.0
	High Channel 1909.8MHz	29.0 ± 1.0	1000.00	0.2232	1.0

Antenna Gain (typical): 0.5dBi / 1.122(numeric)

Prediction distance: ≥ 20 cm

The power density level worst case at 20 cm is below the uncontrolled exposure limit.