

Prüfbericht - Nr.: 15031527 001
Test Report No.: RF exposure

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1.1 MPE Calculation

1.1.1 Calculation RF exposure

Result:

Passed

The calculated of MPE limit at given distance

Equation of OET Bulletin 65, Edition 97-01

$$S = PG / 4\pi R^2$$

where: S = Power density

P = Power input to the antenna

G = Antenna gain

R = Distance to the center of radiation of antenna

The table below is excerpted from Table 1B of 47CFR 1.1310 "Limits for maximum permissible exposure (MPE), Limits for General Population/Uncontrolled Exposure"

Frequency Range (MHz)	Power Density (mW/cm ²)	Averaging Time (minutes)
1500 - 10000	1.0	30

Calculation:

P Max power input to the antenna: 83.4 mW (19.21 dBm);

G Antenna gain: 1.45 numerical for Antenna gain (1.6 dBi);

R Distance: 20 cm;

Calculated power density: $S = PG / 4\pi R^2 = 0.024 \text{ mW/cm}^2$.