

**Deb R&D**

Denby Hall Way  
Denby  
Derbyshire  
DE5 8JZ, UK

Tel: +44 (0) 1773 855300

Web: [www.debgroup.com](http://www.debgroup.com)

**1135-100 MPE Calculation - OET Bulletin 65****FCC ID: YPHDEB1135-100**

The FCC requires that the calculated MPE be equal to or less than a given limit dependent on frequency at a distance of 20 cm from a device to the body of a user.

The MPE calculation as given in FCC OET Bulletin 65, page 19 is used to calculate the safe operating distance for the user.

The transmitter for the 1135-100 operates at 906 MHz

**CALCULATION**

From OET Bulletin 65 the following far field power density equation is applicable:

$$S = \text{EIRP} / 4 \pi R^2$$

**Where**

S = Power density

EIRP = Effective Isotropically Radiated Power (EIRP = P x G)

P = Conducted Transmitter Power

G = Antenna Gain (relative to an isotropic radiator)

R = distance to the centre of radiation of the antenna

**Requirement**

From table 1 (b) - Limits for General Population/ Uncontrolled Exposure of  
FCC Rule Part 1.1310 for 1,500-100,000MHz

$$S = f/1500 = 0.604 \text{ mW/cm}^2$$

**Calculation for 20cm safe distance**

Values: P = 436.52 mW\* (26.4 dBm); G = 2.35 dBi ∴ EIRP = 749.84 mW (28.75 dBm); R = 20cm  
\*Measured conducted power

$$S = \text{EIRP} / 4 \pi R^2$$

$$S = 749.84 / (12.56 \times 20^2)$$

$$= 749.84 / 5024$$

$$S = 0.149 \text{ mW/cm}^2$$

**Conclusion**

The 1135-100 at 20 cm meets the required OET Bulletin 65 RF exposure requirements.

---

**Be the world's leading away from home skin care system company**

• Australia • Belgium • Canada • Denmark • Finland • France • Germany • Ireland • Luxembourg • Netherlands • New Zealand • Norway • Portugal • Spain • Sweden • UK • USA •

Deb R&D is a trade name of Deb IP LTD. Registered in England and Wales No. 3796906. Registered Office: Denby Hall Way, Denby, Derbyshire, DE5 8JZ, UK