

MPE Calculation for G32/G31/G36

for

Project Name: **Ericsson Fixed Wireless Terminal**
Project Code: **ERIFWT102**
Product: **G3x FWT Product Series**

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1. MPE CALCULATION FOR THE FWT G32 PRODUCT SERIES

1.1 Introduction

The FCC requires that the calculated MPE be equal to or less than the limits for general population/uncontrolled exposure as detailed in Part 1.1310 of the FCC regulations at a distance of 20cm from the device to the body of the user. The equation for the calculation is given in OET Bulletin 65, page 19 as:

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

Where S = Power density

EIRP = Effective Isotropically Radiated Power

R = distance to the centre of the radiation of the antenna

1.2 For 850 MHz

Values S = 0.566 mW/cm² (f/300) for general population uncontrolled exposure (FCC Part 1.1310 Radiofrequency radiation exposure limits)

EIRP = 34.8 dBm (3020 mW)

R = 20 cm

Calculation

$$S = 3020 / 12.56 \times (20)^2$$

$$S = 3020 / 5024$$

$$S = 0.601 \text{ mW}^2$$

1.3 For 1900 MHz

Values $S = 1 \text{ mW/cm}^2$ for general population uncontrolled exposure (FCC Part 1.1310
Radiofrequency radiation exposure limits)
EIRP = 28.7 dBm (741 mW)
R = 20 cm

Calculation

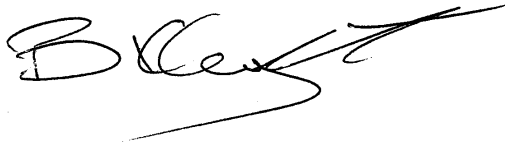
$$S = 741 / 12.56 \times (20)^2$$

$$S = 741 / 5024$$

$$S = 0.147 \text{ mW}^2$$

1.4 Conclusion

The MPE values of the FWT G32 Product Series at 20 cm meet the RF exposure limits.

A handwritten signature in black ink, appearing to be 'B. Kelly', with a long horizontal stroke extending to the right.