

## Calculation and sample for Confirmation

Dear Reviewer,

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> )
<b>300 – 1,500</b>	<b>f/1500</b>
1,500 – 100,000	1.0

The RF Exposure level is calculated using the general equation:

$$S = P' / 4\pi R^2$$

The maximum measured Conducted power output is

800MHz : 23.80 dBm (~0.2398 W)

1900MHz: 23.72 dBm (~0.2355 W)

the EUT antenna gain is

800MHz : 0.8dBi

1900MHz : 3.0dBi

CDMA 800MHz:  $P' = P * G = 23.80\text{dBm} + 0.8\text{dBi} = 24.60\text{dBm} (288.40\text{mW})$

CDMA1900MHz:  $P' = P * G = 23.72\text{dBm} + 3.0\text{dBi} = 26.72\text{dBm} (469.89\text{mW})$

R = 20 cm

$\pi = 3.1416$

Solving for S, the power density at 20 cm is

**CDMA800: 0.0573 mW/cm<sup>2</sup>**

**CDMA1900: 0.0934 mW/cm<sup>2</sup>**

The power density limit is:

For 800MHz:  $f/1500 = 824.7/1500 = 0.5498 \text{ mW/cm}^2$

For 1900MHz: 1.0 mW/cm<sup>2</sup>

So, the power density is kept.

Please contact us if you have any additional questions.

Best Regards

**Morlab**

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