RF Exposure

The maximum power density permitted as per RF exposure rules is 1.00 mW/cm

RF exposure calculation for a mobile device (GT200 is as follows).

$$S = \frac{PG}{4\P R^2}$$

Where:

S= power density
P= power input to the 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

EUT Information:

Conducted Measured RF Power Output	:	24.6 dBm or .2884 Watts
Antenna Gain (Typical) - dBi	:	0.5 dbi
Antenna Gain – numerical	:	1.12
Minimum distance	:	20 cm
Frequency	:	824.7 MHz
MPE Limit	:	1.0 mW/cm²

The worst case measured ERP was used for the calculation:

$$\text{Power Density} = \frac{.2884 \times 1.12}{4 \P (20^2)}$$

$$= 0.0643 \text{ mW/cm}^2$$

The power density at 824.7 MHz is 0.0643 mW/cm² at a distance of 20 cm