

$$S = GP/(4\pi R^2)$$

S = power density

P = power output

G = antenna gain

R = distance to antenna

PD = power density

	<b>GPRS</b>		<b>BT</b>		<b>RFID</b>	
	<b>800</b>					
P	<b>30.63</b>	(dBm)	<b>2.06</b>	(dBm)	<b>29.43</b>	(dBm)
P	<b>1156</b>	(mW)	<b>1.61</b>	(mW)	<b>877</b>	(mW)
G	<b>2</b>	(dBi)	<b>1.3</b>	(dBi)	<b>2.7</b>	(dBi)
G numeric	<b>1.58</b>	(numeric)	<b>1.35</b>	(numeric)	<b>1.86</b>	(numeric)
R	<b>20</b>	(cm)	<b>20</b>	(cm)	<b>20</b>	(cm)
Duty Cycle	<b>50</b>	(%)	<b>100</b>	(%)	<b>100</b>	(%)
Frequency	<b>824</b>	(MHz)	<b>2402</b>	(MHz)	<b>902</b>	(MHz)
MPE limit	<b>0.549</b>	(mW/cm <sup>2</sup> )	<b>1.0</b>	(mW/cm <sup>2</sup> )	<b>0.601</b>	(mW/cm <sup>2</sup> )
PD	<b>0.182</b>	(mW/cm <sup>2</sup> )	<b>0.000431</b>	(mW/cm <sup>2</sup> )	<b>0.325</b>	(mW/cm <sup>2</sup> )
Margin	<b>4.8</b>	(dB)	<b>33.7</b>	(dB)	<b>2.7</b>	(dB)
Combined	0.33179	+	0.000431	+	0.54	= 0.87