

LIMITS

From §1.1310 Table 1 (B), $S = 1.0 \text{ mW/cm}^2$

RESULTS

No non-compliance noted:

WEMBLEY ANTENNA MPE CALCULATIONS

Legacy 802.11g Mode

Power Density Limit (mW/cm²)	Output Power (dBm)	Antenna Gain (dBi)	S, mW/cm² at 20cm	MPE Distance (cm)
1.0	28.80	5.88	0.62	15.86

HT20 MIMO Mode

Power Density Limit (mW/cm²)	Output Power (dBm)	Antenna Gain (dBi)	S, mW/cm² at 20cm	MPE Distance (cm)
1.0	28.89	1.99	0.24	9.87

Antenna gains: 0.46 dBi, 1.99 dBi, and 0.79 dBi

Maximum Antenna gain, legacy mode = $10\log(10^{0.46/10} + 10^{1.99/10} + 10^{0.79/10}) = 5.88 \text{ dBi}$

NOTE: For mobile or fixed location transmitters, the minimum separation distance is 20 cm, even if calculations indicate that the MPE distance would be less.

AVALON ANTENNA MPE CALCULATIONS

Legacy 802.11g Mode

Power Density Limit (mW/cm ²)	Output Power (dBm)	Antenna Gain (dBi)	S, mW/cm ² at 20cm	MPE Distance (cm)
1.0	28.80	6.2	0.63	15.86

HT20 MIMO Mode

Power Density Limit (mW/cm ²)	Output Power (dBm)	Antenna Gain (dBi)	S, mW/cm ² at 20cm	MPE Distance (cm)
1.0	28.89	1.50	0.24	9.27

Antenna gains: 1.0 dBi, 2.26 dBi, and 0.79 dBi

Maximum Antenna gain, legacy mode = $10\log(10^{1.0/10} + 10^{2.26/10} + 10^{0.79/10}) = 6.2$ dBi

NOTE: For mobile or fixed location transmitters, the minimum separation distance is 20 cm, even if calculations indicate that the MPE distance would be less.