

Product name: Wifi router  
 Manufacturer: SAGEMCOM  
 FCC Id: VW3FAST5260

**Prediction of MPE limit at a given distance**

Equation from page 18 of OET Bulletin 65, Edition 97-01

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

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

**Transmitter n°1**

Maximum peak output power at the antenna terminal: 28.90 (dBm)  
 Maximum peak output power at the antenna terminal: 776.2471166 (mW)  
 Antenna gain(typical): 6.4 (dBi)  
 Maximum antenna gain: 4.365158322 (numeric)  
 Prediction distance: 20 (cm)  
 Prediction frequency: 2400 (MHz)  
 MPE limit for uncontrolled exposure at prediction frequency: 1 (mW/cm<sup>2</sup>)

**Power density** at prediction frequency: **0.674109** (mW/cm<sup>2</sup>)

**Maximum allowable antenna gain:** **8.112698554** (dBi)

*Note: Transmitter n°1 includes the 3 antennas for 2.4GHz  
 Equivalent maximum gain for these 3 combined antenna has been measured and found equal to 6.4dBi  
 28.9 dBm is the maximum power delivered to the 3 combined antennas*

**Transmitter n°2**

Maximum peak output power at the antenna terminal: 22.20 (dBm)  
 Maximum peak output power at the antenna terminal: 165.9586907 (mW)  
 Antenna gain(typical): 7 (dBi)  
 Maximum antenna gain: 5.011872336 (numeric)  
 Prediction distance: 20 (cm)  
 Prediction frequency: 5200 (MHz)  
 MPE limit for uncontrolled exposure at prediction frequency: 1 (mW/cm<sup>2</sup>)

**Power density** at prediction frequency: **0.165474** (mW/cm<sup>2</sup>)

**Maximum allowable antenna gain:** **14.81269855** (dBi)

*Note: Transmitter n°2 includes the 3 antennas for 5GHz  
 Equivalent maximum gain for these 3 combined antenna has been measured and found equal to 7dBi  
 22.2 dBm is the maximum power delivered to the 3 combined antennas*

**Transmitter n°1 + Transmitter n°2:**

$$[Pd(1)/LPd(1)] + [Pd(2)/LPd(2)] = 0.83958 < 1$$