

Supplemental explanation of multiple antenna transmission.

The MPE calculations for the Strix Systems OWS3600 were done for each operating band using the highest gain antenna for the worst case situation. For the 2.4GHz band the highest gain antenna is a 120 degree 16.4dBi sectored antenna and for the 5GHz bands the worst case would be the 29dBi parabolic antenna. In a standard sectored solution with 120 degree spacing between antennas, there will generally be a small amount of overlap at the 120 degree -3dB point of the antenna. In this situation, the maximum EIRP is down by 3dB and the sum of the two antenna patterns will produce no more than the maximum EIRP of a single antenna. For the 29dBi parabolic, in the 5GHz bands, the beamwidth is very narrow and any overlap of emissions would be at levels significantly below the -3dB point. Thus the maximum EIRP case is still for a single channel of 802.11a when a person is directly in the beam at 2 meters. However, this does not address the situation of a person being presented with the emissions of an 2.4GHz antenna and a 5GHz antenna which is possible in any 802.11a/b/g device. For this situation the person would be exposed to 0.035mW/cm² plus 0.2mW/cm² for a maximum exposure of 0.235mW/cm². This is still well below the 1mW/cm² limit. The above calculations are provided by Strix Systems.