Maximum Permissible Exposure (MPE) Requirement

This document was prepared in by VPI Laboratories on behalf of the applicant using data collected during testing and information provided by the applicant. The maximum power density requirements for the General Public (Uncontrolled Environment) listed in FCC Part 1.1310 were used. The power density is calculated using the following equation.

$$P_d = \frac{P_t\ G^*\ -}{4\pi r^2}$$

P_d = power density in watts
P_t = transmit power in milliwatts
G = numeric antenna gain
r = distance between body and transmitter in centimeters
$*$ $P_t\ G$ = EIRP

All operating supported by this device was considered in this MPE Exhibit. The calculated power density of the EUT listed in this application is calculated below.

WiFi Radio:

Max Transmit Power ERP (mW):	5.89E+01	Max Antenna Gain (dBi):	1.5
Operating Frequency (MHz):	2412	(Numeric Antenna Gain):	1.41
Min Operating Distance (cm):	20	Duty Cycle (%):	100
Power Density (mW/cm^2):		1.65E-02	
Limit (mW/cm^2):		1.00E+00	
Delta:		-9.83E-01	

Assuming wholly constructive interaction (worst case):

Operating Frequency (MHz):	699		
Min Operating Distance (cm):	20	Duty Cycle (%):	100
WiFi Power Density (mW/cm^2):		1.65E-02	
LTE Power Density (mW/cm^2):		1.99E-01	
Limit (mW/cm^2):		4.66E-01	
Delta:		-2.50E-01	

Signed:  Joseph W. Jackson Reviewer