

RF Exposure Compliance for Simultaneous Operations

Configurations for Simultaneous Operations

Configuration 1: WiFi 2.4GHz + Bluetooth

Configuration 2: WiFi 2.4GHz + BLE

Configuration 3: WiFi 5GHz + Bluetooth

Configuration 4: WiFi 5GHz + BLE

Power Density is calculated from Maximum Conducted Power and Antenna Gain at prediction distance

RF Function	WiFi 2.4	WiFi 5	BT	BLE	$\Sigma \text{ of MPE ratios}$
Frequency (MHz)	2412	5745	2402	2402	
Conducted Output Power (dBm)	28.30	20.48	9.94	7.33	
Tune Up Tolerance (dB)	0.00	0.00	0.00	0.00	
Output Power incl. Tune Up Tolerance (W)	0.676	0.112	0.010	0.005	
Antenna Gain (dBi)	0.00	0.00	2.60	0.00	
Antenna Gain (Numeric)	1.00	1.00	1.82	1.00	
Prediction Distance (cm)	20	20	20	20	
Time Averaged Duty Cycle (%)	100	50	100	100	
Calculated Power Density (W/m ²)	1.345	0.111	0.036	0.011	
Requirement (W/m ²)	10.000	10.000	10.000	10.000	
MPE ratio (Power Density/Requirement)	0.135	0.011	0.004	0.001	
Configuration 1 (MPE Ratio)	0.135		0.004		0.138
Configuration 2 (MPE Ratio)	0.135			0.001	0.136
Configuration 3 (MPE Ratio)		0.011	0.004		0.015
Configuration 4 (MPE Ratio)		0.011		0.001	0.012

Requirement: $\Sigma \text{ of MPE ratios} \leq 1$