

RF Exposure Compliance for Simultaneous Operations

Configurations for Simultaneous Operations

Configuration 1: GW900MHz + GPRS/EDGE 850 + Bluetooth

Configuration 2: GW900MHz + UMTS 850 + Bluetooth

Configuration 3: GW900MHz + GPRS/EDGE 1900 + Bluetooth

Configuration 4: GW900MHz + UMTS 1900 + Bluetooth

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

RF Function	ITS950 GW	GSM850	UMTS850	GSM1900	UMTS1900	BT	Σ of MPE ratios
Frequency (MHz)	902	824	824	1850	1850	2402	
Conducted Output Power (dBm)	9.59	29.46	23.95	26.48	24.98	0.00	
Conducted Output Power (W)	0.009	0.883	0.248	0.445	0.315	0.001	
Antenna Gain (dBi)	15.00	3.00	3.00	3.00	3.00	0.00	
Antenna Gain (Numeric)	31.62	2.00	2.00	2.00	2.00	1.00	
Prediction Distance (cm)	20	20	20	20	20	20	
Time Averaged Duty Cycle (%)	100	50	100	50	100	100	
Calculated Power Density (W/m ²)	0.572	1.753	0.986	0.882	1.249	0.002	
Requirement (W/m ²)	6.013	5.493	5.493	10.000	10.000	10.000	
MPE ratio (Power Density/Requirement)	0.095	0.319	0.179	0.088	0.125	0.000	
Configuration 1 (MPE Ratio)	0.095	0.319				0.000	0.414
Configuration 2 (MPE Ratio)	0.095		0.179			0.000	0.275
Configuration 3 (MPE Ratio)	0.095			0.088		0.000	0.184
Configuration 4 (MPE Ratio)	0.095				0.125	0.000	0.220

Requirement: Σ of MPE ratios ≤ 1

Power values for GSM and UMTS are from Exposure Report for UBLOX Module (FCC ID: XPY1CGM5NNN)