

MPE limits for FCC, 1.1310

Mode	Frequency MHz	Duty Cycle %	Power dBm	Antenna		EIRP dBm	EIRP mW	Distance D cm	PD mW/m ²	Limit mW/cm ²	Margin dB	2.1091	2.1091 EIRP	PD/Limit
				Gain dBi	EIRP dBm							EIRP Limit mW	Margin dB	
LTE ^{1,2}	699	100	24.0	5.83	29.83	962	20	0.191	0.466	3.87	2460	4.08	0.411	
LTE ^{1,2}	777	100	24.0	5.83	29.83	962	20	0.191	0.518	4.33	2460	4.08	0.369	
WCDMA-LTE ^{1,2}	824	100	24.5	4.97	29.47	885	20	0.176	0.549	4.94	2460	4.44	0.321	
LTE ^{1,2}	1710	100	24.0	5.49	29.49	889	20	0.177	1.00	7.5	4920	7.43	0.177	
WCDMA-LTE ^{1,2}	1850	100	24.5	6.16	30.66	1164	20	0.232	1.00	6.4	4920	6.26	0.232	
BT ^{1,3}	2402	100	11.61	5.47	17.08	51.1	20	0.0102	1.00	19.9			0.0102	
WiFi ^{1,3}	2412	100	20.04	5.47	25.51	356	20	0.0707	1.00	11.5			0.0707	
WiFi ^{1,3}	5180	100	16.29	7.07	23.36	217	20	0.0432	1.00	13.6			0.0432	
WiFi ^{1,3}	5745	100	14.71	7.07	21.78	151	20	0.0300	1.00	15.2			0.0300	

EIRP = (Power dBm + Antenna Gain dBi) + 10 x Log (Duty Cycle % / 100)
 PD = EIRP / (4πr²)

EIRP limits for FCC

	Frequency MHz	Power dBm	Antenna		EIRP dBm	EIRP W	EIRP Limit W	EIRP Margin dB
			Gain dBi	EIRP dBm				
LTE ^{1,2}	699	24.0	5.83	29.83	0.962	4.92	7.1	
LTE ^{1,2}	777	24.0	5.83	29.83	0.962	4.92	7.1	
WCDMA-LTE ^{1,2}	824	24.5	4.97	29.47	0.885	11.5	11.1	
LTE ^{1,2}	1710	24.0	5.49	29.49	0.889	1.0	0.5	
WCDMA-LTE ^{1,2}	1850	24.5	6.16	30.66	1.164	2.0	2.4	

¹taoglas MA950.W.A.LBICG.005 [cell WiFi GPS antenna] represents worst case, MIMO_1 antenna is interfaced to 2.4GHz WiFi/Bluetooth, MIMO_2 antenna is interfaced to 5GHz WiFi

²Maximum conducted output power (per tune-up), TUV SUD BAPT, 07/27/2015, RF exposure analysis, Model: LE910-NA V2, FCC ID: R17LE910NAV2, IC: 5131A-LE910NAV2

³EUROTECH SpA, FCC ID: UKMMRG1012, Output Power

other antennas

Linx ant-dbi-raf-ccc [WiFi antenna, 2.5 dBi at 2.4 GHz, 4.6 dBi at 5 GHz]

taoglas GSA.8827.A.101111

FCC co-location = 0.411 + 0.0707 + 0.0432 = 0.524 < 1