

CL-10 LTE VZW

MPE limits for FCC, 1.1310

	Mode	Frequency MHz	Duty Cycle %	Power dBm	Antenna		EIRP ⁸ dBm	EIRP mW	Distance D cm	PD ⁹ mW/cm^2	PD Limit mW/cm^2	Margin dB	2.1091 EIRP		PD/PD Limit
					Gain dBi								Limit mW	Margin dB	
LARA-R204	LTE eFDD13 ^{1,2,3}	777	100	24	3		27.0	501	20	0.100	0.518	7.16	2455	6.90	0.19249
LARA-R204	LTE eFDD4 ^{1,2,3}	1710	100	24	3		27.0	501	20	0.100	1.140	10.58	2455	6.90	0.08746
LILY-W132	WIFI 2.4GHz ^{4,6}	2412	100	21.5	3		24.5	282	20	0.056	1.608	14.58	N/A	N/A	0.03487
BlueMod+S42	BLE ^{5,7}	2402	100	4.6	2		6.6	4.6	20	0.001	1.00	30.41	N/A	N/A	0.00091
FCC Co-Location =		0.19249	+	0.03487	+	0.00091	=	0.22827	< 1						

MPE limits for Innovation, Science and Economic Development Canada, RSS-102 Issue 5

	Mode	Frequency MHz	Duty Cycle %	Power dBm	Antenna		EIRP ⁸ dBm	EIRP W	Distance D m	PD ⁹ W/m^2	PD Limit W/m^2	Margin dB	RSS 102		PD/PD Limit
					Gain dBi								\$2.5.2 Lim. W	Marg. dB	
LARA-R204	LTE eFDD13 ^{1,2,5}	777	100	24	3		27.0	0.501	0.2	1.00	2.47	3.95	1.238	3.93	0.40298
LARA-R204	LTE eFDD4 ^{1,2,5}	1710	100	24	3		27.0	0.501	0.2	1.00	4.24	6.29	2.122	6.27	0.23505
LILY-W132	WIFI 2.4GHz ^{4,6}	2412	100	21.5	3		24.5	0.282	0.2	0.56	5.37	9.81	2.684	9.79	0.10449
BlueMod+S42	BLE ^{5,7}	2412	100	4.6	2		6.6	0.005	0.2	0.01	5.37	27.71	2.684	27.69	0.00169
Canada Co-Location =		0.40298	+	0.10449	+	0.00169	=	0.50916	< 1						

EIRP limits for FCC and Innovation, Science and Economic Development Canada

		Frequency MHz	Power dBm	Antenna		EIRP ¹⁰ dBm	EIRP W	EIRP Limit W	EIRP Margin dB
				Gain dBi					
LARA-R204	LTE eFDD13 ^{1,2,3}	777	24	3.00	27.00	0.501	4.91	9.91	
LARA-R204	LTE eFDD4 ^{1,2,3}	1710	24	3.00	27.00	0.501	1.0	3.00	

¹FCC ID: XPY1EIQN2NN, IC: 8595A-1EIQN2NN, HVIN: LARA-R204

²layers GmbH, Assessment Reference: MDE_UBLOX_1603_MPEa, Conducted output power values bases on "Tune-up" information provided by manufacturer at page 9 section 3.2.2

³Open Web Search Kunshan Wavelink Electronic Co.,Ltd. External 4G LTE Antenna Gain

⁴FCC ID: XPLYLILYW1, 8595A-LILYW1, LILY-W132

⁵FCC ID: RFRMS42, 4957A-MS42, BlueMod+S42

⁶LILY-W1 series Data Sheet UBX-15000203 - R04 at page 28 section 7.2 Approved antennas

⁷BlueMod+S42 Hardware User Guide 1VV0301303 Rev.6 – 2017-06-07 at page 44 section 5.6.3 Antenna-Gain and Radiation Pattern and page 58 section 8.3.4 Antenna peak Gain

⁸EIRP = (Power dBm + Antenna Gain dBi) + 10 x Log (Duty Cycle % / 100)

⁹PD = EIRP / (4 π x π D²)

¹⁰EIRP = Power dBm + Antenna Gain dBi