Manufacturer: Mikrotikls SIA

Product: LHG XL 52 ac

FCC ID: TV7LHG5HPACD2HPD

MPE limits (§1.1310)

Radio device	Frequency MHz	Duty Cycle %	Power dBm	Antenna Gain[3] dBi	EIRP[1] dBm	EIRP mW	Distance D cm	PD[2] mW/cm^2	PD Limit[4] mW/cm^2	Margin dB	PD/PD Limit
WiFi 2,4 GHz[5] (IEEE 802.11b)	2412	100	-5.2	21.5	16.3	43	20	0.008487	1.000	20.71	**0.00849**
WiFi 2,4 GHz[5] (IEEE 802.11g)	2462	100	-7.8	21.5	13.7	23	20	0.004664	1.000	23.31	**0.00466**
WiFi 2,4 GHz[5] (IEEE 802.11n HT20)	2412	100	-7.7	21.5	13.8	24	20	0.004772	1.000	23.21	**0.00477**
WiFi 2,4 GHz[5] (IEEE 802.11n HT40)	2422	100	-9.7	21.5	11.8	15	20	0.003011	1.000	25.21	0.00301
WiFi 5 GHz[6] (IEEE 802.11a)	5180	100	-19	30.5	11.5	14	20	0.002810	1.000	25.51	**0.00281**
WiFi 5 GHz[6] (IEEE 802.11n HT20)	5180	100	-19	30.5	11.5	14	20	0.002810	1.000	25.51	0.00281
WiFi 5 GHz[6] (IEEE 802.11n HT40)	5230	100	-15.9	30.5	14.6	29	20	0.005738	1.000	22.41	**0.00574**
WiFi 5 GHz[6] (IEEE 802.11ac 80)	5210	100	-15.8	30.5	14.7	30	20	0.005871	1.000	22.31	**0.00587**
WiFi 5 GHz[7] (IEEE 802.11a)	5745	100	-19.8	30.5	10.7	12	20	0.002337	1.000	26.31	0.00234
WiFi 5 GHz[7] (IEEE 802.11n HT20)	5825	100	-19.9	30.5	10.6	11	20	0.002284	1.000	26.41	0.00228
WiFi 5 GHz[7] (IEEE 802.11n HT40)	5755	100	-20.4	30.5	10.1	10	20	0.002036	1.000	26.91	0.00204
WiFi 5 GHz[7] (IEEE 802.11ac 80)	5787	100	-18.7	30.5	11.8	15	20	0.003011	1.000	25.21	0.00301

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

Radio device	Frequency MHz	Duty Cycle %	Power dBm	Antenna Gain[3] dBi	EIRP[1] dBm	EIRP W	Distance D m	PD[2] W/m^2	PD Limit[4] W/m^2	Margin dB	RSS 102 §2.5.2 Lim. W	RSS 102 §2.5.2 Marg. dB	PD/PD Limit	
WiFi 2,4 GHz[5] (IEEE 802.11b)	2412	100	-5.2	21.5	16.3	0.043	0.2	0.08487	5.37	18.0	2.7	18.0	**0.01582**	
WiFi 2,4 GHz[5] (IEEE 802.11g)	2462	100	-7.8	21.5	13.7	0.023	0.2	0.04664	5.44	20.7	2.7	20.6	**0.00857**	
WiFi 2,4 GHz[5] (IEEE 802.11n HT20)	2412	100	-7.7	21.5	13.8	0.0240	0.2	0.04772	5.37	20.5	2.7	20.5	**0.00889**	
WiFi 2,4 GHz[5] (IEEE 802.11n HT40)	2422	100	-9.7	21.5	11.8	0.0151	0.2	0.03011	5.38	22.5	2.7	22.5	0.00560	
WiFi 5 GHz[6] (IEEE 802.11a)	5180	100	-19	30.5	11.5	0.0141	0.2	0.02810	9.05	25.1	4.5	25.1	**0.00311**	
WiFi 5 GHz[6] (IEEE 802.11n HT20)	5180	100	-19	30.5	11.5	0.0141	0.2	0.02810	9.05	25.1	4.5	25.1	0.00311	
WiFi 5 GHz[6] (IEEE 802.11n HT40)	5230	100	-15.9	30.5	14.6	0.0288	0.2	0.05738	9.11	22.0	4.6	22.0	**0.00630**	
WiFi 5 GHz[6] (IEEE 802.11ac 80)	5210	100	-15.8	30.5	14.7	0.0295	0.2	0.05871	9.08	21.9	4.5	21.9	**0.00646**	
WiFi 5 GHz[7] (IEEE 802.11a)	5745	100	-19.8	30.5	10.7	0.0117	0.2	0.02337	9.71	26.2	4.9	26.2	0.00241	
WiFi 5 GHz[7] (IEEE 802.11n HT20)	5825	100	-19.9	30.5	10.6	0.0115	0.2	0.02284	9.80	26.3	4.9	26.3	0.00233	
WiFi 5 GHz[7] (IEEE 802.11n HT40)	5755	100	-20.4	30.5	10.1	0.0102	0.2	0.02036	9.72	26.8	4.9	26.8	0.00209	
WiFi 5 GHz[7] (IEEE 802.11ac 80)	5787	100	-18.7	30.5	11.8	0.0151	0.2	0.03011	9.76	25.1	4.9	25.1	0.00309	
Canada Co-Location =	**0.01582**	+	**0.06008**	+	**0.06837**	+	**0.17297**	+	**0.35086**	+	**0.35997**	=	**0.04915**	**< 1**

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

[2] PD = EIRP / ($4\pi r x D^2$)

[3] Antenna Gain: see three Test Reports (p.32 (@2,4GHz) and p.24-28 (@5GHz))

[4] CFR 47 Part 1, §1.1310 (Table 1)

[5] 368276-1TRFWL (FCC 15.247 and RSS-247 2.4GHz WIFI)_part1 (p.34)

[6] 368276-2TRFWL (FCC-15.407 E and RSS-247 UNII1) (p.27)

[7] 368276-3TRFWL (FCC-15.407 and RSS-247 UNII3) (p.30)