

Applicant: Redline Communications
PMN: RDL-3100-RMA
HVIN: RDL-3100-RMA
Certification Number: 4310A-RDL3100RMA

FCC 1.1310 General Population/Uncontrolled Exposure

NII	Channel	Frequency	Antenna		Cable Loss	EIRP ¹	EIRP	Distance D	PD ²	Limit ³	Margin
			Power	Gain							
		MHz	dBm	dBi	dB	dBm	mW	cm	mW/m^2	mW/cm^2	dB
U-NII-1	0.875	5200	17.43	10	0.7	26.7	471	75	0.00666	1.00	21.8
U-NII-1	0.875	5200	3.04	24	0.7	26.3	431	75	0.00609	1.00	22.2
U-NII-1	0.875	5200	-5.01	32	0.7	26.3	426	75	0.00602	1.00	22.2
U-NII-1	5	5200	21.58	10	0.7	30.9	1225	75	0.0173	1.00	17.6
U-NII-1	5	5200	7.42	24	0.7	30.7	1180	75	0.0167	1.00	17.8
U-NII-1	5	5200	-0.59	32	0.7	30.7	1178	75	0.0167	1.00	17.8
U-NII-1	45	5200	24.91	10	0.7	34.2	2636	75	0.0373	1.00	14.3
U-NII-1	45	5200	12.68	24	0.7	36.0	3963	75	0.0561	1.00	12.5
U-NII-1	45	5200	4.59	32	0.7	35.9	3882	75	0.0549	1.00	12.6
U-NII-3	0.875	5790	24.72	10	0.7	34.0	2523	20	0.5020	1.00	3.0
U-NII-3	0.875	5790	12.57	24	0.7	35.9	3864	20	0.7687	1.00	1.1
U-NII-3	0.875	5790	3.92	32	0.7	35.2	3327	20	0.6618	1.00	1.8
U-NII-3	5	5790	24.64	10	0.7	33.9	2477	20	0.4929	1.00	3.1
U-NII-3	5	5790	12.44	24	0.7	35.7	3750	20	0.7460	1.00	1.3
U-NII-3	5	5790	3.91	32	0.7	35.2	3319	20	0.6603	1.00	1.8
U-NII-3	45	5790	24.64	10	0.7	33.9	2477	20	0.4929	1.00	3.1
U-NII-3	45	5790	12.27	24	0.7	35.6	3606	20	0.7173	1.00	1.4
U-NII-3	45	5790	3.77	32	0.7	35.1	3214	20	0.6393	1.00	1.9
90Y	0.875	4940	19.80	10	0.7	29.1	813	220	0.00134	1.00	28.7
90Y	0.875	4940	19.80	24	0.7	43.1	20417	220	0.0336	1.00	14.7
90Y	0.875	4940	14.65	32	0.7	46.0	39355	220	0.0647	1.00	11.9
90Y	5	4940	24.78	10	0.7	34.1	2559	220	0.00421	1.00	23.8
90Y	5	4940	24.78	24	0.7	48.1	64269	220	0.106	1.00	9.8
90Y	5	4940	21.05	32	0.7	52.4	171791	220	0.282	1.00	5.5

CANADA RSS-102, Issue 5 General Population/Uncontrolled Exposure

		Frequency	Antenna		Cable Loss	EIRP ¹	EIRP	Distance D	PD ²	Limit ³	Margin
			Power	Gain							
		MHz	dBm	dBi	dB	dBm	W	m	W/m^2	W/m^2	dB
U-NII-3	0.875	5790	24.72	10	0.7	34.0	2.523	0.20	5.020	9.76	2.89
U-NII-3	0.875	5790	12.57	24	0.7	35.9	3.864	0.20	7.687	9.76	1.04
U-NII-3	0.875	5790	3.92	32	0.7	35.2	3.327	0.20	6.618	9.76	1.69
U-NII-3	5	5790	24.64	10	0.7	33.9	2.477	0.20	4.929	9.76	2.97
U-NII-3	5	5790	12.44	24	0.7	35.7	3.750	0.20	7.460	9.76	1.17
U-NII-3	5	5790	3.91	32	0.7	35.2	3.319	0.20	6.603	9.76	1.70
U-NII-3	45	5790	24.64	10	0.7	33.9	2.477	0.20	4.929	9.76	2.97
U-NII-3	45	5790	12.27	24	0.7	35.6	3.606	0.20	7.173	9.76	1.34
U-NII-3	45	5790	3.77	32	0.7	35.1	3.214	0.20	6.393	9.76	1.84
RSS-111	0.875	4940	19.80	10	0.7	29.1	0.813	2.20	0.0134	8.76	28.16
RSS-111	0.875	4940	19.80	24	0.7	43.1	20.417	2.20	0.336	8.76	14.16
RSS-111	0.875	4940	14.65	32	0.7	46.0	39.355	2.20	0.647	8.76	11.31
RSS-111	5	4940	24.78	10	0.7	34.1	2.559	2.20	0.0421	8.76	23.18
RSS-111	5	4940	24.78	24	0.7	48.1	64.269	2.20	1.06	8.76	9.18
RSS-111	5	4940	21.05	32	0.7	52.4	171.791	2.20	2.82	8.76	4.91

¹EIRP = Power dBm + Antenna Gain dBi-0.7 dB cable loss

²Power Density PD = EIRP / (4xπxD²) [Health Canada Technical Guide - Safety Code 6_2015, Eq 5-6 at 5.2; OET Bulletin 65, Edition 97-01, August 1997, Eq (4)]

³RSS-102 Issue 5 Table 4; FCC 1.1310 Table 1