

Applicant: Northern Mechatronics Inc
FCC ID: 2AL5J-180100
PMN: NM180100
HVIN: NM180100
Certification Number: 22729-180100

FCC 1.1310 General Population/Uncontrolled Exposure

Frequency	Power	Antenna Gain	EIRP ¹	EIRP	Distance D	PD ²	Limit ³	Margin	PD/Limit
MHz	dBm	dBi	dBm	mW	cm	mW/m ²	mW/cm ²	dB	
903	22.4	2.27	24.7	293	20	0.0583	0.602	10.1	0.0969
2402	2.1	2.26	4.4	2.73	20	0.000543	1.00	32.7	0.000543
902.3	21.7	2.27	24.0	249	20	0.0496	0.60	10.8	0.0825
Σ									
co-location = 0.0969 + 0.000543 = 0.097									

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

Frequency	Power	Antenna Gain	EIRP ¹	EIRP	Distance D	PD ²	Limit ³	Margin	PD/Limit	Exemption Limit ⁴
MHz	dBm	dBi	dBm	W	m	W/m ²	W/m ²	dB		W
903	22.4	2.27	24.7	0.293	0.20	0.583	2.74	6.72	0.213	1.37
2402	2.1	2.26	4.4	0.00273	0.20	0.00543	5.35	29.9	0.00101	2.68
902.3	21.7	2.27	24.0	0.249	0.20	0.496	2.74	7.4	0.181	1.37
co-location = 0.213 + 0.00101 = 0.21										

¹EIRP = Power dBm + Antenna Gain dBi

²Power Density PD = EIRP / (4 π r²) [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

⁴RSS-102 Issue 5 at 2.5.2