RDL-3000 Family

Broadband Wireless Radio Platforms

RDL-3000-RM
Radio Module

Product Manual

Copyright Information

Contact Information:

Redline Communications Inc.

302 Town Centre Blvd.

Markham, ON

Canada L3R 0E8

Web site:

http://www.rdlcom.com

Email:

Inquiries: info@rdlcom.com
Support: support@rdlcom.com
Training: training@rdlcom.com

Document Control:

70-00184-01-00-RDL-3000-RM_Product_Manual-20120301a.doc

Disclaimer

The statements, configurations, technical data, and recommendations in this document are believed to be accurate and reliable, but are presented without express or implied warranty. Additionally, Redline makes no representations or warranties, either expressed or implied, regarding the contents of this product. Redline Communications shall not be liable for any misuse regarding this product. The information in this document is subject to change without notice. No part of this document shall be deemed to be part of any warranty or contract unless specifically referenced to be part of such warranty or contract within this document.

TABLE OF CONTENTS

LIST OF TABLES

1 Product Overview

The RDL-3000 Radio Module (RDL-3000-RM) is comprised of a proprietary Media Access Control (MAC) protocol engine and Time Division Duplexing (TDD)/ Orthogonal Frequency Division Duplexing (OFDM) digital radio.

The RDL-3000-RM is not designed for stand-alone operation. The module is sold as one component of a packaged system which includes a suitable housing for the module connectors for required external components including a power supply and antenna system. This is afterwards referred to as the 'final product'. The final product may be designed and manufactured by Redline or a licensed third party.

The module is available in the 4900 to 5800 MHz frequency band. Frequency settings within this band are software keyed to be compliant with specific regulatory agency requirements in the region of deployment.

Important: Read this entire document prior to installing or operating the RDL-3000-RM.

2 Conditions of Use

2.1 General Conditions

The RDL-3000-RM is not provided for sale to the general public.

The RDL-3000-RM contains a proprietary radio interface and can not be directly connected to any standard telecommunications or computer devices.

This manual is provided as supplement to technical and operational documentation and training provided by Redline and its agents. Any operation or use of the RDL-3000-M in any manner not expressly specified within this manual or approved in writing by Redline (or its agents) is expressly forbidden and voids the users right to operate the module. This includes, but is not limited to, any modification of the module hardware or software, installation of the module in a non approved enclosure, and use with non approved antennas.

2.2 Country of Use

The RDL-3000-RM is certified with limiter modular approval for use as an 'intentional radiator' in Canada as IC: 4310A-RDL3000RM and in the United States as device FCC ID: QC8-RDL3000RM, and .

Refer to the regulatory notices in this document before installing or operating the RDL-3000-RM.

2.3 Product Labeling

Information labels are applied to the final product. The final product features a label on the outside surface listing the registration number for the enclosed RDL-3000-RM module:

Contains:	IC 4310A-RDL3000RM
	FCC ID:QC8-RDL3000RM

Do not to remove any labels from the module or the final product.

3 Module Installation and Service

3.1 Installation Into a Final Product

The RDL-3000-RM must only be installed by trained professional technicians authorized by Redline or its agents. The module must be installed only into an approved enclosure (see Conditions of Use) and only at an approved manufacturing facility or service depot.

3.2 Module Servicing

The RDL-3000-RM is not intended to be field serviceable, and contains no field serviceable or field replaceable parts. The module must be serviced only at an approved manufacturing facility or service depot.

 **Warning:** The RDL-3000-RM is susceptible to damage from electrostatic charge. Electrostatic Discharge (ESD) must be avoided to prevent damaging or destroying the module. The module must always be store in an anti-static container/bag prior to installation and following removal from the product for servicing. Observe ESD precautions when handling the module.

3.3 Professional Installation

Devices containing the Redline RDL-3000-RM require professional installation. It is the responsibility of the installer understand the product operation by attending training as required, reading and understanding the product documentation, and ensuring that all building, safety and regulatory codes are met and the installation is complete and secure.

3.4 Safety Precautions

Installation and service must be done by personnel having technical training and experience necessary to be aware of hazards during installation and/or service of RF equipment. The installation and/or service must be done using procedures designed to minimize any danger to technical personnel or any other person.

3.5 Radio Frequency Safety

The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF fields in excess of the general population limits as defined by FCC CFR 47, Part 2.1091, Radio frequency radiation exposure evaluation for fixed devices & Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website:

http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/radio_guide-lignes_direct-eng.php .

Refer to the regulator statements included in this document.

4 Final Product Requirements

The following requirements apply to all final products incorporating the RDL-3000-RM.

4.1 Frequency Bands

Operation of the final product requires a software 'key' that is available exclusively from Redline. This key restricts device operation to the FCC/IC 4940-4990 MHz or 5725-5850 MHz band. The professional installer and operator can not modify or otherwise circumvent these operational restrictions.

4.2 Antenna Use and Transmit Power

The RDL-3000-RM module supports operation with 2x2 MIMO antenna systems with two transmit chains and two receive chains. The RDL-3000-RM module must be used only with certified antennas and using the channel size and output power level specified by the FCC/IC regulations.

4.3 Certified Antennas

This device has been designed to operate with the antennas listed in the following table. Any additional antennas will be used only after authorization is obtained through Class II permissive change.

Table 1: Approved Antennas

Manufacturer	Part #	Gain	Frequency Range
Redline	30-00328-00	19 dBi	4900-5875 MHz

4.4 Power and EIRP Results (MIMO Operation)

Operation in the 5725-5850 MHz Band: FCC & IC

For operation in the 5725-5850 MHz band, the RDL-3000-RM may be set to operate using a 5, 10, or 20 MHz channel.

Table 2: Power & EIRP Results: 5725-5850 MHz FCC & IC - 5 MHz Channel

Modulation	Frequency (MHz)	Conducted power, port 1 (dBm)	Conducted power, port 2 (dBm)	Combined power (dBm)	Conducted power limit (dBm)	Margin	Antenna gain (dBi)	EIRP (dBm)	EIRP limit (dBm)	Margin (dB)
BPSK	5727.5	13.79	13.53	16.67	17.00	0.33	19.00	35.67	36.00	0.33
	5790.0	13.89	13.41	16.67	17.00	0.33	19.00	35.67	36.00	0.33
	5847.5	13.97	13.45	16.73	17.00	0.27	19.00	35.73	36.00	0.27
QPSK	5727.5	13.81	13.50	16.67	17.00	0.33	19.00	35.67	36.00	0.33
	5790.0	13.93	13.35	16.66	17.00	0.34	19.00	35.66	36.00	0.34
	5847.5	13.96	13.48	16.74	17.00	0.26	19.00	35.74	36.00	0.26
16-QAM	5727.5	13.84	13.49	16.68	17.00	0.32	19.00	35.68	36.00	0.32
	5790.0	13.84	13.36	16.62	17.00	0.38	19.00	35.62	36.00	0.38
	5847.5	13.95	13.48	16.73	17.00	0.27	19.00	35.73	36.00	0.27
64-QAM	5727.5	13.94	13.65	16.81	17.00	0.19	19.00	35.81	36.00	0.19
	5790.0	13.91	13.40	16.67	17.00	0.33	19.00	35.67	36.00	0.33
	5847.5	14.21	13.47	16.87	17.00	0.13	19.00	35.87	36.00	0.13

Table 3: Power & EIRP Results: 5725-5850 MHz FCC & IC - 10 MHz Channel										
Modulation	Frequency (MHz)	Conducted power, port 1 (dBm)	Conducted power, port 2 (dBm)	Combined power (dBm)	Conducted power limit (dBm)	Margin	Antenna gain (dBi)	EIRP (dBm)	EIRP limit (dBm)	Margin (dB)
BPSK	5730.0	13.53	13.38	16.47	17.00	0.53	19.00	35.47	36.00	0.53
	5790.0	13.81	13.61	16.72	17.00	0.28	19.00	35.72	36.00	0.28
	5845.0	13.48	13.65	16.58	17.00	0.42	19.00	35.58	36.00	0.42
QPSK	5730.0	13.73	13.51	16.63	17.00	0.37	19.00	35.63	36.00	0.37
	5790.0	13.37	13.55	16.47	17.00	0.53	19.00	35.47	36.00	0.53
	5845.0	13.33	13.57	16.46	17.00	0.54	19.00	35.46	36.00	0.54
16-QAM	5730.0	13.96	13.44	16.72	17.00	0.28	19.00	35.72	36.00	0.28
	5790.0	13.30	13.59	16.46	17.00	0.54	19.00	35.46	36.00	0.54
	5845.0	13.39	13.56	16.49	17.00	0.51	19.00	35.49	36.00	0.51
64-QAM	5730.0	14.26	13.21	16.78	17.00	0.22	19.00	35.78	36.00	0.22
	5790.0	13.12	13.68	16.42	17.00	0.58	19.00	35.42	36.00	0.58
	5845.0	13.33	13.59	16.47	17.00	0.53	19.00	35.47	36.00	0.53

Table 4: Power & EIRP Results: 5725-5850 MHz FCC & IC - 20 MHz Channel										
Modulation	Frequency (MHz)	Conducted power, port 1 (dBm)	Conducted power, port 2 (dBm)	Combined power (dBm)	Conducted power limit (dBm)	Margin	Antenna gain (dBi)	EIRP (dBm)	EIRP limit (dBm)	Margin (dB)
BPSK	5735.0	13.32	13.63	16.49	17.00	0.51	19.00	35.49	36.00	0.51
	5790.0	13.99	13.47	16.75	17.00	0.25	19.00	35.75	36.00	0.25
	5840.0	13.35	13.95	16.67	17.00	0.33	19.00	35.67	36.00	0.33
QPSK	5735.0	13.33	13.61	16.48	17.00	0.52	19.00	35.48	36.00	0.52
	5790.0	14.01	13.53	16.79	17.00	0.21	19.00	35.79	36.00	0.21
	5840.0	13.32	13.79	16.57	17.00	0.43	19.00	35.57	36.00	0.43
16-QAM	5735.0	13.43	13.62	16.54	17.00	0.46	19.00	35.54	36.00	0.46
	5790.0	14.01	13.61	16.82	17.00	0.18	19.00	35.82	36.00	0.18
	5840.0	13.32	13.74	16.55	17.00	0.45	19.00	35.55	36.00	0.45
64-QAM	5735.0	13.62	13.61	16.63	17.00	0.37	19.00	35.63	36.00	0.37
	5790.0	13.99	13.79	16.90	17.00	0.10	19.00	35.90	36.00	0.10
	5840.0	13.29	13.68	16.50	17.00	0.50	19.00	35.50	36.00	0.50

Operation in the 4940-4990 MHz Band: FCC

For operation in the 4940-4990 MHz band, the RDL-3000-RM may be set to operate using a 5, 10, or 20 MHz channel.

Table 5: Power & EIRP Results: 4940-4990 MHz FCC - 5 MHz Channel										
Modulation	Frequency (MHz)	Conducted power, port 1 (dBm)	Conducted power, port 2 (dBm)	Combined power (dBm)	Conducted power limit (dBm)	Margin	Antenna gain (dBi)	EIRP (dBm)	EIRP limit (dBm)	Margin (dB)
BPSK	4942.5	19.07	18.34	21.73	27.00	5.27	19.00	40.73	53.00	12.27
	4965.0	18.91	19.00	21.97	27.00	5.03	19.00	40.97	53.00	12.03
	4987.5	19.41	19.65	22.54	27.00	4.46	19.00	41.54	53.00	11.46
QPSK	4942.5	18.60	18.29	21.46	27.00	5.54	19.00	40.46	53.00	12.54
	4965.0	18.65	20.12	22.46	27.00	4.54	19.00	41.46	53.00	11.54
	4987.5	18.33	19.31	21.86	27.00	5.14	19.00	40.86	53.00	12.14
16-QAM	4942.5	18.52	18.25	21.40	27.00	5.60	19.00	40.40	53.00	12.60
	4965.0	18.57	18.86	21.73	27.00	5.27	19.00	40.73	53.00	12.27
	4987.5	19.14	18.40	21.80	27.00	5.20	19.00	40.80	53.00	12.20
64-QAM	4942.5	18.76	19.44	22.12	27.00	4.88	19.00	41.12	53.00	11.88
	4965.0	18.79	18.77	21.79	27.00	5.21	19.00	40.79	53.00	12.21
	4987.5	19.53	19.25	22.40	27.00	4.60	19.00	41.40	53.00	11.60

Table 6: Power & EIRP Results: 4940-4990 MHz FCC - 10 MHz Channel										
Modulation	Frequency (MHz)	Conducted power, port 1 (dBm)	Conducted power, port 2 (dBm)	Combined power (dBm)	Conducted power limit (dBm)	Margin	Antenna gain (dBi)	EIRP (dBm)	EIRP limit (dBm)	Margin (dB)
BPSK	4945.0	18.55	19.26	21.93	30.00	8.07	19.00	40.93	56.00	15.07
	4965.0	18.45	18.67	21.57	30.00	8.43	19.00	40.57	56.00	15.43
	4985.0	18.91	19.03	21.98	30.00	8.02	19.00	40.98	56.00	15.02
QPSK	4945.0	18.16	19.22	21.73	30.00	8.27	19.00	40.73	56.00	15.27
	4965.0	18.07	19.78	22.02	30.00	7.98	19.00	41.02	56.00	14.98
	4985.0	18.82	18.92	21.88	30.00	8.12	19.00	40.88	56.00	15.12
16-QAM	4945.0	18.10	19.22	21.71	30.00	8.29	19.00	40.71	56.00	15.29
	4965.0	18.12	18.63	21.39	30.00	8.61	19.00	40.39	56.00	15.61
	4985.0	18.60	18.99	21.81	30.00	8.19	19.00	40.81	56.00	15.19
64-QAM	4945.0	18.54	19.22	21.90	30.00	8.10	19.00	40.90	56.00	15.10
	4965.0	18.56	18.56	21.57	30.00	8.43	19.00	40.57	56.00	15.43
	4985.0	19.17	18.89	22.04	30.00	7.96	19.00	41.04	56.00	14.96

Table 7: Power & EIRP Results: 4940-4990 MHz FCC - 20 MHz Channel										
Modulation	Frequency (MHz)	Conducted power, port 1 (dBm)	Conducted power, port 2 (dBm)	Combined power (dBm)	Conducted power limit (dBm)	Margin	Antenna gain (dBi)	EIRP (dBm)	EIRP limit (dBm)	Margin (dB)
BPSK	4950.0	20.08	20.95	23.55	33.00	9.45	19.00	42.55	59.00	16.45
	4965.0	19.73	20.04	22.90	33.00	10.10	19.00	41.90	59.00	17.10
	4980.0	20.11	20.23	23.18	33.00	9.82	19.00	42.18	59.00	16.82
QPSK	4950.0	20.45	20.71	23.59	33.00	9.41	19.00	42.59	59.00	16.41
	4965.0	19.88	19.95	22.93	33.00	10.07	19.00	41.93	59.00	17.07
	4980.0	20.23	20.13	23.19	33.00	9.81	19.00	42.19	59.00	16.81
16-QAM	4950.0	20.35	20.61	23.49	33.00	9.51	19.00	42.49	59.00	16.51
	4965.0	19.74	19.86	22.81	33.00	10.19	19.00	41.81	59.00	17.19
	4980.0	21.19	20.10	23.69	33.00	9.31	19.00	42.69	59.00	16.31
64-QAM	4950.0	19.98	20.84	23.44	33.00	9.56	19.00	42.44	59.00	16.56
	4965.0	19.59	19.97	22.79	33.00	10.21	19.00	41.79	59.00	17.21
	4980.0	19.97	20.17	23.08	33.00	9.92	19.00	42.08	59.00	16.92

Operation in the 4940-4990 MHz Band: IC

For operation in the 4940-4990 MHz band, the RDL-3000-RM may be set to operate using a 5, 10, or 20 MHz channel.

Table 8: Power & EIRP Results: 4940-4990 MHz IC - 5 MHz Channel										
Modulation	Frequency (MHz)	Conducted power, port 1 (dBm)	Conducted power, port 2 (dBm)	Combined power (dBm)	Conducted power limit (dBm)	Margin	Antenna gain (dBi)	EIRP (dBm)	EIRP limit (dBm)	Margin (dB)
BPSK	4942.5	21.49	21.15	24.33	27.00	2.67	19.00	43.33	53.00	9.67
	4965.0	21.53	21.83	24.69	27.00	2.31	19.00	43.69	53.00	9.31
	4987.5	22.10	21.08	24.63	27.00	2.37	19.00	43.63	53.00	9.37
QPSK	4942.5	21.39	21.19	24.30	27.00	2.70	19.00	43.30	53.00	9.70
	4965.0	21.64	20.76	24.23	27.00	2.77	19.00	43.23	53.00	9.77
	4987.5	20.98	21.02	24.01	27.00	2.99	19.00	43.01	53.00	9.99
16-QAM	4942.5	21.49	21.05	24.29	27.00	2.71	19.00	43.29	53.00	9.71
	4965.0	21.67	20.85	24.29	27.00	2.71	19.00	43.29	53.00	9.71
	4987.5	20.96	20.86	23.92	27.00	3.08	19.00	42.92	53.00	10.08
64-QAM	4942.5	21.47	21.18	24.34	27.00	2.66	19.00	43.34	53.00	9.66
	4965.0	21.63	20.83	24.26	27.00	2.74	19.00	43.26	53.00	9.74
	4987.5	20.95	21.01	23.99	27.00	3.01	19.00	42.99	53.00	10.01

Table 9: Power & EIRP Results: 4940-4990 MHz IC - 10 MHz Channel										
Modulation	**Frequency (MHz)**	**Conducted power, port 1 (dBm)**	**Conducted power, port 2 (dBm)**	**Combined power (dBm)**	**Conducted power limit (dBm)**	**Margin**	**Antenna gain (dBi)**	**EIRP (dBm)**	**EIRP limit (dBm)**	**Margin (dB)**
BPSK	4945.0	24.96	25.43	28.21	30.00	1.79	19.00	47.21	56.00	8.79
	4965.0	24.72	24.92	27.83	30.00	2.17	19.00	46.83	56.00	9.17
	4985.0	25.34	25.05	28.21	30.00	1.79	19.00	47.21	56.00	8.79
QPSK	4945.0	24.84	25.32	28.10	30.00	1.90	19.00	47.10	56.00	8.90
	4965.0	24.72	24.82	27.78	30.00	2.22	19.00	46.78	56.00	9.22
	4985.0	25.33	25.01	28.18	30.00	1.82	19.00	47.18	56.00	8.82
16-QAM	4945.0	24.71	25.34	28.05	30.00	1.95	19.00	47.05	56.00	8.95
	4965.0	24.72	24.64	27.69	30.00	2.31	19.00	46.69	56.00	9.31
	4985.0	25.30	25.16	28.24	30.00	1.76	19.00	47.24	56.00	8.76
64-QAM	4945.0	24.68	25.41	28.07	30.00	1.93	19.00	47.07	56.00	8.93
	4965.0	24.80	24.85	27.84	30.00	2.16	19.00	46.84	56.00	9.16
	4985.0	25.34	25.11	28.24	30.00	1.76	19.00	47.24	56.00	8.76

Table 10: Power & EIRP Results: 4940-4990 MHz IC - 20 MHz Channel										
Modulation	**Frequency (MHz)**	**Conducted power, port 1 (dBm)**	**Conducted power, port 2 (dBm)**	**Combined power (dBm)**	**Conducted power limit (dBm)**	**Margin**	**Antenna gain (dBi)**	**EIRP (dBm)**	**EIRP limit (dBm)**	**Margin (dB)**
BPSK	4950.0	30.01	29.53	32.79	33.00	0.21	19.00	51.79	59.00	7.21
	4965.0	29.69	29.67	32.69	33.00	0.31	19.00	51.69	59.00	7.31
	4980.0	29.76	30.11	32.95	33.00	0.05	19.00	51.95	59.00	7.05
QPSK	4950.0	30.19	29.27	32.76	33.00	0.24	19.00	51.76	59.00	7.24
	4965.0	29.52	29.97	32.76	33.00	0.24	19.00	51.76	59.00	7.24
	4980.0	29.92	30.04	32.99	33.00	0.01	19.00	51.99	59.00	7.01
16-QAM	4950.0	29.86	29.49	32.69	33.00	0.31	19.00	51.69	59.00	7.31
	4965.0	29.73	29.80	32.78	33.00	0.22	19.00	51.78	59.00	7.22
	4980.0	30.18	28.70	32.51	33.00	0.49	19.00	51.51	59.00	7.49
64-QAM	4950.0	30.22	29.06	32.69	33.00	0.31	19.00	51.69	59.00	7.31
	4965.0	30.63	28.47	32.69	33.00	0.31	19.00	51.69	59.00	7.31
	4980.0	30.05	28.85	32.50	33.00	0.50	19.00	51.50	59.00	7.50

5 Regulatory Notices

FCC Notices: Deployment in USA:

The following notices about deployment in the USA are included in training and documentation provided to professional installers and operators of the final product:

1. The final product must be professionally installed.
2. WARNING -- FCC RF Exposure Warnings

   To satisfy FCC RF exposure requirements for RF transmitting devices, the following distances should be maintained between the antenna of this device and persons during device operation:

Table 11: Recommended Safe Distances		
Frequency (GHz)	**Deployment**	**Separation Distance**
4.9 - 5.3	PMP	120 cm (47.25 in) or more
5.8	PMP	20 cm (7.8 in) or more

   To ensure compliance, operation at closer than these distances is not recommended. The antenna used for this transmitter must not be collocated in conjunction with any other antenna or transmitter.
3. FCC Information to Users @ FCC 15.105:

   NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

   This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

   - Reorient or relocate the receiving antenna.
   - Increase the separation between the equipment and receiver.
   - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
   - Consult the dealer or an experienced radio/TV technician for help.

   Where DFS is required by regional regulations, this function is permanently enabled at the factory and can not be disabled by the installer or end-user.
4. FCC Information to Users @ FCC 15.19:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

5. FCC Information to Users @ FCC 15.21:

   Warning: Changes or modifications not expressly approved by Redline Communications could void the user's authority to operate the equipment.

Industry Canada Notices: Deployment in Canada:

The RDL-3000-RM has been designed to operate with an antenna having a maximum gain of 19 dBi. Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50 ohms.

This device has been designed to ensure that radio frequency emissions are maintained within the band of operation under all normal operating conditions listed in this manual.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropic radiated power (EIRP) is not more than that required for successful communication.

This Class B Digital apparatus meets all the requirements of the Canadian Interference-Causing Equipment.

The following notices about deployment in Canada are included in training and documentation provided to professional installers and operators of the final product:

1. The final product must be professionally installed.
2. WARNING -- IC RF Exposure Warnings

   To satisfy IC RF exposure requirements for RF transmitting devices, the following distances should be maintained between the antenna of this device and persons during device operation:

Table 12: Recommended Safe Distances		
Frequency (GHz)	**Deployment**	**Separation Distance**
4.9 - 5.3	PMP	120 cm (47.25 in) or more
5.8	PMP	20 cm (7.8 in) or more

   To ensure compliance, operation at closer than these distances is not recommended. The antenna used for this transmitter must not be collocated in conjunction with any other antenna or transmitter.

Déploiement aux le Canada

Le RDL-3000-RM a été conçu pour fonctionner avec une antenne ayant un gain maximal de 19 dBi. Antenne ayant un gain plus élevé est strictement interdite par les règlements d'Industrie Canada. L'impédance d'antenne requise est de 50 ohms.

Ce dispositif a été conçu pour veiller à ce que les émissions de radiofréquences sont maintenus dans la bande de fonctionnement dans toutes les conditions normales de fonctionnement figurant dans ce manuel.

Cet appareil est conforme la norme d'Industrie Canada exempts de licence RSS (s). Son fonctionnement est soumis aux deux conditions suivantes:

1. Cet appareil ne peut pas causer d'interférences, et
2. Cet appareil doit accepter toute interférence, y compris les interférences qui peuvent causer un mauvais fonctionnement de l'appareil.

Pour réduire le potentiel d'interférence radio sur d'autres utilisateurs, le type d'antenne et son gain doivent être choisies tel que la Puissance Isotrope Rayonnée Equivalente (PIRE) ne dépasse pas le niveau nécessaire pour une communication efficace.

Cet appareil Digitale de Classe B rencontre toutes les normes du Canadian Règlement Brouilleur Équipement.

Les avis suivants à propos du déploiement au Canada sont inclus dans la formation et la documentation fournies aux installateurs professionnels et les opérateurs du produit final:

1. Le modèle RDL-3000 et son antenne doivent être installés par un professionnel.
2. AVERTISSEMENT - IC avertissements d'exposition RF

   Pour satisfaire les exigences d'IC en ce qui a trait aux expositions aux RF pour RF dispositifs de transmission, les distances suivantes doit être maintenue entre l'antenne de ce dispositif et des personnes pendant le fonctionnement du dispositif:

Table 13: **Avis - IC RF Distances de séparation sécuritaire recommandées**

Fréquence (GHz)	Déploiement	Distance de Séparation
4.9 - 5.3	PMP	120 cm (47.25 in) ou plus
5.8	PMP	20 cm (8 in) ou plus

   Pour assurer la conformité , l'operation à une distance moindre que celles-ci n'est pas recommandé. L'antenne utilisée pour ce transmetteur ne doit pas être co-localisé avec une autre antenne ou transmetteur.

302 Town Centre • Markham, Ontario • Canada • L3R 0E8

www.rdlcom.com