



Excellence in Compliance Testing

Certification Exhibit

**FCC ID: HSW-934
IC: 4492A-934**

**FCC Rule Part: 15.247
IC Radio Standards Specification: RSS-210**

ACS Project Number: 11-0449

**Manufacturer: Cirronet, Inc.
Model: WIT-934**

Manual

WIT934

900MHz Spread Spectrum Wireless Industrial
Transceiver



Integration Guide



CIRRONET™

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Important Regulatory Information

Cirronet Product FCC ID: HSW-934 / IC 4492A-934

Note: This unit has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their expense.

FCC and IC MPE Requirements

Information to user/installer regarding FCC s Maximum Permissible Exposure (MPE) limits.

Notice to users/installers using the following fixed antennas:

2 dBi Cirronet Omni092
-5 dBi ThinkWireless TWP900A
.5dBi WPANT10022-C2C

Portable Device-Remote Operation

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment is in direct contact with the body of the user under normal operating conditions. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Note that the WIT934 must be configured as a "Remote" with a maximum transmitted duty cycle of 7.4% if it is to be used as a **Portable** device with any of these antennas.

Mobile Devices-Access Point Operation

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

When configured for mobile operation as an Access Point, a higher transmitted duty cycle of 20.6% is allowed.

9 dBi L-Comm Yagi

Mobile Devices-Access Point Operation

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

When configured for mobile operation as an Access Point, a higher transmitted duty cycle of 20.6% is allowed.

Additional Regulatory Statements

WARNING: This device operates under Part 15 of the FCC rules. Any modification to this device, not expressly authorized by RFM, Inc., may void the user's authority to operate this device.

FCC NOTICE: 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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IC Notice - 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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

This radio transmitter, IC: 4492A-934 has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio (identifier le dispositif par son numéro de certification ou son numéro de modèle s'il fait partie du matériel de catégorie I) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

RFM/Cirronet, OMNI092, Omnidirectional Antenna, 2 dBi, 50 ohms

L-Comm, HG909YE Yagi Antenna, 9 dBi, 50 ohms

ThinkWireless Patch Antenna, -5 dBi, 50 ohms

WP Wireless, WPANT10022-C2C, Near Omnidirectional Antenna, .5dBi, 50 ohms

Canadian ICES-003 - This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par Industrie Canada.

The FCC ID label must be visible through a window, or it must be visible on an access panel, door or cover that is easily removed. If neither of the above is possible, a second label must be placed on the outside of the device that contains the following text: "Contains FCC ID: HSW-934."

1.1 Technical Specifications

1.1.1 Ordering Information

WIT934 OEM module, serial connector, pins down

1.1.2 Power Specifications

Vcc Input Range:	3.3v to 10.0v
Operating Temp Range:	-40 degrees C to +70 degrees C
Transmit Current	600 mA
Receiver Current	100 mA
Sleep Current	<1 mA

1.1.3 RF Specifications

FCC Certification type	Part 15.247, Frequency Hopping Device
Rated RF Power	24 dBm
Line of Sight Range	20+ miles
Frequency range	902-928 MHz
Number of Channels	37
Receiver Sensitivity	-100 dBm
Channel data rate	345 Kbps
ACR	>55 dBc

1.1.4 Mechanical Specifications

Weight	35 g
Dimensions	80.2 mm X 46.5 mm X 8.6 mm
RF Connector	MMCX 50-0-1
Mating RF Connector	MMCX 50-2-3
Data/Power Connector	DIS5-108-51-L-D
Mating Power Connector	CLP-108-02-G-D