



**Intermec**



## Quick Start Guide



## IF5 Fixed Reader

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Bluetooth is a trademark of Bluetooth SIG, Inc., U.S.A.

This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit ([www.openssl.org](http://www.openssl.org)).

This product includes cryptographic software written by Eric Young (EAY@cryptsoft.com).

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## What Is the IF5?

The IF5 is an RFID tag reader that provides network connectivity between tag data and an enterprise system. The embedded controller can be configured to connect the IF5 to your Ethernet or wireless network.

This quick start guide explains the IF5 ports and LEDs and how to connect the IF5 to your network.



### IF5 Fixed Reader



950110126000000094

The IF5 Fixed Reader uses an EPCglobal Gen 2-certified IM5 Module (86x MHz RFID frequency band).



950110126000000100

The IF5 Fixed Reader uses an EPCglobal Gen 2-certified IM5 Module (915 MHz RFID frequency band).



IF5 Fixed Readers with an IEEE 802.11g radio installed are certified for interoperability with other 802.11b/g wireless LAN devices.

## Unpacking the IF5

Save the IF5 box and shipping material in case you need to ship or store the IF5. The IF5 documentation packet includes radio safety compliance statements and this quick start guide.



## What You Need

To install and connect the IF5, you need these items:

- Appropriate AC power cord
- Appropriate RFID antennas and cables
- Ethernet cable (for an Ethernet network)
- Appropriate radio antennas (for the 802.11g radio)

For more information on power cords, antennas, cables, or other accessories, contact your local Intermec representative.



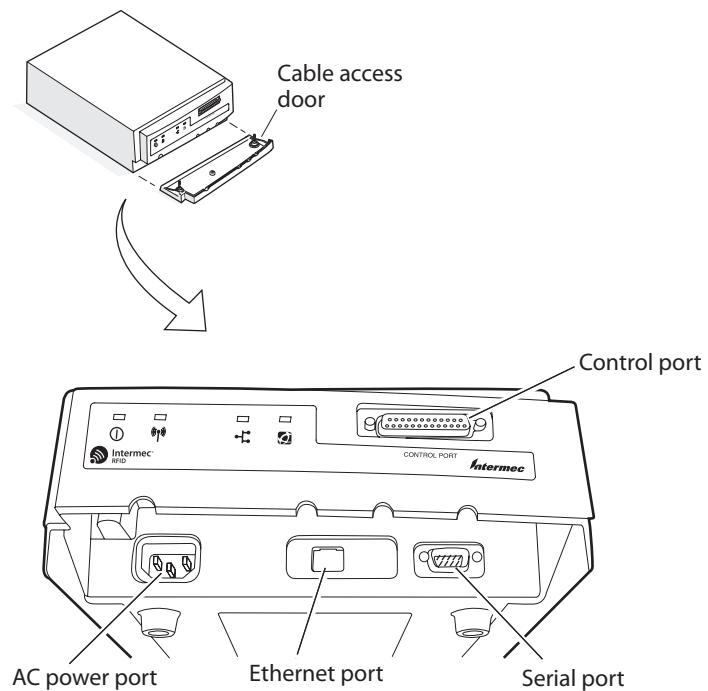
**Government regulatory agencies require that this RFID reader only use approved antennas. Therefore, this reader uses a custom antenna connector. Do not use antennas not approved for use with this reader.**

## Learning About the IF5

This section explains the front panel and rear panel ports and the LEDs.

### Understanding the Front Panel Ports

To access the AC power, Ethernet, and serial ports, unscrew the two thumbscrews on the underside of the cable access door to remove the door.



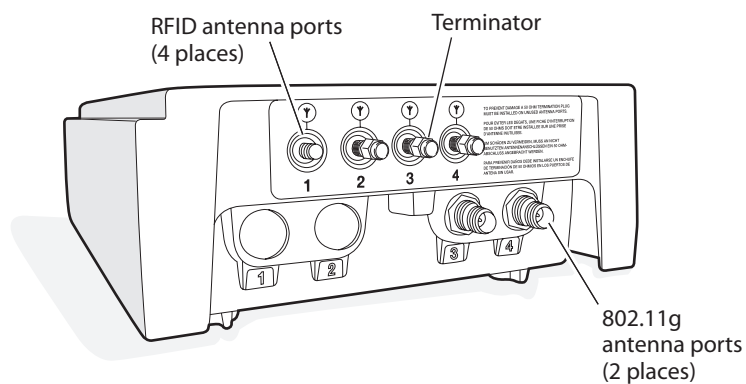
**IF5 Front Panel**

## Front Panel Port Descriptions

Port Name	Description
AC power	Main AC power port.
Ethernet	Ethernet port. Use a standard Ethernet cable to connect the IF5 to your wired network.
Serial	RS-232 serial port. Use a DB9 null-modem cable (P/N 059167) to connect the IF5 to a desktop PC for configuration or maintenance.
Control	General purpose input/output (GPIO) interface. Use a standard DB25 cable (P/N 236-057-001) to connect the IF5 to the GPIO Terminal Block accessory.

## Understanding the Rear Panel Ports

The IF5 ships with terminators installed on RFID antenna ports 2, 3, and 4. Do not remove the terminator from any port unless you are installing an antenna on that port.



**IF5 Rear Panel**

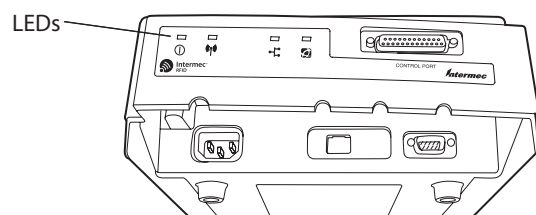


**Note:** The IF5 ships with RFID antenna ports 2, 3, and 4 software disabled.



## Understanding the LEDs

The front panel of the IF5 includes four LEDs that indicate status.



### LED Descriptions

Icon	LED Name	Description
	Power	Remains on after the IF5 boots.
	Wireless communication	Flashes when a frame is transmitted or received on the 802.11g radio port.
	Wired LAN	Flashes when a frame is transmitted or received on the Ethernet port.
	Intermec Ready-to-Work™ indicator	Blue LED remains on when an application has connected to the IF5. The LED flashes when no applications are connected.

## Configuring the IF5

You do not need to configure the IF5 if it communicates through a wired Ethernet connection and uses a DHCP server to assign TCP/IP parameters. Continue with “Connecting the IF5” on page 12.

You need to configure the IF5 to connect to a wireless network that uses a DHCP server. For help, follow the next procedure.

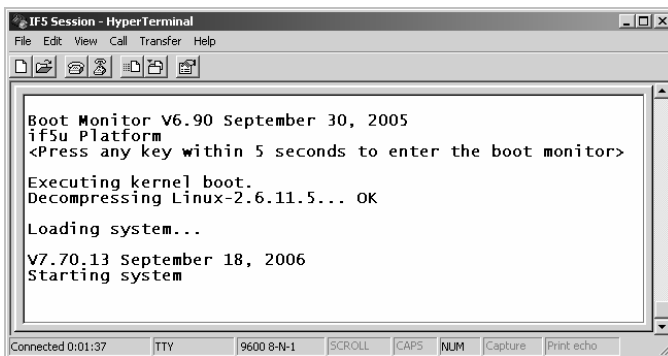
You also need to configure the IF5 if:

- you need to assign a static IP address to the IF5 for a wired or wireless network connection.
- you need to connect to a secure network.
- you are not using a DHCP server.

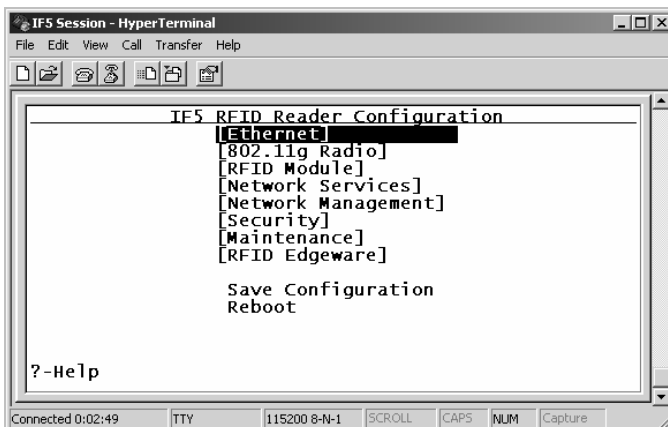
For help with assigning a static IP address, configuring the IF5 for a secure network, or if you are not using a DHCP server, see the *IF5 Fixed Reader User's Manual* (P/N 074747).

### To configure the IF5 for a DHCP-enabled wireless network

- 1 Connect a null-modem cable to the IF5 serial port and to your desktop PC.
- 2 On the desktop PC, open a HyperTerminal session with these settings:
  - Bits per second: 9600
  - Parity: None
  - Data bits: 8
  - Flow control: None
- 3 Connect the IF5 to AC power. The IF5 boot sequence appears in the HyperTerminal window. When the boot sequence is finished, you see this screen:



- 4 Press **Enter**. At the username prompt, type **intermec**.
- 5 Press **Enter**. At the password prompt, type **intermec**.
- 6 Press **Enter**. The IF5 RFID Reader Configuration menu appears.



- 7 Press the down arrow key to select **802.11g Radio**, and then press **Enter**. The **802.11g Radio** settings list appears with **Node Type** set to Disabled.
- 8 Press **Enter** and then press the up arrow key to select **Enabled**.
- 9 Press **Enter**. The 802.11g Radio settings list appears.
- 10 Press the down arrow key to select **SSID (Network Name)** and then press **Enter**. An entry field appears.

- 11 Type in the SSID for your network, and then press **Enter**. The SSID name appears in the settings list.
- 12 Press the left arrow key. The main configuration menu appears.
- 13 Press the down arrow key to select **Save Configuration** and then press **Enter**. The new settings are saved.
- 14 Press the down arrow key to select **Reboot**, and then press **Enter**. The IF5 reboots. When the boot process is finished, "Starting system..." appears at the bottom of the HyperTerminal window.
- 15 Disconnect the null-modem cable and AC power cable from the IF5.

The IF5 is now ready to be connected to your network. Continue with the next section, "Connecting the IF5."

## Connecting the IF5

After you have made any necessary configuration settings, you can connect the IF5 to your network.

### To connect the IF5 to your network

- 1 Attach at least one and up to four RFID antennas to the RFID antenna ports, starting with port 1. Do not remove the terminators from unused antenna ports.



**Each port must have an antenna or a terminator connected. Do not apply power to the reader unless an antenna or terminator is installed on each antenna port.**

- 2 For an Ethernet network, connect an Ethernet cable to the IF5 Ethernet port.  
  
For a wireless network, install the appropriate 802.11g radio antenna on antenna port 4.
- 3 Connect the AC power cord to the AC power port on the IF5.
- 4 Install the cable access door and route the cables through the openings in the door seam. Make sure the cables are not caught in the seam.

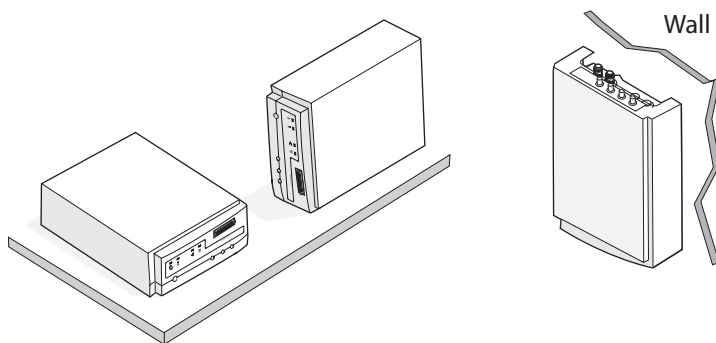
- 5 Place the IF5 in its mounting location. You can place the IF5 either horizontally or vertically on a stable surface.



**Note:** You can also mount the IF5 to a wall or beam using one of these mounting bracket kits:

- Mounting bracket kit (P/N 068918)
- Rotating mounting bracket kit (P/N 068751)

For more information, contact your local Intermec sales representative.



**Mounting the IF5:** This illustration shows how to mount the IF5 vertically or horizontally.

- 6 For an Ethernet network, connect the Ethernet cable to your network.
- For a wireless network, continue with the next step.
- 7 Connect the IF5's AC power cord to an AC outlet. As soon as you apply power, the IF5 boots and the green Power LED turns on.

After the IF5 boots, it is ready to communicate in your network. To verify the connection, you can use a web browser interface. For help, see the next section.

## Using a Web Browser Interface

Once the IF5 is connected to your network, you can use a web browser interface to configure, maintain, and troubleshoot the IF5.

### To view the IF5 web page

- 1 On your desktop PC, open a web browser.
- 2 Type the IF5's IP address in the Address field and press **Enter**. The IF5 login screen appears.

- 3 Enter your username and password in the entry fields. The default for each is `intermec`.
- 4 Click **Login**. The Ethernet screen appears.

You can view and configure many IF5 settings from the configuration web pages. For more information, see the IF5 user's manual.

## Where to Go From Here

For more information on configuring and maintaining the IF5, see the *IF5 Fixed Reader User's Manual* (P/N 074747).

You may need additional information when working with the IF5 in your data collection system. Please visit our web site at [www.intermec.com](http://www.intermec.com) to download PDF files of our current manuals. To order printed versions of Intermec manuals, contact your local Intermec representative or distributor.

## Specifications

Physical dimensions:	9.5 cm x 23.6 cm x 34.3 cm (3.75 in x 9.3 in x 13.5 in)
Weight:	3.08 kg (6.8 lb)
AC Electrical Rating:	~100 to 240 V, 1.0 to 0.5A, 50 to 60 Hz
Environmental Rating:	IP53
Operating Temperature:	-25°C to 55°C (-13°F to 131°F)
Storage Temperature:	-30°C to 75°C (-22°F to 167°F)
Humidity:	10% to 90%, non-condensing

## Patent Information

This product is covered by one or more of the following patents:  
4,739,328; 4,786,907; 4,864,158; 4,888,591; 4,999,636;  
5,030,807; 5,055,659; 5,280,159; 5,504,485; 5,521,601;  
5,550,547; 5,673,037; 5,763,867; 5,777,561; 5,825,045;  
5,828,318; 5,828,693; 5,850,181; 5,850,187; 5,942,987;  
5,995,019; 6,078,251; 6,121,878; 6,122,329; 6,172,596;  
6,195,053; 6,249,227; 6,280,544; 6,286,762; 6,286,763;  
6,288,629; 6,360,208; 6,384,712; 6,404,325; 6,429,775;  
6,486,769; 6,501,807; 6,525,648; 6,639,509; 6,645,327;  
6,677,852; 6,768,414; 6,784,789; 6,816,063.

There are U.S. and foreign patents pending.



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P/N 930-069-004