



Product Overview

This chapter provides an overview of the features available for the Cisco IC3000

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Product Overview

This chapter provides an overview of the features available for the device and contains the following sections:

General Description

The Cisco IC3000 is a DIN Rail mounted ruggedized compute gateway targeted primarily for connected roadways use-cases but applicable to other installations. It is designed to meet ever-increasing demand for computing resources for applications on the network edge. It comes preloaded with Cisco IOx and FND software. The term DIN Rail describes a metal rail of a standard type widely used for mounting circuit breakers and industrial control equipment inside equipment racks. The term derives from the original specifications published by Deutsches Institut für Normung (DIN) in Germany.

The Cisco IC3000 is low-power, fan-less, with Gigabit Ethernet and a dedicated management port. The SKU is IC3000-2C2F-K9.

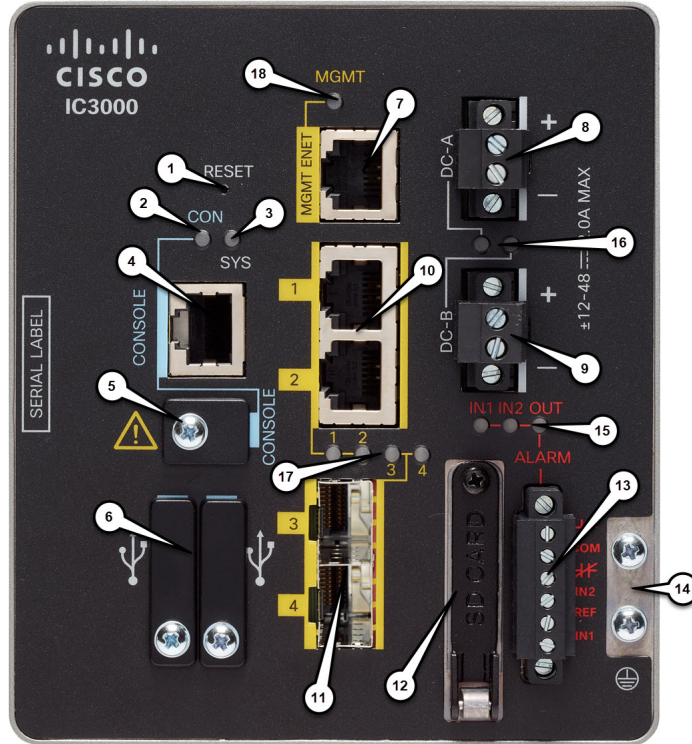
[Figure 1: Cisco IC3000 SKU, on page 2](#) shows the Cisco IC3000.

Figure 1: Cisco IC3000 SKU



Figure 2: Cisco IC3000 Front Panel, on page 3 shows the front panel details of the Cisco IC3000.

Figure 2: Cisco IC3000 Front Panel



1	Reset Pinhole Access	D	RJ45 10/100/100 BaseT Connectors 1&2
2	Console LED	11	SFP sockets 3&4
3	System LED	12	Removable SD flash memory card slot
4	Console connector (RJ-45)	13	Alarm Connector (not supported)
5	Console connector (mini-USB)	14	Grounding Point
6	USB connectors	15	Alarm LEDs
7	Management Interface	16	DC Power LEDs
8	DC power connection A	17	Gigabit Ethernet LEDs
9	DC power connection B	18	Management LED

LEDs

The following table describes the LEDs for the Cisco IC3000.

Table 1: LED Descriptions

LED	Activity	Description
System	Power Status	Off — No power Green Steady on — Normal operation
MGMT	Management Port Status	Off — No link (default) Green Steady on — Port link is up Green Flashing — Port is active
DC_A DC_B	DC Power Status	Off — Power is not present on the circuit, or the system is powered off. Green Steady on — Power is present on the associated circuit. (Hardware controlled)
Ethernet Ports	Link Status	Off — No link Green Steady on — Link is up Green Flashing — Port is active
Console	Console connection Status	Off — RJ-45 is being used for console Green — Mini USB is being used for console

Memory and Storage

The Cisco IC3000 has the following:

- 8-GB DRAM (soldered down).
- 16-GB onboard flash memory
- 100 GB mSATA solid state drive (SSD)

USB Ports

The Cisco IC3000 has two externally accessible Type-A USB (4-pin) connectors. Each USB port will support output powering of 5 volts and up to a maximum of 500 mA.

Note: If you are connecting to the USB ports:

- A connection (to the USB ports) can only be made in a non-hazardous environment
- The USB port covers must be reinstalled before the IC3000 can be deployed in a hazardous environment

Console Port

The Cisco IC3000 can be configured through a web interface, or through the console port. The console port is either a RJ45 or a Mini USB connector. A standard management cable (Part number 72-3383-01) can be used to convert the RJ45 to DB9 connector.

The default configuration settings for the RJ45 console port are:

9600 baud, 8 data bits, no parity, 1 stop bit, no flow control.

If the USB Console Port is active (cable inserted and remote PC drivers are enabled) by default the console will switch from RJ45 to USB when the USB cable is detected. If both ports are connected, the Mini USB console port is used.

If your laptop or PC warns you that you do not have the proper drivers to communicate with the device, you can obtain them from your computers manufacturer, or go here:

<https://software.cisco.com/download/home/282774227/type/282855122/release/3.1>

The following table shows the pin-outs for the CON/AUX RJ-45 connector:

Table 2: RJ-45 Pinouts

Pin	Signal	Direction
1	DTR	Output
2	3.3	Output
3	TXD	Output
4	GND	-
5	GND	-
6	RXD	Input
7	-	NC
8	-	NC

Note: The console port will not support a remote dial-in modem.

Hardware Features

This section provides an overview of the following hardware features for the Cisco IC3000.

Platform Features for the Cisco IC3000

The following lists the hardware platform features.

- CPU Intel 4 Core 1.25Ghz
- 8 GB of 1333MHz DDR3 Memory
- Dedicated management Gigabit Ethernet port
- Mini-USB and RJ45 Console port
- Two RJ45 copper ports and 2 fiber ports
- +/- 12 to 48VDC Rated (9.6 to 60VDC Maximum) redundant power connectors with 24-12 AWG screw cage terminals
- Two external USB-A ports for connecting to usb-to-serial devices.
- DIN Rail mount incorporated into the chassis
- Fan-less design
- Redundant power inputs
- Removable SD flash memory card - Industrial temperature SDHC card support (optional, does not come with the device and must be ordered).

Reset Button

The Reset button resets the device configuration to the default configuration set by the factory. To restore the configuration to the default configuration set by the factory, use a standard size #1 paper clip with wire gauge 0.033 inch or smaller and press the reset button for 5 seconds.

Power Supply

The Cisco IC3000 comes with redundant external power connector. the connector supports 12 - 48 VDC. The connectors are Molex 5.00mm Pitch Eurostyle™ Horizontal Plug, with Retention Screws.

The power supply does not support reverse polarity, but does have reverse polarity protection. This means if you reverse + & - connections, the system will not power on but there will be no damage.

The + terminal always has to be greater than the - terminal for the system to operate. The difference is in the system grounding scheme used.

The IC3000 supports 3 basic schemes:

- Isolated DC in, neither + nor - terminal is tied to chassis GND
- Positive DC in, negative (-) terminal is tied to chassis GND
- Negative DC in, positive (+) terminal is tied to chassis GND

Note: To ensure uninterrupted operation the redundant power connections must be connected to independently separated power sources.

SFP Support

The Cisco IC3000 has 2 1GbE ports which support the following SFPs:

- GLC-SX-MM-RGD
- GLC-LX-SM-RGD
- GLC-FE-100LX-RGD
- GLC-FE-100FX-RGD

Removable SD Flash Memory Card (optional)

The Cisco IC3000 has an optional removable SD flash memory slot (referred to as SD). This is primarily to allow easy updates, copying of logs and crash-dumps. Contact your Cisco Marketing Representative for ordering information.

Installing or Removing the SD Card (Optional)

The SD card is hidden under a protective cover:

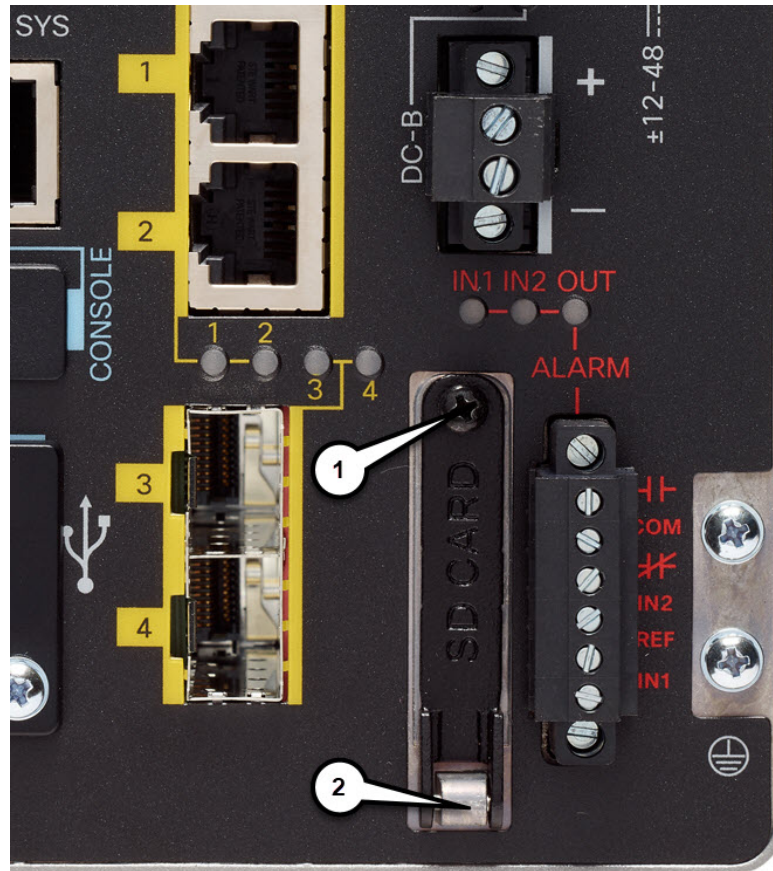


Table 3:

1	Phillips screw
2	Door pivot point

For hazardous locations environments, if you are installing or removing the flash card or alarm wiring, follow these warnings:

Warning: When you connect or disconnect the power and/or alarm connector with power applied, an electrical arc can occur. This could cause an explosion in hazardous area installations. Be sure that all power is removed from the device and any other circuits. Be sure that power cannot be accidentally turned on or verify that the area is nonhazardous before proceeding. **Statement 1058**

Warning: Do not insert or remove the flash card while power is on; an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding. **Statement 379**

Caution: Use a ratcheting torque flathead screwdriver to torque the power connector captive screws to 5 in-lb (0.6 N-m), the maximum recommended torque.

To install or replace the SD card, follow these steps:

1. On the front of the device, locate the door that protects the SD card slot. Loosen the captive screw at the top of the door using a Phillips screwdriver to open the door.

- To install a card, slide it into the slot, and press it in until it clicks in place. The card is keyed so that you cannot insert it the wrong way.
 - To remove the card, push it in until it releases for it to pop out. Place it in an antistatic bag to protect it from static discharge.
2. After the card is installed, close the guard door and fasten the captive screw using a Phillips screwdriver to keep the door in place.