



IntraCore™ 65120 Series Gigabit Ethernet Switches

Getting Started Guide

Quick Start Guide

Follow these steps to install the IntraCore 65120 switch:

1. Open the box and check the contents. See *Chapter 1.1 Package Contents* for a complete list of the items included with your IntraCore switch.
2. Install the IntraCore 65120 switch in an equipment or wall rack, or prepare it for desktop placement.
3. Connect the power supply.
4. Connect network devices to the IntraCore 65120.
5. Refer to the User's Manual on the accompanying CD-ROM for configuration and management capabilities.



For more information on installing the IntraCore 65120, please refer to *Chapter 2.6 Installation Overview*.

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1 Introduction

The IntraCore 65120

Thank you for purchasing the Asanté IntraCore 65120 Gigabit switch. The IntraCore 65120 delivers powerful management, user mobility, security, high-availability and multimedia support. The 65120-2G model supports 10 copper Gigabit Ethernet ports and 2 GBIC interface. Each copper port is capable of automatically sensing and working with 10, 100, and 1000 Mbps. The 65120-12G model supports 12 GBIC ports. Multiple LED indicators display the status of each port.

The system can operate as a stand-alone network or be used in combination with other IntraCore series switches in the backbone.



1.1 Package Contents

The following items are included in your package:

- IntraCore 65120 Series Gigabit Ethernet switch
- Self-adhesive rubber pads for desktop installation
- Rack mount kit for rack installation
- Getting Started Guide (this document)
- AC power cord
- IntraCore 65120 CD-ROM

1.2 LEDs

After the power is turned on, the power LED will cycle through from amber, to off (for system initialization), to amber again (for system boot up), to finally green (power is up and system is ready).

After the system boots up, use the following LEDs to monitor the status of your switch:

| Port | LED | Color | ON | OFF |
|-----------------|------------------|-------------------------------|---|---|
| N/A | Power/ System | Green Amber Red | Power is up Booting Failure | Power is off or system is initializing |
| 10/100/ 1000 | 1G Link | Green | A valid 1000 Mbps link has been estab- lished | No 1000 Mbps link has been established |
| 10/100/ 1000 | 10/100 Link | Green | A valid 10/100 link has been established | No 10/100 Mbps link has been established |
| 10/100/ 1000 | Activity | Blinking Green Solid Green | Traffic detected No traffic | |
| 10/100/ 1000 | FDXHDX | Solid Green Blinking Green | Full Duplex Collisions oc- curring in half- duplex | No Full Du- plex link has been estab- lished, or no collisions are occur- ring in half- duplex |
| GBIC | Link | Green | A valid link has been estab- lished | No GBIC link has been estab- lished |

Table 1-1 LEDs

1.3 Front Panel Description

The 65120-2G (Figure 1-1) has ten 10/100/1000 copper ports, 2 GBIC ports and a console port.



Figure 1-1 65120-2G

The 65120-12G (Figure 1-2) has 12 GBIC ports and one console port.



Figure 1-2 65120-12G

Note: The GBICs are installed normally in the top row; they are installed upside-down in the bottom row.

2 Installation and Setup

This chapter explains how to install and connect the IntraCore 65120 to your network. To configure the switch for management, refer to the user's manual on the IC 65120 CD-ROM.

The following guidelines will help you prepare to install the switch in such a way that it has the proper power supply and environment.

2.1 Safety Overview

The following information provides safety guidelines to ensure your safety and to protect the switch from damage.

Note: Be aware, however, that this information is intended as a guideline, and may not include every possible hazard to which you may be exposed. Use caution when installing this switch.

- Only trained and qualified personnel should be allowed to install or replace this equipment.
- Always use caution when lifting heavy equipment
- Keep the chassis clean
- Keep tools and chassis components off the floor and away from foot traffic
- Avoid wearing rings or chains (or other jewelry) that could get caught in the chassis. Metal objects can heat up and cause serious injury to persons and damage to the equipment. Avoid wearing loose clothing, i.e. ties or sleeves

When working with electricity, follow these guidelines:



- Before accessing the interior of the chassis, locate the emergency power-off switch for the room you are in
- Disconnect all external cables before installing or removing a chassis
- Do not work alone when working with electricity
- Always check that the power has been disconnected from the circuit

- Do not tamper with the equipment
- Examine your work area for potential hazards (l.e. wet floors, ungrounded cables, etc.)

For more safety information, please refer to the User's Manual.

2.2 Recommended Installation Tools

You will need the following tools and equipment (not included) to install the IntraCore 65120 switch:

- Number 1, number 2 and 3/16-inch flat-blade screwdrivers
- Antistatic mat or foam
- An ESD grounding strap



2.3 Power Requirements

The electrical outlet should be located near the IntraCore 65120 and be easily accessible. It must also be properly grounded.

Make sure the power source adheres to the following guidelines:

- Power: Auto Switching 110/240 VAC
- Frequency range: 50/60 Hz
- Maximum input AC Current: 1.0A at 115 VAC full load

2.4 Environmental Requirements

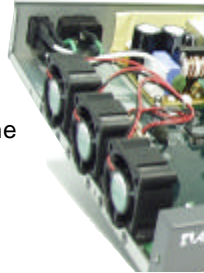
The IntraCore 65120 must be installed in a clean, dry, dust-free area with adequate air circulation to maintain the following environmental limits:

- Operating Temperature: 0° to 40° C (32° to 104° F)
- Storage Temperature: -20° to 70° C (-4° to 158° F)
- Relative Humidity: 10% to 90% non-condensing
- Storage Relative Humidity: 10% to 95% non-condensing

Avoid direct sunlight, heat sources, or areas with high levels of electromagnetic interference.

2.5 Cooling and Airflow

The IntraCore 65120 uses internal fans for air cooling. Do not restrict air flow by covering or obstructing air vents on the sides of the switch.



2.6 Installation Overview

Follow these steps to install the IntraCore 65120:

1. Open the box and check the contents. See Chapter 1.1 Package Contents for a complete list of the items included with your IntraCore 65120.
2. Install the IntraCore 65120 chassis in an equipment rack or wall rack, or prepare it for desktop placement.
3. Connect the power supply.
4. Connect network devices to the IntraCore 65120.
5. Refer to the user's manual on the IC 65120 CD-ROM for configuring the IntraCore 65120 for management capabilities.

2.7 Chassis Installation/Placement

The IntraCore 65120 can be installed in a standard 19-inch equipment rack. It can also be placed on a stable horizontal surface.

Note: The equipment rack or desk on which you install your IntraCore 65120 *must* be secure and stable. Equipment racks must be fastened to the floor; desks must be resting on a flat, stable surface.

2.7.1 Installation in an Equipment Rack

To install the unit in an equipment rack, use the following procedure:

Important! Before continuing, disconnect all cables from the IntraCore 65120.

To mount the IntraCore 65120 in an equipment rack:

1. Place the IntraCore 65120 on a flat, stable surface.
2. Locate a rack-mounting bracket (supplied) and place it over the mounting holes on one side of the unit.
3. Use the screws (supplied) to secure the bracket (with a Philips screwdriver).
4. Repeat the two previous steps on the other side of the unit.
5. Place the switch in the equipment rack.
6. Secure the switch by securing its mounting brackets onto the equipment rack.



Important! Make sure the unit is supported until all of the mounting screws for each bracket are secured to the equipment rack. Failure to do so could cause the unit to fall, which may result in personal injury or damage to the unit.

2.7.2 Equipment Rack Guidelines

- Size: 423 x 245 x 43 mm
(17.25 x 10.0 x 1.7 inches)
- Ventilation: Ensure that the rack is installed in a room where the temperature remains below 40° C (104° F). Be sure that there are no obstructions, such as other equipment or cables, blocking airflow to or from the IntraCore 65120 vents.
- Clearance: In addition to providing clearance for ventilation, ensure that there is adequate clearance for servicing the IntraCore 65120 from the front.

2.7.3 Free-Standing/Desktop Placement

The IntraCore 65120 has four rubber feet on the bottom of the case that allow for freestanding placement of the unit.

Follow the steps below for free-standing/desktop placement:

1. Attach the four rubber pads (supplied) to the bottom of each corner of the IntraCore 65120 case.

2. Place the unit on a flat surface with a minimum area of 434.3 mm x 342.9 mm (17.1" x 13.5") and support capacity of 10 kg (22 lbs).
3. Make sure there is enough ventilation space between the IntraCore 65120 and surrounding walls or objects.

2.8 Installing GBIC Interfaces

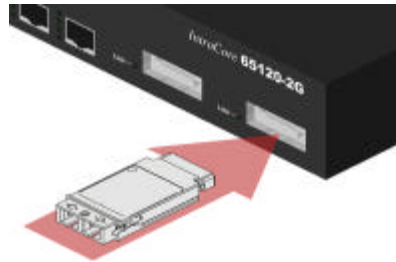
Instructions for installing, removing, and maintaining GBIC interfaces are provided in this section.

2.8.1 Installing a GBIC

Note: GBICs are hot-swappable. This means that they can be inserted and removed while the unit is powered on.

Note: There are two rows of GBIC slots on the IC65120-12G model. In the upper row, GBICs are installed right side up, and in the bottom row, GBICs are installed upside down.

1. Remove the GBIC from its protective packaging.
2. Grip the sides of the GBIC with your thumb and forefinger, then insert the GBIC into the slot on the face of the Gigabit Ethernet module.
3. Slide the GBIC into the slot until you hear or feel a click. The click indicates that the GBIC is locked into the slot.
4. When you are ready to install your network cable, remove the plugs from the GBIC and save them for future use.



2.8.2 Removing a GBIC

Follow the steps below to remove a GBIC interface from a Gigabit Ethernet module:

1. Disconnect the fiber-optic cable from the GBIC SC-type connector.
2. Release the GBIC from the slot by simultaneously squeezing the locking tabs on both sides of the GBIC.

3. Slide the GBIC out of the slot.
4. Install the plugs in the GBIC optical bores, and place the GBIC in protective packaging.

2.8.3 GBIC Care and Handling

Follow these GBIC maintenance guidelines:

- Unnecessary removal and insertion of a GBIC can lead to its premature failure. A GBIC connector has a lifetime of 100 to 500 removals/insertions
- GBICs are static-sensitive. To prevent ESD damage, follow your normal board and component handling procedures
- GBICs are dust-sensitive. When the GBIC is stored or when a fiber-optic cable is not plugged in, always keep plugs in the GBIC optical bores
- Use an alcohol swab or Kim-Wipe to clean the ferrules of the optical connector. The most common source of contaminants in the optical bores is debris picked up from the optical connectors

2.9 Connecting Power

Use the following procedure to connect power to the IntraCore 65120:

Important! Carefully review the power requirements (Chapter 2.3) before connecting power to the IntraCore 65120.

1. Plug one end of the supplied power cord into the power connector on the back of the unit.
2. Plug the other end into a grounded AC outlet.
3. Turn on the system's power. The Power LED will begin its initialization process.

The front panel LEDs blink and the Power LED illuminates when it has initialized. The IntraCore 65120 is ready for connection to the network.

Important: If the power does not come on, refer to Appendix A: Troubleshooting.

2.10 Connecting to the Network

The IntraCore 65120 unit may be connected to an Ethernet network with the unit powered on or off. Use the following procedure to make your network connections:

1. Connect network devices to the IntraCore 65120, following the cable guidelines outlined below.
2. After the unit is connected to the network, it can be configured for management capabilities. Please refer to the user's manual on the IC 65120 CD-ROM.

2.10.1 10/100BaseTX Ports Cabling Procedures

The ten 10/100 ports on the IntraCore 65120-2G allow for the connection of 10BaseT or 100BaseTX network devices. The ports are compatible with IEEE 802.3 and 802.3u standards.

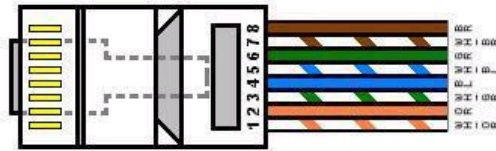
Important: The IntraCore 65120 must be located within 100 meters of its attached 10BaseT or 100BaseTX devices.

Use the following guidelines to determine the cabling requirements for your network devices:

- Connecting to Network Station: Category 5 UTP (Unshielded Twisted-Pair) straight-through cable (100 meters maximum) with RJ-45 connectors.
- Connecting to Repeater/Hub/Switch: Category 5, UTP cross-over cable (100 meters maximum) with RJ-45 connectors.
- Connecting to Repeater/Hub/Switch's Uplink port: Category 5, UTP straight-through cable (100 meters maximum) with RJ-45 connectors.



Although 10BaseT requires only pins 1, 2, 3 and 6, Asanté strongly recommends cables with all 8 wires connected as follows:



1000BaseTX requires that all four pairs (8 wires) be connected correctly. Table 2-1 shows the correct pairing of all eight wires.

| Pin Number | Pair Number & Wire Colors |
|------------|---------------------------|
| 1 | 2 White/Orange |
| 2 | 2 Orange/White |
| 3 | 3 White/ Green |
| 4 | 1 Blue/White |
| 5 | 1 White/Blue |
| 6 | 3 Green/White |
| 7 | 4 White/Brown |
| 8 | 4 Brown/White |

Table 2-1

The console port is used to connect with a terminal using a DB-9 female connector. The setting is 9600-N81. See Table 2-2 for a list of pinouts.

| Pin Number | Signal | Name |
|------------|--------|---------------------|
| 1 | CD | Carrier Detect |
| 2 | RD | Receive Data |
| 3 | TD | Transmit Data |
| 4 | DTR | Data Terminal Ready |
| 5 | SG | Signal Ground |
| 6 | DSR | Data Set Ready |
| 7 | RTS | Request to Send |
| 8 | CD | Carrier Detect |
| 9 | RI | Ring Indicator |

Table 2-2

2.10.2 Gigabit Ethernet Ports Cabling Procedures

Cabling requirements for the Gigabit Ethernet modules depend on the type of GBIC interface that has been installed. Use the following guidelines to determine the cabling requirements for your GBIC:

- 1000BaseSX GBIC: Cables with SC-type fiber connectors; 62.5-micron multimode fiber (MMF) media up to 275 meters (902 feet) long, or 50-micron MMF media up to 550 meters (1805 feet) long
- 1000BaseLX GBIC: Cables with SC-type fiber connectors; 10-micron single mode fiber media up to 5 kilometers (16,405 feet) long
- 1000BaseLX Long Haul GBIC: Cables with SC-type fiber connectors; 10-micron single mode fiber media up to 100 kilometers (328,100 feet) long
- 1000BaseT: Category 5 or better Unshielded Twisted Pair (UTP) cable to a distance of 100 meters (328.1 feet)

Appendix A Troubleshooting and Online Registration

In the unlikely event your network does not operate properly, follow the troubleshooting tips below:

1. CHECK YOUR POWER CONNECTION. Is the Power LED on? If not, plug the power cord into another known working AC outlet.
2. CHECK YOUR NETWORK CABLE. Are the LINK LEDs on? If not, check the cable connections. Are the connectors seated correctly in each port? Make sure that the correct type of cable is connected to each port.
3. CHECK YOUR GBIC CONNECTOR. Are the cables inserted correctly? The receiving and transmitting plugs must be inserted into their respective receptacles correctly in order to establish a link.

If your switch is still not operating properly, contact Asanté Technologies, Inc. Technical Support (801-566-8991). Before you contact Technical Support, however, please register your switch online at www.asante.com/support/registration.html.

Appendix B Safety and Regulatory Compliance

FCC Compliance Statement

NOTE: This equipment 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 his own expense.

Safety Advisory

1. This product should be operated from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
2. Do not allow anything to rest on the power cord. Do not locate this product where people will walk on the cord.
3. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.
4. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to service personnel.

Appendix C Defaults and Specifications

The IntraCore 65120 is shipped with the following factory default settings and specifications:

- Switching Method: Store-and-forward
- System Packets Buffer Size: 1.5MB
- MAC Address Table: 8000 entries
- Full-Duplex: Standards-based auto-negotiation enabled
- VLAN: 64 port-based VLANs, with IEEE 802.1Q tagging
- Spanning Tree Protocol: 802.1D, enabled
- Priority: 802.1p, 8 levels mapped to 2 queues
- RMON: 4 Groups
- SNMP: MIB-II, Bridge MIB, RMON MIB
- Console Baud Rate: 9600
- Password: Asante (default)
- IP Address: 192.168.0.1



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