



CISCO SYSTEMS

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4-Port Token Ring UTP/STP Universal Feature Card Planning and Installation Guide

The 4-port Token Ring UTP/STP Universal Feature Card (UFC) provides four additional Token Ring connections for the base Catalyst 2600 Token Ring Switch. The ports of this UFC support Token Ring twisted-pair (UTP/STP) media connections via RJ-45 connectors. Similar to the ports of the base Catalyst 2600, each port can be connected to either shared or dedicated media. The ports can also be connected to ports of another Catalyst 2600, forming a TokenChannel. (For more information about TokenChannels, refer to the *Catalyst 2600 Token Ring Switch User Guide*.)

Operating Environment

Table 1 lists the operational parameters.

Table 1 Operational Parameters

Temperature	10 to 40 C (50 to 104 F)
Relative Humidity	8% to 80%
Maximum Wet-Bulb Temperature	27 C (81 F)
Calorific Value	10 kcal/hr (40 Btu/hr)
Electrical Power	12 watts

Table 2 lists the physical dimensions.

Table 2 Physical Dimensions

Width	170 mm (6.7 in)
Depth	214 mm (8.4 in)
Height	25 mm (1 in)
Weight	0.3 kg (.6 lb)

LEDs

The faceplate of the UFC has 14 LEDs. There are three LEDs for each of the four ports and two LEDs for the UFC itself.

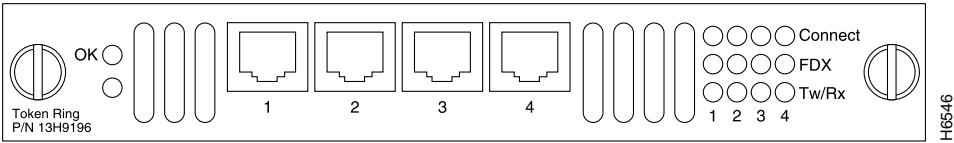


Figure 1 Front of 4-Port UTP/STP Token Ring UFC

Table 3 lists the LEDs for the ports (located on the right side of the UFC) and their meanings.

Table 3 Port LEDs

LED	Location	State	Meaning
Connect	Top	On	Connected.
		Off	Disabled or faulty port (if the UFC Fault LED is on).
		Blinking	Attempting to connect.
FDX	Middle	On	The port has been set to full-duplex mode.
		Off	The port has been set to half-duplex mode.
Tx/Rx	Bottom	On	Data is being transmitted or received by the port.

Table 4 lists the LEDs for the UFC (located on the left side of the UFC) and their meanings.

Table 4 UFC LEDs

LED	Location	State	Meaning
OK	Middle	On	The UFC is working correctly.
		Off	The UFC is not working correctly.
		Blinking	Diagnostics are in progress.
Fault (Unlabeled)	Bottom	On	A UFC failure has occurred.
		Off	The UFC is working correctly.
		Blinking	Diagnostics are in progress.

Installing the UFC



This UFC contains static-sensitive devices. Please follow proper ESD handling procedures (wristband with ground strap, ESD mat, etc.) when installing this UFC into your Token Ring Switch chassis.

To install the UFC, perform these steps:

- Step 1** Power off the Catalyst 2600 by unplugging it.
- Step 2** Remove the Universal Feature Slot faceplate by unscrewing the thumbscrews.

- Step 3** Slide the UFC into the slot, being careful to align the sides of the UFC with the guide rails. Continue sliding the UFC into the slot until it is seated into the connector at the back of the slot. When the card is fully seated, the back of the UFC faceplate will be in contact with the front of the Catalyst 2600.
- Step 4** Secure the card using the two thumbscrews attached to it.

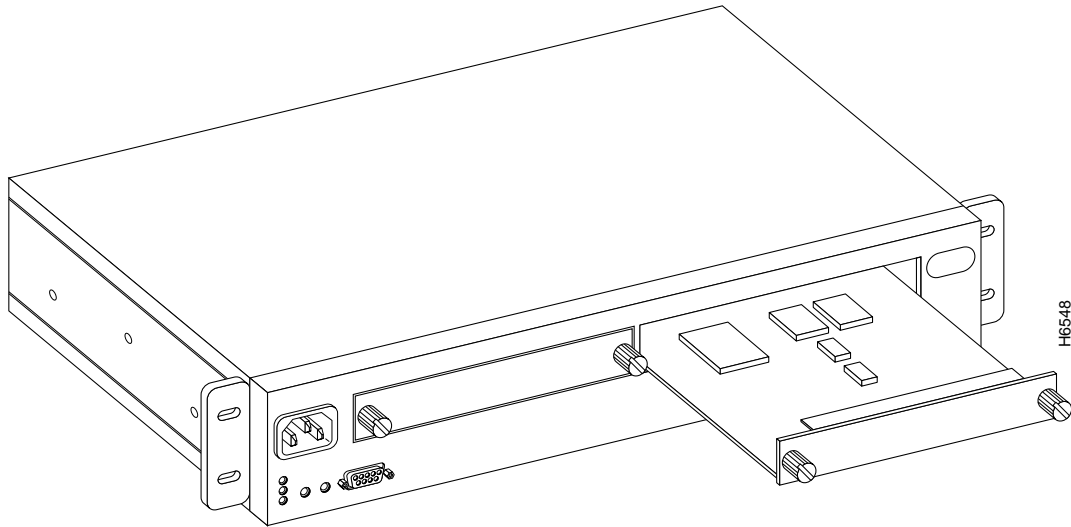


Figure 2 Installing the UFC

Cabling the UFC Ports to Other Devices

This section provides instructions for connecting devices such as hubs, servers, PCs, and workstations to the UFC. When making a connection, remember the following:

- Read the Catalyst 2600 documentation for information on choosing the appropriate cable types and length.
- Avoid stretching or bending cables excessively.
- Avoid routing the cables near potential sources of electromagnetic interference, such as motorized devices and fluorescent lights.
- Avoid trip hazards by routing the cables away from the aisles and other areas where people walk. If such routes cannot be avoided, use floor cable covers or similar material to secure and protect the cables.
- Be sure that the cables connected to the UFC are supported so that the cable connectors are not excessively strained.

To connect the cables, perform these steps:

- Step 1** Using the Cabling Chart provided by your network administrator as a guide, connect the cables between the UFC and the other devices.
- Step 2** Label each end of the cable so that it will be easy to find the device if you have to troubleshoot a network problem. Suggested information for this label includes:
- Room location of the other device

- Unique cable identification number
- MAC address of the connected device
- Number of the port to which the cable is attached

Testing the Installation

After you have installed the UFC, perform the following steps to verify the installation:

Step 1 Power on the Catalyst 2600 so that diagnostics start.

With the Catalyst 2600, the Fault and OK LEDs blink in unison during diagnostics. About a minute after power on, the UFC Fault (unlabeled) and OK LEDs will also blink in unison.

Step 2 Verify that the Catalyst 2600 diagnostics have been completed successfully. With the Catalyst 2600, this is indicated when the Fault and OK LEDs stop blinking and the OK LED remains on. Diagnostics can take up to four minutes to complete.

Step 3 Verify that the Fault LED on the UFC is off.

If the UFC Fault LED is on, power off the Catalyst 2600, verify that the UFC has been seated correctly in the slot, and power on the Catalyst 2600.

If the UFC Fault LED remains on, contact the Cisco Technical Assistance Center (TAC).

Configuring the UFC

The UFC ports are configured just like the other Token Ring ports. They appear as additional ports on any configuration panel where ports are listed. The numbers reflect the slot location of the UFC. For example, if the Catalyst 2600 has eight ports, the UFC ports are displayed after port eight on the various port configuration panels and are designated as ports 1-1, 1-2, 1-3, and 1-4. For more information about configuring ports on the Catalyst 2600, refer to the *Catalyst 2600Token Ring Switch User Guide*.

Troubleshooting the UFC

This section provides suggestions for resolving problems with the UFC that are indicated by the LEDs and problems with the individual ports.

Problems Indicated by the LEDs

If you are installing the UFC and the LEDs do not come on when the Catalyst 2600 is powered on, verify that the UFC is seated correctly.

During diagnostics, the UFC OK and Fault (unlabeled) LEDs blink in unison. If the UFC Fault LED is on at any other time, it indicates that the UFC is defective and needs to be serviced.

If you have been unable to get the UFC Connect LED to come on after installing a cable between a UFC port and another device, make sure that you are using the correct type of cable.

Problems with Individual Ports

With regard to troubleshooting, the UFC ports are like any other Token Ring port on the Catalyst 2600. You should follow the instructions contained in the Catalyst 2600 documentation to troubleshoot problems with individual ports on the UFC.