# Connectivity Quick Reference

**for the HP AdvanceStack Switch 800T**

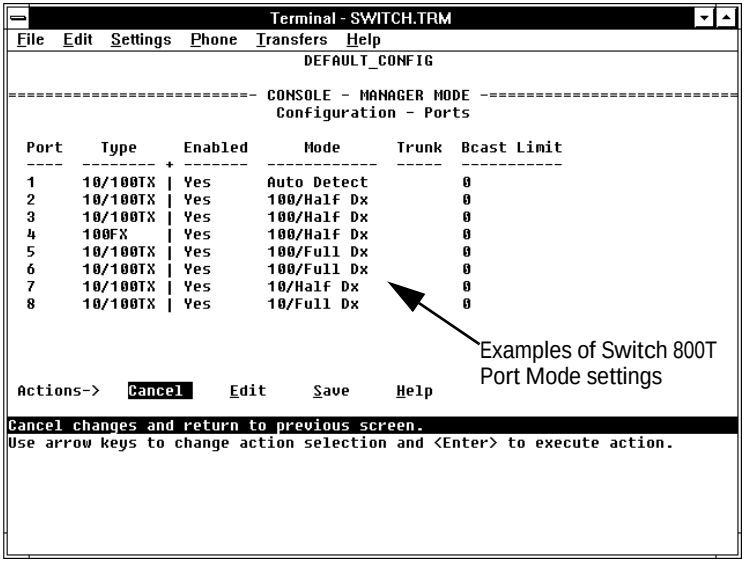
## Introduction

This booklet illustrates Switch 800T network connectivity for 100Base-T and 10Base-T unshielded twisted pair (UTP) connections (beginning on pages 2 and 9) and 100Base-T fiber-optic connections (beginning on page 7).

**Using Proper UTP Cables and Port Configurations.** The HP J3192B AdvanceStack 100Base-TX Twisted-Pair Transceiver Modules used in the Switch 800T are designed for MDI-X ports (that is, for connecting end nodes to the switch). Thus, if you connect any of these ports to an MDI port on a device such as some routers or a network interface card (NIC) on a PC, use a "straight-through" cable. But if the connection is to an MDI-X port on another device such as a hub or another switch, use a "crossover" cable.

**Note:** Use of the "A" version—HP J3192A—of the 100Base-TX Twisted-Pair Transceiver Module is *not supported* on the Switch 800T.

UTP connections between the Switch 800T and another device can be either 100Base-T (page 2) or 10Base-T (page 9), and either full duplex or half duplex. Always ensure that both ports in a connection are configured for the same transfer mode (the `Mode` parameter in the Switch 800T port configuration screen). If the device to which you are connecting the Switch 800T complies with the IEEE 802.3u "Auto-Negotiation" standard, then you can configure the Switch 800T port `Mode` parameter to `Auto Detect`. The following screen shows examples of Switch 800T port Mode settings. (For more information on Switch 800T configuration, refer to the *HP AdvanceStack Switch 800T Installation and Configuration Guide*.)



# UTP 100Base-T Connectivity

The Switch 800T enables up to eight ports offering half-duplex or full-duplex 100Base-T operation.

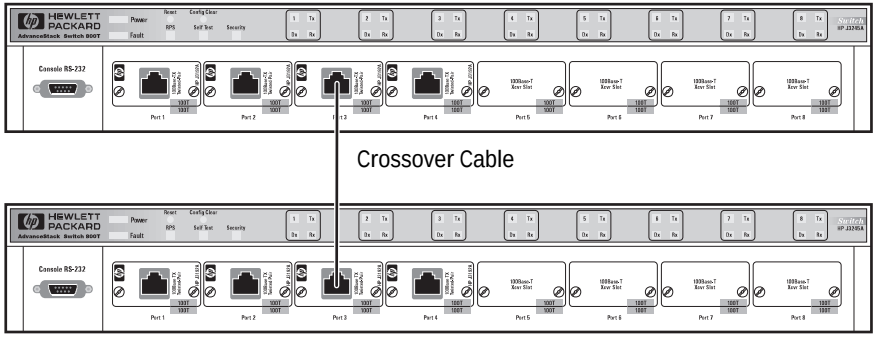
**Note:** The Switch 800T can also be configured for 10Mbit/s UTP operation (page 9). 100 Mbit/s fiber-optic cabling is also an option (page 7).

**Caution: For any connection between a pair of 10/100Base-T ports, ensure that both ports are configured the same. For example, network speed and the transfer mode (full- or half-duplex) should be the same for both ports. If Auto Detect (that is, auto negotiation) is used between the ports, *both* ports must comply with the IEEE 802.3u "Auto-Negotiation" standard. Configuration differences or use of devices that are not standards-compliant could result in significant network errors. For more information, refer to page 1 and to the online Help included in the Switch 800T console interface.**

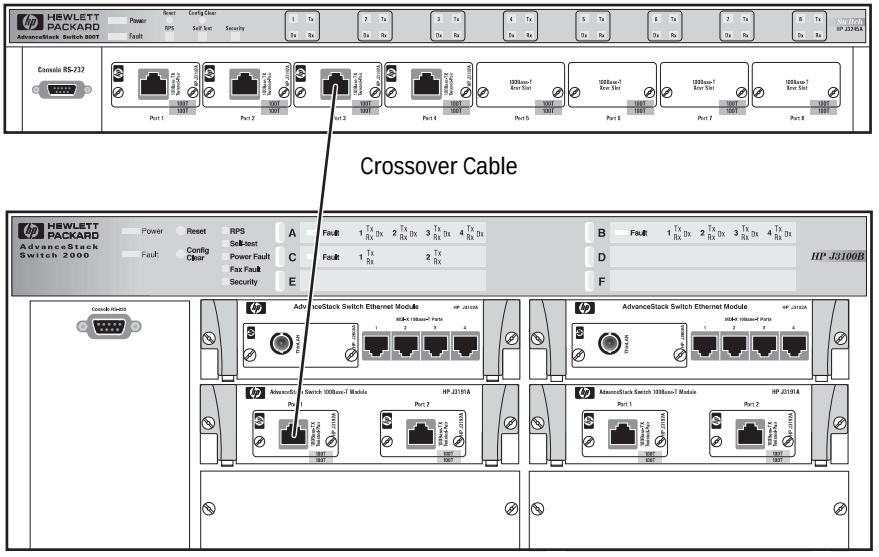
## 100Base-T Twisted-Pair Cabling

The Switch 800T has eight slots capable of receiving HP J3192B 100Base-TX Twisted-Pair Transceiver Modules. For 100 Mbit/s speed, these transceivers require category 5 UTP cable. (The "A" version of this transceiver—HP J3192A—is *not supported* on the Switch 800T.) The transceiver modules are designed for MDI-X ports (that is, for connecting end nodes to the switch). Thus, if you connect any of these ports to an MDI port on a device such as some routers or a network interface card (NIC) on a PC, use a "straight-through" cable. But if the connection is to an MDI-X port on another device such as a hub or another switch, use a "crossover" cable.

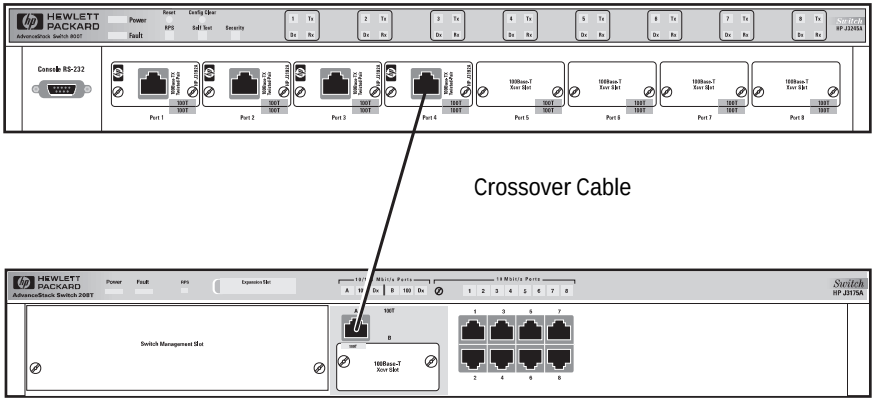
## Switch 800T to Switch 800T



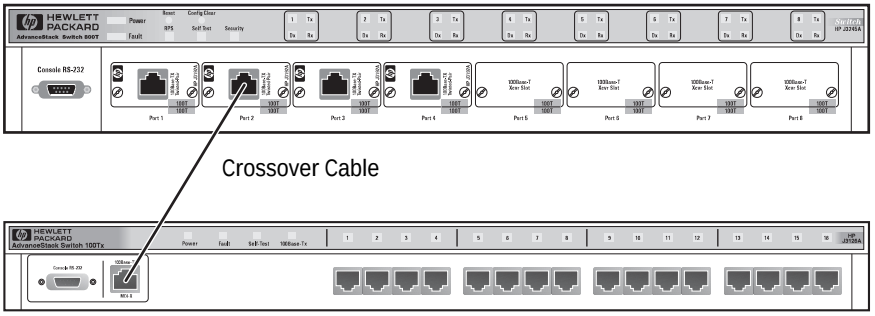
## Switch 800T to Switch 2000



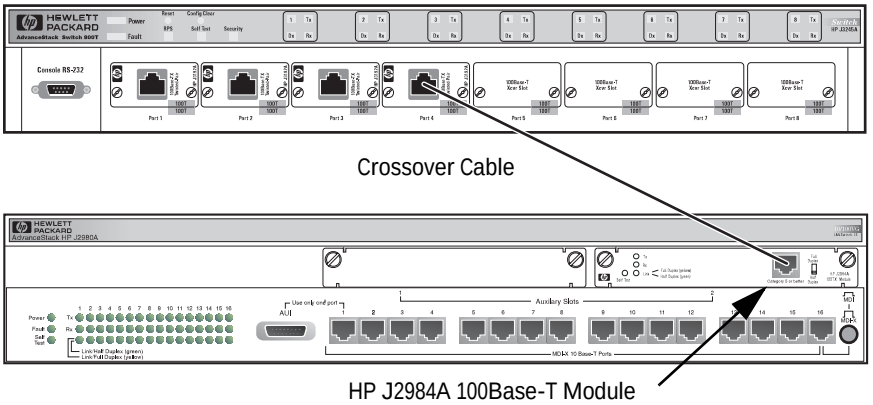

## Switch 800T to Switch 208T or 224T



## Switch 800T to Switch 100

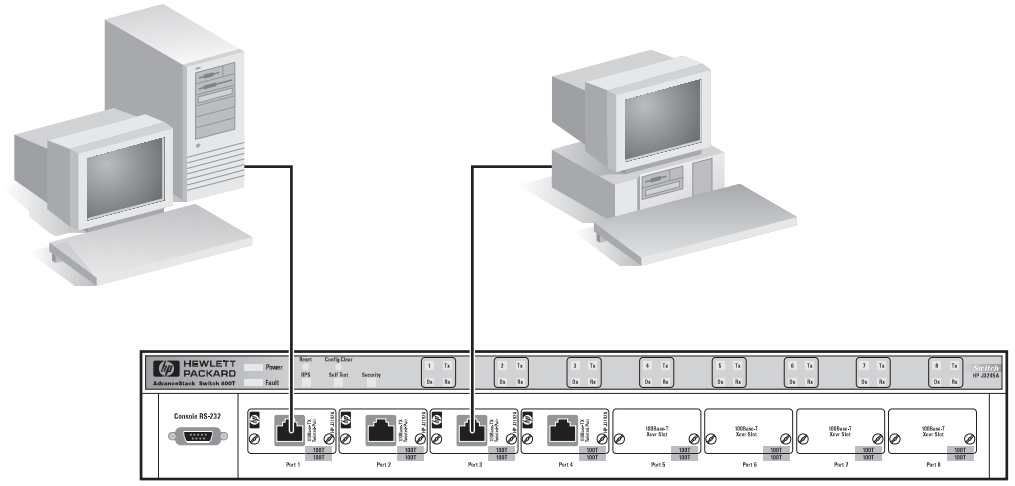



## Switch 800T to Switch 16

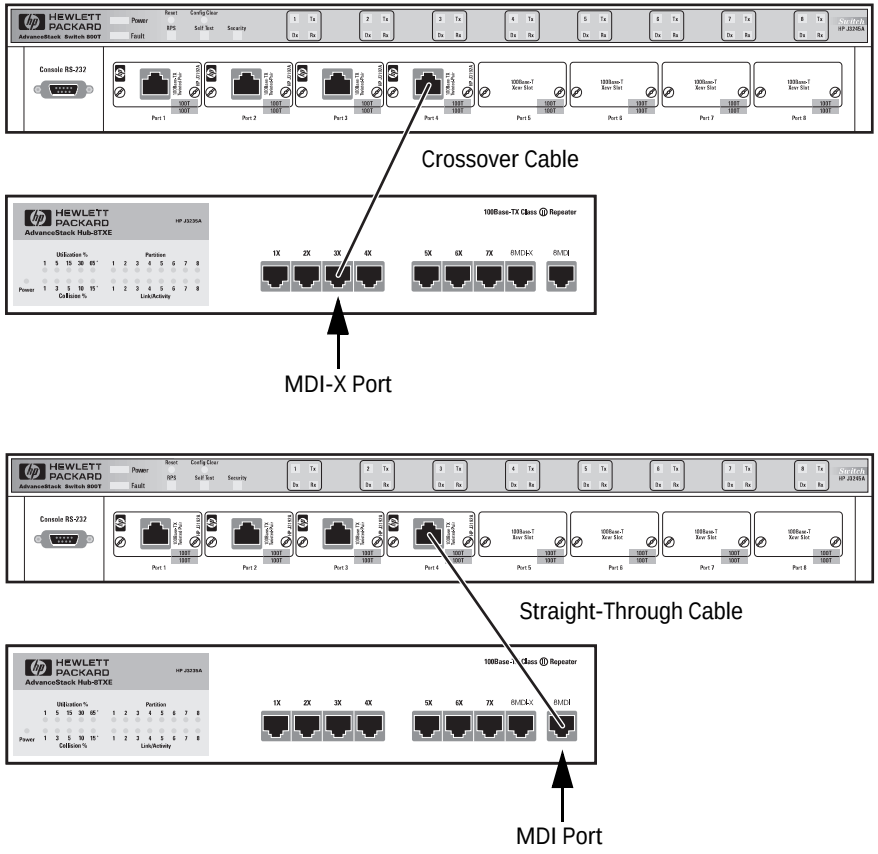


# Switch 800T to a Server or a PC Workstation

Straight-Through Cables



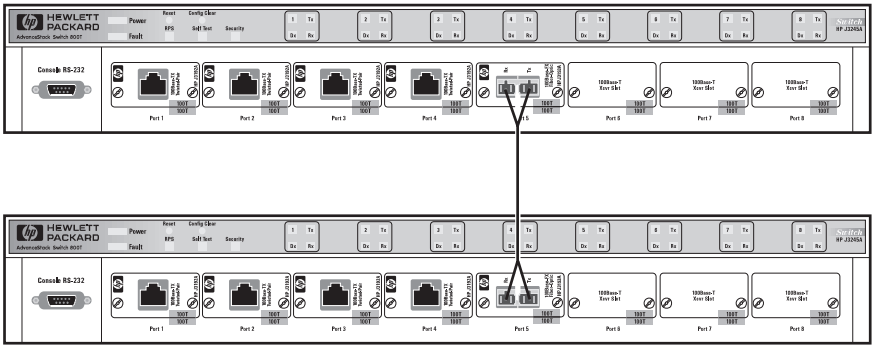
## Switch 800T to an AdvanceStack 100Base-T Hub



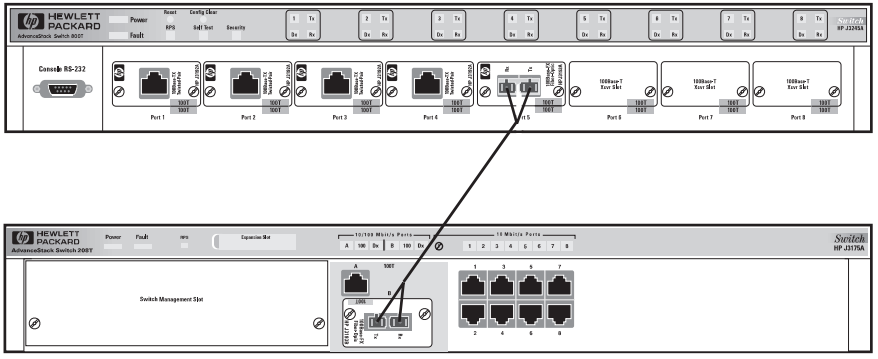
# Fiber-Optic 100Base-T Connectivity

The HP J3193B AdvanceStack 100Base-FX Fiber-Optic Transceiver Module offers half-duplex or full-duplex operation. This transceiver is compatible with the IEEE 802.3u protocol and its wavelength is 1300 nm. Optical fibers used with this transceiver should be multimode, graded-index optical fiber with nominal 62.5/125µm or 50/125µm core/cladding diameter complying with the ITU-T G.651 Standard and A1b or A1a fiber respectively of the IEC 793-2 Standard.

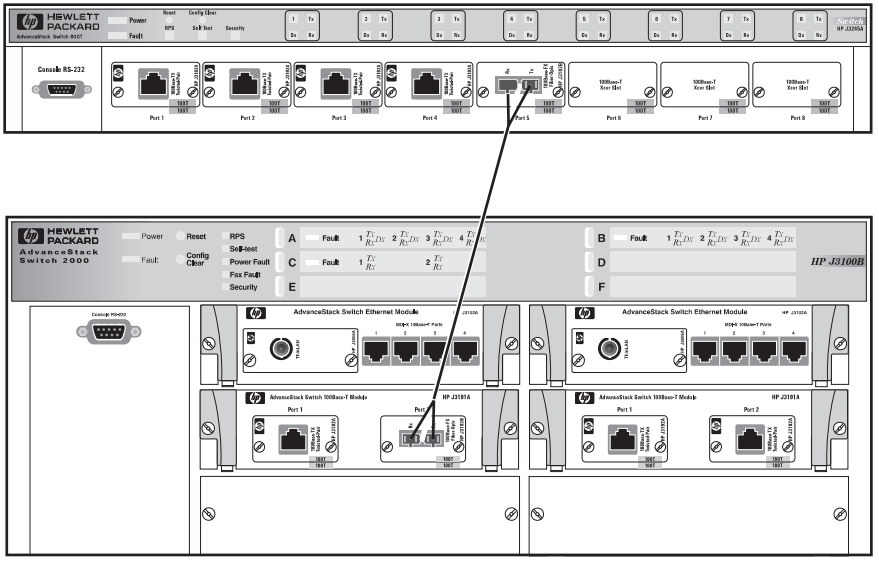
## Switch 800T to Switch 800T



## Switch 800T to Switch 208T or 224T



## Switch 800T to Switch 2000



# UTP Ethernet/10Base-T Connectivity

All Switch 800T ports with HP J3192B AdvanceStack 100Base-TX Twisted-Pair Transceiver Modules installed have 10/100 Mbit/s capability. (The “A” version of this transceiver—HP J3192A—is *not supported* on the Switch 800T.)To connect a Switch 800T port to the 10Base-T port on another device, it is necessary to configure the Switch 800T port mode to match the mode used by the 10Base-T port on the other device. Category 5 unshielded twisted-pair (UTP) cabling is recommended. (Category 5 UTP is *required* for 100Base-TX connectivity.)

**Caution: For any connection between a Switch 800T port and the 10Base-T port on another device, ensure that both ports are configured the same. For example, the transfer mode (full- or half-duplex) must be the same for both ports. If Auto Detect (that is, auto negotiation) is configured on the Switch 800T, the other device must comply with the IEEE 802.3u “Auto-Negotiation” standard. Configuration differences or use of devices that are not standards-compliant could result in significant network errors. For more information, refer to page 1 and to the online Help included in the Switch 800T console interface.**

## Cabling

The HP J3192B AdvanceStack 100Base-TX Twisted-Pair Transceiver Modules used in the Switch 800T are designed for MDI-X ports (that is, for connecting end nodes to the switch). Thus, if you connect any of these ports to an MDI port on a device such as some routers or a network interface card (NIC) on a PC, use a “straight-through” cable. But if the connection is to an MDI-X port on another device such as a hub or another switch, use a “crossover” cable.

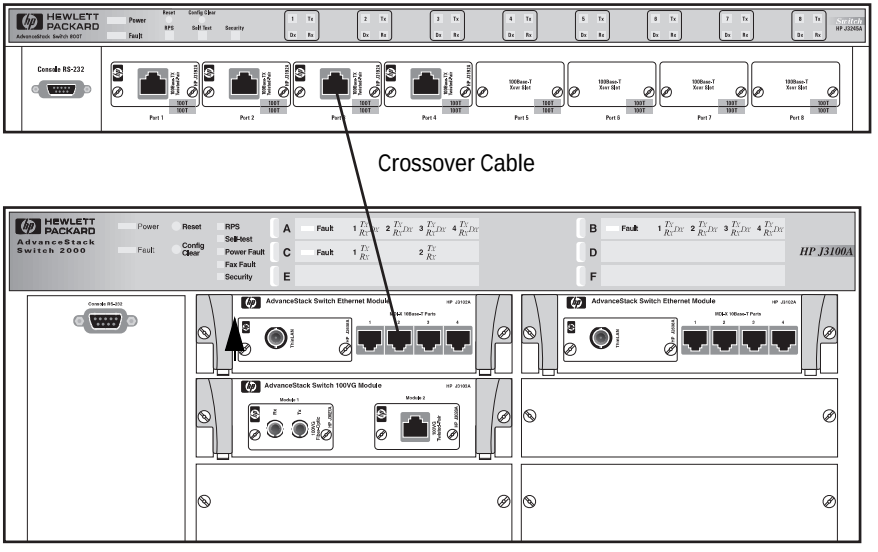
**Note:** An optional 10Base-T transceiver in the transceiver slot of some devices operates in MDI mode (that is, for connecting hubs or other switches to the Switch 800T). In this case, use a “straight-through” cable to connect one of the Switch 800T’s MDI-X ports to the MDI port in the other device. (For more on straight-through and crossover cables, see appendix A, “Cables and Connectors”, in the *HP Switch 800T Installation and Configuration Guide*.)

## Switch 800T to Switch 2000 10Base-T Port

**Port Mode**

**Switch 2000: Half Duplex**
**Switch 800T: Auto Detect** or **10/Half Dx**

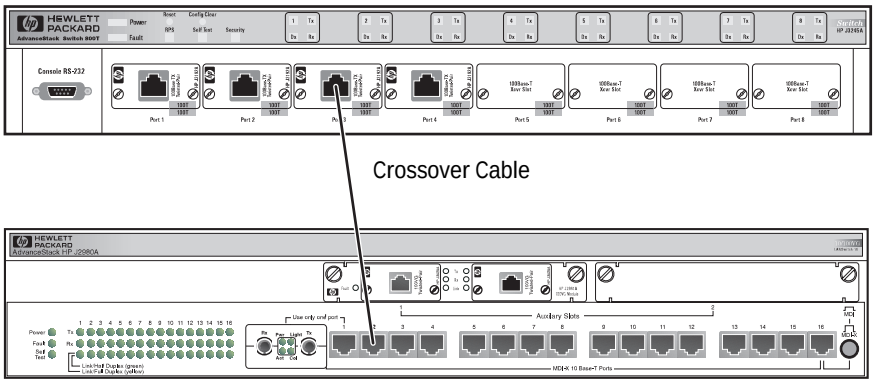
**Switch 2000: Full Duplex**
**Switch 800T: Auto Detect** or **10/Full Dx**



## Switch 800T to Switch 16 10Base-T Port

**Port Mode**

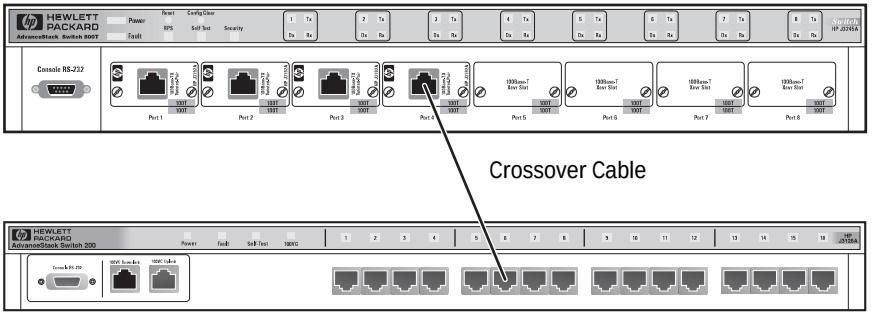
**Switch 800T: 10/Half Dx**




## Switch 800T to Switch 200 10Base-T Port

**Port Mode**

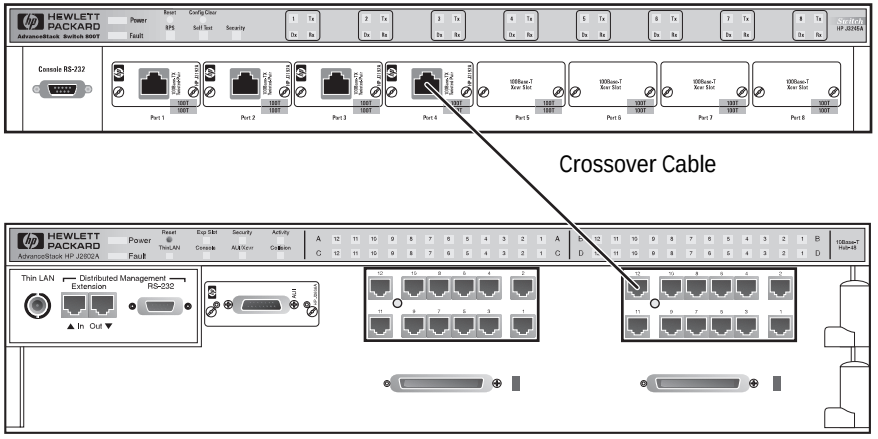
**Switch 800T: 10/Half Dx**



## Switch 800T to 10Base-T 48-Port Hub

**Port Mode**

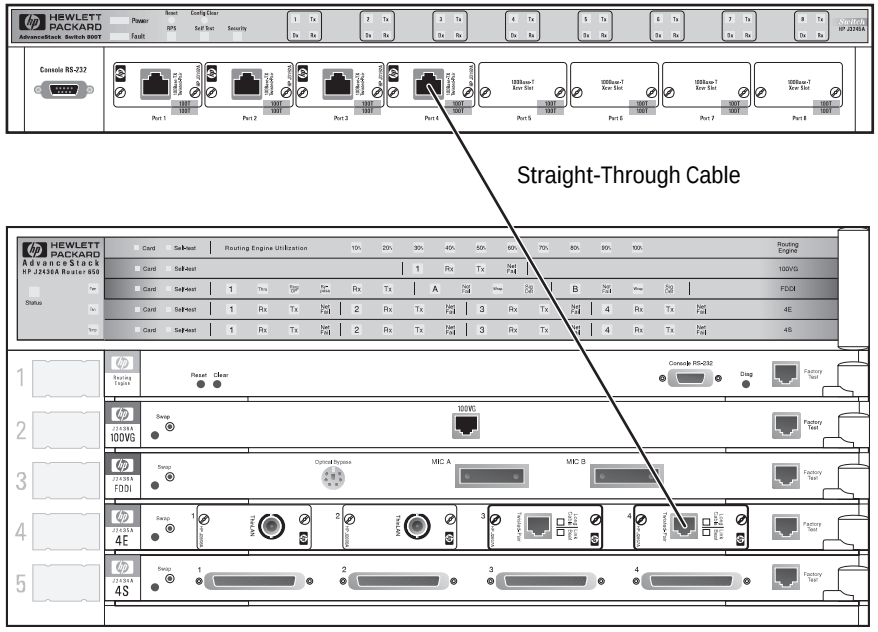
**Switch 800T: 10/Half Dx**




## Switch 800T to 10Base-T MDI Port on a Router 650

**Port Mode**

**Switch 800T: 10/Half Dx**



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