



[Shown with modules 6300 and 6330]

## FEATURES

- Layer 2 modular switch chassis that supports 10/100 UTP and Fast Ethernet fiber plug-in modules for links to workstations, servers and other switches.
- Plug-in modules support 10Base-T/100Base-Tx, 100Base-Fx and IEEE 802.3 specifications.
- Delivers full wire-speed over all ports simultaneously.
- UTP plug-in modules:
  - ▶ Offer eight 10/100 auto-sensing ports.
  - ▶ Feature a crossover switch for easy connection to other hubs and switches.
  - ▶ Feature port management.
- Fiber plug-in modules:
  - ▶ Offer 1, 2 or 4 100Base-Fx fiber ports.
  - ▶ Support multimode (MM) or single-mode (SM) fiber and SC or ST connector types.
  - ▶ Capable of connecting distances up to 58 km (36 mi.).
- Software-independent.
- Lifetime warranty.

## DESCRIPTION

FlexSwitch™ 600X3 is a 3-slot chassis designed for departmental and backbone switched network solutions. The 3-slot chassis provides Layer 2 switching with a wide variety of fiber and UTP options. Modules include 1, 2 or 4-port Fast Ethernet fiber and 8-port 10/100 UTP. The fiber modules support multimode and single-mode fiber

Each UTP port auto-senses 10/100 and auto-negotiates half/full duplex operations, which allows the FlexSwitch 600X3 to seamlessly integrate Fast Ethernet (100 Mbps) and legacy Ethernet (10 Mbps) stations and servers, and provide a migration path to newer technologies. It provides a crossover MDI/MDI-X switch on selected UTP ports for uplink applications, eliminating the need for crossed cables.

The FlexSwitch 600X3 provides LEDs that show link status, report activity and 10 or 100 connections on a per-port basis. It also features LEDs that report each port's half/full duplex status and show collision detection on half-duplex ports.

Featuring Port Management, this modular switch has the ability to configure UTP ports to a particular speed (10 or 100 Mbps) or duplex mode (half or full duplex) through the use of switches

or serial interface via ASCII terminal or terminal emulator. This feature can be used when the connected device is unable to provide its own mode of operation to the switch.

Using the 802.3x advanced flow control specification, the FlexSwitch 600X3 controls the flow of data in order to ensure data integrity.

Utilizing its 7.2 Gigabit per second (Gbps) internal switching fabric and its store-and-forward technology with up to 3-Mbyte buffer memory, the FlexSwitch 600X3 supports a full wire-speed of 148,800 64-byte packets per second (pps) simultaneously on all ports.

In addition, integrated storm controls prevent the broadcast flooding of a port or ports on the switch by discarding excessive broadcast packets thus preventing network degradation.

As a Layer 2 switch, each port of the FlexSwitch 600X3 is capable of MAC address learning and aging with support for up to 3,000 MAC addresses, as well as packet filtering and forwarding. It checks all packets and discards illegal or corrupted packets thus providing fragment-free packet forwarding and enhancing the overall network performance.

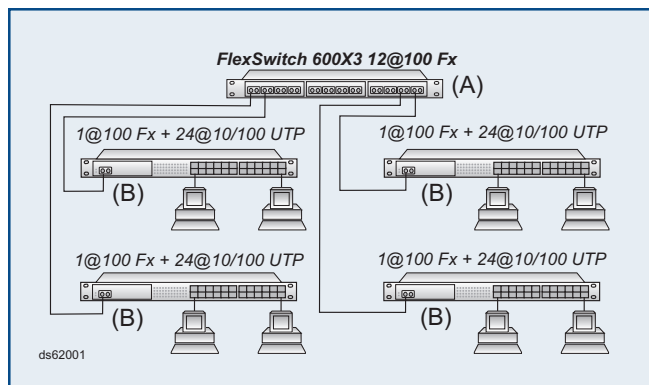
The Fast Ethernet fiber ports are available with SC or ST connectors for multimode or single-mode fiber. Distances of 412 m (1,350 ft.) in half duplex and up to 58 km (36 mi.) in full duplex are supported.

Plug-and-play capable right out of the box, the FlexSwitch 600X3 requires no user configuration.

## SAMPLE APPLICATIONS

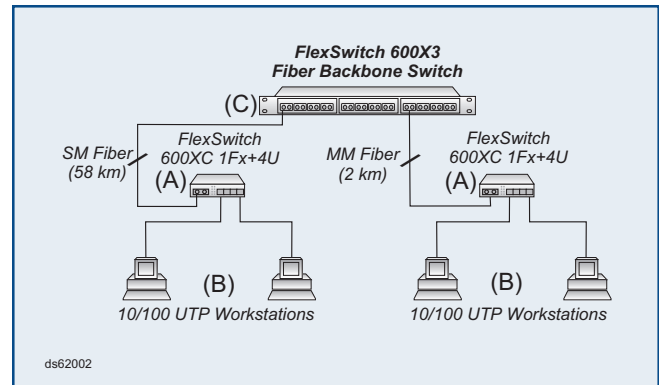
### Application 1. Enterprise Fiber Backbone

This application depicts the integration of 10/100 switches (B) to the FlexSwitch 600X3 fiber backbone (A). Since all fiber connections are switched and in full duplex, their distances can reach up to 58 km (36 mi.) over single-mode fiber.



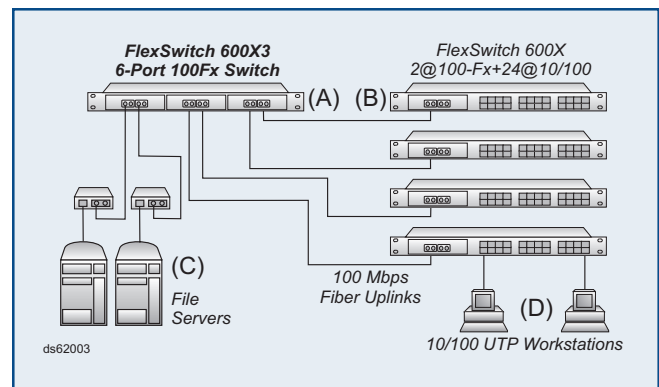
### Application 2. Small Workgroups on a Fiber Backbone

This application depicts remote workgroups (B) connecting via 100 Mbps Fast Ethernet UTP to the FlexSwitch 600XC 1Fx+4U compact switches (A). The compact switches are connected via 100 Mbps Fast Ethernet fiber to the 12-port FlexSwitch 600X3 fiber backbone (C).



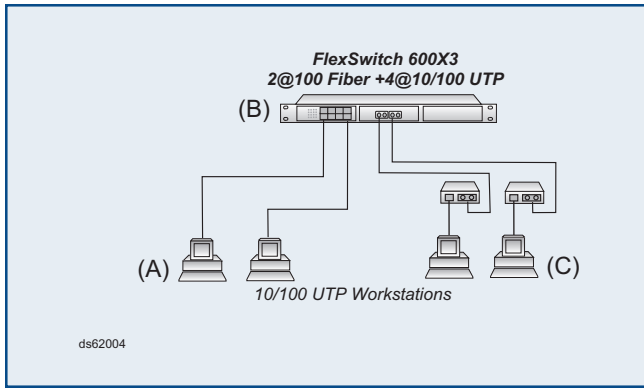
### Application 3. 10/100 Workgroups with Fiber Backbone

The following diagram depicts a typical 10/100 UTP workgroup switched network where a variety of Fast Ethernet and legacy Ethernet workstations are connected via fiber to file servers. In this example, fixed 24-port FlexSwitch 600X switches (B) are used to connect the workgroup stations (D). The workgroup switches are connected via fiber to the 6-port fiber backbone FlexSwitch 600X modular switch (A). The file servers (C) are also connected to the backbone switch via media converters to provide access to all workstations.



### Application 4. Mixed Workgroup

This application shows two groups of workstations connecting over UTP (A) and fiber via media converters (C) to the FlexSwitch 600X3. Note that there is still one open bay in the FlexSwitch 600X3 allowing for an additional UTP or fiber plug-in module to be added in the future.



## SPECIFICATIONS

- **Protocol:** IEEE 802.3
  - Ethernet 10Base-T
  - Fast Ethernet 100Base-Tx, 100Base-Fx
  - Flow Control 802.3x
- **Basic Features:**
  - MAC Addresses 3,072 (1,000 per module)
  - Buffer size 3 MB (1 MB per module)
- **Connectors and Cables:**
  - Twisted Pair UTP: RJ45, Category 5 (EIA/TIA 568)
  - Fiber: SC or ST
  - Multimode (MM): 50/125, 62.5/125, 100/140  $\mu$ m
  - Single-Mode (SM): 9/125  $\mu$ m

- **Supported Distances:**

<u>Ethernet</u>	<u>Half-Duplex</u>	<u>Full-Duplex</u>
Twisted Pair UTP:	100 m / 328 ft.	100 m / 328 ft.
<u>Fast Ethernet</u>	<u>Half-Duplex</u>	<u>Full-Duplex</u>
Twisted Pair UTP:	100 m / 328 ft.	100 m / 328 ft.
<u>Fiber:</u>		
MM/Lx, 1300 nm:	412 m / 1,350 ft.	2 km / 1.2 mi.
SM/Lx, 1300 nm:	412 m / 1,350 ft.	28 km / 16.8 mi.
SM/Lx/LH, 1300 nm:	412 m / 1,350 ft.	58 km / 36 mi.

- **LED Indicators**

<u>Function</u>	<u>Color &amp; Description</u>
UTP:	Green/yellow
Yellow On:	10
Green On:	100
Flashing:	Activity detected
Fiber:	Link/activity green
Off:	No link detected
Green On:	Link detected
Flashing:	Activity detected
Full/Half Duplex:	Green
Off:	Set to half duplex
On:	Set to full duplex
Flashing:	Collision detected
- **Dimensions/Weight:** W:19.0"xD:8.0"xH:1.75" / 3 lb.
- **Power:** 110/230 VAC, 50/60 Hz, 300 mA
- **Temperature:**
  - Operating 0 to 50 degrees C
  - Storage -40 to 75 degrees C
- **Humidity:** 0-90% (non-condensing)

## ORDERING INFORMATION

<u>Enclosure Types:</u>		Model #	Description					
		6200	FlexSwitch 600X3, 3-Slot Modular Switch Chassis					
<u>Plug-In Modules:</u>		SC Connector Model #			ST Connector Model #			RJ45 Model #
Cable Type	Distance	1 Port	2 Ports	4 Ports	1 Port	2 Ports	4 Ports	8 Ports
Multimode Fiber Lx 1300 nm	2 km	6310-0	6320-0	6330-0	6311-0	6321-0	6331-0	
Single-Mode Fiber Lx 1300 nm	28 km	6310-2	6320-2	6330-2	6311-2	6321-2	6331-2	
Single-Mode Fiber Lx 1300 nm Long-Haul	58 km	6310-3	6320-3	6330-3				
10/100 UTP Copper	100 m							6300

**Note:** For other configurations, consult factory.

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