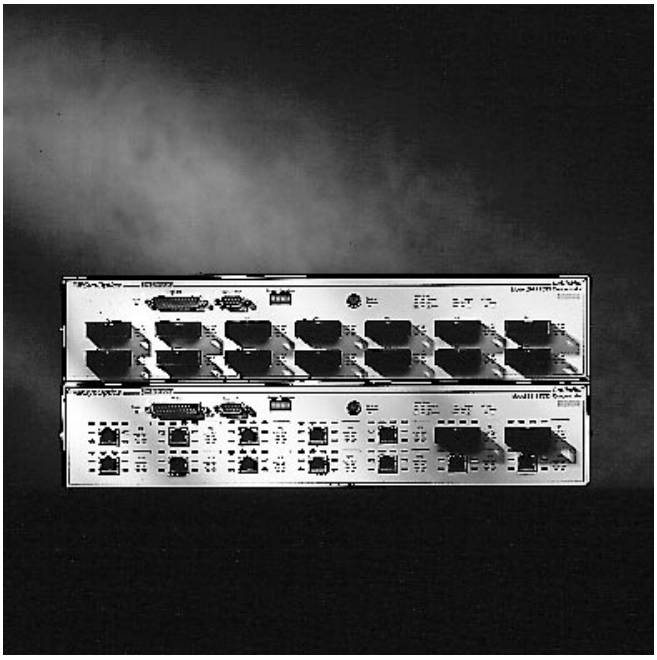

System 2000 FDDI

Workgroup Hubs

System 2000™ Fiber Distributed Data Interface (FDDI) workgroup hubs from Bay Networks™ offer manageable, preconfigured connectivity platforms for implementing cost-effective, high-speed FDDI workgroups over a variety of cabling media.

Bay Networks

The Merged Company of SynOptics and Wellfleet

System 2000 FDDI Workgroup Hubs

Product Specifications

Network Protocol and Standards Compatibility	ISO 9314-1 FDDI Physical Protocol (PHY) Standard ISO 9314-3 FDDI Physical Medium Dependent (PMD) Standard ANSI Draft TP-PMD Specifications ANSI FDDI X3T9.5 Station Management (SMT) Specification
Data Rate	100 Mbps
Electrical Specifications	Power consumption: 105 watts @ +5V; 6 watts @ ±12V Thermal rating: 421 Btu/hr
Optical Specifications (Model 2914)	Transmitter/receiver: LED/PIN diodes Wavelength: 1300 nm Optical power coupled into a 62.5/125 µm, 0.275 NA fiber: -16 dBm ± 2 dBm Optical receiver sensitivity: -31 dBm min Optical receiver dynamic range: 17 dB maximum (All optical specifications meet the ANSI FDDI PMD specifications.)
UTP Specifications (Model 2915)	Based on TP-PMD standard Coding: MLT-3 Signal level: 2 volts peak-to-peak
Physical Dimensions	(H) 3.5 in x (W) 17 in x (D) 16 in [(H) 8.9 cm x (W) 43.2 cm x (D) 40.6 cm]
Weight	18 lbs (8.1 kg)
Environmental Specifications	Operating temperature: 5°C to 40°C; storage temperature: -25°C to 70°C Operating humidity: 85% max relative humidity, non-condensing; storage humidity: 90% max relative humidity, non-condensing Operating altitude: 10,000 ft (3,048 m) max Free fall/drop: ISO 4180-2, NSTA 1A Vibration: IEC 68-2-6/34 Stock/bump: IEC 68-2-27/29
Electromagnetic Emissions	Meets FCC Part 15, Subpart J, Class A and B Meets EN 55 022 (CISPR 22: 1985), Class B Meets General License VDE 0871, Class B (AmtsblVfg 243/1991, 46/1992) Meets VCCI Class 1 ITE
Electromagnetic Susceptibility	Electrostatic discharge (ESD): IEC 801-2, Level 2/4 Radiated electromagnetic field: IEC 801-2, Level 2 Electrical fast transient/burst: IEC 801-4, Level 2/3 Electrical surge: IEC 801-5, Level 1/3
Safety Agency Approvals	UL listed (UL 1950) CSA certified (CSA 22.2, #950) TUV licensed (EN 60 950)

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Model 2914
Fiber Optic FDDI Workgroup Concentrator

Model 2915
Unshielded Twisted Pair FDDI Workgroup Concentrator

The System 2000 FDDI workgroup hubs from Bay Networks support up to 14 host stations operating at 100 megabits per second (Mbps), delivering a compact, powerful solution for linking today's high-performance servers and workstations. The hubs are also fully integrated with the Optivity® network management system, Bay Networks' premier management solution for a variety of network environments. Working from a number of leading UNIX-based management platforms, including Sun Microsystems' SunNet Manager, Hewlett-Packard's OpenView and IBM's NetView/6000, Optivity represents the industry's most advanced distributed management solution for large, multivendor FDDI, Ethernet, Token Ring and ATM networks.

System 2000 FDDI workgroup hubs include two FDDI Media Access Control (MAC) elements — Primary and Local. The Primary MAC provides access to and allows management of devices connected to the Primary path. The Local MAC automates two processes that contribute to improved network reliability: intelligent insertion and removal of new stations, and the gathering of physical topology information.

The hubs are fully compatible with the International Standards Organization's FDDI MAC, Physical Medium Dependent (PMD) and Physical Protocol (PHY) standards, as well as the American National Standards Institute's (ANSI) X3T9.5 Station Management (SMT) specification.

Two hub models are available, each supporting different media.

Model 2914 FDDI Workgroup Concentrator

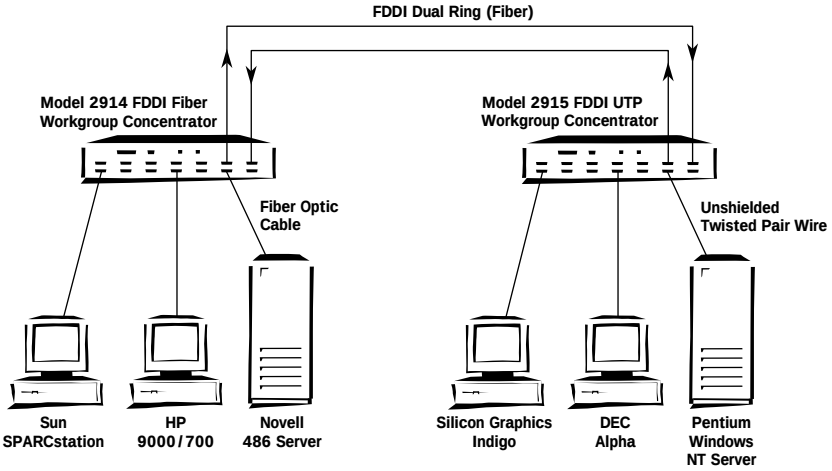
The Model 2914 FDDI Workgroup Hub features two fiber optic A and B ports and 12 Master ports implemented via Media Interface Connectors (MIC) for supporting 100 Mbps FDDI host connections over fiber optic cabling. The Model 2914 supports host connections up to two kilometers (km) over 50/125 and 62.5/125 µm multimode fiber cabling.

Model 2915 FDDI Workgroup Concentrator

The Model 2915 FDDI Workgroup Concentrator offers two fiber optic A and B ports and 12 RJ-45 modular receptacle Master ports to support host stations operating at 100 Mbps over Category 5 unshielded twisted pair cabling. The Model 2915, which supports connections up to 100 meters between the concentrator and the host station, is compatible with the latest ANSI FDDI specification for twisted pair physical medium dependent (TP-PMD) operations.

Configuration Flexibility

The System 2000 FDDI work-



System 2000 FDDI workgroup hubs can support multivendor FDDI networks over a variety of cabling media.

group hubs support a wide variety of network configurations. The fiber-optic A and B ports enable the hubs to be dual-attached to an FDDI trunk ring or dual-homed to higher-level FDDI concentrators. Alternatively, the B port can provide a single-attach connection to a higher-level FDDI concentrator while the A port supports an additional end-station. In a stand-alone (null-attach) configuration, the A and B ports can be used to support two additional host stations. Configuration and port status information may be obtained through front-panel LED indicators, from the network management station, or through the service port.

Integrated Network Management

System 2000 FDDI workgroup hubs are configured to support Bay Networks' Optivity network management system, enabling network managers to control the FDDI network with port-level precision. Optivity includes familiar Bay Networks management features such as system-generated network maps, the Expanded View™ graphical user interface and full Simple Network Management Protocol (SNMP) compatibility.

In FDDI networks, every station supports the American National Standards Institute's (ANSI) FDDI Station Management (SMT) protocol. The System 2000 FDDI workgroup hubs collect SMT-generated data from attached stations, and an on-board AMD 29005 RISC processor processes the management frames within the concentrator. An SMT-to-SNMP proxy agent on the concentrator enables a central management station — a UNIX workstation running the Optivity application — to display the information as part of a network map discovered and displayed by the Autotopology Plus™ mapping feature.

From the central management station, network managers can obtain specific fault, performance and configuration data from System 2000 FDDI workgroup hubs located anywhere in the extended network. Through Expanded View, the network manager can summon a real-time view of the hub to monitor and control individual host connections.

Standards-based Management

SNMP support enables the System 2000 FDDI workgroup hubs to pass management data through bridges and routers in extended networks. SNMP compatibility also enables network administrators to manage Bay Networks FDDI, Ethernet and Token Ring networks, as well as other SNMP-compatible devices, from a common management system.

The FDDI workgroup hubs include 2 megabytes (MB) of ROM on-board for incorporating full FDDI management information base (MIB), SMT, SNMP and diagnostic software for extensive management capabilities down to the port level. An additional 2 MB of RAM enables SMT and SNMP to be downloaded to the concentrators from the management station using TFTP. A local load option is also included to allow startup without intervention by the network management station.

System 2000 FDDI Workgroup Hub Features