DATA SHEET

Brocade 5100
Fibre Channel switch
Up to 40 ports

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The Brocade® 5100 is ideal for organizations requiring a flexible solution that will meet rapidly evolving storage requirements, either as a building-block switch for a small SAN or as a high-performance edge switch in larger core-to-edge SAN configurations. With a flexible architecture that supports 1, 2, 4 and 8 Gbit/sec technology with 24, 32, or 40 ports, the Brocade 5100 provides an affordable high-port-count, single-domain solution.

A Flexible, Easy-to-Use Switch for a Variety of SAN Environments

As the value and volume of business data continue to rise, organizations need technology solutions that are easy to implement and manage, and that can grow and change with minimal disruption. The Brocade® 5100 Switch is designed for rapidly growing storage requirements in mission-critical environments—combining 1, 2, 4, and 8 Gbit/sec Fibre Channel technology in configurations of 24, 32, or 40 ports in an efficiently designed 1U package. As a result, it provides low-cost access to industry-leading SAN technology as well as "pay-as-you-grow" scalability for consolidating storage and maximizing the value of virtual server deployments. With the highest port density of any midrange enterprise switch, the Brocade 5100 is designed for a broad range of SAN architectures. The evolutionary design consumes less than 2.5 watts of power per port for exceptional power and cooling efficiency, and features consolidated power and fan assemblies to improve environmental performance and reduce ownership costs. These capabilities help make the Brocade 5100 a cost-effective building block for standalone networks or the edge of enterprise core-to-edge fabrics.

INDUSTRY-LEADING PERFORMANCE

To support mission-critical environments, the Brocade 5100 provides best-in-class performance for midrange SAN switches. It features a non-blocking architecture with as many as 40 ports concurrently active at 8 Gbit/sec full duplex to provide an aggregate bandwidth of 680 Gbit/sec. The Brocade 5100 also enables organizations to use 4 Gbit/sec SFPs today and upgrade to 8 Gbit/sec SFPs when required. The Brocade 5100 utilizes ASIC technology featuring five 8-port groups.

ENTERPRISE-CLASS AVAILABILITY FOR BUSINESS CONTINUANCE

The Brocade 5100 provides a reliable foundation for disaster recovery and business continuance by employing enterprise-class availability features such as hot-swappable, redundant, and integrated fan and power supply assemblies. Moreover, hot code load and activation help maximize application uptime with faster system upgrades and maintenance to reduce the dependency on scheduled outages. Combined with a wide range of diagnostic and monitoring functions, these capabilities help provide a highly available SAN environment.

SUPERIOR ROI AND INVESTMENT PROTECTION

The Brocade 5100 utilizes the same Fabric OS that supports the entire Brocade product family—from the 8-port Brocade 300 Switch to the 768-port Brocade DCX™ Backbone. This helps ensure forward and backward compatibility among Brocade solutions while simplifying maintenance and field upgrades. Moreover, organizations can manage the Brocade 5100 with existing management applications such as Brocade Enterprise Fabric Connectivity Manager (EFCM) and Brocade Fabric Manager.

Main features		Benefits	
■	Flexible ports on demand	■	"Pay-as-you-grow" scalability
		■	The delivered 24 ports can easily upgrade to 32 or 40 by activating the port license
■	Enterprise-class availability features as hot-plug redundant fans and power supplies	■	Enterprise-Class availability for disaster recovery and business continuance

TECHNICAL DETAILS
BROCADE 5100 SWITCH

Systems Architecture

Fibre Channel ports	40 ports, universal (E, F, and FL)
Scalability	Full fabric architecture with 239 switches maximum
Certified maximum	56 switches, 7 hops; larger fabrics may be certified as required
Performance	1,2,4 and 8 Gbit/s line speed full duplex and auto-sensing of 1, 2, 4 and 8 Gbit/sec port speeds; optionally programmable to fixed port speed; speed matching between 1, 2, 4 and 8 Gbit/sec ports
ISL Trunking	Up to eight 8 Gbit/sec ports per ISL trunk; up to 68 Gbit/sec per ISL trunk
Aggregate bandwidth	680 Gbit/sec end to end
Fabric latency	~700 nanoseconds, cut-through routing at 8 Gbit/sec
Maximum frame size	2112-byte payload
Classes of service	Class 2, Class 3, Class F (inter-switch frames)
Port types	FL_Port, F_Port, E_Port, M-Port (Mirror Port); self-discovery based on switch type (U_Port)
Data traffic types	Fabric switches supporting unicast and broadcast
Media types	4 Gbit/s: Hot-plug, Brocade Small Form-factor Pluggable (SFP), LCAnschluss; Short-Wavelength Laser (SWL) up to 500 Meter; Long-Wavelength Laser (LWL) up to 10 km; Extended Long-Wavelength Laser (ELWL) up to 30 km; Distance depends on fibre channel cable and port speed 8GBit/s: Hot-plug, Brocade Small Form-factor Pluggable (SFP), LC-Connection Short-Wavelength Laser (SWL) up to 100 Meter; Long-Wavelength Laser (LWL) up to 10 km; Extended Long-Wavelength Laser (ELWL) up to 25 km
Fabric services	Simple Name Server, Registered State Change Notification (RSCN); Brocade Advanced Zoning, and Brocade Web Tools; optional fabric services include the Brocade FCIP Tunneling Service Brocade Advanced ISL Trunking, FC Routing and Adaptive Networking

Management

Management software supported	SSH,Telnet; HTTPS/SSL,RADIUS; SNMP v3 (FE MIB, FC Management MIB); Web Tools; Fabric Manager; EFCM Standard/Enterprise 9.x third-party applications utilizing the Brocade SMI Agent
Management access	10/100 Ethernet port (RJ-45); serial port (RJ-45); USB Port; In-band through Management Server
Diagnostics	POST and embedded online/offline diagnostics

Mechanicals

Enclosure	Non-port side to port side (port side exhaust); back-to-front airflow; power from rear; 1.0U, 19-in. EIA-compliant
Size	Width: 42.88 cm Height: 4.29 cm Depth: 61.05 cm
System weight	9.34 kg – dual Power supplies no SFP

Environmentals

Temperature	Operating: 0°C to 40°C Non-operating: -25°C to 70°C
Humidity	Operating: 10% to 85% non-condensing at 40°C Non-operating: 10% to 95%, non-condensing at 70° C
Altitude	Operating: up to 3000 meters Storage: up to 12 km
Shock	Operating: 20G, 6 ms half-sine Non-operating: 33G, 11 ms, Half sine
Vibration	Operating: 0.5 g sine, 0.4 grms random, 5 to 500 Hz Non-operating: 2.0 g sine, 1.1 grms random, 5 to 500 Hz
Airflow	Maximum airflow 29 CFM Nominal airflow 22 CFM

Power

System power consumption	Nominal system draw 84 watts max. 91 watts
Nominal input voltage	85 to 264 VAC, 47 to 63 Hz
Input line frequency	47 to 63 Hz
Input voltage	85 VAC minimum, 264 VAC maximum
BTU rating (80% efficiency)	311 BTU/hr
Inrush current	Maximum of 35 amps for period between 10 to 150 ms at 50°C, hot or cold start

Safety

The 5100 complies with the following safety certifications:	UL 60950-1: 2003, First Edition (Underwriters Laboratories) CSA 60950-1-03 (Canadian Standards Association) Nemko EN60950:2000 TUV EN60950:2000 / IEC60950:1999 (TUV "GS" for Germany, TUV "S" for Argentina) GOST (Russia) Low Voltage Directive (73/23/EEC) for CE Marking in European Union

Information about environmental care, policies, programs and our Environmental Guideline FSC03230:
ts.fujitsu.com/aboutus
Take back and Recycling information: ts.fujitsu.com/recycling