Brocade ICX 6430 and ICX 6450 Stackable Switches

Technical Specifications

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Contents

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This document highlights the features and specifications for the Brocade ICX 6430 and ICX 6450 stackable switches.

System specifications

System component	Description
Enclosure	1U; stackable and fanless models; approximately 17 inches wide and 1.7 inches tall
Power inlet	C14
Power supplies	Integrated AC power supply for system and PoE power
	External 1500 W AC power supply for redundant system power and extended PoE power
Fans	ICX 6430-24: Fanless
	ICX 6430-48, ICX 6450-24, and ICX 6450-48: One fan per device
	ICX 6430-24P, ICX 6430-48P, and ICX 6450-24P: Two fans per device
	ICX 6450-48P: Three fans per device
Cooling	Side-to-back airflow or free air circulation (fanless - ICX 6430-24)
System architecture	ICX 6430: 4 stackable
	ICX 6450: 8 stackable

Ethernet

System component	Description
Ethernet ports	24- and 48-port 10/100/1000 Mbps models and 1 Gigabit Ethernet (GbE) or 10 GbE dual-purpose uplink/stacking ports with or without PoE/PoE+
Management interface	Out-of-band management interface (RJ-45 port)

LEDs

System component	Description
Port status LEDs	Ethernet: Indicates Ethernet link status and speed
	PoE/PoE+: Indicates if a port is providing PoE or PoE+ power to a connected device
	SFP/SFP+: Indicates status and speed for SFP/SFP+ ports
	Out-of-band management port: Indicates out-of-band management port status and speed
Power status LEDs	Bicolor LED (green/amber): Indicates the internal power status
System status LEDs	EPS1 and EPS2: Indicates if the external power supplies (EPS) are operating normally
	Power (PWR): Indicates the power supply status
	Diagnostic (Diag): Indicates the system self-diagnostic test progress
	MS (Stacking configuration): Indicates the device is the active controller
	Uplink and Downlink: Indicates the port status

Other

System component	Description
Serial cable	RJ-45 console cable
RJ-45 connector	24 or 48 RJ-45 ports that operate at 10 Mbps or 100 Mbps half or full duplex, or at 1000 Mbps full duplex

Weight and physical dimensions

Model	Height	Width	Depth	Weight (empty)	Weight (fully loaded)
ICX 6430-24	4.3 cm	44.3 cm	24 cm	3.4 kg	4 kg
	1.7 inches	17.4 inches	9.4 inches	7.6 lb	9 lb
ICX 6430-48	4.3 cm	44.3 cm	37 cm	5 kg	6 kg
	1.7 inches	17.4 inches	14.6 inches	11 lb	13 lb
ICX 6430-24P	4.3 cm	44.3 cm	24 cm	4.6 kg	5.5 kg
	1.7 inches	17.4 inches	9.4 inches	10 lb	11.6 lb

Model	Height	Width	Depth	Weight (empty)	Weight (fully loaded)
ICX 6430-48P	4.3 cm	44.3 cm	37 cm	6.2 kg	7 kg
	1.7 inches	17.4 inches	14.6 inches	13.8 lb	15.6 lb
ICX 6450-24	4.3 cm	44.3 cm	24 cm	3.3 kg	4.2 kg
	1.7 inches	17.4 inches	9.4 inches	7.4 lb	9.4 lb
ICX 6450-48	4.3 cm	44.3 cm	37 cm	5 kg	6 kg
	1.7 inches	17.4 inches	14.6 inches	11 lb	13.6 lb
ICX 6450-24P	4.3 cm	44.3 cm	24 cm	4.5 kg	5.2 kg
	1.7 inches	17.4 inches	9.4 inches	10 lb	11.6 lb
ICX 6450-48P	4.3 cm	44.3 cm	37 cm	6.4 kg	7.4 kg
	1.7 inches	17.4 inches	14.6 inches	14.1 lb	16.3 lb

Environmental requirements

Condition	Operational	Non-operational
Ambient temperature	0°C to 45°C (32°F to 113°F)	-40°C to 70°C (-40°F to 158°F)
Relative humidity (non-condensing)	5% to 95% at 40°C (104°F)	0% to 95% at 70°C (158°F)
Altitude (above sea level)	0 to 3000 m (10,000 feet)	0 to 3000 m (10,000 feet)
Shock	IEC 68-2-27 IEC 68-2-32	N/A
Vibration	IEC 68-2-36 IEC 68-2-6	N/A
Heat dissipation	ICX 6430-24: 67 BTU/hr ICX 6430-24P: 104 BTU/hr ICX 6430-48: 128 BTU/hr ICX 6430-48P: 132 BTU/hr ICX 6450-24: 124 BTU/hr ICX 6450-24P: 129 BTU/hr ICX 6450-48: 186 BTU/hr ICX 6450-48P: 192 BTU/hr	N/A

Condition	Operational	Non-operational
Operating noise	ICX 6430-24: fanless (ambient)	N/A
	ICX 6430-24P: 39.2 dB	
	ICX 6430-48: 37.2 dB	
	ICX 6430-48P: 39.3 dB	
	ICX 6450-24: 37.9 dB	
	ICX 6450-24P: 39.2 dB	
	ICX 6450-48: 37.2 dB	
	ICX 6450-48P: 55.5 dB	

Power supply specifications (per PSU)

Power supply model	Maximum output power rating (DC)	Input voltage	Input line frequency	Maximum input current	Input line protection	Maximum inrush current
ICX 6430-24	36 Watts	100 - 240 VAC	50/60 Hz	0.9 A	Line fused	250 A maximum at 220 VAC, 25°C cold start
ICX 6430-24P	525 Watts	100 - 240 VAC	50/60 Hz	6 A		
ICX 6430-48	65 Watts	100 - 240 VAC	50/60 Hz	1.5 A		
ICX 6430-48P	525 Watts	100 - 240 VAC	50/60 Hz	6 A		
ICX 6450-24	65 Watts	100 - 240 VAC	50/60 Hz	1.5 A		
ICX 6450-24P	525 Watts	100 - 240 VAC	50/60 Hz	6 A		
ICX 6450-48	100 Watts	100 - 240 VAC	50/60 Hz	2 A		
ICX 6450-48P	880 Watts	100 - 240 VAC	50/60 Hz	10 A		

Power consumption (maximum configuration)

Maximum: Fully configure all ports with 100% traffic throughput and maximum Power over Ethernet (PoE) load.

NOTE
The Brocade ICX 6430 and ICX 6450 stackable switches do not support -48 VDC input power.

Model name	@100 VAC input	@200 VAC input	@-48 VDC input	Minimum number of power supplies	Notes
ICX 6430-24	0.9 A 24.16 W 82.44 BTU/hr	0.375 A	N/A	1	
ICX 6430-24P	6 A 494.66 W 1687.83 BTU/hr	2.5 A	N/A	1	
ICX 6430-48	1.5 A 47.26 W 161.26 BTU/hr	0.625 A	N/A	1	
ICX 6430-48P	6 A 508.83 W 1736.2 BTU/hr	2.5 A	N/A	1	
ICX 6450-24	1.5 A 46.62 W 159.07 BTU/hr	0.625 A	N/A	1	
ICX 6450-24P	6 A 505.37 W 1724.38 BTU/hr	2.5 A	N/A	1	
ICX 6450-48	2 A 68.88 W 235.03 BTU/hr	0.833 A	N/A	1	
ICX 6450-48P	10 A 958.02 W 3268.9 BTU/hr	4.167 A	N/A	1	

Data port specifications (Ethernet)

Model	Port type	Number of ports	Description
ICX 6430-24	10/100/1000 Mbps (RJ-45 ports)	24	24-port 1 GbE switch, 4×1 GbE SFP uplink/stacking ports, fanless
ICX 6430-24P	PoE+ ports (with internal and external power supplies)	24	24-port 1 GbE switch PoE+, 4×1 GbE SFP uplink/stacking ports
ICX 6430-48	10/100/1000 Mbps (RJ-45 ports)	48	48-port 1 GbE switch, 4×1 GbE SFP uplink/stacking ports
ICX 6430-48P	PoE+ ports (with internal and external power supplies)	48	48-port 1 GbE switch PoE+, 4×1 GbE SFP uplink/stacking ports
ICX 6450-24	10/100/1000 Mbps (RJ-45 ports)	24	24-port 1 GbE switch, 2×1 GbE SFP+ (upgradable to 10 GbE) and 2×1 GbE/10 GbE SFP+ uplink/stacking ports
ICX 6450-24P	PoE+ ports (with internal and external power supplies)	24	24-port 1 GbE switch PoE+, 2×1 GbE SFP+ (upgradable to 10 GbE) and 2×1 GbE/10 GbE SFP+ uplink/stacking ports
ICX 6450-48	10/100/1000 Mbps (RJ-45 ports)	48	48-port 1 GbE switch, 2×1 GbE SFP+ (upgradable to 10 GbE) and 2×1 GbE/10 GbE SFP+ uplink/stacking ports
ICX 6450-48P	PoE+ ports (with internal and external power supplies)	48	48-port 1 GbE switch PoE+, 2×1 GbE SFP+ (upgradable to 10 GbE) and 2×1 GbE/10 GbE SFP+ uplink/stacking ports

Serial port specifications (pinout RJ-45)

Pin	Signal	Description
1	Not supported	N/A

Pin	Signal	Description
2	Not supported	N/A
3	UART1_TXD	Transmit data
4	GND	Logic ground
5	GND	Logic ground
6	UART1_RXD	Receive data
7	Not supported	N/A
8	Not supported	N/A

Serial port specifications (protocol)

Parameter	Value
Baud	9600 bps
Data bits	8
Parity	None
Stop bits	1
Flow control	None

Regulatory compliance (EMC)

- FCC Part 15, Subpart B (Class A)
- EN 55022 (CE mark) (Class A)
- EN 55024 (CE mark) (Immunity) for Information Technology Equipment
- ICES-003 (Canada) (Class A)
- AS/NZ 55022 (Australia) (Class A)
- VCCI (Japan) (Class A)
- EN 61000-3-2
- EN 61000-3-3
- EN 61000-6-1

Regulatory compliance (safety)

- CAN/CSA-C22.2 No. 60950-1-07/UL60950-1 - Safety of Information Technology Equipment
- EN 60825-1 Safety of Laser Products - Part 1: Equipment Classification, Requirements and User's Guide
- EN 60825-2 Safety of Laser Products - Part 2: Safety of Optical Fibre Communications Systems
- EN 60950-1, IEC 60950-1 Safety of Information Technology Equipment

Regulatory compliance (environmental)

- 2011/65/EU - Restriction of the use of certain hazardous substance in electrical and electronic equipment (EU RoHS)
- 2012/19/EU - Waste electrical and electronic equipment (EU WEEE)
- 94/62/EC - packaging and packaging waste (EU)
- 2006/66/EC - batteries and accumulators and waste batteries and accumulators (EU battery directive)
- 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (EU REACH)
- Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 - U.S. Conflict Minerals
- 30/2011/TT-BCT - Vietnam circular.
- SJ/T 11363-2006 Requirements for Concentration Limits for Certain Hazardous Substances in EIPs (China)
- SJ/T 11364-2006 Marking for the Control of Pollution Caused by EIPs (China)
- NEBS-compliant