

# Brocade ICX 7750 Switch Technical Specifications

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# Brocade ICX 7750 Switch Technical Specifications

This document highlights the features and specifications for the Brocade ICX 7750 Switch.

## System specifications

System component	Description
Enclosure	1U; stackable chassis mountable in a standard 2 or 4-post rack
Power supplies	Dual, redundant, hot-swappable 504 W AC or DC with intake or exhaust airflow
Fans	Four redundant, hot-swappable fan units with intake or exhaust airflow
Cooling	Forced-air cooling front-to-back or back-to-front
System architecture	Nonblocking shared memory switch ICX 7750-26Q: 26 10/40 GbE QSFP+ ports ICX 7750-48F: 48 1/10 GbE SFP+ ports and six 10/40 GbE QSFP+ ports ICX 7750-48C: 48 1/10 GbE RJ-45 ports and six 10/40 GbE QSFP+ ports
System processors	System processor 1.5 GHz Freescale P2041

## Ethernet

System component	Description
SFP GbE ports	40/10/1 GbE optical and copper
Ethernet management port	1

## LEDs

System component	Description
Switch status and management	Nine LED states to indicate switch and module status (green and amber)
Port Status	Five LED states to indicate port status (green and amber)

## Other

System component	Description
Serial cable	Mini-USB to RJ-45
RJ-45 to DB9 adapter	1
Stack Control-Path Cable	Two Micro-HDMI to RJ-45
Control-Path Cable Holder Kit	One cable holder and one screw

## Weight and physical dimensions

Fully loaded includes all power supplies, fan assemblies, expansion module, but no transceivers installed.

Model	Height	Width	Depth	Empty weight	Fully loaded weight
ICX 7750-26Q	4.37 cm	44.00 cm	40.64 cm	5.60 kg	8.80 kg
	1.72 inches	17.32 inches	16.00 inches	12.30 lb	19.40 lb
ICX 7750-48F	4.37 cm	44.00 cm	40.64 cm	5.90 kg	9.10 kg
	1.72 inches	17.32 inches	16.00 inches	13.00 lb	20.10 lb
ICX 7750-48C	4.37 cm	44.00 cm	43.10 cm	7.00 kg	10.20 kg
	1.72 inches	17.32 inches	16.97 inches	15.40 lb	22.50 lb

## Environmental requirements

Condition	Operational	Non-operational
Ambient temperature	ICX 7750-26Q: -5°C to 50°C (23°F to 122°F) ICX 7750-48F: -5°C to 50°C (23°F to 122°F) ICX 7750-48C: -5°C to 40°C (23°F to 104°F)	-40°C to 60°C (-40°F to 140°F)
Relative humidity (non-condensing)	ICX 7750-26Q and ICX 7750-48F: 10% to 90% at 50°C (122°F) ICX 7750-48C: 10% to 90% at 40°C (104°F)	10% to 90% at 60°C (140°F)
Altitude (above sea level)	0 to 3000 m (10,000 feet)	0 to 12,000 m (39,000 feet)
Shock	20 G, 11 ms, half-sine wave	30 G, 11 ms, half-sine wave
Vibration	1 G sine, 0.4 gms random, 5-500 Hz	2.4 G sine, 1.12 gms random, 5-500 Hz
Airflow	ICX 7750-26Q: Back-to-Front: Maximum - 55 cfm, Typical - 25 cfm Front-to-Back: Maximum - 62 cfm, Typical - 29 cfm ICX 7750-48F: Back-to-Front: Maximum - 55 cfm, Typical - 25 cfm Front-to-Back: Maximum - 61 cfm, Typical - 29 cfm ICX 7750-48C: Back-to-Front: Maximum - 55 cfm, Typical - 32 cfm Front-to-Back: Maximum - 62 cfm, Typical - 36 cfm	N/A
Heat dissipation	Refer to the tables provided in the "Power consumption (typical configuration)" and "Power consumption (maximum configuration)" sections.	N/A

## 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
RPS9	504 W	100-240 VAC(nominal)	50/60 Hz (nominal) 47 - 63 Hz (range)	7 A	Line Fused	30 A peak cold or warm start for <10 ms

Power supply model	Maximum output power rating (DC)	Input voltage	Input line frequency	Maximum input current	Input line protection	Maximum inrush current
		100-264 VAC (range)				10 A peak for cycles 10 ms - 150 ms Less than fuse rating for >150 ms
RPS9DC	504 W	-48 VDC (nominal) -40 to -60 VDC (range)	N/A	15 A	-Ve Fused	25 A peak cold or warm start for <10 ms Less than 15 A after 150 ms

## Power consumption (typical configuration)

All ports linked and up. 50% traffic with 64-byte packets. Fans at normal speed.

Model name	@100 VAC input	@200 VAC input	@-48 VDC input	Minimum number of power supplies	Notes
ICX 7750-26Q	277 W 945 BTU/hr	274 W 935 BTU/hr	274 W 935 BTU/hr	1 AC or DC	Fan speed is at nominal.
ICX 7750-48F	254 W 867 BTU/hr	250 W 853 BTU/hr	250 W 853 BTU/hr	1 AC or DC	Fan speed is at nominal.
ICX 7750-48C	510 W 1740 BTU/hr	511 W 1744 BTU/hr	511 W 1744 BTU/hr	1 AC or DC	Fan speed is at nominal.

## Power consumption (maximum configuration)

All ports connected with optics to draw maximum power per MSA Optics Specification. Traffic at full rate or 100% throughput. Fans at full speed.

Model name	@100 VAC input	@200 VAC input	@-48 VDC input	Minimum number of power supplies	Notes
ICX 7750-26Q	319 W 1088 BTU/hr	350 W 1194 BTU/hr	350 W 1194 BTU/hr	1 AC or DC	Fans at high speed.
ICX 7750-48F	290 W 989 BTU/hr	327 W 1116 BTU/hr	327 W 1116 BTU/hr	1 AC or DC	Fans at high speed.
ICX 7750-48C	558 W 1904 BTU/hr	586 W 2000 BTU/hr	586 W 2000 BTU/hr	1 AC or DC	Fans at high speed.

## Power consumption (modules)

Module name	Module description	Power consumption
ICX 7750-6Q	6-port 10/40 GbE QSFP+	Typical = 18.8 W Maximum = 25.9 W

## Data port specifications (Ethernet)

Model	Port type	Number of ports	Description
ICX 7750-26Q	40 GbE	26	QSFP+, 10/40 Gbps, compatible with short range (SR) and long range (LR) optical SFP transceivers
ICX 7750-48F	40 GbE	6	QSFP+, 10/40 Gbps, compatible with short range (SR) and long range (LR) optical SFP transceivers
	10 GbE	48	SFP+, 1/10 Gbps, compatible with short range (SR) and long range (LR) optical SFP transceivers
ICX 7750-48C	40 GbE	6	QSFP+, 10/40 Gbps, compatible with short range (SR) and long range (LR) optical SFP transceivers
	10 GbE	48	10GBASE-T, 1/10 Gbps, capable of auto-negotiating link speed

## Serial port specifications (pinout mini-USB)

Pin	Signal	Description
1	Reserved	Not used
2	UART0_RX	Data received by ICX
3	UART0_TX	Data transmitted by ICX
4	Reserved	Not used
5	GND	Ground

## Serial port specifications (pinout RJ-45)

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

## Serial port specifications (protocol)

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



## Memory specifications

Memory	Type	Size
Main memory	DDR3	8 GB
Boot Flash	NOR Flash	64 MB
eUSB Drive	USB	2 GB

## 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/UL 60950
- EN 60825 Safety of Laser Products
- EN 60950/IEC 60950 Safety of Information Technology Equipment

## Regulatory compliance (environmental)

- 2014/35/EU and 2014/30/EU
- 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)