

**DATA SHEET**

**ENTRY-LEVEL ACCESS SWITCH FAMILY DELIVERS UNPRECEDENTED PERFORMANCE AND FEATURES IN ITS CLASS**

The Brocade® ICX® 7150 family of stackable switches delivers the performance, flexibility, and scalability required for enterprise access deployment, raising the bar with non-blocking performance and up to 8x10 GbE ports for uplinks or stacking. It offers seamless interoperability with Ruckus wireless products to deliver unified wired and wireless network access. In addition, Ruckus Multigigabit Ethernet technology offers bandwidth speeds needed to optimize performance of the latest generation high performance wireless access points and edge devices, over standard Ethernet cables.

**BROCADE ICX 7150 SWITCHES**



The standard Brocade ICX 7150 switches are available in 24-, and 48-port 10/100/1000 Mbps models with four 1/10 GbE dual-purpose uplink/stacking ports. These switches are available with or without PoE+ power. Silent operation is available for out-of-closet environments.




**BROCADE ICX 7150 COMPACT SWITCHES**




The Brocade ICX 7150-C12P compact 12-port stackable switch features a fanless design to operate silently in out-of-closet environments such as offices, classrooms, and retail spaces. It offers PoE+ on all 12 ports to drive devices such as wireless APs, VoIP phones, lighting fixtures or surveillance cameras. With 2x1/10 GbE uplink/stacking ports, the ICX 7150-C12 delivers high performance in a small package.

## BROCADE ICX 7150 PRODUCT FAMILY

These Brocade ICX 7150 models offer a single integrated power supply, one RJ-45 Ethernet port for out-of-band network management, one USB Type-C port for console management, one RJ-45 port for serial console management, and one USB port for external file storage.

	<p><b>Brocade ICX 7150-24 Switch</b>                  24× 10/100/1000 Mbps RJ-45 ports                  2× 10/100/1000 Mbps uplink RJ-45 ports                  4× 1/10 GbE uplink/stacking SFP/SFP+ ports</p>
	<p><b>Brocade ICX 7150-24P Switch</b>                  24× 10/100/1000 Mbps RJ-45 PoE+ ports                  370 W PoE budget                  2× 10/100/1000 Mbps uplink RJ-45 ports                  4× 1/10 GbE uplink/stacking SFP/SFP+ ports</p>
	<p><b>Brocade ICX 7150-48 Switch</b>                  48× 10/100/1000 Mbps RJ-45 ports                  2× 10/100/1000 Mbps uplink RJ-45 ports                  4× 1/10 GbE uplink/stacking SFP/SFP+ ports</p>
	<p><b>Brocade ICX 7150-48P Switch</b>                  48× 10/100/1000 Mbps RJ-45 PoE+ ports                  370 W PoE budget                  2× 10/100/1000 Mbps uplink RJ-45 ports                  4× 1/10 GbE uplink/stacking SFP/SFP+ ports</p>
	<p><b>Brocade ICX 7150-48PF Switch</b>                  48×10/100/1000 Mbps RJ-45 PoE+ ports                  740 W PoE budget                  2×10/100/1000 Mbps uplink RJ-45 ports                  4×1/10 GbE uplink/stacking SFP/SFP+ ports</p>

The Brocade ICX 7150 compact switch offer a single integrated power supply, one RJ-45 Ethernet port for out-of-band network management, one USB Type-C port for console management, one RJ-45 port for serial console management, and one USB port for external file storage.

	<p><b>Brocade ICX 7150-C12P Compact Switch</b>                  12× 10/100/1000 Mbps POE+ RJ-45 ports                  124 W power budget                  2× 10/100/1000 Mbps uplink RJ-45 ports                  2× 1/10 GbE uplink/stacking SFP/SFP+ ports</p>
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## BROCADE ICX 7150 SWITCH FEATURE/MODEL COMPARISON

FEATURE	24 or 48 RJ-45 Ports		12 RJ45 PoE+ Ports	24 or 48 RJ45 PoE+ Ports		
	Brocade ICX 7150-24	Brocade ICX 7150-48	Brocade ICX 7150-C12P	Brocade ICX 7150-24P	Brocade ICX 7150-48P	Brocade ICX 7150-48PF
Switching capacity (data rate, full duplex)	132 Gbps	180 Gbps	68 Gbps	132 Gbps	180 Gbps	180 Gbps
Forwarding capacity (data rate, full duplex)	98 Mpps	134 Mpps	51 Mpps	98 Mpps	134 Mpps	134 Mpps
10/100/1000 Mbps RJ45 downlinks	24	48	12	24	48	48
100/1000 Mbps/2.5 Gbps RJ45 downlinks (full duplex only)						
10/100/1000 Mbps RJ45 uplinks (full duplex only, no PoE)	2	2	2	2	2	2
1/10 Gbps SFP/SFP+ uplinks	4	4	2	4	4	4
PoE/PoE+ ports			12	24	48	48
PoH / PoE / PoE+ ports						
Dual hot-swap power supplies						
Maximum PoE Class 3 ports (15.4 W per port)			8	24	24	48
Maximum PoE+ Class 4 ports (30 W per port)			4	12	12	24
Base IPv4/v6 Layer 3 routing (static routing, RIP)	Yes	Yes	Yes	Yes	Yes	Yes
Advanced IPv4/v6 Layer 3 routing (OSPF, VRRP, PIM, PBR features)	With license	With license	With license	With license	With license	With license
Aggregated stacking bandwidth (data rate, full duplex)	480 Gbps	480 Gbps	240 Gbps	480 Gbps	480 Gbps	480 Gbps
Stacking density (maximum switches in a stack)	12	12	12	12	12	12
Stacking ports (maximum ports <sup>1</sup> usable for stacking)	Up to 4x10 GbE SFP+		Up to 2x10 GbE SFP+	Up to 4x10 GbE SFP+		
Maximum stacking distance (distance between stacked switches)	10 km	10 km	10 km	10 km	10 km	10 km

FEATURE	POWER					
Power inlet (AC)	C14					
Input voltage/frequency	AC: 100 to 240 VAC @ 50 to 60 Hz					
Power supply rated maximum (AC)	36 W	65 W	150 W	525 W	525W	880 W
PoE power budget (AC)			124 W	370 W	370 W	740 W
Airflow	Fanless	Fanless	Fanless	Side-to-back	Side-to-back	Side-to-back

<sup>1</sup> 10 Gbps SFP+ ports are required for stacking.

## BROCADE ICX 7150 SWITCH FEATURE/MODEL COMPARISON

FEATURE	24 or 48 RJ-45 Ports		12 RJ45 PoE+ Ports	24 or 48 RJ45 PoE+ Ports		
	Brocade ICX 7150-24	Brocade ICX 7150-48	Brocade ICX 7150-C12P	Brocade ICX 7150-24P	Brocade ICX 7150-48P	Brocade ICX 7150-48PF
<b>ENVIRONMENT</b>						
Net Weight (Kg)	3.8	4.82	2.58	4.93	6.17	6.28
Dimensions (mm)	440 (W) 280 (D) 43.65 (H)	440 (W) 370 (D) 43.65 (H)	269 (W) 213 (D) 43.4 (H)	440 (W) 280 (D) 43.65 (H)	440 (W) 370 (D) 43.65 (H)	440 (W) 370 (D) 43.65 (H)
Acoustics (25°C, min fan speed)	Fanless	Fanless	Fanless	41.4 dBA	41.8 dBA	47.7 dBA
MTBF (25°C)	871,931 hours	714,420 hours	562,889 hours	397,428 hours	335,853 hours	312,241 hours

## BROCADE ICX 7150 SWITCH SPECIFICATIONS

FEATURES	SPECIFICATIONS
Connector options	<ul style="list-style-type: none"> <li>10/100/1000 Mbps RJ-45</li> <li>1 Gbps SFP ports</li> <li>1/10 Gbps SFP+ ports</li> <li>Out-of-band Ethernet management: 10/100/1000 Mbps RJ-45</li> <li>Console management: RJ45 serial port and USB Type-C port with serial communication device class support</li> <li>File transfer: USB port, standard-A plug</li> <li>For the latest information about supported optics, please visit <a href="http://ruckuswireless.com/optics">http://ruckuswireless.com/optics</a>.</li> </ul>
DRAM NVRAM (Flash) Packet buffer size	<ul style="list-style-type: none"> <li>1 GB</li> <li>2 GB</li> <li>12/24 port: 2 MB, 48 port: 4 MB</li> </ul>
Maximum MAC addresses	<ul style="list-style-type: none"> <li>16,384</li> </ul>
Maximum VLANs Maximum PVLANS	<ul style="list-style-type: none"> <li>4,095</li> <li>32</li> </ul>
Maximum STP (spanning trees instances)	<ul style="list-style-type: none"> <li>254</li> </ul>
Maximum VEs	<ul style="list-style-type: none"> <li>128</li> </ul>
Maximum ARP entries	<ul style="list-style-type: none"> <li>4,094</li> </ul>
Maximum routes (in hardware)	<ul style="list-style-type: none"> <li>1,000 (IPv4), 1,000 (IPv6)</li> <li>Next hop address: 4,094</li> </ul>
Trunking	<ul style="list-style-type: none"> <li>Maximum ports per trunk: 16</li> <li>Maximum trunk groups: 128</li> </ul>
Maximum jumbo frame size	<ul style="list-style-type: none"> <li>9,216 bytes</li> </ul>
QoS priority queues	<ul style="list-style-type: none"> <li>8 per port</li> </ul>
Multicast groups	<ul style="list-style-type: none"> <li>3,072 (Layer 2)</li> <li>2,048 (Layer 3)</li> </ul>

## BROCADE ICX 7150 SWITCH SPECIFICATIONS

<b>Quality of Service (QoS)</b>	<ul style="list-style-type: none"> <li>• ACL Mapping and Marking of ToS/DSCP (CoS)</li> <li>• ACL Mapping and Marking of 802.1p</li> <li>• ACL Mapping to Priority Queue</li> <li>• Classifying and Limiting Flows Based on TCP Flags</li> <li>• DiffServ Support</li> </ul>	<ul style="list-style-type: none"> <li>• Honoring DSCP and 802.1p (CoS)</li> <li>• MAC Address Mapping to Priority Queue</li> <li>• Priority Queue Management using Weighted Round Robin (WRR), Strict Priority (SP), and a combination of WRR and SP</li> </ul>
<b>Traffic management</b>	<ul style="list-style-type: none"> <li>• ACL-based inbound rate limiting and traffic policies</li> <li>• Broadcast, multicast, and unknown unicast rate limiting</li> <li>• Inbound rate limiting per port</li> <li>• Outbound rate limiting per port and per queue</li> </ul>	
<b>Security</b>	<ul style="list-style-type: none"> <li>• 802.1X authentication</li> <li>• MAC authentication</li> <li>• Flexible authentication</li> <li>• Web authentication</li> <li>• DHCP snooping</li> <li>• Dynamic ARP inspection</li> <li>• Neighbor Discovery (ND) Inspection</li> <li>• Bi-level Access Mode (Standard and EXEC Level)</li> <li>• EAP pass-through support</li> <li>• IEEE 802.1X username export in sFlow</li> <li>• Protection against Denial of Service (DoS) attacks</li> </ul>	<ul style="list-style-type: none"> <li>• Authentication, Authorization, and Accounting (AAA)</li> <li>• MAC Address Locking MAC Port Security</li> <li>• Advanced Encryption Standard (AES) with SSHv2</li> <li>• RADIUS/TACACS/TACACS+</li> <li>• Secure Copy (SCP)</li> <li>• Secure Shell (SSHv2)</li> <li>• Local Username/Password</li> <li>• Change of Authorization (CoA) RFC 5176</li> <li>• Trusted Platform Module</li> </ul>
<b>SDN features</b>	<ul style="list-style-type: none"> <li>• OpenFlow v1.0 and v1.3</li> <li>• OpenFlow with hybrid port mode</li> <li>• Operates with an OpenDayLight Controller</li> </ul>	
<b>High availability</b>	<ul style="list-style-type: none"> <li>• Layer 3 VRRP/VRRP-E protocol redundancy</li> <li>• Real-time state synchronization across the stack</li> <li>• Hitless failover and switchover from master to standby stack controller</li> <li>• Hot insertion and removal of stacked units</li> <li>• Layer 2 VSRP switch redundancy</li> <li>• In Service Software Update (ISSU)</li> </ul>	

FEATURES	FEATURE SETS	
<b>Layer 2 feature set</b>	<ul style="list-style-type: none"> <li>• 802.1s Multiple Spanning Tree</li> <li>• 802.1x Authentication</li> <li>• Auto MDI/MDIX</li> <li>• BPDU Guard, Root Guard</li> <li>• Dual-Mode VLANs</li> <li>• MAC-based VLANs, Dynamic MAC-based VLAN activation</li> <li>• Dynamic VLAN Assignment</li> <li>• Dynamic Voice VLAN Assignment</li> <li>• Fast Port Span</li> <li>• GVRP: GARP VLAN Registration Protocol</li> <li>• IGMP Snooping (v1/v2/v3)</li> <li>• IGMP Proxy for Static Groups</li> <li>• IGMP v2/v3 Fast Leave</li> <li>• Inter-Packet Gap (IPG) adjustment</li> <li>• Link Fault Signaling (LFS)</li> <li>• MAC Address Filtering</li> </ul>	<ul style="list-style-type: none"> <li>• MAC Learning Disable</li> <li>• MLD Snooping (v1/v2)</li> <li>• Multi-device Authentication</li> <li>• Per-VLAN Spanning Tree (PVST/PVST+/PRST)</li> <li>• Mirroring: Port-based, ACL-based, MAC Filter-based, and VLAN-based</li> <li>• PIM-SM v2 Snooping</li> <li>• Port Loop Detection</li> <li>• Private VLAN</li> <li>• Remote Fault Notification (RFN)</li> <li>• Single-instance Spanning Tree</li> <li>• Trunk Groups (static, LACP)</li> <li>• Uni-Directional Link Detection (UDLD)</li> <li>• Metro-Ring Protocol (MRP) (v1, v2)</li> <li>• Virtual Switch Redundancy Protocol (VSRP)</li> <li>• Q-in-Q</li> <li>• Topology Groups</li> </ul>

## BROCADE ICX 7150 SWITCH SPECIFICATIONS

<b>Base Layer 3 IP routing feature set</b>	<ul style="list-style-type: none"> <li>• IPv4 and IPv6 static routes</li> <li>• RIP v1/v2, RIPvng</li> <li>• ECMP</li> <li>• Port-based Access Control Lists</li> <li>• Layer 3/Layer 4 ACLs</li> </ul>	<ul style="list-style-type: none"> <li>• Host routes</li> <li>• Virtual Interfaces</li> <li>• Routed Interfaces</li> <li>• Route-only Support</li> <li>• Routing Between Directly Connected Subnets</li> </ul>
<b>Premium Layer 3 IP routing feature set with software license</b>	<ul style="list-style-type: none"> <li>• IPv4 and IPv6 dynamic routes</li> <li>• OSPF v2, v3</li> <li>• PIM-SM, PIM-SSM, PIM-DM, PIM passive (IPv4, IPv6)</li> <li>• PBR</li> </ul>	<ul style="list-style-type: none"> <li>• Virtual Route Redundancy Protocol VRRP (IPv4)</li> <li>• VRRP v3 (IPv6)</li> <li>• VRRP-E (IPv4/IPv6)</li> </ul>

FEATURES	STANDARD COMPLIANCE	
<b>IEEE standards compliance</b>	<ul style="list-style-type: none"> <li>• 802.1AB LLDP/ LLDP-MED</li> <li>• 802.1D MAC Bridging</li> <li>• 802.1p Mapping to Priority Queue</li> <li>• 802.1s Multiple Spanning Tree (MST)</li> <li>• 802.1w Rapid Reconfiguration of Spanning Tree (RSTP)</li> <li>• 802.1x Port-based Network Access Control (PNAC)</li> <li>• 802.3 Carrier Sense Multiple Access/Collision Detection (CSMA/CD)</li> <li>• 802.3ab 1000BASE-T</li> <li>• 802.3 10Base-T</li> <li>• 802.3ad Link Aggregation (Dynamic and Static)</li> </ul>	<ul style="list-style-type: none"> <li>• 802.1 AX-2008 Link Aggregation</li> <li>• 802.3ae 10 Gigabit Ethernet</li> <li>• 802.3af Power over Ethernet</li> <li>• 802.3at Power over Ethernet Plus</li> <li>• 802.3u 100Base-TX</li> <li>• 802.3x Flow Control</li> <li>• 802.3z 1000Base-SX/LX</li> <li>• 802.3 MAU MIB (RFC 2239)</li> <li>• 802.1Q VLAN Tagging</li> <li>• 802.1BR Bridge Port Extension<sup>2</sup></li> </ul>
<b>RFC standards compliance</b>	For a complete list of RFCs supported by the ICX 7000 product family, please consult the "FastIron Features and Standards Support Matrix" document available from <a href="http://support.ruckuswireless.com">support.ruckuswireless.com</a> .	

FEATURES	NETWORK AND DEVICE MANAGEMENT	
<b>Management</b>	<ul style="list-style-type: none"> <li>• DHCP Auto Configuration</li> <li>• Configuration Logging</li> <li>• Digital Optical Monitoring</li> <li>• Display Log Messages on Multiple Terminals</li> <li>• Embedded Web Management (HTTP/HTTPS)</li> <li>• Embedded DHCP Server</li> <li>• Industry-standard Command Line Interface (CLI)</li> <li>• Brocade Network Advisor (sold separately)</li> <li>• CLI activation of optional software features</li> <li>• USB file management and storage</li> <li>• Macro for batch execution</li> <li>• Out-of-band Ethernet Management</li> <li>• TFTP</li> <li>• TELNET Client and Server</li> <li>• SSH / SSH V2</li> <li>• Bootp</li> </ul>	<ul style="list-style-type: none"> <li>• SNMPv1/v2c</li> <li>• DHCP Server and DHCP Relay</li> <li>• SNMPv3 Intro to Framework</li> <li>• Architecture for Describing SNMP Framework</li> <li>• SNMP Message Processing and Dispatching</li> <li>• SNMPv3 Applications</li> <li>• SNMPv3 User-based Security Model</li> <li>• SNMP View-based Access Control Model SNMP</li> <li>• sFlow</li> <li>• Network Time Protocol (NTP)</li> <li>• Multiple Syslog Servers</li> <li>• SCP</li> <li>• Virtual Cable Tester (VCT)</li> <li>• For Management MIB, please consult the "FastIron MIB Reference" document available from <a href="http://support.ruckuswireless.com">support.ruckuswireless.com</a>.</li> </ul>
<b>Ruckus Campus Fabric technology</b>	<ul style="list-style-type: none"> <li>• The Brocade ICX 7150 can operate in fabric Port Extender (PE) mode</li> <li>• Up to 36 PEs per fabric (up to 1800 ports)</li> <li>• PE cascade depth up to 6 units</li> </ul>	

<sup>2</sup> Feature to be supported in a future software release

## BROCADE ICX 7150 SWITCH SPECIFICATIONS

FEATURES	ENVIRONMENT
Temperature	Operating temperature: -5°C to 45°C Storage temperature: -25°C to 70°C
Humidity	Operating relative humidity: 5% to 95% at 45°C, non-condensing Non-operating relative humidity: 0% to 95% at 70°C, non-condensing
Altitude	Operating altitude: 10,000 ft (3,000 m) maximum Storage altitude: 39,000 ft (12,000 m) maximum

FEATURES	COMPLIANCE/CERTIFICATION
Electromagnetic emissions	FCC Class A (Part 15); EN 55022/CISPR-22 Class A; VCCI Class A; ICES-003 Electromagnetic Emission; AS/NZS 55022; EN 61000-3-2 Power Line Harmonics; EN 61000-3-3 Voltage Fluctuation and Flicker; EN 61000-6-3 Emission Standard (supersedes: EN 50081-1)
Safety	CAN/CSA-C22.2 NO. 60950-1-07; UL 60950-1 Second Edition; IEC 60950-1 Second Edition; EN 60950-1:2006 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 Communication Systems
Immunity	EN 61000-6-1 Generic Immunity and Susceptibility (supersedes EN 50082-1); EN 55024 Immunity Characteristics (supersedes EN 61000-4-2 ESD); EN 61000-4-3 Radiated, Radio Frequency, Electromagnetic Field; EN 61000-4-4 Electrical Fast Transient; EN 61000-4-5 Surge; EN 61000-4-6 Conducted Disturbances Induced by Radio-Frequency Fields; EN 61000-4-8 Power Frequency Magnetic Field; EN 61000-4-11 Voltage Dips and Sags
Environmental regulatory compliance	RoHS-compliant (6 of 6); WEEE-compliant
Vibration	IEC 68-2-36, IEC 68-2-6
Shock and drop	IEC 68-2-27, IEC 68-2-32

## BROCADE ICX 7150 SWITCH ORDERING INFORMATION

PART NUMBER	BROCADE ICX 7150 SWITCHES WITH 1 GBE UPLINKS
ICX7150-C12P-2X1G	Brocade ICX 7150 Compact Switch, 12x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45 uplink-ports, 2x1 GbE SFP uplink-ports upgradable to 2x10 GbE SFP+ with license. 124 W PoE budget, basic Layer 3 (static routing and RIP).
ICX7150-24-4X1G	Brocade ICX 7150 Switch, 24x10/100/1000 Mbps ports, 2x1 GbE RJ45 uplink-ports, 4x1 GbE SFP uplink-ports upgradable to up to 4x10 GbE SFP+ with license, basic Layer 3 (static routing and RIP).
ICX7150-24P-4X1G	Brocade ICX 7150 Switch 24x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45 uplink-ports, 4x1 GbE SFP uplink ports upgradable to up to 4x10 GbE SFP+ with license, 370 W PoE budget, basic Layer 3 (static routing and RIP).
ICX7150-48-4X1G	Brocade ICX 7150 Switch, 48x10/100/1000 Mbps ports, 2x1 GbE RJ45 uplink-ports, 4x1 GbE SFP uplink-ports upgradable to up to 4x10 GbE SFP+ with license, basic Layer 3 (static routing and RIP).
ICX7150-48P-4X1G	Brocade ICX 7150 Switch, 48x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45 uplink-ports, 4x1 GbE SFP uplink ports upgradable to up to 4x10 GbE SFP+ with license, 370 W PoE budget, basic Layer 3 (static routing and RIP).
ICX7150-48PF-4X1G	Brocade ICX 7150 Switch, 48x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45 uplink-ports, 4x1 GbE SFP uplink ports upgradable to up to 4x10 GbE SFP+ with license, 740 W PoE budget, basic Layer 3 (static routing and RIP).

## BROCADE ICX 7150 SWITCH ORDERING INFORMATION

PART NUMBER	BROCADE ICX 7150 SWITCHES WITH 2x10 GBE UPLINKS
ICX7150-C12P-2X10GR	Brocade ICX 7150 Compact Switch, 12x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45, 2x10 GbE SFP+ stacking/uplink-ports, 124 W PoE budget, Layer 3 features (OSPF, VRRP, PIM, PBR).
ICX7150-24-2X10G	Brocade ICX 7150 Switch, 24x10/100/1000 Mbps ports, 2x1 GbE RJ45 uplink-ports, 2x1 GbE SFP and 2x10 GbE SFP+ stacking/uplink-ports upgradable to 4x10 GbE SFP+ with license, basic Layer 3 (static routing and RIP).
ICX7150-24P-2X10G	Brocade ICX 7150 Switch, 24x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45 uplink-ports, 2x1 GbE SFP and 2x10 GbE SFP+ stacking/uplink-ports upgradable to 4x10 GbE SFP+ with license, 370 W PoE budget, basic Layer 3 (static routing and RIP).
ICX7150-48-2X10G	Brocade ICX 7150 Switch, 48x10/100/1000 Mbps ports, 2x1 GbE RJ45 uplink-ports, 2x1 GbE SFP and 2x10 GbE SFP+ stacking/uplink-ports upgradable to 4x10 GbE SFP+ with license, basic Layer 3 (static routing and RIP).
ICX7150-48P-2X10G	Brocade ICX 7150 Switch, 48x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45 uplink-ports, 2x1 GbE SFP and 2x10 GbE SFP+ stacking/uplink-ports upgradable to 4x10 GbE SFP+ with license, 370 W PoE budget, basic Layer 3 (static routing and RIP).
ICX7150-48PF-2X10G	Brocade ICX 7150 Switch, 48x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45 uplink-ports, 2x1 GbE SFP and 2x10 GbE SFP+ stacking/uplink-ports upgradable to 4x10 GbE SFP+ with license, 740 W PoE budget, basic Layer 3 (static routing and RIP).

PART NUMBER	BROCADE ICX 7150 SWITCHES WITH UP 4 OR 8x10 GBE UPLINKS AND LAYER 3 FEATURES
ICX7150-24-4X10GR	Brocade ICX 7150 Switch, 24x10/100/1000 Mbps ports, 2x1 GbE RJ45 uplink-ports, 4x10 GbE SFP+ stacking/uplink-ports, Layer 3 features (OSPF, VRRP, PIM, PBR).
ICX7150-24P-4X10GR	Brocade ICX 7150 Switch, 24x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45 uplink-ports, 4x10 GbE SFP+ stacking/uplink-ports, 370 W PoE budget, Layer 3 features (OSPF, VRRP, PIM, PBR).
ICX7150-48-4X10GR	Brocade ICX 7150 Switch, 48x10/100/1000 Mbps ports, 2x1 GbE RJ45 uplink-ports, 4x10 GbE SFP+ stacking/uplink-ports, Layer 3 features (OSPF, VRRP, PIM, PBR).
ICX7150-48P-4X10GR	Brocade ICX 7150 Switch, 48x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45 uplink-ports, 4x10 GbE SFP+ stacking/uplink-ports, 370 W PoE budget, Layer 3 features (OSPF, VRRP, PIM, PBR).
ICX7150-48PF-4X10GR	Brocade ICX 7150 Switch, 48x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45 uplink-ports, 4x10 GbE SFP+ stacking/uplink-ports, 740 W PoE budget, Layer 3 features (OSPF, VRRP, PIM, PBR).

PART NUMBER	BROCADE ICX 7150 SWITCHES WITH THREE-YEAR REMOTE SUPPORT Please note that three-year remote support can be ordered separately to cover any Brocade ICX 7150 model.
ICX7150-C12P-2X10GR-RMT3	Brocade ICX 7150 Compact Switch, 12x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45 uplink-ports, 2x10 GbE SFP+ stacking/uplink-ports, 124 W PoE budget, Layer 3 features (OSPF, VRRP, PIM, PBR), three-year remote support.
ICX7150-24-4X10GR-RMT3	Brocade ICX 7150 Switch, 24x10/100/1000 Mbps ports, 2x1 GbE RJ45 uplink-ports, 4x10 GbE SFP+ stacking/uplink-ports, Layer 3 features (OSPF, VRRP, PIM, PBR), three-year remote support.
ICX7150-24P-4X10GR-RMT3	Brocade ICX 7150 Switch, 24x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45 uplink-ports, 4x10 GbE SFP+ stacking/uplink-ports, 370 W PoE budget, Layer 3 features (OSPF, VRRP, PIM, PBR), three-year remote support.
ICX7150-48-4X10GR-RMT3	Brocade ICX 7150 Switch, 48x10/100/1000 Mbps ports, 2x1 GbE RJ45 uplink-ports, 4x10 GbE SFP+ stacking/uplink-ports, Layer 3 features (OSPF, VRRP, PIM, PBR), three-year remote support.
ICX7150-48P-4X10GR-RMT3	Brocade ICX 7150 Switch, 48x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45 uplink-ports, 4x10 GbE SFP+ stacking/uplink-ports, 370 W PoE budget, Layer 3 features (OSPF, VRRP, PIM, PBR), three-year remote support.
ICX7150-48PF-4X10GR-RMT3	Brocade ICX 7150 Switch, 48x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45 uplink-ports, 4x10 GbE SFP+ stacking/uplink-ports, 740 W PoE budget, Layer 3 features (OSPF, VRRP, PIM, PBR), three-year remote support.

## BROCADE ICX 7150 SWITCH ORDERING INFORMATION

TAA-COMPLIANT BROCADE ICX 7150 SWITCHES	
<b>PART NUMBER</b>	The Brocade ICX 7150 models with the SKUs below meet the requirements of the Trade Agreements Act (TAA).
ICX7150-C12P-2X10GR-A	Brocade ICX 7150 Compact Switch, 12x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45 uplink-ports, 2x10 GbE SFP+ stacking/uplink-ports, 124 W PoE budget, Layer 3 features (OSPF, VRRP, PIM, PBR), TAA-compliant.
ICX7150-24-4X10GR-A	Brocade ICX 7150 Switch, 24x10/100/1000 Mbps ports, 2x1 GbE RJ45 uplink-ports, 4x10 GbE SFP+ stacking/uplink-ports, Layer 3 features (OSPF, VRRP, PIM, PBR), TAA-compliant.
ICX7150-24P-4X10GR-A	Brocade ICX 7150 Switch, 24x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45 uplink-ports, 4x10 GbE SFP+ stacking/uplink-ports, 370 W PoE budget, Layer 3 features (OSPF, VRRP, PIM, PBR), TAA-compliant.
ICX7150-48-4X10GR-A	Brocade ICX 7150 Switch, 48x10/100/1000 Mbps ports, 2x1 GbE RJ45 uplink-ports, 4x10 GbE SFP+ stacking/uplink-ports, Layer 3 features (OSPF, VRRP, PIM, PBR), TAA-compliant.
ICX7150-48P-4X10GR-A	Brocade ICX 7150 Switch, 48x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45 uplink-ports, 4x10 GbE SFP+ stacking/uplink-ports, 370 W PoE budget, Layer 3 features (OSPF, VRRP, PIM, PBR), TAA-compliant.
ICX7150-48PF-4X10GR-A	Brocade ICX 7150 Switch, 48x10/100/1000 Mbps PoE+ ports, 2x1 GbE RJ45 uplink-ports, 4x10 GbE SFP+ stacking/uplink-ports, 740 W PoE budget, Layer 3 features (OSPF, VRRP, PIM, PBR), TAA-compliant.

UPGRADE LICENSES	
<b>PART NUMBER</b>	All Brocade ICX 7150 switch models with 1 GbE SFP uplink ports can be upgraded to 10 GbE SFP+ ports with a license.
BR-ICX-7150C-21U210R-P-01	License to upgrade the Brocade ICX 7150 compact switch from 2x1 GbE SFP to 2x10 GbE SFP+ stacking/uplink-ports. Also includes Layer 3 features (OSPF, VRRP, PIM, PBR).
BR-ICX-7150-41U210-P-01	License to upgrade any Brocade ICX 7150 24/48 ports except the Z-Series from 4x1 GbE SFP to 2x1 GbE SFP and 2x10 GbE SFP+ stacking/uplink-ports.
BR-ICX-7150-41U410R-P-01	License to upgrade any Brocade ICX 7150 24/48 ports except the Z-Series from 4x1 GbE SFP to 4x10 GbE SFP+ stacking/uplink-ports. Also includes Layer 3 features (OSPF, VRRP, PIM, PBR).
BR-ICX-7150-210U410R-P-01	License to upgrade any Brocade ICX 7150 24/48 ports except the Z-Series from 2x1 GbE SFP and 2x10 GbE SFP+ to 4x10 GbE SFP+ stacking/uplink-ports. Also includes Layer 3 features (OSPF, VRRP, PIM, PBR).

FRUS AND ACCESSORIES	
ICX6400-C12-MGNT	Magnet Mount Kit for Brocade ICX 7150/6450/6430 12 Port Compact Switch
CC-RJ45-DB9	Console cable RJ45-RJ45 With RJ-45-DB9 Adapter (for RJ-45 console port on ICX 7150)
CC-USBC-USBA	USB 2.0 Cable, Type-C to Type-A, 1 meter (for USB Type-C console port on ICX 7150)
ICX7000-C12-RMK	ICX7150-C12P Compact Switch Rack Mount Kit
ICX7000-C12-WMK	ICX7150-C12P Compact Switch Wall Mount & Under Desk Mount Kit
XBR-R000295	Universal Rack Mount Kit, 4 post FRU
ICX7000-RMK	Rack Mount Kit, 2-post FRU for ICX 7000 series 24/48 port models
RMK-LRM-ADP	Rack Mount Kit for LRM adapters. This 1RU shelf can accommodate up to 8 LRM adapters.

**BROCADE ICX 7150 SWITCH ORDERING INFORMATION**

PART NUMBER	OPTICS
E1MG-TX	1000BASE-TX SFP copper, RJ-45 connector
E1MG-SX-OM	1000BASE-SX SFP optic, MMF, LC connector, optical monitoring-capable
E1MG-LX-OM	1000BASE-LX SFP optic, SMF, LC connector, optical monitoring-capable
E1MG-LX-A	1000BASE-LX SFP optic, SMF, LC connector, optical monitoring-capable, TAA-compliant
E1MG-LHA-OM-T	1000BASE-LHA SFP optic, SMF, LC connector, optical monitoring-capable
E1MG-BXU	1000BASE-BXU SFP optic SMF, transmits at 1,310 nm and receives at 1,490 nm, LC connector, single-strand SMF fiber
E1MG-BXD	1000BASE-BXD SFP optic SMF, transmits at 1,490 nm and receives at 1,310 nm, LC connector, single-strand SMF fiber
10G-SFPP-USR	10GE USR SFP+ optic (LC), target range 100 m over MMF, 1-pack
10G-SFPP-USR-SA	10GE USR SFP+ optic (LC), target range 100 m over MMF, 1-pack, standard temperature, TAA-compliant
10G-SFPP-SR	10GBASE-SR, SFP+ optic (LC), target range 300 m over MMF
10G-SFPP-SR-SA	10GBASE-SR, SFP+ optic (LC), target range 300 m over MMF, standard temperature, TAA-compliant
10G-SFPP-SR-S	10GBASE-SR, SFP+ optic (LC), target range 300 m over MMF, standard temperature
10G-SFPP-LR	10GBASE-LR, SFP+ optic (LC), for up to 10 km over SMF
10G-SFPP-LR-SA	10GBASE-LR, SFP+ optic (LC), for up to 10 km over SMF, standard temperature, TAA-compliant
10G-SFPP-LR-S	10GBASE-LR, SFP+ optic (LC), for up to 10 km over SMF, standard temperature
10G-SFPP-ER	10GBASE-ER SFP+ optic (LC), for up to 40 km over SMF
10G-SFPP-ZR	10GBASE-ZR SFP+ optic (LC), for up to 80 km over SMF

PART NUMBER	OPTICS WITH EXTERNAL LRM SFP+ ADAPTER
10G-SFPP-LRM-1-ADP	10GBASE-LRM SFP+ optic (LC), for up to 220 m over MMF, 1-pack. Includes one LRM adapter device
10G-SFPP-LRM-2-ADP	10GBASE-LRM SFP+ optic (LC), for up to 220 m over MMF, 2-pack. Includes one LRM adapter device

PART NUMBER	DIRECT-ATTACHED CABLES
1G-SFP-C-0x01	Direct-attached SFP copper cable, 1 m, 1-pack, passive
10G-SFPP-TWX-0101	Direct-attached SFP+ copper cable, 1 m, 1-pack, active
10G-SFPP-TWX-0301	Direct-attached SFP+ copper cable, 3 m, 1-pack, active
10G-SFPP-TWX-0501	Direct-attached SFP+ copper cable, 5 m, 1-pack, active
10G-SFPP-TWX-P-0101	Passive Direct-attached SFP+ copper cable, 1 m, 1-pack, active
10G-SFPP-TWX-P-0301	Passive Direct-attached SFP+ copper cable, 3 m, 1-pack, active
10G-SFPP-TWX-P-0501	Passive Direct-attached SFP+ copper cable, 5 m, 1-pack, active

## ORDERING NOTES

All Brocade ICX 7150 switches come with an accessory kit that includes a rubber foot kit, power cord clip, rack mount kit (for 24/48 ports model), RJ-45 console cable and US AC power cord. Stacking cables, USB console cables, compact switch rack mount kit, and optics need to be ordered separately.

All Brocade ICX 7150 switch models with 1 GbE SFP uplink ports can be upgraded to 10 GbE SFP+ ports with a license.

Standard Brocade ICX 7150 1 RU Switch models can be ordered configured with either 4×1 GbE SFP, 2×1 GbE SFP, and 2×10 GbE SFP+, or 4×10 GbE SFP+ uplinks.

The Brocade ICX 7150 compact switch can be ordered configured with either 2×1 GbE SFP or 2×10 GbE SFP+ uplinks.

Upgrade licenses are available to upgrade standard Brocade ICX 7150 1 RU switches to either 2×1 GbE SFP and 2×10 GbE SFP+ or to 4×10 GbE SFP+, the Brocade ICX 7150 compact switch to 2×10 GbE SFP+.

Brocade ICX 7150 Switches with 4×10 GbE SFP+ (2×10 GbE SFP+ for the compact switch) include a license to enable Layer 3 features (OSPF, VRRP, PIM, PBR).

Special SKUs have been created to enable customers to order specific Brocade ICX 7150 models with three-year remote support included. Please note that additional years of remote support can always be ordered separately to cover any Brocade ICX 7150 model. Contact Ruckus or channel partner representative for details about Ruckus support options and support part numbers.

## WARRANTY

Brocade ICX 7150 Switches are covered by the Ruckus Assurance Limited Lifetime Warranty. For details, visit [www.ruckuswireless.com/warranty](http://www.ruckuswireless.com/warranty).

## BEST-IN-CLASS SUPPORT

Brocade ICX 7150 switches are supported by next-business-day advance replacement where available, as well as software defect repairs and maintenance updates. 90 days remote support is included with the product purchase. Many on-site and remote support options are available and can be purchased bundled with the product or separately.

## LEGAL DISCLAIMER

Product features, functionality and specifications may change or be discontinued without notice. Nothing in this document shall be deemed to create a warranty of any kind, either express or implied, statutory or otherwise, including but not limited to, any implied warranties of merchantability, fitness for a particular purpose, non-infringement of third-party rights or availability with respect to any products and services.

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