QuickSpecs

Overview

HPE Aruba Networking CX 6100 Switch Series

The HPE Aruba Networking CX 6100 Switch Series is modern family of entry level access switches ideal for enterprise branch offices and SMB networks. Optimized for reliable, simple, and secure access, the HPE Aruba Networking CX 6100 Switch series switches provide a convenient wired access solution for networks supporting IoT, mobile and cloud applications.

The HPE Aruba Networking CX 6100 Switch series is based on the Aruba ASIC architecture with the programmable AOS-CX operating system used across the entire HPE Aruba Networking CX portfolio for a more consistent, more efficient operator experience. This fully managed layer 2 switch series has convenient built-in high-speed uplinks with up to 370W of PoE to support IoT devices such as security cameras and wireless APs, and includes a compact and fanless model ideal for use in quiet work spaces.

The HPE Aruba Networking CX 6100 Switch series supports management choices that include Web GUI, CLI, cloud-based and onpremises Aruba Central, so you can choose the best fit for your needs today with flexibility to change without replacing hardware. With enhanced access security, traffic prioritization, and IPv6 support, the HPE Aruba Networking CX 6100 Switch series also simplifies ownership and brings peace of mind with switch software embedded with no subscription required to enable and a Limited Lifetime Warranty.



HPE Aruba Networking CX 6100 Switch Series



QuickSpecs

Overview

Key Features

- Enterprise-class Layer 2 connectivity with support for ACLs, robust QoS and static routing
- Convenient built-in 1/10GbE uplinks and up to 740W of Class 4 PoE for support of IoT devices
- Compact and fanless 12 port model for quiet deployment
- Manage via single pane of glass with Aruba Central across wired, wireless, and WAN
- Automated configuration and verification with Aruba NetEdit
- Software defined ready with REST APIs
- Simplify adds, moves and changes with colorless ports

Product Differentiators

AOS-CX - A modern software system

The HPE Aruba Networking CX 6100 Switch Series is based on AOS-CX, a modern, database-driven operating system that is built on a modular Linux architecture. This operating system provides the following unique capabilities:

- Easy access to all network configuration state information
- REST APIs for fine-grained programmability of network tasks
- A micro-services architecture that enables full integration with other workflow systems and services
- All software processes communicate with the database rather than each other, ensuring near real-time state and resiliency

Aruba ASICs - Programmable innovation

Based on over 30 years of continuous investment, Aruba's ASICs create the basis for innovative and agile software feature advancements, unparalleled performance and deep visibility. These programmable ASICs are purpose-built to allow for a tighter integration of switch hardware and software within campus and data center architectures to optimize performance and capacity. The HPE Aruba Networking CX 6100 Switch Series is based on the Aruba ASIC architecture.

Aruba Central - Unified single pane of glass management

Flexible cloud-based or on-premises management for unified network operations of wired, WLAN, SD-WAN, and public cloud infrastructure. Designed to simplify day zero through day two operations with streamlined workflows. Switch management capabilities include configuration, onboarding, monitoring, troubleshooting, and reporting.

Aruba NetEdit – Automated switch configuration and management

The entire HPE Aruba Networking CX portfolio empowers IT teams to orchestrate multiple switch configuration changes for smooth end-to-end service rollouts. Aruba NetEdit introduces automation that allows for rapid network-wide changes, and ensures policy conformance post network updates. Intelligent capabilities include search, edit, validation (including conformance checking), deployment and audit features. Capabilities include:

- Centralized configuration with validation for consistency and compliance
- Time savings via simultaneous viewing and editing of multiple configurations
- Customized validation tests for corporate compliance and network design
- Automated large-scale configuration deployment without programming

Notes: A separate software license is required to use Aruba NetEdit.

Mobility and IoT performance

The HPE Aruba Networking CX 6100 Switch Series uses internally developed Aruba ASICs that provide very low latency, increased packet buffering, and adaptive power consumption. Each switch includes the following:

- Up to 176 Gbps in non-blocking bandwidth and up to 98.6 Mpps for forwarding
- Selectable queue configurations that allow for increased performance by defining a number of queues and associated memory buffering to best meet the requirements of network applications

Simplify adds, moves and changes

Reduce manual IT operation tasks around initial deployment or on-going configuration changes to accommodate adds, moves and changes with colorless ports using local user roles and local-MAC-Authentication (LMA). Instead of statically pre-configuring access ports to VLANs and maintaining the switch port to VLAN mapping, colorless ports can automatically apply the role/policy required.

Enterprise-class access connectivity

To address branch office and small enterprise environments, the HPE Aruba Networking CX 6100 Switch series family includes five fixed 1U models. Each switch includes built-in high speed uplinks that automatically detect the use of 1G or 10G transceivers to deliver non-blocking performance. Additional highlights:

- 1U models support 24 and 48 access ports of IEEE 802.3 1GbE with four built-in 1GbE/10GbE uplink SFP+ ports. The 24 port PoE models support up to 370W and the and 48 pot PoE models support up to 740W IEEE 802.3at Class 4 Power over Ethernet for up to 30W per port
- Compact and fanless model supports 12 ports of IEEE 802.3 1GbE with four uplinks (two built-in 1GbE/10GbE uplink SFP/SFP+ ports, two built-in 1GbE ports), and 139W IEEE 802.3at Class 4 Power over Ethernet for up to 30W per port



- Support for Energy Efficient Ethernet IEEE 802.3az reduces power consumption during periods of low network traffic
- Support for pre-standard PoE detects and provides power to pre-standard PoE devices
- Auto-MDIX provides automatic adjustments for straight through or crossover cables on all 10/100/1000 ports
- Unsupported Transceiver Mode (UTM) allows to insert and enable all unsupported 1G and 10G transceivers and cables. Note that there is no warranty nor support for the transceiver/cable when this feature is used
- Jumbo frames allow for high-performance backups and disaster-recovery systems; provides a maximum frame size of 9198 bytes
- Packet storm protection against broadcast, multicast and unknown unicast storms with user-defined thresholds

Resiliency and availability

To support a highly-available Layer 2 access deployment, the HPE Aruba Networking CX 6100 Switch series supports the following features:

- Uni-directional Link Detection (UDLD) to monitor link connectivity and shut down ports at both ends if unidirectional traffic is detected, preventing loops in STPbased networks
- IEEE 802.3ad LACP supports up to 8 LAGs, each with up to 8 links per LAG; and provides support for static or dynamic groups and a user-selectable hashing algorithm
- IEEE 802.1s Multiple Spanning Tree provides high link availability in VLAN environments where multiple spanning trees are required; and legacy support for IEEE 802.1d and IEEE 802.1w
- SmartLink provides easy-to-configure link redundancy of active and standby links

Quality of Service (QoS) features

To support congestion actions and traffic prioritization, the HPE Aruba Networking CX 6100 Switch series includes the following:

- Strict priority (SP) queuing
- Traffic prioritization (IEEE 802.1p) for real-time classification
- Class of Service (CoS) sets the IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), Layer 3 protocol, TCP/UDP port number, source port, and DiffServ
- Rate limiting sets per-port ingress enforced maximums and per-port, per-queue minimums
- Large buffers for graceful congestion management

Simplified configuration and management

The HPE Aruba Networking CX 6100 Switch series supports a choice of management interfaces including, easy to use Web GUI, industry standard. CLI, Aruba NetEdit, and Aruba Central for unified network operations of wired, WLAN, SD-WAN, and public cloud infrastructure. Features include:

- Built-in programmable and easy-to-use REST API interface
- Industry-standard CLI with a hierarchical structure for reduced training time and expense. Delivers increased productivity in multivendor environments
- sFlow (RFC 3176) is ASIC-based wire speed network monitoring and accounting with no impact on network performance; network operators can gather a variety of network statistics and information for capacity planning and real-time network monitoring purposes
- Management security restricts access to critical configuration commands, provides multiple privilege levels with password protection and local and remote syslog capabilities allow logging of all access
- SNMPv1/v2c/v3 support provides Read capability of industry standard Management Information Base (MIB), and private extensions
- SNMP support includes: Write Set Speed and Duplex, Write Port Security, Write POE Priority, Write Config Mgmt, SNMP-Read single OID for average CPU and memory, SNMP MIB View
- SNMP Trap include: Transceiver Traps (insertion/removal), SNMP Trap, SNMP MIB-SNMB Authentication, SNMPv2 MIB, Port Sec MIB-Port Sec, Config MIB-Running Config Change, Config MIB, AAA Server MIB, AAA Server State
- Remote monitoring (RMON) with standard SNMP to monitor essential network functions. Supports events, alarms, history, and statistics groups as well as a private alarm extension group
- TFTP and SFTP support offers different mechanisms for configuration updates; trivial FTP (TFTP) allows bidirectional transfers over a TCP/ IP network; Secure File Transfer Protocol (SFTP) runs over an SSH tunnel to provide additional security
- Debug and sampler utility supports ping and traceroute for IPv4 and IPv6

- Network Time Protocol (NTP) synchronizes timekeeping among distributed time servers and clients; keeps timekeeping consistent among all clock-dependent devices within the network so the devices can provide diverse applications based on the consistent time
- IEEE 802.1AB Link Layer Discovery Protocol (LLDP) advertises and receives management information from adjacent devices on a network, facilitating easy mapping by network management applications
- Dual flash images provide independent primary and secondary operating system files for backup while upgrading
- Multiple configuration files can be stored to a flash image
- Unidirectional link detection (UDLD) monitors the link between two switches and blocks the ports on both ends of the link if the link goes down at any point between the two devices

Layer 2 Switching

The following Layer 2 services are supported:

- VLAN support and tagging support for IEEE 802.1Q (4094 VLAN IDs) and 512 VLANs simultaneously
- Jumbo packet support improves the performance of large data transfers; supports frame size of up to 9,220 bytes
- Rapid Per-VLAN Spanning Tree (RPVST+) allows each VLAN to build a separate spanning tree to improve link bandwidth usage; is compatible with PVST+
- STP supports standard IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
- MVRP allows automatic learning and dynamic assignment of VLANs
- Bridge Protocol Data Unit (BPDU) tunneling transmits STP BPDUs transparently, allowing correct tree calculations across service providers, WANs, or MANs
- Port mirroring duplicates port traffic (ingress and egress) to a monitoring port; supports 4 mirroring groups
- Internet Group Management Protocol (IGMP) Controls and manages the flooding of multicast packets in a Layer
- 2 networks

Layer 3 Services

The following Layer 3 services are supported:

- Address Resolution Protocol (ARP) determines the MAC address of another IP host in the same subnet; supports static ARPs
- Domain Name System (DNS) provides a distributed database that translates domain names and IP addresses, which simplifies network design; supports client and server
- Supports internal loopback testing for maintenance purposes and increased availability; loopback detection protects against incorrect cabling or network configurations and can be enabled on a per-port or per
- VLAN basis for added flexibility
- Dynamic Host Configuration Protocol (DHCP) simplifies the management of large IP networks and supports client; DHCPv4 Relay support enables DHCP operation across subnets

Layer 3 Routing

The following Layer 3 routing services are supported:

- Static IP routing provides manually configured routes.
- Dual stack static IPv4 and IPv6 routing provides simple manually configured IPv4 and IPv6 routing
- Dual IP stack maintains separate stacks for IPv4 and IPv6 to ease the transition from an IPv4-only network to an IPv6-only network design

Multicast

- IGMP Snooping allows multiple VLANs to receive the same IPv4 multicast traffic, lessening network bandwidth demand by reducing multiple streams to each VLAN
- Multicast Listener Discovery (MLD) enables discovery of IPv6 multicast listeners; support MLD v1 and v2
- Internet Group Management Protocol (IGMP) utilizes Any-Source Multicast (ASM) to manage IPv4 multicast networks; supports IGMPv1, v2, and v3
- IP multicast snooping (data-driven IGMP) prevents flooding of IP multicast traffic



IPv6 capabilities

- IPv6 host enables switches to be managed in an IPv6 network
- Dual stack (IPv4 and IPv6) transitions from IPv4 to IPv6, supporting connectivity for both protocols
- MLD snooping forwards IPv6 multicast traffic to the appropriate interface
- IPv6 ACL/QoS supports ACL and QoS for IPv6 network traffic
- IPV6 static routing
- Security provides RA guard, dynamic IPv6 lockdown, and ND snooping

Security

- Each HPE Aruba Networking CX 6100 Switch Serie comes with an integrated trusted platform module (TPM) for platform integrity. This ensures the boot process started from a trusted combination of AOS-CX switches. Other security features include:
- Access control list (ACL) support for both IPv4 and IPv6; allows for filtering traffic to prevent unauthorized users from accessing the network, or for controlling network traffic to save resources; rules can either deny or permit traffic to be forwarded; rules can be based on a Layer 2 header or a Layer 3 protocol header
- ACLs also provide filtering based on the IP field, source/ destination IP address/subnet, and source/ destination TCP/UDP port number on a per-VLAN or per-port basis
- Remote Authentication Dial-In User Service (RADIUS)
- Terminal Access Controller Access-Control System (TACACS+) delivers an authentication tool using TCP with encryption of the full authentication request, providing additional security
- Management access security for both on- and off-box authentication for administrative access. RADIUS or TACACS+ can be used to provide encrypted user authentication. Additionally, TACACS+ can also provide admin authorization services
- Control Plane Policing sets rate limit on control protocols to protect CPU overload from DOS attacks
- Supports multiple user authentication methods. Uses an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server to authenticate in accordance with industry standards
- Supports MAC-based client authentication
- Concurrent IEEE 802.1X, Web, and MAC authentication schemes per switch port accepts up to 32 sessions of IEEE 802.1X, Web, and MAC authentications
- Secure management access delivers secure encryption of all access methods (CLI, GUI, or MIB) through SSHv2, SSL, and/or SNMPv3
- Switch CPU protection provides automatic protection against malicious network traffic trying to shut down the switch
- ICMP throttling defeats ICMP denial-of-service attacks by enabling any switch port to automatically throttle ICMP traffic
- Identity-driven ACL enables implementation of a highly granular and flexible access security policy and VLAN assignment specific to each authenticated network user
- STP BPDU port protection blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks
- Dynamic IP lockdown works to block traffic from unauthorized hosts, preventing IP source address spoofing
- STP root guard protects the root bridge from malicious attacks or configuration mistakes
- Dynamic ARP protection blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data
- DHCP (snooping) protection blocks DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks
- Supports DHCPv4 Relay
- Port security allows access only to specified MAC addresses, which can be learned or specified by the administrator
- MAC address lockout prevents particular configured MAC addresses from connecting to the network
- Source-port filtering allows only specified ports to communicate with each other
- Secure shell encrypts all transmitted data for secure remote CLI access over IP networks
- Secure Sockets Layer (SSL) encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch
- Secure FTP allows secure file transfer to and from the switch; protects against unwanted file downloads or unauthorized copying of a switch configuration file
- Critical Authentication Role ensures that important infrastructure devices such as IP phones are allowed network access even in the absence of a RADIUS server



- MAC Pinning allows non-chatty legacy devices to stay authenticated by pinning client MAC addresses to the port until the clients logoff or get disconnected
- Security banner displays a customized security policy when users log in to the switch
- Dynamic IPv4 Lockdown works with DHCP protection to block traffic from unauthorized hosts, preventing IP source address spoofing
- DHCP smart relay allows the DHCP relay agent to use secondary IP addresses when the DHCP server does not reply the DHCP-OFFER message

Convergence

- LLDP-MED (Media Endpoint Discovery) defines a standard extension of LLDP that stores values for parameters such as QoS and VLAN to automatically configure network devices such as IP phones
- PoE allocations supports multiple methods (allocation by usage or class, with LLDP and LLDP-MED) to allocate PoE power for more efficient power management and energy savings.
- Auto VLAN configuration for voice RADIUS VLAN: uses a standard RADIUS attribute and LLDP-MED to automatically configure a VLAN for IP phones
- Supports CDPv2 to configure legacy IP phones

Additional information

• Green initiative support for RoHS (EN 50581:2012) and WEEE regulations

Customer First, Customer Last Support

When your network is important to your business, then your business needs the backing of Aruba Support Services. Partner with Aruba product experts to increase your team productivity, keep pace with technology advances, software releases, and obtain break-fix support.

- Foundation Care for Aruba support services include priority access to Aruba Technical Assistance Center (TAC) engineers 24x7x365, flexible hardware and onsite support options, and total coverage for Aruba products. Aruba switches with assigned Aruba Central subscriptions benefit with option for additional hardware support only.
- Aruba Pro Care adds fast access to senior Aruba TAC engineers, who are assigned as a single point of contact for case management, reducing the time spent addressing and resolving issues.

For complete details on Foundation Care and Aruba Pro Care, please visit: https://www.arubanetworks.com/supportservices/

Warranty, Services And Support

- Limited Lifetime Warranty, see <u>https://www.arubanetworks.com/support-services/ product-warranties/</u> for warranty and support information included with your product purchase
- For Software Releases and Documentation, refer to <u>https://asp.arubanetworks.com/downloads</u>
- For more detailed information on Aruba AOS-CX software release and features, please visit the <u>AOS-CX Switch Software</u> <u>Documentation Portal</u>
- Explore and compare switch features for each platform and software release on the <u>Aruba Switch Feature</u> <u>Navigator</u>
- For support and services information, visit https://www.arubanetworks.com/support-services/arubacare/

Configuration Information

BTO Models

6100	
Rule # Description	SKU
1, 2, 3, 4, 5 HPE Aruba Networking CX 6100 48G Class4 PoE 4SFP+ 740W Switch	R9Y04A
 Includes Non-Pluggable, Internal PSU behind sheetmetal Chassis Frame 	
 Includes Non-Pluggable, Internal Fans behind sheetmetal Chassis Frame 	
Includes Mounting Brackets	
 Min=0 \ Max = 4 SFP/SFP+ 1/10G Transceiver 	
• 10 - Height	
	R9Y04A#B2B
C15 PDU Jumper Cord (NA/MEX/TW/JP) (J9943A) HPE Aruba Networking CX 6100 48G Class4 PoE 4SFP+ 740W Switch PDU R	R9Y04A#B2C
-	(9104A#DZC
C15 PDU Jumper Cord (ROW) (J9944A) Aruba 6100 48G Class4 PoE 4SFP+ 740W Switch 220v	R9Y04A#B2E
HPE 2.5m C15 to NEMA 6-20P Pwr Cord(JL336A)	(9104A#D2L
	9Y04A#AC3
 No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6- 	() 104/(#/(C)
20P)	
1, 2, 3, 4, 5 Aruba 6100 48G Class4 PoE 4SFP+ 370W Switch	JL675A
 Includes Non-Pluggable, Internal PSU behind sheetmetal Chassis Frame 	
 Includes Non-Pluggable, Internal Fans behind sheetmetal Chassis Frame 	
Includes Mounting Brackets	
 Min=0 \ Max = 4 SFP/SFP+ 1/10G Transceiver 	
• 1U - Height	
	JL675A#B2B
C13 PDU Jumper Cord (NA/MEX/TW/JP) (JL697A)	
	JL675A#B2C
C13 PDU Jumper Cord (ROW) (JL697A)	
	JL675A#B2E
• HPE 2.3m C13 to NEMA 6-15P Pwr Cord(J9936A)	
	IL675A#AC3
 No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6- 20P) 	
1, 2, 3, 4, 5 Aruba 6100 48G 4SFP+ Switch	JL676A
 Includes Non-Pluggable, Internal PSU behind sheetmetal Chassis Frame 	
 Includes Non-Pluggable, Internal Fans behind sheetmetal Chassis Frame 	
Includes Mounting Brackets	
 Min=0 \ Max = 4 SFP/SFP+ 1/10G Transceiver 	
• 1U - Height	
	JL676A#B2B
C13 PDU Jumper Cord (NA/MEX/TW/JP) (JL697A)	
	JL676A#B2C
C13 PDU Jumper Cord (ROW) (JL697A)	
	JL676A#B2E
HPE 2.3m C13 to NEMA 6-15P Pwr Cord(J9936A)	
	IL676A#AC3
 No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6- 20P) 	

Configuration Information

1, 2, 3, 4, 5 Aruba 6100 24G Class4 PoE 4SFP+ 370W Switch	JL677A
 Includes Non-Pluggable, Internal PSU behind sheetmetal Chassis Frame 	
 Includes Non-Pluggable, Internal Fans behind sheetmetal Chassis Frame 	
Includes Mounting Brackets	
 Min=0 \ Max = 4 SFP/SFP+ 1/10G Transceiver 	
 1U - Height Aruba 6100 24G Class4 PoE 4SFP+ 370W Switch PDU 	JL677A#B2B
C13 PDU Jumper Cord (NA/MEX/TW/JP) (JL697A)	520777(11020
Aruba 6100 24G Class4 PoE 4SFP+ 370W Switch PDU	JL677A#B2C
 C13 PDU Jumper Cord (ROW) (JL697A) 	JEOTTATDZC
Aruba 6100 24G Class4 PoE 4SFP+ 370W Switch 220v	JL677A#B2E
	JLOTTA#DZL
 HPE 2.3m C13 to NEMA 6-15P Pwr Cord(J9936A) Aruba 6100 24G Class4 PoE 4SFP+ 370W Switch No Loc 	JL677A#AC3
	JL077A#ACJ
 No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6- 20P) 	
1, 2, 3, 4, 5 Aruba 6100 24G 4SFP+ Switch	JL678A
 Includes Non-Pluggable, Internal PSU behind sheetmetal Chassis Frame 	
 Includes Non-Pluggable, Internal Fans behind sheetmetal Chassis Frame 	
Includes Mounting Brackets	
 Min=0 \ Max = 4 SFP/SFP+ 1/10G Transceiver 	
• 1U - Height	
Aruba 6100 24G 4SFP+ Switch PDU	JL678A#B2B
C13 PDU Jumper Cord (NA/MEX/TW/JP) (JL697A)	
Aruba 6100 24G 4SFP+ Switch PDU	JL678A#B2C
C13 PDU Jumper Cord (ROW) (JL697A)	
Aruba 6100 24G 4SFP+ Switch 220v	JL678A#B2E
 HPE 2.3m C13 to NEMA 6-15P Pwr Cord(J9936A) 	
Aruba 6100 24G 4SFP+ Switch No Loc	JL678A#AC3
 No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6- 20P) 	
1, 2, 3, 4, 5 Aruba 6100 12G Class4 PoE 2G/2SFP+ 139W Switch	JL679A
 Includes Non-Pluggable, Internal PSU behind sheetmetal Chassis Frame 	
 Includes Non-Pluggable, Internal Fans behind sheetmetal Chassis Frame 	
Includes Mounting Brackets	
 Min=0 \ Max = 2 SFP/SFP+ 1/10G Transceiver 	
• 1U - Height	
Aruba 6100 12G Class4 PoE 2G/2SFP+ 139W Switch PDU	JL679A#B2B
C13 PDU Jumper Cord (NA/MEX/TW/JP) (JL697A)	
Aruba 6100 12G Class4 PoE 2G/2SFP+ 139W Switch PDU	JL679A#B2C
C13 PDU Jumper Cord (ROW) (JL697A)	
Aruba 6100 12G Class4 PoE 2G/2SFP+ 139W Switch 220v	JL679A#B2E
 HPE 2.3m C13 to NEMA 6-15P Pwr Cord(J9936A) 	
Aruba 6100 12G Class4 PoE 2G/2SFP+ 139W Switch No Loc	JL679A#AC3
 No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6- 20P) 	

Configuration Information

	Configuration Rules	
Rule #	Description	SKU
1	The following Transceivers install into this Switch: (Use BTO only when adding to switch)	
	Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858D
	Aruba 1G SFP LC LX 10km SMF Transceiver	J4859D
	Aruba 1G SFP RJ45 T 100m Cat5e Transceiver	J8177D
2	The following Transceivers install into this Switch: (Use BTO only when adding to switch)	
	Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150D
	Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151E
	Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281D
	Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283D
3	Localized power cord required on orders without B2B, B2C, B2E or AC3 options.	
4	If ANY Option is integrated 0D1 to this Switch, then the Switch requires 0D1. (Box level integration	
	is not allowed)	
5	Unbuildable/FAN required, generates CFGU: If order is quoted for India and contains "#B2C" Option,	
	then Display the following:	
	For BTO shipments to India:	
	Please replace <base model=""/> #B2C option with <base model=""/> #AC3 in the Bill of Materials	
	and add the appropriate INDIA PDU Power Cord below via Ad-Hoc: HPE 2.0m C13 to C14 PDU India Power Cord	JL671A
	HPE 2.5m C15 to C14 PDU India Power Cord	JL671A JL672A
	HPE 2.5m C19 to C20 PDU India Power Cord	JL672A JL673A
		JLU/JA
	• For Factory Integration of Power Cord, please add "#0D1" to the Power Cord Sku suffix. (Ex. JL671A#0D1)	
Notes:	 OCA Only: Required Custom Choice (Min1/Max1) 	
	- Switch/Router/Power Supply to PDU Power Cord - B2B in North America, Mexico, Taiwan, and	
	Japan or B2C ROW. (OCA Default B2B or B2C for Rack Level CTO) Switch/Router/Power Supply to Wall Power Cord - Localized Option (OCA Default for BTO) 	
	 High Volt Switch/Router/Power Supply to Wall Power Cord - Eccalized Option (OCA Default for BTO) High Volt Switch/Router/Power Supply to Wall Power Cord - B2E Option. (Offered only in North 	
	America, Mexico, Taiwan, and Japan)	
	 No Power Cord - AC3 Option 	
	– Locking Power Cord (J9955A) L6-20P is available through the OCA Accessories tab.	
	 OCA Only Model Selection Form - HPE Offering > Aruba > Switches > ArubaOS > AOS-CX: 	
	Aruba CX 6100 Switch Series	

Configuration Information

Rack Level Integration CTO Models

	6100	
Rule #	Description	SKU
1, 2, 3, 4	HPE Aruba Networking CX 6100 48G Class4 PoE 4SFP+ 740W Switch	R9Y04A
	 Includes Non-Pluggable, Internal PSU behind sheetmetal Chassis Frame 	
	 Includes Non-Pluggable, Internal Fans behind sheetmetal Chassis Frame 	
	Includes Mounting Brackets	
	 Min=0 \ Max = 4 SFP/SFP+ 1/10G Transceiver 	
	• 1U - Height	
	HPE Aruba Networking CX 6100 48G Class4 PoE 4SFP+ 740W Switch PDU	R9Y04A#B2B
	C15 PDU Jumper Cord (NA/MEX/TW/JP) (J9943A)	
	HPE Aruba Networking CX 6100 48G Class4 PoE 4SFP+ 740W Switch PDU	R9Y04A#B2C
	• C15 PDU Jumper Cord (ROW) (J9944A)	
	Aruba 6100 48G Class4 PoE 4SFP+ 740W Switch 220v	R9Y04A#B2E
	HPE 2.5m C15 to NEMA 6-20P Pwr Cord(JL336A)	
	HPE Aruba Networking CX 6100 48G Class4 PoE 4SFP+ 740W Switch No Loc	R9Y04A#AC3
	 No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6- 20P) 	
1, 2, 3, 4	Aruba 6100 48G Class4 PoE 4SFP+ 370W Switch	JL675A
_, _, _, .	 Includes Non-Pluggable, Internal PSU behind sheetmetal Chassis Frame 	
	 Includes Non-Pluggable, Internal Fans behind sheetmetal Chassis Frame 	
	 Includes Mounting Brackets 	
	 Min=0 \ Max = 4 SFP/SFP+ 1/10G Transceiver 	
	• 1U - Height	
	Aruba 6100 48G Class4 PoE 4SFP+ 370W Switch PDU	JL675A#B2B
	• C13 PDU Jumper Cord (NA/MEX/TW/JP) (JL697A)	
	Aruba 6100 48G Class4 PoE 4SFP+ 370W Switch PDU	JL675A#B2C
	• C13 PDU Jumper Cord (ROW) (JL697A)	
	Aruba 6100 48G Class4 PoE 4SFP+ 370W Switch 220v	JL675A#B2E
	• HPE 2.3m C13 to NEMA 6-15P Pwr Cord(J9936A)	
	Aruba 6100 48G Class4 PoE 4SFP+ 370W Switch No Loc	JL675A#AC3
	No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6-	520707070700
	20P)	
1, 2, 3, 4	Aruba 6100 48G 4SFP+ Switch	JL676A
	 Includes Non-Pluggable, Internal PSU behind sheetmetal Chassis Frame 	
	 Includes Non-Pluggable, Internal Fans behind sheetmetal Chassis Frame 	
	Includes Mounting Brackets	
	 Min=0 \ Max = 4 SFP/SFP+ 1/10G Transceiver 	
	• 1U - Height	
	Aruba 6100 48G 4SFP+ Switch PDU	JL676A#B2B
	• C13 PDU Jumper Cord (NA/MEX/TW/JP) (JL697A)	
	Aruba 6100 48G 4SFP+ Switch PDU	JL676A#B2C
	• C13 PDU Jumper Cord (ROW) (JL697A)	
	Aruba 6100 48G 4SFP+ Switch 220v	JL676A#B2E
	• HPE 2.3m C13 to NEMA 6-15P Pwr Cord(J9936A)	
	Aruba 6100 48G 4SFP+ Switch No Loc	JL676A#AC3
	No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6-	
	No Localized Power Cold Selected. Use J9955A to obtain a Locking Plug Power Cold (Lo- 20P)	

Configuration Information

1, 2, 3, 4	Aruba 6100 24G Class4 PoE 4SFP+ 370W Switch	JL677A
	 Includes Non-Pluggable, Internal PSU behind sheetmetal Chassis Frame 	
	 Includes Non-Pluggable, Internal Fans behind sheetmetal Chassis Frame 	
	Includes Mounting Brackets	
	 Min=0 \ Max = 4 SFP/SFP+ 1/10G Transceiver 	
	• 1U - Height	
	Aruba 6100 24G Class4 PoE 4SFP+ 370W Switch PDU	JL677A#B2B
	C13 PDU Jumper Cord (NA/MEX/TW/JP) (JL697A)	
	Aruba 6100 24G Class4 PoE 4SFP+ 370W Switch PDU	JL677A#B2C
	• C13 PDU Jumper Cord (ROW) (JL697A)	
	Aruba 6100 24G Class4 PoE 4SFP+ 370W Switch 220v	JL677A#B2E
	• HPE 2.3m C13 to NEMA 6-15P Pwr Cord(J9936A)	
	Aruba 6100 24G Class4 PoE 4SFP+ 370W Switch No Loc	JL677A#AC3
	No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6-	
	20P)	
1, 2, 3, 4	Aruba 6100 24G 4SFP+ Switch	JL678A
	 Includes Non-Pluggable, Internal PSU behind sheetmetal Chassis Frame 	
	 Includes Non-Pluggable, Internal Fans behind sheetmetal Chassis Frame 	
	 Includes Mounting Brackets 	
	 Min=0 \ Max = 4 SFP/SFP+ 1/10G Transceiver 	
	• 1U - Height	
	Aruba 6100 24G 4SFP+ Switch PDU	JL678A#B2B
	• C13 PDU Jumper Cord (NA/MEX/TW/JP) (JL697A)	
	Aruba 6100 24G 4SFP+ Switch PDU	JL678A#B2C
	• C13 PDU Jumper Cord (ROW) (JL697A)	
	Aruba 6100 24G 4SFP+ Switch 220v	JL678A#B2E
	• HPE 2.3m C13 to NEMA 6-15P Pwr Cord(J9936A)	010707070222
	Aruba 6100 24G 4SFP+ Switch No Loc	JL678A#AC3
	No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6-	520707070700
	20P)	
	Configuration Rules	
Rule #	Description	SKU
1	The following Transceivers install into this Switch (Use #0D1 quoted to switch if switch is CTO) - if applicable	
	Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858D
	Aruba 1G SFP LC LX 10km SMF Transceiver	J4859D
	Aruba 1G SFP RJ45 T 100m Cat5e Transceiver	J8177D
2	The following Transceivers install into this Switch (Use #0D1 quoted to switch if switch is CTO) - if applicable:	
	Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150D
	Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151E
	Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281D
	Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283D
3	Factory racked CTO Base Model must integrate (#0D1) to the Rack.	
4	Unbuildable/FAN required, generates CFGU: If order is quoted for India and contains "#B2C" Option,	
	then Display the following:	
	For BTO shipments to India:	
	Please replace <base model=""/> #B2C option with <base model=""/> #AC3 in the Bill of Materials and add the appropriate INDIA PDU Power Cord below via Ad-Hoc:	



	HPE 2.0m C13 to C14 PDU India Power Cord HPE 2.5m C15 to C14 PDU India Power Cord HPE 2.5m C19 to C20 PDU India Power Cord	JL671A JL672A JL673A
	• For Factory Integration of Power Cord, please add "#0D1" to the Power Cord Sku suffix. (Ex. JL671A#0D1)	
Notes:	 OCA Only: Required Custom Choice (Min1/Max1) Switch/Router/Power Supply to PDU Power Cord - B2B in North America, Mexico, Taiwan, and Japan or B2C ROW. (OCA Default B2B or B2C for Rack Level CTO) Switch/Router/Power Supply to Wall Power Cord - Localized Option (OCA Default for BTO) High Volt Switch/Router/Power Supply to Wall Power Cord - B2E Option. (Offered only in North America, Mexico, Taiwan, and Japan) No Power Cord - AC3 Option Locking Power Cord (J9955A) L6-20P is available through the OCA Accessories tab 	
Transcei	vers	
Remarks:	Description	SKU
	SFP Transceivers	
	Aruba 1G SFP LC SX 500m OM2 MMF Transceiver Aruba 1G SFP LC LX 10km SMF Transceiver	J4858D J4859D
	Aruba 16 SFP RJ45 T 100m Cat5e Transceiver	J4839D J8177D
	SFP+ Transceivers	301770
	Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150D
	Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151E
	Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281D
	Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283D
Switch C	Options	
Remarks	Description	SKU
	Rack Mount Kits	
	System (std 0 // max 1) User Selection (min 0 // max 1) per enclosure Aruba X414 1U Universal 4-post Rack Mount Kit	J9583B
Notes:	 If the switch will be factory racked into an HPE Universal Rack, then (Min 1) of the 4 Post Rack Mount kit is required and should nest to Rack with #0D1. 	
	 JL679A is not compatible with this 4-Post Rack Mount Kit, but does include a table mount and wall mount kit. 	
	India PDU Cable	
	For 6100 System (std 0 // max 1) User Selection (min 0 // max 1) per enclosure HPE 2.0m C13 to C14 PDU India Power Cord	JL671A
	C13 India PDU Cable	JLO/IA
	HPE 2.5m C15 to C14 PDU India Power Cord	JL672A
	C15 India PDU Cable	520727
Notes:	 This Power Cord is only available when the #AC3 option is selected for the supported power supply and intended for India 	
	 This PDU cable is for Solutions shipping to India. 	
	Cable Guard	
	System (std 0 // max 1) User Selection (min 0 // max 1) per enclosure	
Netce	Aruba X511 12-port Cable Guard	JL742A
Notes:	Compatible with JL679A only	

Configuration Information

	USB Console Cables	
	System (std 0 // max 99) User Selection (min 0 // max 99) per switch	
	Aruba USB-A reversible to USB-C PC-to-Switch 3m Cable	R9J32A
	Aruba USB-C to USB-C PC-to-Switch 3m Cable	R9J33A
Notes:	This cable is only compatible with the following Switches; JL675A, JL676A, JL677A, JL678A, JL679A, R9Y04A.	
Softwar	e	
	NetEdit	
	NetEdit / Single Node Subscription	
	Aruba CX Mobile App https://www.arubanetworks.com/products/networking/switches/cx-	
	mobileapp/	
Remarks	Description	SKU
	Aruba NetEdit Single Node 1yr Subscription E-STU	JL639AAE
	Aruba NetEdit Single Node 3yr Subscription E-STU	JL640AAE
	Central	
Notes:	For details and complete listing of Aruba Central licensing options, please see <u>https://www.arubanetworks.com/assets/ds/DS_ArubaCentral.pdf</u> and Aruba Central Data Sheet <u>https://www.arubanetworks.com/assets/ds/DS_ArubaCentral.pdf</u>	

	Central	
	Cloud Services / 25XX Switch Foundation Subscriptions	
	Aruba Central 25xx/6100 Switch Foundation 1-year Subscription SaaS	Q9Y68AAS
	Aruba Central 25xx/6100 Switch Foundation 3-year Subscription SaaS	Q9Y69AAS
	Aruba Central 25xx/6100 Switch Foundation 5-year Subscription SaaS	Q9Y70AAS
	Aruba Central 25xx/6100 Switch Foundation 7-year Subscription SaaS	Q9Y71AAS
	Aruba Central 25xx/6100 Switch Foundation 10-year Subscription SaaS	Q9Y72AAS
Notes:	Add the Central Cloud Skus to the Aruba Catalog as Standalone: Aruba > Network Management > Central > Cloud Services	
	Cloud Services / Switch Advanced AAS Licenses	
	HPE Aruba Networking Central Switch Class-1 Advanced 1-year Subscription SaaS	SOW67AAS
	HPE Aruba Networking Central Switch Class-1 Advanced 3-year Subscription SaaS	SOW68AAS
	HPE Aruba Networking Central Switch Class-1 Advanced 5-year Subscription SaaS	SOW69AAS
	HPE Aruba Networking Central Switch Class-1 Advanced 7-year Subscription SaaS	SOW70AAS
	HPE Aruba Networking Central Switch Class-1 Advanced 10-year Subscription SaaS	SOW71AAS
Notes:	For IRIS reference only. No action required for OCX and Clic	

Specifications			
-	Aruba 6100 48G Class4 PoE 4SFP+ 370W Switch (JL675A))	Aruba 6100 48G 4SFP+ Switch (JL676A)	Aruba 6100 24G Class4 PoE 4SFP+ 370W Switch (JL677A)
Description	48x ports 10/100/1000BASE-T Ports 4x 1G/10G SFP ports Supports PoE Standards IEEE 802.3af, 802.3at 1x USB-C Console Port 1x USB Type-A Host port	48x ports 10/100/1000BASE-T Ports 4x 1G/10G SFP ports 1x USB-C Console Port 1x USB Type-A Host port	24x ports 10/100/1000BASE-T Ports 4x 1G/10G SFP ports Supports PoE Standards IEEE 802.3af, 802.3at 1x USB-C Console Port 1x USB Type-A Host port
Power supplies	Fixed power supply (500W) Up to 370W of Class 4 PoE Power	Fixed power supply (65W)	Fixed power supply (500W) Up to 370W of Class 4 PoE Power
Fans	Fixed fans	Fixed fans	Fixed fans
Physical characteristics			
Dimensions	 (H) 4.39 cm (W) 44.2 cm (D) 30.48 cm (1.73" x 17.4" x 12.0") 	(H) 4.39 cm (W) 44.2 cm (D) 24.74 cm (1.73" x 17.4" x 9.74")	 (H) 4.39 cm (W) 44.2 cm (D) 26.82 cm (1.73" x 17.4" x 10.56")
Configuration Weight	5.02 kg (11.07 lbs)	3.42 kg (7.54 lbs)	4.19kg (9.24 lbs)
Additional Specifications		-	
CPU	Dual Core ARM Cortex A9 @ 1016 Mhz	Dual Core ARM Cortex A9 @ 1016 Mhz	Dual Core ARM Cortex A9 @ 1016 Mhz
Memory and Flash	4 GB DDR3 16 GB eMMC	4 GB DDR3 16 GB eMMC	4 GB DDR3 16 GB eMMC
Packet Buffer	12.38MB (4.5MB Ingress/7.875MB Egress)	12.38MB (4.5MB Ingress/7.875MB Egress)	12.38MB (4.5MB Ingress/7.875MB Egress)
Performance		1	
Model Switching Capacity	176 Gbps	176 Gbps	128 Gbps
Model Throughput Capacity	98.6 Mpps	98.6 Mpps	95.2 Mpps
Average Latency (LIFO-64- bytes packets)	1 Gbps: 1.9 µSec , 10 Gbps: 1.8 µSec	1 Gbps: 1.9 µSec , 10 Gbps: 1.8 µSec	1 Gbps: 1.5 µSec , 10 Gbps: 1.8 µSec
Switched Virtual Interfaces (dual stack)	16	16	16
IPv4 Host Table (ARP)	1,024	1,024	1,024
IPv6 Host Table (ND)	512	512	512
IPv4 Unicast Routes	512	512	512
IPv6 Unicast Routes	512	512	512
MAC Table Capacity	8,192	8,192	8,192
IGMP Groups	512	512	512
MLD Groups	512	512	512
IPv4/IPv6/MAC ACL Entries (ingress)	256/128/256	256/128/256	256/128/256

	Aruba 6100 48G Class4 PoE 4SFP+ 370W Switch (JL675A))	Aruba 6100 48G 4SFP+ Switch (JL676A)	Aruba 6100 24G Class4 PoE 4SFP+ 370W Switch (JL677A)
Environment			
Operating Temperature	32°F to 113°F (0°C to 45°C) up to 5000 ft (1.5 km) derate -1°C for every 1000 ft (305 m) from 5000 ft (1.5 km) to 10000 ft (3.0 km)	32°F to 113°F (0°C to 45°C) up to 5000 ft (1.5 km) derate -1°C for every 1000 ft (305 m) from 5000 ft (1.5 km) to 10000 ft (3.0 km)	32°F to 113°F (0°C to 45°C) up to 5000 ft (1.5 km) derate -1°C for every 1000 ft (305 m) from 5000 ft (1.5 km) to 10000 ft (3.0 km)
Operating Relative Humidity	15% to 95% at 104°F (40°C) non-condensing	15% to 95% at 104°F (40°C) non-condensing	15% to 95% at 104°F (40°C) non-condensing
Non-Operating	-40°F to 158°F (-40°C to 70°C) up to 15000 ft (4.6 km)	-40°F to 158°F (-40°C to 70°C) up to 15000 ft (4.6 km)	-40°F to 158°F (-40°C to 70°C) up to 15000 ft (4.6 km)
Non-Operating Storage Relative Humidity	15% to 90% @ 149°F (65°C) non-condensing	15% to 90% @ 149°F (65°C) non-condensing	15% to 90% @ 149°F (65°C) non-condensing
Max Operating Altitude	10000 feet (3 km) Max	10000 feet (3 km) Max	10000 feet (3 km) Max
Max Non-Operating Altitude	15000 feet (4.6 km) Max	15000 feet (4.6 km) Max	15000 feet (4.6 km) Max
Acoustic	Sound Power, LWAd = 4.3 Bel Sound Pressure, LpAm (Bystander) = 29.8 dB	Sound Power, LWAd = 3.6 Bel Sound Pressure, LpAm (Bystander)= 24.6 dB	Sound Power, LWAd = 3.9 Bel Sound Pressure, LpAm (Bystander)= 24.3 dB
Primary Airflow	Side-to-side	Side-to-side	Side-to-side
Electrical Characteristics			
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
AC Voltage	100-127 VAC / 200-240 VAC	100-127 VAC / 200-240 VAC	100-127 VAC / 200-240 VAC
Current	4.9 A / 2.4 A	0.8 A / 0.5 A	4.6 A / 2.3 A
Power Consumption (230 VAC)	Idle: 30.6W Max Power (w/o PoE): 45W Max Power (w/ PoE): 480W	Idle: 20.6W Max Power (w/o PoE): 44.2W	Idle: 22.9W Max Power (w/o PoE): 32.7W Max Power (w/ PoE): 455W
Safety	IEC / EN 62368-1: 2014 IEC / EN 62368-1: 2018 UL 62368-1: 2014, 2nd Ed., CSA C22.2 No. 62368-1:14, 2nd Ed.,	IEC / EN 62368-1: 2014 IEC / EN 62368-1: 2018 UL 62368-1: 2014, 2nd Ed., CSA C22.2 No. 62368-1:14, 2nd Ed.,	IEC / EN 62368-1: 2014 IEC / EN 62368-1: 2018 UL 62368-1: 2014, 2nd Ed. CSA C22.2 No. 62368-1:14, 2nd Ed.,
Emissions	VCCI-CISPR 32, Class A CNS 15936, Class A FCC CFR 47 Part 15, Class A EN 55032:2015 / A11:2020 / CISPR-32, Class A ICES-003 Issue 7: 2020, Class A AS/NZS CISPR 32: 2015, Class A	VCCI-CISPR 32, Class A CNS 15936, Class A FCC CFR 47 Part 15, Class A EN 55032:2015 / A11:2020 / CISPR-32, Class A ICES-003 Issue 7: 2020, Class A AS/NZS CISPR 32: 2015, Class A	VCCI-CISPR 32, Class A CNS 15936, Class A FCC CFR 47 Part 15, Class A EN 55032:2015 / A11:2020 / CISPR-32, Class A ICES-003 Issue 7: 2020, Class A AS/NZS CISPR 32: 2015, Class A

	Aruba 6100 48G Class4 PoE 4SFP+ 370W Switch (JL675A))	Aruba 6100 48G 4SFP+ Switch (JL676A)	Aruba 6100 24G Class4 PoE 4SFP+ 370W Switch (JL677A)
Lasers	IEC / EN 60825-1:2014, Class 1 Class 1 Laser Products / Laser Klasse 1 (Applicable for accessories - Optical Transceivers only)	IEC / EN 60825-1:2014, Class 1 Class 1 Laser Products / Laser Klasse 1 (Applicable for accessories - Optical Transceivers only)	IEC / EN 60825-1:2014, Class 1 Class 1 Laser Products / Laser Klasse 1 (Applicable for accessories - Optical Transceivers only)
Immunity			
Generic	CISPR 35: 2016	CISPR 35: 2016	CISPR 35: 2016
EN	EN 55035:2017 / A11:2020	EN 55035:2017 / A11:2020	EN 55035:2017 / A11:2020
ESD	IEC 61000-4-2	IEC 61000-4-2	IEC 61000-4-2
Radiated	IEC 61000-4-3	IEC 61000-4-3	IEC 61000-4-3
EFT/Burst	IEC 61000-4-4	IEC 61000-4-4	IEC 61000-4-4
Surge	IEC 61000-4-5	IEC 61000-4-5	IEC 61000-4-5
Conducted	IEC 61000-4-6	IEC 61000-4-6	IEC 61000-4-6
Power frequency magnetic field	IEC 61000-4-8	IEC 61000-4-8	IEC 61000-4-8
Voltage dips and interruptions	IEC 61000-4-11	IEC 61000-4-11	IEC 61000-4-11
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3- 2	EN 61000-3-2, IEC 61000-3- 2
Flicker	EN 61000-3-3, IEC 61000-3- 3	EN 61000-3-3, IEC 61000-3- 3	EN 61000-3-3, IEC 61000-3- 3
Mounting and Enclosure	sure Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit included); horizontal surface mounting; wall mounting.		

Aruba 6100 24G 45FP+ Switch (LL678A)Aruba 6100 12C (1654 PAP 25 G/25FP+ 139W Switch (LL679A)Description24x ports 10/100/1000BASE -T Ports 4x 16/10G SFP ports12x ports 10/100/1000BASE -T Ports 2x 1GFL0G SFP ports 2x 1GE ports 1x USB C Console Port 1x USB C Console PortPower supplesFixed power supply (GSW)Fixed power supply (GSW) Up to 133W of Class 4 PoE PowerPower supplesFixed fansFanelessPhysical characteristics(H) 4.39 cm (W) 24.4 cm (W) 24.4 cm (W) 25.4 cm (D) 20.12 cm (D) 25.5 cm (D) 20.5 cm (D) 25.5 cm (D) 20.5 cm (D) 25.5 cmPerformance Model Stricting Capacity (D) 25.2 cm (D) 25.2 cmProf mance Model Stricting Capacity (D) 25.5 cm (D) 25.2 cm (D) 25.2 cmPhy Honk Stribe (ND) (D) 24.1 cm (D) 24.1 cm (D) 24.1 cm <br< th=""><th>Specifications (continue</th><th>d)</th><th></th></br<>	Specifications (continue	d)			
1G/10G SPP ports2X.1G/L0G SPP portsht USB-C Console Port 1x USB Type-A HostSupports Pos Standards IEEE 80.2.3 at, 80.2.3 atporthtt USB-C Console Port1x.USB-Type-A Host portPower supplitesFixed power supply (65W)Fixed power supply (165W)Power supplitesFixed formsFanlessPhysical characteristics(M) 4.39 cm(M) 4.39 cmDimensions(M) 4.39 cm(M) 25.5 cm(D) 20.12 cm(D) 25.5 cm(D) 25.5 cmConfiguration Weight2.62 kg (5.78 lbs)2.78 kg (6.13 lbs)Additional Specifications4 GB DDR34 GB DDR3CPUDual Core ARM Cortex A9 @ 1016 MhzDual Core ARM Cortex A9 @ 1016 MhzPerformance12.80 MB (A.5MB Ingress/7.875MB Egress)2.38 MB (4.5MB Ingress/7.875MB Egress)Performance16 GB eMMC16 GB eMMCModel Switching Capacity12.8 Cbps6.8 CbpsModel Switching Capacity12.8 Cbps6.8 CbpsModel Switching Capacity12.8 Cbps6.8 CbpsModel Switching Capacity12.8 Cbps1.024Pr4 Host Table (APP)1.0241.024IPv4 Host Table (APP)5.125.12Piv6 Uncast Routes5.125.12Piv6 Uncast Routes5.12		Aruba 6100 24G 4SFP+ Switch (JL678A)	-		
Image: space standX USB Type-A Host portPower suppliesFixed power supply (65W)Fixed power supply (165W)Physical CharacteristicsUp to 139W of Class 4 PoE PowerPhysical Characteristics(W) 44.2 cm(W) 25.5 cm(D) 20.12 cm(D) 20.25 cm(D) 20.55 cm(D) 20.12 cm(D) 20.12 cm(D) 20.55 cm(D) 20.12 cm(D) 20.55 cm2.78 kg (6.3 lbs)Additional Specifications2.62 kg (5.78 lbs)2.78 kg (6.3 lbs)CPUDual Core ARM Cortex A9 @ 1016 Mhz10.6 Ge MMCMemory and Flash4 GB DDR34 GB DDR316 GB eMMC1.6 GB eMMC1.6 GB eMMCPacket Buffer1.238MB (4.5MB lngress/7.875MB Egress)Packet Buffer1.238MB (4.5MB lngress/7.875MB Egress)Packet Buffer1.28 dbps68 GbpsModel Troughur Capacity95.2 Mpps45.1 MppsAverage Latency (LIPO-64- bytes packets)1.0 Gbps: 1.8 µSec16 GbpsWitched Virtual Interfaces1.01.024IPv4 Unicar Routes512512S12512512IPv4 Unicar Routes512512IPv4 Unicar Routes512512IPv4 Unicar Routes512512IPv4 INOR Table CAL Entries26/f 128 / 256IPv4 INOR Table CAL Entries26/f 128 / 256IPv4 INOR Table CAL Entries512IPv4 Unicar Routes512IPv4 Unicar Routes512IPv4 Unicar Routes512IPv4 Unicar Routes512IPv4 Unicar Routes	Description	1G/10G SFP ports 1x USB-C Console Port 1x USB Type-A Host	2x 1G/10G SFP ports 2x 1GbE ports Supports PoE Standards IEEE 802.3af, 802.3at		
Power suppliesFixed power supply (65W)Fixed power supply (165W) Up to 129W of Class 4 PoE PowerFansFixed fansFanlessPhysical characteristicsUmensions(H) 4.39 cm (W) 25.4 cm (D) 2012 cm (1.73" x 10.4" x 7.92")Configuration Weight2.02 kg (5.78 lbs)Additional SpecificationsCPUDual Core ARM Cortex A9 @ 1016 MhzDual Core ARM Cortex A9 @ 1016 MhzMemory and Flash4 GB DDR34 GB DBR31.6 GB eMMCAdditional SpecificationsPerformancePerformanceWodel Switching Capacity128 ObpsAds Burgess/7.875MB Egress)Ads Burgess/7.875MB EgressAds Burgess/7.875MB Egress <td <="" colspan="2" td=""><td></td><td>ροπ</td><td></td></td>	<td></td> <td>ροπ</td> <td></td>			ροπ	
Physical characteristics (H) 4.39 cm (H) 4.39 cm Dimensions (H) 4.39 cm (W) 25.5 cm (D) 20.12 cm (D) 25.5 cm (D) 25.5 cm (D) 25.5 cm (D) 25.5 cm (D) 25.5 cm (D) 25.5 cm (D) 25.5 cm Additional Specifications (D) 26.5 cm CPU Dual Core ARM Cortex A9 @ 1016 Mhz Memory and Flash 4 GB DDR3 4 GB DDR3 16 GB eMMC Packet Buffer 12.38MB (4.5MB Ingress/7.875MB Egress) Packet Buffer 12.38MB (4.5MB Ingress/7.875MB Egress) Model Throughput Capacity 95.2 Mpps Model Throughput Capacity 95.2 Mpps Average Latency (LIFO-64- 16 Gers.1 Mpps Note Table (ARP) 1.024 IPv4 Host Table (ND) 512 Stritched Virtual Interfaces 512 IPv4 Host Table (ARP) 1.024 IPv4 Host Table (ND) 512 Stritched Virtual Interfaces 512 IPv4 Host Table (ND) 512 IPv4 Host Table (ND) 512 IPv4 Host Table (ND)	Power supplies	Fixed power supply (65W)	Fixed power supply (165W)		
Dimensions (H) 4.39 cm (W) 44.2 cm (D) 20.12 cm (D) 20.12 cm (D) 20.12 cm (D) 20.5 cm (D.73" x 1.00" x 10.04") Configuration Weight 2.62 kg (5.78 lbs) 2.78 kg (6.13 lbs) Additional Specifications 2.78 kg (6.13 lbs) 2.78 kg (6.13 lbs) Additional Specifications 4.68 DDR3 4.68 DDR3 4.68 DDR3 Memory and Flash 4.68 DDR3 4.68 DDR3 1.6 GB eMMC Packet Buffer 12.38MB (4.5MB Ingress/7.875MB Egress) 12.38MB (4.5MB Ingress/7.875MB Egress) Performance		Fixed fans	Fanless		
W0 4.2 cm W0 2.5. cm (D) 20.12 cm (D) 25.5 cm (D) 25.5 cm (D) 25.5 cm (D) 25.5 cm (D) 25.5 cm (D) 25.5 cm (D) 25.5 cm (D) 25.5 cm (D) 25.5 cm (D) 25.5 cm (D) 25.5 cm Additional Specifications (D) 25.6 cm (D) 25.6 cm CPU Dual Core ARM Cortex A9 @ 1016 Mhz A G B DR3 4 G B DR3 16 GB eMMC 16 GB eMMC 16 GB eMMC Packet Buffer 12.38MB (4.5MB Ingress/7.875MB Egress) 12.38MB (4.5MB Ingress/7.875MB Egress) Performance	Physical characteristics				
Additional Specifications Unal Core ARM Cortex A9 @ 1016 Mhz Dual Core ARM Cortex A9 @ 1016 Mhz Memory and Flash 4 GB DDR3 4 GB DDR3 16 GB eMMC 12 38MB (4,5MB Ingress/7.875MB Egress) 12.38MB (4,5MB Ingress/7.875MB Egress) Packet Buffer 12 38MB (4,5MB Ingress/7.875MB Egress) 12.38MB (4,5MB Ingress/7.875MB Egress) Performance Model Switching Capacity 95.2 Mpps 68 Gbps Model Switching Capacity 95.2 Mpps 45.1 Mpps Average Latency (LIFO-64- bytes packets) 1 Gbps: 1.5 μSec, 10 Gbps: 1.8 μSec 1 Gbps: 2.3 μSec, 10 Gbps: 2.6 μSec Switched Virtual Interfaces 16 16 16 (dual stack) 10.24 1.024 1.024 IPv4 Hots Table (ARP) 1.024 1.024 1.024 IPv4 Unicast Routes 51.2 51.2 1.024 IPv4 Unicast Routes 51.2 51.2 1.024 IDe Groups 51.	Dimensions	(W) 44.2 cm (D) 20.12 cm	(W) 25.4 cm (D) 25.5 cm		
CPU Dual Core ARM Cortex A9 @ 1016 Mhz Dual Core ARM Cortex A9 @ 1016 Mhz Memory and Flash 4 GB DDR3 4 GB DDR3 16 GB eMMC 16 GB eMMC 16 GB eMMC Packet Buffer 12.38MB (4.5MB Ingress/7.875MB Egress) 12.38MB (4.5MB Ingress/7.875MB Egress) Performance	Configuration Weight	2.62 kg (5.78 lbs)	2.78 kg (6.13 lbs)		
Memory and Flash 4 GB DDR3 16 GB eMMC 4 GB DDR3 16 GB eMMC Packet Buffer 12.38MB (4.5MB Ingress/7.875MB Egress) 12.38MB (4.5MB Ingress/7.875MB Egress) Performance 128 Gbps 68 Gbps Model Switching Capacity 128 Gbps. 68 Gbps Average Latency (LIFO-64- bytes packets) 1 Gbps: 1.5 µSec , 10 Gbps: 1.8 µSec 1 Gbps: 2.3 µSec , 10 Gbps: 2.6 µSec Switched Virtual Interfaces (dual stack) 1 1 IPv4 Host Table (ARP) 1,024 1,024 IPv4 Host Table (ARP) 1,024 1,024 IPv4 Host Table (ARP) 512 512 IPv4 Unicast Routes 512 512 IPv4 Unicast Routes 512 512 IGMP Groups 512 512 IPv4 (Inciser Routes 512 512 IPv4 (Inciser Capacity 8192 512 IPv4 (Inciser Capacity 512 512 IPv4 (Inciser Capacity	Additional Specifications				
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Sound Pressure, LpAm (Bystander) =Sound Pressure, LpAm (Bystander) = 0 dB20.9 dB20.9 dB	Max Non-Operating Altitude				
	Acoustic	Sound Pressure, LpAm (Bystander) =			
	Primary Airflow	Side-to-side	-		

	Aruba 6100 24G 4SFP+ Switch (JL678A)	Aruba 6100 12G Class4 PoE 2G/2SFP+ 139W Switch (JL679A)		
Electrical Characteristics				
Frequency	50 / 60 Hz	50 / 60 Hz		
AC Voltage	100-127 VAC / 200-240 VAC	100-127 VAC / 200-240 VAC		
Current	0.6 A / 0.4 A	1.8 A / 0.9 A		
Power Consumption (230	Idle: 15.4W	Idle: 16W		
VAC)	Max Power (w/o PoE): 33W	Max Power (w/o PoE): 21.9W Max Power (w/ PoE): 170W		
Safety	IEC / EN 62368-1: 2014	IEC / EN 62368-1: 2014		
	IEC / EN 62368-1: 2018	IEC / EN 62368-1: 2018		
	UL 62368-1: 2014, 2nd Ed.,	UL 62368-1: 2014, 2nd Ed.,		
	CSA C22.2 No. 62368-1:14, 2nd Ed.	CSA C22.2 No. 62368-1:14, 2nd Ed.		
Emissions	VCCI-CISPR 32, Class A	VCCI-CISPR 32, Class A		
	CNS 15936, Class A	CNS 15936, Class A		
	FCC CFR 47 Part 15, Class A;	FCC CFR 47 Part 15, Class A;		
	EN 55032:2015 / A11:2020 / CISPR-32, Class	EN 55032:2015 / A11:2020 / CISPR-32, Class		
	A	A		
	ICES-003 Issue 7: 2020, Class A	ICES-003 Issue 7: 2020, Class A		
	AS/NZS CISPR 32: 2015, Class A	AS/NZS CISPR 32: 2015, Class A		
Lasers	IEC / EN 60825-1:2014, Class 1	IEC / EN 60825-1:2014, Class 1		
	Class 1 Laser Products / Laser Klasse 1	Class 1 Laser Products / Laser Klasse 1		
	(Applicable for accessories - Optical	(Applicable for accessories - Optical		
	Transceivers only)	Transceivers only)		
Immunity				
Generic	CISPR 35: 2016	CISPR 35: 2016		
EN	EN 55035:2017 / A11:2020	EN 55035:2017 / A11:2020		
ESD	IEC 61000-4-2	IEC 61000-4-2		
Radiated	IEC 61000-4-3	IEC 61000-4-3		
EFT/Burst	IEC 61000-4-4	IEC 61000-4-4		
Surge	IEC 61000-4-5	IEC 61000-4-5		
Conducted	IEC 61000-4-6	IEC 61000-4-6		
Power frequency magnetic field	IEC 61000-4-8	IEC 61000-4-8		
Voltage dips and interruptions	IEC 61000-4-11	IEC 61000-4-11		
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2		
Flicker	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3		
Mounting and Enclosure				
-	Mounts in an EIA-standard 19-inch telco rack	Mounts in an EIA-standard 19-inch telco rack		
	or equipment cabinet (rack-mounting kit	or equipment cabinet (rack-mounting kit		
	included); horizontal surface mounting; wall	included); horizontal surface mounting; wall		
	mounting.	mounting; Kensington Security Slot		

Aruba 6100 48G CL4 4SI	FP+ 740W Sw (R9Y04A)				
Specifications					
Description	48x ports 10/100/1000BASE-T Class 4 PoE Ports Supports PoE Standards IEEE 802.3af, 802.3at 4x 1/10G SFP Ports 1x USB-C console port 1x USB Type-A Host port				
Power supplies	Fixed power supply (950 W)				
Fans	Fixed fans				
Physical characteristics					
Dimensions	 (H) 4.39 cm x (W) 44.25 cm x (D) 32.42 cm (1.73" x 17.42" x 12.77") 				
Configuration Weight	4.7 kg (10.36 lbs)				
Additional Specifications					
CPU	Dual Core ARM CortexTM A9 @ 1016 MHz				
Memory and Flash	4 GB DDR3 16GB eMMC 128 MB Flash ROM				
Packet Buffer	12.38MB and 4.5MB Ingress/7.875MB Egress				
Performance					
Model Switching Capacity	176 Gbps				
Model Throughput Capacity	98.6 Mpps				
Average Latency (LIFO-64-	1Gbps: 1.9 μs				
bytes packets)	10Gbps: 1.8 µs				
Switched Virtual Interfaces (dual stack)	16				
IPv4 Host Table (ARP)	1,024				
IPv6 Host Table (ND)	512				
IPv4 Unicast Routes	512				
IPv6 Unicast Routes	512				
MAC Table Capacity	8,192				
IGMP Groups	512				
MLD Groups	512				
IPv4/IPv6/MAC ACL Entries (ingress)	256/128/256				
Environment					
Operating Temperature	32°F to 113°F (0°C to 45°C) up to 5000 ft derate -1°C for every 1000 ft from 5000 ft to 10000 ft				
Operating Relative Humidity	5% to 95% at 104°F (40°C) non-condensing				
Non-Operating	-40°F to 158°F (-40°C to 70°C) up to 15000 ft				
Non-Operating Storage	5% to 90% @ 149°F (65°C) non-condensing				
Relative Humidity					
Max Operating Altitude	10000 feet (3 km) Max				
Max Non-Operating Altitude	15000 feet (4.6 km) Max				
Acoustic	Sound Power, LWAd = 4.95 Bel Sound Pressure, LpAm (Bystander) = 35.91 dB				
Primary Airflow	Side-to-side				

Electrical Characteristics			
Frequency	50 / 60 Hz		
AC Voltage	100-127 VAC / 200-240 VAC		
Current	9.2 A / 4.9 A		
Power Consumption	Idle: 37.5W		
(230 VAC)	Max Power (w/o PoE): 49.7W		
	Max Power (w/ PoE): 890W		
Safety	IEC / EN 62368-1: 2014		
	IEC / EN 62368-1: 2018		
	UL 62368-1: 2014, 2nd Ed.,		
	CSA C22.2 No. 62368-1:14, 2nd Ed.,		
Emissions	VCCI-CISPR 32, Class A		
	CNS 15936, Class A		
	FCC CFR 47 Part 15, Class A;		
	EN 55032:2015 / A11:2020 / CISPR-32, Class A		
	ICES-003 Issue 7: 2020, Class A AS/NZS CISPR 32: 2015, Class A		
1	,		
Lasers	IEC / EN 60825-1:2014, Class 1 Class 1 Laser Products / Laser Klasse 1		
	(Applicable for accessories - Optical Transceivers only)		
Immunity			
Generic	CISPR 35: 2016		
EN	EN 55035:2017 / A11:2020		
ESD	IEC 61000-4-2		
Radiated	IEC 61000-4-3		
EFT/Burst	IEC 61000-4-4		
Surge	IEC 61000-4-5		
Conducted	IEC 61000-4-6		
Power frequency magnetic	IEC 61000-4-8		
field			
Voltage dips and	IEC 61000-4-11		
interruptions			
Harmonics	IEC / EN 61000-3-2		
Flicker	IEC / EN 61000-3-3		
Mounting and Enclosure	Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit		
-	available); horizontal surface mounting; wall mounting		

Technical Specifications

Standards And Protocols (Applies to all products in series)

- RFC 1591 DNS (client)
- SSHv1/SSHv2 Secure Shell
- IEEE 802.1D MAC Bridges
- IEEE 802.1p Priority
- IEEE 802.1Q VLANs
- IEEE 802.1s Multiple Spanning Trees
- IEEE 802.1w Rapid Reconfiguration of Spanning Tree
- IEEE 802.3 Type 10BASE-T
- IEEE 802.3ab 1000BASE-T
- IEEE 802.3ad Link Aggregation Control Protocol (LACP)
- IEEE 802.3at Power over Ethernet
- IEEE 802.3az Energy Efficient Ethernet
- IEEE 802.3x Flow Control
- RFC 768 UDP
- RFC 783 TFTP Protocol (revision 2)
- RFC 792 ICMP
- RFC 793 TCP
- RFC 826 ARP
- RFC 1350 TFTP Protocol (revision 2)
- RFC 2131 DHCP client
- RFC 4330 Simple Network Time Protocol (SNTP) v4
- RFC 951 BOOTP (VLAN 1 Only)
- RFC 1542 BOOTP Extensions (VLAN 1 only)
- IGMPv2/IGMPv3
- IGMP/MLD Snooping
- RFC 8201 Path MTU Discovery for IPv6
- RFC 2460 IPv6 Specification
- RFC 2925 Remote Operations MIB (Ping only)
- RFC 3315 DHCPv6 (client only)
- RFC 3513 IPv6 Addressing Architecture
- RFC 3596 DNS Extension for IPv6
- RFC 3176 sFlow
- RFC 4022 MIB for TCP
- RFC 4113 MIB for UDP (Partially)
- RFC 4251 SSHv6 Architecture
- RFC 4252 SSHv6 Authentication
- RFC 4253 SSHv6 Transport Layer
- RFC 4254 SSHv6 Connection
- RFC 4293 MIB for IP
- RFC 4419 Key Exchange for SSH
- RFC 4443 ICMPv6
- RFC 4861 IPv6 Neighbor Discovery
- RFC 4862 IPv6 Stateless Address Auto-configuration
- RFC 1213 MIB
- RFC 1493 Bridge MIB
- RFC 2674 802.1p and IEEE 802.1Q Bridge MIB (Partial support. MIB objects supported: ieee8021BridgeBasePort, ieee8021BridgeBasePort, ieee8021BridgePortMrpJoinTime, ieee8021BridgePortMrpLeaveTime, ieee8021BridgePortMrpLeaveAllTime)
- RFC 2737 Entity MIB

Technical Specifications

- RFC 2863 The Interfaces Group MIB
- IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
- RFC 1098 A Simple Network Management Protocol (SNMP)
- ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)
- SNMPv1/v2c/v3
- RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events)
- RFC 1098 A Simple Network Management Protocol (SNMP)
- RFC 2474 DiffServ precedence, with 2/4/8 queues per port
- RFC 2475 DiffServ Architecture
- RFC 2597 DiffServ Assured Forwarding (AF)
- RFC 2598 DiffServ Expedited Forwarding (EF)
- IEEE 802.1X Port Based Network Access Control
- RFC 1492 TACACS+

- RFC 2138 RADIUS Authentication
- RFC 2866 RADIUS Accounting
- Secure Sockets Layer (SSL)

Summary of Changes

Date	Version History	Action	Description of Change
15-May-2023	Version 16	Changed	Configuration Information section was updated.
01-May-2023	Version 15	Changed	Overview, Standard Features, Configuration Information, and Technical Specifications sections were updated.
13-Mar-2023	Version 14	Changed	Configuration Information section was updated.
06-Feb-2023	Version 13	Changed	Configuration Information section was updated.
05-Dec-2022	Version 12	Changed	Configuration Information section was updated.
07-Nov-2022	Version 11	Changed	Standard Features and Technical Specifications sections were updated.
06-Jun-2022	Version 10	Changed	Standard Features and Configuration Information sections were updated.
07-Feb-2022	Version 9	Changed	Configuration Information section was updated, new SKUs were added.
06-Dec-2021	Version 8	Changed	Standard Features section was updated.
01-Nov-2021	Version 7	Changed	Standard Features section was updated.
04-Oct-2021	Version 6	Changed	Configuration Information section was updated.
07-Sep-2021	Version 5	Changed	Configuration Information section was updated.
09-Aug-2021	Version 4	Changed	Technical Specifications section was updated
07-Jun-2021	Version 3	Changed	Overview, Standard Features, and Configuration Information sections were updated.
06-Apr-2021	Version 2	Changed	Standard Features section was updated.
04-Jan-2021	Version 1	New	New QuickSpecs

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