

J9728A Datasheet

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Overview

Aruba 2920 Switch Series provides security, scalability, and ease of use for enterprise edge, SMB and branch office networks. These energy efficient basic Layer 3 switches are easy to deploy and manage with advanced security and network management tools like Aruba ClearPass Policy Manager, Aruba AirWave and cloud-based Aruba Central. The 2920 supports modular stacking (4 chassis), redundant power, 10GbE, RIP and Access OSPF routing, Tunneled node, PoE+, ACLs, sFlow, robust QoS and IPv6. It is optimized for Software-defined Networking (SDN) with OpenFlow support. This J9728A has 48 x 10/100/1000 ports including four that are combo dual purpose shared with SFP ports for fiber connectivity. Units also each have two available port module slots, a stacking module slot, and an available redundant power supply slot.

Quick Spec

Figure 1 shows the appearance of HPE Aruba J9728A.

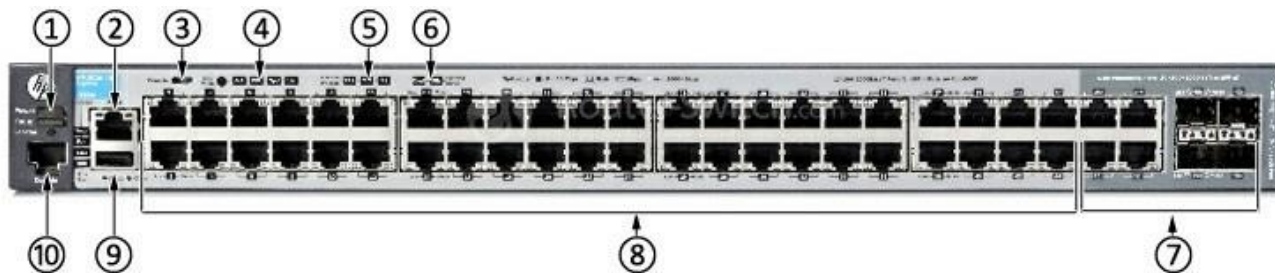


Table 1 shows the quick spec.

Product Code	J9728A
Type	Aruba 2920 48G Switch
Ports	· 44 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only · 4 RJ-45 dual-personality 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) · 2 module slots · 1 stacking module slot · 1 dual-personality (RJ-45 or USB micro-B) · 1 USB 1.1 · 1 RJ-45 out-of-band management port
Throughput	130.9 million pps
Switching capacity	176 Gb/s
Dimensions	4.45 x 44.25 x 33.6 cm (1.75 x 17.42 x 13.23 in)

Product Details

Figure 2 shows the front panel of HPE Aruba J9728A.



Note:

(1)	Power, Fault, and Locator LEDs
(2)	Out-of-Band Management port
(3)	Console ports
(4)	LED Mode button and Indicator LEDs
(5)	Status LEDs for components on the back of the switch
(6)	Stacking status LEDs
(7)	Dual-Personality (10/100/1000BASE-T RJ-45 or SFP) ports
(8)	10/100/1000BASE-T RJ-45 ports
(9)	Aux port
(10)	Console ports

Figure 3 shows the back panel of HPE Aruba J9728A.



Note:

(1)	Grounding lug mounting hole
(2)	10G Expansion Module slots
(3)	Stacking Module slot
(4)	XPS Connector

(5)	Power Supply and AC power connector
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Compare to Similar Items

Table 2 shows the comparison.

Product Code	J9726A	J9727A	J9728A	J9729A	J9836A
Type	Aruba 2920 24G Switch	Aruba 2920 24G POE+ Switch	Aruba 2920 48G Switch	Aruba 2920 48G POE+ Switch	Aruba 2920-48G-POE+ 740W Switch
Ports	· 20 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only · 4 RJ-45 dual-personality 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) · 2 module slots · 1 stacking module slot · 1 dual-personality (RJ-45 or USB micro-B) · 1 USB 1.1 · 1 RJ-45 out-of-band management port	· 20 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only · 4 RJ-45 dual-personality 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+) · 2 module slots · 1 stacking module slot · 1 dual-personality (RJ-45 or USB micro-B) · 1 USB 1.1 · 1 RJ-45 out-of-band management port	· 44 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only · 4 RJ-45 dual-personality 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) · 2 module slots · 1 stacking module slot · 1 dual-personality (RJ-45 or USB micro-B) · 1 USB 1.1 · 1 RJ-45 out-of-band management port	· 44 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only · 4 RJ-45 dual-personality 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+) · 2 module slots · 1 stacking module slot · 1 dual-personality (RJ-45 or USB micro-B) · 1 USB 1.1 · 1 RJ-45 out-of-band management port	· 44 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+);Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only · 4 RJ-45 dual-personality 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+) · 2 module slots · 1 stacking module slot · 1 dual-personality (RJ-45 or USB micro-B) · 1 USB 1.1 · 1 RJ-45 out-of-band management port
Throughput	95.2 million pps	95.2 million pps	130.9 million pps	130.9 million pps	130.9 million pps
Switching capacity	28 Gb/s	128 Gb/s	176 Gb/s	176 Gb/s	176 Gb/s
PoE Available Power	-	370 W	-	370 W	740 W

Specification

J9728A Specifications	
Type	Aruba 2920 48G Switch
Physical specifications	
Dimensions (H x W x D)	4.45 x 44.25 x 33.6 cm (1.75 x 17.42 x 13.23 in)
Environmental specifications	
Operating temperature	0° to 55°C (32° to 131°F)
Operating relative humidity	15% to 95%, non condensing

Non-operating/Storage temperature	-40° to 70°C (-40° to 158°F)
Non-operating/Storage relative humidity	15% to 95%, non condensing
Altitude	up to 3 km (10,000 ft)
Acoustic	Power: 57 dB Pressure: 41.8 dB
Electrical specifications	
Frequency	50/60 Hz
80plus.org Certification	Silver
Maximum heat dissipation	252.15 kJ/hr (239 BTU/hr)
Voltage	100 to 240 V ac
Maximum power rating	70 W
Idle power	27 W
PoE power	-
Technical specifications	
Ports	· 44 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only · 4 RJ-45 dual-personality 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) · 2 module slots · 1 stacking module slot · 1 dual-personality (RJ-45 or USB micro-B) · 1 USB 1.1 · 1 RJ-45 out-of-band management port
Power supplies	1 power supply slot 1 minimum power supply required Includes: 1 x J9739A (HP X331 165W 100-240VAC to 12VDC Modular Power Supply)
Memory and processor	Tri Core ARM1176 at 625 MHz 512MB SDRAM 1GB flash MB packet buffer size: 11.25MB (6.75MB dynamic egress + 4.5MB ingress)
Performance	100 Mb Latency: < 9.0 µs (FIFO 64-byte packets) 1000 Mb Latency: < 3.3 µs (FIFO 64-byte packets) 10 Gbps Latency: < 3.2 µs (FIFO 64-byte packets) Throughput: 130.9 million pps Switching capacity: 176 Gb/s Routing table size: 2048 entries (IPv4), 256 entries (IPv6) MAC address table size: 16000 entries
Safety certifications	
Safety	CE Labeled EN 60825-1 Safety of Laser Products-Part 1 FCC Part 15, Subpart B GOST EU RoHS Compliant; EN 55022 Class A EN 55024: 1998 C-Tick; ICES-003, Class A VCCI Class A IEC 60825-1 IEC 60950-1, Second Edition EN62479:2010 CSA C22.2 No. 60950-1-07 2nd Edition EN 60950-1:2006+A11:2009+A1:2010+A12:2011 IEC 60950-1 (ed.2): am1

Emissions	FCC part 15 Class A VCCI Class A EN 55022/CISPR 22 Class A
Immunity	EN: EN 55024, CISPR 24 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 field: IEC 61000-4-8 Voltage dips and interruptions: IEC 61000-4-11 Harmonics: IEC 61000-3-2 Flicker: IEC 61000-3-3
Management	HP PCM+ IMC - Intelligent Management Center command-line interface Web browser configuration menu out-of-band management (RJ-45 Ethernet) SNMP Manager Telnet RMON1 FTP in-line and out-of-band out-of-band management (serial RS-232C or Micro USB)
Standards and protocols	
Denial of service protection	CPU DoS Protection
Device management	RFC 1155 Structure and Mgmt Information (SMIv1) RFC 1157 SNMPv1/v2c RFC 1591 DNS (client) RFC 1901 (Community based SNMPv2) RFC 1901-1907 SNMPv2c, SMIv2 and Revised MIB-II RFC 1908 (SNMP v1/2 Coexistence) RFC 2578-2580 SMIv2 RFC 2579 (SMIv2 Text Conventions) RFC 2580 (SMIv2 Conformance) RFC 2819 (RMON groups Alarm, Event, History and Statistics only) RFC 3416 (SNMP Protocol Operations v2) RFC 3417 (SNMP Transport Mappings) HTML and telnet management HTTP, SSHv1, and Telnet Multiple Configuration Files Multiple Software Images SNMP v3 and RMON RFC support SSHv1/SSHv2 Secure Shell TACACS/TACACS+ Web UI

General protocols	IEEE 802.1AX-2008 Link Aggregation IEEE 802.1D MAC Bridges IEEE 802.1p Priority IEEE 802.1Q VLANs IEEE 802.1s Multiple Spanning Trees IEEE 802.1v VLAN classification by Protocol and Port IEEE 802.1w Rapid Reconfiguration of Spanning Tree IEEE 802.3ab 1000BASE-T IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.3af Power over Ethernet IEEE 802.3at PoE+ 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 854 TELNET RFC 868 Time Protocol RFC 951 BOOTP RFC 1058 RIPv1 RFC 1256 ICMP Router Discovery Protocol (IRDP) RFC 1350 TFTP Protocol (revision 2) RFC 1519 CIDR RFC 1542 BOOTP Extensions RFC 2030 Simple Network Time Protocol (SNTP) v4 RFC 2131 DHCP RFC 2236 IGMP Snooping RFC 2453 RIPv2 RFC 2865 Remote Authentication Dial In User Service (RADIUS) RFC 2866 RADIUS Accounting RFC 3046 DHCP Relay Agent Information Option RFC 3411 An Architecture for Describing Simple Network Management Protocol (SNMP) Management Frameworks RFC 3412 Message Processing and Dispatching for the Simple Network Management Protocol (SNMP) RFC 3413 Simple Network Management Protocol (SNMP) Applications RFC 3414 User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3) RFC 3415 View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP) RFC 3416 Protocol Operations for SNMP RFC 3417 Transport Mappings for the Simple Network Management Protocol (SNMP) RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP) RFC 3576 Ext to RADIUS (CoA only) RFC 4541 Considerations for Internet Group Management Protocol (IGMP) and Multicast Listener Discovery (MLD) Snooping Switches RFC 4675 RADIUS VLAN & Priority RFC 4861 Neighbor Discovery for IP version 6 (IPv6) RFC 4862 IPv6 Stateless Address Auto configuration UDLD (Uni-directional Link Detection)
IP multicast	RFC 1112 IGMP RFC 2236 IGMPv2 RFC 2710 Multicast Listener Discovery (MLD) for IPv6 RFC 3376 IGMPv3 (host joins only) RFC 4541 Considerations for Internet Group Management Protocol (IGMP) and Multicast Listener Discovery (MLD) Snooping Switches
IPv6	RFC 1981 IPv6 Path MTU Discovery RFC 2460 IPv6 Specification RFC 2710 Multicast Listener Discovery (MLD) for IPv6 RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations (Ping only) RFC 2925 Remote Operations MIB (Ping only) RFC 3019 MLDv1 MIB RFC 3315 DHCPv6 (client and relay) RFC 3513 IPv6 Addressing Architecture RFC 3596 DNS Extension for IPv6 RFC 3810 MLDv2 (host joins only) RFC 4022 MIB for TCP RFC 4113 MIB for UDP 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 4541 IGMP & MLD Snooping Switch RFC 4861 IPv6 Neighbor Discovery RFC 4862 IPv6 Stateless Address Auto-configuration

MIBs	IEEE 802.1ap (MSTP and STP MIB's only) RFC 1156 (TCP/IP MIB) RFC 1157 A Simple Network Management Protocol (SNMP) RFC 1213 MIB II RFC 1493 Bridge MIB RFC 1724 RIPv2 MIB RFC 2021 RMONv2 MIB RFC 2578 Structure of Management Information Version 2 (SMIv2) RFC 2579 Textual Conventions for SMIv2 RFC 2580 Conformance Statements for SMIv2 RFC 2613 SMON MIB RFC 2618 RADIUS Client MIB RFC 2620 RADIUS Accounting MIB RFC 2665 Ethernet-Like-MIB RFC 2668 802.3 MAU MIB RFC 2674 802.1p and IEEE 802.1Q Bridge MIB RFC 2737 Entity MIB (Version 2) RFC 2819 RMON MIB RFC 2863 The Interfaces Group MIB RFC 2925 Ping MIB RFC 2933 IGMP MIB RFC 3414 SNMP-User based-SM MIB RFC 3415 SNMP-View based-ACM MIB RFC 3417 Simple Network Management Protocol (SNMP) over IEEE 802 Networks RFC 3418 MIB for SNMPv3
Network management	IEEE 802.1AB Link Layer Discovery Protocol (LLDP) RFC 1155 Structure of Management Information RFC 1157 SNMPv1 RFC 2021 Remote Network Monitoring Management Information Base Version 2 using SMIv2 RFC 2576 Coexistence between SNMP versions RFC 2578 Structure of Management Information Version2 (SMIv2) RFC 2579 Textual Conventions for SMIv2 RFC 2580 Conformance Statements for SMIv2 RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events) RFC 2819 Remote Network Monitoring Management Information Base RFC 2856 Textual Conventions for Additional High Capacity Data Types RFC 2925 Definitions of Managed Objects for Remote Ping, Trace route, and Lookup Operations RFC 3164 BSD sys log Protocol RFC 3176 sFlow RFC 3411 SNMP Management Frameworks RFC 3412 SNMPv3 Message Processing RFC 3414 SNMPv3 User-based Security Model (USM) RFC 3415 SNMPv3 View-based Access Control Model VACM)ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)SNMPv1/v2c/v3 XRMON
QoS/CoS	IEEE 802.1P (CoS) RFC 2474 DiffServ Precedence, including 8 queues/port RFC 2597 DiffServ Assured Forwarding (AF) RFC 2598 DiffServ Expedited Forwarding (EF) Ingress Rate Limiting

Security	IEEE 802.1X Port Based Network Access Control IEEE 802.1X:Port-Based Network Access Control (2001) RFC 1321 The MD5 Message-Digest Algorithm RFC 1334 PPP Authentication Protocols (PAP) RFC 1492 An Access Control Protocol, Sometimes Called TACACS RFC 1492 TACACS+ RFC 1994 PPP Challenge Handshake Authentication Protocol (CHAP) RFC 2082 RIP-2 MD5 Authentication RFC 2104 Keyed-Hashing for Message Authentication RFC 2138 RADIUS Authentication RFC 2139 RADIUS Accounting RFC 2246 Transport Layer Security (TLS) RFC 2548 Microsoft Vendor-specific RADIUS Attributes RFC 2618 RADIUS Authentication Client MIB RFC 2620 RADIUS Accounting Client MIB RFC 2716 PPP EAP TLS Authentication Protocol RFC 2818 HTTP Over TLS RFC 2865 RADIUS (client only) RFC 2865 RADIUS Authentication RFC 2866 RADIUS Accounting RFC 2867 RADIUS Accounting Modifications for Tunnel Protocol Support RFC 2868 RADIUS Attributes for Tunnel Protocol Support RFC 2869 RADIUS Extensions RFC 2882 NAS Requirements: Extended RADIUS Practices RFC 3162 RADIUS and IPv6 RFC 3576 Dynamic Authorization Extensions to RADIUS RFC 3579 RADIUS Support For Extensible Authentication Protocol (EAP) RFC 3580 IEEE 802.1X Remote Authentication Dial In User Service (RADIUS) Usage Guidelines RFC 4576 RADIUS Attributes Access Control Lists (ACLs) draft-grant-tacacs-02 (TACACS) Guest VLAN for 802.1x MAC Authentication MAC Lockdown MAC Lockout Port Security Secure Sockets Layer (SSL) SSHv2 Secure Shell Web Authentication
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