

Specifications*	Description
<p>*Note: Many specifications are programmable within a defined range or list of options. Please see the Cisco SPA100 Series Administration Guide for details. The configuration profile is uploaded to the Cisco SPA122 at the time of provisioning.</p>	
<p>Data networking</p>	<p>MAC address (IEEE 802.3) IPv4 (RFC 791) upgradeable to IPv6 (RFC 1883) Address Resolution Protocol (ARP) Domain Name System (DNS) A record (RFC 1706) and SRV record (RFC 2782) Dynamic Host Configuration Protocol (DHCP) server and client (RFC 2131) DHCP client reservation DHCP Options 159 and 160 Point-to-Point Protocol over Ethernet (PPoE) client (RFC 2516) Internet Control Message Protocol (ICMP) (RFC 792) TCP (RFC 793) User Datagram Protocol (UDP) (RFC 768) Real Time Protocol (RTP) (RFC 1889) (RFC 1890) Real Time Control Protocol (RTCP) (RFC 1889) Differentiated Services (DiffServ) (RFC 2475) and type of service (ToS) (RFC 791/1349) VLAN tagging (IEEE 802.1p) Simple Network Time Protocol (SNTP) (RFC 2030) Upload data rate limiting: static and automatic QoS voice packet prioritization over other packet types MAC address cloning Port forwarding SIP channels support both UDP and TCP transport VPN pass-through with IP Security encapsulating security payload (IPsec ESP), Point-to-Point Tunneling Protocol (PPTP), and Layer 2 Tunneling Protocol (L2TP)</p>
<p>Voice gateway</p>	<p>SIPv2 (RFC 3261, 3262, 3263, and 3264) SIP proxy redundancy: dynamic through use of DNS SRV A records Reregistration with primary SIP proxy server</p>

Specifications*	Description
	<p>SIP support in Network Address Translation (NAT) networks (including Serial Tunnel [STUN])</p> <p>Highly secure (encrypted) calling using Secure RTP (SRTP)</p> <p>Codec name assignment</p> <p>G.711 (A-law and μ-law)</p> <p>G.726 (32 kbps)</p> <p>G.729 A</p> <p>Dynamic payload</p> <p>Adjustable audio frames per packet</p> <p>Dual-tone multifrequency (DTMF): in-band and out-of-band (RFC 2833) (SIP information)</p>
<p>Voice features</p>	<p>QoS (Ethernet port upstream bandwidth control)</p> <p>Independent configurable dial plans with interdigit timers and IP dialing (1 per port)</p> <p>Call progress tone generation</p> <p>Jitter buffer: Adaptive</p> <p>Frame loss concealment</p> <p>Full-duplex audio</p> <p>Echo cancellation (G.165 and G.168)</p> <p>Voice activity detection (VAD)</p> <p>Silence suppression</p> <p>Comfort noise generation (CNG)</p> <p>Attenuation and gain adjustments</p> <p>Flash hook timer</p> <p>Message waiting indicator (MWI) tones</p> <p>Visual messaging waiting indicator (VMWI) using frequency shift keying (FSK)</p> <p>Polarity control</p> <p>Hook flash event signaling</p> <p>Caller ID generation (name and number): Bellcore, DTMF, and European Telecommunications Standards Institute (ETSI)</p> <p>Streaming audio server: Up to 4 sessions</p> <p>Music on hold</p> <p>Call waiting, call waiting and caller ID</p> <p>Caller ID with name and number</p> <p>Caller ID blocking</p>

Specifications*	Description
	<p>Selective and anonymous call rejection</p> <p>Call forwarding: No answer, busy, and all</p> <p>Do not disturb</p> <p>Call transfer, call return, and call back on busy</p> <p>Three-way conference calling with local mixing</p> <p>Per-call authentication and associated routing</p> <p>Call blocking with toll restriction</p> <p>Distinctive ringing: Calling and called number</p> <p>Off-hook warning tone</p> <p>Advanced inbound and outbound call routing</p> <p>Hotline and warmline calling</p> <p>Long silence (configurable time setting) silence threshold</p> <p>Disconnect tone (for example, reorder tone)</p> <p>Configurable ring frequency</p> <p>Ring validation time setting</p> <p>Tip and ring voltage adjustment setting</p> <p>Ring indication delay setting</p>
<p>Fax capability</p>	<p>Fax tone detection pass-through</p> <p>Fax pass-through using G.711</p> <p>Real-time fax over IP using T.38 fax relay (T.38 support is dependent on fax machine and network and transport resilience)</p>
<p>Security</p>	<p>Password-protected system reset to factory default</p> <p>Password-protected administrator and user access authority</p> <p>Provisioning, configuration, and authentication</p> <p>HTTPS with factory-installed client certificate</p> <p>HTTP digest: Encrypted authentication using MD5 (RFC 1321)</p> <p>Up to 256-bit Advanced Encryption Standard (AES) encryption</p> <p>SIP Transport Layer Security (TLS)</p>
<p>Provisioning, administration, and maintenance</p>	<p>Web browser administration and configuration using integral web server</p> <p>Telephone keypad configuration with interactive voice prompts</p> <p>Automated provisioning and upgrade using HTTPS, HTTP, and Trivial File Transfer Protocol (TFTP)</p> <p>TR-069</p>

Specifications*	Description
	<p>Asynchronous notification of upgrade availability using Notify</p> <p>Nonintrusive, in-service upgrades</p> <p>Report generation and event logging</p> <p>Statistics in Bye message</p> <p>Debug and syslog server records: Per-line configurable web browser</p> <p>Ping and traceroute diagnostics</p> <p>Configuration management: Backup and restore</p> <p>Support for Bonjour</p>
Physical interfaces	<p>1 WAN 100BASE-T RJ-45 Ethernet Port (IEEE 802.3)</p> <p>1 LAN 100BASE-T RJ-45 Ethernet Port (IEEE 802.3)</p> <p>2 RJ-11 FXS phone ports for analog circuit telephone device (tip and ring)</p> <p>Reset button</p>
Subscriber line interface circuit (SLIC)	<p>Ring voltage: 40–90 Vpk configurable</p> <p>Ring frequency: 20–25 Hz</p> <p>Ring waveform: Trapezoidal</p> <p>Maximum ringer load: 5 ringer equivalence numbers (RENs)</p> <p>On-hook voltage (tip and ring): –46 to –56V</p> <p>Off-hook current: 18–25 mA</p> <p>Terminating impedance: 600 ohm resistive or 270 ohm + 750 ohm</p> <p>150 nF complex impedance</p> <p>Frequency response: 300–3400 Hz</p> <p>Return loss (600 ohm, 300–3400 Hz): up to 20 dB</p> <p>Insertion loss (1 Vrms at 1 kHz): 3–4 dB</p> <p>Total harmonic distortion (THD) (350 mV peak at 300 Hz): up to 3%</p> <p>Idle channel noise: 72 dB (typical)</p> <p>Longitudinal balance: 55 dB (typical)</p> <p>Off-hook threshold (line seizure): $R_{dc} < 1000$ ohm</p> <p>On-hook threshold (line release): $R_{dc} > 10000$ ohm</p> <p>R_{dc} DC supervisory range: $R_{dc} > 450$ ohm</p>

Specifications*	Description
Regulatory compliance	FCC (Part 15 Class B), CE, ICES-003, A-Tick certification, Restriction of Hazardous Substances (RoHS), and UL
Power supply	DC input voltage: 5V DC at 2.0A maximum Power consumption: 5W Switching type (100–240V) automatic Power adapter: 100–240V and 50–60 Hz (26–34 VA) AC input, with 1.8m cord
Indicator lights and LEDs	Phone 1, phone 2, Internet, and power
Documentation	Quick Start Guide Administration Guide (available online) Provisioning Guide (available online)
Environmental	
Dimensions (W x H x D)	3.98 x 3.98 x 1.10 in. (101 x 101 x 28 mm)
Unit weight	5.40 oz (153g)
Operating temperature	32 to 113°F (0 to 45°C)
Storage temperature	–77 to 158°F (–25 to 70°C)
Operating humidity	10 to 90% noncondensing
Storage humidity	10 to 90% noncondensing
Package Contents	Cisco SPA122 ATA with Router 5V/2A power adapter 6-ft (1.83m) Ethernet cable Quick Start Guide CD with documentation, including license and warranty