

Cisco SPA112 2 Port Phone Adapter



The Cisco SPA112 2 Port Adapter

(Figures 1 and 2):

- Enables high-quality VoIP service with a comprehensive feature set through a broadband Internet connection
- Provides high-quality, clear-sounding voice, using advanced voice quality-of-service (QoS) capabilities and the industry-leading voice Session Initiation Protocol (SIP) stack
- Supports reliable faxing with simultaneous voice and data use
- Includes two standard telephone ports, each with an independent phone number, for use with fax machines or analog phone devices
- Is compatible with all industry voice and data standards and common telephone features such as caller ID, call waiting, and voicemail
- Includes a simple-to-use web-based configuration utility for easy deployment

Affordable and Feature-Rich Voice over IP (VoIP)

Highlights

Eliminate compromise on voice quality or features for phone and fax capabilities associated with Internet voice over IP (VoIP) service. Cisco® VoIP solutions provide the quality, peace of mind, and investment protection at an affordable price.

Product Overview

The Cisco SPA112 2 Port Adapter enables high-quality VoIP service with a comprehensive feature set through a broadband Internet connection. Easy to install and use, it works over an IP network to connect analog phones and fax machines to a VoIP service provider and provides support for additional LAN connections.

The Cisco SPA112 includes two standard telephone ports to connect existing analog phones or fax machines to a VoIP service provider. Each phone line can be configured independently. With the Cisco SPA112, users can protect and extend their investment in their existing analog telephones, conference speakerphones, and fax machines as well as control their migration to IP voice with an extremely affordable, reliable solution.

Compact in design and compatible with international voice and data standards, the Cisco SPA112 can be used with residential, home-office, and small business VoIP service offerings, including full-featured hosted or open source IP PBX environments. This easy-to-use solution delivers advanced features to better connect employees and serve customers, all on a highly secure Cisco network conference room.

**For Assistance, Call:
1-866-978-8260**

net2phone

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Product specifications*

Data networking

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) client (RFC 2131)
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)
VLAN tagging (IEEE 802.1p)
Simple Network Time Protocol (SNTP) (RFC 2030)
SIP channels support for both UDP and TCP transport

Voice gateway

SIPV2 (RFC 3261, 3262, 3263, and 3264)
SIP proxy redundancy: Dynamic through use of DNS SRV A records
Reregistration with primary SIP proxy server
SIP support in network address translation (NAT) networks (including Serial Tunnel [STUN])
Highly secure (encrypted) calling using Secure RTP (SRTP)
Codec name assignment
G.711 (A-law and μ -law)
G.726 (32 kbps)
G.729 A
Dynamic payload
Adjustable audio frames per packet
Dual-tone multifrequency (DTMF): In-band and out-of-band (RFC 2833) (SIP information)

Fax capability

Fax tone detection pass-through
Fax pass-through using G.711
Real-time fax over IP using T.38 fax relay (T.38 support is dependent on fax machine and network and transport resilience)

Security

Password-protected system reset to factory default
Password-protected administrator and user access authority
Provisioning, configuration, and authentication HTTPS with factory-installed client certificate
HTTP digest: Encrypted authentication using MD5 (RFC 1321)
Up to 256-bit Advanced Encryption Standard (AES) encryption
SIP Transport Layer Security (TLS)

Indicator lights and LEDs

Phone 1, phone 2, Internet, and power

Documentation

Quick Start Guide
Administration Guide (available online)
Provisioning Guide (available online)

Voice features

Independent configurable dial plans with interdigit timers and IP dialing (1 per port)
Call progress tone generation
Jitter buffer: Adaptive
Frame loss concealment
Full-duplex audio
Echo cancellation (G.165 and G.168)
Voice activity detection (VAD)
Silence suppression
Comfort noise generation (CNG)
Attenuation and gain adjustments
Flash hook timer
Message waiting indicator (MWI) tones

Visual messaging waiting indicator (VMWI) using frequency shift keying (FSK)
Polarity control
Hook flash event signaling
Caller ID generation (name and number): Bellcore, DTMF, and European Telecommunications Standards Institute (ETSI)
Streaming audio server: Up to 10 sessions
Music on hold
Call waiting, call waiting and caller ID
Caller ID with name and number
Caller ID blocking
Selective and anonymous call rejection
Call forwarding: No answer, busy, and all Do not disturb
Call transfer, call return, and call back on busy
Three-way conference calling with local mixing
Per-call authentication and associated routing
Call blocking with toll restriction
Distinctive ringing: Calling and called number
Off-hook warning tone
Advanced inbound and outbound call routing
Hotline and warmline calling
Long silence (configurable time setting) silence threshold
Disconnect tone (for example, reorder tone)
Configurable ring frequency
Ring validation time setting
Tip and ring voltage adjustment setting
Ring indication delay setting

Provisioning, administration, and maintenance

Web browser administration and configuration using integral web server
Telephone keypad configuration with interactive voice prompts
Automated provisioning and upgrade using HTTPS, HTTP, and Trivial File Transfer Protocol (TFTP)
TR-069
Asynchronous notification of upgrade availability using Notify
Nonintrusive, in-service upgrades
Report generation and event logging
Statistics in Bye message
Debug server records and syslog: Per-line configurable web browser
Ping and traceroute diagnostics
Configuration management: Backup and restore
Support for Bonjour

Physical interfaces

1 WAN 100BASE-T RJ-45 Ethernet Port (IEEE 802.3)
2 RJ-11 FXS phone ports for analog circuit telephone device (tip and ring)
Reset button

Subscriber line interface circuit (SLIC)

Ring voltage: 40-90 Vpk configurable
Ring frequency: 20-25 Hz
Ring waveform: trapezoidal
Maximum ringer load: 5 ringer equivalence numbers (RENS)
On-hook voltage (tip and ring): -46 to -56V
Off-hook current: 18-25 mA
Terminating impedance: 600 ohm resistive or 270 ohm + 750 ohm
150 nF complex impedance
Frequency response: 300-3400 Hz
Return loss (600 ohm, 300-3400 Hz): up to 20 dB
Insertion loss (1 Vrms at 1 kHz): 3-4 dB
Total harmonic distortion (THD) (350 mV peak at 300 Hz): up to 3%
Idle channel noise: 72 dB (typical)
Longitudinal balance: 55 dB (typical)
Off-hook threshold (line seizure): Rdc < 1000 ohm
On-hook threshold (line release): Rdc > 10000 ohm
Rdc DC supervisory range: Rdc > 450 ohm

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

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 (153 g)

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 SPA112 2 Port Phone Adapter
5V/2A power adapter
6-ft (1.83m) Ethernet cable
Quick Start Guide
CD with documentation, including license and warranty

Product Warranty

1-year limited hardware warranty with return-to-factory replacement and 90-day limited software warranty

*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 SPA112 at the time of provisioning.