

Digital Phone Adapter Linksys ATA SPA-2102NA Technical Sheet



The SPA2102 is the latest dual FXS port analog VoIP adapter from Linksys. The SPA2102 features a built in router to separate your VoIP network from other devices or you can use the SPA2102 as your router to connect other devices to on your network.

Inexpensive, easy to install and simple-to-use, the SPA2102 connects a standard telephone or fax machine to IP-based data networks. VoIP service providers can offer residential and business users traditional and enhanced communication services via the customer's broadband connection to the Internet. The SPA2102 features two POTS (Plain Old Telephone Service) ports to connect existing analog phones, fax machines, or to a PBX system.

The SPA2102 includes 2 100BaseT RJ45 Ethernet interfaces (LAN-WAN) to connect to a home or office LAN, as well as an Ethernet connection to a broadband modem or router (WAN).

Each SPA2102 service line can be independently configured via software controlled by the service provider or the end user. With the SPA2102, users are able to protect and extend their investment in telephones, conference speakerphones, and fax machines as well as control their migration to IP with an extremely affordable, reliable solution. Installed by the end user and remotely provisioned, configured and maintained by the service provider, each SPA2102 converts voice traffic into data packets for transmission over an IP network. Compact in design, the SPA2102 can be used in consumer and business VoIP service offerings including a full-featured IP Centrex environment. The SPA2102 uses international standards for voice and data networking for reliable voice and fax operation.

Toll Quality Voice and Carrier-Grade Feature Support

The SPA2102 delivers clear, high-quality voice communication in a variety of network conditions. Excellent voice quality in challenging, changeable IP network environments is made possible via our advanced implementation of standard voice coding algorithms. The SPA2102 is interoperable with common telephony equipment like facsimile, voicemail, PBX/KTS and interactive voice response systems.

SPA2102 Telephony Features:

- *Two voice ports (RJ11) for analog phones or Fax machines
- *Impedance Agnostics - 8 Configurable Settings
- *Call Waiting, Cancel Call Waiting, Call Waiting Caller ID
- *Caller ID with Name/Number (Multi-national Variants)
- *Caller ID Blocking
- *Call Forwarding: No answer, Busy, All
- *Do Not Disturb
- *Call Transfer
- *Three-way Conference Calling with Local Mixing
- *Message Waiting Indication - Visual and Tone Based
- *Call Return
- *Call Back on Busy
- *Call Blocking with Toll Restriction
- *Delayed Disconnect
- *Distinctive Ringing - Calling and Called Number
- *Off-hook Warning Tone
- *Selective/Anonymous Call Rejection
- *Hot line and Warm Line Calling
- *Speed Dialing of 8 Numbers/Addresses
- *Music on Hold
- *Fax: G.711 Pass Through or Real Time Fax over IP via T.38

Package Contents:

- *1 - SPA2102 Phone Adapter Unit
- *1 - 5v Power Adapter
- *1 - RJ45 Ethernet Cable
- *1 - Quick Installation Guide

Data Networking:

- *MAC Address (IEEE 802.3)
- *IPv4 - Internet Protocol v4 (RFC 791) upgradeable to v6 (RFC 1883)
- *ARP - Address Resolution Protocol
- *DNS - A Record (RFC 1706), SRV Record (RFC 2782)
- *DHCP Client - Dynamic Host Configuration Protocol (RFC 2131)
- *DHCP Server - Dynamic Host Configuration Protocol (RFC 2131)
- *ICMP - Internet Control Message Protocol (RFC792)
- *TCP - Transmission Control Protocol (RFC793)
- *UDP - User Datagram Protocol (RFC768)
- *RTP - Real Time Protocol (RFC 1889) (RFC 1890)
- *RTCP - Real Time Control Protocol (RFC 1889)
- *DiffServ (RFC 2475), Type of Service - TOS (RFC 791/1349)
- *SNTP - Simple Network Time Protocol (RFC 2030)
- *Upload Data Rate Limiting - Static and Automatic

- *QoS - Voice Packet Prioritization over Other Packet Types
- *Router or Bridge Mode of Operation
- *MAC Address Cloning
- *Port Forwarding

Voice Gateway:

- *SIPv2: Session Initiation Protocol v2 (RFC 3261, 3262, 3263, 3264)
- *SIP Proxy Redundancy - Dynamic via DNS SRV, A Records
- *Re-registration with Primary SIP Proxy Server
- *SIP Support in Network Address Translation Networks - NAT (incl. STUN)
- *Secure (Encrypted) Calling via Pre-Standard Implementation of Secure RTP
- *Codec Name Assignment

Voice Algorithms:

- *G.711 (A-law and μ -law)
- *G.726 (16/24/32/40 kbps)
- *G.729 A
- *G.723.1 (6.3 kbps, 5.3 kbps)
- *Dynamic Payload
- *Adjustable Audio Frames per Packet

Fax Capability:

- *Fax Tone Detection Pass-Through
- *Fax Pass-Through - Using G.711

Security:

- *Password Protected System Reset to Factory Default
- *Password Protected Admin and User Access Authority
- *Provisioning/Configuration/Authentication:
- *HTTPS with Factory Installed Client Certificate
- *HTTP Digest - Encrypted Authentication via MD5 (RFC 1321)
- *Up to 256-bit AES Encryption

Provisioning, Administration & Maintenance:

- *Web Browser Administration & Configuration via Integral Web Server
- *Telephone Key Pad Configuration with Interactive Voice Prompts
- *Automated Provisioning & Upgrade via HTTPS, HTTP, TFTP
- *Asynchronous Notification of Upgrade Availability via NOTIFY
- *Non-intrusive, In-Service Upgrades
- *Report Generation & Event Logging
- *Stats in BYE Message
- *Syslog & Debug Server Records - Per Line Con-

figurable

- *Per Line and Purpose Configurable Syslog and Debug Options

Physical Interfaces:

- *2 100baseT RJ-45 Ethernet Port (IEEE 802.3)
- *2 RJ-11 FXS Phone Ports - For Analog Circuit Telephone Device (Tip/Ring)

Subscriber Line Interface Circuit (SLIC):

- *Ring Voltage: 40-55 VRMS Configurable *
- *Ring Frequency: 10 Hz - 40 Hz *
- *Ring Waveform: Trapezoidal and Sinusoidal *
- *Maximum Ringer Load: 3 REN
- *On-hook/off-hook Characteristics:
- *On-hook voltage (tip/ring): -50 V NOMINAL
- *Off-hook current: 25 mA min
- *Terminating Impedance: 8 Configurable Settings including

Regulatory Compliance:

- *North America 600 ohms, European CTR21
- FCC (Part 15, Class B) , CE, ICES-003

Power Supply:

- *Switching Type (100-240v) Automatic
- *DC Input Voltage: +5 VDC at 2.0 A Max.
- *Power Consumption: 5 Watts
- vPower Adapter: 100-240v - 50-60Hz (26-34VA) AC Input, 1.8m cord

Indicator Lights/LED:

- *Power, Internet, Phone 1, Phone 2

Documentation:

- *Quick Installation, User, and Configuration Guides are downloaded from
- *www.linksys.com
- *Administration Guide - Service Providers Only
- *Provisioning Guide - Service Providers Only

- *Dimensions: 3.98 x 3.98. x 1.10 in (101 x 101 x 28 mm) W x H x D
- *Unit Weight: 5.29 oz (0.15 kg)
- *Operating Temp.: 32°~113°F (0°~45°C)
- *Storage Temp.: -13°~185°F (-25°~85°C)
- *Operating Humidity: 10~90% Non-condensing
- *Storage Humidity: 10~90% Non-Condensing