

## IP Phone

## PRODUCT DATA

# Advanced, Affordable, Feature Rich IP Phone for the Home Office and Business



### **Comprehensive Interoperability and SIP Based Feature Set**

Based on the SIP standard, the SPA941 has been tested to ensure comprehensive interoperability with equipment from VoIP infrastructure leaders enabling service providers to quickly roll-out competitive, feature rich services to their customers. With hundreds of features and configurable service parameters, the SPA941 addresses the requirements of traditional business users while leveraging the advantages of IP telephony. Features such as easy station moves, presence, and shared line appearances (across local and geographically dispersed locations) are just some of the many advantages of the SPA941.

### **Carrier-Grade Security, Provisioning, and Management**

The SPA941 uses standard encryption protocols to provide secure remote provisioning and unobtrusive in-service software upgrades. Linksys secure remote provisioning tools include detailed performance measurement and troubleshooting features, enabling network providers to deliver high quality support to their subscribers. Remote provisioning also saves service providers the hassle and expense of managing, pre-loading, and re-configuring customer premise equipment (CPE).

# PRODUCT DATA

Model No.

**SPA941**

## Features

### Telephony

- Up to Four Call Appearances with Independent Configuration and Registration
- - The SPA941 ships with two line appearances enabled. A two line upgrade is available via a software license key installed locally using the SPA941 web interface, or installed remotely via a secure profile update.
- Pixel Based Display: 128x64 Monochrome Graphical Liquid Crystal Display (LCD)
- Line Status - Active Line Indication, Name and Number
- Menu Driven User Interface
- Digits Dialed with Number Auto-Completion
- Shared Line Appearance \*\*
- Speakerphone
- Call Hold
- Music on Hold \*\*
- Call Waiting
- Caller ID Name and Number and Outbound Caller ID Blocking
- Outbound Caller ID Blocking
- Call Transfer - Attended and Blind
- Call Conferencing
- Automatic Redial
- On-Hook Dialing
- Call Pick Up - Selective and Group \*\*
- Call Park and UnPark \*\*
- Call Swap
- Call Back on Busy
- Call Blocking - Anonymous and Selective
- Call Forwarding - Unconditional, No Answer, On Busy
- Hot Line and Warm Line Automatic Calling
- Call Logs (60 entries each): Made, Answered, and Missed Calls
- Redial from Call Logs
- Personal Directory with Auto-dial (100 entries)
- Do Not Disturb (callers hear line busy tone)
- URI (IP) Dialing Support (Vanity Numbers)
- On Hook Default Audio Configuration (Speakerphone and Headset)
- Multiple Ring Tones with Selectable Ring Tone per Line
- Called Number with Directory Name Matching
- Call Number using Name - Directory Matching or via Caller ID
- Subsequent Incoming Calls with Calling Name and Number
- Date and Time with Intelligent Daylight Savings Support
- Call Duration and Start Time Stored in Call Logs
- Call Timer
- Name and Identity (Text) Displayed at Start Up
- Distinctive Ringing Based on Calling and Called Number
- Ten User Downloadable Ring Tones - Ring Tone Generator Free from [www.linksys.com](http://www.linksys.com)
- Speed Dialing
- Configurable Dial/Numbering Plan Support - per Line
- Intercom \*\*
- Group Paging \*\*
- DNS SRV and Multiple A Records for Proxy Lookup and Proxy Redundancy
- Syslog, Debug, Report Generation, and Event Logging
- Secure Call Encrypted Voice Communication Support
- Built-in Web Server for Administration and Configuration with Multiple Security Levels
- Automated Provisioning, Multiple Methods. Up to 256 Bit Encryption: (HTTP, HTTPS, TFTP)
- Optionally Require Admin Password to Reset Unit to factory Defaults

\*\* Feature requires support by call server

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**SPA941**

## Features

## Regulatory Compliance Security

## Documentation

## Package Contents

## Environmental

### Hardware

- Pixel Based Display: 128x64 Monochrome LCD Graphical Display
- Four Illuminated Call Appearance Line Buttons with Tricolor LED's
- LED Indicates Line State – Active, Idle, On-Hold, Unregistered
- Line LED Configurable to 13 Different States (On/Off, Color, Flash)
- Dedicated Illuminated Buttons for:
  - Audio Mute On/Off
  - Headset On/Off
  - Speakerphone On/Off
- Four Soft Key Buttons
- Four Way Rocking Directional Knob for Menu Navigation
- Voice Mail Message Waiting Indicator Light
- Voice Mail Message Retrieval Button
- Dedicated Hold Button
- Settings Button for Access to Feature, Set-up, and Configuration Menus
- Volume Control Rocking Up/Down Knob Controls Handset, Headset, Speaker, Ringer
- Standard 12-Button Dialing Pad
- High Quality Handset and Cradle
- Built-In High Quality Microphone and Speaker
- Headset Jack – 2.5 millimeter
- Ethernet LAN – 10BaseT RJ-45
- 5 volt DC Universal (100-240 Volt) Switching Power Adaptor
- LED Test Function

- FCC (Part 15, Class B) , CE, A-Tick, ICES-003

- Password Protected System, Preset to Factory Default
- Password Protected Access to Administrator and User Level Features
- HTTPS with Factory Installed Client Certificate
- HTTP Digest - Encrypted Authentication via MD5 (RFC 1321)
- Up to 256-bit AES Encryption

- Quick-Start Installation and Configuration Guide
- User Guide
- Administration Guide
- Provisioning Guide - For Service Providers Only

- 1 - SPA941 IP Phone, Handset, and Stand
- 1 - Handset Cord - 56 cm (26 in)
- 1 - 5v Power Adapter - 1.8 m (6 ft) Cord
- 1 - RJ45 Ethernet Cable - 1.8 m (6 ft) Cord
- 1 - Quick Installation Guide

Dimensions	7.68 x 6.30. x 7.09 in (195 x 160 x 180 mm) W x H x D
Unit Weight	2.15 lbs ( 0.9752 kg)
Operating Temp.	41°~113°F (5°~45°C)
Storage Temp.	-13°~185°F (-25°~85°C)
Operating Humidity	10~90% Non-condensing
Storage Humidity	10~90% Non-Condensing

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## Specifications

Model	SPA-941
Data Networking	<p>* Note: Many specifications are programmable within a defined range or list of options.</p> <p>MAC Address (IEEE 802.3)</p> <p>IPv4 - Internet Protocol v4 (RFC 791) upgradeable to v6 (RFC 1883)</p> <p>ARP - Address Resolution Protocol</p> <p>DNS - A Record (RFC 1706), SRV Record (RFC 2782)</p> <p>DHCP Client - Dynamic Host Configuration Protocol (RFC 2131)</p> <p>ICMP - Internet Control Message Protocol (RFC792)</p> <p>TCP - Transmission Control Protocol (RFC793)</p> <p>UDP - User Datagram Protocol (RFC768)</p> <p>RTP - Real Time Protocol (RFC 1889) (RFC 1890)</p> <p>RTCP - Real Time Control Protocol (RFC 1889)</p> <p>DiffServ (RFC 2475), Type of Service - TOS (RFC 791/1349)</p> <p>VLAN Tagging 802.1p/q - Layer 2 QoS</p> <p>SNTP - Simple Network Time Protocol (RFC 2030)</p>
Voice Gateway	<p>SIPv2 - Session Initiation Protocol Version 2 (RFC 3261, 3262, 3263, 3264)</p> <p>SIP Proxy Redundancy - Dynamic via DNS SRV, A Records</p> <p>Re-registration with Primary SIP Proxy Server</p> <p>SIP Support in Network Address Translation Networks - NAT (including STUN)</p> <p>SIPFrag (RFC 3420)</p> <p>Secure (Encrypted) Calling via Pre-Standard Implementation of Secure RTP</p> <p>Codec Name Assignment</p> <p>Voice Algorithms:</p> <ul style="list-style-type: none"><li>- G.711 (A-law and <math>\mu</math>-law)</li><li>- G.726 (16/24/32/40 kbps)</li><li>- G.729 A</li><li>- G.723.1 (6.3 kbps, 5.3 kbps)</li></ul> <p>Dynamic Payload Support</p> <p>Adjustable Audio Frames Per Packet</p> <p>DTMF: In-band and Out-of-Band (RFC 2833) (SIP INFO)</p> <p>Flexible Dial Plan Support with Inter-Digit Timers</p> <p>IP Address / URI Dialing Support</p> <p>Call Progress Tone Generation</p> <p>Jitter Buffer - Adaptive</p> <p>Frame Loss Concealment</p> <p>VAD - Voice Activity Detection with Silence Suppression</p> <p>Attenuation / Gain Adjustments</p> <p>MWI - Message Waiting Indicator Tones</p> <p>VMWI - Voice Mail Waiting Indicator - Via NOTIFY, SUBSCRIBE</p> <p>Caller ID Support (Name and Number)</p> <p>Third Party Call Control (RFC 3725)</p>
Provisioning, Administration & Maintenance:	<p>Integrated Web Server Provides Web Based Administration and Configuration</p> <p>Telephone Key Pad Configuration via Display Menu / Navigation</p> <p>Automated Provisioning and Upgrade via HTTPS, HTTP, TFTP</p> <p>Asynchronous Notification of Upgrade Availability via NOTIFY</p> <p>Non-intrusive, In-Service Upgrades</p> <p>Report Generation and Event Logging</p> <p>Statistics Transmitted in BYE Message</p> <p>Syslog and Debug Server Records - Configurable Per Line</p>
Power Supply	<p>Switching Type (100-240v) Automatic</p> <p>DC Input Voltage: +5 Volts DC at 2.0 Amps Maximum</p> <p>Power Consumption: 5 Watts</p> <p>Power Adapter: 100-240v - 50-60Hz (26-34VA) AC Input, 1.8m cord</p>
Physical Interfaces:	<p>1 10baseT RJ-45 Ethernet Port (IEEE 802.3)</p> <p>Handset: RJ-7 Connector</p> <p>Built-in Speakerphone and Microphone</p> <p>Headset 2.5 mm Port</p>
Indicator Lights/LED:	<p>Four (4) Call Appearance/Line Buttons with Associated Tricolor LED</p> <p>Line LED State Indication: Active, Idle, On Hold, Unregistered</p> <p>Speakerphone On/Off Button with LED</p> <p>Headset On/Off Button with LED</p> <p>Mute Button with LED</p> <p>Message Waiting Indicator LED</p> <p>Voicemail Message Retrieval Button</p> <p>Hold Button</p> <p>LED Test Function</p>

Stylish and functional in design, the SPA941 IP Phone is ideal for a residence or business using a hosted IP telephony service, an IP PBX, or a large scale IP Centrex deployment. The SPA941 leverages industry leading VoIP technology from Linksys to deliver an upgradeable high quality IP phone that is unparalleled in features, value, and support.

Standard features on the SPA941 include two active lines, a high resolution graphical display, speakerphone, and a 2.5 mm head-set port. With a simple software update, the SPA941 is upgradeable to a four line phone. Each line can be independently configured to use a unique phone number (or extension), or can be configured to use a shared number that is assigned to multiple phones.

- **Affordable and full featured two or four line business class IP phone**
- **Connect directly to an Internet Telephone Service Provider or connect to an IP PBX**
- **Up to four lines. Speakerphone, Caller ID, Call Hold, Transfer, Conferencing, and more**
- **Easy installation and secure remote provisioning. Menu based and web based configuration.**

### Linksys Phone Adapter Comparison Chart

SPA Model	Voice Lines	Ethernet Ports	High Resolution Graphical Display	Power over Ethernet Support
SPA901	1	1	N	N
SPA921	1	1	Y	N
SPA922	1	2	Y	Y
SPA941	2-4	1	Y	N
SPA942	2-4	2	Y	Y

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