

# Patton SmartNode SN4524/JSSP/EUI 4 FXS VoIP

## 2x10/100baseT, H.323 and SIP, External UI Power, Surge Protection



Product Name: Patton SmartNode SN4524/JSSP/EUI 4 FXS VoIP 2x10/100baseT, H.323 and SIP, External UI Power, Surge Protection  
Manufacturer: Patton Inalp  
Model Number: SN4524/JSSP/EUI

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Connect with confidence using the Patton SmartNode SN4524/JSSP/EUI 4 FXS VoIP 2x10/100baseT, H.323 and SIP, External UI Power, Surge Protection Series Router. Integrating a complete enterprise router with local PSTN and remote packetvoice, the SN4520 supports eight simultaneous calls for a new standard in toll-bypass, remote/branch office connectivity, and enhanced carrier services. Perfect for the remote office, branch office, or PBX/switch extension, the SmartNode 4520 integrates all your voice, fax, and LAN traffic for seamless and secure networking. With its FXS analog ports the SN4520 connects to any legacy telephone or PBX and provides dial-tone, ringing, and caller-ID. When equipped with FXO ports, the local PSTN can be accessed enabling local calling and enhanced toll-bypass service.

Patton SmartNode SN4524/JSSP/EUI Key Features

- Up to 8 analog ports—Compact, reliable stand-alone VoIP gateway with different port options. Supports simultaneous voice or fax calls on all ports. (note: Patton does not carry an 8-FXO unit at the present time)
- Toll-Quality VoIP—Advanced traffic management and shaping, combined with Patton's patent-pending DownStream QoS enforce uninterrupted toll-quality voice over best-effort networks.
- Advanced Local Call Switching—Virtual interfaces and routing tables provide industry leading flexibility in call handling programming. Local call switching, soft fallback to alternative routes. Simultaneously connects to multiple SIP services/IP PBXs.
- Complete SIP and T.38 support—Supports the complete range of industry standard VoIP: SIP, H.323, T.38 fax, fax and modem handling, DTMF relay. Codecs G.729, G.723, and so on.
- Easy Management & Provisioning—Web-based management, SNMP, command line interface. Automated mass provisioning for efficient large-scale deployments. Outstanding Interoperability—Proven integration for voice and T.38 fax with leading IP PBX systems and soft switch vendors.

With dual 10/100 Ethernet ports, the SN4520 provides guaranteed Quality of Service while passing LAN traffic at wire-speed. Voice traffic is prioritized while LAN/IP traffic shaping permits efficient access to the Internet and corporate networks. As a complete enterprise router, the SN4520 supports DHCP, NAT, Firewall/ACL, and PPPoE clients. While optional IPsec VPN and VLAN features tunnel data and AES/3DES ensures secure voice over the public network.

Patton SmartNode SN4524/JSSP/EUI - Technical Specifications

Voice Connectivity

- 2, 4, 6, or 8 FXS ports 2-wire Loopstart, RJ-11/12 Short haul loop 1.1 KM @3REN EuroPOTS (ETSI EG201 188) Programmable AC impedance, feeding, and ring voltage; On-Hook Voltage 29VDC Caller-ID Type-1/2 FSK and ITU V.23/Bell 202 generation
- 2 or 4 FXO ports 2-wire loop-start presented as an RJ-11/12 2.5kV line isolation Surge Protection: Voice Ports: Tip & Ring protected by 270 V side actor Off-hook and ring detection, Automatic line gain, Programmable ring count End of Call detection, Line drop, busy tone, battery reversal detection Hook-Flash Sending, H.245 Hook-Flash relay, DTMF send, detect,

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and relay Caller ID FSK CLI reception and relay (Bellcore/ANSI and ETSI/ITU), Call routing based on Caller ID Second dial-tone for two-stage DTMF dialing, Call routing based on DTMF numbers

### Data Connectivity

- Dual 10/100 Full Duplex, Autosensing, Ethernet RJ-45

### Voice Processing (signalling dependent)

- Voice codes G.711 A-Law/&micro;-Law (64kbps) G.726 (ADPCM 40, 32, 24, 16 kbps) G.723.1 (5.3 or 6.3 kbps) G.729ab (8kbps)
- Up to 8 parallel voice connections
- G.168 echo cancellation
- Carrier tone detection and generation
- Silence suppression and comfort noise
- Configurable dejitter buffer
- Configurable tones (dial, ringing, busy)
- RTP/RTCP (RFC 1889)

### Fax and Modem Support

- G.711 Fax- and Modem-Bypass
- T.38 Fax relay (9.6 k, 14.4 k)

### Voice Signalling

- H.323v4 RAS, H.225, H.245 H.235 secure RAS Fast-connect, early H.245 Gatekeeper autodiscovery, Alias registration Overlap dialing Empty capability set (call transfer, hold) H.323v1 call transfer, hold
- SIPv2 Supported RFCs: 2806, 2833, 2976, 3261, 3263, 3264, 3323, 3325, 3515 draft-ietf-sip-cc-transfer-02, draft-ietf-sip-cc-transfer-05 draft-ietf-sip-refer-02, draft-ietf-sip-replaces-01 draft-ietf-sip-session-timer-04, draft-ietf-sip-session-timer-08 Caller ID, CLIR (receive from PSTN) Support for proxy and redirect servers RFC2833: DTMF Relay, SIP INFO DTMF Relay, Fax-Bypass (G.711), T.38 Fax-Relay Session Timer, Record-Routing, Authentication Compression CODECs, Fax/Modem bypass

### Call Routing

- Virtual Interfaces
- Routing Criteria: Called party number (Destination) Calling party number (Source) Time of day, day of week, date
- Longest prefix match, wildcard match, regular expression match
- Number Manipulation Functions: Replace numbers Add/remove digits Regular Expressions
- Fallback Routing: Soft Fallback to alternative interface or Call Router table

### IP Services

- IPv4 router
- Static Routes, ICMP redirect (RFC 792), RIPv1, v2 (RFC 1058 and 2453)
- Static and dynamic NAT and NAPT
- DHCP server and Client

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- Access Control Lists
- IPSEC AH & ESP Modes, preshared Keys
- AES/DES/3DES Encryption

### Quality of Services

- Traffic classification by ACL
- TOS and DiffServ labeling Configurable TOS/Precedence bits or DiffServ codepoints
- IEEE 802.1p/Q
- Traffic scheduling: Priority, Weighted fair queuing (WFQ), Hierarchical traffic classes
- Policing of traffic classes
- DownStreamQoS Dynamic restriction of inbound (downstream) TCP traffic to free bandwidth for voice packets.
- Improves voice quality in the receiving direction

### Management

- Web GUI
- Industry standard CLI with local console (CRJ-45, RS-232) and remote Telnet access
- TFTP configuration & firmware loading
- SNMP v1 agent (MIB II and private MIB)
- Built-in diagnostic tools (trace, debug)

### Operating Environment

- Operating temperature: 0 - 40°C
- Operating humidity: Up to 90% (non condensing)

### System

- CPU Motorola MPC875 @ 66 MHz
- Memory 32MB SDRAM/8MB Flash
- Power: External universal 100 - 240 VAC (50/60 Hz)
- Power dissipation: 4 - 12W model dependent

### Compliance

- EMC compliance: EN55022 and EN55024
- Safety compliance: EN 60950
- CE per RTTE 99/5/EC (EMC and LVD)
- FCC Part 15 Class A
- TBR-21 (FXS)

**Please Enquire**

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