

LONG HAUL VoIP Gateway

SP1632SP Series

Protocol: SIP

Model: 8FXS8FXO, 8FXS8PSTN, 16FXS,
16FXS16FXO, 16FXS16PSTN, 32FXS

Ethernet: 1WAN 1LAN

Telephony Interface:

Centronics cable with RJ-11 connector



GENERAL FEATURES AND SPECIFICATIONS

Voice Features

- G.711 a / μ -law with G.723.1, G.726, G.729A/B or GSM FR6.10
- Silence Suppression & Detection
- Comfort Noise Generation (CNG)
- Voice Activity Detection (VAD)
- Echo Cancellation (G.165/G.168)
- Adaptive (Dynamic) Jitter Buffer
- Call Progress Tone Generation
- Programmable Gain Control

SIP Call Features

- Peer to Peer Call
- Call Hold / Retrieve
- Call Waiting
- Call Pick Up
- Call Park / Retrieve (SIP Server Required)
- Call Forward
- Call Transfer
- Speed Dialing
- Repeat Dialing
- Three-way Calling (Media Server Required)

Telephony Specifications

- In-Band DTMF, Out-of-Band DTMF Relay (RFC2833) or SIP INFO
- DTMF / PULSE Dial Support
- Caller ID Generation / Detection:
 - DTMF
 - FSK-Bellcore Type 1 & 2
 - FSK-ETSI Type 1 & 2
 - Calling Name, Number, Date and Time (FSK)
- Polarity Reversal Detection (FXO) and Generation (FXS)
- T.30 FAX Bypass to G.711, T.38 Real Time FAX Relay
- Failsafe mechanism: Network, Service, Power Failure (FXS relay to FXO / PSTN)
- Recordable Greeting Message (FXO models)
- Emergency Number Table (FXO / PSTN models)
- Modem Over IP Up to V.34
- Message Waiting Indication (SIP Notice)
- Hot line; Warm Line Support
- Receiver Off-Hook (ROH Tone @ 480 Hz)
- Loop Current Suppression after Busy Tone (configurable)
- Visual Message Waiting Indication (VMWI)

SIP Method Support

ACK, BYE, CANCEL, INFO, INVITE, MESSAGE, NOTIFY, OPTIONS, PING, PRACK, PUBLISH, REFER, REGISTER, SUBSCRIBE, UPDATE

SIP Call Management

- SIP Proxy Server Registration Failover
- Privacy Mechanism / Private Extensions to SIP
- Session Timers (Update / Re-invite)
- DNS SRV Support
- Call Types: Voice / Modem / FAX
- Call Routing by Prefix Number
- Toll-Free Support (FXO / PSTN models)
- Automatic Calling Number Manipulation (VoIP, PSTN)
- CDR Client
- Phone Book Manager & Manual Peer Table (for P2P calls)
- E.164 Numbering, ENUM support
- Symmetric RTP

SIP Account Management

- By port registration
- By device registration (share account)
- Mixed mode (Hunt number for inbound, by port number for outbound)
- Invite with Challenge
- Register by SIP Server IP Address or Domain Name

LED Indicators

Power, Alarm, Run, WAN, LAN, Voice ports (upto 32)



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Ordering Information

Model	Description				
	WAN	LAN	FXS	FXO	PSTN
SP1632-16S	1	1	16		
SP1632-32S	1	1	32		
SP1632-8S8O	1	1	8	8	
SP1632-16S16O	1	1	16	16	
SP1632-8S8P	1	1	8		8
SP1632-16S16P	1	1	16		16

General Information

Dimensions: W 44.2cm x H 4.3cm x D 33cm

Weight: 4.4Kg

Power Adaptor: AC 100V~240V 50/60Hz input, DC 12V
outputDC -36V~72V input (option) for 1632 series only

Operating temperature: 0°C ~ 45°C

Storage temperature: -25°C ~ 75°C

Operation Humidity: Up to 90% RH, non-condensing

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* Specifications, availability and terms of offers may change without notice.



NETWORK FEATURES AND MANAGEMENT

IP Network Specifications

- WAN: Static IP, PPPoE, DHCP, PPTP, BigPond
- Network Protocol Support:
 - IP, TCP, UDP, TFTP, FTP, RTP, RTCP, ARP, RARP, ICMP PING, NTP, SNTP, SNMP v1/v2, HTTP, HTTPS, DNS, DNS SRV, Telnet, DHCP Server, DHCP Client, Super-link, STUN Client, UPnP
- NAT Functions
 - Support up to 255 clients
 - Port Forwarding (Virtual Servers)
 - DMZ
 - Port Triggering
- QoS Support:
 - WAN: DiffServ, IP Precedence
 - Priority Queue
 - Upstream Rate Control
 - 802.1Q (VLAN Tagging), 802.1P (Priority Tag)
 - LAN: Rate Limit (SP/MG 1632 series excluded)
- DDNS Support
 - Dyndns.org (Dynamic and Custom)
 - TZO, Peanut Hull, 3322.org
 - 802.1Q VID tagging (Option)

Network Security Specifications

- PPTP, IP IPSEC VPN (optional)
 - Port Filtering
 - IP Filtering
 - MAC filtering
 - URL Filter
 - DIGEST Authentication
 - MD5 Encryption
 - DoS Protection
- ### Gateway Management
- Web Based configuration
 - Auto-provisioning (HTTP / HTTPS)
 - Telnet
 - IVR
 - FTP / TFTP / HTTP/HTTPS Software Upgrade

MGCP CALL MANAGEMENT (OPTIONS)

- IETF MGCP V.1.0, RFC 2705

STANDARD COMPLIANCE

SIP, Voice and FAX Related Standard

- RFC1889 RTP: A Transport Protocol for Real-Time Applications.
- RFC2543 SIP: Session Initiation Protocol
- RFC2833 RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals
- RFC2880 Internet Fax T.30 Feature Mapping
- RFC2976 The SIP INFO Method
- RFC3261 SIP: Session Initiation Protocol
- RFC3262 Reliability of Provisional Responses in Session Initiation Protocol (SIP)
- RFC3263 Session Initiation Protocol (SIP): Locating SIP Servers
- RFC3264 An Offer/Answer Model with Session Description Protocol (SDP)
- RFC3265 Session Initiation Protocol (SIP)-Specific Event Notification
- RFC3311 The Session Initiation Protocol (SIP) UPDATE Method
- RFC3323 A Privacy Mechanism for the Session Initiation Protocol (SIP)
- RFC3325 Private Extensions to the Session Initiation Protocol (SIP) for Asserted Identity within Trusted Networks
- RFC3362 Real-time Facsimile (T.38) - image/t38 MIME Sub-type Registration
- RFC3515 The Session Initiation Protocol (SIP) Refer Method
- RFC3550 RTP: A Transport Protocol for Real-Time Applications. July 2003
- RFC3665 Session Initiation Protocol (SIP) Basic Call Flow Examples
- RFC3824 Using E.164 numbers with the Session Initiation Protocol (SIP)
- RFC3841 Caller Preferences for the Session Initiation Protocol (SIP)
- RFC3842 A Message Summary and Message Waiting Indication Event Package for the Session Initiation Protocol (SIP)
- RFC3891 The Session Initiation Protocol (SIP) "Replaces" Header
- RFC3892 The Session Initiation Protocol (SIP) Referred-By Mechanism
- RFC3960 Early Media and Ringing Tone Generation in the Session Initiation Protocol (SIP)
- RFC3986 Uniform Resource Identifier (URI): Generic Syntax
- RFC4028 Session Timers in the Session Initiation Protocol (SIP)
- RFC2327 SDP: Session Description Protocol
- Draft-ietf-sipping-service-examples-08 for call features

Network Related Standard

- RFC318 Telnet Protocols
- RFC791 Internet Protocol
- RFC792 Internet Control Message Protocol
- RFC793 Transmission Control Protocol
- RFC768 User Datagram Protocol
- RFC826 Ethernet Address Resolution Protocol
- RFC959 File Transfer Protocol
- RFC1034 Domain Names - concepts and facilities
- RFC1035 Domain Names - implementation and specification
- RFC1058 Routing Information Protocol
- RFC1305 Network Time Protocol (NTP)
- RFC1349 Type of Service in the Internet Protocol Suite
- RFC1350 The TFTP Protocol (Revision 2)
- RFC1661 The Point-to-Point Protocol (PPP)
- RFC1738 Uniform Resource Locators (URL)
- RFC2854 The 'text/html' Media Type
- RFC2131 Dynamic Host Configuration Protocol
- RFC2453 RIP Version 2
- RFC2474 Definition of the Differentiated Services Field (DS Field)
- RFC2516 A Method for Transmitting PPP Over Ethernet
- RFC2616 Hypertext Transfer Protocol - HTTP/1.1
- RFC2617 HTTP Authentication: Basic and Digest Access Authentication
- RFC2637 Point-to-Point Tunneling Protocol
- RFC2766 Network Address Translation - Protocol Translation (NAT-PT)
- RFC2916 E.164 number and DNS
- RFC3022 Traditional IP Network Address Translator
- RFC3489 STUN - Simple Traversal of User Datagram Protocol (UDP) Through Network Address Translators (NATs)
- RFC3525 DigitMap
- UPnP Device Architecture Version 1.0