SOUNDWIN
VoIP Solution Provider

2 -4 Analog Lines FXS/FXO VoIP Gateway

The Soundwin S200/S400 Series VoIP Gateway is fully both SIP and H.323 standard compliant residential gateway that provides a total solution for integrating voice-data network and PSTN. By simple installation, this revolutionary compact voice over IP (VoIP) gateway could be configured as a 2/4 port FXS/FXO VoIP Gateway which provides voice connectivity over the IP network and to the Public Switched Telephone Network (PSTN).The Soundwin Gateway is equipped with a four port Ethernet switch and built-in NAT router function that provides Internet access using only one IP address.
Besides, it provides high voice quality and optimized packet voice streaming over managed and public (Internet) IP networks.

VoIP Key Features

- Both support SIP and H.323 protocols: SIP Registration and Digest Authentication; H.323 Gatekeeper Registration.
- SIP Single Number / Account for multiple ports.
- Caller ID Delivery: FXS support DTMF&FSK Caller ID generation.
- Caller ID Detection: FXO support DTMF&FSK Caller ID detection. (Only for S402D and S404D model)
- Flexible and Smart VoIP call Dialing Book: VoIP call Book could provide any application VoIP call to any type destination (Domain name / IP address, PSTN or PBX) or hunting number setting.
- AC termination Impedance : 600/900 OHM and complex impedance
- Answer Supervision for Polarity Reversal Detection and Voice detection
- NAT traversal: This feature allow gateway to operate behind any NAT/Firewall device. Need not to change any configuration of NAT/Firewall like setting virtual server.
- Smart-QoS: This feature provides good voice quality when user place a VoIP call and also access internet at the same time. The gateway will automatically start to reserve bandwidth for voice traffic when VoIP call proceeds.
- Call Hunting Facility: This function helps gateway to use the lines effectively. This facility automatically transfers your incoming call to a free line. Subscribers need not indicate numerous numbers of each port of gateway.
- Voice channels status display: This function display each port status like as on-hook, off-hook, calling number called number, talk duration, codec.
- Flash Detection and Generation Program: FXO support Flash Generation and FXS support Flash Detection.
- FXO answer Mode: FXO provides Ringing Answer, Connection Answer and Non Answer for configuration.
- VoIP Encryption: Encrypt peer to peer VOIP calls can avoid VoIP blocking of internet.

Application Scenario:

The following application was use in Multi-Office as an example:

Telephony Specification:

- Voice Codec: G.711(A-law / μ-law), G.729 AB, G.723 (6.3 Kbps / 5.3Kbps)
- FAX support : T.30 / T.38
- Echo Cancellation: G.165/G168

- FXS Tone Table Configuration: Support tone frequency and cadence configuration
- FXO hang up detection / anti-seized : Busy Tone Learning Automatically / Manual Busy Tone Learning
- Answer supervision: Support Battery Reverse Detection and Voice Detection.
- FXO answer delay time: Support delay 0 – 8000 ms to answer.
- Adjustable AC Termination Impedance : 600 / 900 OHM and complex Impedance
- Failsafe Mechanism (FXS relay to FXO) : Power failed bypass support / Internet Failed bypass / Registered Failed bypass / Unconditional bypass.
- 12K Hz and 16K Hz Pulse Metering **(Customized)**
- Support MWI (Message Waiting Indicator) by SIP Notify.

IP Specifications:
- H.323 v2/v3/v4 and SIP (RFC 3261) , SDP (RFC 2327), Symmetric RTP, STUN (RFC3489), ENUM (RFC 2916), RTP Payload for DTMF Digits (RFC2833), Outbound Proxy Support.
- LAN :Support Virtual Server, DHCP Server
- WAN: Support PPPoE client, DHCP client, Fix IP Address, DDNS client
- Network Address Translation: Providing build-in NAT router function.
- Smart QoS: Guarantee the voice bandwidth
- IP TOS (IP Precedence) / DiffServ

Call Features:
- Voice channels status display
- Direct Dialing Mode : peer to peer call (support IP Address Call or Domain Name Call)
- Register Call Mode : register to SIP Proxy Server or H.323 Gatekeeper
- Adjustable volume : - 9 db ~ 9 db
- Silence Compression / VAD
- Auto Dial for speed
- Dynamic Jitter Buffer
- Hot-Line and Warm-Line Support

Configuration & Management:
- Web-based Graphical User Interface
- Remote management over the IP Network
- FTP firmware upgrade
- Backup and Restore Configuration file
- Syslog client support
- Auto-Provision

General Specification:
- AC power : AC100V-240V, DC12V/1.5A,50/60 Hz
- Temperature: 0℃ ~ 40℃ (Operation)
- Humidity: up to 90% non-condensing
- Emission: FCC Part 15 Class B, CE Mark, RoHS Compliant
- Dimension : 260 x 130 x 35 mm
- Weight: 900g (Aluminum)

S400/200 VoIP Gateway Catalogue

	S400	S401	S402	S404	S402D (*)	S404D (*)	S200	S201	S202
Ethernet Port	4 LAN + 1 WAN								
Telephony Interface	Quad RJ-11						Dual RJ-11		
FXS/FXO	4FXS	3FXS+1FXO	2FXS+2FXO	4FXO	2FXS+2FXO	4FXO	2FXS	1FXS+1FXO	2FXO
H.323 v2/v3/v4	✔	✔	✔	✔	✔	✔	✔	✔	✔
SIP(RFC3261)	✔	✔	✔	✔	✔	✔	✔	✔	✔
Smart-Qos	✔	✔	✔	✔	✔	✔	✔	✔	✔
NAT Traversal	✔	✔	✔	✔	✔	✔	✔	✔	✔
Echo Cancellation	✔	✔	✔	✔	✔	✔	✔	✔	✔
G.711 a / μ -law G.723, G729AB	✔	✔	✔	✔	✔	✔	✔	✔	✔
T.38/T.30	✔	✔	✔	✔	✔	✔	✔	✔	✔
NAT Router	✔	✔	✔	✔	✔	✔	✔	✔	✔
DHCP server for Private Network	✔	✔	✔	✔	✔	✔	✔	✔	✔
Caller ID Detection					✔	✔			