



8 Analog Lines High Density VoIP Gateway

The Soundwin S800 Series VoIP Gateway is fully 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 8 voice channels high density 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 NAT router function that provides Internet access using only one IP address.

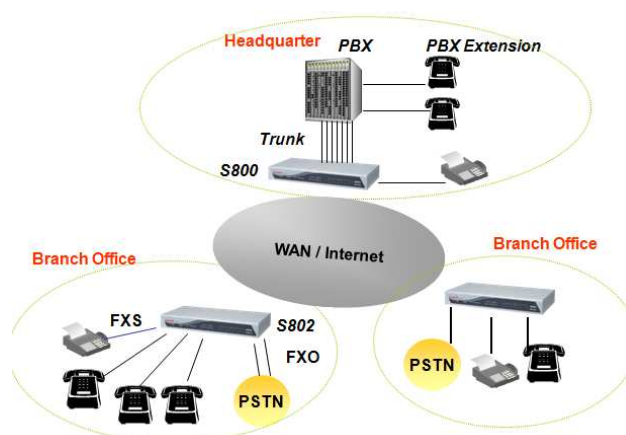
Besides, it provides high voice quality and optimized packet voice streaming over managed and public (Internet) IP networks.

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 Caller ID generation.
- ☒ 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 Guaranteed: This bandwidth management feature provide good voice quality when user place a VoIP call and 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.
- ☒ 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.
- ☒ FXO anti-seized mechanism: FXO provides busy tone auto-learning and manually configuration busy tone learning..

Application Scenario:

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



Telephony Specification:

- ☒ Voice Codec: iLBC (internet Low Bitrate Codec), G.711(A-law /μ-law), G.729 AB, G.723 (6.3 Kbps / 5.3Kbps), G.726 (16,24,32,40 Kbps)
- ☒ 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 (Optional)
 - Registered Failed bypass (Optional)
 - Unconditional bypass. (Optional)
- ☒ 12K Hz and 16K Hz Pulse Metering **(Customized)**
- ☒ FXS Battery Reverse Generation
- ☒ Support MWI (Message Waiting Indicator) by SIP Notify.(Optional)

🔴 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
- ☒ DSP 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
- ☒ RS232 for configuration
- ☒ Remote management over the IP network
- ☒ FTP firmware upgrade
- ☒ Backup and Restore Configuration file
- ☒ Syslog client support
- ☒ FTP method Auto-Provision (Optional)

🔴 General Specification

- ☒ AC power : AC100V-240V, DC12V/1.5A,50/60 Hz
- ☒ Temperature: 0°C ~ 40°C (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: 1200g (Aluminum)



S800 Series VoIP Gateway Catalogue

| | S800 | S802 | S804 | S808 |
|---------------------------------|-----------------------------------|---------------|-------------|-------|
| Ethernet Interface | 1 WAN + 1 LAN | | | |
| RS232 Console | 1 RS232 console for configuration | | | |
| Telephony Interface | Octal RJ-11 | | | |
| FXS/FXO | 8 FXS | 6 FXS + 2 FXO | 4 FXS+4 FXO | 8 FXO |
| 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 | ✓ | ✓ | ✓ | ✓ |