



8/16/24 Modular High Density VoIP Gateway



By Modular hardware design SB800/S1600/S2400 series makes any combination of the telephone interface. The Soundwin SB800/S1600/S2400 Series VoIP Gateway is fully SIP and /H.323 standard compliant high density gateway that provides a total solution for integrating voice-data network and PSTN. By modular installation, this revolutionary compact voice over IP (VoIP) gateway could be easily configured as 8/16/24 channels high density FXS/FXO VoIP Gateway which provides voice connectivity over the IP network and to the Public Switched Telephone Network (PSTN).

VoIP Key Features

- ☒ Modular design to accommodate various types of telephony interfaces.
- ☒ 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 and Detection: FXS support DTMF&FSK Caller ID generation; FXO supports DTMF&FSK Caller ID detection. **(Optional)**
- ☒ 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.
- ☒ Voice channels status display: This function display each port status like as onhook, offhook, calling number callee's number, talk duration, codec.
- ☒ Pulse Dial support: Support pulse dialing generation and detection. **(Optional)**
- ☒ 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.

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 Caller ID detection : DTMF and FSK **(Optional)**
- ☒ FXO hang up detection / anti-seized : Busy Tone Learning Automatically / Manual Busy Tone Learning **(Optional)**
- ☒ 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
- ☒ RS232 for configuration
- ☒ Remote management over the IP Network
- ☒ FTP firmware upgrade
- ☒ Backup and Restore Configuration file
- ☒ Front LCD Panel for System Status and Management
- ☒ Syslog client support
- ☒ Auto-Configuration

🔴 General Specification

- ☒ Standard 50 pin RJ-21 Telco connectors
- ☒ 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 : 440 x 250 x 45 mm
- ☒ Weight: 5300 g

SB800/S1600/S2400 Series VoIP Gateway Catalogue

	SB800	SB808	SB804	S1600	S1608	S1616	S2400	S2412	S2424
Ethernet Interface	1 WAN + 1 LAN								
RS232 Console	1 RS232 console for configuration								
LCD Panel	Front LCD Panel for System Status and Management								
Telephony Interface	Standard 50-pin Telco connector								
FXS/FXO	8 FXS	8 FXO	4FXS+4FXO	16 FXS	8FXS+8FXO	16 FXO	24 FXS	12 FXS + 12 FXO	24 FXO
Modules Combination	SB800	SB808	SB804	1SB800+ 1SM800	1 SB804+ 1 SM804	1SB808 + 1 SM808	1SB800+ 2 SM800	1 SB804+ 2SM804	1 SB808 +2SM808
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	✓	✓	✓	✓	✓	✓	✓	✓	✓

SB800/1600/S2400 Series VoIP Modules Card Catalogue

Motherboard	Description and Function
SB800	Motherboard with 8 FXS Interface + 1U/19 inch Chassis
SB804	Motherboard with 4 FXS + 4 FXO Interface+ 1U/19 inch Chassis
SB808	Motherboard with 8 FXO Interface + 1U/19 inch Chassis
Modular Card	Description and Function
SM800	8 FXS Interface Module
SM804	4 FXS + 4 FXO Interface Module
SM808	8 FXO Interface Module

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