# High Density (HD) FXS VoIP Gateways

## Overview

High Density (HD) FXS VoIP gateways are versatile voice gateways that seamlessly connect analog phones, fax machines, or analog PBXs to VoIP networks. They feature a compact 1U design with a high density of FXS ports, supporting both RJ45 and RJ21 interface standards. With options ranging from 48 to 96 FXS voice interfaces, these gateways provide a comprehensive solution.

| Front | Rear |
|---|---|
| GW0048S-21 | |
| | |
| GW0048S-45 | |
| | |
| GW0072S-21 | |
| | |
| GW0072S-45 | |
| | |
| GW0096S-21 | |
| | |
| GW0096S-45 | |
| | |

The HD FXS gateways are equipped with high-performance hardware, ensuring efficient and top-quality IP voice services. They are well-suited for service providers, enterprises, hotels, hospitals, government offices, and corporate telephone systems.

The HD FXS gateways seamlessly integrate with Xorcom CompletePBX systems, including appliances, software, and cloud solutions. They also offer compatibility with third-party systems utilizing standard SIP and RTP protocols, such as Broadsoft, Asterisk, and FreeSWITCH.

By leveraging HD FXS gateways, customers can establish a robust enterprise branch communication network, facilitating interoperability between branches. This solution provides large enterprises with an efficient, stable, and cost-effective voice communication system. Additionally, it is an ideal choice for hotels and other establishments seeking to maximize their existing analog infrastructure.

# HD FXS VoIP Gateways

## Key Features

- High density gateway, 48/72/96 FXS ports in 1U size
- Support IPv4 and IPv6
- 5 km Line Length (MAX)
- Support SNMP and TR069
- Multiple codecs: G.711A/U,G.723.1,G.729A/B and iLBC
- Support Asterisk and FreeSWITCH platforms, and compatible with BroadSoft
- Fully compatible with leading MS/NGN, SIP based IP telephony system

## Physical Interfaces

Phone Connector

- GW0048S-45 48 FXS, RJ 45
- GW0048S-21 48 FXS, RJ21, 50 PIN
- GW0072S-45 72 FXS, RJ 45
- GW0072S-21 72 FXS, RJ21, 50 PIN
- GW0096S-45 96 FXS, RJ 45
- GW0096S-21 96 FXS, RJ21, 50 PIN

Console:

- 1* RS232, 115200bps

## FXS

- Connector: RJ45 or RJ21
- Max Line Length: 5 km
- Reversed Polarity
- Pulse: 10 and 20 PPS
- Dial Mode: DTMF and Pulse
- Programmable Call Progress Tone
- Caller ID: DTMF/FSK CLI Presentation

## Call Features

- Digit map
- IMPU
- Action URL
- Voicemail
- Custom IVR
- Call Waiting
- Call Holding
- Do-not-disturb
- Blind Transfer
- Attend Transfer
- Call Forward on Busy
- Call Forward on No Reply
- Ringing Group, Hotline
- 3-way Conference
- Early Media/Early Answer
- Abbreviated Dialing
- Access and Peer Mode
- SIP PnP Auto Provisioning
- PBX IVR
- Unconditional Call Forward
- SIP registration to different servers
- Flexible Call Routing Policy
- Caller/Called Number Manipulation

## VoIP

Protocol:

- SIP v2.0 (UDP/TCP), RFC3261
- SDP,RTP(RFC2833), RFC3262, RFC3263, RFC3264, RFC3265, RFC3515, RFC2976, RFC3311
- RTP/RTCP, RFC2198, RFC1889
- IPv4 and IPv6
- Outbound Proxy
- Master/Slave Server
- RFC2806 TEL URI
- RFC3581 NAT,rport
- VLAN 802.1P/802.1Q
- RFC4028 Session Timer
- DNS SRV/A Query/NATPR Query
- NAT:STUN, Static/Dynamic NAT

## Maintenance

- CDR
- Ping/Tracert Test
- Network Capture
- Outward Test(GR909)
- SNMP, TR069, Provision
- NTP/Daylight Saving Time
- IVR local Maintenance
- RADUIS Authentication Management
- Cloud-based Management (NMS)
- Syslog: Debug, Info, Error, Warning, Notice
- Configuration Backup/Restore
- Firmware Upgrade via HTTP/HTTPS/TFTP/FTP/HTTP

## Voice & FAX

- Recording
- T.38 / Pass-through
- Modem/POS
- Silence Suppression
- Bandwidth Optimization
- Comfort Noise Generation (CNG)
- Voice Activity Detection (VAD)
- Packet Loss Concealment
- Adaptive (Dynamic) Jitter Buffer
- Programmable Gain Control
- G.711A/U law, G.723.1, G.729A/B,
- G.726, iLBC, AMR, AMR-GSM
- DTMF mode: Signal/RFC2833/INBAND
- Echo Cancellation (G.168), with up to 128ms

## Security

- QoS
- TLS, SRTP
- Web ACL/SSH ACL
- RADIUS Authentication
- Certification Management
- Service Network Port:
- Isolated/BOND/Bridge Mode
- Signaling/Voice Encryption

## Voice & FAX

- Power Supply: 100-240VAC, 50/60Hz
- Dual power supplies (only 48S/72S support)
- Power Consumption: 95W
- Operating Temperature: 0℃ ~ 45℃
- Storage Temperature: -20℃ ~80℃
- Humidity: 10%-90% Non-Condensing
- Dimensions(W/D/H): 440*328*44mm (1U)
- Unit Weight:

  GW0048S-21, GW0048S-45 – 4.1 kg

  GW0072S-21, GW0072S-45 - 4.25 kg

  GW0096S-21, GW0096S-45 – 4.4 kg

- Compliance: CE and FCC

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