

NXS3000-32S NXO3000-32O

Analog VoIP Gateway



The **NXS3000-32S** and **NXO3000-32O** are advanced, high-capacity analog VoIP gateways designed to seamlessly bridge IP telephony networks with legacy analog devices, including POTS (Plain Old Telephone Service) phones, fax machines, and traditional PBX systems. Featuring a modular hardware architecture, these gateways enable flexible port expansion based on user-specific requirements. Each modular board integrates **8 FXS or FXO ports**, allowing for a scalable configuration of up to **32 FXS/FXO ports** in total.

Engineered for interoperability, the NXS3000-32S and NXO3000-32O are compliant with the **SIP protocol**, ensuring seamless integration with leading IMS (IP Multimedia Subsystem), NGN (Next Generation Networks), and SIP-based telephony platforms. These gateways are ideal for **small-to-medium enterprises (SMEs)**, **call centres**, and organizations with multi-site operations requiring reliable VoIP connectivity and efficient migration from legacy telephony infrastructure to modern IP networks.

Key Features

- **Flexible Scalability:** Modular design allows seamless port expansion to meet growing connectivity needs.
- **Extended Connectivity:** Supports cabling distances up to 5 kilometers, ensuring deployment over large areas.
- **High Port Density:** Accommodates up to **32 FXS/FXO ports** for dense analog integrations.
- **Multi-Codec Support:** Ensures high-quality voice transmission with codecs like **G.711A/U, G.723.1, G.729A/B, and iLBC**.
- **Dual-Stack IP Compatibility:** Operates smoothly with both **IPv4 and IPv6 networks**.
- **Seamless Integration:** Fully interoperable with **SIP-based IP telephony systems** and leading **IMS/NGN platforms**.

Environmental and Hardware

Power Supply: 1+1 Redundant, 100-240VAC, 50-60 Hz

Power Consumption: 20W Typical

Temperature Range:

Operating: **0°C to 45°C**

Storage: **-20°C to 80°C**

Humidity: 10%-90% (Non-Condensing)

Dimensions: 437 x 330 x 44mm (1U)

Weight: 3.6 kg

Certifications: CE, FCC

Management and Maintenance

Management Protocols:

SNMP, TR-069

Auto Provisioning and Cloud-Based Management

Configuration and Diagnostics:

Web/Telnet Access

Firmware Upgrades via Web Interface

Configuration Backup/Restore

Call Detail Records (CDR) and Syslog Support

Tools: Ping, Traceroute, Network Capture

IVR-Based Local Maintenance

Outward Testing (GR909)

Time Management: NTP and Daylight Saving Time



Voice and Codec Capabilities

Supported Codecs: G.711 A/U, G.723.1, G.729A/B, G.726, iLBC

Voice Optimization Features: Silence Suppression, Voice Activity Detection (VAD)

Comfort Noise Generation (CNG)

G.168 Echo Cancellation (128ms Adaptive Buffer)

Dynamic Jitter Buffer

Additional Functionalities: T.38 Fax Support / Pass-through

Hook Flash and Programmable Gain Control

Modem/POS Support

DTMF Modes: Signal, RFC2833, Inband

FXS and FXO Features

FXS Interface:

Connector: RJ45 (2 ports)

Dial Mode: DTMF and Pulse (10/20 PPS)

Caller ID Support: DTMF/FSK, CLI Presentation

Max Cabling Distance: 5 KM

Reversed Polarity and Programmable Call Progress Tone

FXO Interface:

Connector: RJ45 (2 ports)

Dial Modes: DTMF/Pulse

Caller ID Formats: FSK and DTMF

Polarity Reversal, Answer Delay, Busy Tone Detection, and No Current Detection

VoIP and Network Features

VoIP Protocols: SIP v2.0 (UDP/TCP), RFC 3261

RTP/RTCP (RFC 1889, 2198)

SDP, SIP TLS Encryption

NAT Traversal: STUN, Static/Dynamic NAT

RFC Compliance:

2833, 3262/63/64/65, 3311, 3515, 2976, 4028, 3581

IPv6 in SDP (RFC 3266), TEL URI (RFC 2806)

Network Optimization: • VLAN Tagging (802.1P/802.1Q)

• QoS: Layer 3 (DiffServ)

• Bandwidth Management with
Digit Map

• Routing Rules and Caller/Called
Number Manipulation

Capacity and Interfaces

Port Capacity: Configurable from **8 to 32**

FXS/FXO ports

User Board Design:

FXS Ports: 2 x RJ45 connectors, 8 ports per board

FXO Ports: 2 x RJ45 connectors, 8 ports per board

MCU Board Connectivity:

1 x RS232 (115200 bps)

2 x Gigabit Ethernet Ports (10/100/1000 Mbps,
RJ45)



Advanced Software Features

Access Control & Security:

Web ACL and Telnet ACL ensure secure system management and controlled access.

Network and IP Support:

Seamless integration with PPPoE and compatibility with **IPv4/IPv6** networks.

Routing and Call Management:

Prefix-based **Routing Rules** for intelligent call direction.

Flexible **Caller/Called Number Manipulation** for customized call handling.

Digit Mapping for efficient number translation and call routing.

Bandwidth Optimization:

Advanced algorithms to optimize bandwidth usage for improved performance.

Supplementary Call Services:

Call Waiting, Call Hold, and Do Not Disturb (DND).

Call Transfers: Blind and Attended Transfer.

Call Forwarding: Unconditional, Busy, and No Reply.

Hotline Configuration: Warm and Immediate Hotline options.

3-Way Conferencing for collaborative communication.

Hunting Group:

Distributes incoming calls intelligently across available ports for load balancing.

Action URL Integration:

Automated system triggers and external integrations to streamline operations.

Message Features:

Message Waiting Indicator (MWI) for efficient notification of pending messages.

Why STL-Neox?

Trusted Globally: CCaaS/UCaaS solution with 500+ customers worldwide

Certified Excellence: Make in India, Gartner-reviewed, ISO 27001/14001, CMMi Level 5, DOT-TRAI tested

All-in-One Platform: Unifies all communication needs on a single platform

Open SIP Protocol: Avoids vendor lock-in

In-House Development & Customization: Tailored to meet specific client needs

24x7 Professional Support: Strong post-sales service for seamless operations

Value for Govt. Helplines, Telcos, Data Centers, and Enterprises

Multi-Vendor Compatibility: Interoperable with various systems

Compliance-Ready: Meets data privacy and security standards

About Sterlite Technologies Ltd. (STL)

STL is a leading global optical and digital solutions company providing advanced offerings to build 5G, Rural, FTTx, Enterprise, and Data Centre networks. The company, driven by its purpose of 'Transforming Billions of Lives by Connecting the World', designs and manufactures in 4 continents with customers in more than 100 countries. Telecom operators, cloud companies, citizen networks, and large enterprises recognize and rely on STL for advanced capabilities in Optical Connectivity, Global Services, and Digital and Technology solutions to build ubiquitous and future-ready digital networks. STL's business goals are driven by customer-centricity, R&D and sustainability. Championing sustainable manufacturing, the company has committed to achieving Net Zero emissions by 2030.

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