

Making every conversation count

NEOX N301/N301P Entry Level IP Phone



Neox N301/N301P is a **SIP phone** designed to offer a variety of functions. It features **HD audio** and supports **2 SIP lines**, ensuring clear communication. This model offers a **2.3-inch dot-matrix display** with a **132x64 pixel resolution** and enables a **6-way audio conference** for enhanced collaboration. Additionally, the **Neox N301P** is equipped with **dual 10/100 Mbps network ports** and **integrated PoE**, providing an efficient and high-performance communication solution.

Key Specifications

- **2.3-inch dot-matrix screen** with a **132x64 pixel resolution**
- **Supports 2 SIP lines** for seamless multi-line communication
- **HD audio quality** with **G.722 and Opus** codecs on both **speakerphone and handset**
- **6-way audio conferencing** for enhanced group communication
- **Compatible with EHS wireless headsets**
- **Dual 10/100 Mbps Ethernet ports**, with **integrated PoE support (available only on N301P)** with optional external power source
- **Multiple operation modes:** Handset, Hands-Free, and Headset
- **Flexible installation options:** Desktop stand or wall-mountable design

Phone Features

- **Local Phonebook:** Up to 1000 entries
- **Remote Phonebook:** XML/LDAP support (1000 entries)
- **Call Logs:** 600 entries (Incoming, Outgoing, Missed)
- **Blocked and Allowed Lists** for call management
- **Voice Message Waiting Indication (VMWI)**
- **Programmable DSS/Soft Keys** for quick access
- **Call Recording:** Server-based support
- **Action URL/Active URI** for automation
- **Network Time Synchronization**
- **uaCSTA** for advanced call control

Network Features

- **IP Configuration:** DHCP, Static IP, PPPoE
- **IP Modes:** IPv4, IPv6, Dual-Stack (IPv4 & IPv6)
- **Dual 10/100 Mbps Ethernet Ports** with PC bypass support
- **Network Access Control:** 802.1X Authentication
- **VPN Support:** OpenVPN, L2TP
- **VLAN Support** for network segmentation
- **QoS (Quality of Service)** for optimized performance
- **LLDP and CDP** for network discovery and management
- **Call Quality Monitoring:** RTCP-XR (RFC3611) and VQ-RTCPXR (RFC6035)



Provisioning and Control

- **Web Management Portal** for easy configuration
- **Configuration Management:** Export/Import options
- **Phonebook Management:** Import/Export support
- **Firmware Upgrade** for seamless updates
- **Web-Based Packet Dump** for troubleshooting
- **Syslog Support** for system logging and diagnostics
- **Auto-Provisioning:** FTP, TFTP, HTTP, HTTPS, DHCP, OPT66, SIP PNP, TR-069

Calling Functions

- **Make, Answer, or Reject Calls**
- **Hold and Resume Calls**
- **Mute/Unmute Microphone**
- **Call Waiting** for incoming call alerts
- **Redial Last Number**
- **Speed Dial** for quick access to contacts
- **Display or Hide Caller ID** (Anonymous Call)
- **Call Forwarding Options:** Always, Busy, No Answer
- **Call Transfer:** Attended or Blind
- **Call Pickup/Parking** (Server-dependent)
- **Auto-Answer** for hands-free convenience
- **Do Not Disturb (DND)** mode for uninterrupted time
- **6-Way Audio Conferencing** for group discussions
- **Intercom Function** for internal communication
- **Hotline Setup** for instant calling
- **Hot Desking Support** for shared workspace environments
- **Voice Messaging** (Stored on Server)

Network Security and Protocols

- **SIP 2.0** over UDP, TCP, and TLS
- **Secure Media:** SRTP, RTP/RTCP
- **VPN Support:** OpenVPN, L2TP
- **IP Configuration:** DHCP, PPPoE

- **IPv6 Compatibility** for modern networks
- **Network Discovery:** LLDP (Link Layer Discovery Protocol)
- **Authentication:** 802.1X Network Access Control
- **Encryption:** AES-128 and AES-256 for data security
- **Firewall Traversal:** STUN
- **Time Synchronization:** SNTP
- **File Transfer:** FTP/TFTP
- **Web Access:** HTTP/HTTPS
- **Remote Management:** TR-069

Audio Features

- **Wideband ADC/DAC** with 16KHz sampling for superior audio performance
- **Full-Duplex Acoustic Echo Cancellation (AEC)** for crystal-clear calls
- **Wideband Audio Codecs:** G.722, Opus
- **Narrowband Audio Codecs:** G.711a/u, G.723.1, G.726, G.729A/B, iLBC
- **Advanced Voice Processing:**
 - Noise Reduction (NR)
 - Automatic Gain Control (AGC)
 - Voice Activity Detection (VAD)
 - Comfort Noise Generation (CNG)
 - Background Noise Estimation (BNE)
- **Voice Quality Enhancements:**
 - Packet Loss Concealment (PLC)
 - Dynamic Adaptive Jitter Buffer
 - VQM (Voice Quality Monitoring)
- **DTMF Support:** In-band, Out-of-Band (RFC2833/SIP INFO)
- **Handset with Hearing-Aid Compatibility (HAC)**
- **Handset with HD Voice Microphone & Speaker** (Frequency Range: 0 ~ 7KHz, for Handset/Hands-free modes)



Device Specifications

Display and Controls

- **Main LCD:** (132x64 resolution) pixel graphical LCD with backlight
- **Keypad** (33 keys):
 - o **Standard Digits:** 12 keys
 - o **Soft Keys:** 4
 - o **Function Keys:** 9 (Hold/Transfer/Voice message/Conference/Phonebook/MWI/Headset/Redial/Hands-free)
 - o **Navigation Keys:** 4
 - o **Volume Control:** 3 keys (Up, Down, Mute Microphone)
 - o **Ok Key:** 1

Connectivity and Ports

- **RJ9 Ports:**
 - o Handset x1
 - o Headset x1
- **RJ45 Ports:**
 - o Network x1
 - o PC x1 (Bridged to Network)

- **DC Power Input:** DC 5V / 2A
- **Safety Keyhole :** 1

Accessories and Installation

- **HD Handset (RJ9)** x1
- **Standard RJ9 Handset Wire** x1
- **1.5M CAT.5E Ethernet Cable** x1
- **Status Light:** Red
- **Installation:**
 - Desktop Stand:
 - o 45° Angle: 169x201.1x177.4 mm
 - o 50° Angle: 169x191.9x185.8 mm
 - Wall Mountable (Optional):
169x120.1x213.7 mm

Environmental Conditions

- **Operating Temperature:** 0°C ~ 45°C
- **Operating Humidity:** 10% ~ 95%

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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