NSG100 LoRaWAN-enabled Gateway with 802.11a/b/g/n Wi-Fi and BT 4.0

YOUR PRIVATE INDUSTRIAL IOT PLATFORM CLOUD-READY ON DAY ONE

NviroSense's **NSG100 LoRaWAN-enabled Gateway** is the ultimate secure, scalable, robust LoRaWAN solution for end-to-end control of your private LoRaWAN network. Leveraging our field-proven, reliable WB50NBT wireless bridge certified module, it also offers enterprise **dual-band Wi-Fi and wired Ethernet** for complete design freedom. Based on the **Semtech SX1301/SX1257 chipset designs**, it offers a **LoRaWAN range up to 15km** and pre-loaded **LoRa Packet Forwarder software**, perfect for highly scalable, flexible IoT networks. It is compatible with third-party Cloud and LoRa partners, as well as any LoRaWAN certified client devices. The NSS5000 Gateway gives you multi-protocol connectivity to your long-distance IoT sensors and devices to create actionable IoT intelligence.

- **Full Linux operating system** Kernel v4.x running on Atmel A5 Core @ 536 MHz.
  - **Multiple interfaces** such as LoRaWAN, Wi-Fi 802.11a/b/g/n and Ethernet.
- **8-Channel LoRaWAN support** with up to +27 dBm max transmits power.
  - **Comprehensive Certifications** for FCC, IC, CE, ASNZS, NCC.
- **Industrial temperature range** (-30º to +70º C).
- **Advanced deployment tools** including intuitive web-based configuration and integrated preset for multiple external LoRa Network Server vendors.
- **Enterprise-grade security** built on years of experience in wireless technology.
- **Industry-leading support** works directly with our engineers to help deploy your design.

KEY SPECIFICATIONS

Category	Feature	Specification
Chipset	LoRa	Semtech SX1301/1257
	Bluetooth	Cambridge Silicon Radio CSR8811 A08
	Wi-Fi	Qualcomm Atheros QCA6004
Wireless Characteristics	Wi-Fi Spatial Streams	2×2 MIMO
	Wi-Fi Frequencies	2.4 & 5 GHz Operation
	LoRa Frequencies	EU 863 – 870 MHz, US 902 – 928 MHz, Australia 915 – 928 MHz and AS923 (TW, HK, NZ, AU)
Interfaces	Wired	Ethernet - RJ45 Connector
	Wireless	LoRaWAN, Wi-Fi 2.4/5 GHz
Power	Supply Voltage	12V/1A
	Power Adapter	External DC Power Supply with regional plug adapter

Software	Operating System	Embedded Linux, 4.x Kernel
	LoRa	Packet Network Forwarder
	Web Application	NviroSense for Environmental Monitoring: Onsite, Cloud, Hybrid Multi-site or API Monitoring, Reporting & Control
	Mobile Application	Android and iOS - Remote sensor display and config + firmware updates
Enclosure	Standard	IP67-rated external enclosure
Physical	Dimensions	133mm x 275mm x 30mm
Environmental	Operating Temperature	-30°C to 70°C
Regulatory	Approvals	FCC, IC, CE, ASNZS, NCC
Accessories	Included	1x 868 MHz, 915 MHz, 923 MHz antenna, 2x 2.4 /5 GHz antennas, External DC Adapter, Ethernet cable
Warranty	Time-period	One-year

FEATURES AT A GLANCE

AGGREGATE & UTILISE IoT DATA
Develop a fully owned private LoRa network to capture, route and process IoT data for your application at multiple facilities.

MULTIPLE INTERFACE OPTIONS FOR ULTIMATE DESIGN CHOICE
Wide variety of connectivity interfaces: LoRaWAN, Dual Band Wi-Fi (2.4 and 5 GHz), Ethernet and BT v4.0 (BLE and Classic – not implemented in GA1).

COMPREHENSIVE SECURITY AND RELIABILITY
Robust multi-layer security at each interface to safeguard your network at every level.

BROAD CERTIFICATION AND APPROVALS
CFR 21 (part 11), PPECB, FCC, IC, CE, ASNZS, NCC, and Bluetooth SIG listing.

THE PLATFORM FOR BUILDING ACTIONABLE IoT INTELLIGENCE
Route sensor data to the cloud with NviroSense's simplified wireless connectivity deployment.

PERSONAL SUPPORT FOR YOUR IMPLEMENTATION
Support works with NviroSense engineering to help configure and deploy your application.

APPLICATION AREAS

PHARMACEUTICAL WAREHOUSING

COLD CHAIN MANAGEMENT & FOOD SAFETY

NVIROSENSE SUPPORT

NviroSense

NEW: The NviroSense NSS450 Series now offers a range of additional sensor options available via expansion port. For more details, visit the **EUCAstore**