

NSS550 DIFFERENTIAL PRESSURE & TEMPERATURE SENSOR

ADVANCED WIRELESS PRECISION PRESSURE MONITORING FOR IOT

Introducing the NSS550, a cutting-edge wireless communication device engineered to detect subtle and significant pressure differences with utmost precision. This state-of-the-art sensor is designed to effortlessly transmit data to other devices via a secure and reliable wireless network. At the core of the NSS550 is an advanced SX1276 wireless communication module, ensuring dependable and low-latency data transmission even in the most demanding environments.

- **Multi-wireless:** SX1276 Module for Efficient Data Transmission (LoRaWAN™ Class A compatible).
- **Power Source:** Dual 3.6V ER14505 Lithium Batteries for Extended Battery Life.
- **Precision Sensing:** Differential Pressure Sensor for Accurate Pressure Measurement.
- **Rugged Design:** IP40 Protection Class for Added Durability.
- **Convenient Installation:** Equipped with a Magnet on the Base for Easy Attachment to Ferromagnetic Materials.
- **Enhanced Signal:** Frequency Hopping Spread Spectrum (FHSS) for Enhanced Signal Reliability.
- **Remote Monitoring:** Third-Party Online Wireless Sensor Monitoring and Notification System for Remote Configuration and Alerts (Optional).



KEY SPECIFICATIONS

Category	Feature	Specification
Electric	Power Supply	2x3.6V ER14505 lithium batteries
	Operating Voltage	3.1v to 3.65
	Standby Current	<30 uA
	Receiving Current (max)	11mA @ 3.3V
	Transmitting Current (max)	120mA/3.3V
	Battery Voltage Accuracy	±0.1V
	Low Voltage Threshold	3.2V
	Differential Pressure Measurement Range	-500 Pa to 500 Pa
	Differential Pressure Accuracy	3% of reading ± 0.1 Pa
	Media Compatibility	Air, Nitrogen, Oxygen, Non-condensing
	Temperature Accuracy	± 3°C (-20°C to 50°C)
Frequency	Frequency Range	863MHz-928MHz, 470MHz-510MHz
	TX Power	US915 20dbm, AS923 16dbm, AU915 20dbm, CN470 19.15dbm, EU868 16dbm, KR920 14dbm, IN865 20dbm
	Receiving Sensitivity	-136dBm (LoRa, SF=12, Bit Rate=293bps), -121dBm (FSK, Freq. deviation=5kHz, Bit Rate=1.2kbps)

Frequency	Antenna Type	Built-in antenna
	Communication Distance	Up to 10 km
	Data Transfer Rate	LoRa: 0.3kbps~50kbps, FSK: 1.2kbps~300kbps
	Modulation	LoRa/FSK (Note: Choose one)
Physical	Dimension	Host body: 112mm65mm32mm, External Hose Dimension: Outer diameter 6mm, Inner diameter 4mm
	Operating Temperature Range	-20°C ~ 50°C
	Storage Temperature Range	-40°C ~ 85°C
	Operating Humidity Range	<90%RH (No condensation)

FEATURES AT A GLANCE



YOUR WIRELESS NETWORK

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



RUGGED DURABILITY WITH A BROAD SENSOR ARRAY

Robust enclosures provide a resilient platform for recording and delivering data from within a range of harsh environments.



COMPREHENSIVE SECURITY AND RELIABILITY

Robust multi-layer security at each interface to safeguard your network at every level.



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



IN-FIELD AGRICULTURAL MONITORING



INDUSTRIAL & MINING APPLICATIONS

NVIROSENSE SUPPORT



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