



AURORA XDLSN3 – SMARTMESH IP

PN: 1101039-2

A wireless IoT sensor system

ABOUT

AURORA XDLSN3 is a modular and easy to customize with any sensors. The module is a twofold unit consists of one radio mainboard unit of either SMARTMESH IP, LoRa, Sigfox and NBloT and sensor board. Both boards have a MCU, they can handle and analyze high speed data on the module.

This radio mainboard is equipped with a CR123, 1550mA battery. Sensor board will also be equipped with the same CR123 battery. The batteries from each board are connected in parallel to extend the battery life. The module ⁽¹⁾ will operate for up to 10 years. ⁽²⁾

The AURORA XDLSN3 – SMARTMESH IP is equipped with Analog Devices’ SmartMesh IP. The SmartMesh IP is a low power full-mesh network, which provides redundant routing of the network with > 99.999% data reliability even in harsh, dynamically changing RF environments.

Onboard Sensors

Temperature and Humidity

HUMIDITY & TEMPERATURE		Min	Max
Precision Relative Humidity Sensor ± 4% RH (max)		0 % RH	80 % RH
High Accuracy Temperature Sensor ±0.4 °C (max) ⁽⁵⁾		-10°C	85°C
Power Consumption		60 µA	150 uA

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PARAMETER	Min	Max
Storage temperature ⁽³⁾	-20° C	40° C
Operating Temperature	-40° C	60° C
Supply Voltage	2.2 V	3.6 V
Input RF Level	-	10 dBm
Output RF Level	-	14 dBm
Dimension ⁽⁴⁾		
Length	-	70 mm
Width	-	50 mm
Depth	-	30 mm
IP Rating	IP65	

RF TRANSCEIVER SPECIFICATION

PARAMETER	Min	Max
RF sensitivity 125 kHz Bandwidth	-135.5 dBm	-117.5 dBm
RF sensitivity 250 kHz Bandwidth	-133.0 dBm	-114.0 dBm
Sleep mode current	-	1.4 µA
Operating current	-	8 mA

(1) A module is a radio mainboard connects with a sensor board.

(2) Battery life is depended on sensor type, number of measurements per hour, length of the messages, range to the gateway and battery self-discharge (typical 1-2% per year).

(3) Storage temperature with lithium battery.

(4) Without external antenna. Dimension may change depending on snap-in board to be used.

(5) Sensor can measure up to 85°C. Due to lithium battery, the module can operate up to 60°C.