AURORA XDLSN3 – ENVIRONMENTAL

A wireless IoT sensor system

PN: 1101053

ABOUT

The AURORA environmental sensor board is a sensor designed for indoor smart-building applications. It continuously monitors temperature, humidity, noise level, ambient light, barometric pressure and vapor from volatile organic compounds (VOC). Application areas include monitoring of meeting rooms, class rooms, or other public areas.

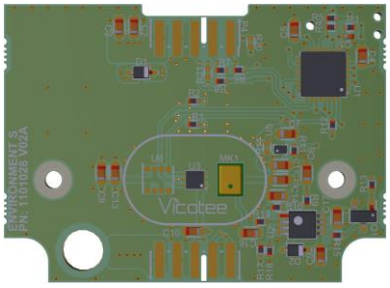
Connectivity

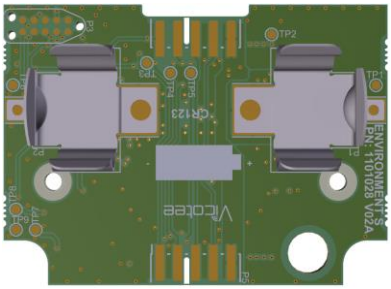
The module can be configured with NarrowBand IoT, SmartMesh IP, Sigfox or LoRa radio mainboard.

Configurator Environment

The unit can be configured Over-the-Air using the Vicotee AURORA Configurator software.

General Specifications	Min	Max	Other
Supply Power	2.6 V	3.5 V	
Operating Temperature	-20° C	60° C	
Storage Temperature (1)	-20° C	40° C	
IP Rating	-	-	Indoor
Battery (2)			CR123, 1550mA.
Dimensions (3)			70mm(L), 50mm(W), 30mm(D)





Specifications and information herein are subject to change without notice.

(1) Storage temperature with lithium battery.
(2) The sensor is equipped with CR123 (1550 mA). The battery life is depended number of measurements per hour, type of radio, range to gateway, temperature and battery self-discharge (typical 1-2% per year).
(3) Excludes antenna, weight and dimensions provided are after assembly with AURORA XDLSN3 mainboard and enclosure
(4) The temperature sensor can measure up to 85°C, but this max value can be lower depending on radio mainboard to be equipped with this module.

MICROPHONE	Min	Max
Sensitivity (94 dB SPL @ 1 kHz)	-45 dBV/Pa	-38 dBV/Pa
Signal to Noise Ratio (94 dB SPL @ 1 kHz, A-weighted)	-	59 dB(A)
Output Impedance at 1 kHz	-	400 Ohm
DC Output (at 1.5V)	-	0.73 V
Total Harmonic Distortion (94 dB SPL @ 1 kHz, S = Typ, Rload > 3k Ohm)	-	0.2%
Operating current	-	160 µA
Power Consumption	-	1.8 µA

VOC (Volatile Organic Compounds)	Min	Max
Range (Indoor Air Quality index)	25	500
Output data process: Direct output of IAQ: Index for Air Quality.	-	-
Power Consumption	0.15 µA	12 mA

AMBIENT LIGHT	Min	Max
Range	0.01 lux	83 lux
Wavelength	400 nm	700 nm
Power Consumption	-	1.8 uA

BAROMETRIC PRESSURE	Min	Max
Operating pressure range	300 hPa	1100 hPa
Absolute accuracy	-	±0.6 hPa
Relative accuracy	-	±0.12 hPa
Supply current	-	4.2 µA
Resolution	-	±0.18 Pa
Noise	-	0.12 Pa
Possible sampling rate	157 Hz	182 Hz
Power Consumption	0.15 µA	3.7 µA

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