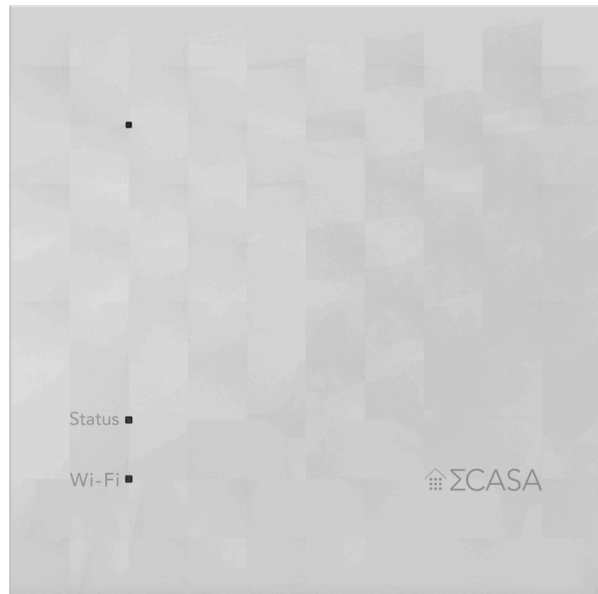
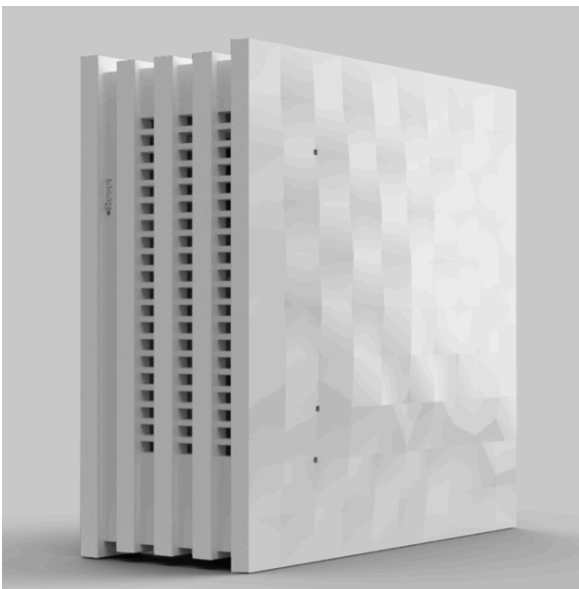


DEXATEK

Smart PM2.5 Combo Sensor Specification

Version 1.0.0



Introduction

Dexatek Smart PM2.5 combo sensor is a device that can provide you various environmental statistics including PM2.5(particulate matter) that is well known would damage the cardiovascular system and cause the respiratory illness. Besides the PM2.5 sensor, many environmental sensors such as light sensor, noise sensor, humidity sensor with temperature, and VOC are also embedded in the device.

The purpose of the combo sensor is to help users create a healthy and comfortable life by using only one smart device that can collect comprehensive environmental statistics. You are able to watch the indoor status in your home remotely through cloud sever and take care of your house or family all the time.

With Dexatek Σ Link system and Smart Gateway, you can make linkage between the combo sensor and other Dexatek Smart devices to enable various conditions for your smart life.

Key Features

- Volatile Organic Compounds(VOCs) / CO2 / PM2.5 sensor to monitoring indoor air quality.
- Remote control/monitoring available through cloud server
- iOS/Android App available to monitor the environmental statistics
- Compatible with Σ Casa system - Σ Link supported that allow users to build linkage with other Σ Casa products.

Specifications

BLE Version	Bluetooth® 4.2 / Bluetooth®5.0
BLET System On Chip	Nordic Semiconductor(Nordic nRF52832)
Memory	2MB+512K RAM / ext. Flash
Processor	ARM® Cortex®-M3 32-bit processor, 166 MHz
Wi-Fi Version	2.4GHz, 1T1R 802.11b/g/n
WiFi Security Supported	WEP, WPA, WPA2, WPS

Security Engine	MD5, SHA-1, SHA2-256, DES, 3DES, AES
Wi-Fi System On Chip	Realtek Semiconductor Corp.(Realtek 8195 AM)
BLE Antenna	Omni-directional Chip antenna with matching tuning circuitry
Wi-Fi ANTENNA	Omni-directional Chip antenna with matching tuning circuitry
Transmission Range	300~500 m for open space
Energy Consumption	nRF52832 Peak TX (0dBm) 5.3 mA; running from Flash 58 μ A
Measuring PM Diameter	>2.5 μ m
Measuring PM Range	0~1000 μ g/m
Humidity Sensing Range	10~90 %RH
Temperature Sensing Range	-10°C ~ 80°C
VOC Detection	0 ~ 1000 ppb
CO₂ Detection	Calculate the CO2 equivalent value by Algorithm (400ppm~5000ppm)
Input Power	Micro USB DC 5V 1A / 12V 1A (Optional)
ROHS Compliant	Yes
Customisable	Colorings, branding, advertising packet and firmware possible.
IP Rating	IP 4X
Regulatory	CE FCC compliant
Operating Temperature	-5C to +45°C
Storage Temperature	-10°C to +70°C
Dimension	90 x 90 x 38 (mm)
Weight	150g
System Required	iOS - iOS 8.0 and above with Bluetooth Low Energy(Bluetooth 4.0) Android - Android 5.0 and above on Bluetooth 4.0 Smart Ready devices

	ΣCasa App
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LED status(TBD)

Color	Status
Blue	Wifi Search Connect (1 Second flash interval)
	Connecting to Server (0.5 seconds flash interval)
	Other BLE related access(0.2 seconds flash)
	BLE scan for pairing(2 seconds flash interval)
Orange	Initial state before any setup(2 seconds flash interval)
	Smart Hub setup mode(0.2 seconds flash interval)
	Update Smart Gateway Firmware(0.2 seconds flash interval)
Red	All error(0.2 seconds flash interval)

Accessories

- One 5V power adapter
- One Micro USB cable
- Reset pin

Packaging

