



Features

- LoRaWAN compliant
- High Receiver Sensitivity and long range solution
- Integrated with calibrated Dust Particles sensor
 - Accuracy: 1 µg/m³
 - Range: 0-500 µg/m³
- Integrated with Compensated Temp/RH sensor
- Wide range DC power-in, 8~24V /or Micro-USB DC power-in, 5V
- Display PM2.5 concentration, Temp/ RH

DVC-201 series are designed to measure Particle, Temperature and Humidity by LoRa long-range and low-power wireless connectivity. It is integrated LoRa wireless technology, Laser dust (PM2.5) Sensor knowhow and high-performance MCU solution for various IoT markets usage. With calibrated dust (PM2.5) sensor module and compensated Temperature/Humidity sensor integration, the data is ready for use. It is perfect to detect the dust in the air, like air purifier, air conditioner and air monitor.

Specifications

Model name	DVC-201WxD-2 series	DVC-201WxD-1 series
Wireless		
Standard/ Protocol	Comply with LoRaWAN protocol	
Frequency	862-870 MHz ISM bands	902-928 MHz ISM bands
Tx Power	Up to 100mW	
Sensitivity	-132 dBm @ 980bps	
Receiver	LoRaWAN comply Receiver Gateway	
Antenna	824~960 MHz 2dBi SMA Male connector	
Sensor Operation		
Sensing element	Dust: laser light scattering principle Temperature & humidity: CMOS sensor	
The unit of measurement	µg/m3	
Response time	Dust: < 10 sec Temperature: min. 3 sec. : max. 30sec. at τ63% Humidity: < 8 sec. at τ63%	
Accuracy (at 25°C)	Dust: µg/m3 Temperature: ±0.3°C Humidity: ±3 %RH	
Repeatability	Dust: ±10%@100~500 µg/m3, ±10µg/m3@0~100µg/m3 Temperature: ±0.1°C Humidity: ±0.1 %RH	
Zero Drift	Temperature: < 0.04 °C/yr. Humidity: < 0.5 %RH/yr.	
Measurement range*	Dust: 0-500 µg/m3 Temperature: -40 ~ +125°C Humidity: 0 ~ 95 %RH	

System operation	
Temperature	-10 ~ + 60 °C
Humidity	0 ~ 95%RH, Non-condensing
Storage temperature	-10 ~ +60 °C.
Warm-up time	≤ 1 min. (at full specs ≤ 15 minutes)
Signal output	NA
Alarm output	NA
Power supply	Wide range DC power-in, 8~24V /or Micro-USB DC power-in, 5V
Power consumption	TBD
Installation	Wall-mount
Dimension (mm)	Wall-mount: 113.57(H) x 80(W) x 28.79(D)
Case material	ABS

Order information

Part Number	Description
DVC-201WxD-20000	LoRaWAN 868MHz PM2.5 sensor device
DVC-201WxD-10000	LoRaWAN 915MHz PM2.5 sensor device

Relative product information

Part Number	Description
DVC-301WxD-20000	LoRaWAN 868MHz CO2 sensor device
DVC-301WxD-10000	LoRaWAN 915MHz CO2 sensor device
DVC-101WxD-20000	LoRaWAN 868MHz CO sensor device
DVC-101WxD-10000	LoRaWAN 915MHz CO sensor device