



## High-density VOC Transmitter via USB

# UA54-VOC-2000

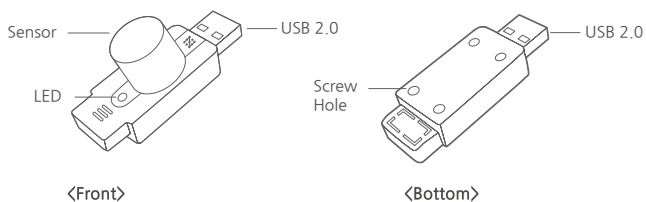
- Real-time VOC density, Temp/RH Transmitter
- Electrochemical VOC gas sensor embedded
- Operating On Windows / Linux / MacOS
- AT Command Support
- PC Recording Software (Tapaculo Lite)
- Android Recording App (Tapaculo Mobile)



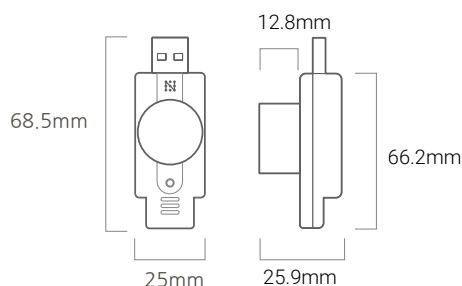
The UA54-VOC-2000 device has an electrochemical VOC (Volatile Organic Compounds) sensor inside. It transmits measured VOC density to 2000ppm and temperature information in real-time via the USB connector.

The UA Series is automatically recognized as a serial port on the operating system and accessed using the AT command. Multiple USB connections of the UA device could compose the multi-channel sensor. The sensor data is not stored in the UA, but recording in PC and Android device. 128CH real time monitoring software on pc, Tapaculo Lite is downloadable on our website([www.radionode365.com](http://www.radionode365.com)). And android real time recording application is also available from google play store. The optional RN17X model helps UA series for you to setup remote web monitoring system.

## Hardware



## Dimensions



## ⚠ CAUTION!

- Volatile organic compounds (VOCs) should be avoided in applications where electrochemical sensors are used because they either dissolve in the electrolyte or adsorb onto the sensor's housing.
- Long term exposures and high concentrations may affect the performance characteristics
- Sudden changes in humidity cause short-term transient signals
- Avoid contact with conductors.
- Static electricity can cause distorted values.

## Contact Information

- [www.radionode365.com](http://www.radionode365.com)
- [master@dekist.com](mailto:master@dekist.com)



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### UA54-VOC-2000 Specification

Sensor Channel Info.	<ul style="list-style-type: none"> <li>• CH1: VOC</li> <li>• CH2: Temperature</li> <li>• CH3: Humidity</li> </ul>		
Gas Sensor Type	Electrochemical Cell		
Body Material	PC(Polycarbonate)		
Measurement Range	<ul style="list-style-type: none"> <li>• VOC: 0 ~ 2000 ppm</li> <li>• Temperature: -40 ~ 50°C</li> <li>• Humidity : 5~95%</li> </ul>		
Measurement Unit (Selection using SW)	<ul style="list-style-type: none"> <li>• VOC: ppm</li> <li>• Temperature: °C(Default), °F</li> <li>• Humidity: 0.01%</li> </ul>		
Measurement Cycle	1 sec		
Sensor Resolution	<ul style="list-style-type: none"> <li>• VOC: 0.1ppm</li> <li>• Temperature: 0.01°C</li> <li>• Humidity: 0.01%</li> </ul>		
Sensor Accuracy (Repeatability)	<ul style="list-style-type: none"> <li>• VOC: &lt;2% of measured value</li> <li>• Temperature: ±0.2°C</li> <li>• Humidity: ±2.0%</li> </ul>		
Compensation Logic	Temperature		
Baseline Drift	0.1 ~ 1.5ppm		
Long-term Drift	<2% signal loss/month		
Gas Response Time	T90 < 100 secs		
Warming up Time	3mins after power-on		
Operating Condition	<ul style="list-style-type: none"> <li>• Temperature: -40 ~ 50°C</li> <li>• Humidity: 15 ~ 95%RH(non condensing)</li> </ul>		
Lifetime	< 5 Years @ discontinuous measurement		
Cross-Sensitivity	Interfering Gas	Concentration [ppm]	Reading [ppm]
	CO	100	40-50
	H <sub>2</sub>	100	0
	H <sub>2</sub> S	100	>100
Power Consumption	5V (Max. 110mW)		
Calibration Certificate	Individual certificate Calibration with 51% i-C4H8 calibration gas mixtures		
Calibration Method	Two-point Calibration		
USB Port	USB 2.0 Type A Plug		
Output Signal	USB digital, CDC Device (AT Command)		
LED	Device Status Indicator <ul style="list-style-type: none"> <li>• BLINK RED &amp; GREEN: Warming-up</li> <li>• RED KEEP ON: USB Connection Failed</li> <li>• BLINK GREEN: Measuring</li> </ul>		
Software Support	<ul style="list-style-type: none"> <li>• Tapaculo Mobile 3CH recording software on Android devices Download: Google play store</li> <li>• Tapaculo Lite 128CH recording software on PC Download: <a href="http://www.radionode365.com">www.radionode365.com</a></li> <li>• Calibration Software Calibrator that compensates measuring error. Download: <a href="http://www.radionode365.com">www.radionode365.com</a></li> </ul>		

### Application

- Industrial safety
- Oil vapor measurement
- Environmental safety in the factory

### Product Components

Model	Component
UA54-VOC-2000	<ul style="list-style-type: none"> <li>• UA54-VOC-2000(1EA)</li> <li>• USB Extension Cable 1.5 m (1EA)</li> <li>• Calibration Certificate(1EA)</li> </ul>

### Optional Accessories

Type	Model Number	Spec.
Sensor data transmitter via Ethernet	RN171 WC	<ul style="list-style-type: none"> <li>• Supports cloud monitoring</li> <li>• Supports MODBUS TCP/ HTTP data transmission</li> <li>• Power: PoE 48V, IEEE802.3af/at, DC6V, 1.9W</li> </ul>
Sensor data transmitter via WiFi	RN172 WC-D	<ul style="list-style-type: none"> <li>• Supports cloud monitoring</li> <li>• Supports MODBUS TCP/ HTTP data transmission</li> <li>• Power: DC12V, 5W</li> </ul>