



The Yocto-MaxiMicroVolt-Rx is a precision analog/digital converter to perform high-precision differential voltage measurements. The device provides 4 differential inputs, which are measured in round-robin loop. It provides a regulated 4.7V power supply. The inputs are not electrically isolated from the USB ground, but the inputs can freely float between the ground and the 4.7V supply: only the voltage difference between the two wires of each pair will impact the measured value.

The measure is performed by a 32 bit A/D with FIR filter, which allows for a sensitivity better than 1 μV , combined with a precision voltage reference. The device includes a built-in temperature sensor, which can be internal or external NTC, and can perform autonomous computations

on the measures values and temperature. This makes it ideal to measure the output signal from electrochemical gas sensors for instance.

The device provides immediate reading on USB, and can also store measures on the device internal flash for later retrieval when connected again by USB.

Specifications

Product ID	RXUVOLT1
USB connector	micro-B
Width	58.3 mm
Length	50 mm
Weight	15 g
Channels	4
Chipset	Texas ADS1263, REF3425
Refresh rate	2 or 7 Hz
Input impedance	40 M Ω
Measuring range	-2000...+2000 mV
Accuracy	1 μV , 0.05 %
Sensitivity	0.5 μV
IEC protection class	class III
Normal operating temperature	5...40 $^{\circ}\text{C}$
Extended operating temperature [‡]	-30...85 $^{\circ}\text{C}$
RoHS compliance	RoHS III (2015/863)
USB Vendor ID	0x24E0
USB Device ID	0x0092
Suggested enclosure	YoctoBox-MaxiIO-Transp
Harmonized tariff code	8542.3190
Made in	Switzerland

[‡] The extended temperature range is defined based on components specifications and has been tested during a limited duration (1h). When using the device in harsh environments for a long period of time, we strongly advise to run extensive tests before going to production.



For more information: www.yoctopuce.com/EN/products/yocto-maximicrovolt-rx