

## Smart Logger

### SCU10 – 16 Channels Fast Sampling Product



- 16 channels differential voltage input measurement.
- 100 kHz Data sample rate.
- Selectable voltage input range  $\pm 10V$  or  $\pm 40V$ .
- Ethernet TCP, USB-C and RS-232 communication interfaces.
- Built in SD Card to store the configurations and data acquisitions.
- Software defined and external trigger signals support.
- Ready to use C# and LabVIEW APIs.
- External clock reference for synchronization.

#### Overview

The SCU10 Fast Sampling Product offers 16 channels of differential real time voltage measurement, with a precision of 16 bits and a sample rate up to 100 kHz (upgradable to 1 MHz). The SCU10 supports a wide range of programmable configuration parameters for each voltage input channel, for example the data rate, the total period of acquisition, the trigger option, etc.

Three operation modes

#### 1. Single sampling mode

Manual sampling test, you can sample a period for multi-channels.

#### 2. Long term sampling mode

Long term sampling test, you can sample without a stop timing until click stop.

#### 3. Trigger sampling mode

For trigger test to capture special signal, you can connect a digital control to smart logger then it will start sampling as trigger.

The user has the option to use the Ethernet TCP, USB-C or RS-232 as a communication interface to set the configuration of the channels and get the measurement data. In addition, The SCU10 is able to run in a standalone mode with the built in SD Card.

**Detailed Specifications:**

Analog Input	Value
Channels	16 Channels
Resolution	16 bits
Input Range (Normal / Max)	$\pm 10\text{ V} / \pm 40\text{ V}$
Accuracy	$\pm 0.5\%$
Input Resistance	220 k $\Omega$ (Differential)
Sampling Speed	Up to 100 ksp/s
Synchronization	100 kHz clock input
Trigger	Rising/Falling edge digital input

Communication Interface	Parameters
Ethernet	TCP/IP 10/100 Mbps link Programmable Source, Gateway and Mask IPs
USB-C	USB 2.0 5V power supply
RS-232	Programmable baud rate up to 921600 bps

**Power Requirement**

**DC power supply:**

24 VDC, 90mA

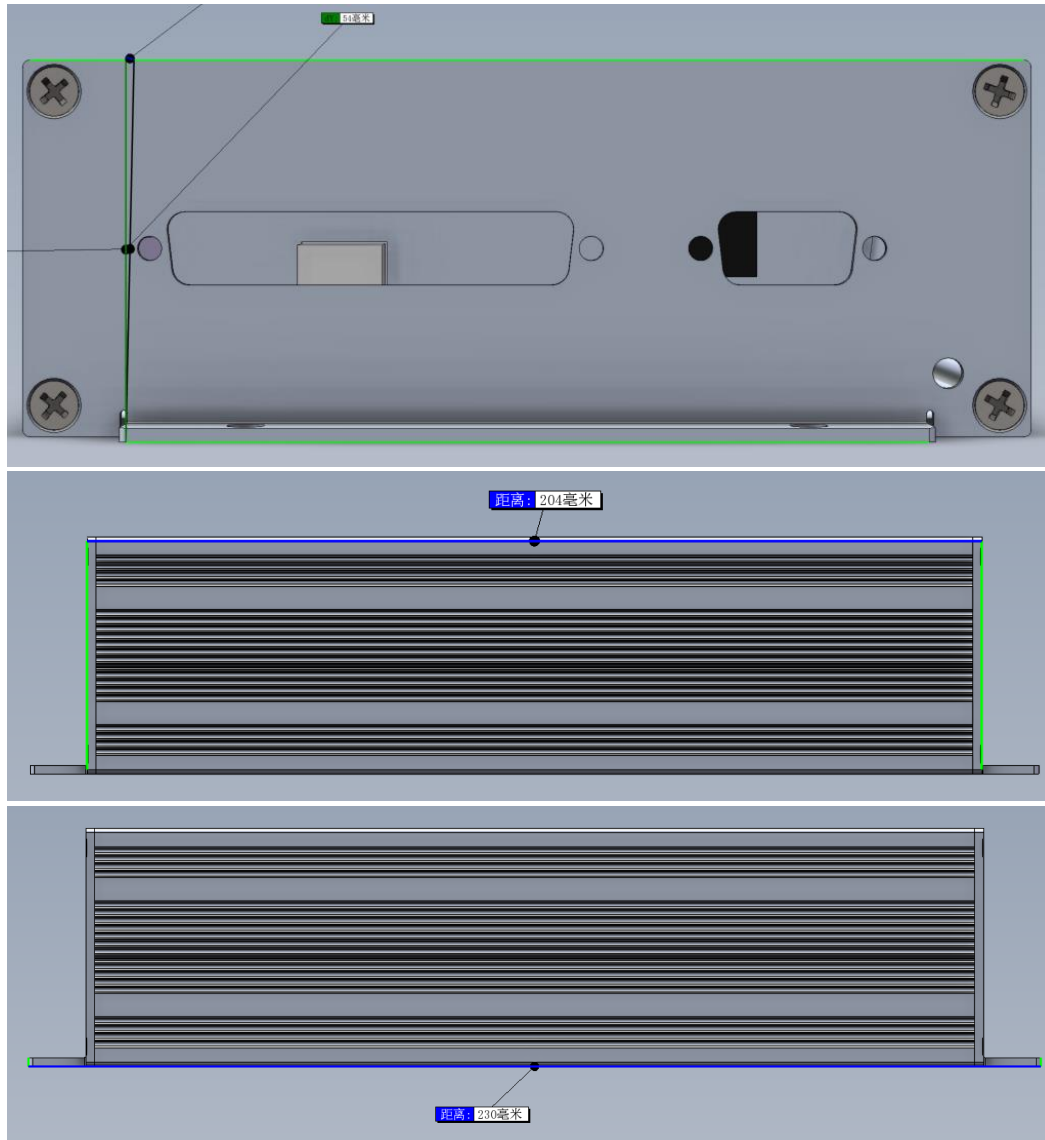
**Physical:**

**Dimension:**

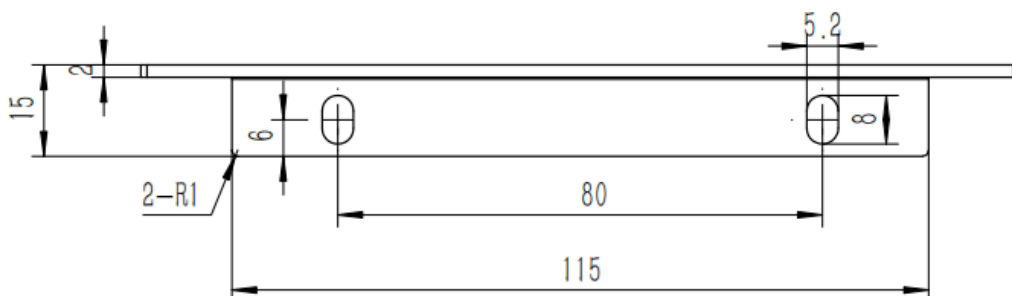
L\*W\*H = 200mm\*145mm\*54mm

L\*W\*H = 230mm\*145mm\*54mm (with assembly ear)

Unit:mm



**Assembly dimension**



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## Environmental

The SCU10 is intended for indoor use only but may be used outdoors if installed in a suitable enclosure. Refer to the manual for more information about meeting these specifications.

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Operating humidity	10-90% RH non-condensing
Storage humidity	5-95% RH non-condensing

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## Support and Services

### Calibration

ART logics measurement hardware is calibrated to ensure measurement accuracy and verify that the device meets its published specifications. To ensure the ongoing accuracy of the measurement hardware, ART logics provides standard recalibration service or detailed calibration process.