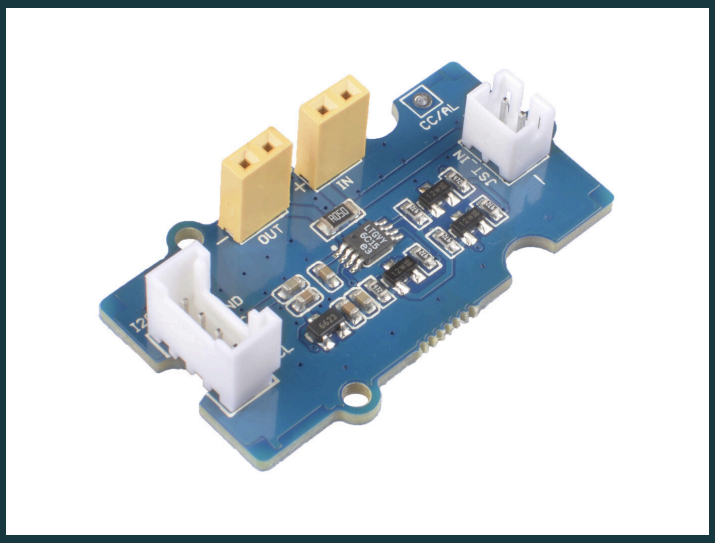
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INDUSTRIAL PRODUCT DATASHEET

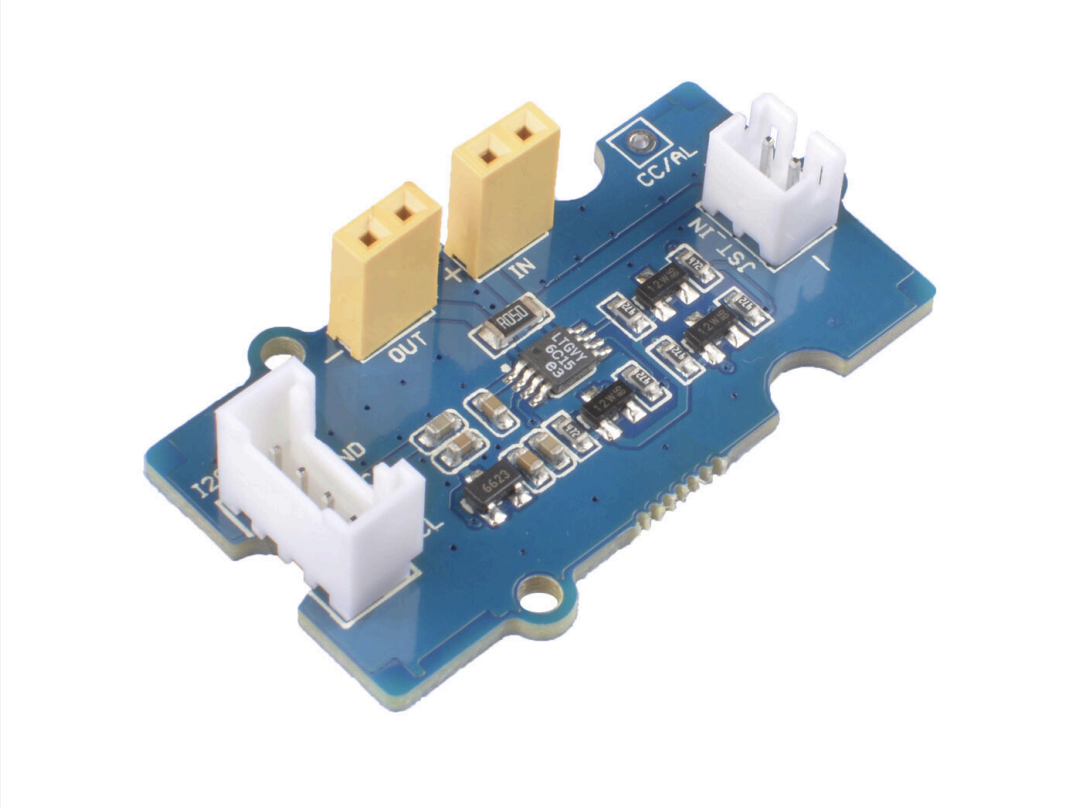
Grove - Coulomb Counter 3.3V to 5V (LTC2941)

High-accuracy coulomb counter module with 1% charge accuracy and Grove plug-and-play interface for portable device battery monitoring.

SKU	UPDATED	PRICE
101020593	2026-04-15 07:49:03	$10.90(Excl. VAT)



Overview



The Grove - Coulomb Counter 3.3V to 5V (LTC2941) offers exceptional 1% charge accuracy and high-accuracy analog integration for precise battery charge monitoring. Its Grove unified socket provides plug-and-play connectivity for low-power handheld products like cellular phones, MP3 players, cameras, and GPS devices.

Key Features

Attention

Both 3 and 4 are power input interfaces, please selecte one as the power input, do not use two at the same time, and the voltage can not exceed 5V, otherwise the module may be damaged.

The Grove - Coulomb Counter is a device to measure the current that your devices or sensors is using.

- **Exceptional accuracy:** 1% charge accuracy, allow users to use without being bothered by huge amounts of errors
- **High Accuracy Analog Integration:** More accurate acquisition of metadata for more precise readings of results
- **Grove unified socket:** The sensor ensures "Plug and Play" and could be versatile for various applications.

Description

The Coulomb Counter is a device to measure the current that your devices or sensors is using. The coulomb (symbol: C) is the International System of Units (SI) unit of electric charge.It is the charge (symbol: Q or q) transported by a constant current of one ampere in one second:1C=1A·1s.

The Grove - Coulomb Counter 3.3V to 5V is based on **LTC2941**, its operating range is perfectly suited for single-cell Li-Ion batteries. A precision coulomb counter integrates current through a sense resistor between the battery's positive terminal and the load or charger. This module measures the amount of amp-hours have been used, if you use a fully charged battery, you can test the amount of battery you have used, the remaining percentage, just like the remaining battery shown in your phone. Vice versa, if you are changring a battery, you can use this module to monitor the charging process.

We have developed more than 400 Grove modules, covering a wide range of applications that can fulfill various needs. Click to explore the **Grove Sensor family** and get started to Grove your Idea. For all Grove users (especially beginners), we provide you with guidance PDF documents. Please download and read through **Preface - Getting Started** and **Introduction to Grove** before your use of the product.

Application

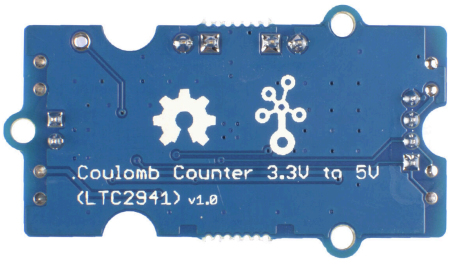
- Low Power Handheld Products
- Cellular Phones
- MP3 Player
- Cameras
- GPS

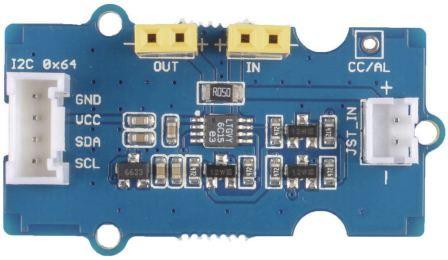
Specifications

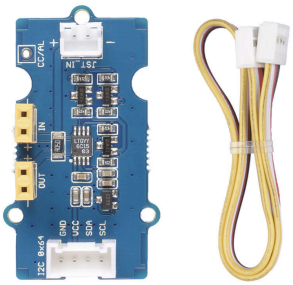
Hardware Overview

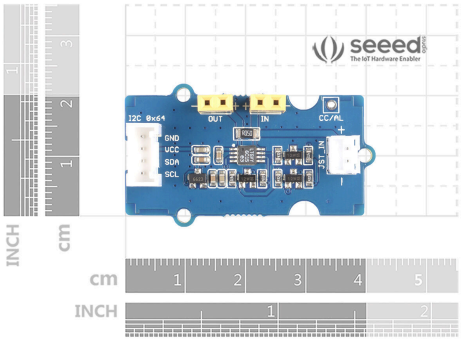
Part List

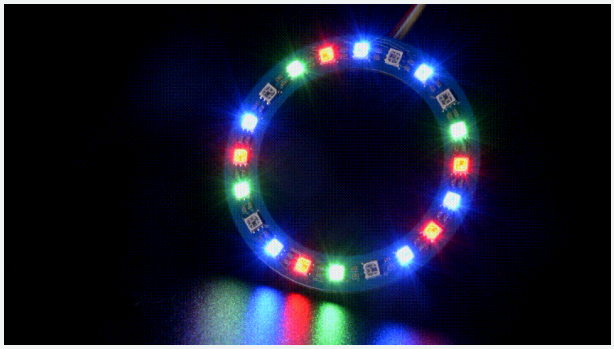
Product Gallery













Specification

Dimensions	40mm x20mm x12mm
Weight	G.W 9.7g
Battery	Exclude

Operating Voltage	2.7V to 5.5V
Operating Temperature	0℃ to +70℃
Accuracy	±2ppm from 0°C to +40°C
Interface	I2C
I2C Address	0x64

Applications

- **Low Power Handheld Products**
- **Cellular Phones**
- **MP3 Player**
- **Cameras**
- **GPS**

Part List

Grove - Coulomb Counter 3.3V to 5V (LTC2941)	1
Grove Cable	1

Compliance & Logistics

HSCODE	9030900090
USHSCODE	9030904600
UPC	841454121633
EUHSCODE	8473302000
COO	CHINA

Resource Links

- https://www.seeedstudio.com/Grove-Coulomb-Counter-3-3V-to-5V-LTC2941.html
- Grove - Coulomb Counter 3.3V to 5V (LTC2941) Eagle Files
- Seeed LTC2941 Library
- Datasheet LTC2941

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