

USB Multi Voltage Power Supply

User Guide

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Introduction

Numato Lab's USB Multi Voltage Supply Module is a versatile product which powers any device or circuitry over USB Connection. The board has 4 different voltage supply outs. This board can be used for giving voltage supply for projects. It can easily be power up through USB or Externally according to the application. On board having 4 Voltage regulators which delivers the power outs 5V, 3.3V, 2.5V and 1.2V. The voltage supply out's along with GND are taken out to screw terminals for easy access. The maximum total output current will be limited by the maximum current the connected USB Port can provide.

Some of the possible uses of this module include

- Home Automation
- Lighting Control
- Garden Equipment Control
- Industrial Automation
- Test Fixtures
- DIY and Hobby

How to use the module

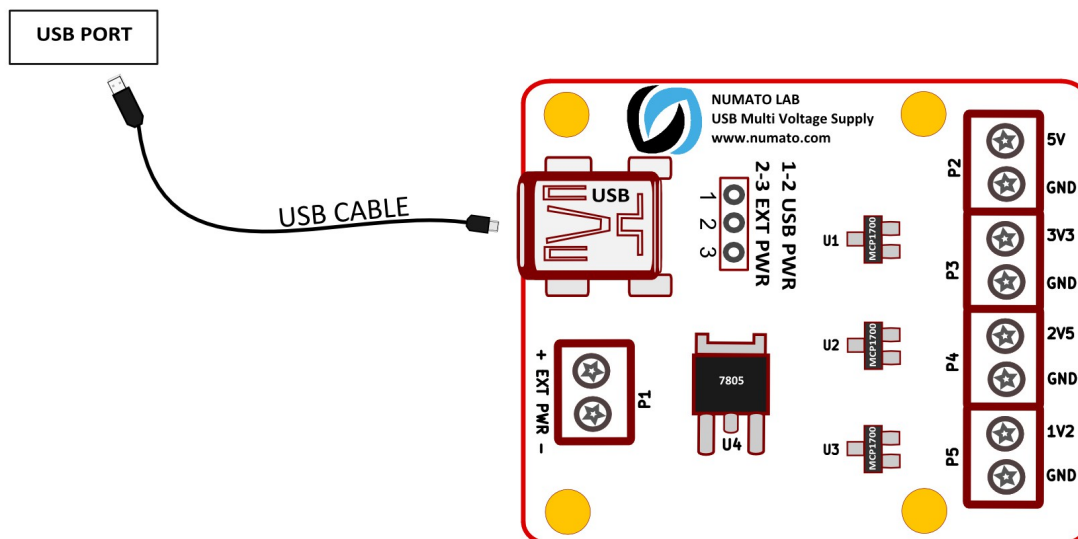
The following section describes how to use this module.

Components/Tools required

Along with the module, you may need the items in the list below for easy and fast installation.

1. USB A to Mini B cable.
2. Medium size Philips screw driver.

Connection Diagram




Above image shows basic connection diagram that can be used in most of the situations. Use a USB A to Mini B cable for connection to any USB port. The following sections identify individual connections in detail.

USB Interface

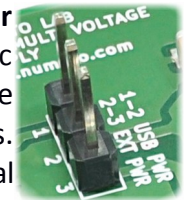
Use a USB A to Mini B cable to connect with a PC. Please visit the product page at <http://www.numato.com> to see available USB connector options. By default, the module is powered from USB so make sure not to overcrowd unpowered USB hubs (the picture on the right shows USB Type B connector).



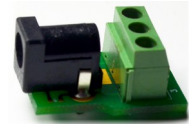
 Visit <http://numato.com/cables-accessories> to buy cables and accessories for this product.

DC Power Supply

This module uses +5V power supply to function properly. **By default the board is configured to use +5V supply from USB. So an external +5V power is not required unless USB port is unable to supply enough current. In most cases USB ports are capable of providing enough current for the module.** If for any reason, an external 5V power supply needs to be used for the logic section of the module, the power select jumper should be configured properly before connecting the power supply. Please refer to the marking on the board for more details. Make sure to connect the power supply in correct polarity. Connect the **positive** terminal of the power supply to the **+5V** terminal on the module.



 Using a product similar to [Numato's DC Barrel Jack Adapter](#) is recommended if the power supply has a Barrel Jack connector (See the image on right).



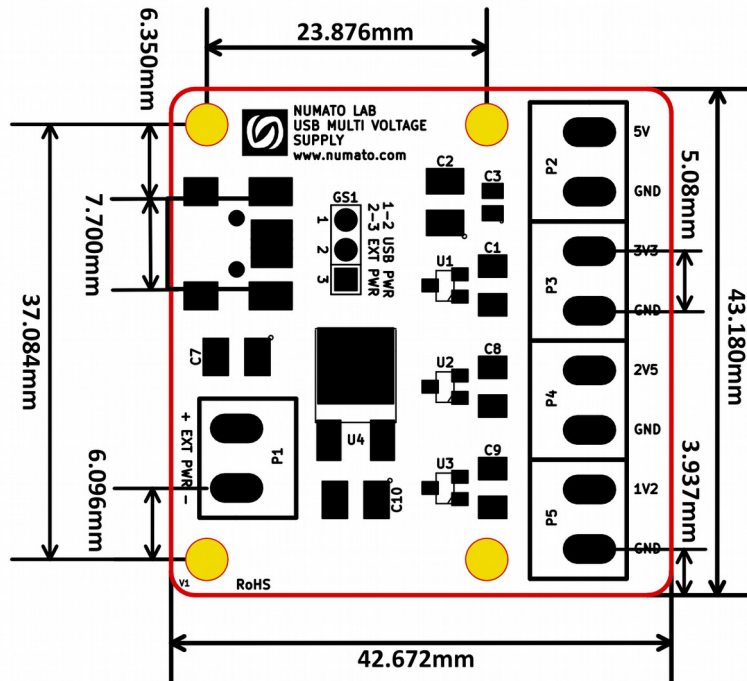
Connecting power supply incorrectly can cause damage to the module and/or other devices.

Technical Specifications

Parameter *	Value	Unit
Basic Specifications		
Digital circuit power supply voltage (USB or External)	5	V
Maximum current drawn by digital circuitry	150	mA
Output Specifications		
Out 1 Voltage	5	V
Out 1 Current	350	mA
Out 2 Voltage	3.3	V
Out 2 Current	250	mA
Out 3 Voltage	2.5	V
Out 3 Current	250	mA
Out 4 Voltage	1.2	V
Out 4 Current	200	mA

* All parameters considered nominal. Numato Systems Pvt Ltd reserve the right to modify products without notice.

Physical Dimensions

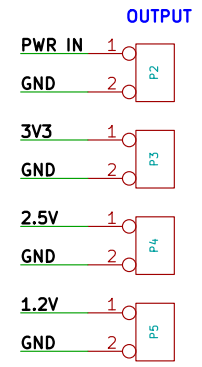
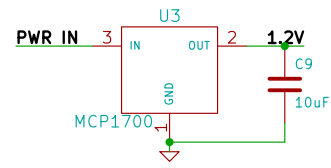
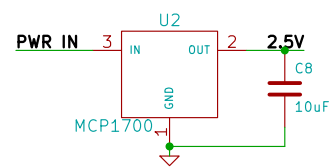
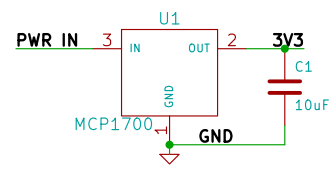
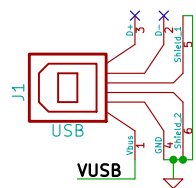
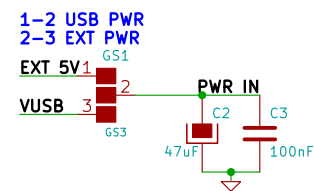
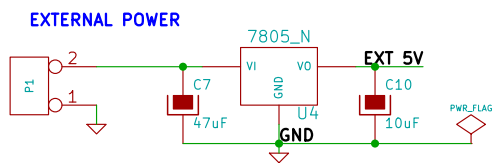


L x W x H : 43.180mm x 42.672mm x 14mm

Mechanical Hole Diameter :3.2mm

Schematics

See next page.



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Numato Lab	
File: USBToMultiPower.sch	
Sheet: /	
Title: USB Multi Voltage Supply	
Size: A4	Date: 15 jan 2014
KiCad E.D.A.	Rev: 1/1