Groundstudio Mini360 module

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Module Circuit Schematic

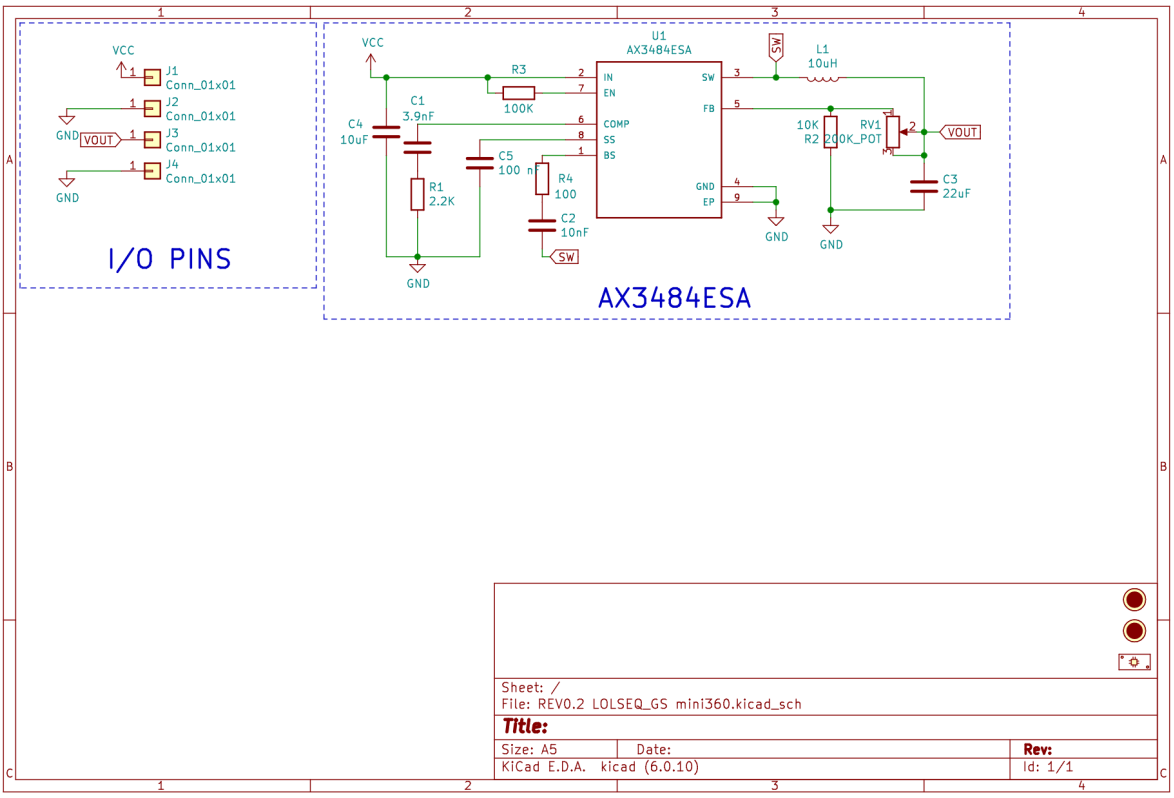

Figure 2: GroundStudio Mini360 module schematic circuit [Revision 0.0.2]

Open Source

This is an Open Source project, you can find all the technical documents online:

https://github.com/GroundStudio/GroundStudio_Mini360_module

License

All documentation for GroundStudio Marble Pico is released under the Attribution-ShareAlike 4.0 International (CC BY-SA 4.0) license. You are welcome to use this for commercial purposes.

Please consider contributing back to this project or others to help the open-source hardware community continue to thrive and grow!

Overview

This product represents a step-down voltage source that can be used in various projects that use a small space where you need to transform a voltage between 4.75V-23V into one of a lower level in the range of 0.925V to 20V with a consumption of current up to 3A.

Super compact and capable, this Buck DC-DC converter can lower the voltage with an efficiency of up to 95%, having an adjustable output voltage, which can be adjusted using the onboard potentiometer. The output voltage will always be lower than the input voltage.

NOTE - The product needs adequate cooling depending on the level of the current. If the cooling is not properly ensured, it will fail.

For cooling, you need to attach a radiator (not included) and ensure a proper air flow: the case must be ventilated or use a fan (not included).

Technical specifications

Vin: from **4.75V to 23V**;

Vout: from **0.925V to 20V**;

Maximum current: **3A**;

Frequency: **350kHz**;

PCB dimensions: **17.7mm x 12.7mm**

Legal disclaimer notice

This development board is considered a subassembly in accordance with FCC CFR Title 47 §15.101(e):

https://www.ecfr.gov/current/title-47/chapter-I/subchapter-A/part-15/subpart-B/section-15.101#p-15.101(e)

The device does not have a standalone functionality and does not include an enclosure or power supply.

The device is mainly intended for development and prototyping but it can be integrated into a product. In this case it is the responsibility of the developer/manufacturer to obtain all the necessary certifications.

GroundStudio is a registered trademark of ARDUSHOP SRL:

https://www.tmdn.org/tmview/#/tmview/detail/EM500000018364087

Developer info

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Datasheet Revision History

[Revision 1] - Initial version release