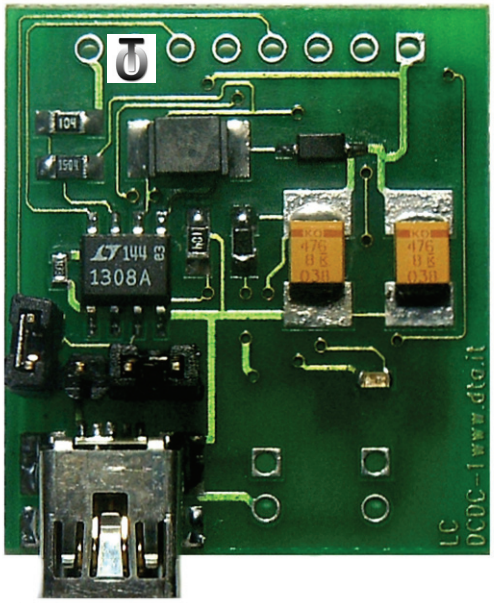
Step up/down DC-DC converter

DCDC-1

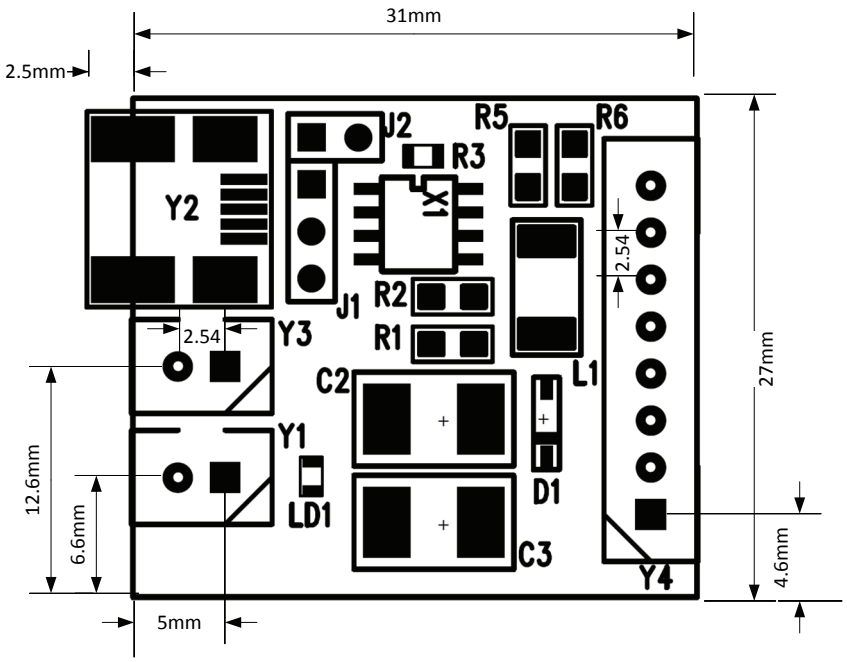
FEATURES
- Voltage output +5V 1A and +3.3V 250mA
- Voltage input 1 to 6V
- Frequency switching 600KHz
- Coverter efficiency > 85%
- Small size 31x27mm (HxV)



APPLICATIONS
3 V to 5 V, Step-Up Converters
Laptop and Palmtop Computers
Cellular Telephones
Remote Controls
Peripherals and Add-On Cards
Battery Backup Supplies
Uninterruptible Supplies
Portable Instruments

GENERAL DESCRIPTION
The DCDC-1 is a step-up/step-down DC-DC power supply. It function with a single cell LiION battery and supply +5V 1A and +3.3V 250 mA.
Connected battery can be charged by and USB connection via a Mini USB B connector or can be charged also from a solar panel.
It is also possible to supply the power to the USB connector to supply any kind of instrument that can use this connector.

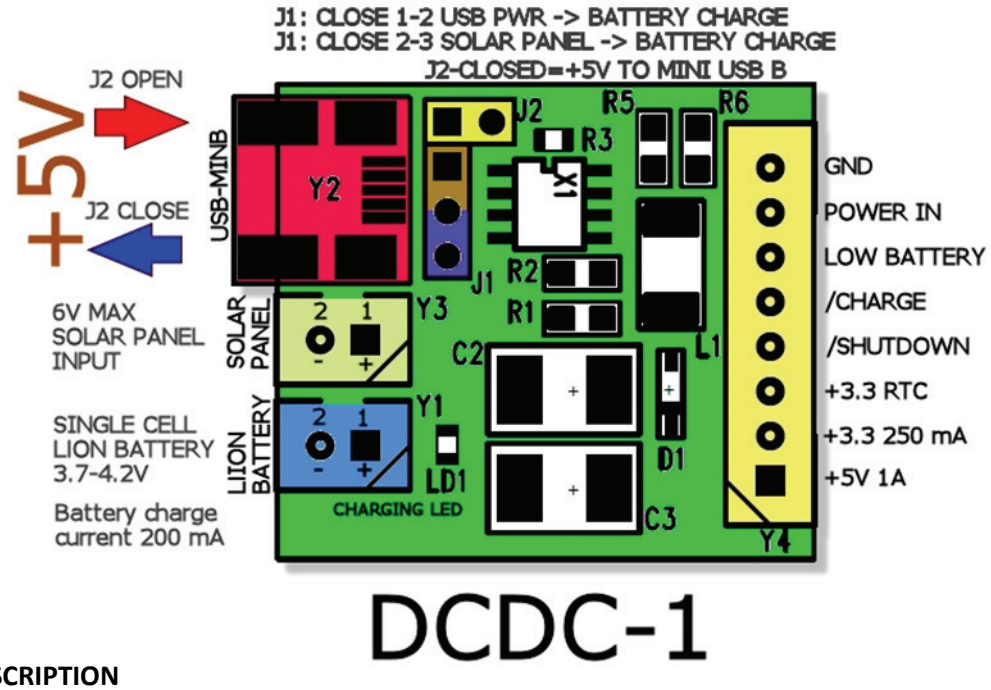
BOARD SIZE



Rev. 1 Information furnished by O.T. is believed to be accurate and reliable. However, no responsibility is assumed by O.T. for its use, nor for any infringements of patents or other rights of third parties that may result from its use. Specifications subject to change without notice. No license is granted by implication or otherwise under any patent or patent rights of O.T. Trademarks and registered trademarks are the property of their respective companies.

Via G. Cei 67, 56021 Cascina, PISA - ITALY
www.officinaturini.com
© Officina Turini All Rights Reserved
Tel: +39 050 8665471

DCDC-1



DCDC-1

Y1 PIN DESCRIPTION

1 – **IN** Battery power input from a LiION single cell. Battery charge is fixed at 200mA.
2 – GND

Y3 PIN DESCRIPTION

1 – **IN** Power input from a solar panel. Maximum allowed voltage is 6V. Please see the the list of suggested SP.
2 – GND

Y4 PIN DESCRIPTION

1 – **OUT** +5V 1A
2 – **OUT** +3.3V 250mA (From +5V)
3 – **OUT** +3.3V directly derived from the battery for RTC
4 – **IN** /SHUTDOWN ground this pin to turn off DCDC-1.
To enable left open. SHDN does not need to be at VIN to enable the device.
5 – **OUT** /CHARGE signal (active low) Charge Status Output
6 – **OUT** Low-Battery Detector Output. Open collector, can sink 50µA.
7 – **IN** POWER IN Input voltage.
8 – GND

J1 DESCRIPTION

1 – 2 USB power charge the battery (from Y2), all supply power is taken from the battery.
2 – 3 Solar panel charge the battery (from Y3), all supply power is taken from the battery.

J2 DESCRIPTION

1 – 2 When the jumper is inserted +5V is also supplied to USB-MINIB connecctor.

SUGGESTED SOLAR PANEL

MSX-005F By BP Solar available at RS as 194-197 or at FARNELL as 654000.

SUGGESTED BATTERIES

ENIX Energies – 700001 at RS: 615-2472 or at FARNELL:1290995.
ENIX Energies – NTA2710 at FARNELL:1848660.
Above listed are only example, many kind of LiION (single Cell) batteries are available on the market

© 2019 O.T, All rights reserved. Trademarks and registered trademarks are the property of their respective companies.