

Title: SOLARMINIBAT01A

Solar charged LTO Battery Managment System

Author: MLAB.cz

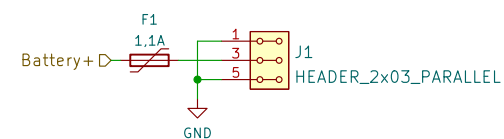
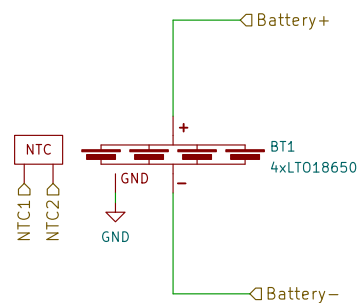
Size: A4

Page: 2/5

Date: 2022-07-20



BATTERY PACK



Title: SOLARMINIBAT01A

Solar charged LTO Battery Managment System

Author: MLAB.cz

Size: A4

Page: 3/5

Date: 2022-07-20



Solar Cell Panel Connection

Photovoltaic pannel connection

Usually array of four cells in series with following parameters:

$I_{sc} = 2,3\text{ A}$
 $V_{oc} = 2,5\text{ V}$
 $I_{mpp} = 2,1\text{ A}$
 $V_{mpp} = 2,1\text{ V}$
 $P_m = 4,4\text{ Wp}$

MPPT power output

MPPT is needed to calculate, to correspond LTO cell
Tj. poskytoval výstup maximálně 2.80 V
https://www.st.com/resource/en/application_note/9401

The diagram illustrates the connection of a solar cell panel to a SolarMINIBAT01A system. The photovoltaic panel is connected to the MPPT controller (U3, SPV1040) via a DC-DC converter (L1, DE1205-10). The panel is connected to J2 (PV+) and J3 (PV-). The MPPT controller is connected to J4 (CHARGE_EN) and has various pins connected to ground and output. The output is connected to a battery (C15, 47uF/6V3) and a load (R23, 270k). The diagram includes component values and a note about the need for an LTO cell and a reference link.

$I_{sc} = 2,3 \text{ A}$
 $V_{oc} = 2,5 \text{ V}$
 $I_{mpp} = 2,1 \text{ A}$
 $V_{mpp} = 2,1 \text{ V}$
 $P_m = 4,4 \text{ Wp}$

Je třeba potřebovat přepočítat, aby odpovídal LTO článku!
Tj. poskytoval výstup maximálně 2.80 V
https://www.st.com/resource/en/application_note/an3319-s

Solar charged LTO Battery Managment System

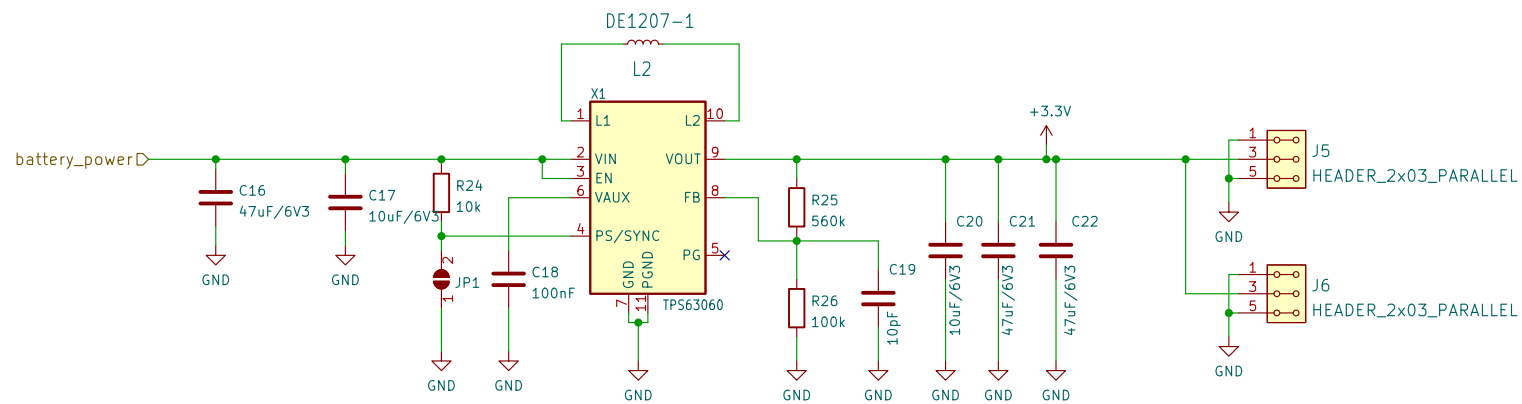
Author: MLAB.cz

Size: A4

Page: 4/5

Date: 2022-07-20





Title: SOLARMINIBAT01A

Solar charged LTO Battery Managment System

Author: MLAB.cz

Size: A4

Page: 5/5

Date: 2022-07-20

