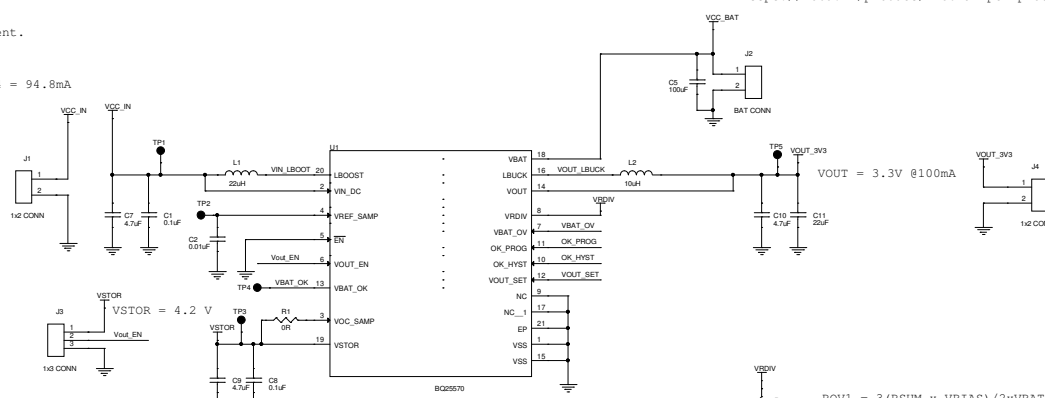


SOLAR CELL + BATTERY CHARGER

Solar cell : KXOB061K08F
 4 in Parallel to increase the current.
 Voltage (typ) =4.46V
 Current (typ) = 23.7mA
 For 4 in parallel, current : 23.7x4 = 94.8mA

MPPT ratio = VMPP / Voc
 VMPP =4.46V
 Voc=5.53V
 MPPT ratio=80.65%

L1- From table 3 as 22uH
 L2- From table 4 as 10uH



Battery Product:
<https://robu.in/product/1250mah-pcm-protected-micro-li-po-battery/>

VOUT = 3.3V @100mA

$$ROV1 = 3(RSUM \times VBIAS) / 2 \times VBAT_OV$$

$VBAT_OV = 4.2V$
 $VBIAS = 1.21V$
 $ROV1 = 5.62M$
 $ROV2 = RSUM \times VBIAS - ROV1 = 13M - 5.62M = 7.38M \text{ ohm}$
 $ROV2 = 7.32M \text{ ohm}$

$$ROK1 = (VBIAS \times RSUM) / VBAT_OK_HYST.$$

$VBIAS = 1.21V$
 $RSUM = 13M \text{ ohm}$
 $VBAT_OK_HYST = 3V$
 $ROK1 = 5.24M \text{ ohm} \rightarrow 5.23M \text{ ohm}$
 $VBAT_OK = 2.4V$
 $ROK2 = ((VBAT_OK / VBIAS) - 1) \times ROK1$
 $ROK2 = 5.14M \text{ ohm} \rightarrow 5.11M \text{ ohm}$
 $ROK3 = 13 - 5.23 - 5.11 = 2.66M \text{ ohm} \rightarrow 2.55M \text{ ohm}$

$$VOUT = VBIAS \times (RVS1 + RVS2) / RVS1$$

$RSUM = 13M \text{ ohm}$
 $VBIAS = 1.21V$
 $RVS1 = 8.25M$
 $RVS2 = 4.75M \text{ ohm}$

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