

NC 0V
ADC7 E3
ADC6 E2
NC
NC
ADC3 C3
ADC2 C2
ADC1 C1
ADC0 C0

J6 0V 0V 5V
NC
RESET
IOREF 5V
S1
S2
S1: VIN CONNECT
S2: CONNECT BAT TO CC

TP1
J7
B=4250 100K
+BAT
-BAT
12V SLA
PWR TP4

SHIELD VIN IS
CNTRL'D BY D2 (I02)

OPEN JMI
R54 R53

VIN

POWER MCU AT 13.1V
DISCONNECT AT 11.58V.

0V
MOSI
IOREF
RESET
SCK
MISO
J11
SPI

TP3
10k B=3380 NTC
CHRG IF > 0°C
CHRG IF < 40°C

R23
J12
**10k

MPP IDEAL:ACTUAL
13.8:14.5V-15.2k at 70°C
15.8:15.7V-50.7k at 40°C
17:16.8V-100k at 25°C
19:18.7V-357k at 0°C

0V (*E0)
+5V (*E1)
D0 RX
D1 TX
D2 INT0
D3 INT1/OC2B
D4 T0
D5 OC0B/T1
D6 OC0A
D7
J9

B0 ICP1
B1 OC1A
B2 SS/OC1B
B3 MOSI/OC2A
B4 MISO
B5 SCK
0V
NC
C4 SDA
C5 SCL
J10

CHARGE RATE IS FUNCTION
OF PV POWER UP TO MAX,
ABOUT 0.11A PER WATT

36 CELL
STRING

-PV
+PV

14140^6
RPUBUS.ORG
RPuno

ANALOG LOOP
J4 12V 22mA
ADC0
0V
ADC1
12V 22mA

FT/PULSE
J3 12V 17mA
PL
J8
10mA
TO PL
0V

DIGITAL IO
J2
0V
12V 22mA
3 4 10 11 12 13

B=4250 100K
J1