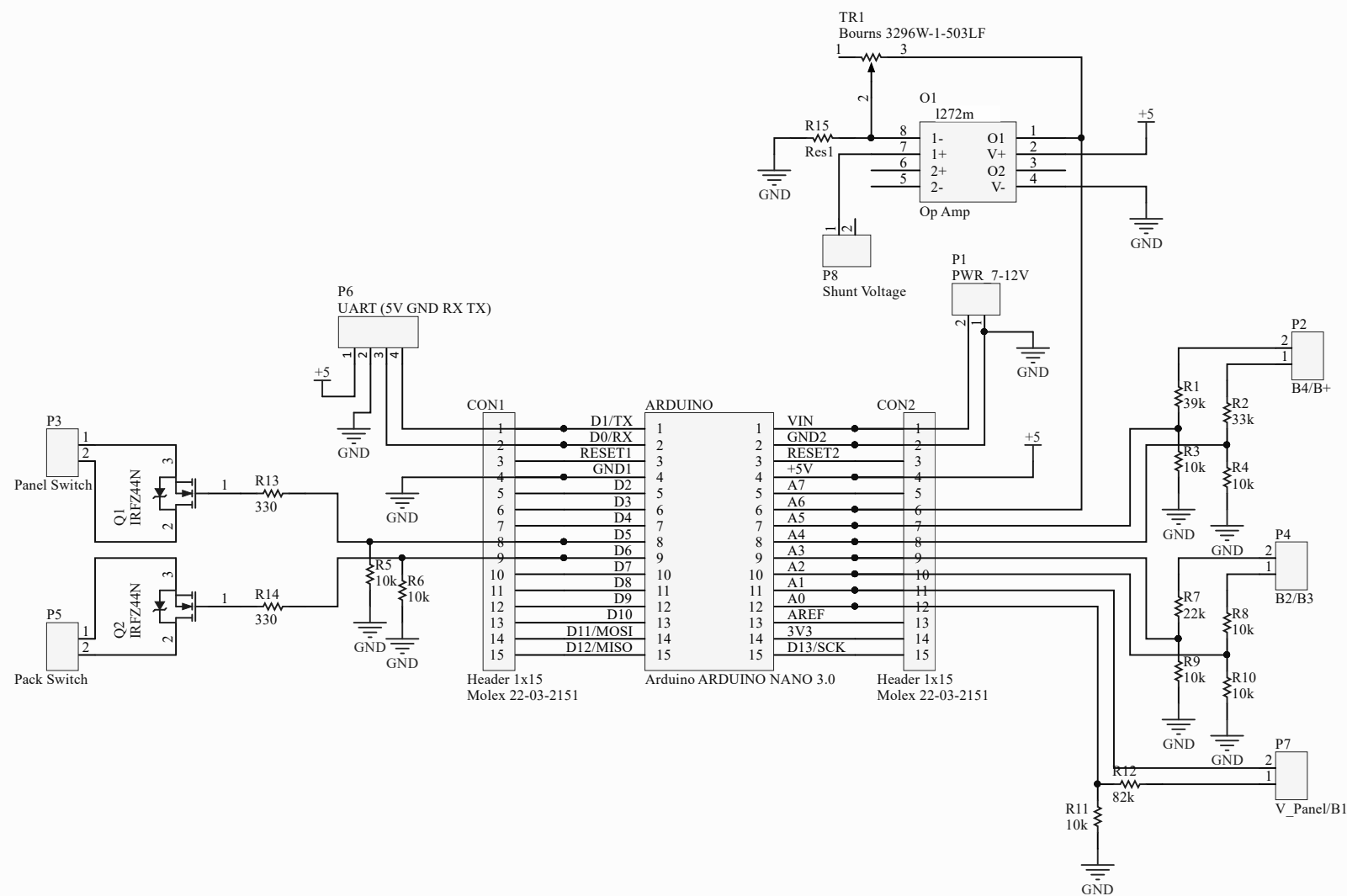


| Item # | mn Name Error:Manufa | #Column Name Error:Manufacturer No | Quantity | #Column Name Error:Note | Designator                       | Description  | Footprint                  | Comment                  | LibRef                 |
|--------|----------------------|------------------------------------|----------|-------------------------|----------------------------------|--|----------------------------|--------------------------|------------------------|
| 1      |                      |                                    | 1        |                         | ARDUINO                          | Arduino Nano 3.0   | PCBComponent_1             | Arduino ARDUINO NANO 3.0 | CMP-1101d29ed047c0c6-3 |
| 2      |                      |                                    | 2        |                         | CON1, CON2                       | KK@ 254 Wire-to-Board Header, Single Row, Vertical, 15 Circuits, PA Polyamide Nylon, Tin (Sn) Plating    | PCB-4tb8nx1bm3fy4wunglrs-1 | Molex 22-03-2151         | CMP-ab506251400c7497-5 |
| 3      |                      |                                    | 1        |                         | O1                               | L272 Series 350 kHz 1 V/us Dual Power Operational Amplifier Through Hole - DIP-8                         | PCB-v07or3mtd1cfc3ttymu-1  | Op Amp                   | L272M                  |
| 4      |                      |                                    | 1        |                         | P1                               | Wire-To-Board Terminal Block, 2, 150 V, 10 A, 30 Awg, 16 Awg, 1.4 Mm                                     | PCB-6xrmgco598u3mra2uzi2-1 | PWR_7-12V                | 282834-2               |
| 5      |                      |                                    | 1        |                         | P2                               | Wire-To-Board Terminal Block, 2, 150 V, 10 A, 30 Awg, 16 Awg, 1.4 Mm                                     | PCB-6xrmgco598u3mra2uzi2-1 | B4/B+                    | 282834-2               |
| 6      |                      |                                    | 1        |                         | P3                               | Wire-To-Board Terminal Block, 2, 150 V, 10 A, 30 Awg, 16 Awg, 1.4 Mm                                     | PCB-6xrmgco598u3mra2uzi2-1 | Panel Switch             | 282834-2               |
| 7      |                      |                                    | 1        |                         | P4                               | Wire-To-Board Terminal Block, 2, 150 V, 10 A, 30 Awg, 16 Awg, 1.4 Mm                                     | PCB-6xrmgco598u3mra2uzi2-1 | B2/B3                    | 282834-2               |
| 8      |                      |                                    | 1        |                         | P5                               | Wire-To-Board Terminal Block, 2, 150 V, 10 A, 30 Awg, 16 Awg, 1.4 Mm                                     | PCB-6xrmgco598u3mra2uzi2-1 | Pack Switch              | 282834-2               |
| 9      |                      |                                    | 1        |                         | P6                               | Conn; Term Blk; PCB; Wire Receptacle; 4; 2.54mm; 30-16AWG; Green; 10A; 150V; M1.6                        | PCBComponent_1 - duplicate | UART (5V GND RX TX)      | 282834-4               |
| 10     |                      |                                    | 1        |                         | P7                               | Wire-To-Board Terminal Block, 2, 150 V, 10 A, 30 Awg, 16 Awg, 1.4 Mm                                     | PCB-6xrmgco598u3mra2uzi2-1 | V_Panel/B1               | 282834-2               |
| 11     |                      |                                    | 1        |                         | P8                               | Wire-To-Board Terminal Block, 2, 150 V, 10 A, 30 Awg, 16 Awg, 1.4 Mm                                     | PCB-6xrmgco598u3mra2uzi2-1 | Shunt Voltage            | 282834-2               |
| 12     |                      |                                    | 2        |                         | Q1, Q2                           | N-Fet to220  | PCB-18787308-1             | IRFZ44N                  | IRFZ44NPBF             |
| 13     |                      |                                    | 1        |                         | R1                               | RES SMD 39K OHM 1% 1/10W 0603  | R0603-nominal              | 39k                      | CRCW060339K0FKEA       |
| 14     |                      |                                    | 1        |                         | R2                               | RES SMD 33K OHM 1% 1/10W 0603  | RESC1609X50X30ML10T20      | 33k                      | CRCW060333K0FKEA       |
| 15     |                      |                                    | 8        |                         | R3, R4, R5, R6, R8, R9, R10, R11 | Res Thin Film 0603 10K Ohm 0.1% 1/16W ±25ppm/°C Molded SMD SMD Paper T/R                                 | PCB-ojnm16i5yp9tlw7v4rl-1  | 10k                      | 1614881-1              |
| 16     |                      |                                    | 1        |                         | R7                               | Precision resistor, SMD [Panasonic Automotive & Industrial Systems] ERJ3EKF2202V Precision resistor, SMD | RESC1608X06M               | 22k                      | ERJ-3EKF2202V          |
| 17     |                      |                                    | 1        |                         | R12                              | Precision resistor, SMD [Panasonic Automotive & Industrial Systems] ERJ3EKF8202V Precision resistor, SMD | 0603R_A                    | 82k                      | ERJ-3EKF8202V          |
| 18     |                      |                                    | 2        |                         | R13, R14                         | PANASONIC ERJP03F3300V RESISTOR, THICK FILM, 330 OHM, 0.2W, 1%   | 0603-RES                   | 330                      | ERJP03F3300V           |
| 19     |                      |                                    | 1        |                         | R15                              | Res Thick Film 0603 120 Ohm 5% 0.1W(1/10W) ????)200ppm/????? Molded SMD Automotive Punched T/R           | PCB-t6ekw5j97c04338n4ew-1  | Res 1                    | ERJ-3GEYJ121V          |
| 20     |                      |                                    | 1        |                         | TR1                              | Trimmer; Cemet; Rest 50 Kilohms; PCB; Pwr-Rtg 0.5W; Dim 0.375hLx0.19hWx0.395hH                           | PCB-i67f2lsv3qirb5b93po-1  | Bourns 3296W-1-503LF     | 3296W-1-503LF          |



| Title |                  |           |
|-------|------------------|-----------|
| Size  | Number           | Revision  |
| A4    |                  |           |
| Date: | 2019-05-14       | Sheet of  |
| File: | Schematic.SchDoc | Drawn By: |

# SolarWall Controller

TX RX 0 5

Panel

Pack

Q2

Q1

R13

R6

R14

R5

CON1

ARDUINO

CON2

R15

R3

R4

R9

R10

R11

R1

R2

R7

R8

R12

SHUNT

VIN GND

B+ B4

B3 B2

B1 Vp

# SolarWall Controller

