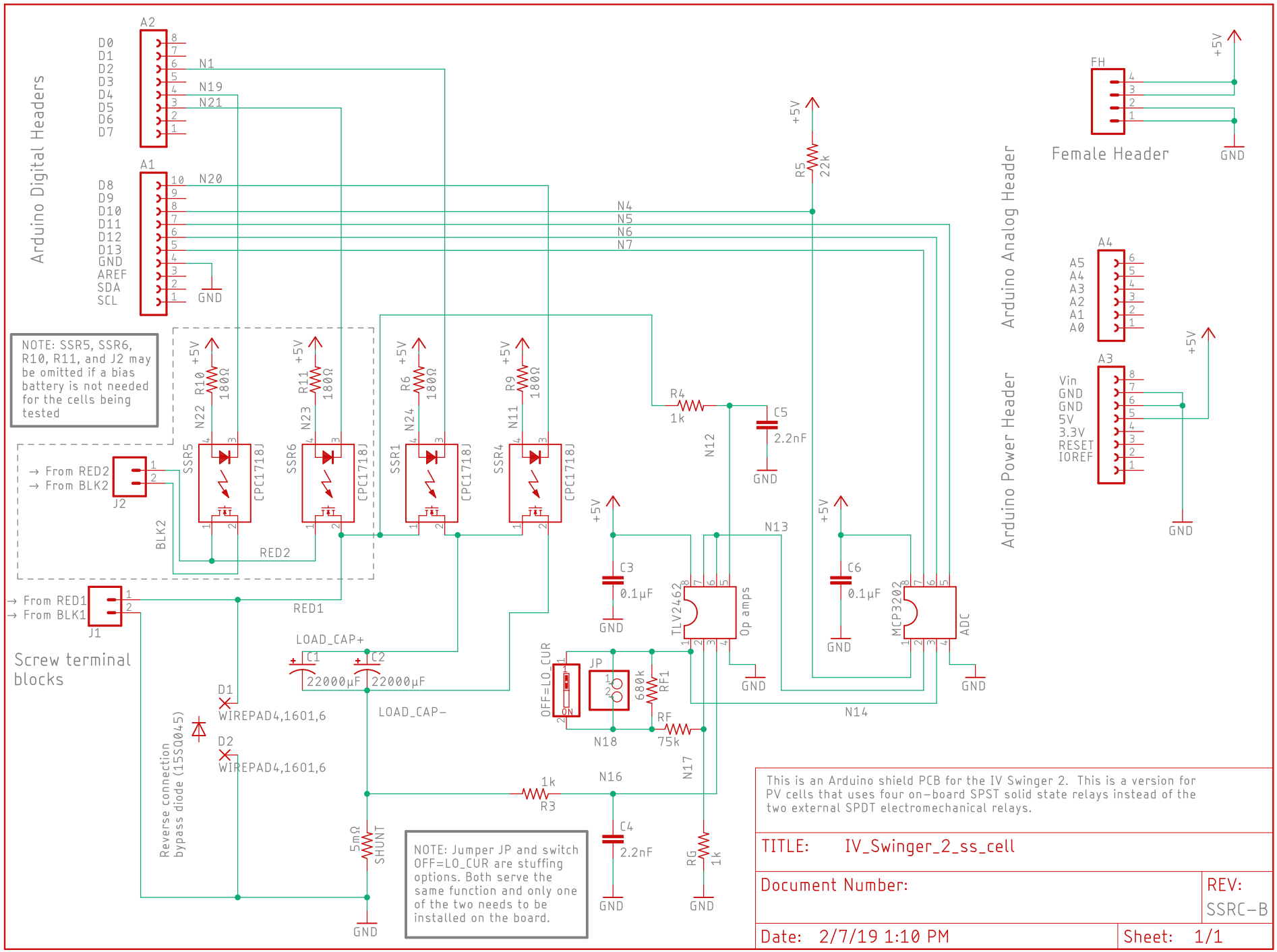
Arduino Digital Headers
A2
D0
D1
D2
D3
D4
D5
D6
D7
N1
N19
N21
A1
D8
D9
D10
D11
D12
D13
GND
AREF
SDA
SCL
N20
N4
N5
N6
N7
GND
NOTE: SSR5, SSR6, R10, R11, and J2 may be omitted if a bias battery is not needed for the cells being tested
→ From RED2
→ From BLK2
J2
BLK2
RED2
→ From RED1
→ From BLK1
J1
RED1
Screw terminal blocks
R10 180Ω
R11 180Ω
R6 180Ω
R9 180Ω
+5V
N22
N23
N24
N11
SSR5
SSR6
SSR1
SSR4
CPC1718J
R4 1k
C5 2.2nF
N12
N13
N14
C3 0.1µF
C6 0.1µF
TLV2462
Op amps
MCP3202
ADC
R5 22k
FH
Female Header
Arduino Analog Header
A4
A5
A4
A3
A2
A1
A0
Arduino Power Header
A3
Vin
GND
GND
5V
3.3V
RESET
IOREF
LOAD_CAP+
C1 22000µF
C2 22000µF
LOAD_CAP−
D1
WIREPAD4,1601,6
D2
WIREPAD4,1601,6
Reverse connection bypass diode (1SS045)
OFF=LO_CUR
JP
680k
RF1
RF 75k
N18
N17
N16
1k
R3
C4 2.2nF
RG 1k
5mΩ SHUNT
NOTE: Jumper JP and switch OFF=LO_CUR are stuffing options. Both serve the same function and only one of the two needs to be installed on the board.
This is an Arduino shield PCB for the IV Swinger 2. This is a version for PV cells that uses four on-board SPST solid state relays instead of the two external SPDT electromechanical relays.
TITLE: IV_Swinger_2_ss_cell
Document Number:
REV: SSRC-B
Date: 2/7/19 1:10 PM
Sheet: 1/1