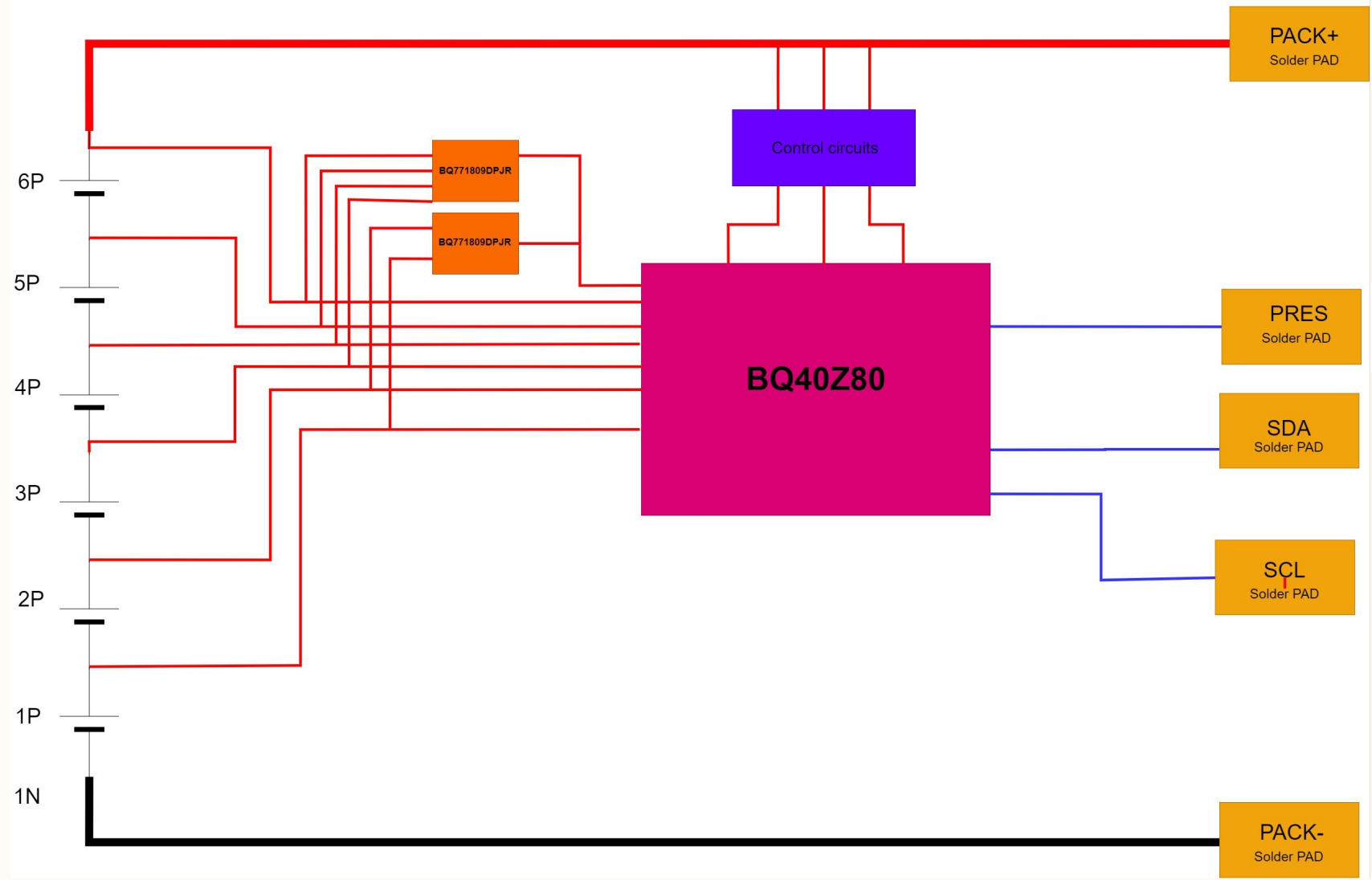


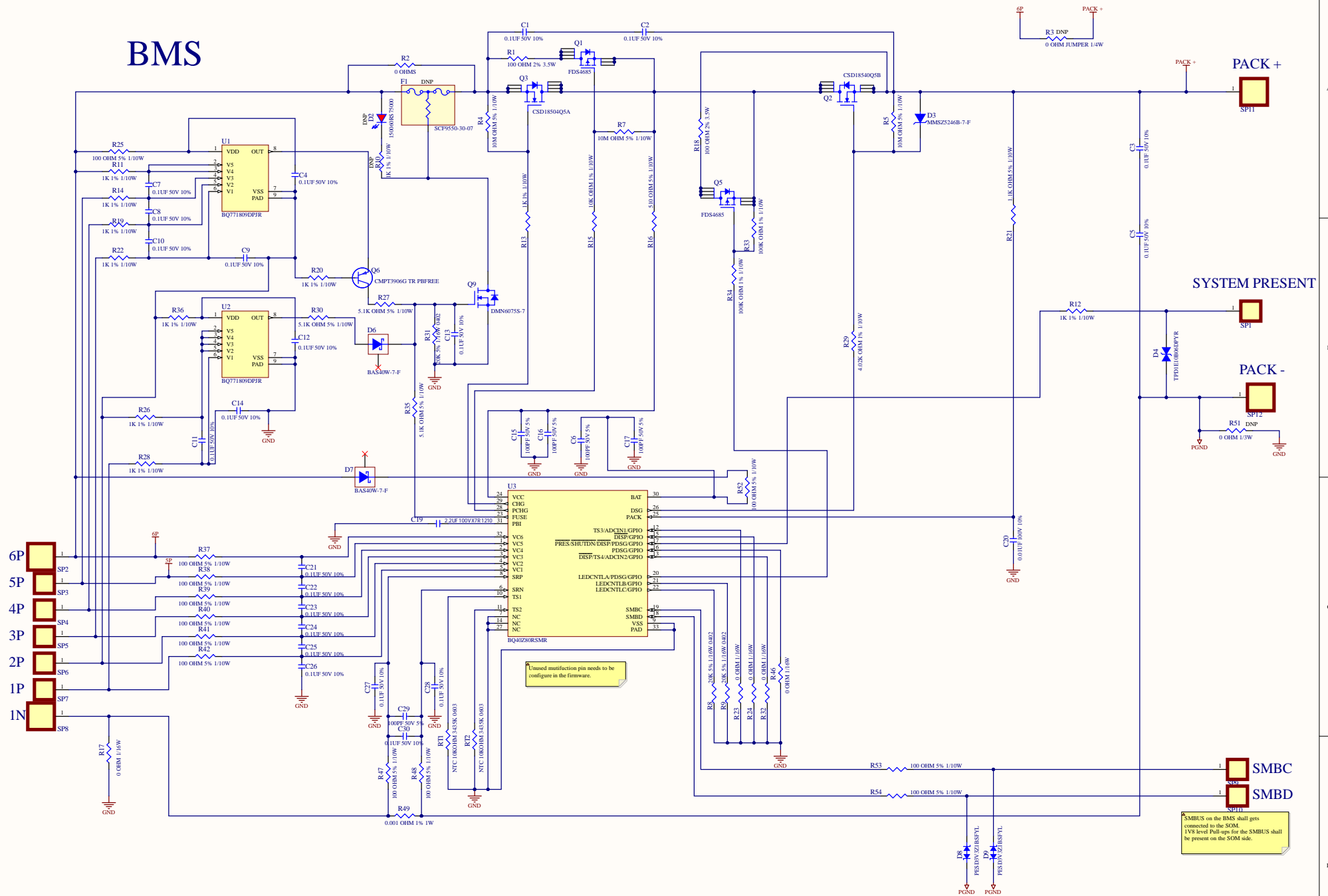
| REV. | DATE     | DESCRIPTION | ENGINEER |
|------|----------|-------------|----------|
| 2.2  | 01/09/23 |             | HK       |

# BMS



|  |                  |              |                |
|--|------------------|--------------|----------------|
| <b>CHAMPIONX</b><br><small>PROPRIETARY NOTICE - THE DATA CONTAINED HEREIN IS PROPRIETARY TO WINDROCK INCORPORATED AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS FURNISHED WITHOUT THE EXPRESS PERMISSION OF WINDROCK INCORPORATED.</small> | PRODUCT FAMILY:  | TITLE:       | SCALE:         |
|  | CODE:            | DRAWING NO:  | REV:           |
|  | 0E3P9            | 6030211001   | 2.2            |
|  | OWNER: CHAMPIONX | ENGINEER: HK | DATE: 01/09/23 |
| 2445 Technology Lakes Blvd<br>The Woodlands, Texas 77380   |                  |              | SHEET: 1 OF 3  |

# BMS



SMBUS on the BMS shall gets connected to the SOM. I/O level Pull-ups for the SMBUS shall be present on the SOM side.

|   |                                      |                             |                                      |
|---|--------------------------------------|-----------------------------|--------------------------------------|
| <b>CHAMPIONX</b><br><small>PROPRIETARY NOTICE: THE DATA CONTAINED HEREIN IS PROPRIETARY TO CHAMPIONX INCORPORATED AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS FURNISHED WITHOUT THE EXPRESS PERMISSION OF CHAMPIONX INCORPORATED.</small> | PRODUCT FAMILY:<br>BATTERY BMS BOARD | TITLE:<br>BATTERY BMS BOARD | SCALE:<br>DO NOT SCALE PRINT         |
|   | CODE:<br>OE3P9                       | DRAWING NO:<br>402021001    | REV:<br>2.2                          |
| <b>CHAMPIONX</b><br><small>2405 Technology Forest Blvd<br/>         The Woodlands, Texas 77380</small>  | OWNER: CHAMPIONX<br>ENGINEER: HK     | DATE: 01/09/23              | SHEET SIZE: 0x640 C<br>SHEET: 2 OF 3 |

Rev 0.1

First Release

Rev 0.2

F1 fuse SFK-3030 is changed to SCF9550-30-07

Rev 1.0

J1 connector removed from the board.

R17 0-ohm resistor added.

Rev 2.2

Added DNP label for R51

Removed DNP label from R17

Changed the D8 and D9 diodes from TPD1E10B06DPYR to PESD3V3Z1BSFYL

Deleted the Q7, R50 and R6

Connected the pin1 of R34 to pin 20 of U3

R33, R34 changed from 10M to 100K

R1, R18 changed from 100ohm 1W to 100 ohm 3.5W

Deleted the R43, R44, R55, Q10 and Q11

R46 changed from 10M to 0-ohm

Removed the DNP label from R2

Added DNP label to F1 fuse

|  |                  |                   |                     |
|--|------------------|-------------------|---------------------|
| <b>CHAMPIONX</b><br><small>PROPRIETARY NOTICE - THE DATA CONTAINED<br/>HEREIN IS PROPRIETARY TO CHAMPIONX<br/>INCORPORATED AND SHALL NOT BE DUPLICATED,<br/>USED, OR DISCLOSED IN WHOLE OR IN PART FOR<br/>ANY PURPOSE OTHER THAN FOR WHICH IT WAS<br/>FURNISHED WITHOUT THE EXPRESS PERMISSION<br/>OF CHAMPIONX INCORPORATED.</small> | PRODUCT FAMILY:  | TITLE:            | SCALE:              |
|  | 4                | BATTERY BMS BOARD | DO NOT SCALE PRINT  |
|  | CODE:            | DRAWING NO        | REV:                |
|  | OE3P9            | 402021101         | ±2                  |
| <b>CHAMPIONX</b><br><small>2445 Technology Forest Blvd<br/>The Woodlands, Texas 77380</small>  | OWNER: CHAMPIONX | ENGINEER: HK      | DATE: 01/09/23      |
|  |                  |                   | SHEET SIZE: AxCAD C |
|  |                  |                   | SHEET: 3 OF 3       |