



CYTVII-B-E-100-SO

Evaluation Board User Guide

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1. Introduction



This user guide provides instructions to handle the CYTVII-B-E-100-SO evaluation boards, referred to as 'CPU board' in this document. This is an evaluation platform for the CYT2B75CABES Traveo™ II device. The board can be used as a stand-alone for basic validation or in combination with the CYTVII-B-E-BB Traveo II baseboard (available separately from Cypress). This document assumes that you will work with the combination (CPU board and baseboard), and provides guidance on how to use the features of the evaluation platform.

Note: This user guide is meant for Rev C of the CYTVII-B-E-100-SO board.

1.1 Precautions and Warnings

The board is a delicate PCB; make sure that the evaluation board is handled by qualified personnel who are aware of the capabilities of the board. Handle the board carefully and make sure it is not bent or subjected to stress. Ensure your own safety arising from electrical hazards and other sources.

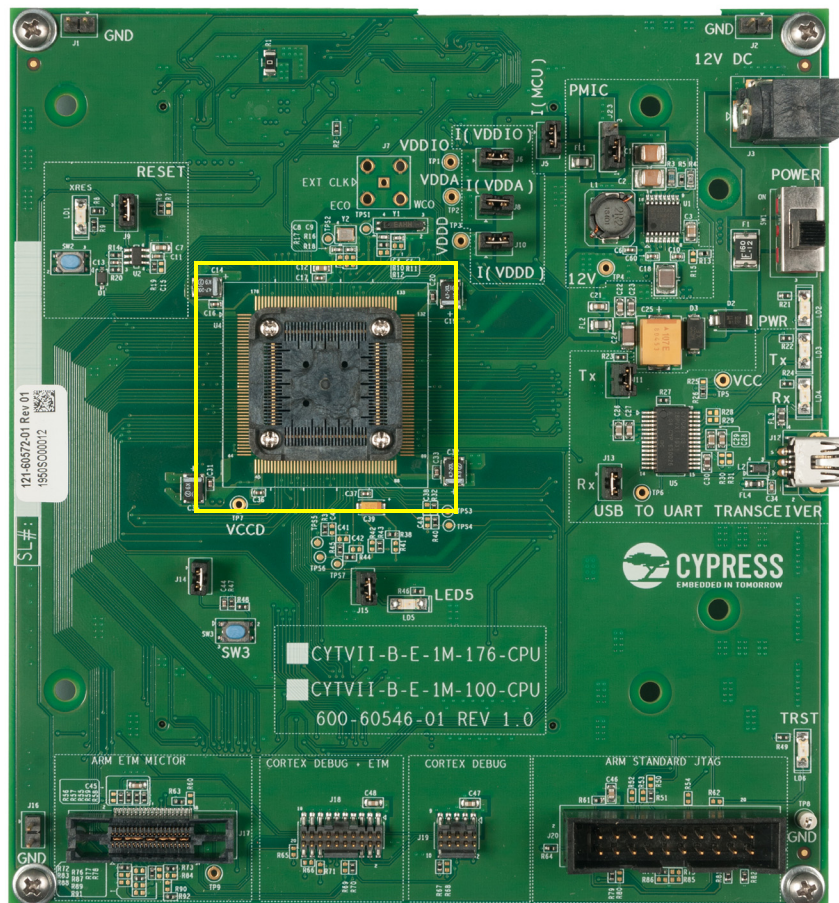
The CPU board is shipped with a 12 V DC power adapter. This adapter can be plugged into the AC mains supply anywhere in the world and is designed to receive 100-240 V AC V @ 50/60 Hz. While powering the board, you must connect only the power adapter supplied with the evaluation board and not any other part.

2. Overview



Figure 2-1 shows the CYTVII-B-E-100-SO board. Insert a Traveo II device into the IC socket (highlighted in yellow) while the evaluation board is powered OFF.

Figure 2-1. CYTVII-B-E-100-SO Board



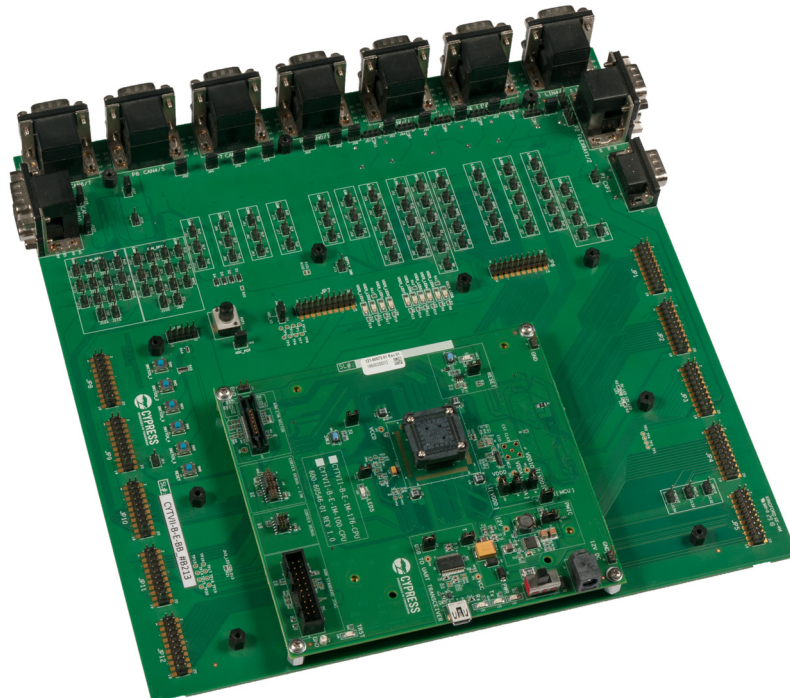
The CPU board is meant to be used along with a Traveo II baseboard (CYTVII-B-E-BB). The baseboard brings out all important interface connections such as CAN, LIN, SPI EEPROM, CXPI, and FlexRay, and can be used in conjunction with several CPU boards of the Traveo II family. Figure 2-2 shows the baseboard.

Figure 2-2. Traveo II Baseboard (CYTVII-B-E-BB)



Two Samtec connectors on the CPU board and corresponding mating connectors on the baseboard are used to connect signals across the two boards. When put together, the boards appear as shown in [Figure 2-3](#).

Figure 2-3. Combination of CPU Board and TVII Baseboard



2.1 Functional Overview

The CPU board has the following components:

1. One Traveo II device mounted on a socket (U3).
2. Power supply circuit to generate either 3.3V or 5V output depending on the selection of J23 jumper. The power output is fed to the CPU board and the base board (if connected).
3. Programming interface (Arm® Standard JTAG, Cortex® Debug, Cortex Debug + ETM, and Arm ETM Mictor) to connect several programming tools such as IAR I-jet, Green Hills GHS, MiniProg.
4. USB-UART interface for terminal logging (J12).
5. One user switch (SW3) and one user LED (LED5) for standalone operation without the baseboard.
6. Reset controller with manual reset switch (SW2) and voltage supervision.
7. Measurement of device current on VDDA, VDDD, and VDDIO using jumpers J6, J8, and J10 respectively.
8. Samtec connector interface (J21 and J22) for connecting to the baseboard CYTVII-B-E-BB.

The Traveo II baseboard has the following components:

1. Six CAN-FD transceivers based on TJA1057GT (Dual connectors P6, P7, P8).
2. Four CAN-FD transceivers based on TJA1145T, with SPI-based transceiver configuration (Dual connectors P9, P10).
3. Six LIN transceivers based on TJA1021T (Dual connectors P3, P4, P5).
4. Two Flexray transceivers based on TJA1081TS (Dual connector P2).
5. One CXPI transceiver based on S6BT112A01 (Connector P1).
6. One SPI EEPROM 25LC320A (U9).
7. Five user switches (SW1 through SW5), 10 user LEDs (USER_LED0 through USER_LED9), and one potentiometer (POT1) for analog input.
8. Pin headers to access all I/Os of the TVII device (when a CPU board is connected to the baseboard).
9. Samtec connector interface (J38 and J84) for connecting to a CPU board.

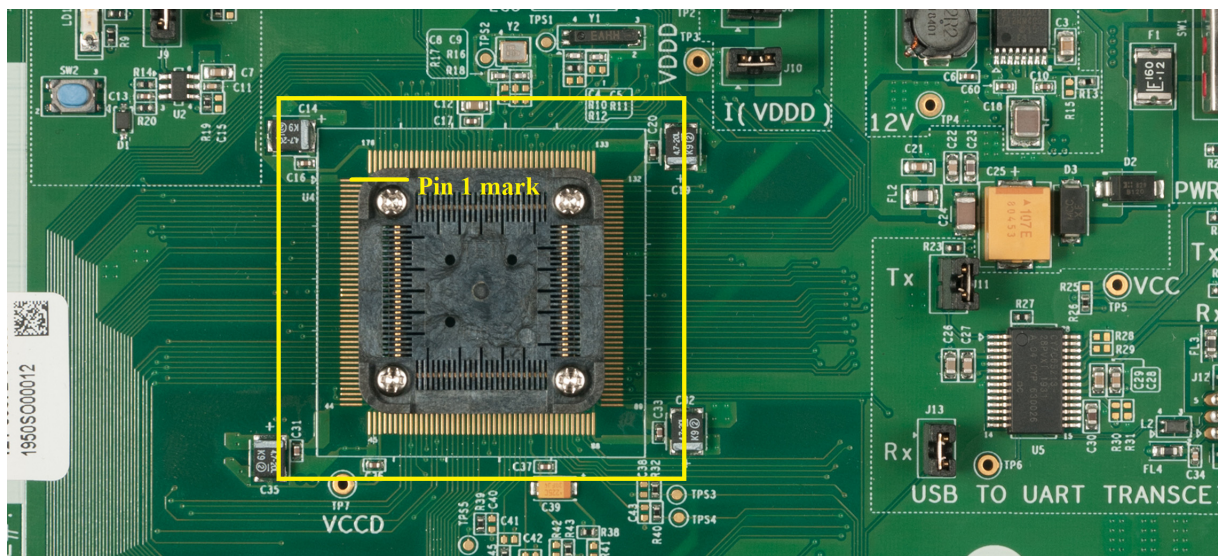
3. Operation



This section describes the operation of the CPU board and the baseboard. It is assumed that you have connected the CPU board to the baseboard using the Samtec interface and inserted a TVII device into the IC socket. Follow these steps to operate the CPU board and the baseboard:

1. For socketed CPU board, ensure that the device is inserted into the socket. Remove the four screws on the socket using the screwdriver provided in the box and open the socket cover. If the device is not present, place one carefully using a vacuum picker or a pair of tweezers.
2. Ensure that pin 1 of the device is near the pin 1 marking on the PCB, as shown in [Figure 3-1](#). Also, ensure that the device is placed in an angle such that the pins on all four sides of the LQFP package match well with the socket pins. Align the device slightly, if required.

Figure 3-1. Orientation of Device when Inserted in Socket



3. Replace the socket cover and fix the four screws so that the socket cover tightly sits on the socket base.
4. A 12 V wall adapter board is supplied along with the CPU board. Connect the 12 V wall adapter to the barrel connector marked "12V DC" on the CPU board. Connect its plug to a mains socket using one of the four plug adapters provided in the white box (depending on the geographical location and the socket type available).
5. Ensure that jumpers J5, J6, J8, J10, J23 (current measurement jumpers) are inserted on the CPU board.
6. Turn on the mains supply to the wall adapter. Turn on the switch SW1 on the CPU board. The LED labeled PWR should light up.
7. Connect an appropriate programming tool to one of the programming interfaces (J17, J18, J19, J20). Programming tool options are:
 - ❑ GHS Trace on J17
 - ❑ IAR I-jet on J18 or J20
 - ❑ MiniProg3 on J19

8. Install the appropriate programming integrated design environment (IDE) on a PC. The programming IDE (GHS Multi, IAR EWB, CYP, and so on) should be able to detect a device (read the device ID) and to load a firmware HEX file (*.srec*) into the device flash successfully.
As part of the release package, various firmware examples compiled in *.srec* programming IDEs are available. Some examples use specific transceivers on the baseboard.
9. To start with, use the LED blink example provided with the release package to test the functioning of the board.
10. Connect a USB-mini cable to J12 and the other end to a PC. Open Tera Term or your preferred terminal logging application and set the appropriate port and baud rate (typically 115,200 baud, 8, N, 1). Ensure that jumpers J11 and J13 are inserted on the CPU board. Some firmware examples provide data logs from the device or ask for user inputs over the terminal.

4. Connections and Settings



Make sure that the following jumpers are inserted on the baseboard, so that each transceiver on the baseboard can be used with the respective firmware example that activate each functionality of the device:

- CAN0.0 from the device uses the CAN0 transceiver on the baseboard (connect jumpers J70, J71, J72).
- CAN0.1 from the device uses the CAN1 transceiver on the baseboard (connect jumpers J66, J67, J68).
- CAN0.2 from the device uses the CAN2 transceiver on the baseboard (connect jumpers J81, J82, J83).
- CAN1.0 from the device uses the CAN3 transceiver on the baseboard (connect jumpers J76, J77, J78).
- CAN1.1 from the device uses the CAN4 transceiver on the baseboard (connect jumpers J91, J92, J93).
- CAN1.2 from the device uses the CAN5 transceiver on the baseboard (connect jumpers J86, J87, J88).
- LIN0 from the device uses the LIN0 transceiver on the baseboard (connect jumpers J58, J59, J60, J63).
- LIN1 from the device uses the LIN1 transceiver on the baseboard (connect jumpers J51, J52, J53, J56).
- LIN2 from the device uses the LIN2 transceiver on the baseboard (connect jumpers J37, J39, J40, J43).
- LIN3 from the device uses the LIN3 transceiver on the baseboard (connect jumpers J30, J31, J32, J35).
- LIN4 from the device uses the LIN4 transceiver on the baseboard (connect jumpers J22, J23, J24, J27).
- LIN5 from the device uses the LIN5 transceiver on the baseboard (connect jumpers J10, J16, J17, J20).
- EEPROM on the baseboard is enabled by connecting jumpers J47, J48, J49.
- The user switch functionality is enabled by connecting jumper J102.
- The potentiometer functionality is enabled by connecting jumper J89.

In addition, power is supplied to the baseboard by connecting jumper J80 to the 3 V or 5 V select jumper pin in the '5 V' position. Make sure that jumper J80 is always connected. Once a specific functionality is chosen by connecting the jumpers listed above, ensure that the appropriate firmware is loaded onto the device. Incorrect firmware can result in port pins being configured incorrectly leading to bus contention and damage to hardware. For example, if you connect jumpers related to CAN0.0, you must ensure that firmware configures the related ports as CAN pins. Contact [Cypress technical support](#) for firmware examples.

Apart from these interface transceivers that can be used for specific functions, all pins of the device are also accessible on the baseboard using pin headers JP1 through JP12.

The device port pins are connected to pin headers on the baseboard as listed in [Table 4-1](#).

Table 4-1. Device Port Pin Connections on Baseboard

| Port Pin | Pin Function | Access Pin on Baseboard |
|----------|---|-------------------------|
| P0.0 | PWM_18/PWM_22_N/TC_18_TR0/TC_22_TR1/SCB0_RX/SCB7_SDA/SCB0_MISO/LIN1_RX | JP6.15 |
| P0.1 | PWM_17/PWM_18_N/TC_17_TR0/TC_18_TR1/SCB0_TX/SCB7_SCL/SCB0_MOSI/LIN1_TX | JP6.14 |
| P0.2 | PWM_14/PWM_17_N/TC_14_TR0/TC_17_TR1/SCB0_RTS/SCB0_SCL/SCB0_CLK/LIN1_EN/CAN0_1_TX | JP6.9 |
| P0.3 | PWM_13/PWM_14_N/TC_13_TR0/TC_14_TR1/SCB0_CTS/SCB0_SDA/SCB0_SEL0/CAN0_1_RX | JP6.8 |
| P2.0 | PWM_7/PWM_8_N/TC_7_TR0/TC_8_TR1/SCB7_RX/SCB0_SEL1/SCB7_MISO/LIN0_RX/CAN0_0_TX/ SWJ_TRSTN/TRIG_IN[2] | N/A |
| P2.1 | PWM_6/PWM_7_N/TC_6_TR0/TC_7_TR1/SCB7_TX/SCB7_SDA/SCB0_SEL2/SCB7_MOSI/LIN0_TX/ CAN0_0_RX/TRIG_IN[3] | JP1.4 |
| P2.2 | PWM_5/PWM_6_N/TC_5_TR0/TC_6_TR1/SCB7_RTS/SCB7_SCL/SCB0_SEL3/ SCB7_CLK/LIN0_EN/TRIG_IN[4] | JP1.6 |
| P2.3 | PWM_4/PWM_5_N/TC_4_TR0/TC_5_TR1/SCB7_CTS/SCB7_SEL0/LIN5_RX/TRIG_IN[5] | JP10.11 |
| P3.0 | PWM_1/PWM_2_N/TC_1_TR0/TC_2_TR1/SCB6_RX/TRIG_DBG[0] | JP10.14 |
| P3.1 | PWM_0/PWM_1_N/TC_0_TR0/TC_1_TR1/SCB6_TX/TRIG_DBG[1] | JP11.4 |
| P5.0 | PWM_9/PWM_8_N/TC_9_TR0/TC_8_TR1/LIN7_RX | JP11.3 |
| P5.1 | PWM_10/PWM_9_N/TC_10_TR0/TC_9_TR1/LIN7_TX | JP10.15 |
| P5.2 | PWM_11/PWM_10_N/TC_11_TR0/TC_10_TR1/LIN7_EN | JP10.18 |
| P5.3 | PWM_12/PWM_11_N/TC_12_TR0/TC_11_TR1 | JP2.5 |
| P6.0 | PWM_M_0/PWM_14_N/TC_M_0_TR0/TC_14_TR1/SCB4_RX/SCB4_MISO/LIN3_RX/ADC[0]_0 | JP2.9 |
| P6.1 | PWM_0/PWM_M_0_N/TC_0_TR0/TC_M_0_TR1/SCB4_TX/SCB4_SDA/SCB4_MOSI/LIN3_TX/ADC[0]_1 | JP2.10 |
| P6.2 | PWM_M_1/PWM_0_N/TC_M_1_TR0/TC_0_TR1/SCB4_RTS/SCB4_SCL/SCB4_CLK/LIN3_EN/ CAN0_2_TX/ADC[0]_2 | N/A |
| P6.3 | PWM_1/PWM_M_1_N/TC_1_TR0/TC_M_1_TR1/SCB4_CTS/SCB4_SEL0/LIN4_RX/CAN0_2_RX/ CAL_SUP_NZ/ADC[0]_3 | N/A |
| P6.4 | PWM_M_2/PWM_1_N/TC_M_2_TR0/TC_1_TR1/SCB4_SEL1/LIN4_TX/ADC[0]_4 | JP2.14 |
| P6.5 | PWM_2/PWM_M_2_N/TC_2_TR0/TC_M_2_TR1/SCB4_SEL2/LIN4_EN/ADC[0]_5 | JP2.16 |
| P7.0 | PWM_M_4/PWM_3_N/TC_M_4_TR0/TC_3_TR1/SCB5_RX/SCB5_MISO/LIN4_RX/ADC[0]_8 | JP12.3 |
| P7.1 | PWM_15/PWM_M_4_N/TC_15_TR0/TC_M_4_TR1/SCB5_TX/SCB5_SDA/SCB5_MOSI/LIN4_TX/ADC[0]_9 | JP12.6 |
| P7.2 | PWM_M_5/PWM_15_N/TC_M_5_TR0/TC_15_TR1/SCB5_RTS/SCB5_SCL/SCB5_CLK/LIN4_EN/ADC[0]_10 | JP12.5 |
| P7.3 | PWM_16/PWM_M_5_N/TC_16_TR0/TC_M_5_TR1/SCB5_CTS/SCB5_SEL0/ADC[0]_11 | JP10.10 |
| P7.4 | PWM_M_6/PWM_16_N/TC_M_6_TR0/TC_16_TR1/SCB5_SEL1/ADC[0]_12 | JP10.9 |
| P7.5 | PWM_17/PWM_M_6_N/TC_17_TR0/TC_M_6_TR1/SCB5_SEL2/ADC[0]_13 | JP10.12 |
| P8.0 | PWM_19/PWM_18_N/TC_19_TR0/TC_18_TR1/LIN2_RX/CAN0_0_TX | JP6.12 |
| P8.1 | PWM_20/PWM_19_N/TC_20_TR0/TC_19_TR1/LIN2_TX/CAN0_0_RX/TRIG_IN[14]/ADC[0]_16 | JP6.11 |
| P8.2 | PWM_21/PWM_20_N/TC_21_TR0/TC_20_TR1/LIN2_EN/TRIG_IN[15]/ADC[0]_17 | JP2.8 |
| P11.0 | ADC[0]_M | JP9.6 |
| P11.1 | ADC[1]_M | JP9.5 |
| P11.2 | ADC[2]_M | JP9.8 |
| P12.0 | PWM_36/PWM_35_N/TC_36_TR0/TC_35_TR1/CAN0_2_TX/TRIG_IN[20]/ADC[1]_4 | JP10.8 |
| P12.1 | PWM_37/PWM_36_N/TC_37_TR0/TC_36_TR1/LIN6_EN/CAN0_2_RX/TRIG_IN[21]/ADC[1]_5 | JP10.7 |

Table 4-1. Device Port Pin Connections on Baseboard

| Port Pin | Pin Function | Access Pin on Baseboard |
|----------|---|-------------------------|
| P12.2 | PWM_38/PWM_37_N/TC_38_TR0/TC_37_TR1/EXT_MUX[1]_EN/LIN6_RX/ADC[1]_6 | JP1.9 |
| P12.3 | PWM_39/PWM_38_N/TC_39_TR0/TC_38_TR1/EXT_MUX[1]_0/LIN6_TX/ADC[1]_7 | JP1.10 |
| P12.4 | PWM_40/PWM_39_N/TC_40_TR0/TC_39_TR1/EXT_MUX[1]_1/ADC[1]_8 | JP10.13 |
| P13.0 | PWM_M_8/PWM_43_N/TC_M_8_TR0/TC_43_TR1/EXT_MUX[2]_0/SCB3_RX/SCB3_MISO/ADC[1]_12 | JP10.4 |
| P13.1 | PWM_44/PWM_M_8_N/TC_44_TR0/TC_M_8_TR1/EXT_MUX[2]_1/SCB3_TX/SCB3_SDA/SCB3_MOSI/ADC[1]_13 | JP10.3 |
| P13.2 | PWM_M_9/PWM_44_N/TC_M_9_TR0/TC_44_TR1/EXT_MUX[2]_2/SCB3_RTS/SCB3_SCL/SCB3_CLK/ADC[1]_14 | JP10.16 |
| P13.3 | PWM_45/PWM_M_9_N/TC_45_TR0/TC_M_9_TR1/EXT_MUX[2]_EN/SCB3_CTS/SCB3_SEL0/ADC[1]_15 | JP1.5 |
| P13.4 | PWM_M_10/PWM_45_N/TC_M_10_TR0/TC_45_TR1/SCB3_SEL1/ADC[1]_16 | JP6.4 |
| P13.5 | PWM_46/PWM_M_10_N/TC_46_TR0/TC_M_10_TR1/SCB3_SEL2/ADC[1]_17 | JP2.7 |
| P13.6 | PWM_M_11/PWM_46_N/TC_M_11_TR0/TC_46_TR1/SCB3_SEL3/TRIG_IN[22]/ADC[1]_18 | JP2.11 |
| P13.7 | PWM_47/PWM_M_11_N/TC_47_TR0/TC_M_11_TR1/TRIG_IN[23]/ADC[1]_19 | JP2.15 |
| P14.0 | PWM_48/PWM_47_N/TC_48_TR0/TC_47_TR1/SCB2_RX/SCB2_MISO/CAN1_0_TX/ADC[1]_20 | JP3.12 |
| P14.1 | PWM_49/PWM_48_N/TC_49_TR0/TC_48_TR1/SCB2_TX/SCB2_SDA/SCB2_MOSI/CAN1_0_RX/ADC[1]_21 | JP3.14 |
| P14.2 | PWM_50/PWM_49_N/TC_50_TR0/TC_49_TR1/SCB2_RTS/SCB2_SCL/SCB2_CLK/LIN6_RX/ADC[1]_22 | JP1.11 |
| P14.3 | PWM_51/PWM_50_N/TC_51_TR0/TC_50_TR1/SCB2_CTS/SCB2_SEL0/LIN6_TX/ADC[1]_23 | JP7.8 |
| P17.0 | PWM_61/PWM_62_N/TC_61_TR0/TC_62_TR1/CAN1_1_TX | JP11.8 |
| P17.1 | PWM_60/PWM_61_N/TC_60_TR0/TC_61_TR1/PWM_H_2/SCB3_RX/CAN1_1_RX | JP11.7 |
| P17.2 | PWM_59/PWM_60_N/TC_59_TR0/TC_60_TR1/PWM_H_2_N/SCB3_TX | JP2.3 |
| P18.0 | PWM_M_6/PWM_M_5_N/TC_M_6_TR0/TC_M_5_TR1/PWM_H_0/SCB1_RX/SCB1_MISO/FAULT_OUT_0/ADC[2]_0 | JP3.18 |
| P18.1 | PWM_M_7/PWM_M_6_N/TC_M_7_TR0/TC_M_6_TR1/PWM_H_0_N/SCB1_TX/SCB1_SDA/SCB1_MOSI/FAULT_OUT_1/ADC[2]_1 | JP3.16 |
| P18.2 | PWM_55/PWM_M_7_N/TC_55_TR0/TC_M_7_TR1/PWM_H_1/SCB1_RTS/SCB1_SCL/SCB1_CLK/ADC[2]_2 | JP9.17 |
| P18.3 | PWM_54/PWM_55_N/TC_54_TR0/TC_55_TR1/PWM_H_1_N/SCB1_CTS/SCB1_SEL0/TRACE_CLOCK/ADC[2]_3 | JP4.4 |
| P18.4 | PWM_53/PWM_54_N/TC_53_TR0/TC_54_TR1/PWM_H_2/SCB1_SEL1/TRACE_DATA_0/ADC[2]_4 | JP9.18 |
| P18.5 | PWM_52/PWM_53_N/TC_52_TR0/TC_53_TR1/PWM_H_2_N/SCB1_SEL2/TRACE_DATA_1/ADC[2]_5 | JP12.4 |
| P18.6 | PWM_51/PWM_52_N/TC_51_TR0/TC_52_TR1/PWM_H_3/SCB1_SEL3/CAN1_2_TX/TRACE_DATA_2/ADC[2]_6 | JP11.6 |
| P18.7 | PWM_50/PWM_51_N/TC_50_TR0/TC_51_TR1/PWM_H_3_N/CAN1_2_RX/TRACE_DATA_3/ADC[2]_7 | JP11.5 |
| P19.0 | PWM_M_3/PWM_50_N/TC_M_3_TR0/TC_50_TR1/TC_H_0_TR0/SCB2_RX/SCB2_MISO/FAULT_OUT_2 | JP7.9 |
| P19.1 | PWM_26/PWM_M_3_N/TC_26_TR0/TC_M_3_TR1/TC_H_0_TR1/SCB2_TX/SCB2_SDA/SCB2_MOSI/FAULT_OUT_3 | JP7.13 |
| P19.2 | PWM_27/PWM_26_N/TC_27_TR0/TC_26_TR1/TC_H_1_TR0/SCB2_RTS/SCB2_SCL/SCB2_CLK/TRIG_IN[28] | JP6.5 |
| P19.3 | PWM_28/PWM_27_N/TC_28_TR0/TC_27_TR1/TC_H_1_TR1/SCB2_CTS/SCB2_SEL0/TRIG_IN[29] | JP6.10 |
| P21.0 | PWM_42/PWM_43_N/TC_42_TR0/TC_43_TR1/SCB1_SEL2/WCO_IN | N/A |
| P21.1 | PWM_41/PWM_42_N/TC_41_TR0/TC_42_TR1/WCO_OUT | N/A |
| P21.2 | PWM_40/PWM_41_N/TC_40_TR0/TC_41_TR1/TRIG_DBG[1]/EXT_CLK/ECO_IN | N/A |
| P21.3 | PWM_39/PWM_40_N/TC_39_TR0/TC_40_TR1/ECO_OUT | N/A |

Table 4-1. Device Port Pin Connections on Baseboard

| Port Pin | Pin Function | Access Pin on Baseboard |
|----------|--|-------------------------|
| P21.5 | PWM_37/PWM_38_N/TC_37_TR0/TC_38_TR1 | JP1.3 |
| P22.0 | PWM_34/PWM_35_N/TC_34_TR0/TC_35_TR1/SCB6_RX/SCB6_MISO/CAN1_1_TX | JP4.6 |
| P22.1 | PWM_33/PWM_34_N/TC_33_TR0/TC_34_TR1/SCB6_TX/SCB6_SDA/SCB6_MOSI/CAN1_1_RX | JP4.8 |
| P22.2 | PWM_32/PWM_33_N/TC_32_TR0/TC_33_TR1/SCB6_RTS/SCB6_SCL/SCB6_CLK | JP4.10 |
| P22.3 | PWM_31/PWM_32_N/TC_31_TR0/TC_32_TR1/SCB6_CTS/SCB6_SEL0 | JP4.12 |
| P23.3 | PWM_M_11/PWM_M_10_N/TC_M_11_TR0/TC_M_10_TR1/FAULT_OUT_3/TRIG_IN[30] | JP7.10 |
| P23.4 | PWM_25/PWM_M_11_N/TC_25_TR0/TC_M_11_TR1/TRIG_DBG[0]/SWJ_SWO_TDO/TRIG_IN[31] | JP4.7 |
| P23.5 | PWM_24/PWM_25_N/TC_24_TR0/TC_25_TR1/SWJ_SWCLK_TCLK | N/A |
| P23.6 | PWM_23/PWM_24_N/TC_23_TR0/TC_24_TR1/SWJ_SWDIO_TMS | N/A |
| P23.7 | PWM_22/PWM_23_N/TC_22_TR0/TC_23_TR1/CAL_SUP_NZ/SWJ_SWDOE_TDI/EXT_CLK/HIBERNATE_WAKEUP[1] | JP4.9 |
| VCCD | VCCD | N/A |
| VDDA | VDDA | N/A |
| VDDD | VDDD | N/A |
| VDDIO | VDDIO | N/A |
| VREFH | VREFH | N/A |
| VREFL | VREFL | N/A |
| VSSA | VSSA/VSSD/VSSIO/Ground | JP1.19 |
| XRES | XRES | JP12.16 |

The first column in [Table 4-1](#) lists the pin number on the MCU, followed by the port pin name.

The Access Pin on Baseboard column indicates the place where the signal can be probed on the baseboard. For example, JP6.15 refers to the 15th pin on the JP6 header.

A value of N/A in the Access Pin on Baseboard column indicates that the signal is unavailable on the JPx pin header on the baseboard. The signal might still be available on separate pin headers near the respective peripheral. For example, CAN7_RXD, CAN7_TXD.

For details on the alternate functionality of each MCU pin, see the device datasheet.

Note: If there are pins with more than one connection to the baseboard, make sure that no two peripherals are driven at the same time. The unused peripheral jumpers must be disconnected before using the other connection.

A. Schematics of CPU Board



Figure A-1. Schematic (1/23)

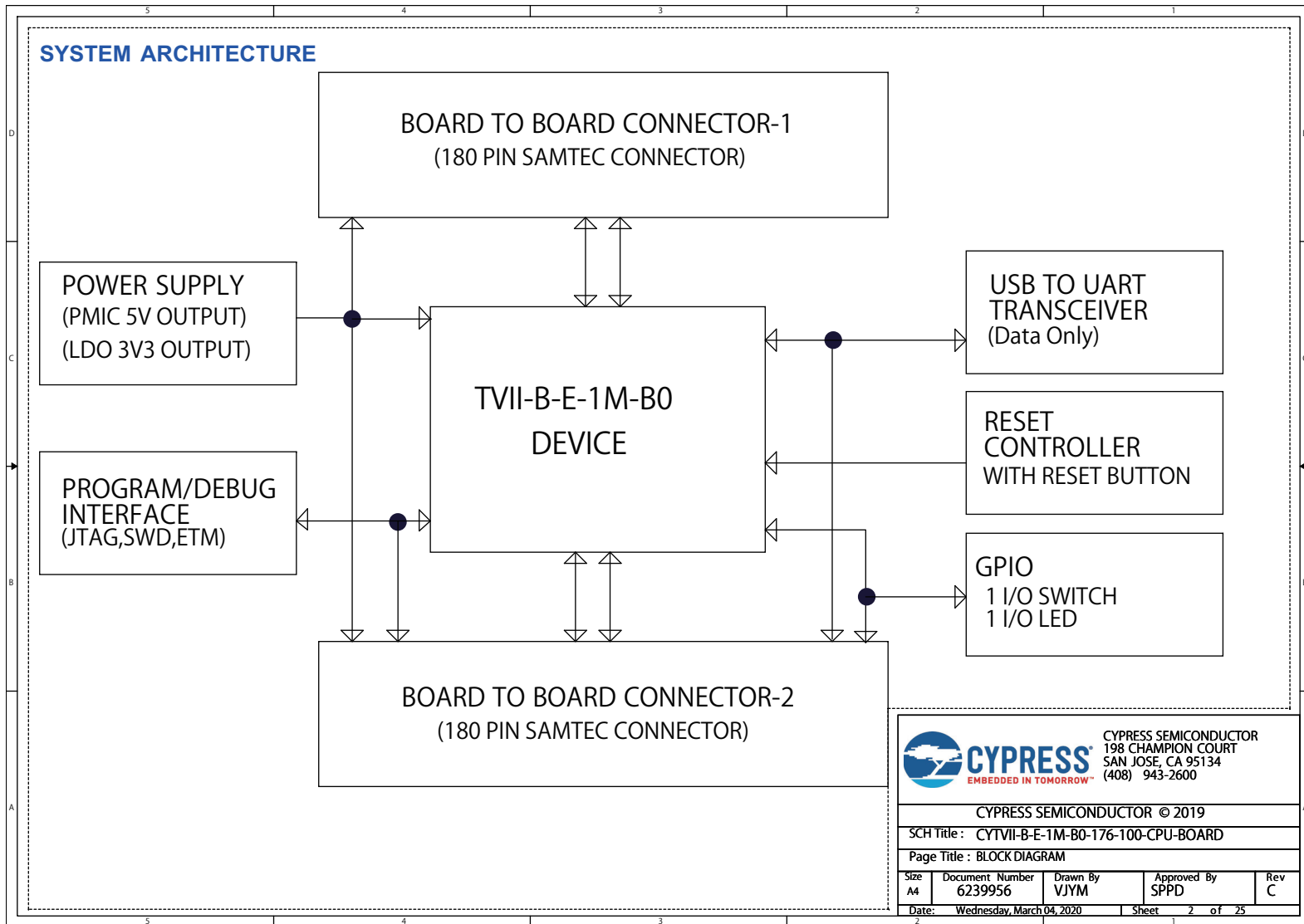


Figure A-2. Schematic (2/23)

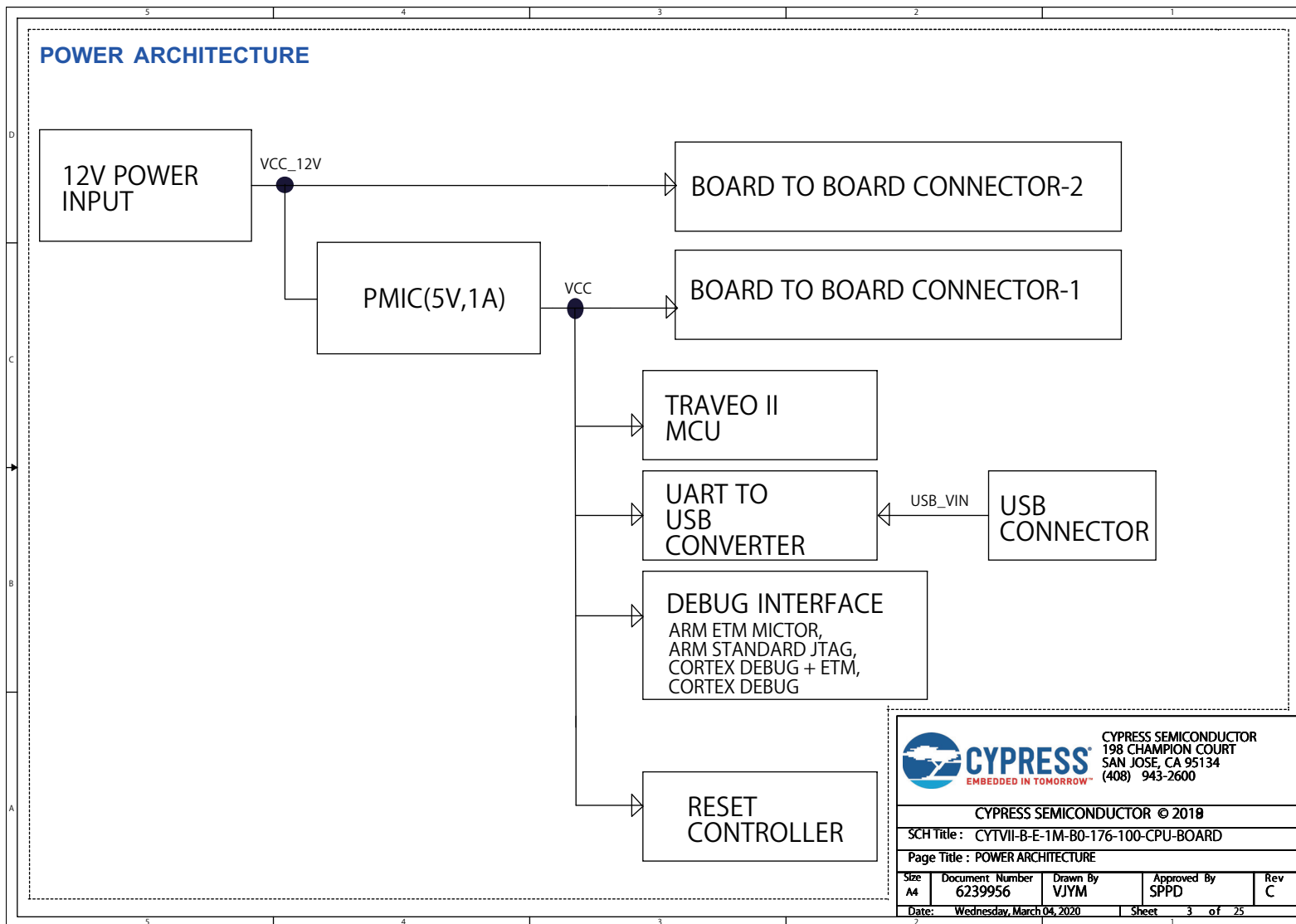


Figure A-3. Schematic (3/23)

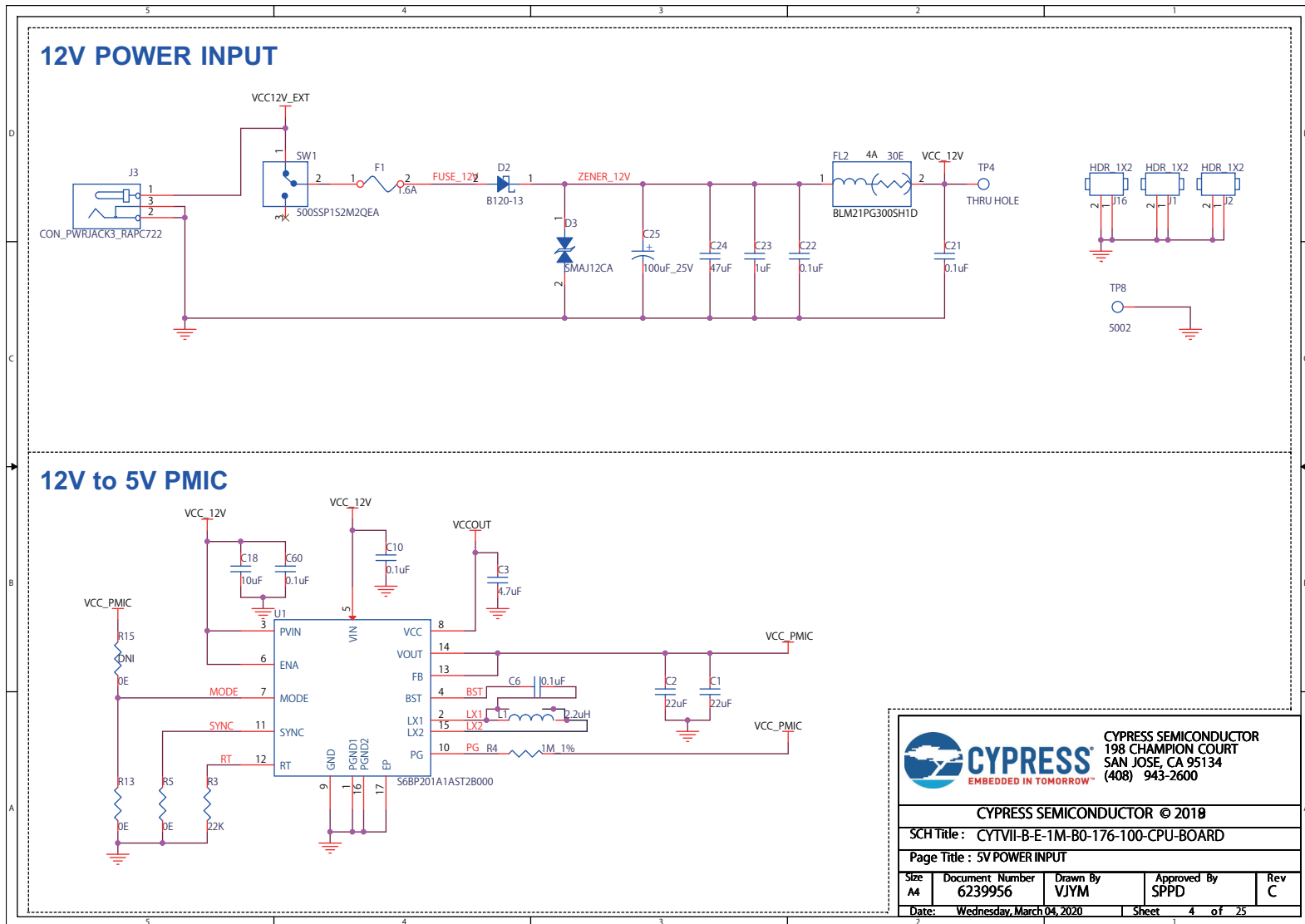


Figure A-4. Schematic (4/23)

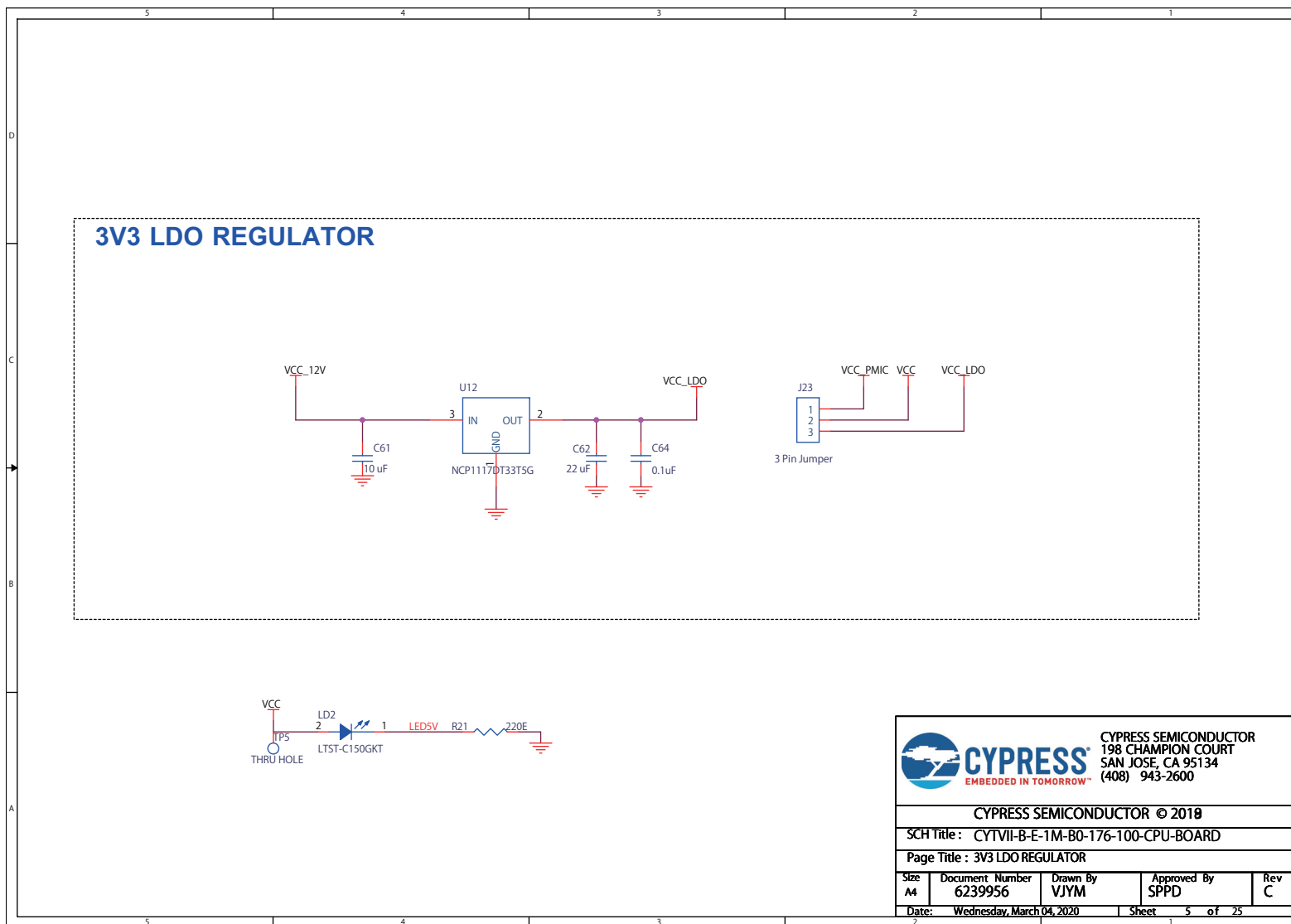


Figure A-5. Schematic (5/23)

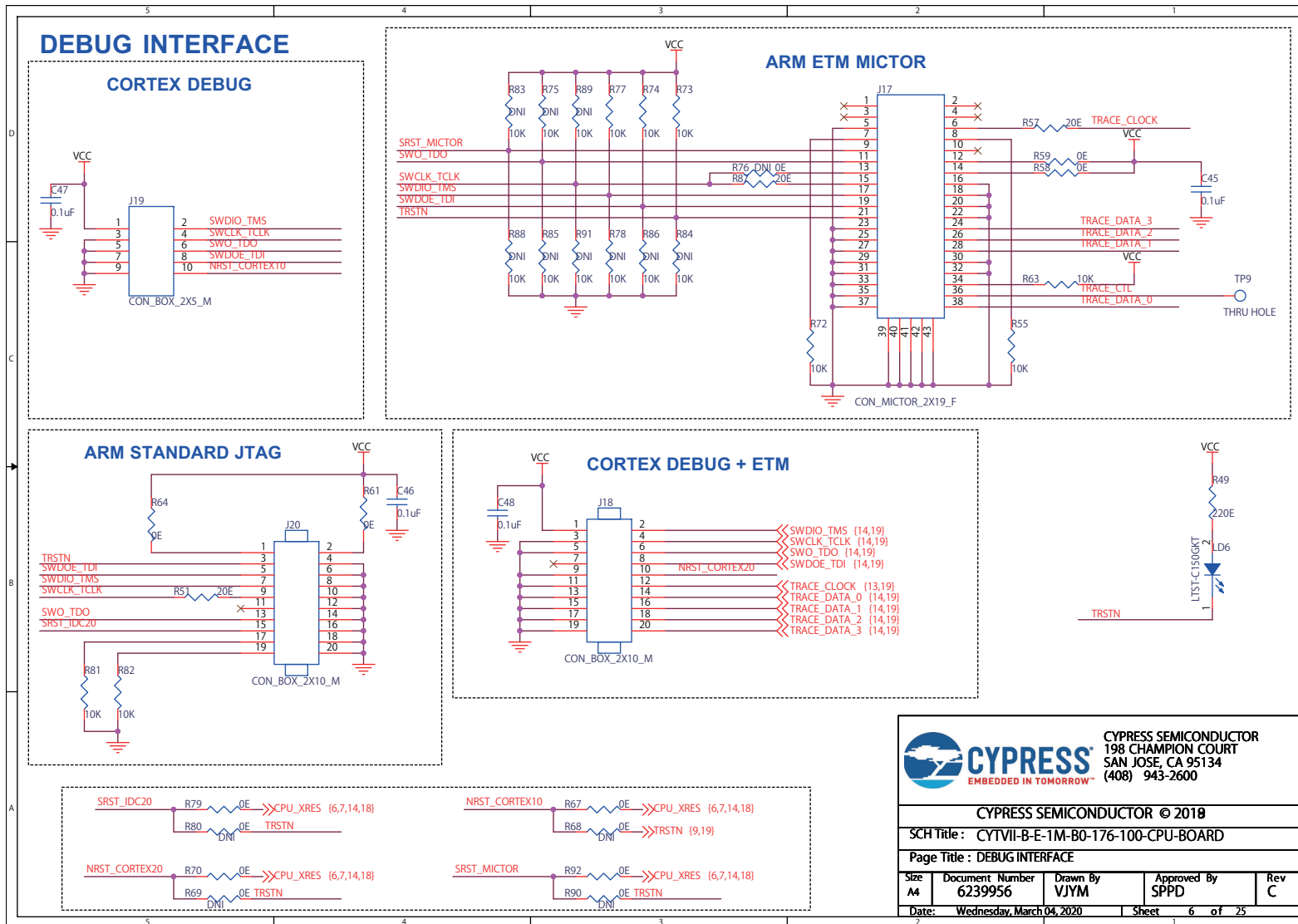




Figure A-7. Schematic (7/23)

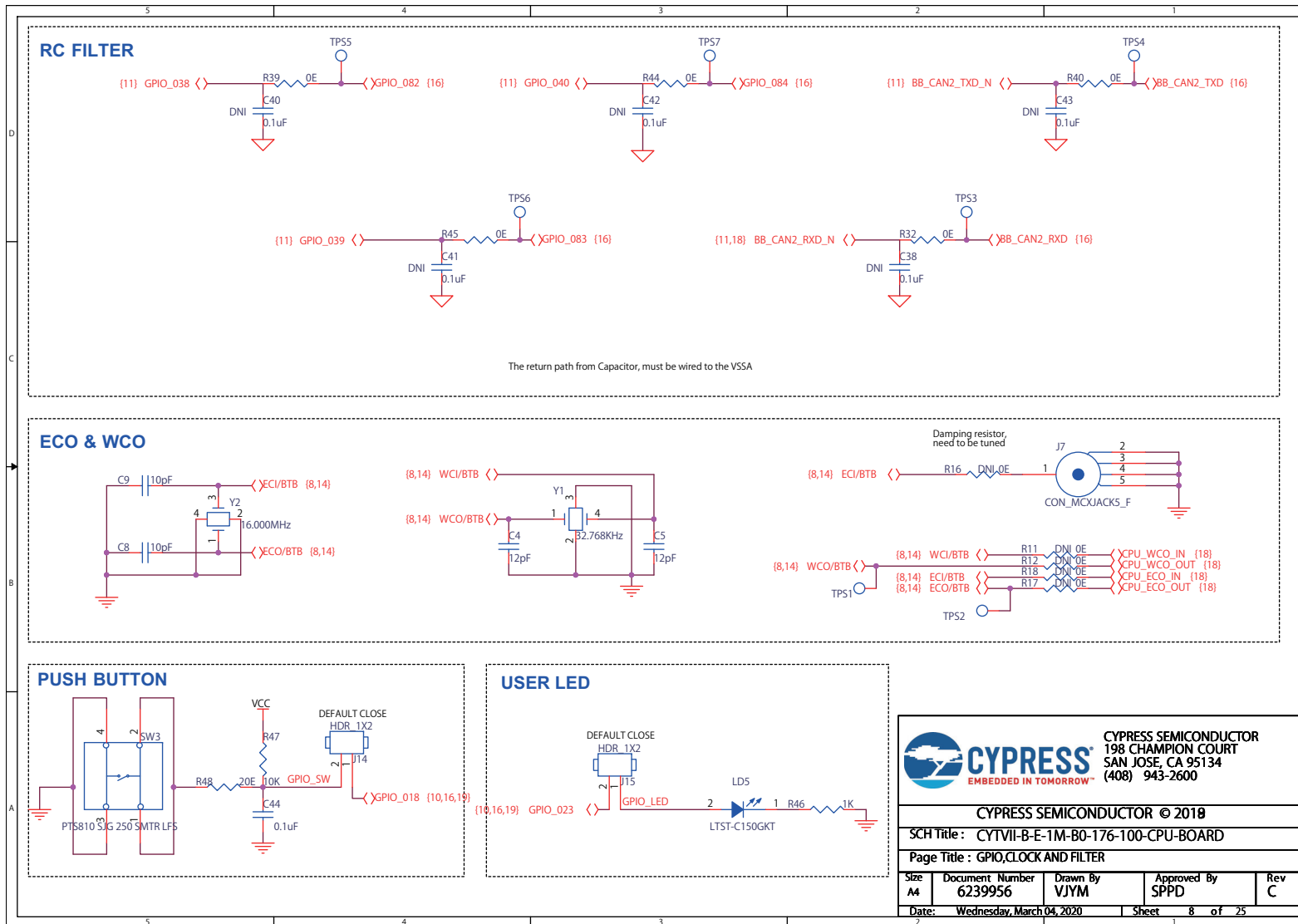


Figure A-8. Schematic (8/23)

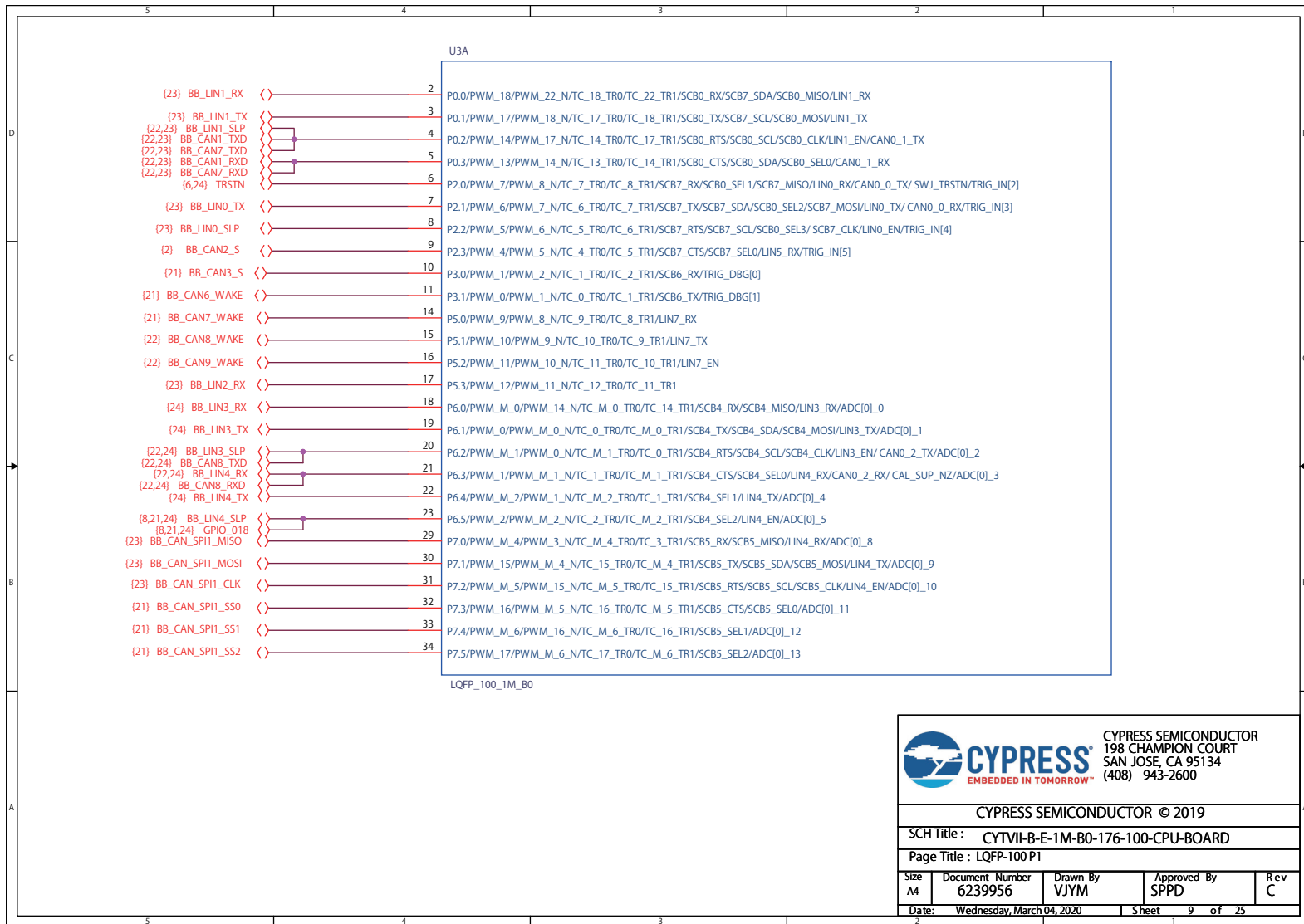


Figure A-9. Schematic (9/23)

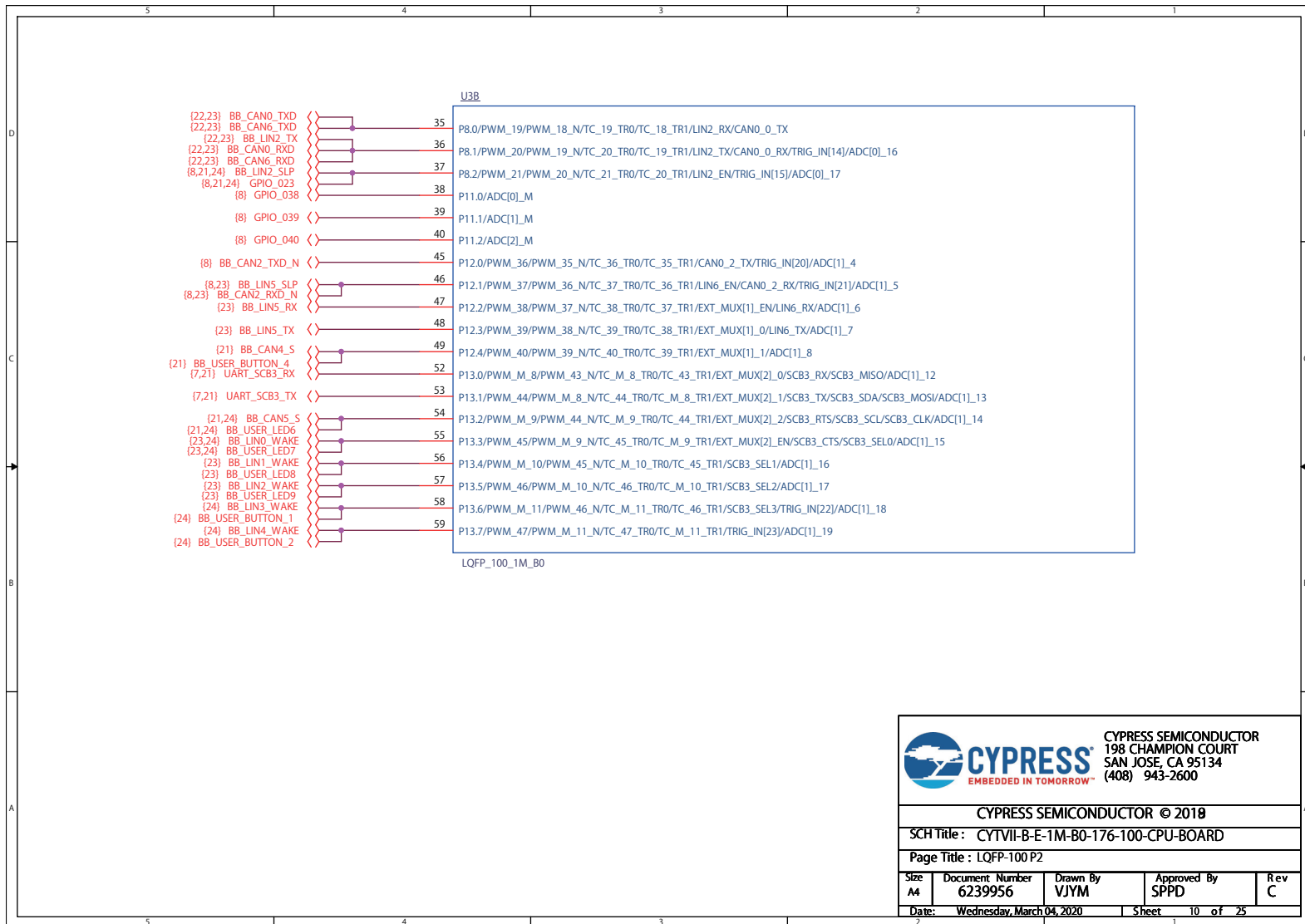


Figure A-10. Schematic (10/23)

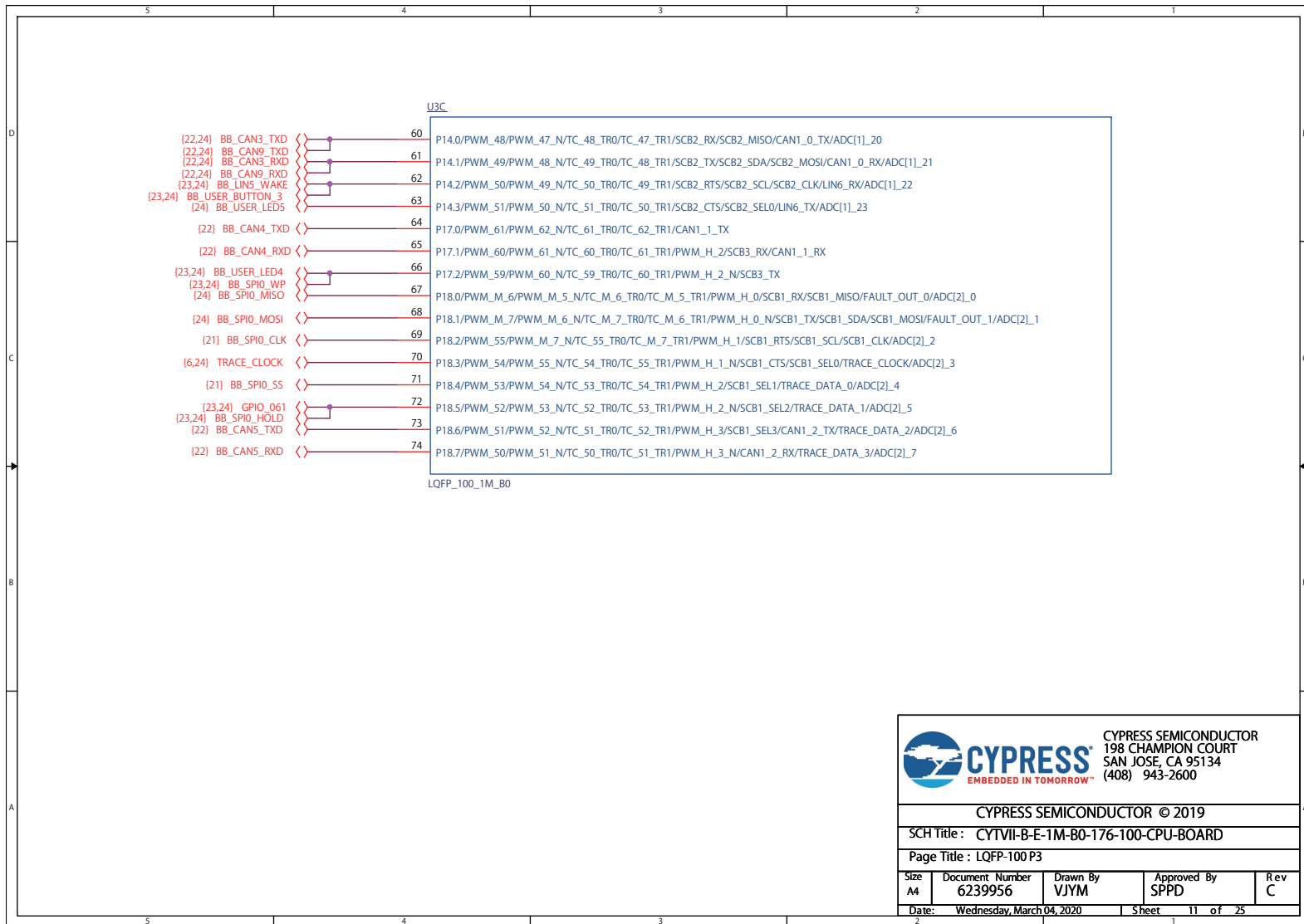


Figure A-11. Schematic (11/23)

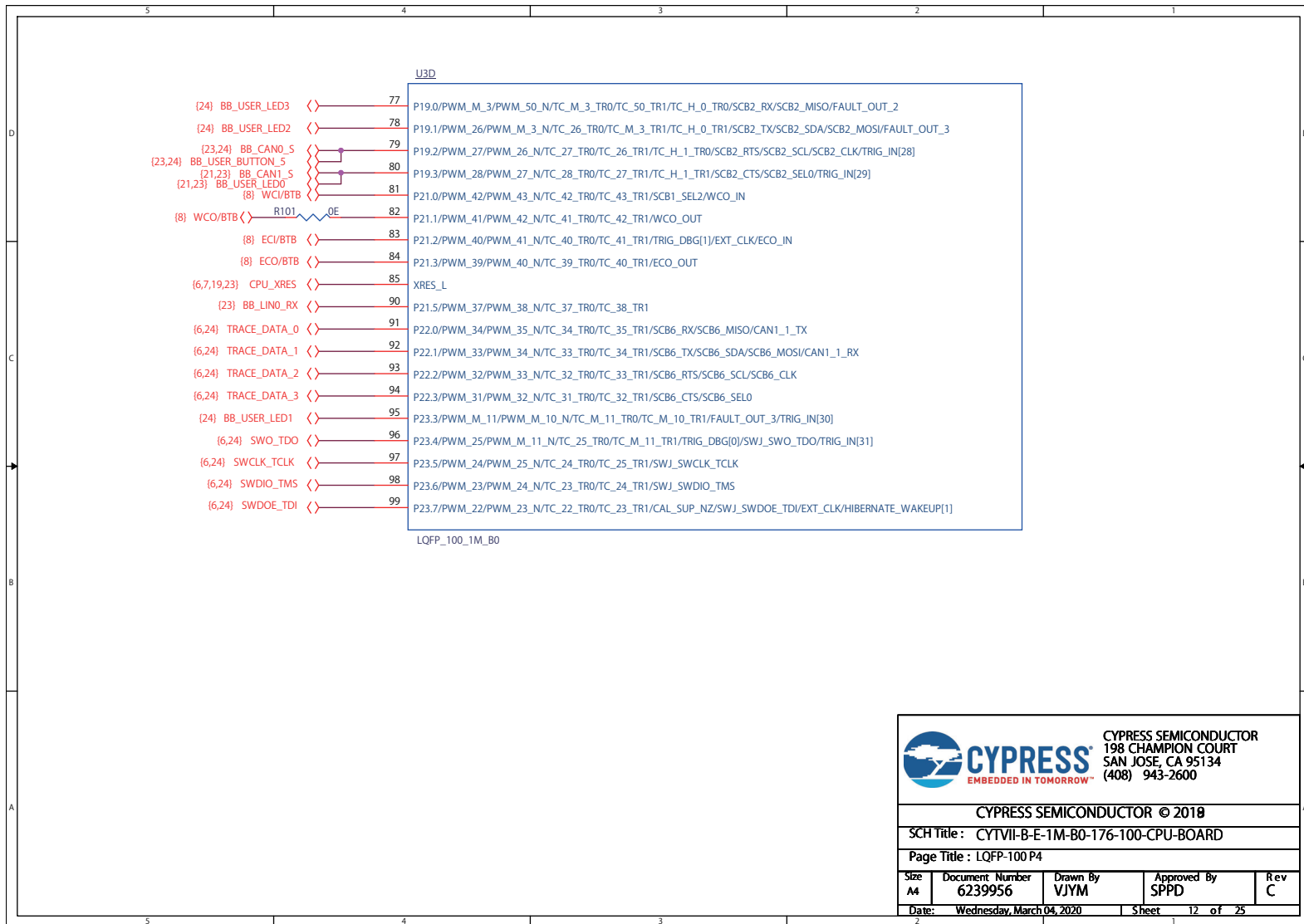


Figure A-12. Schematic (12/23)

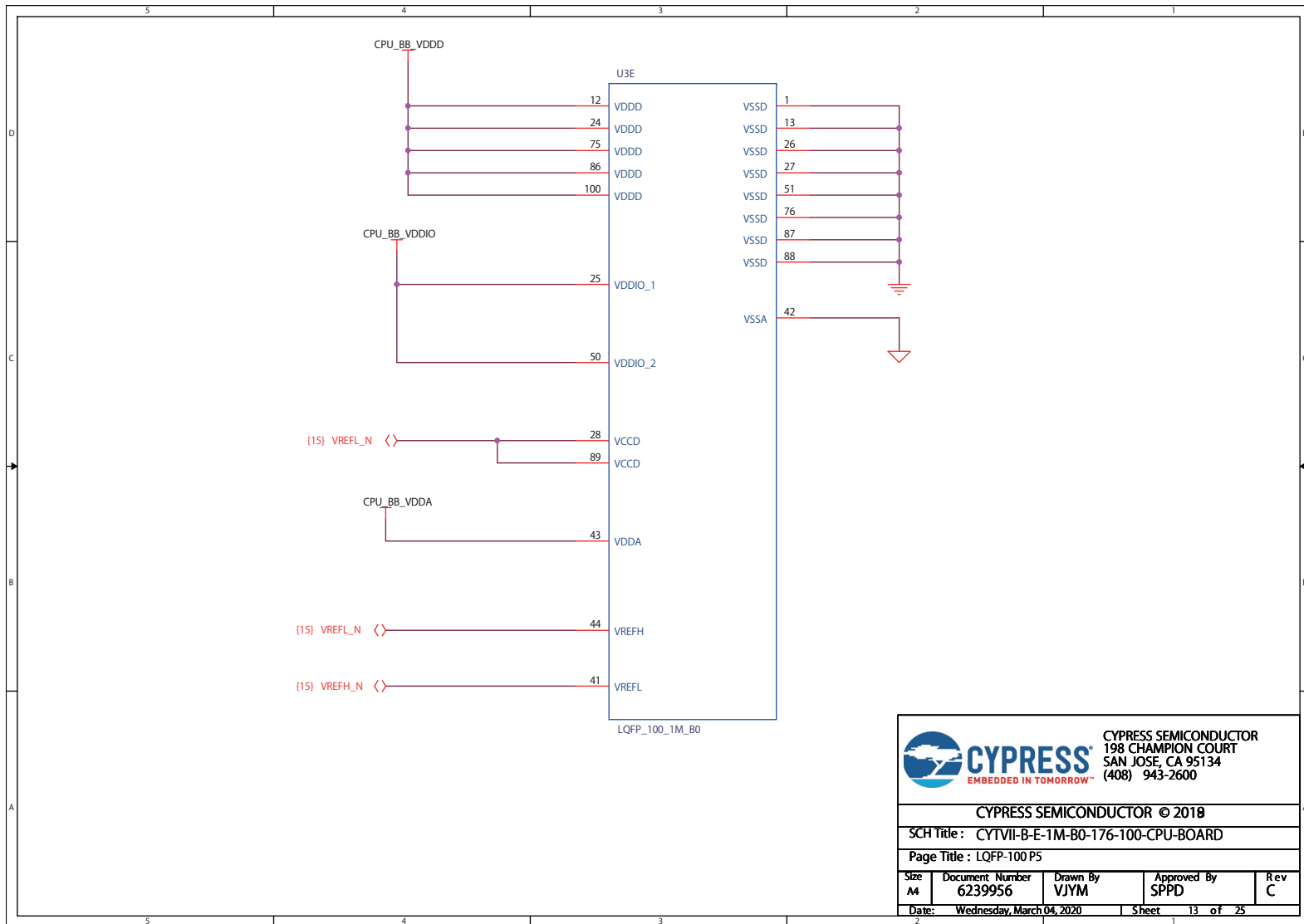


Figure A-13. Schematic (13/23)

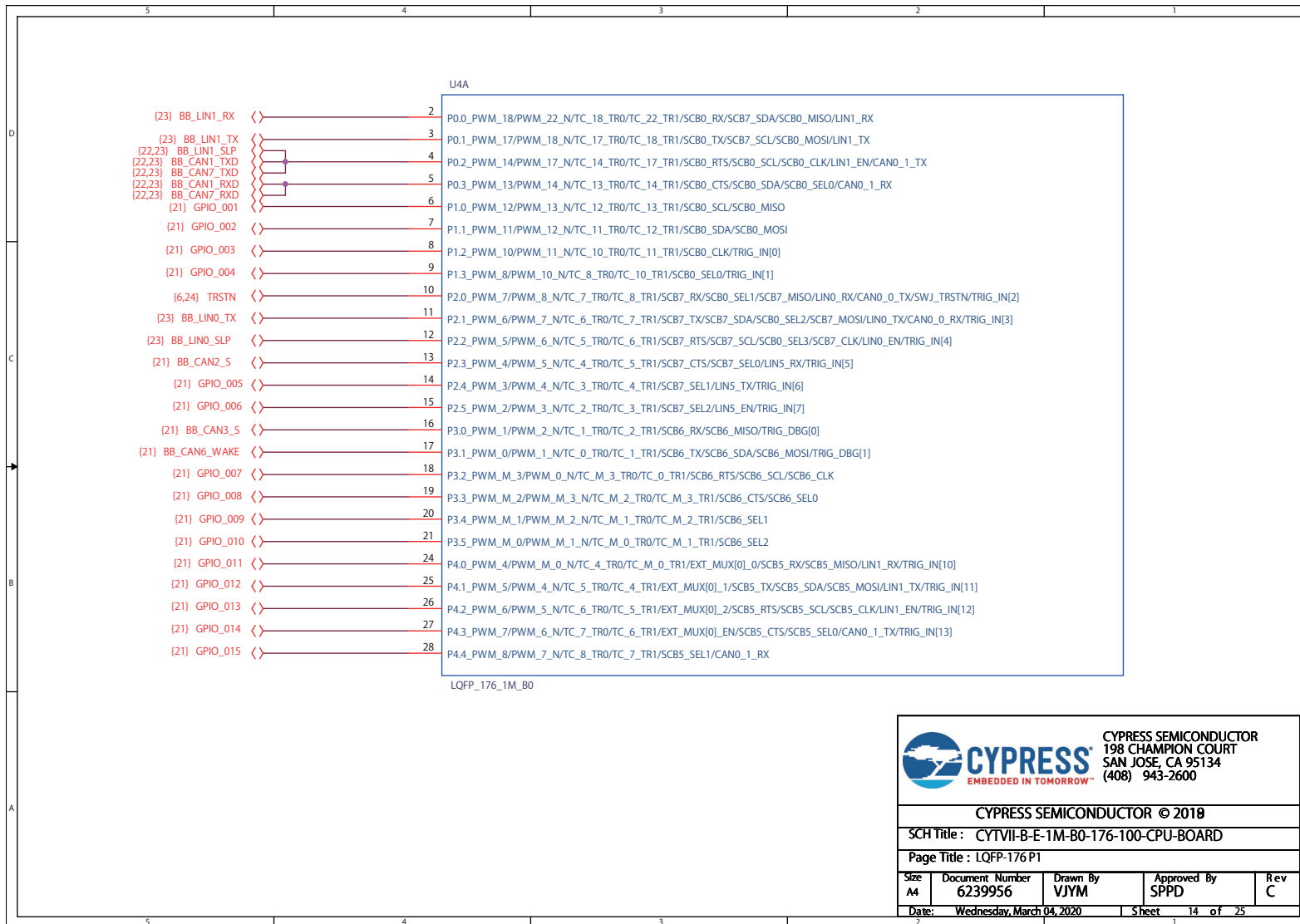


Figure A-14. Schematic (14/23)

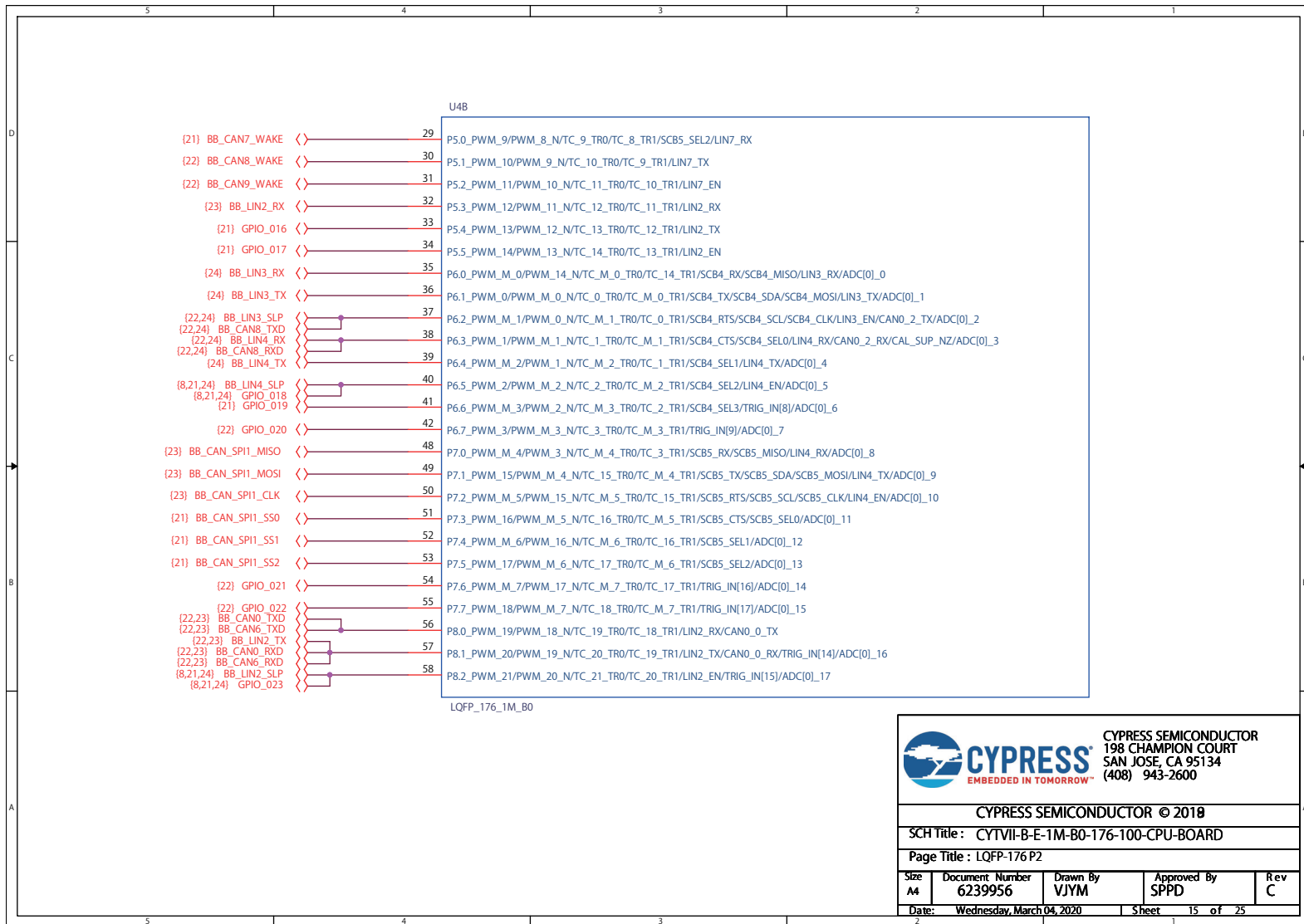


Figure A-15. Schematic (15/23)

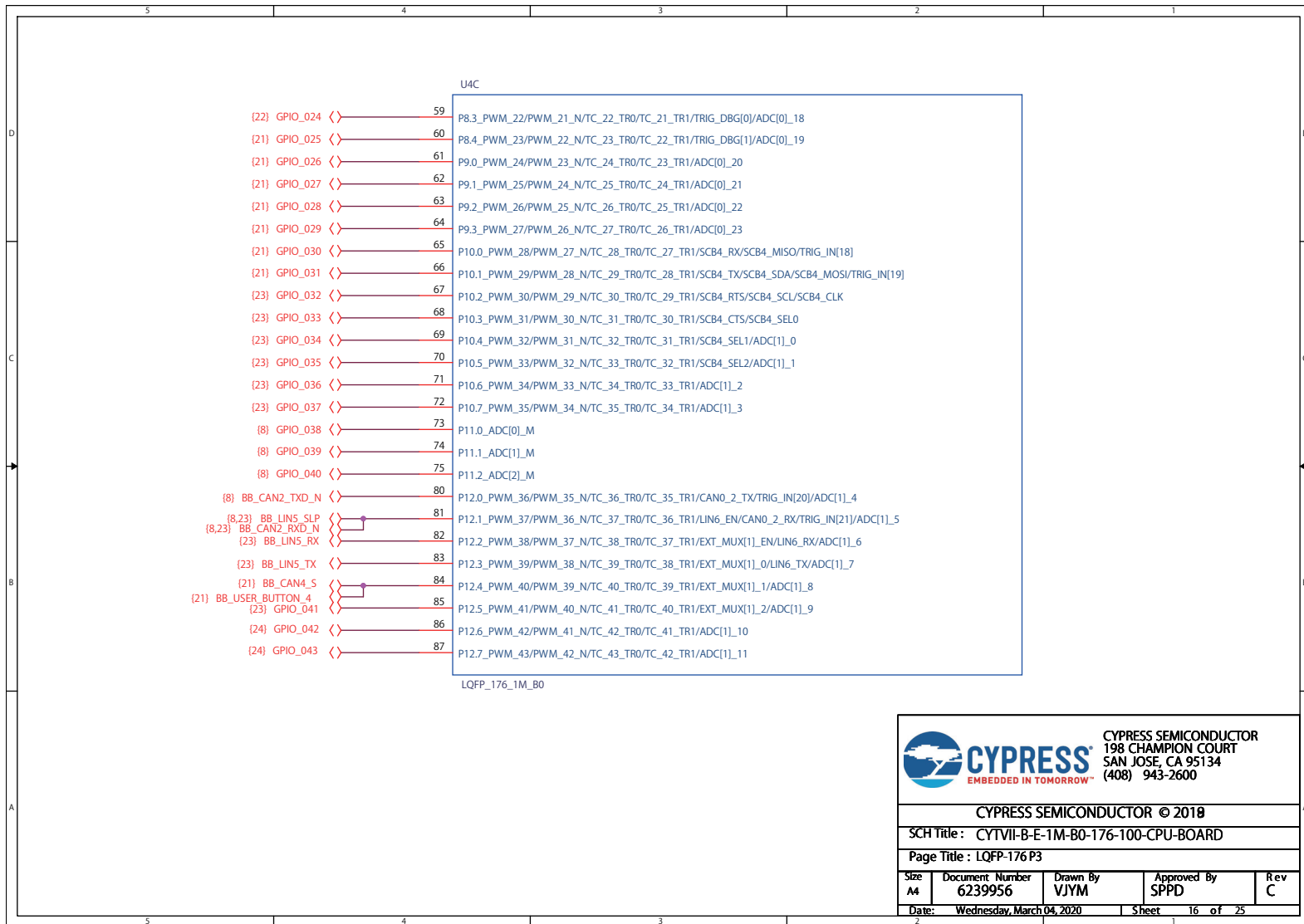


Figure A-16. Schematic (16/23)

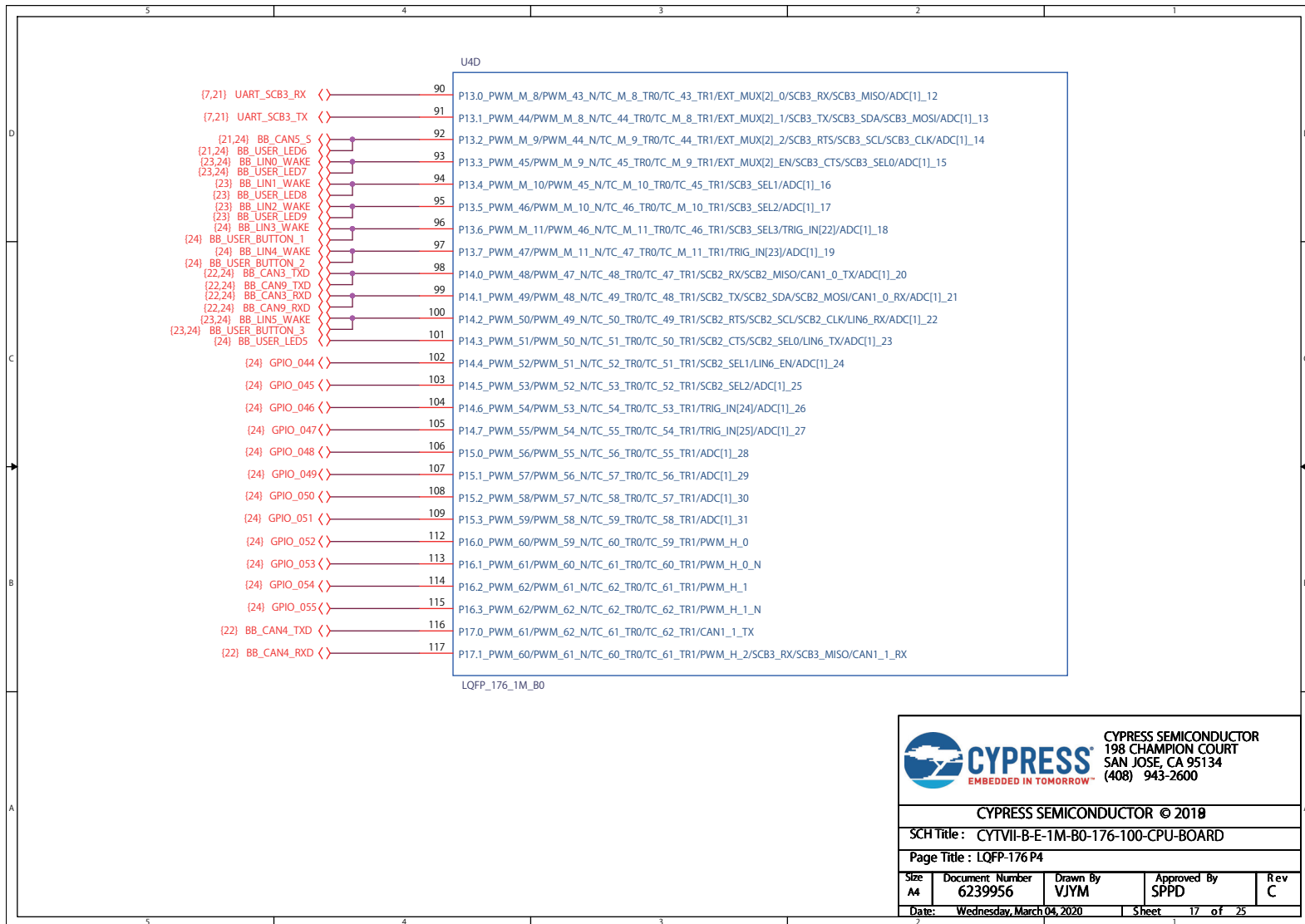


Figure A-17. Schematic (17/23)

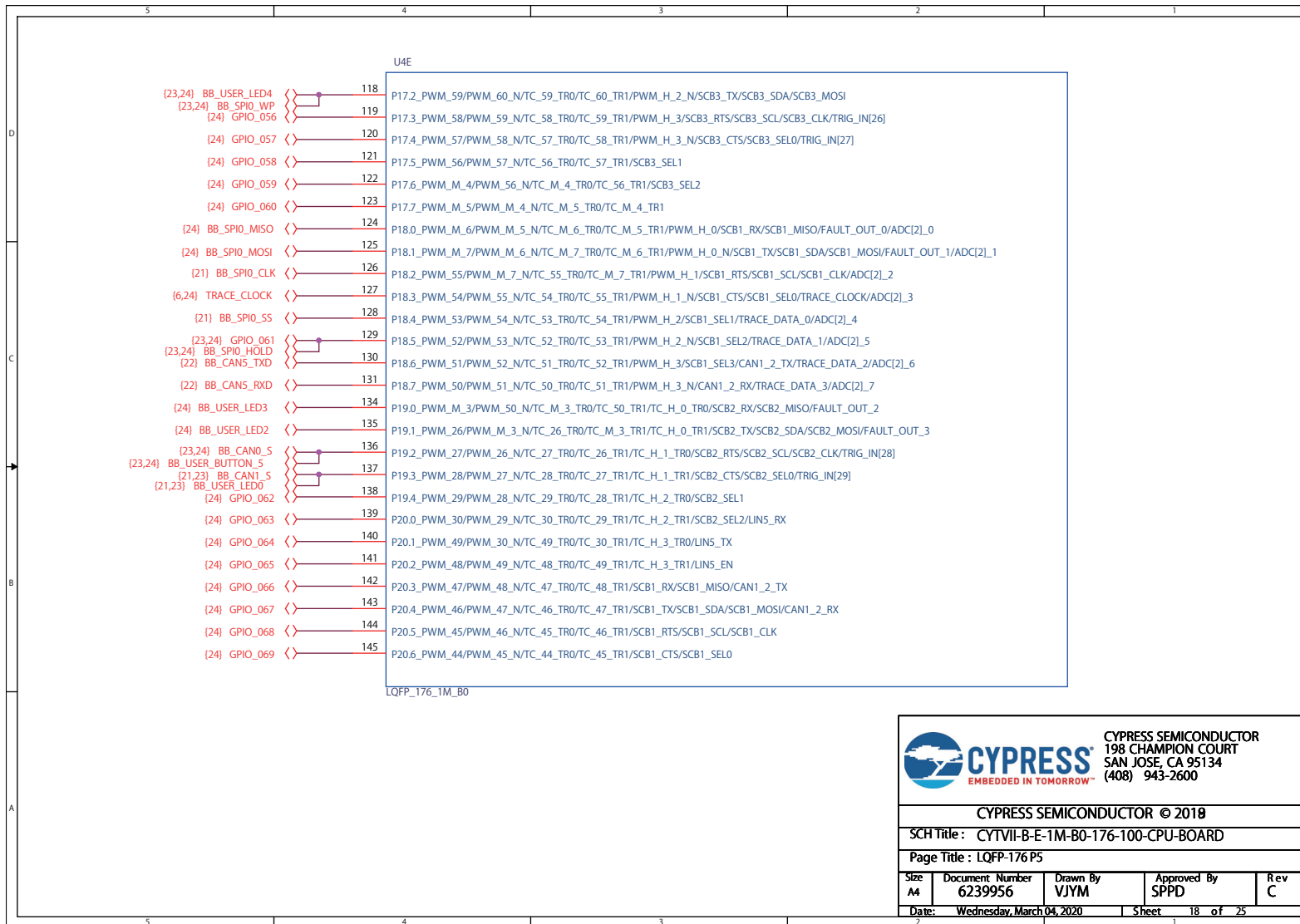


Figure A-18. Schematic (18/23)

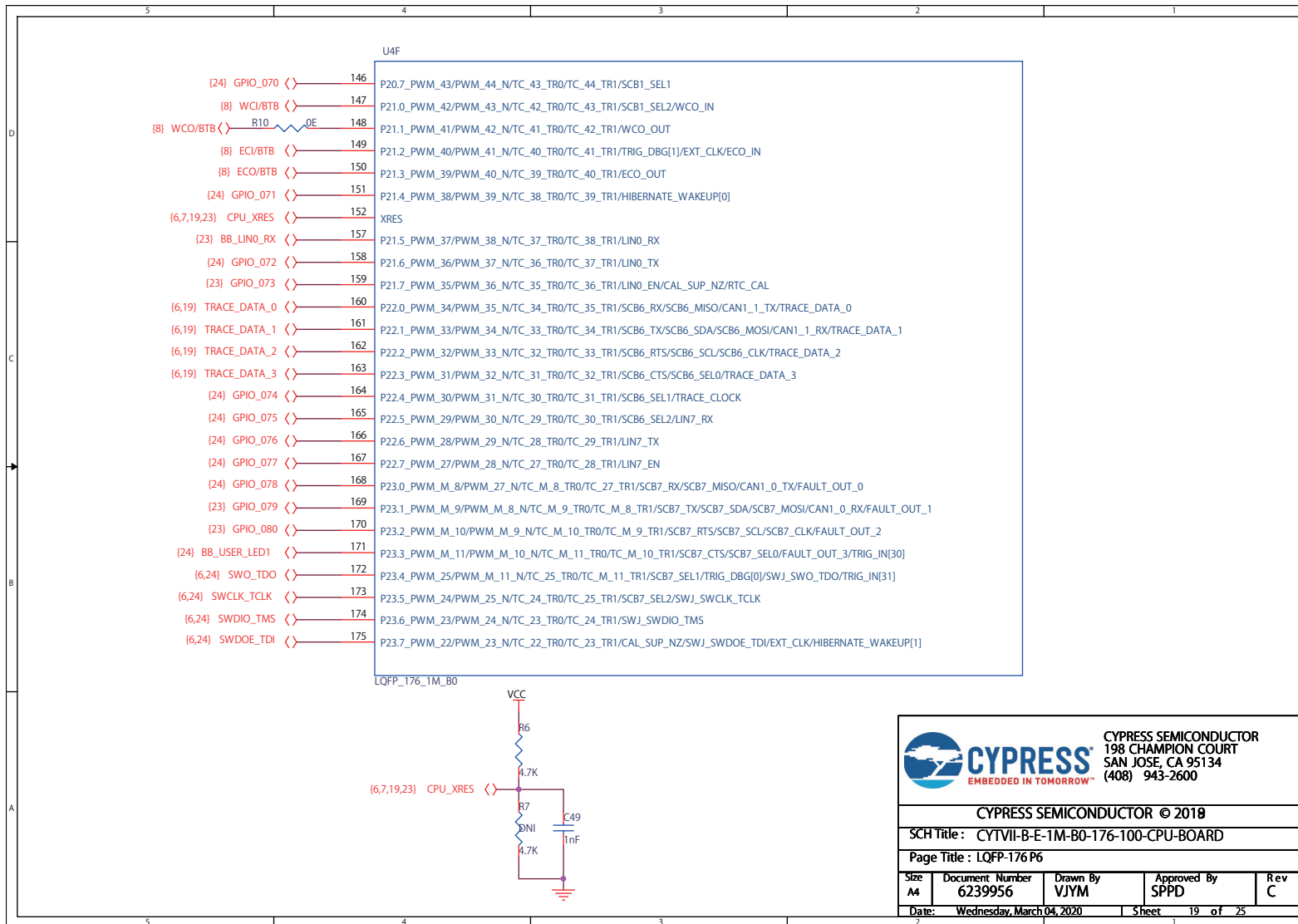


Figure A-19. Schematic (19/23)

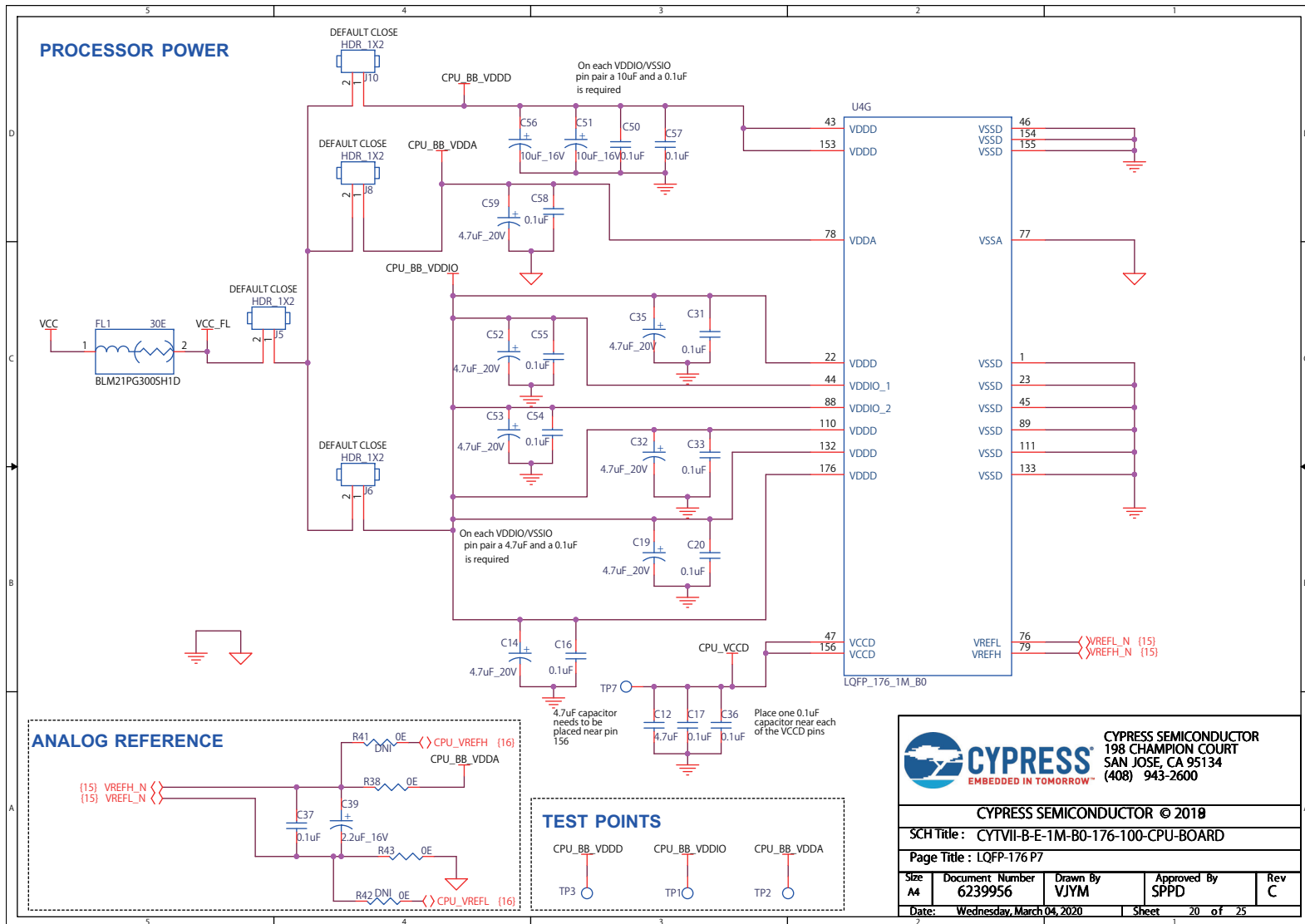


Figure A-20. Schematic (20/23)

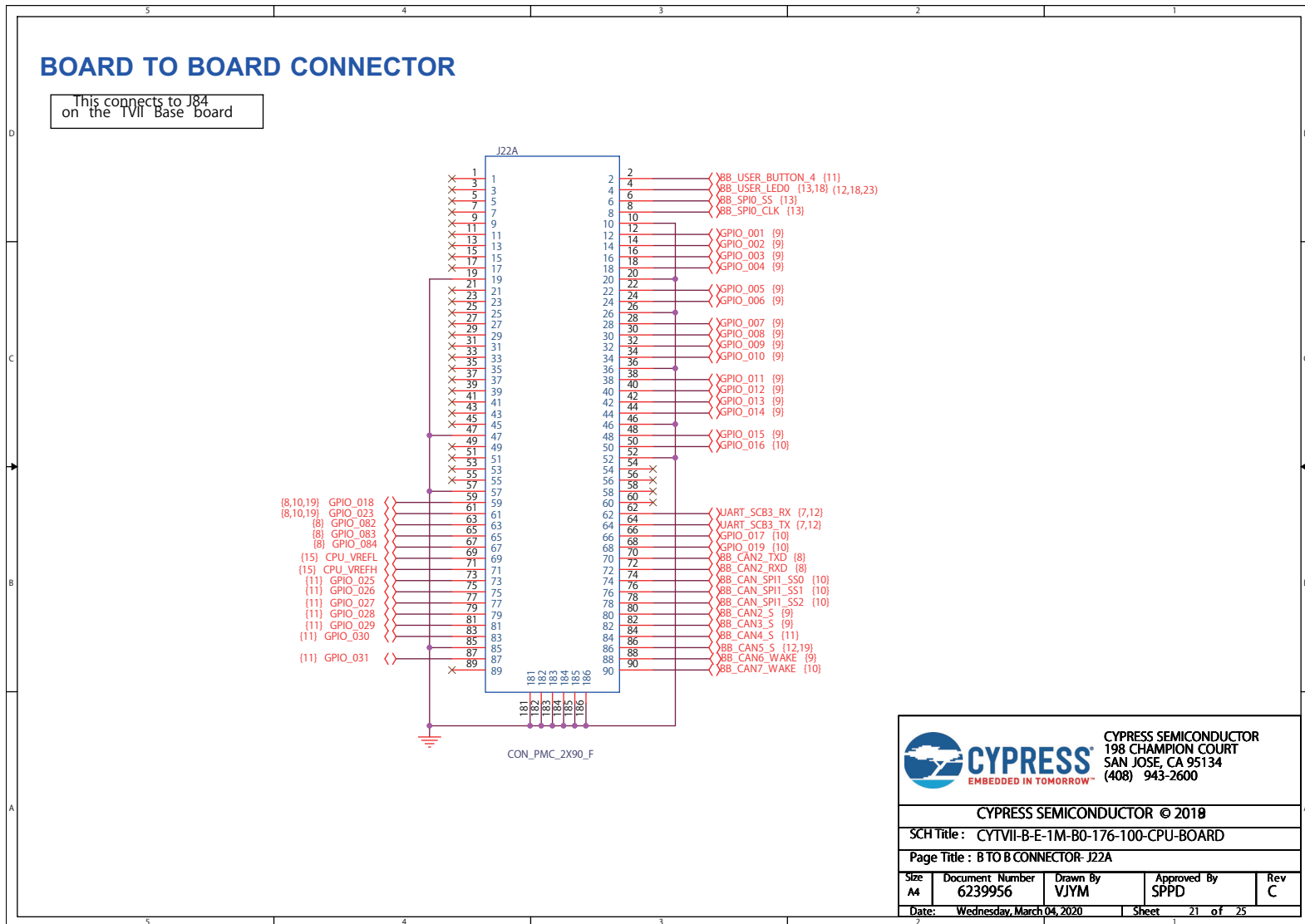


Figure A-21. Schematic (21/23)

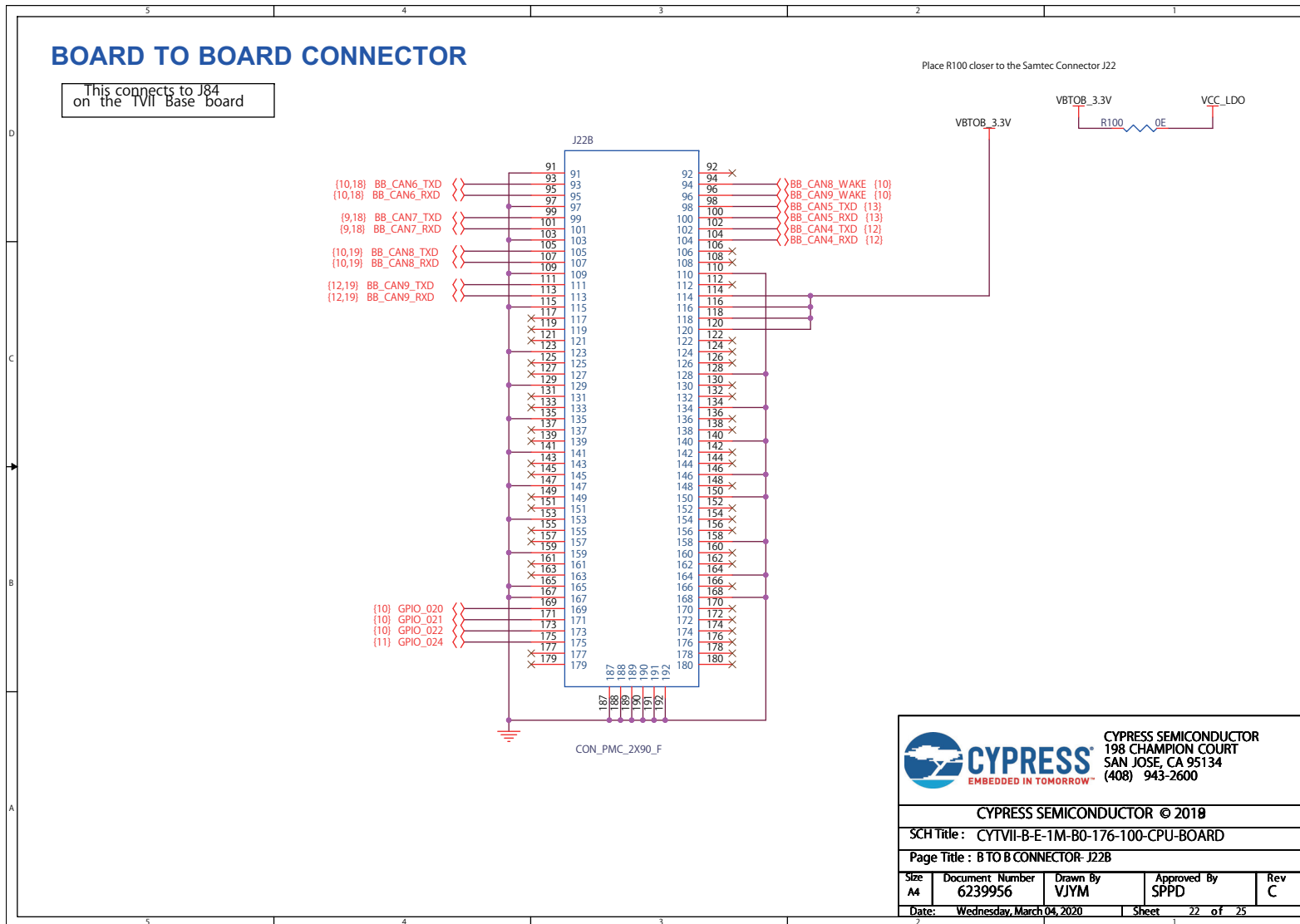


Figure A-22. Schematic (22/23)

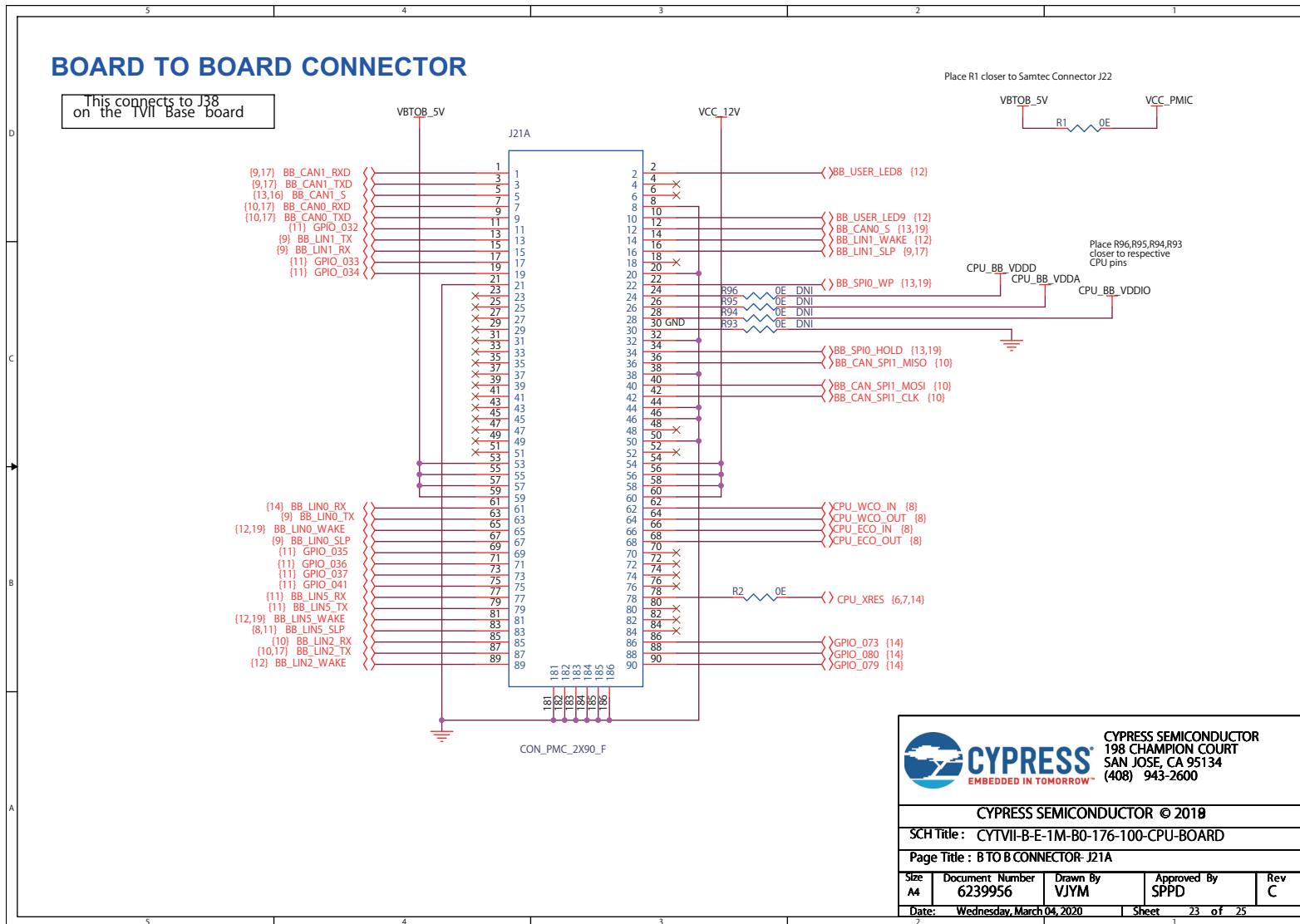
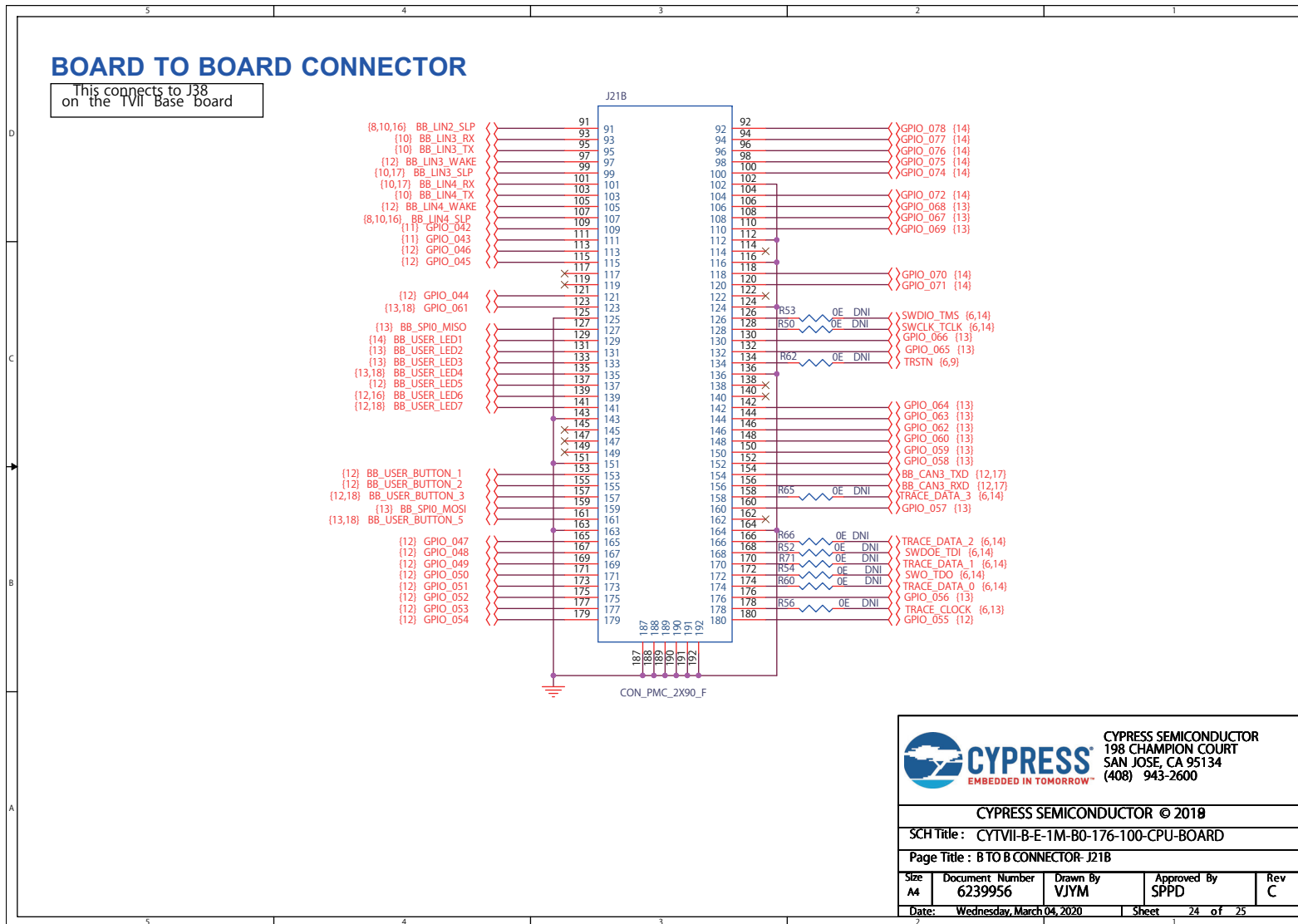


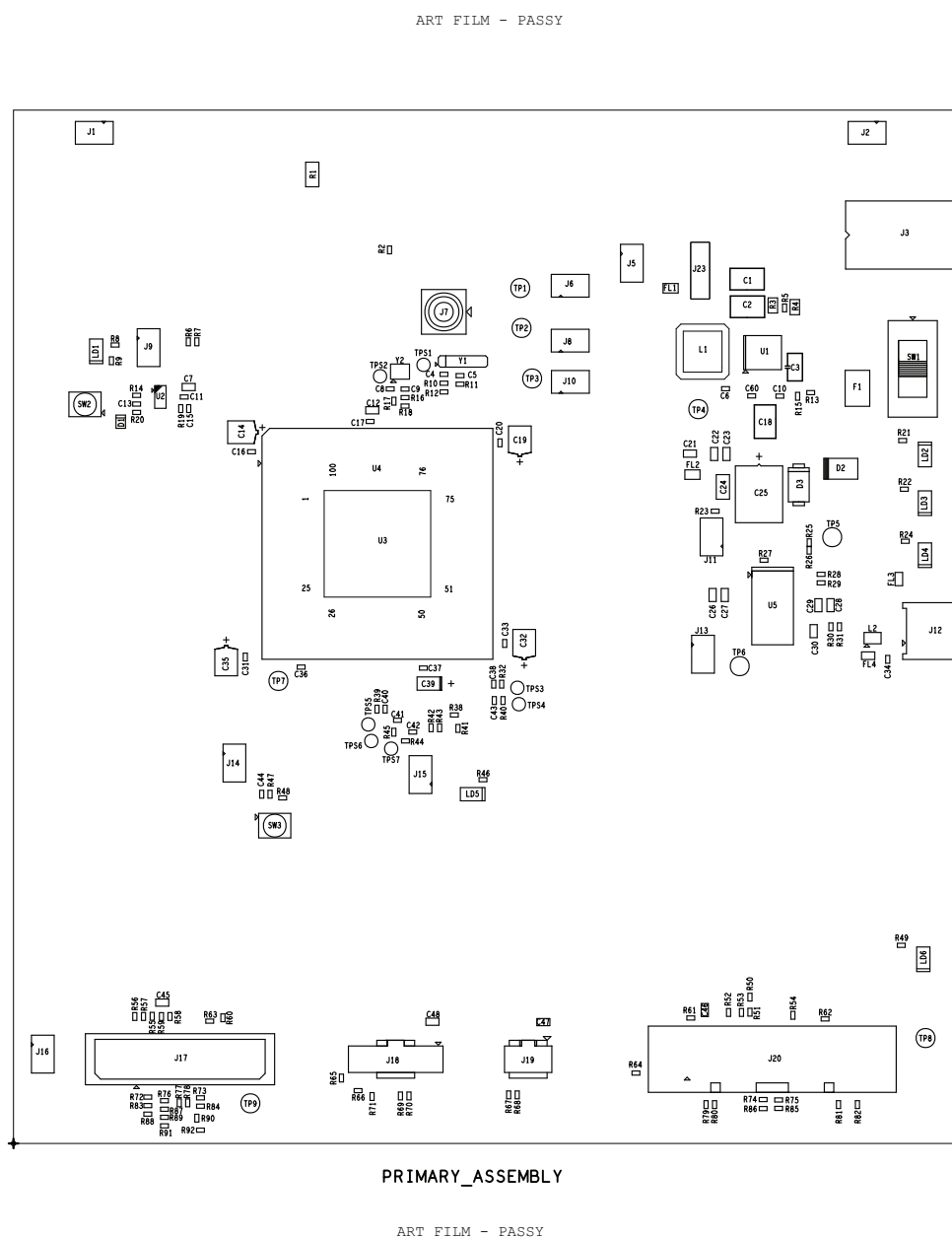
Figure A-23. Schematic (23/23)



B. Component Assembly on CPU Board



Figure B-1. Component Assembly (Top)



C. Schematics of Baseboard



Figure C-1. Schematic (1/16)

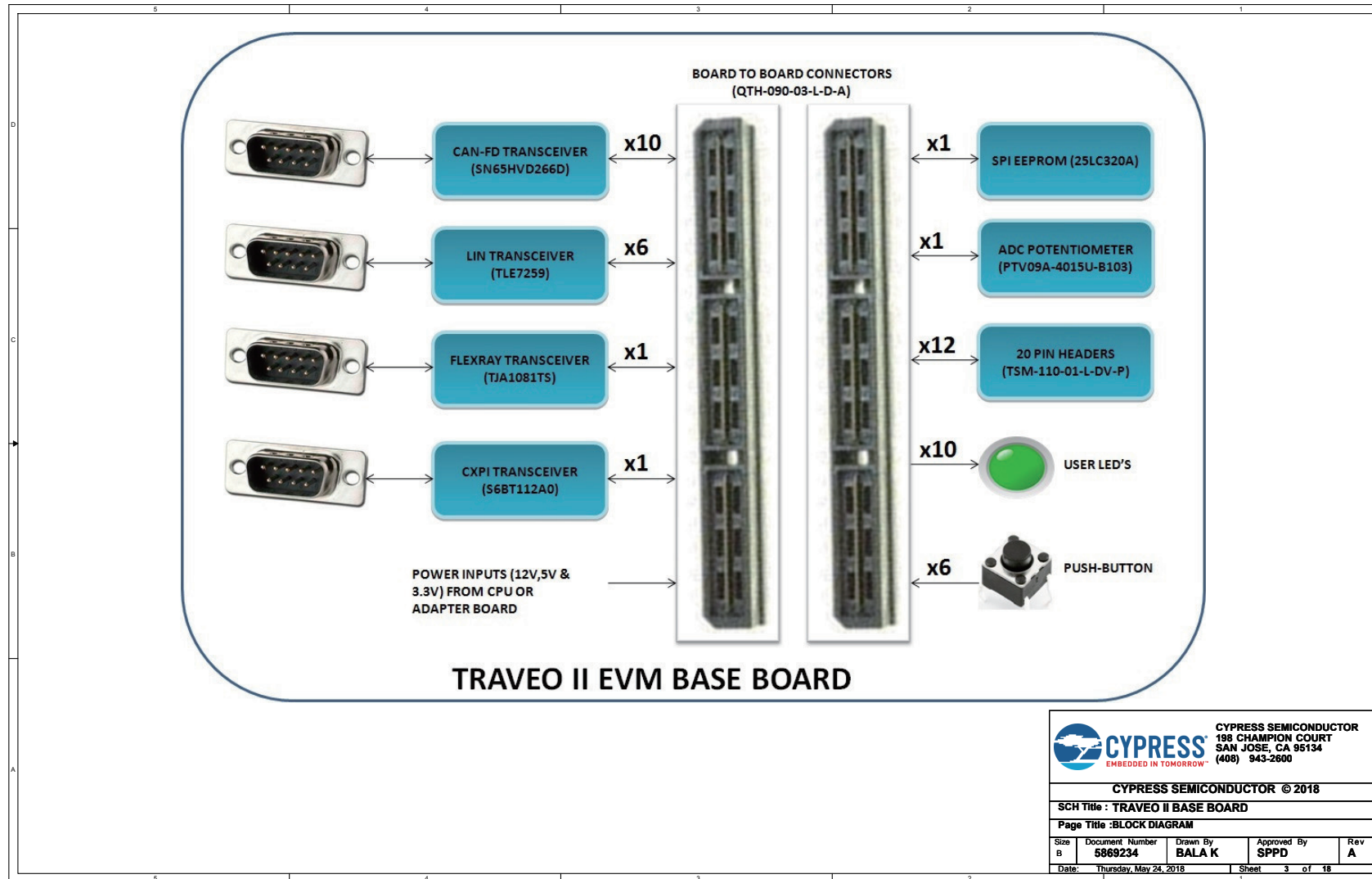




Figure C-3. Schematic (3/16)

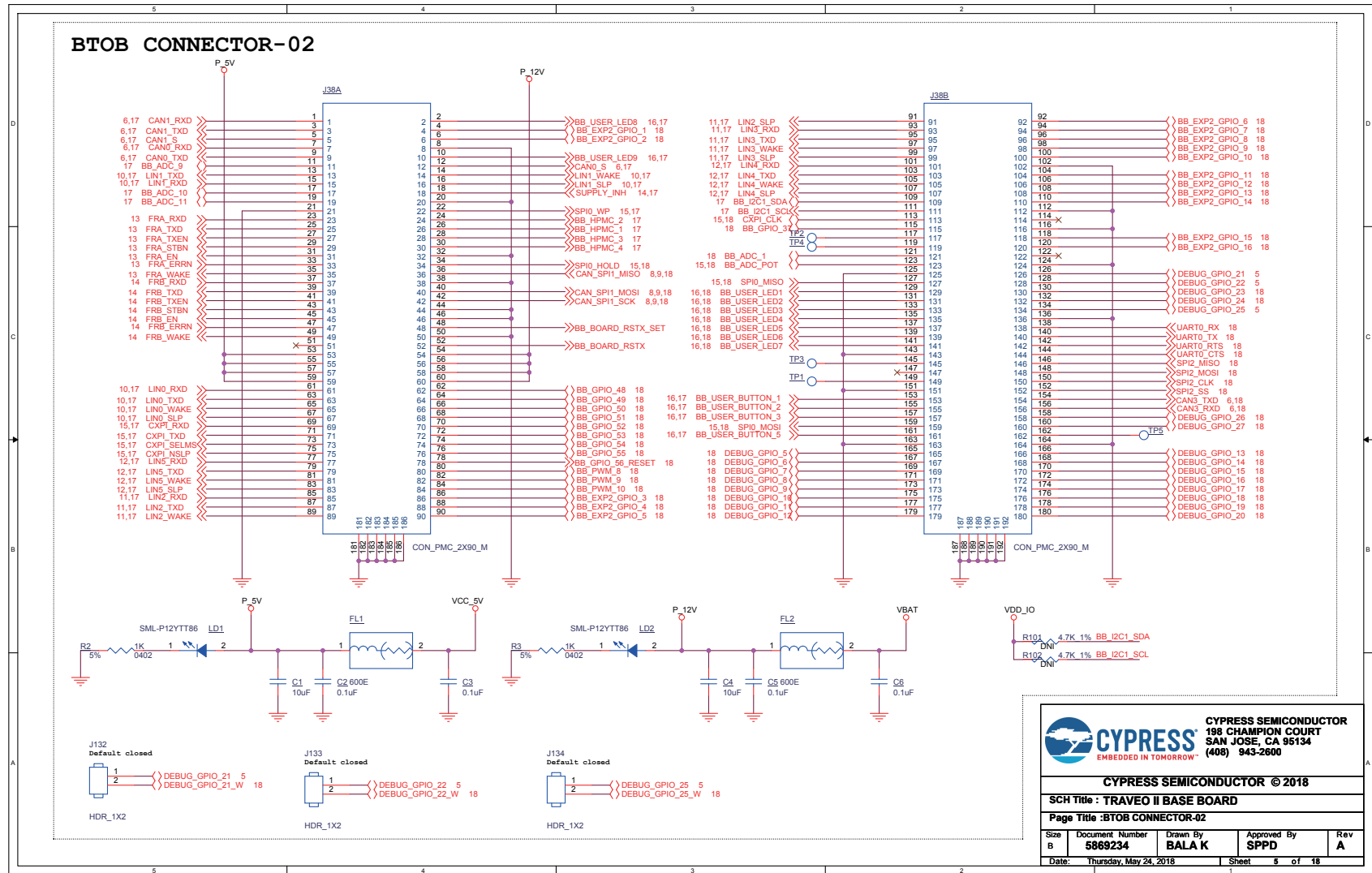


Figure C-4. Schematic (4/16)

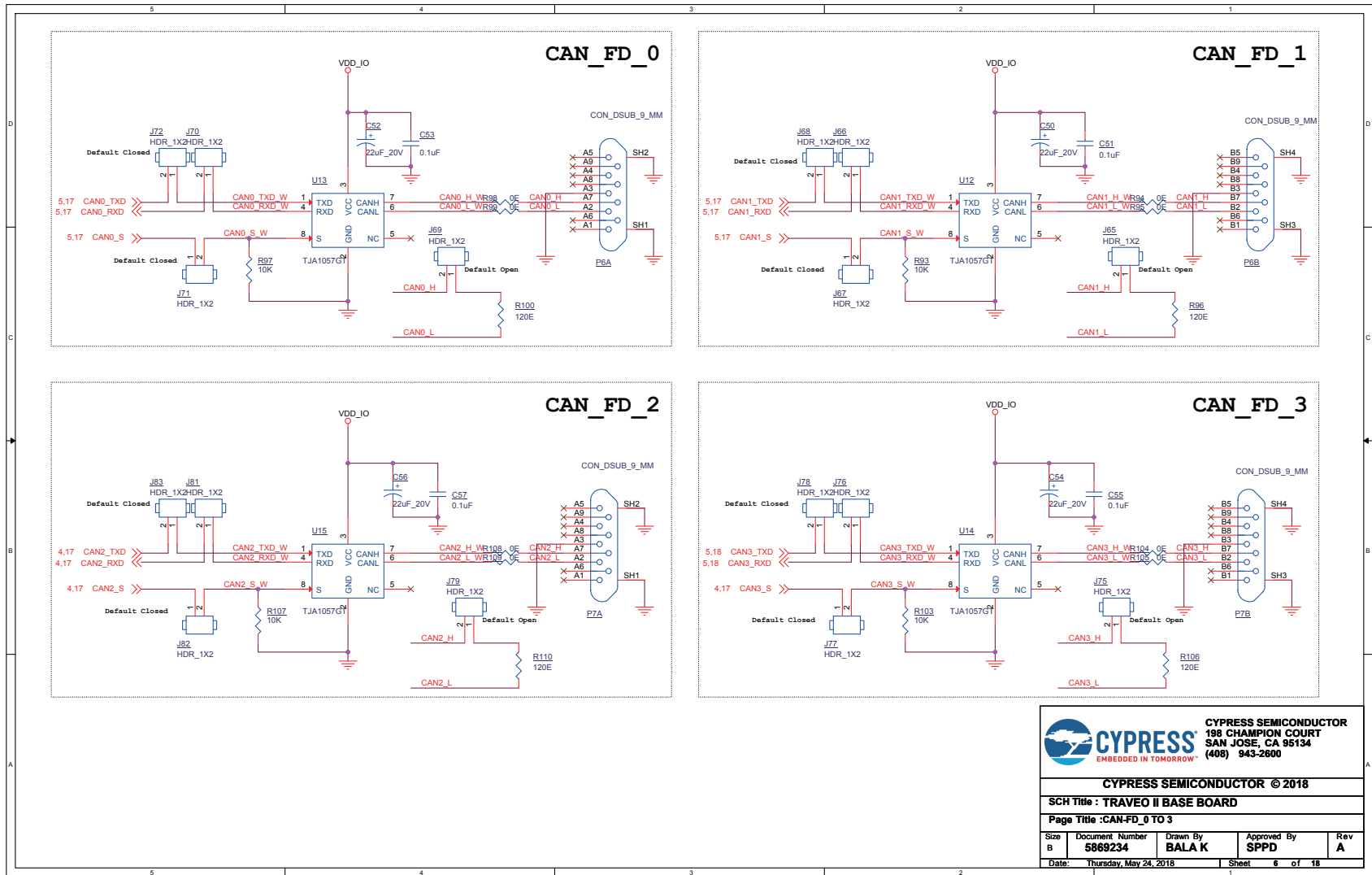
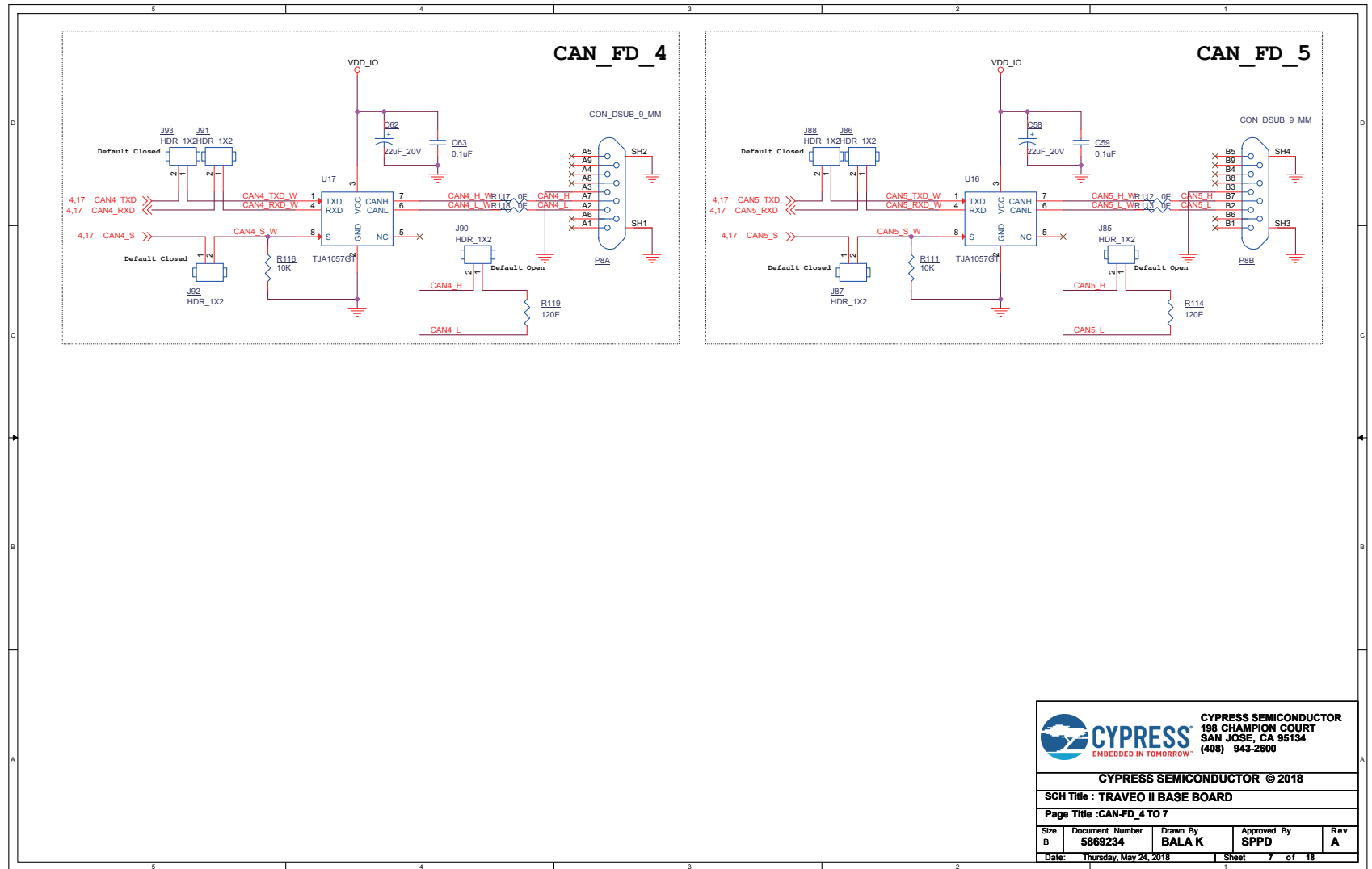


Figure C-5. Schematic (5/16)



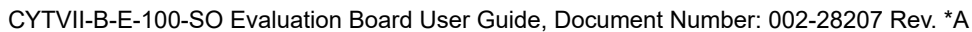
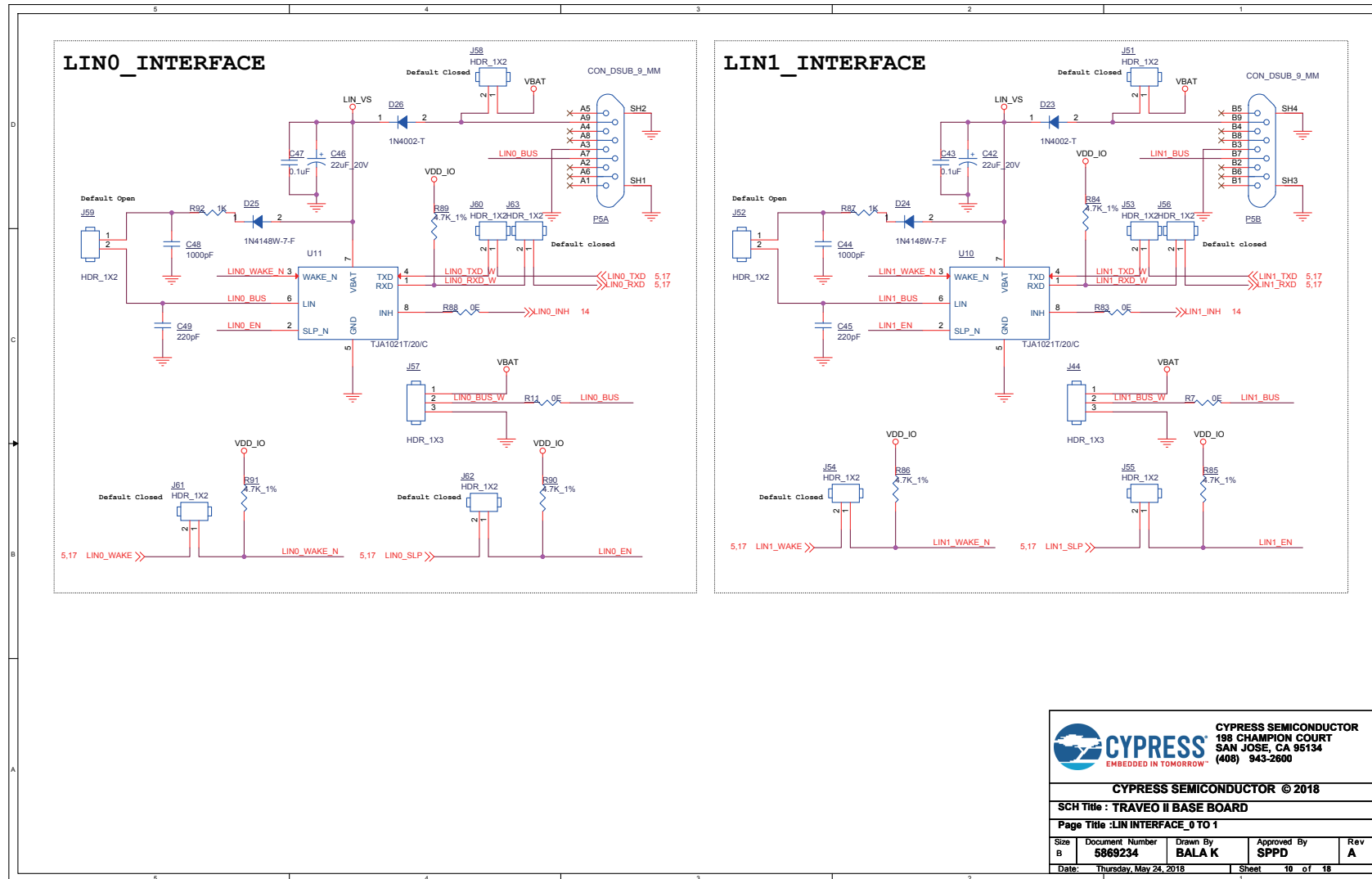




Figure C-8. Schematic (8/16)



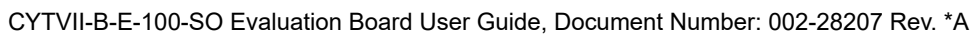


Figure C-10. Schematic (10/16)

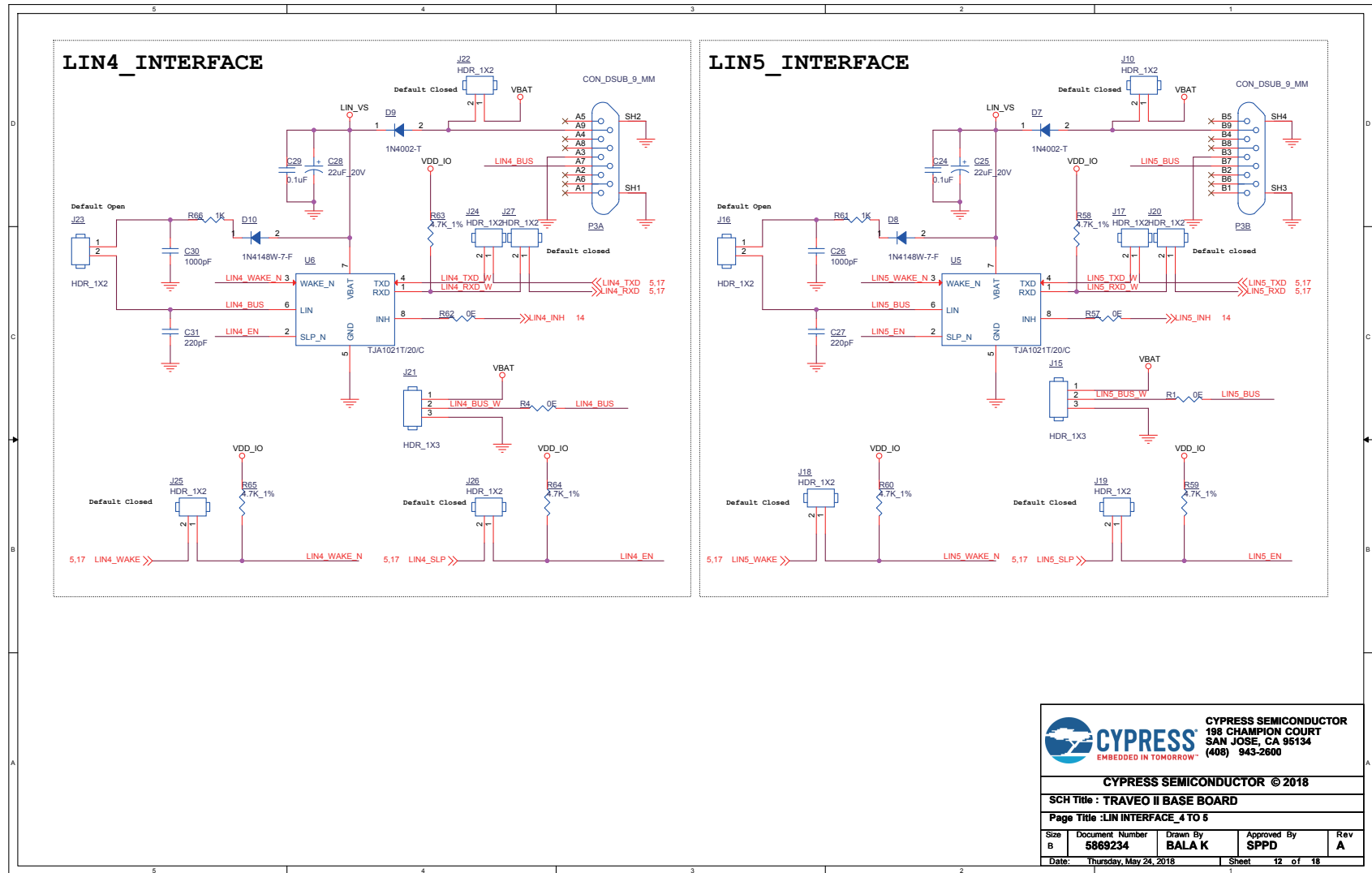


Figure C-11. Schematic (11/16)

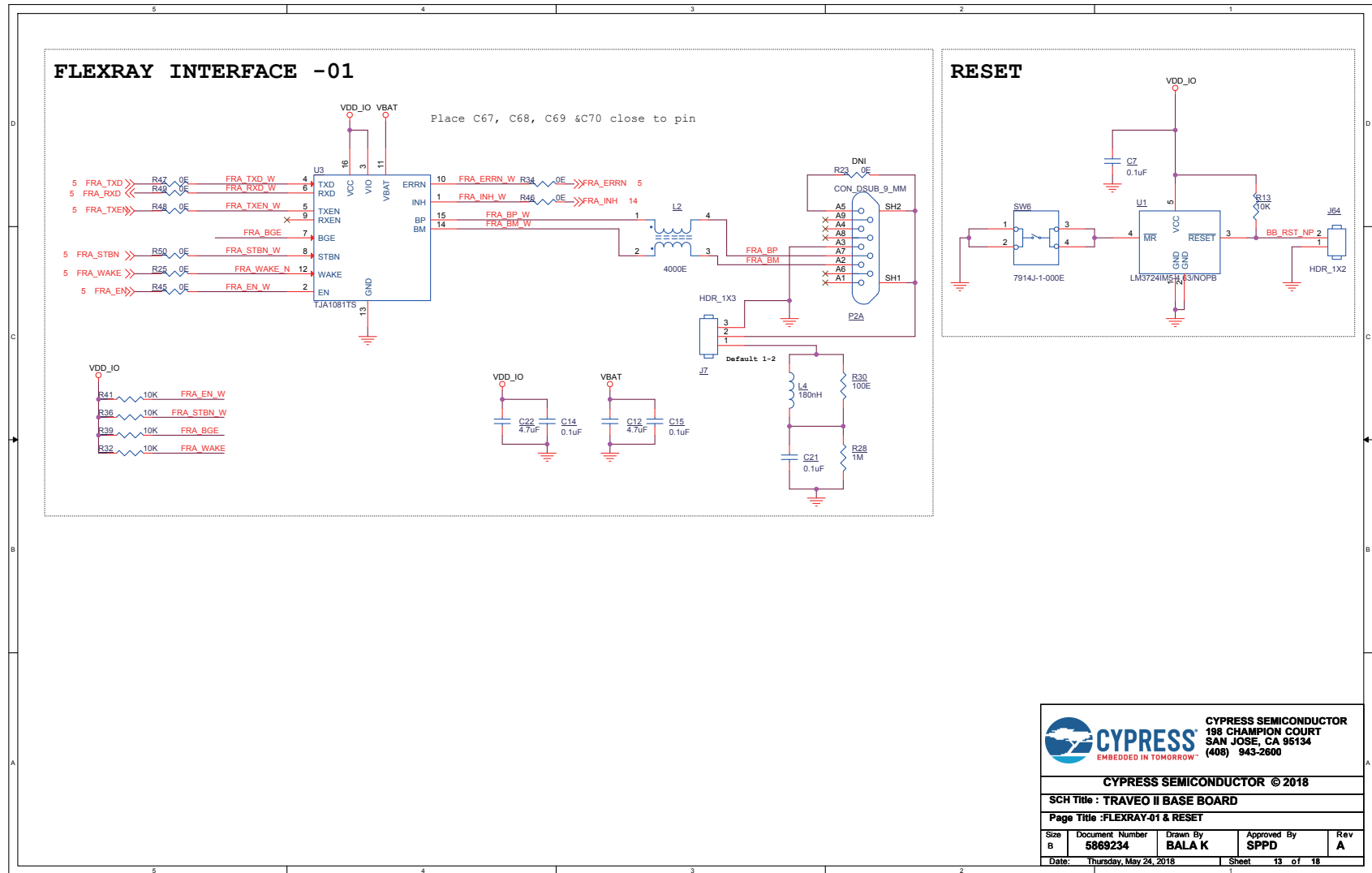


Figure C-12. Schematic (12/16)

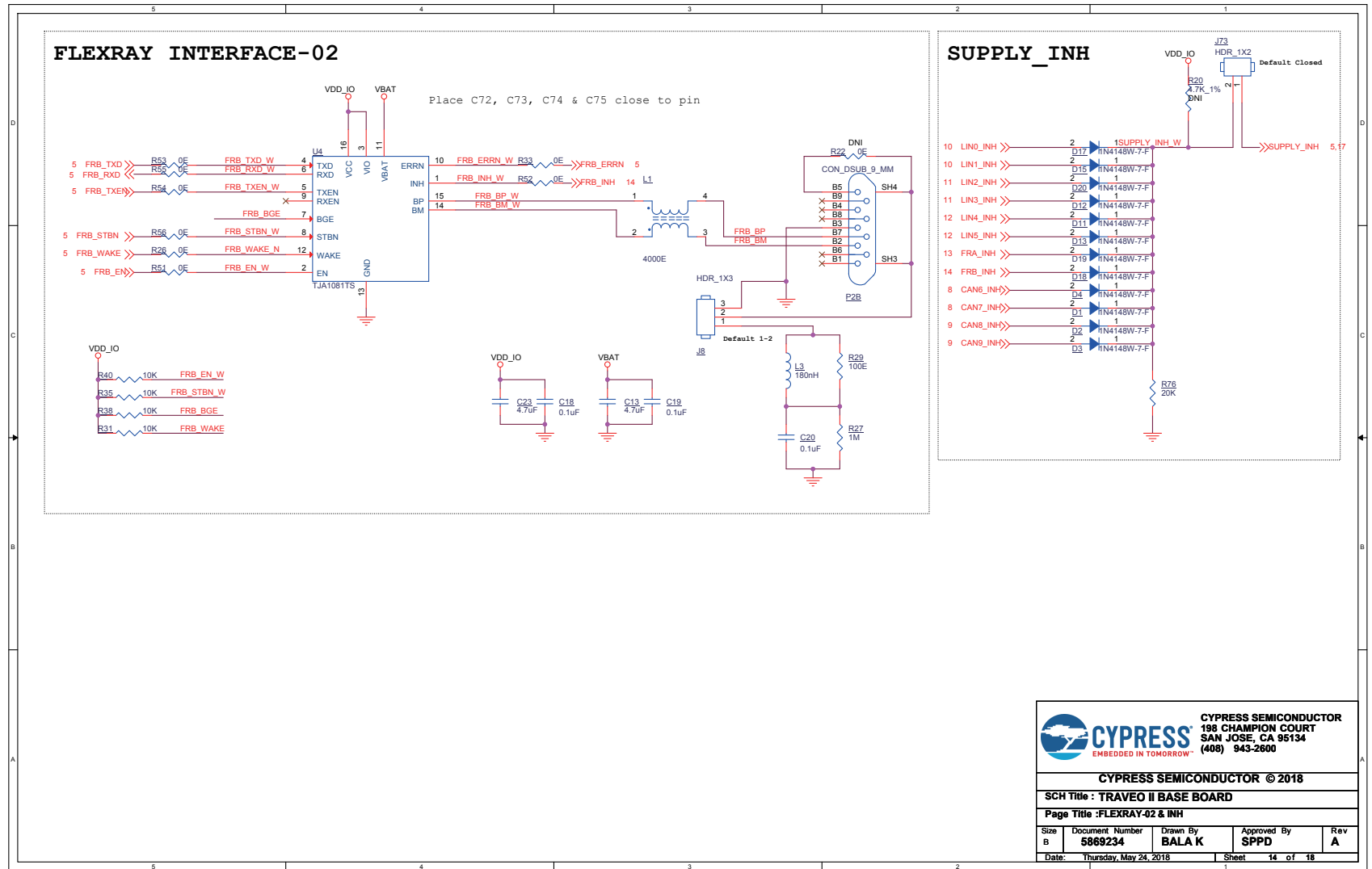


Figure C-13. Schematic (13/16)

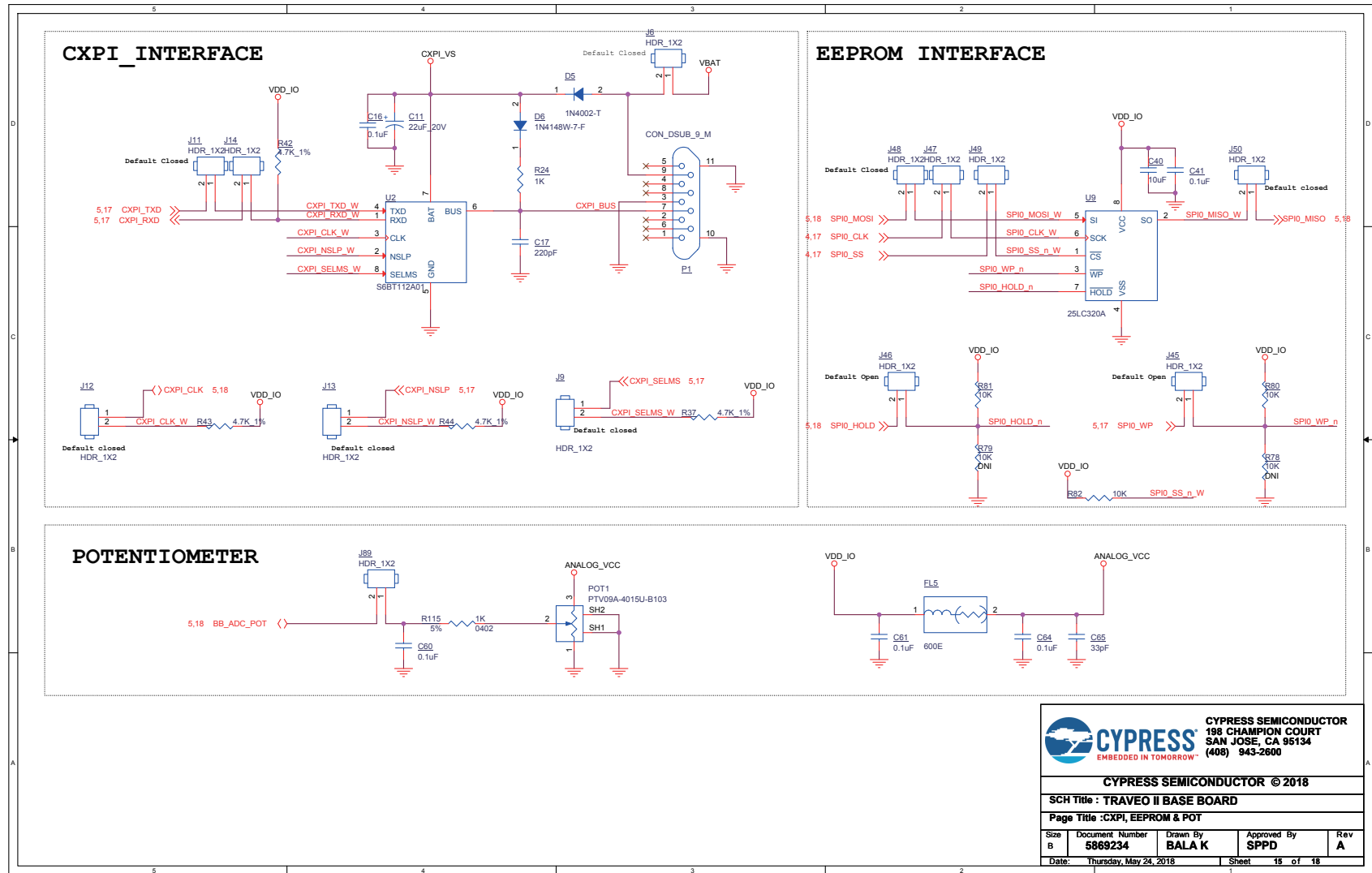
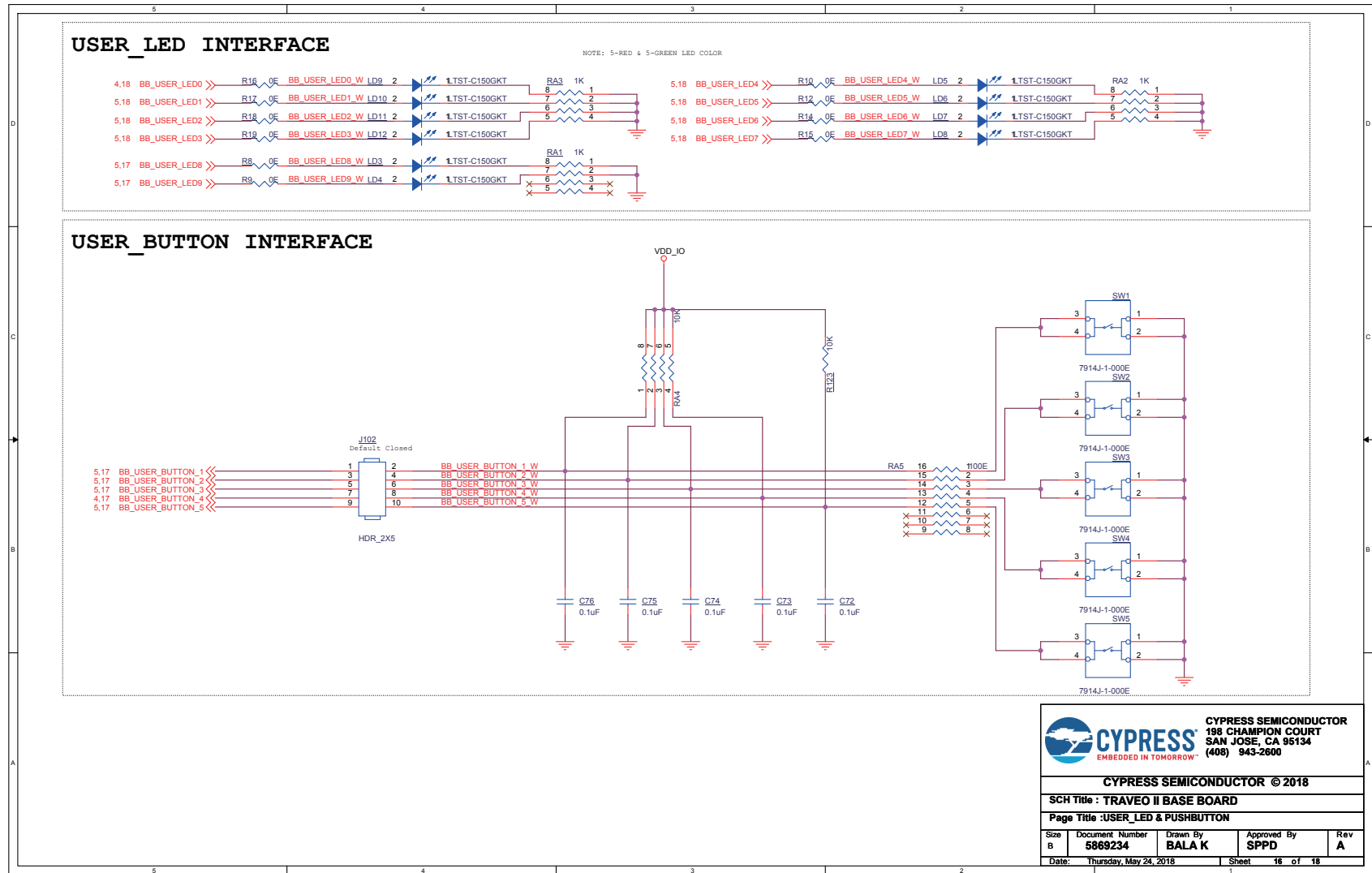


Figure C-14. Schematic (14/16)



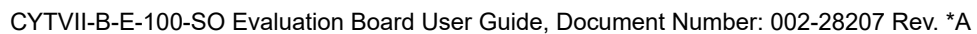
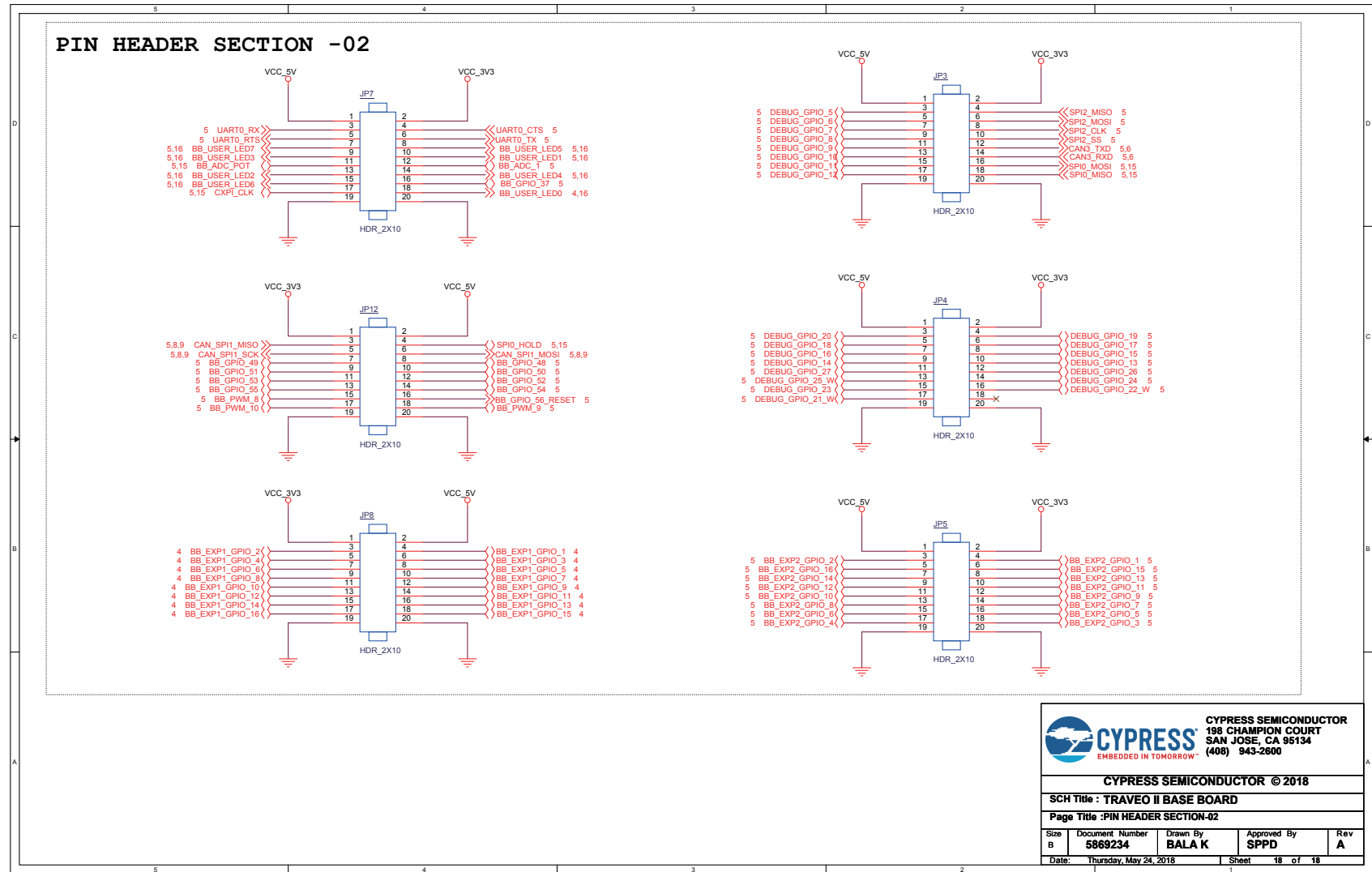



Figure C-16. Schematic (16/16)



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|-----------|----------------------------|--------------------|---------------------|----------|

Date: Thursday, May 24, 2018 Sheet 18 of 18

D. Component Assembly on Baseboard



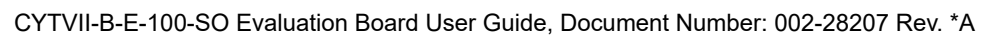
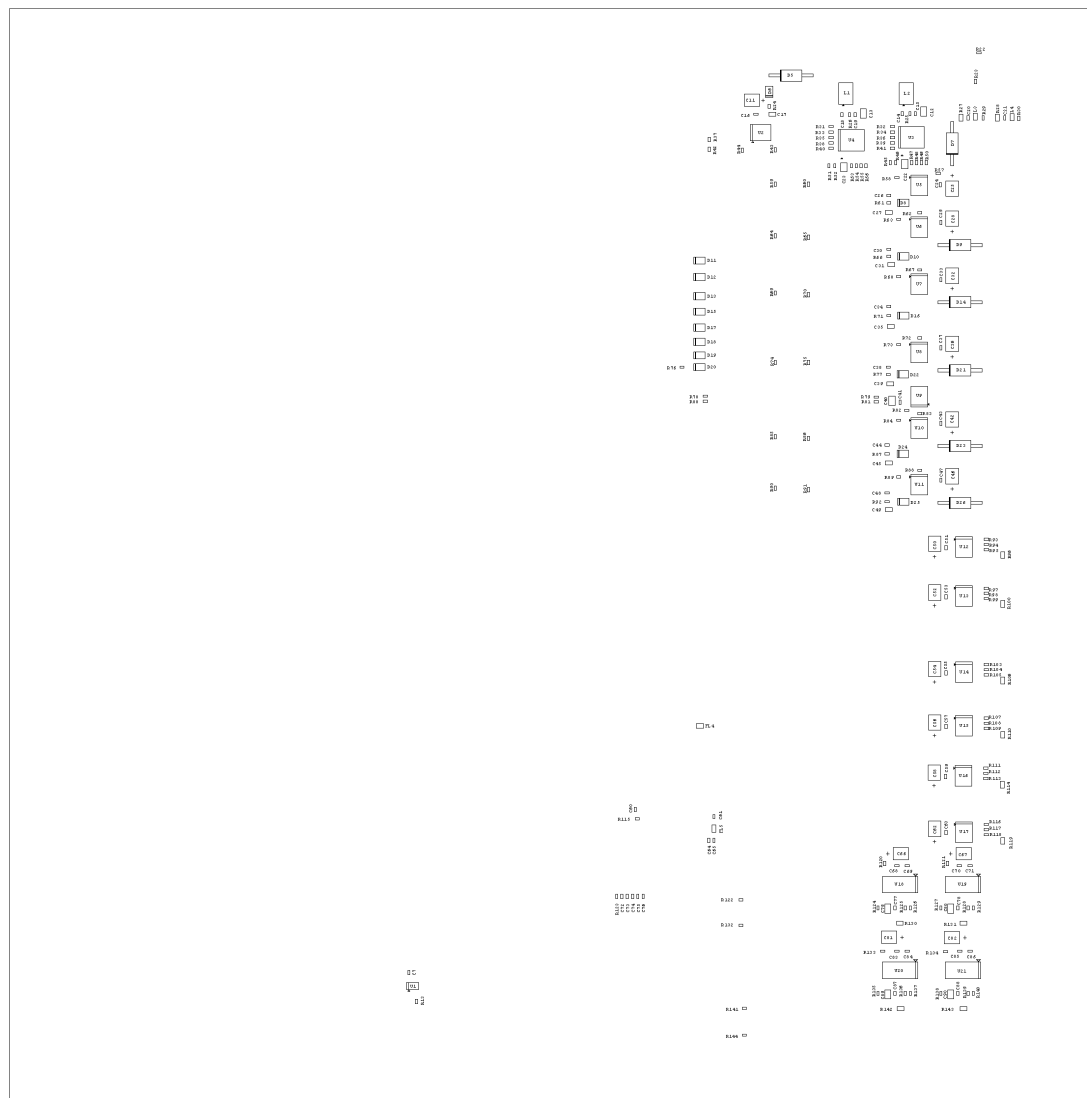


Figure D-2. Component Assembly (Bottom)



Revision History



Document Revision History

| Document Title: CYTVII-B-E-100-SO Evaluation Board User Guide | | | |
|---|---------|------------|---|
| Document Number: 002-28207 | | | |
| Revision | ECN# | Issue Date | Description of Change |
| ** | 6663217 | 08/29/2019 | New User Guide |
| *A | 6845159 | 04/07/2020 | Changed "Figure 2-1", "Figure 2-3" and "Figure 3-1". Changed "4. Connections and Settings". Changed "A. Schematics of CPU Board". |