


# CY8CMOD-064B0S2-4343W

## PSoC 64B0S2 with CYW4343W Carrier Module

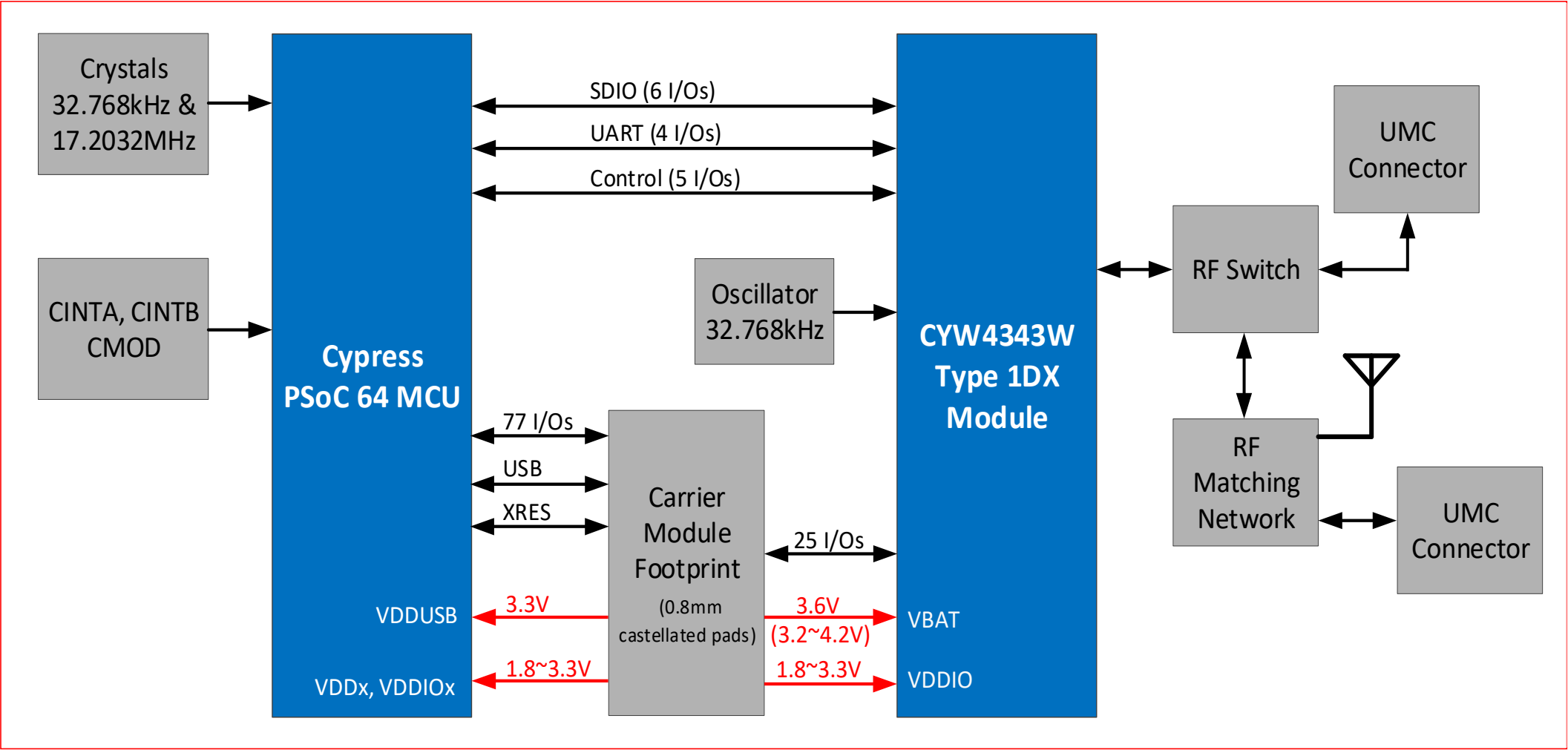
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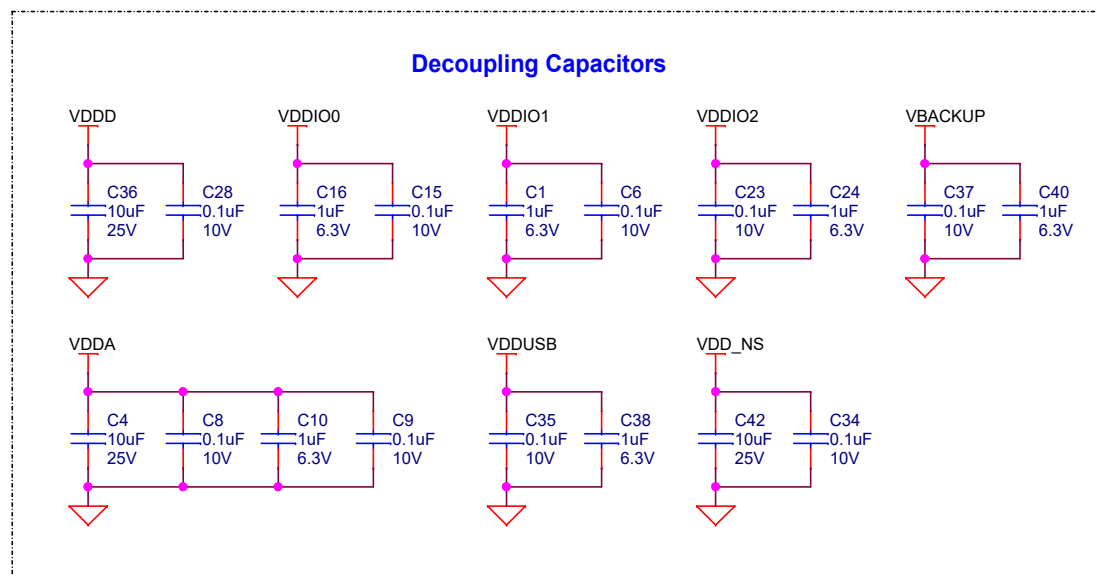
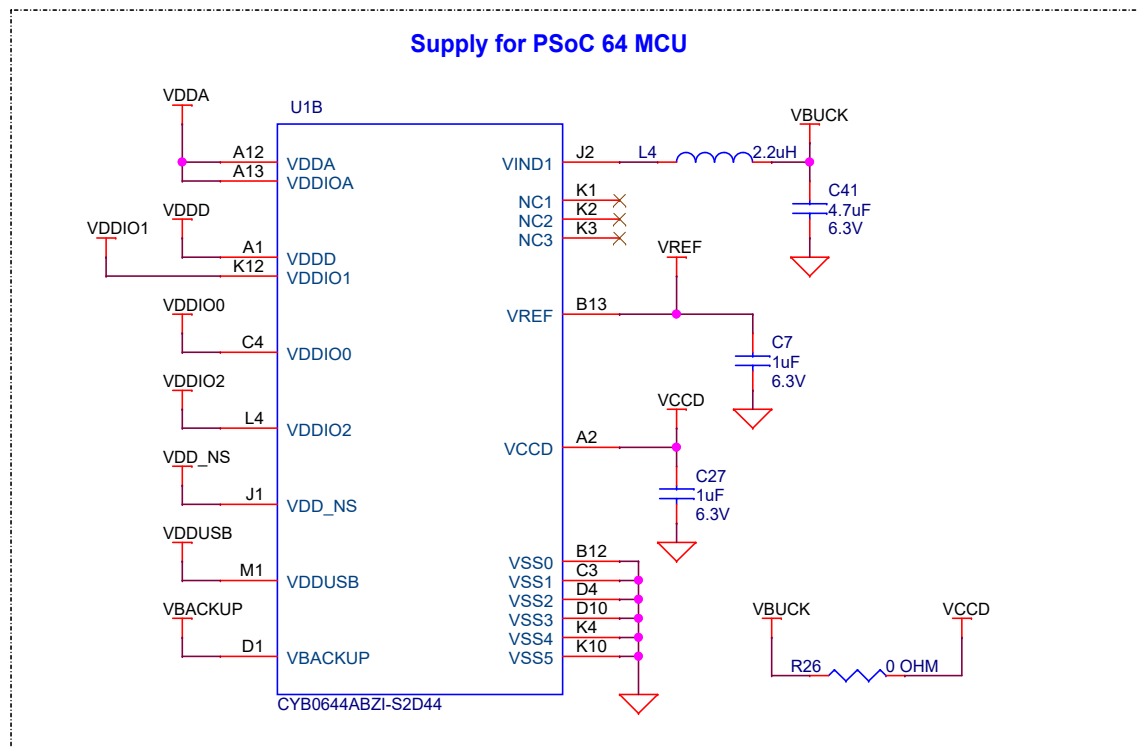
### Drawing Numbers


PCBA	121-60573-01
PCB	600-60573-01
FAB DRW	610-60573-01
ASSY DRW	620-60573-01
SCH DRW	630-60573-01

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Block Diagram







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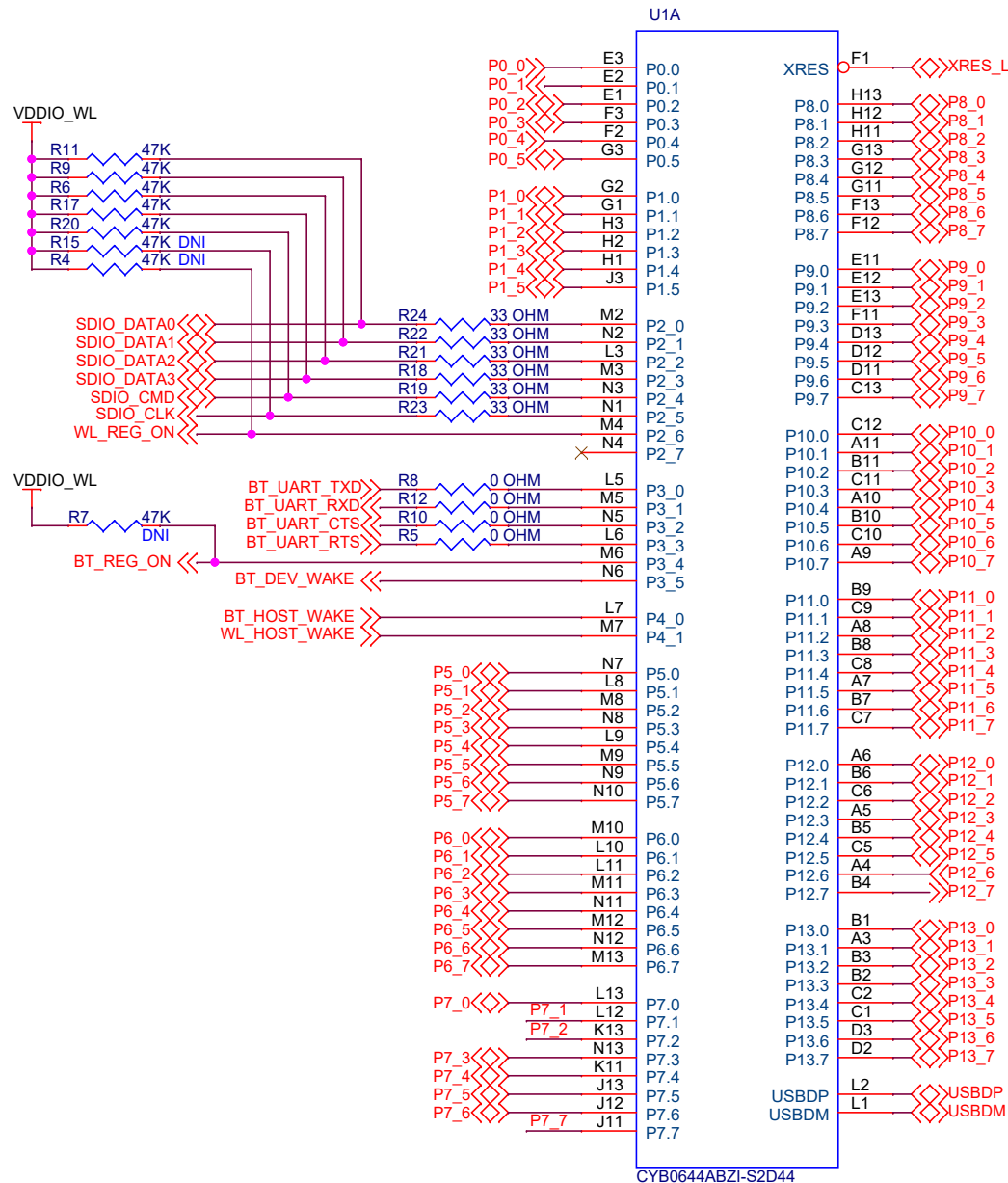
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**Page Title : PSoC 64 MCU Power**

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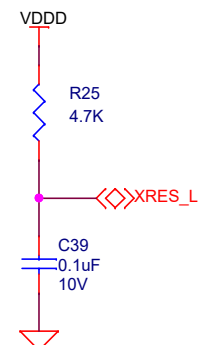
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# PSoC 64 MCU Signals

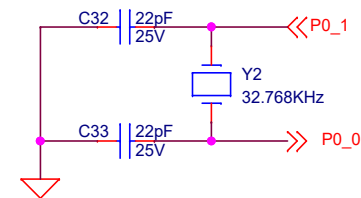


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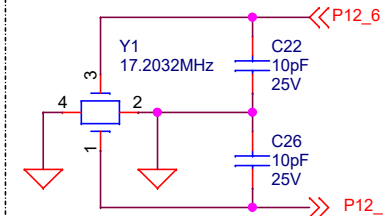
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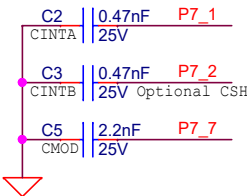
## WCO



## ECO



## CINT, CMOD & CSH



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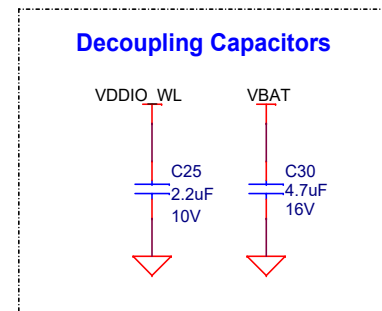
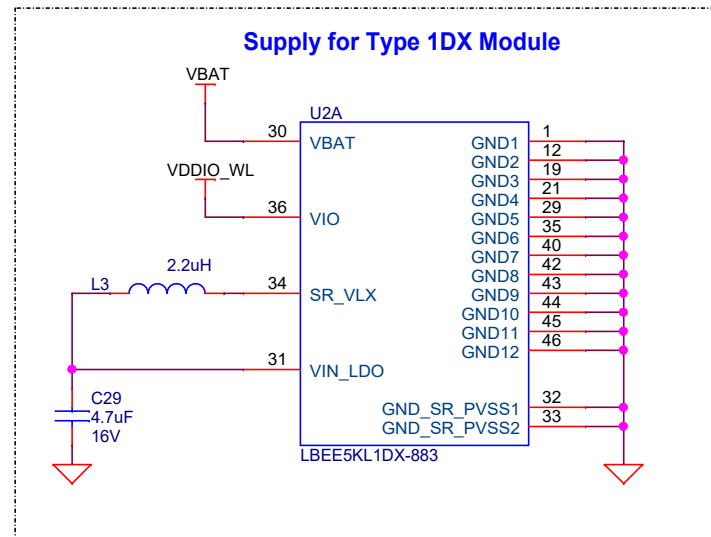
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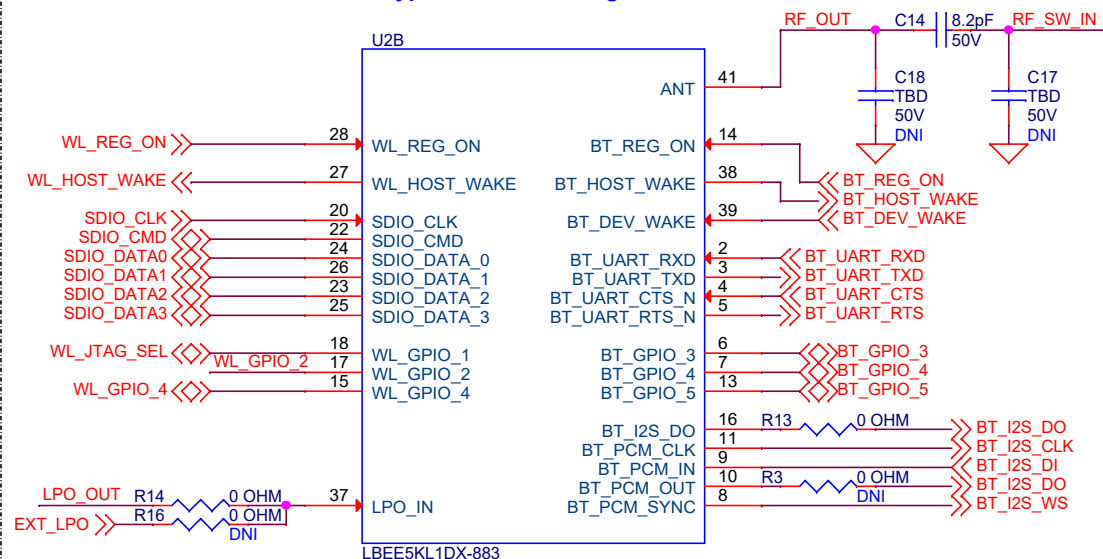
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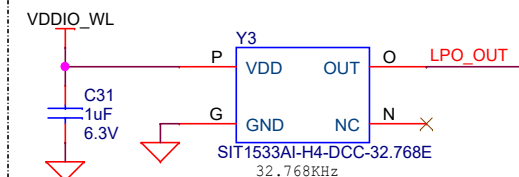
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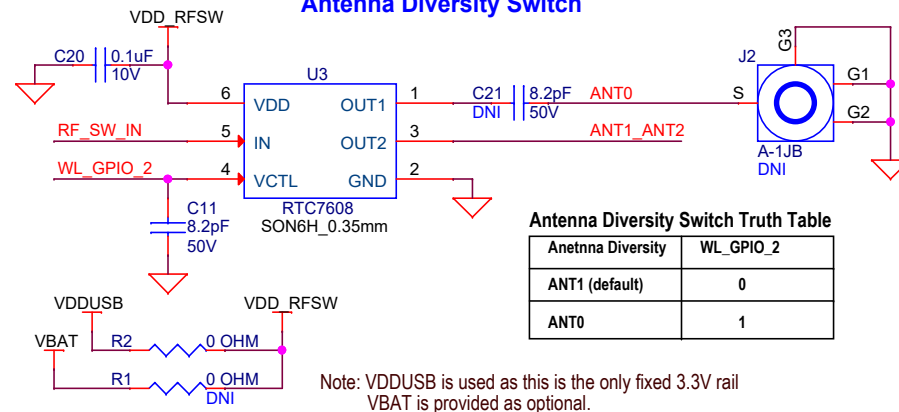
## Type 1DX Module Signals



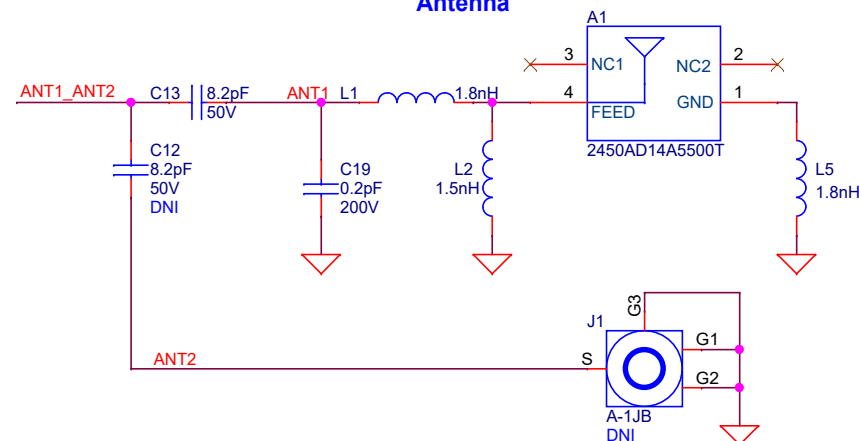
## Onboard LPO



## Antenna Diversity Switch



## Antenna



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# Carrier Module Footprint

The diagram illustrates the carrier module footprint for a Cypress PSoC 64B0S2 with CYW4343W Carrier Module. It shows three main modules: MOD1A, MOD1B, and MOD1C, each with its own set of pins and connections.

**MOD1A:** This module is connected to various power and ground pins. The connections are as follows:

- VDDA (55) to VDDA\_MCU
- VDDD (83) to VDDD\_MCU
- VDDIO0 (67) to VDDIO0\_MCU
- VDDIO1 (47) to VDDIO1\_MCU
- VDDIO2 (94) to VDDIO2\_MCU
- VDD\_NS (89) to VDD\_NS\_MCU
- VBACKUP (84) to VBACKUP\_MCU
- VDDUSB (93) to VDDUSB\_MCU
- VBAT (28) to VBAT\_WL and VBAT\_WL (29)
- VDDIO\_WL (115)
- VCCD (82) to VCCD\_MCU
- GND\_1 (1), GND\_2 (30), GND\_3 (54), GND\_4 (68), GND\_5 (81), GND\_6 (90), GND\_7 (137)

**MOD1B:** This module is connected to various power and ground pins. The connections are as follows:

- VREF (53)
- P6\_0 (136) to I2C\_SCL
- P6\_1 (133) to I2C\_SDA
- ARD\_AREF (53)
- P10\_0 (52) to ARD\_A0
- P10\_1 (60) to ARD\_A1
- P10\_2 (59) to ARD\_A2
- P10\_3 (58) to ARD\_A3
- P10\_4 (62) to ARD\_A4
- P10\_5 (63) to ARD\_A5
- P10\_6 (61) to ARD\_A6
- P10\_7 (64) to ARD\_A7
- P7\_0 (44) to ETM\_CLK
- P9\_0 (46) to ARD\_A8
- P9\_1 (48) to ARD\_A9
- P9\_2 (49) to ARD\_A10
- P9\_3 (45) to ARD\_A11
- P9\_4 (50) to ARD\_A12
- P9\_5 (56) to ARD\_A13
- P9\_6 (57) to ARD\_A14
- P9\_7 (51) to ARD\_A15
- P5\_0 (2) to ARD\_D0
- P5\_1 (3) to ARD\_D1
- P5\_2 (4) to ARD\_D2
- P5\_3 (6) to ARD\_D3
- P5\_4 (5) to ARD\_D4
- P5\_5 (9) to ARD\_D5
- P5\_6 (7) to ARD\_D6
- P5\_7 (8) to ARD\_D7
- P7\_5 (23) to ARD\_D8
- P7\_6 (25) to ARD\_D9
- P12\_3 (78) to ARD\_D10
- P12\_0 (76) to ARD\_D11
- P12\_1 (75) to ARD\_D12
- P12\_2 (77) to ARD\_D13
- P0\_4 (130) to BUTTON\_1
- P1\_4 (125) to BUTTON\_2
- XRES\_L (39) to MCU\_XRES\_L
- P6\_4 (40) to MCU\_TDO
- P6\_5 (43) to MCU\_TDI
- P6\_6 (41) to MCU\_TMS\_SWCLK
- P6\_7 (42) to MCU\_TCLK\_SWCLK
- CSX\_TX (124) to P1\_0
- CSB\_0 (33) to P8\_1
- CSB\_1 (31) to P8\_2
- CSS\_0 (36) to P8\_3
- CSS\_1 (34) to P8\_4
- CSS\_2 (32) to P8\_5
- CSS\_3 (38) to P8\_6
- CSS\_4 (37) to P8\_7
- CSD\_SHIELD (98) to P7\_4
- FRAM\_SSEL (71) to P11\_0
- FLASH\_SSEL (72) to P11\_2
- QSPI\_CLK (66) to P11\_7
- QSPI\_DATA0 (70) to P11\_6
- QSPI\_DATA1 (74) to P11\_5
- QSPI\_DATA2 (65) to P11\_4
- QSPI\_DATA3 (73) to P11\_3
- SD\_CMD (79) to P12\_4
- SD\_CLK (80) to P12\_5
- SD\_DATA0 (88) to P13\_0
- SD\_DATA1 (86) to P13\_1
- SD\_DATA2 (85) to P13\_2
- SD\_DATA3 (87) to P13\_3
- SD\_CD\_L (97) to P13\_7
- MCU\_USBDP (92) to USBDP
- MCU\_USBDM (91) to USBDM
- USB\_VBUS\_DET (134) to P6\_2
- USB\_INT (135) to P6\_3
- USB\_HOST\_EN (127) to P1\_2
- RGB\_R (123) to P1\_1
- RGB\_G (132) to P0\_5
- RGB\_B (26) to P7\_3
- LED\_1 (126) to P1\_5
- LED\_2 (69) to P11\_1
- MCU\_IO\_0 (129) to P0\_2
- MCU\_IO\_1 (131) to P0\_3
- MCU\_IO\_2 (128) to P1\_3
- MCU\_IO\_3 (24) to P13\_6
- MCU\_IO\_4 (35) to P8\_0
- MCU\_IO\_5 (95) to P13\_4
- MCU\_IO\_6 (96) to P13\_5

**MOD1C:** This module is connected to various power and ground pins. The connections are as follows:

- SDIO\_DATA0 (100) to WL\_SDIO\_DATA0
- SDIO\_DATA1 (101) to WL\_SDIO\_DATA1
- SDIO\_DATA2 (102) to WL\_SDIO\_DATA2
- SDIO\_DATA3 (104) to WL\_SDIO\_DATA3
- SDIO\_CMD (103) to WL\_SDIO\_CMD
- SDIO\_CLK (99) to WL\_SDIO\_CLK
- WL\_HOST\_WAKE (14) to WL\_HOST\_WAKE
- WL\_DEV\_WAKE (15) to WL\_DEV\_WAKE
- WL\_REG\_ON (16) to WL\_REG\_ON
- WL\_UART\_TX (11) to WL\_UART\_TX
- WL\_UART\_RX (12) to WL\_UART\_RX
- WL\_GPIO\_4 (13) to WL\_GPIO\_4
- WL\_IO\_1 (10) to WL\_IO\_1
- WL\_IO\_2 (20) to WL\_IO\_2
- WL\_JTAG\_TCK (19) to WL\_JTAG\_TCK
- WL\_JTAG\_TMS (21) to WL\_JTAG\_TMS
- WL\_JTAG\_TRST\_L (18) to WL\_JTAG\_TRST\_L
- WL\_JTAG\_TDO (17) to WL\_JTAG\_TDO
- WL\_JTAG\_SEL (22) to WL\_JTAG\_SEL
- BT\_UART\_TXD (108) to BT\_UART\_TXD
- BT\_UART\_RXD (106) to BT\_UART\_RXD
- BT\_UART\_CTS (107) to BT\_UART\_CTS
- BT\_UART\_RTS (109) to BT\_UART\_RTS
- BT\_HOST\_WAKE (122) to BT\_HOST\_WAKE
- BT\_DEV\_WAKE (120) to BT\_DEV\_WAKE
- BT\_REG\_ON (121) to BT\_REG\_ON
- BT\_I2S\_CLK (112) to BT\_I2S\_CLK
- BT\_I2S\_WS (111) to BT\_I2S\_WS
- BT\_I2S\_DO (114) to BT\_I2S\_DO
- BT\_I2S\_DI (113) to BT\_I2S\_DI
- BT\_IO\_2 (116) to BT\_GPIO\_3
- BT\_IO\_3 (117) to BT\_GPIO\_4
- BT\_IO\_4 (119) to BT\_GPIO\_5
- BT\_IO\_5 (118) to BT\_GPIO\_5
- RFU\_1 (27) to RFU\_1
- RFU\_2 (105) to RFU\_2
- LPO\_IN (110) to EXT\_LPO

Carrier Module Footprint

Carrier Module Footprint

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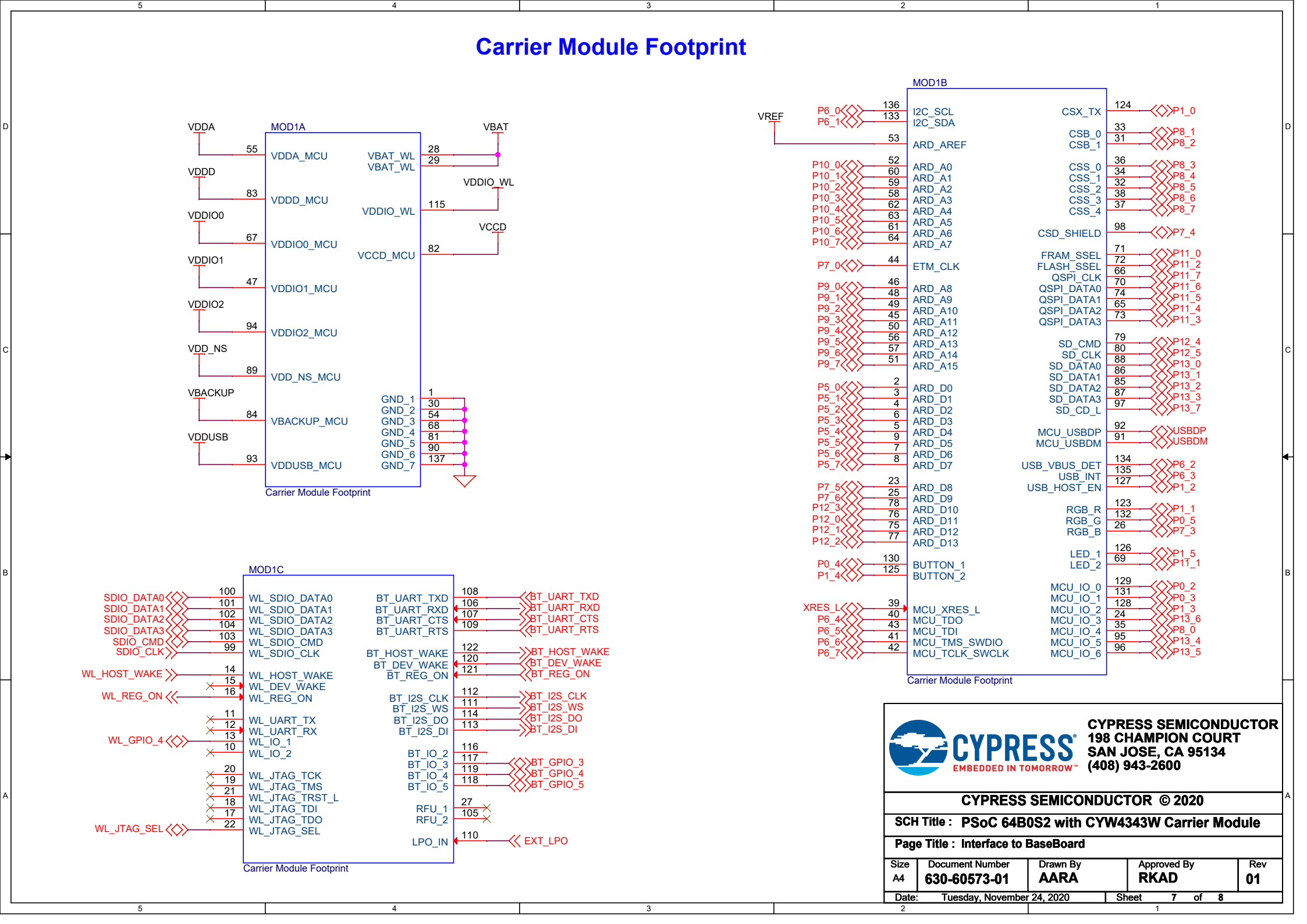
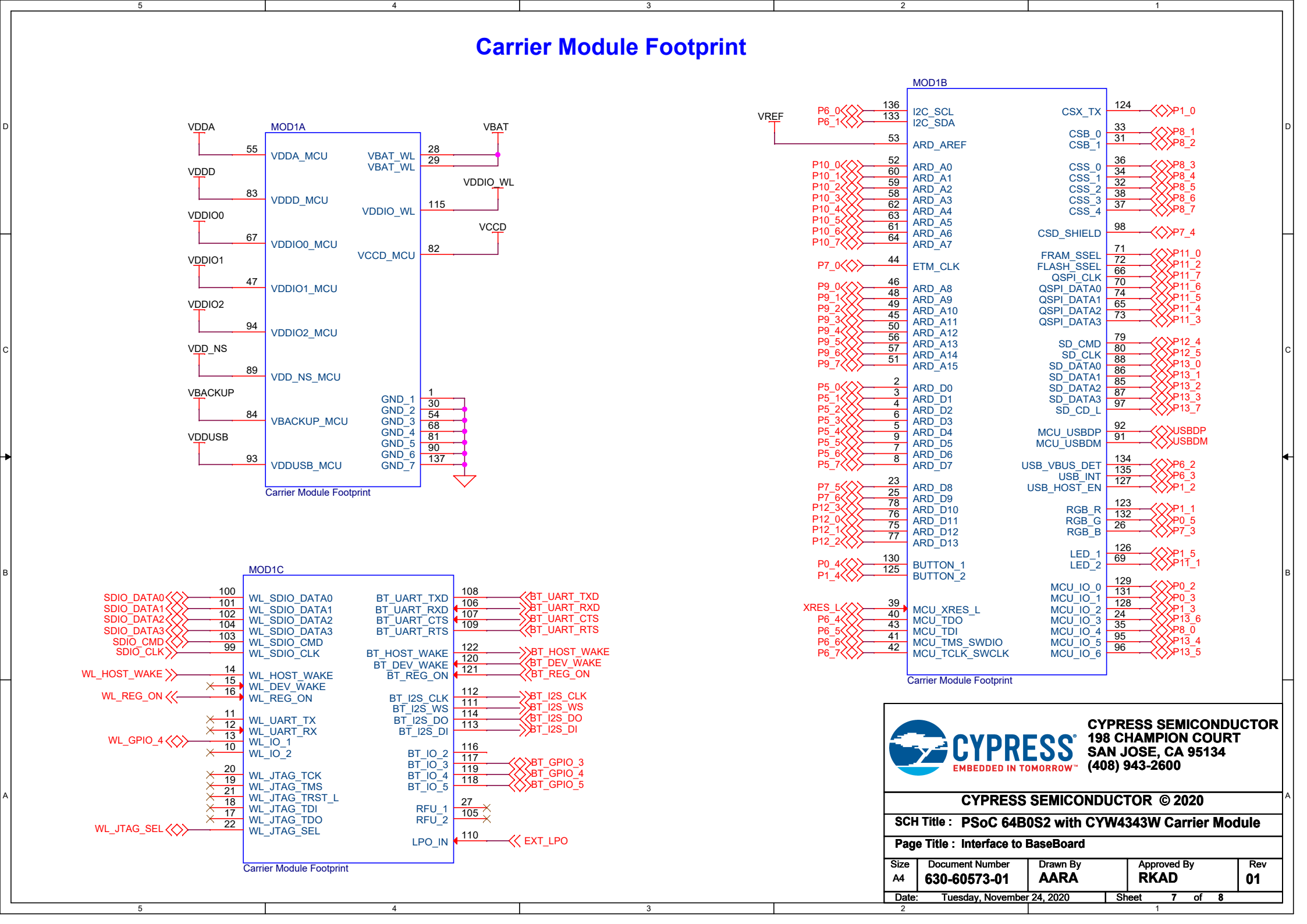
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**Carrier Module Footprint**

**MOD1A**

VDDA 55 VDDA\_MCU VBAT\_WL 28 VBAT 29 VBAT\_WL VDDD 83 VDDD\_MCU VDDIO\_WL 115 VDDIO0 67 VDDIO0\_MCU VCCD\_MCU 82 VDDIO1 47 VDDIO1\_MCU VDDIO2 94 VDDIO2\_MCU VDD\_NS 89 VDD\_NS\_MCU VBACKUP 84 VBACKUP\_MCU VDDUSB 93 VDDUSB\_MCU GND\_1 1 GND\_2 30 GND\_3 54 GND\_4 68 GND\_5 81 GND\_6 90 GND\_7 137

**MOD1B**

VREF P6\_0 136 P6\_1 133 53 I2C\_SCL 136 I2C\_SDA 133 ARD\_AREF 53 CSX\_TX 124 CSB\_0 33 CSB\_1 31 CSS\_0 36 CSS\_1 34 CSS\_2 32 CSS\_3 38 CSS\_4 37 CSD\_SHIELD 98 FRAM\_SSEL 71 FLASH\_SSEL 72 QSPI\_CLK 66 QSPI\_DATA0 70 QSPI\_DATA1 74 QSPI\_DATA2 65 QSPI\_DATA3 73 SD\_CMD 79 SD\_CLK 80 SD\_DATA0 88 SD\_DATA1 86 SD\_DATA2 85 SD\_DATA3 87 SD\_CD\_L 97 MCU\_USBDP 92 MCU\_USBDM 91 USB\_VBUS\_DET 134 USB\_INT 135 USB\_HOST\_EN 127 RGB\_R 123 RGB\_G 132 RGB\_B 26 LED\_1 126 LED\_2 69 BUTTON\_1 130 BUTTON\_2 125 XRES\_L 39 MCU\_XRES\_L 40 MCU\_TDO 43 MCU\_TDI 41 MCU\_TMS\_SWCLK 42 MCU\_TCLK\_SWCLK MCU\_IO\_0 129 MCU\_IO\_1 131 MCU\_IO\_2 128 MCU\_IO\_3 24 MCU\_IO\_4 35 MCU\_IO\_5 95 MCU\_IO\_6 96 P10\_0 52 P10\_1 60 P10\_2 59 P10\_3 58 P10\_4 62 P10\_5 63 P10\_6 61 P10\_7 64 P7\_0 44 P9\_0 46 P9\_1 48 P9\_2 49 P9\_3 45 P9\_4 50 P9\_5 56 P9\_6 57 P9\_7 51 P5\_0 2 P5\_1 3 P5\_2 4 P5\_3 6 P5\_4 5 P5\_5 9 P5\_6 7 P5\_7 8 P7\_5 23 P7\_6 25 P12\_3 78 P12\_0 76 P12\_1 75 P12\_2 77 P0\_4 130 P1\_4 125 P6\_4 40 P6\_5 43 P6\_6 41 P6\_7 42 P1\_0 124 P8\_1 33 P8\_2 31 P8\_3 36 P8\_4 34 P8\_5 32 P8\_6 38 P8\_7 37 P7\_4 98 P11\_0 71 P11\_2 72 P11\_7 66 P11\_6 70 P11\_5 74 P11\_4 65 P12\_4 79 P12\_5 80 P13\_0 88 P13\_1 86 P13\_2 85 P13\_3 87 P13\_7 97 USBBDP 92 USBDM 91 P6\_2 134 P6\_3 135 P1\_2 127 P1\_1 123 P0\_5 132 P7\_3 26 P1\_5 126 P11\_1 69 P0\_2 129 P0\_3 131 P1\_3 128 P13\_6 24 P8\_0 35 P13\_4 95 P13\_5 96

**MOD1C**

SDIO\_DATA0 100 WL\_SDIO\_DATA0 101 SDIO\_DATA1 102 WL\_SDIO\_DATA1 103 SDIO\_DATA2 104 WL\_SDIO\_DATA2 105 SDIO\_DATA3 106 WL\_SDIO\_DATA3 107 SDIO\_CMD 108 WL\_SDIO\_CMD 109 SDIO\_CLK 99 WL\_SDIO\_CLK 14 WL\_HOST\_WAKE 15 WL\_HOST\_WAKE 16 WL\_DEV\_WAKE 17 WL\_DEV\_WAKE 18 WL\_REG\_ON 19 WL\_REG\_ON 11 WL\_UART\_TX 12 WL\_UART\_RX 13 WL\_UART\_TX 14 WL\_UART\_RX 15 WL\_GPIO\_4 16 WL\_GPIO\_4 10 WL\_GPIO\_4 11 WL\_GPIO\_4 12 WL\_JTAG\_TCK 19 WL\_JTAG\_TMS 20 WL\_JTAG\_TRST\_L 21 WL\_JTAG\_TDO 18 WL\_JTAG\_SEL 17 WL\_JTAG\_SEL 22 RFU\_1 27 RFU\_2 105 LPO\_IN 110 BT\_UART\_TXD 108 BT\_UART\_RXD 106 BT\_UART\_CTS 107 BT\_UART\_RTS 109 BT\_HOST\_WAKE 122 BT\_DEV\_WAKE 120 BT\_REG\_ON 121 BT\_I2S\_CLK 112 BT\_I2S\_WS 111 BT\_I2S\_DO 114 BT\_I2S\_DI 113 BT\_GPIO\_3 116 BT\_GPIO\_4 117 BT\_GPIO\_5 118

**Carrier Module Footprint**

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