DEMO_FX3_U3V_CAM01 BASE BOARD

CONTENTS

PAGE	DESCRIPTION
01	TITLE & TABLE OF CONTENTS
02	BLOCK DIAGRAM
03	TYPE-C USB CONNECTOR
04	POWER SUPPLY
05	FX3 CLOCK & RESET
06	FX3- POWER
07	FX3-IO PORT1
08	FX3 IO PORT2,3 & I2C SIGNALS & SPI FLASH
09	GPIO CONNECTORS
10	UART & JTAG DEBUGGER
11	ACCESSORIES
12	REVISION HISTORY

Drawing Numbers	
PCBA	121-60625-01
PCB	600-60625-01
FAB DRW	610-60625-01
ASSY DRW	620-60625-01
SCH DRW	630-60625-01
PCB LBL	899-60625-01

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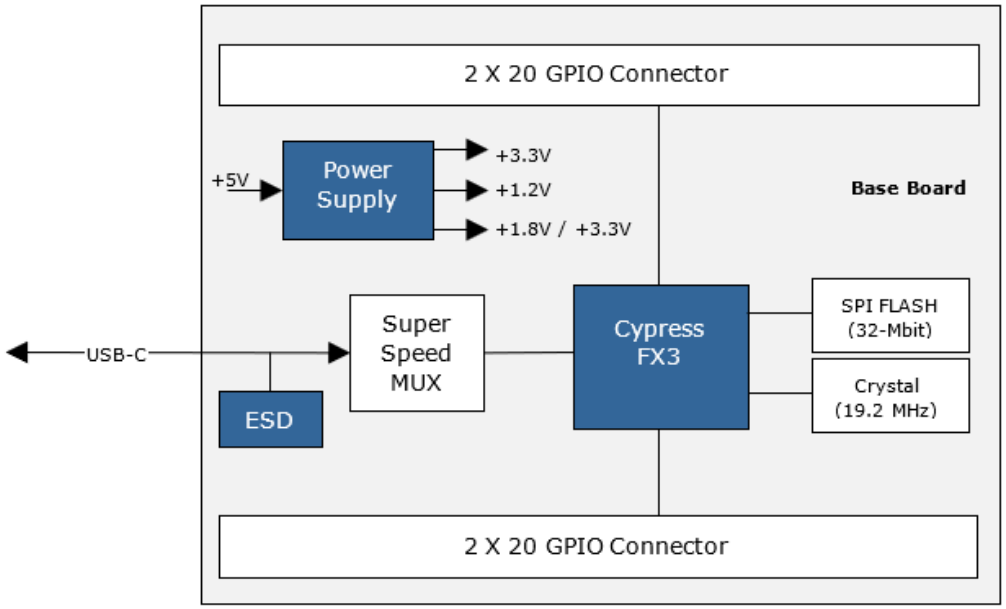
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SCH Title : DEMO_FX3_U3V_CAM01 BASE BOARD

Page Title : TITLE PAGE

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Date: Monday, November 14, 2022 Sheet 1 of 12



Cypress / Infineon Parts

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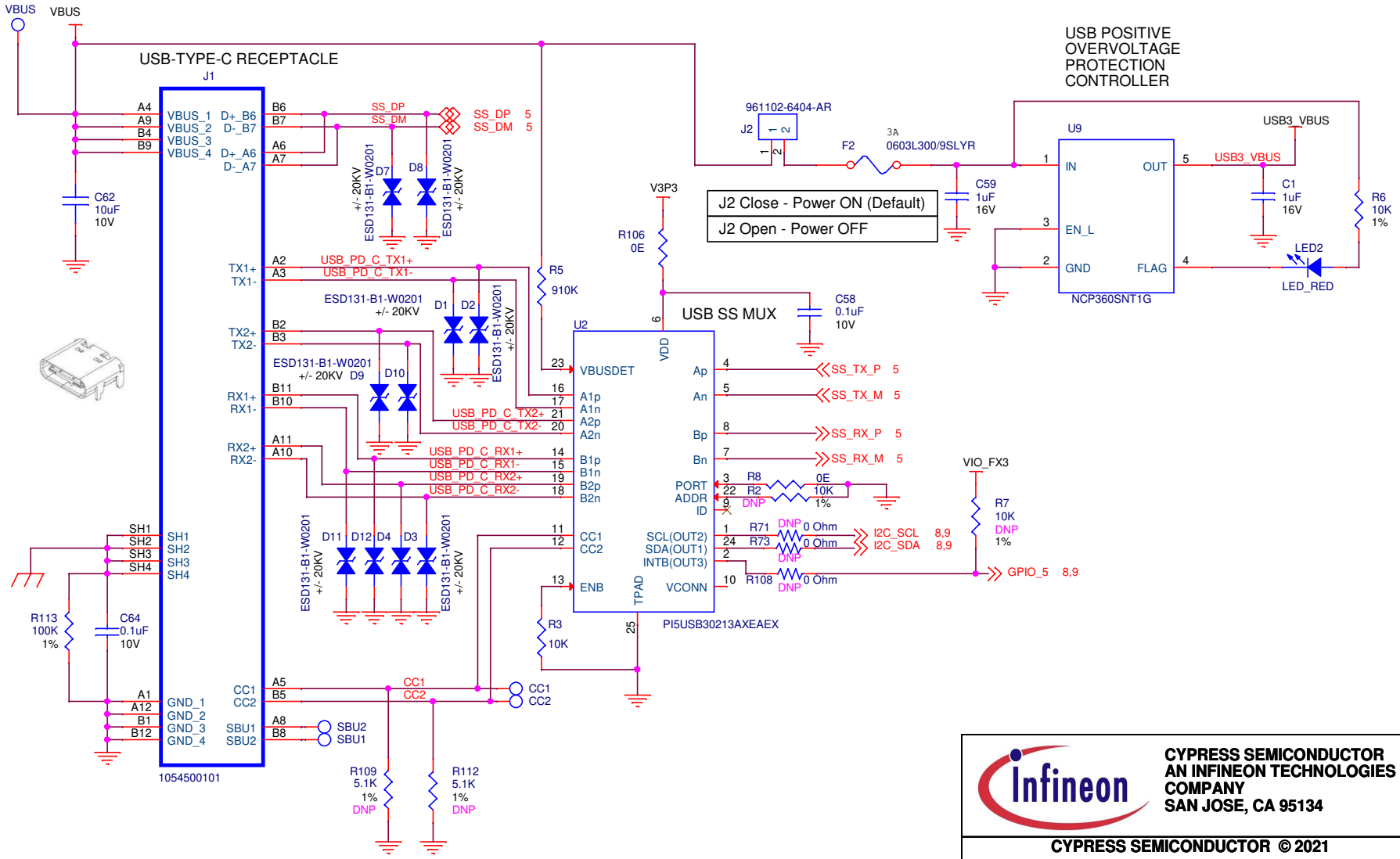
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Page Title : BLOCK DIAGRAM

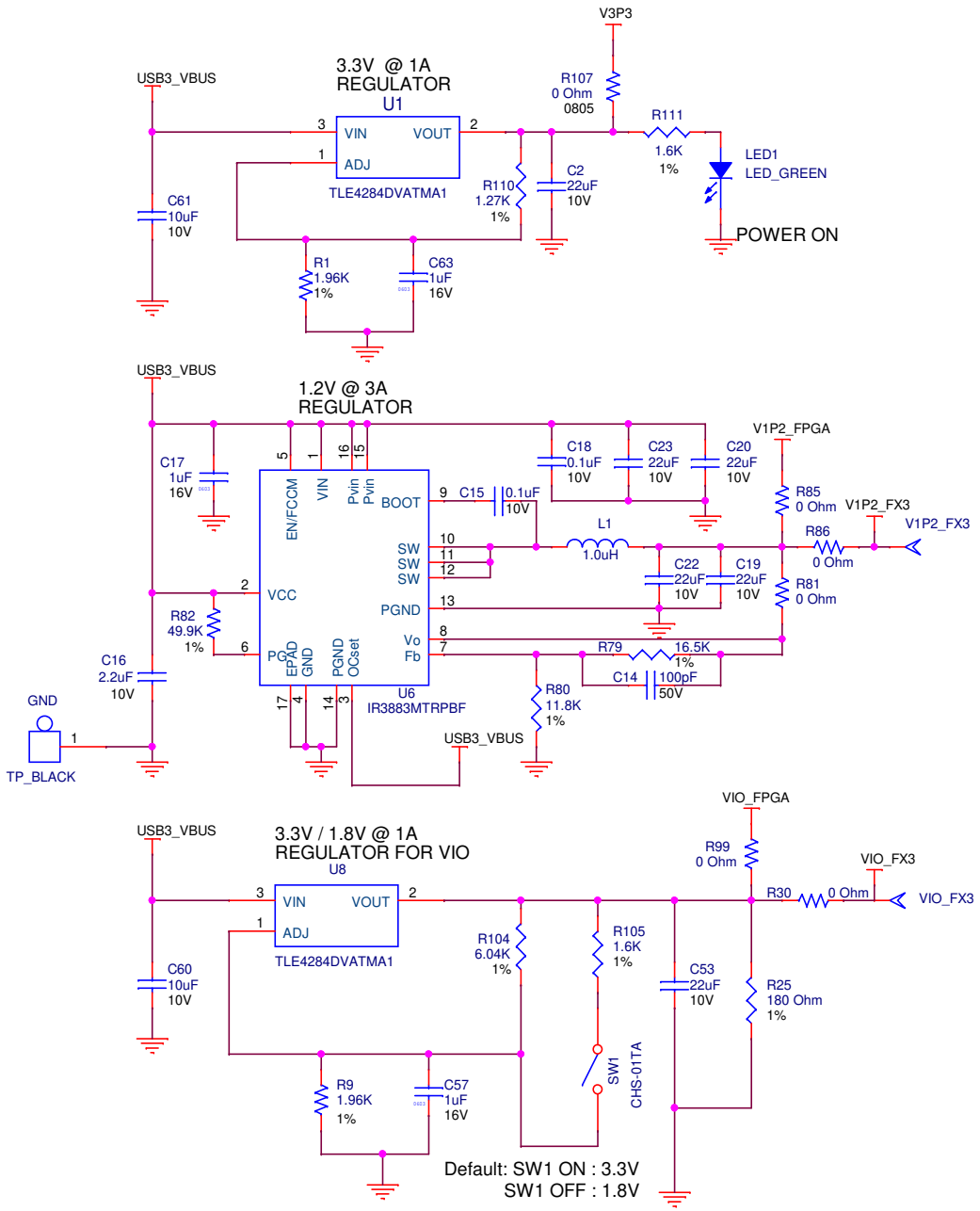
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Size: A4	Document Number: 630-60625-01
Drawn By: HUSA	Approved By: RAJA
Rev: 01	
Date: Monday, November 14, 2022	Sheet 3 of 12

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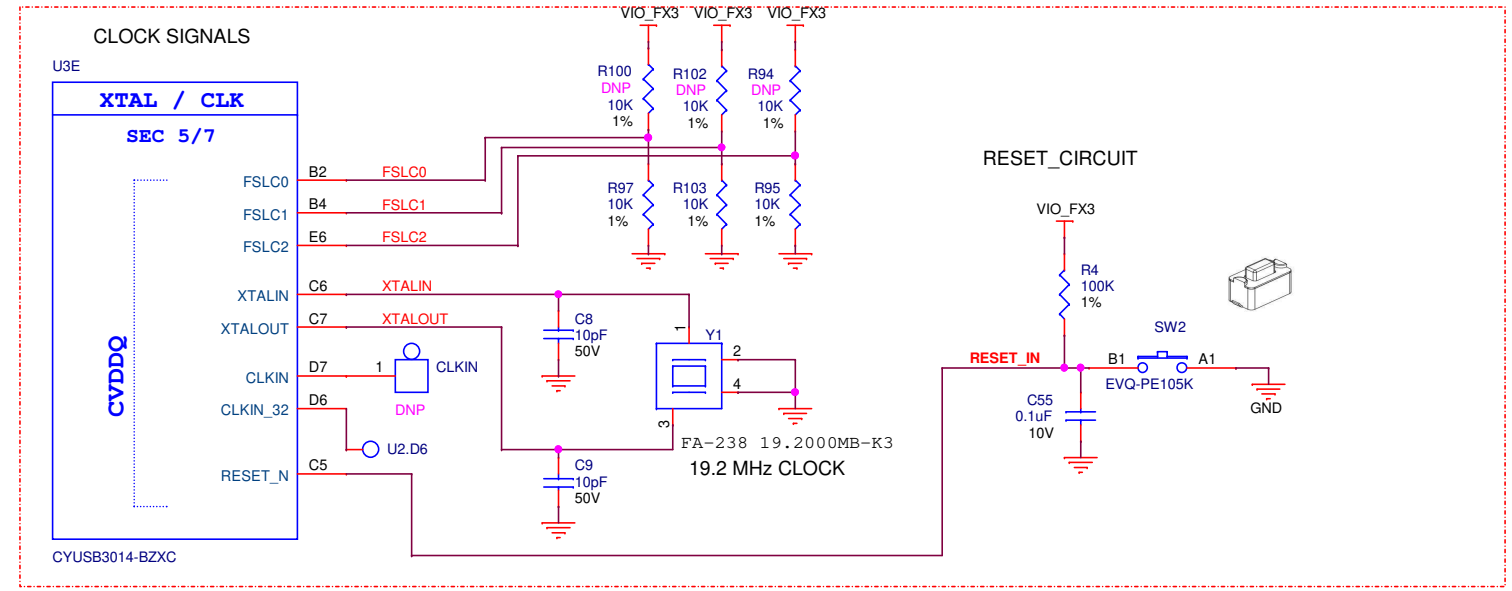
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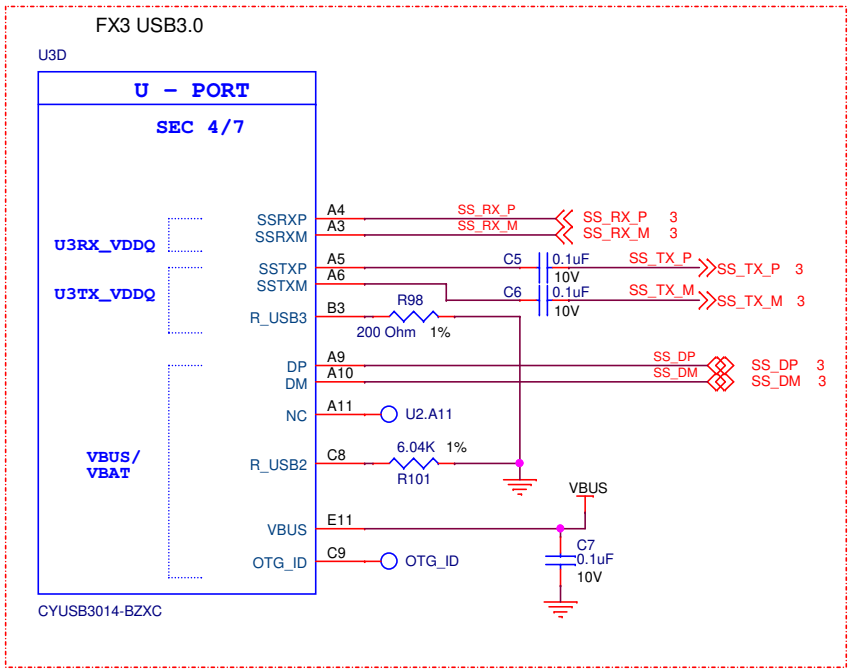
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Page Title : POWER SUPPLY

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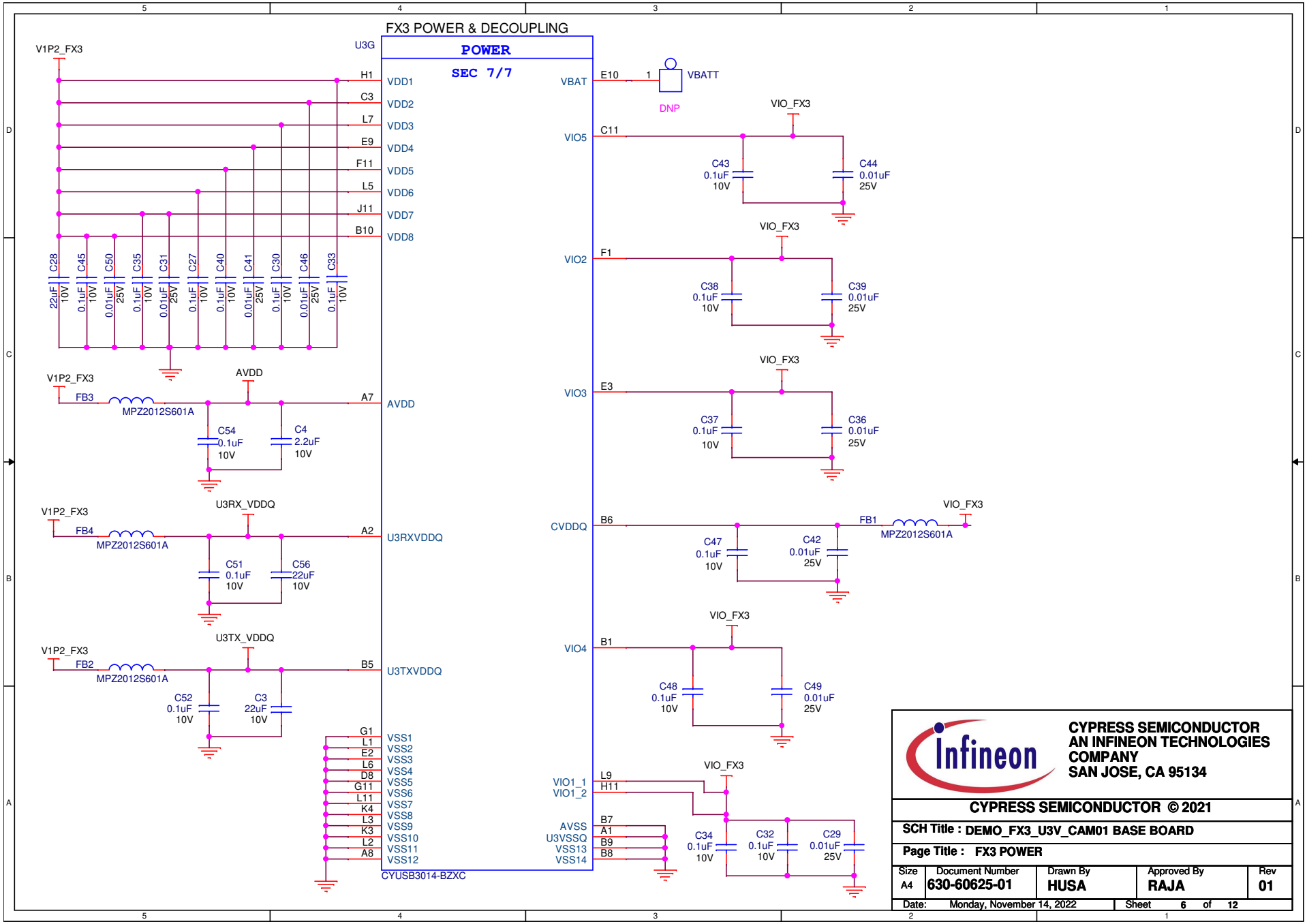


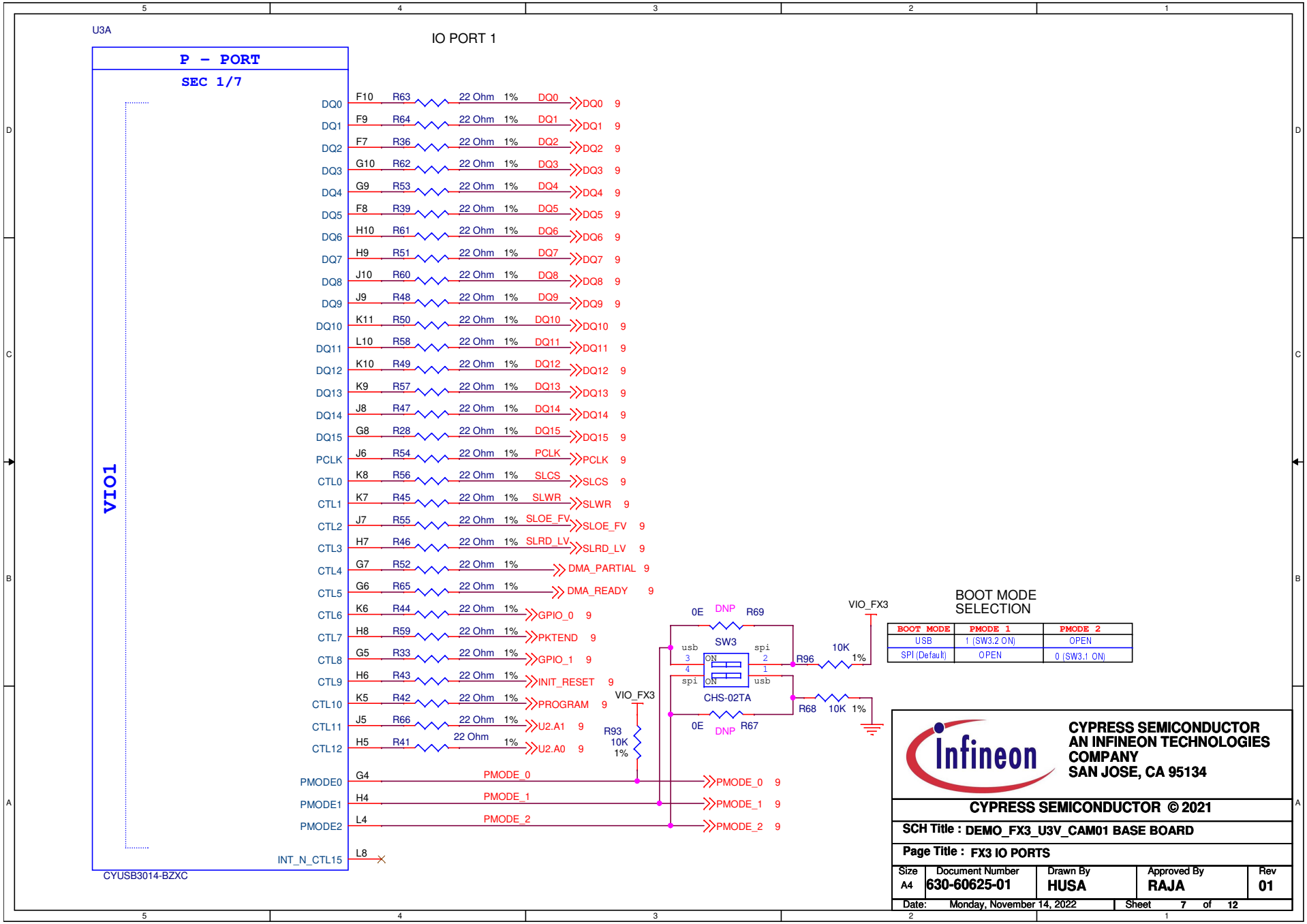


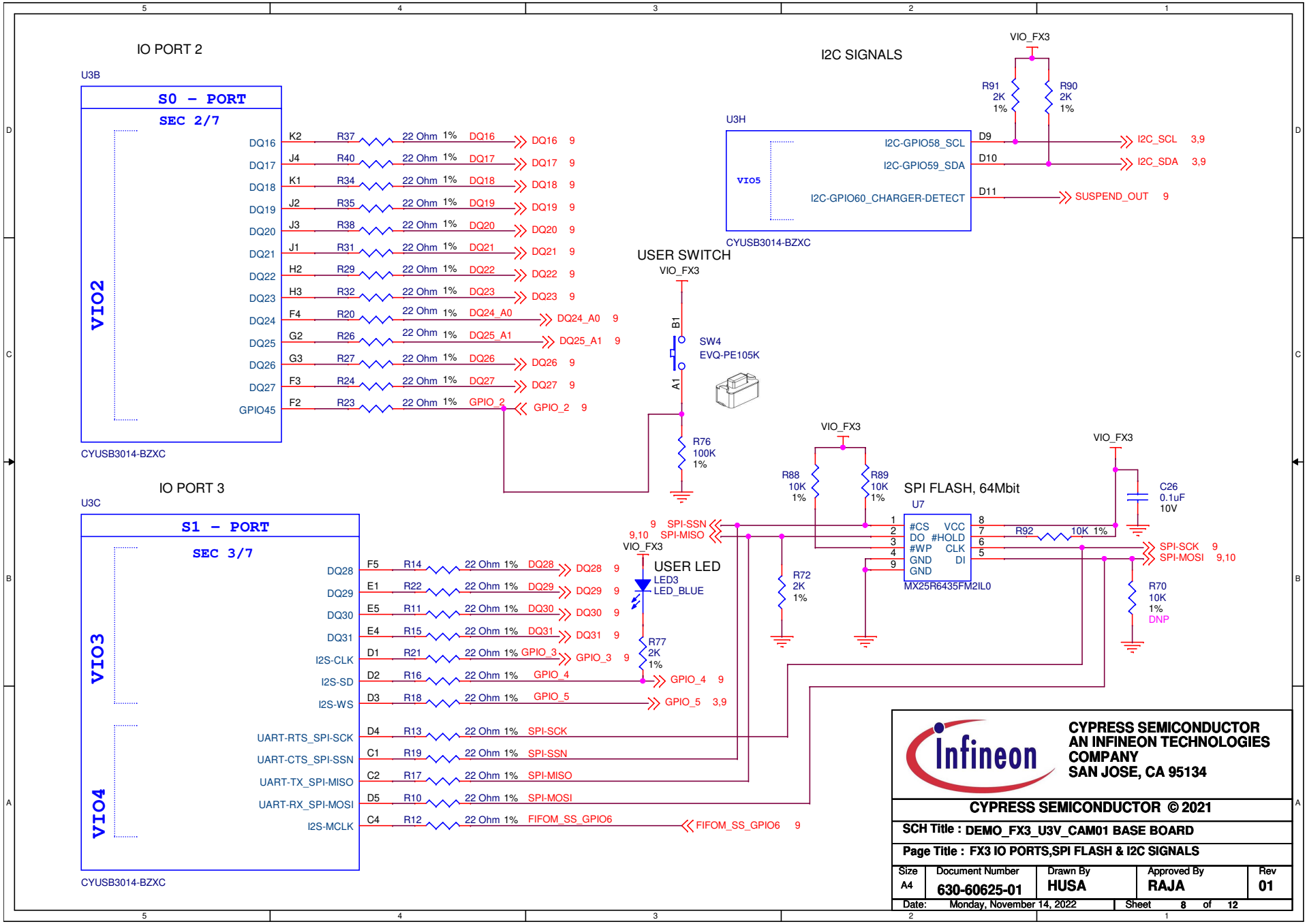
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Date: Monday, November 14, 2022		Sheet 5 of 12		

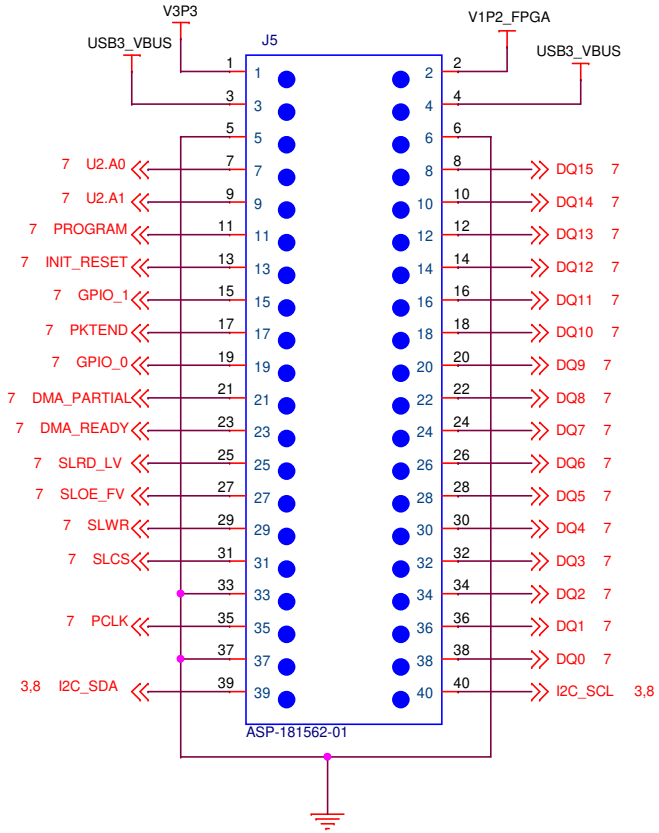

FX3 POWER & DECOUPLING
U3G
POWER
SEC 7/7
V1P2_FX3
H1 VDD1
C3 VDD2
L7 VDD3
E9 VDD4
F11 VDD5
L5 VDD6
J11 VDD7
B10 VDD8
C28 22uF 10V
C45 0.1uF 10V
C50 0.01uF 25V
C35 0.1uF 10V
C31 0.01uF 25V
C27 0.1uF 10V
C40 0.1uF 10V
C41 0.01uF 25V
C30 0.1uF 10V
C46 0.01uF 25V
C33 0.1uF 10V
AVDD
FB3 MPZ2012S601A
A7 AVDD
C54 0.1uF 10V
C4 2.2uF 10V
U3RX_VDDQ
FB4 MPZ2012S601A
A2 U3RXVDDQ
C51 0.1uF 10V
C56 22uF 10V
U3TX_VDDQ
FB2 MPZ2012S601A
B5 U3TXVDDQ
C52 0.1uF 10V
C3 22uF 10V
G1 L1 E2 L6 D8 G11 L11 K4 L3 K3 L2 A8
VSS1 VSS2 VSS3 VSS4 VSS5 VSS6 VSS7 VSS8 VSS9 VSS10 VSS11 VSS12
CYUSB3014-BZXC
VBAT
E10 1 VBATT
DNP
VIO_FX3
VIO5 C11
C43 0.1uF 10V
C44 0.01uF 25V
VIO2 F1
C38 0.1uF 10V
C39 0.01uF 25V
VIO3 E3
C37 0.1uF 10V
C36 0.01uF 25V
CVDDQ B6
FB1 MPZ2012S601A
C47 0.1uF 10V
C42 0.01uF 25V
VIO4 B1
C48 0.1uF 10V
C49 0.01uF 25V
VIO1_1 L9
VIO1_2 H11
AVSS B7
U3VSSQ A1
VSS13 B9
VSS14 B8
C34 0.1uF 10V
C32 0.1uF 10V
C29 0.01uF 25V
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Document Number 630-60625-01
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Rev 01
Date: Monday, November 14, 2022
Sheet 6 of 12

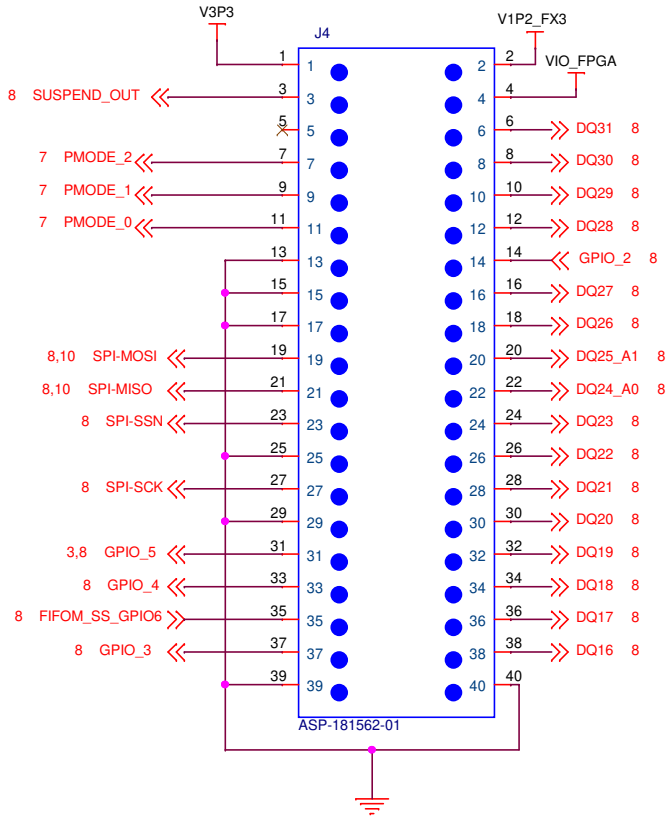

U3A
IO PORT 1
P - PORT
SEC 1/7
VIO1
CYUSB3014-BZXC
DQ0 F10 R63 22 Ohm 1% DQ0 DQ0 9
DQ1 F9 R64 22 Ohm 1% DQ1 DQ1 9
DQ2 F7 R36 22 Ohm 1% DQ2 DQ2 9
DQ3 G10 R62 22 Ohm 1% DQ3 DQ3 9
DQ4 G9 R53 22 Ohm 1% DQ4 DQ4 9
DQ5 F8 R39 22 Ohm 1% DQ5 DQ5 9
DQ6 H10 R61 22 Ohm 1% DQ6 DQ6 9
DQ7 H9 R51 22 Ohm 1% DQ7 DQ7 9
DQ8 J10 R60 22 Ohm 1% DQ8 DQ8 9
DQ9 J9 R48 22 Ohm 1% DQ9 DQ9 9
DQ10 K11 R50 22 Ohm 1% DQ10 DQ10 9
DQ11 L10 R58 22 Ohm 1% DQ11 DQ11 9
DQ12 K10 R49 22 Ohm 1% DQ12 DQ12 9
DQ13 K9 R57 22 Ohm 1% DQ13 DQ13 9
DQ14 J8 R47 22 Ohm 1% DQ14 DQ14 9
DQ15 G8 R28 22 Ohm 1% DQ15 DQ15 9
PCLK J6 R54 22 Ohm 1% PCLK PCLK 9
CTL0 K8 R56 22 Ohm 1% SLCS SLCS 9
CTL1 K7 R45 22 Ohm 1% SLWR SLWR 9
CTL2 J7 R55 22 Ohm 1% SLOE_FV SLOE_FV 9
CTL3 H7 R46 22 Ohm 1% SLRD_LV SLRD_LV 9
CTL4 G7 R52 22 Ohm 1% DMA_PARTIAL 9
CTL5 G6 R65 22 Ohm 1% DMA_READY 9
CTL6 K6 R44 22 Ohm 1% GPIO_0 9
CTL7 H8 R59 22 Ohm 1% PKTEND 9
CTL8 G5 R33 22 Ohm 1% GPIO_1 9
CTL9 H6 R43 22 Ohm 1% INIT_RESET 9
CTL10 K5 R42 22 Ohm 1% PROGRAM 9
CTL11 J5 R66 22 Ohm 1% U2.A1 9
CTL12 H5 R41 22 Ohm 1% U2.A0 9
PMODE0 G4 PMODE_0 PMODE_0 9
PMODE1 H4 PMODE_1 PMODE_1 9
PMODE2 L4 PMODE_2 PMODE_2 9
INT_N_CTL15 L8
VIO_FX3
R93 10K 1%
0E DNP R69
SW3
usb 3 4 spi
spi 2 1 usb
ON
CHS-02TA
R96 10K 1%
R68 10K 1%
0E DNP R67
BOOT MODE SELECTION
BOOT MODE | PMODE 1 | PMODE 2
USB | 1 (SW3.2 ON) | OPEN
SPI (Default) | OPEN | 0 (SW3.1 ON)
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Rev 01
Date: Monday, November 14, 2022
Sheet 7 of 12


IO PORT 2
U3B
S0 – PORT
SEC 2/7
VIO2
DQ16 K2 R37 22 Ohm 1% DQ16 DQ16 9
DQ17 J4 R40 22 Ohm 1% DQ17 DQ17 9
DQ18 K1 R34 22 Ohm 1% DQ18 DQ18 9
DQ19 J2 R35 22 Ohm 1% DQ19 DQ19 9
DQ20 J3 R38 22 Ohm 1% DQ20 DQ20 9
DQ21 J1 R31 22 Ohm 1% DQ21 DQ21 9
DQ22 H2 R29 22 Ohm 1% DQ22 DQ22 9
DQ23 H3 R32 22 Ohm 1% DQ23 DQ23 9
DQ24 F4 R20 22 Ohm 1% DQ24_A0 DQ24_A0 9
DQ25 G2 R26 22 Ohm 1% DQ25_A1 DQ25_A1 9
DQ26 G3 R27 22 Ohm 1% DQ26 DQ26 9
DQ27 F3 R24 22 Ohm 1% DQ27 DQ27 9
GPIO45 F2 R23 22 Ohm 1% GPIO_2 GPIO_2 9
CYUSB3014-BZXC
I2C SIGNALS
VIO_FX3
R91 2K 1%
R90 2K 1%
U3H
VIO5
I2C-GPIO58_SCL D9 I2C_SCL 3,9
I2C-GPIO59_SDA D10 I2C_SDA 3,9
I2C-GPIO60_CHARGER-DETECT D11 SUSPEND_OUT 9
CYUSB3014-BZXC
USER SWITCH
VIO_FX3
B1
SW4
EVQ-PE105K
A1
R76 100K 1%
IO PORT 3
U3C
S1 – PORT
SEC 3/7
VIO3
DQ28 F5 R14 22 Ohm 1% DQ28 DQ28 9
DQ29 E1 R22 22 Ohm 1% DQ29 DQ29 9
DQ30 E5 R11 22 Ohm 1% DQ30 DQ30 9
DQ31 E4 R15 22 Ohm 1% DQ31 DQ31 9
I2S-CLK D1 R21 22 Ohm 1% GPIO_3 GPIO_3 9
I2S-SD D2 R16 22 Ohm 1% GPIO_4 GPIO_4 9
I2S-WS D3 R18 22 Ohm 1% GPIO_5 GPIO_5 3,9
VIO4
UART-RTS_SPI-SCK D4 R13 22 Ohm 1% SPI-SCK
UART-CTS_SPI-SSN C1 R19 22 Ohm 1% SPI-SSN
UART-TX_SPI-MISO C2 R17 22 Ohm 1% SPI-MISO
UART-RX_SPI-MOSI D5 R10 22 Ohm 1% SPI-MOSI
I2S-MCLK C4 R12 22 Ohm 1% FIFOM_SS_GPIO6 FIFOM_SS_GPIO6 9
CYUSB3014-BZXC
9 SPI-SSN
9,10 SPI-MISO
VIO_FX3
USER LED
LED3
LED_BLUE
R77 2K 1%
VIO_FX3
R88 10K 1%
R89 10K 1%
SPI FLASH, 64Mbit
U7
#CS VCC
DO #HOLD
#WP CLK
GND DI
GND
MX25R6435FM2IL0
R72 2K 1%
VIO_FX3
C26 0.1uF 10V
R92 10K 1%
SPI-SCK 9
SPI-MOSI 9,10
R70 10K 1% DNP
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Rev 01
Date: Monday, November 14, 2022
Sheet 8 of 12

GPIO HEADERS FOR EXPANSION

NOTE: J4 and J5 Pin 5 is blocked for connector polarisation





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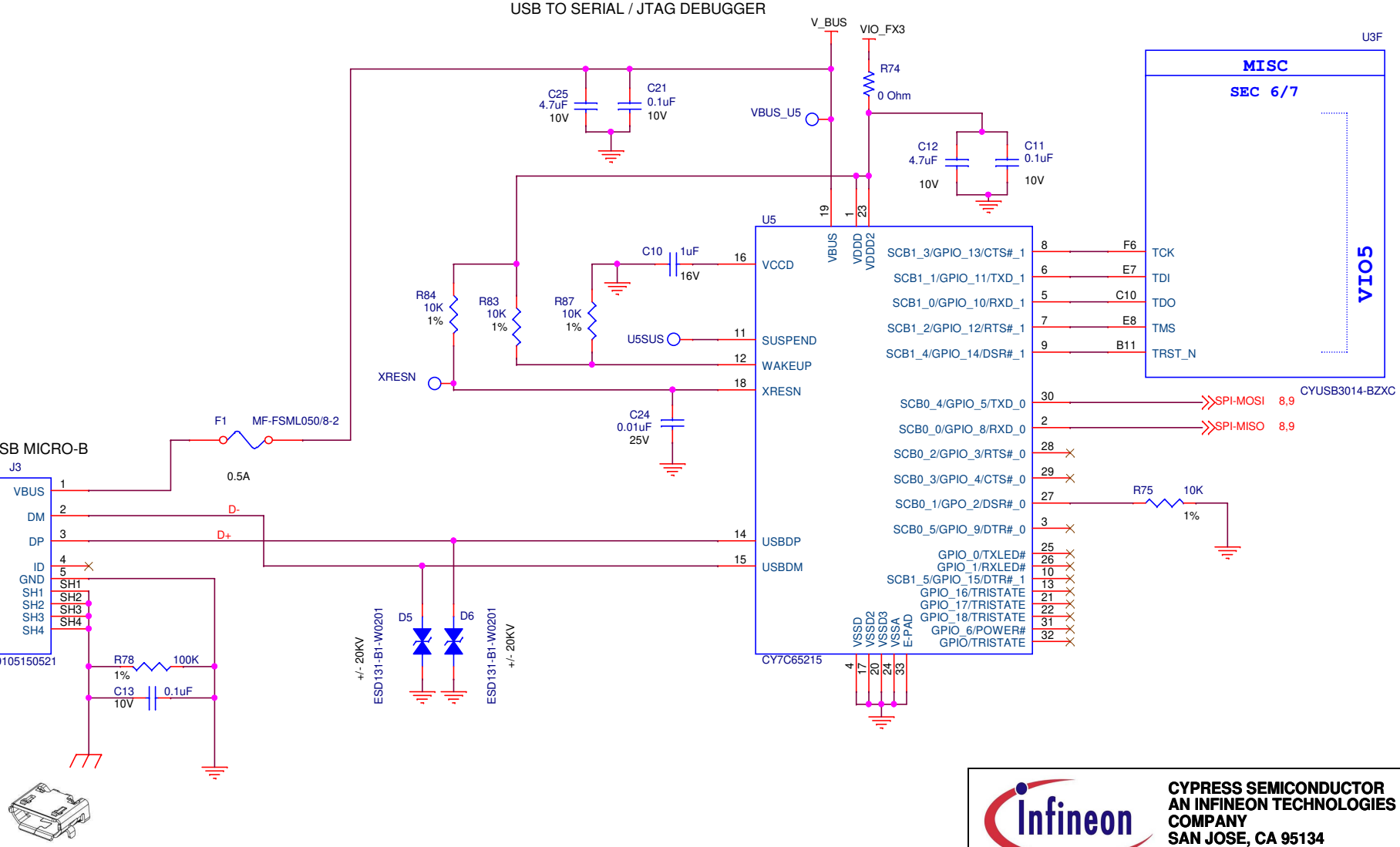
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Date: Monday, November 14, 2022 Sheet 9 of 12

USB TO SERIAL / JTAG DEBUGGER



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Date: Monday, November 14, 2022		Sheet 10 of 12		

USB C male to USB C male.

DX07518S10N18747

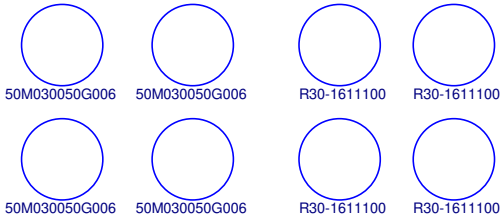
A32



MSA-G

M3x0.5x8.4mm Pan Head Machine Screw

Hex Standoff Threaded M3x0.5x11mm



50M030050G006 50M030050G006 R30-1611100 R30-1611100

50M030050G006 50M030050G006 R30-1611100 R30-1611100

TYPE-C BRACKET **TYPE-C BRACKET SCREWS**

TYPE-C BRACKET | BRACKET SCREW | BRACKET SCREW

720-60271-01

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Date: Monday, November 14, 2022 Sheet 11 of 12

REVISION HISTORY

REV	DESCRIPTION OF CHANGE	DATE
01	Initial Release	07/FEB/2022

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