Drawing Numbers	
PCBA	121-60239-01
PCB	600-60271-01
FAB DRW	610-60275-01
ASSY DRW	620-60283-01
SCH DRW	630-60281-01

REVISION HISTORY		
Rev	DESCRIPTION	DATE
01	Initial Release	04-11-2015
02	Or-ing Schematic Changed	01-12-2015
03	ESD Protection Updated	11-01-2016
04	VBUS Overshoot Solved	14-01-2016
05	Minor Updates	20-01-2016
06	Changing PMIC to Onsemi NCP1034	04-05-2015
07	Power Good signal Block Corrected	05-05-2015
08	Schematic Template changed	25-10-2016

CCG EVK BASE BOARD

CONTENTS

PAGE	DESCRIPTION
01	Title, Table of Contents & Drawing Numbers
02	VBUS Power Supply
03	3.3V, 5V Power Supply
04	High Speed MUX
05	USB to Serial
06	CCG
07	Rev History

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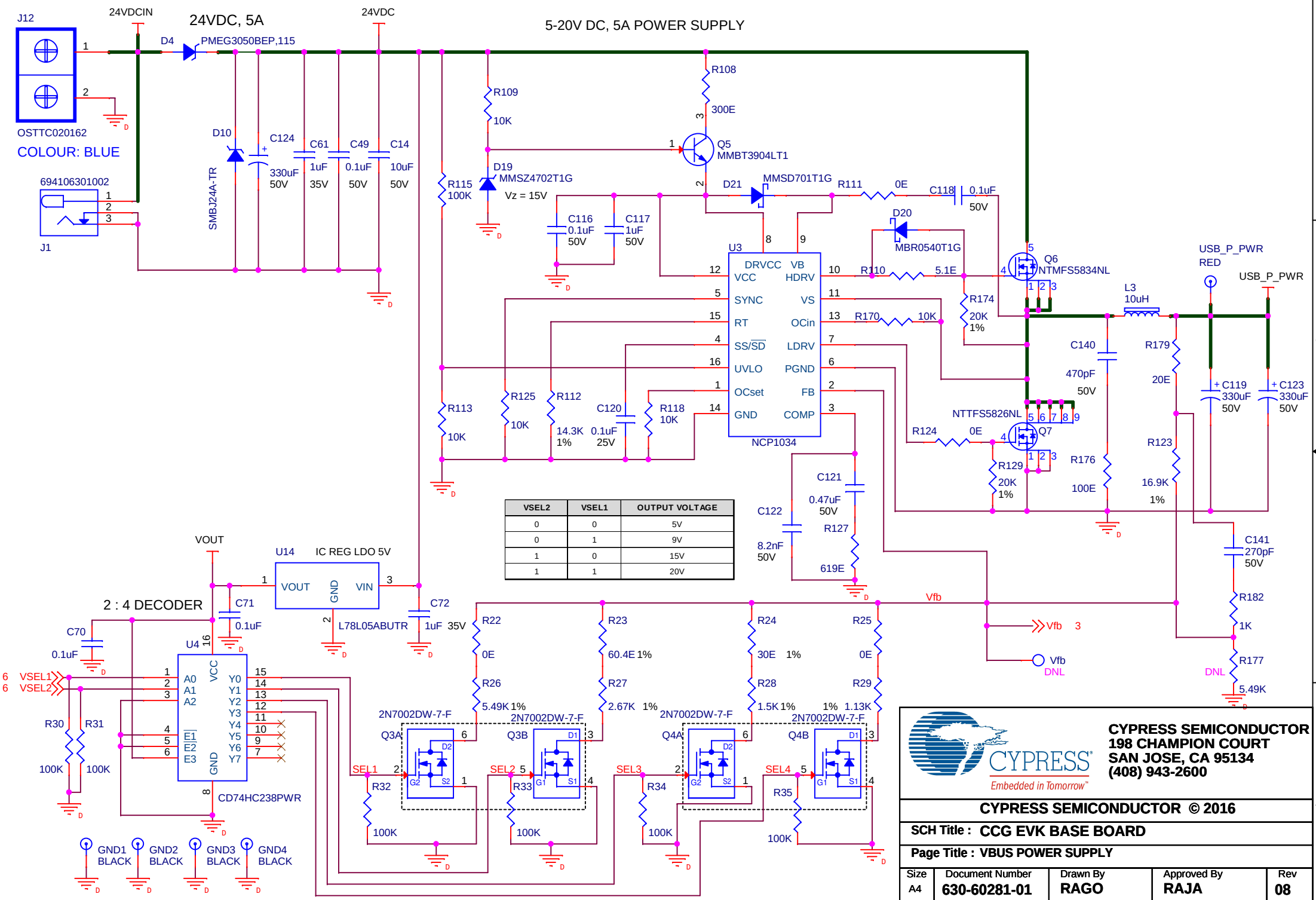
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SCH Title : CCG EVK BASE BOARD

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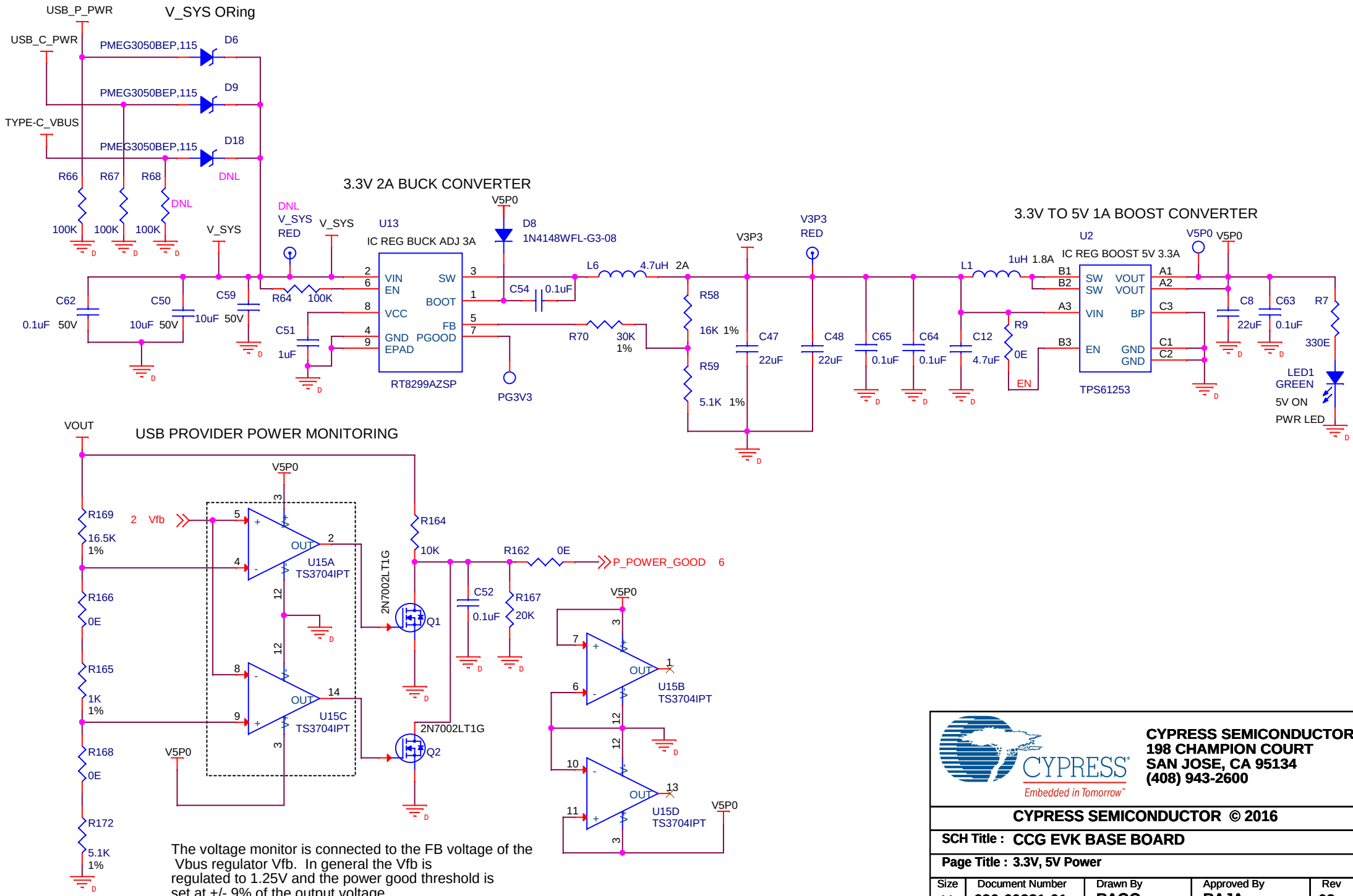
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Page Title : VBUS POWER SUPPLY

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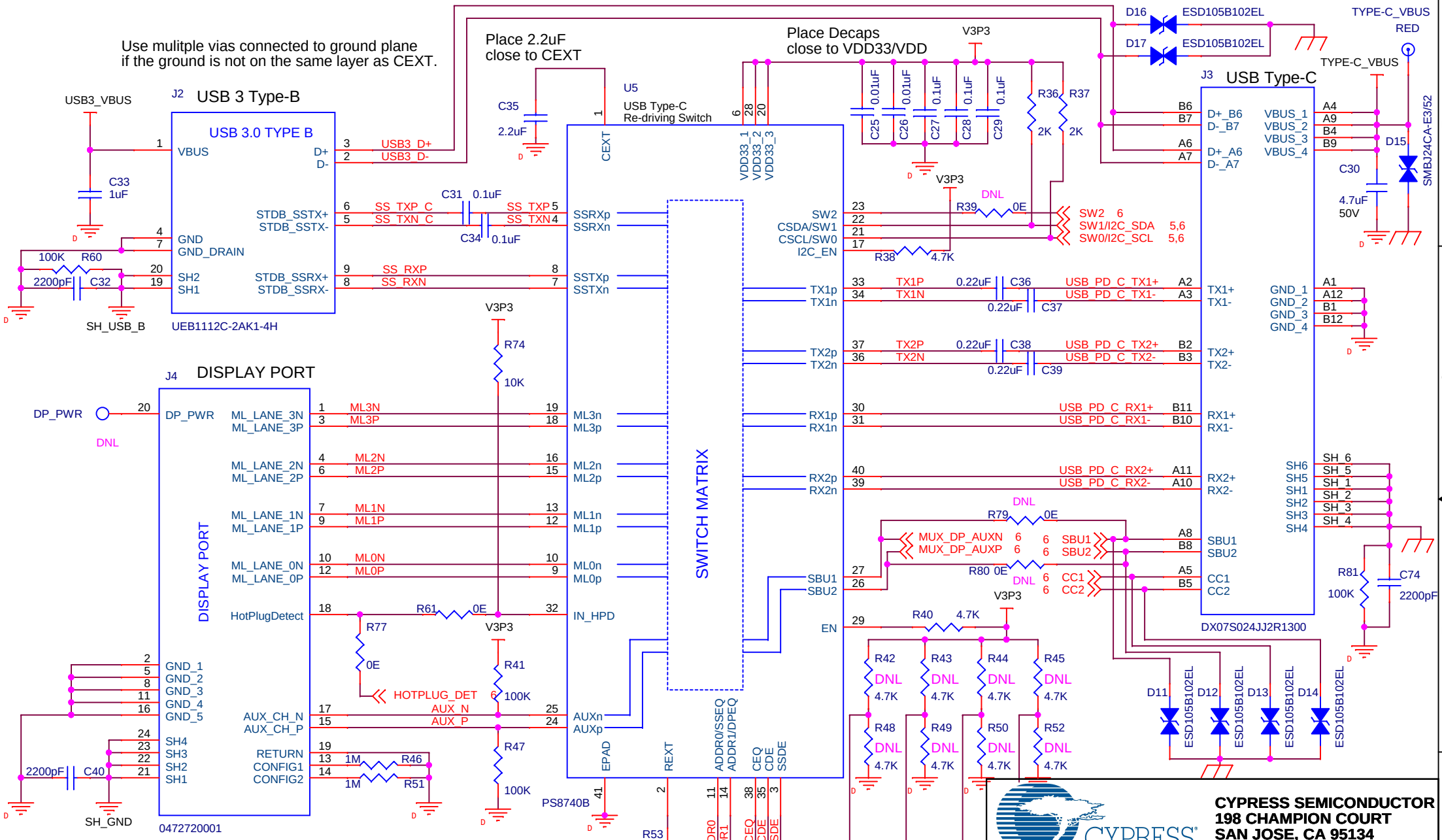


The voltage monitor is connected to the FB voltage of the Vbus regulator Vfb. In general the Vfb is regulated to 1.25V and the power good threshold is set at +/- 9% of the output voltage.

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Page Title : 3.3V, 5V Power				
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DAUGHTER CARD MATTING CONNECTOR	I2C_ADDR0	I2C ADDRESS
J2 (CCG4), J6 (CCG3)	0	0x20, 0x21
J3(CCG4)	1	0x22, 0x23

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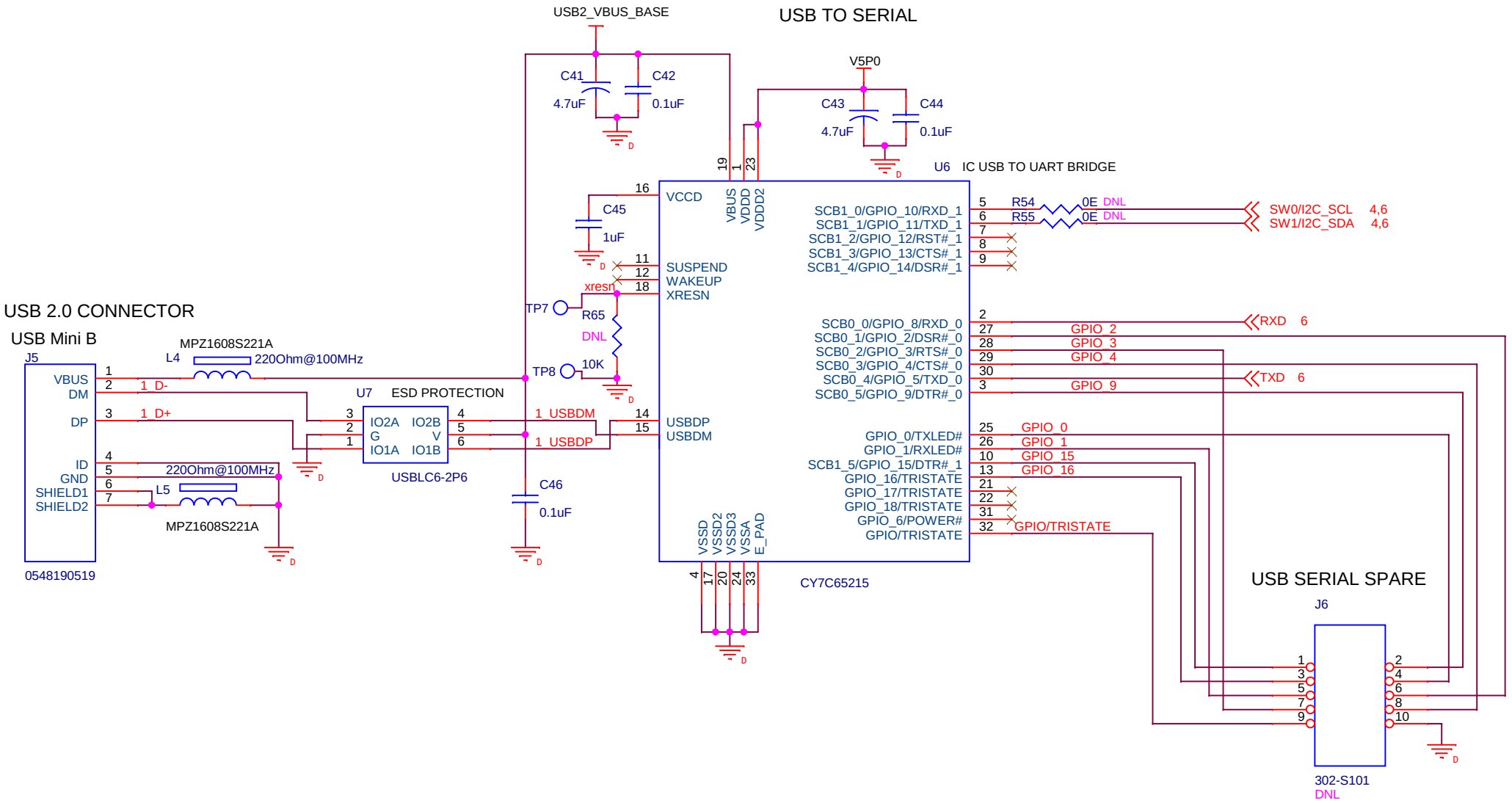
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SCH Title : CCG EVK BASE BOARD

Page Title : High Speed MUX

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CONSUMER POWER OUTPUT
5 - 20V DC

USB_C_PWR
RED

USB_C_PWR

USB_P_PWR

TYPE-C_VBUS

J7

1935161

COLOUR: GREEN

CCG DAUGHTER CARD INTERFACE CONNECTOR

J8

SFH11-PBPC-D20-ST-BK

V5P0

V3P3

4,5,6 SW0/I2C_SCL
4,5,6 SW1/I2C_SDA
6 OCP
3 P_POWER_GOOD
2,6 VSEL2
4,6 CC1
5 RXD
5 TXD
4 MUX_DP_AUXN
4 MUX_DP_AUXP
4 SBU2
4 SBU1
6 I2C_SCL_EC
2,6 VSEL1

VBUS_DISCHRG 6
CCG_SWD_IO 6
CCG_SWD_CLK 6
CCG_XRES 6
I2C_ADDR0 4
VCONN_MON
VCONN_MON DNL
CC2 4,6
VBUS_P_CTRL 6
VBUS_MON_GPIO 6 6
I2C_INT_EC 6
VBUS_C_CTRL 6
OVP_TRIP 6
I2C_SDA_EC 6
HOTPLUG_DET 4,6
USB2_DP/SW1_P2
TP12 DNL
USB2_DM/SW0_P2
TP11 DNL

J11

DEFAULT:
JUMPER CLOSED

961102-6404-AR

R73
0E

R56
1K

R57
1K

SW1
EVQ-PE105K

LED2
ORANGE

USER BUTTON / LED

DEBUG CONNECTOR

TYPE-C_VBUS

J9

SBH11-PBPC-D12-ST-BK

6 CCG_SWD_IO
4,6 CC1
6 I2C_SCL_EC
6 I2C_INT_EC
4,5,6 SW0/I2C_SCL
4 SW2
6 CCG_SWD_CLK
2,6 VSEL1
6 VBUS_P_CTRL
6 VBUS_MON_GPIO

CCG_XRES 6
CC2 4,6
I2C_SDA_EC 6
HOTPLUG_DET 4,6
SW1/I2C_SDA 4,5,6
OCP 6
OVP_TRIP 6
VSEL2 2,6
VBUS_DISCHRG 6
VBUS_C_CTRL 6

V3P3

R75
DNL
2K

V3P3

R76
DNL
2K

I2C CONNECTOR

J10

M20-9990445

DNL

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Revision	Description of the change
2.0	1. R75 AND R76 MARKED AS DNL 2. R19 CHANGED FROM 1K TO 0E 3. R17 CHANGED FROM 1K TO 10K AND C19 FROM 0.022UF TO 0.001UF 4. J1 PART NUMBER CHANGED. 5. V3P3 TEST POINT ADDED 6. FUSE (F1) REMOVED 7. CHANGED D4 PART NUMBER AS PMEG3050BEP,115 8. ORING IC U12 AND ITS CIRCUITS REMOVED AND DIODE D6, D9 ADDED INSTEAD. 9. R74 VALUE CHANGED FROM 100K TO 10K 10. R61 DNL REMOVED 11. 22V 250mA BOOST CONVERTER (U9) CIRCUITS REMOVED
3.0	1. U14 INPUT VOLTAGE (16TH PIN) CHANGED FROM 24VDCIN TO 24VDC (AFTER DIODE D4) 2. R13 VALUE CHANGED FROM 0E TO 100K 3. C68 1uF ADDED FOR U3.21 PIN 4. C69 1uF ADDED FOR U3.14 PIN 5. R8 0603 0E RESISTOR ADDED INBETWEEN 24VDC AND VCC POWER OF U3 6. D7 ZENER DIODE (3SMBJ5935B-TP) ADDED IN THE VCC POWER LINE OF U3 AND MARKED AS DNL. 7. J7 CONNECTOR PITCH CHANGED FROM 2.54MM TO 5MM 8. C61 MOVED AFTER D4 DIODE AND ZENER DIODE(D10) "SMBJ24A-TR" ADDED AFTER D4 AND C60 REMOVED. 9. C67 COMPONENT VALUE CHANED FROM 0.1uF TO 1uF 10.ESD DIODE ADDED TO SBU1, SBU2, CC1 AND CC2 NETS IN J3. 11.SH1, SH2, SH3, SH4,SH5, SH6 CONNECTED THROUGH R, C TO GROUND 12.ESD DIODE ADDED TO D+, D- NETS IN J3. 13.ESD DIODE ADDED TYPE-C_VBUS NETS IN J3.
4.0	1. C75 ADDED. 2. MINOR TEXT CHANGES DONE. 3. I2C ADDRESS SELECTION TABLE ALSO UPDATED.
5.0	1. R66 1M 0603 PAD RESISTOR ADDED INBETWEEN SOURCE AND GATE OF Q2. 2. C75 10uF CHANGED FROM 0402 TO 0603 PACKAGE. 3. R22 VALUE CHANGED FROM 0E TO 330E.
6.0	1. 5-20V POWER STAGE REGULATOR CIRCUITS CHANGED IN PAGE1 AND USB PROVIDER POWER MONITORING CIRCUITS WERE ADDED. 2. D18,R66,R67,R68 WERE ADDED. 3. C30 VALUE CHANGED FROM 10uF TO 4.7uF. 4. R22-R29 VALUES WERE CHANGED. 5. ACROSS R65 TWO TEST POINTS ADDED.
7.0	1. U15 PART NUMBER CHANGD AS TS3704IPT. 2. DNL REMOVED FROM C52 AND C124. 3. R164 CHANGED FROM 15K TO 10K.

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