


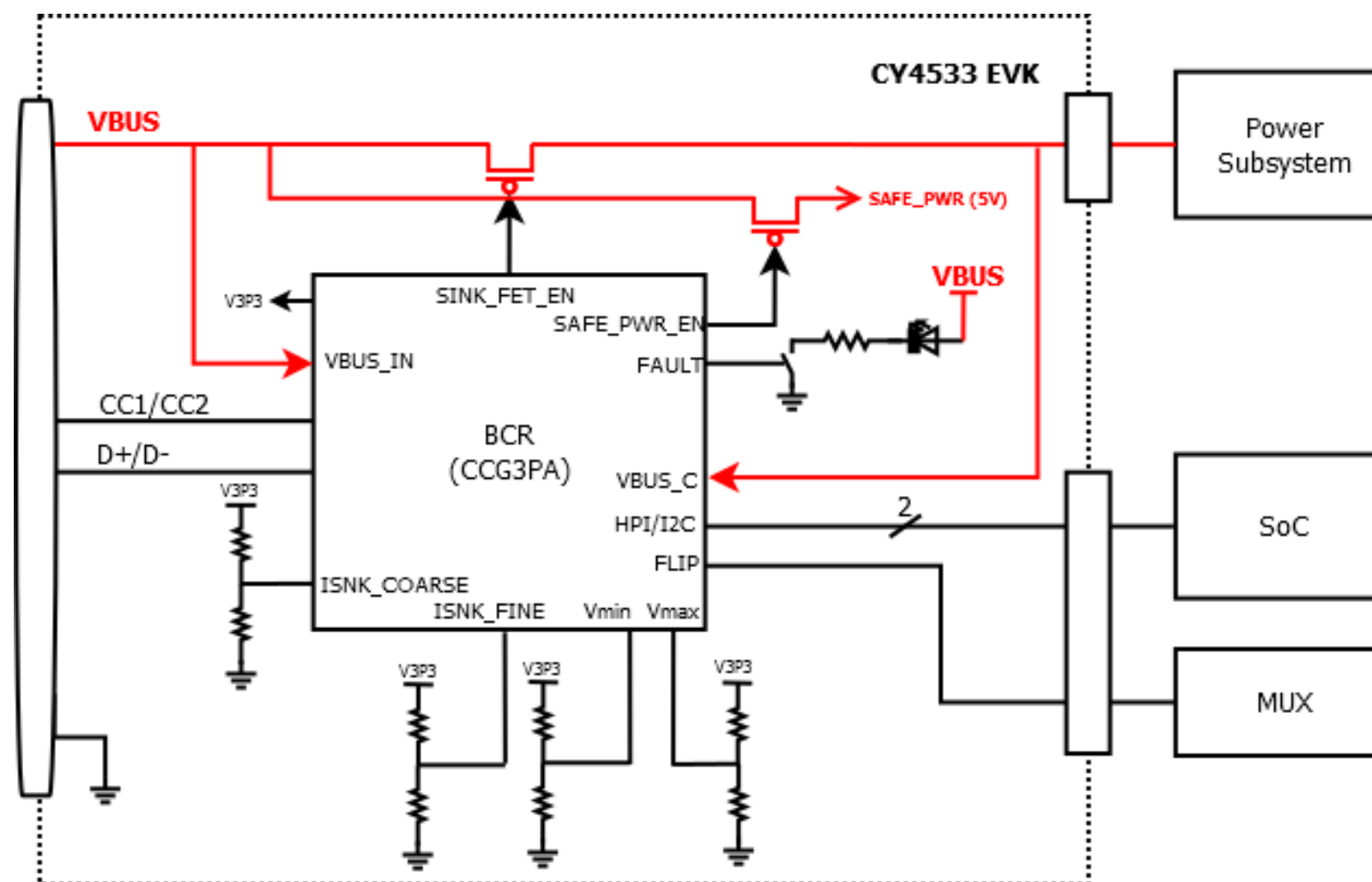
CY4533 BCR Evaluation Kit

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Drawing Numbers	
PCBA	121-60538-01
PCB	600-60538-01
FAB DRW	610-60538-01
ASSY DRW	620-60538-01
SCH DRW	630-60538-01

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CY4533 BLOCK DIAGRAM




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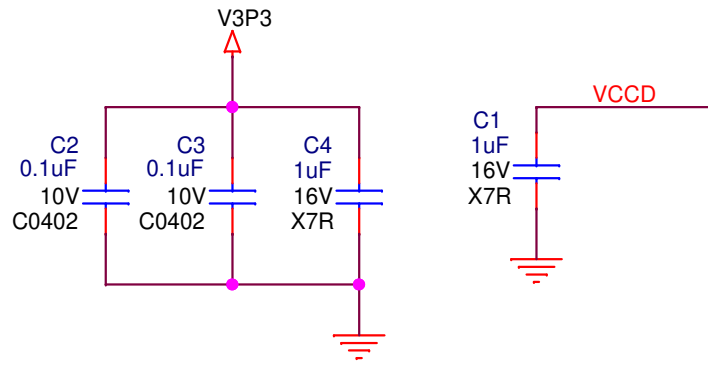
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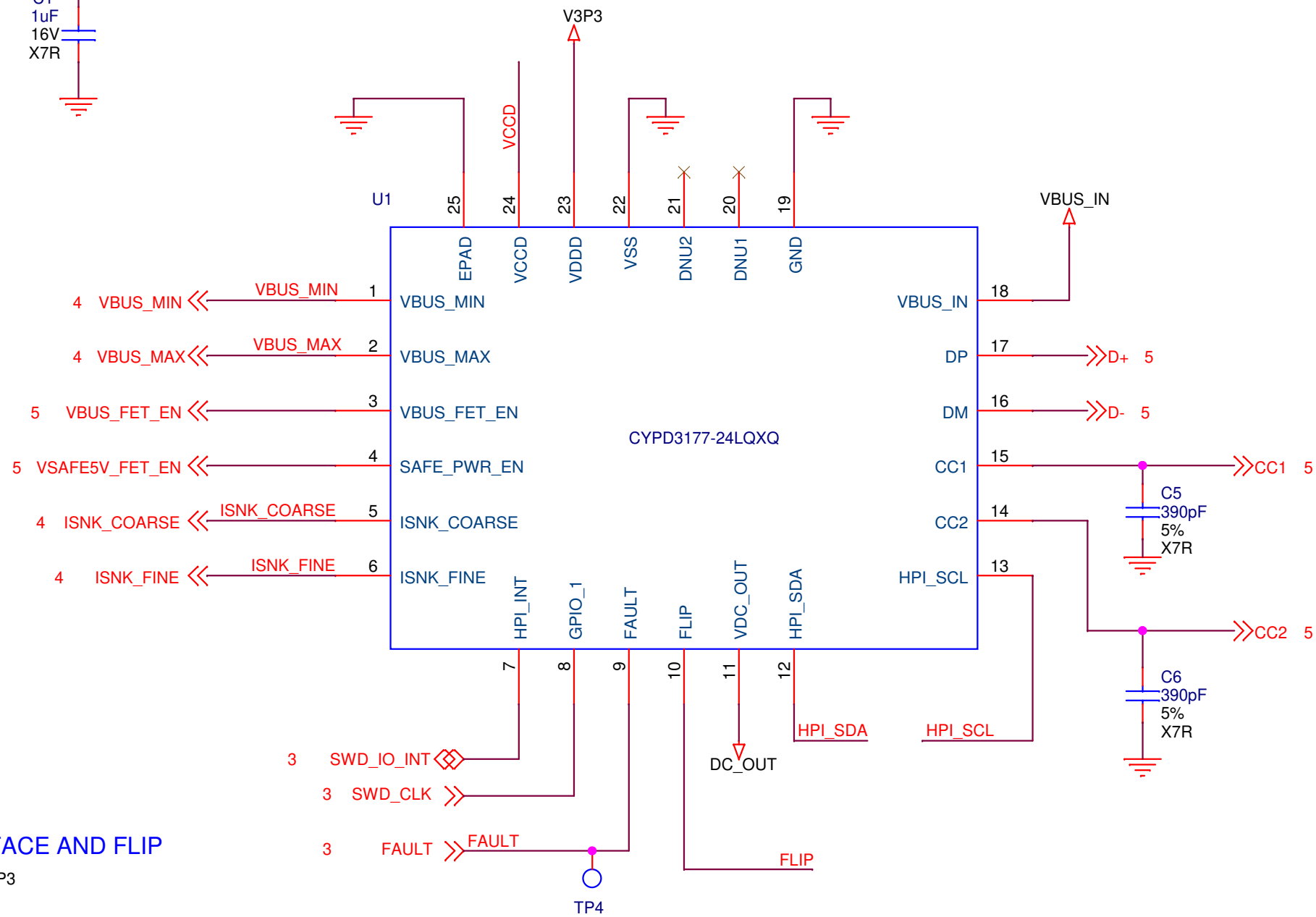
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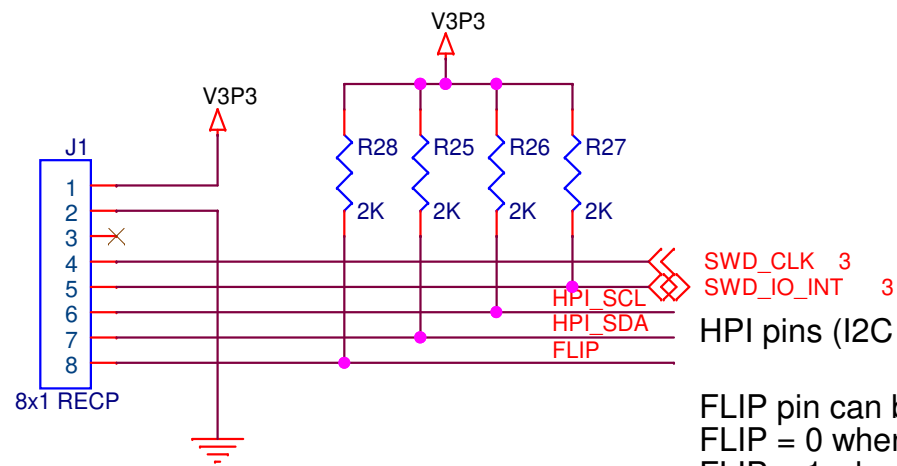
SUPPLY DECOUPLING CAPS



BCR Connections



GPIO HEADER, HPI INTERFACE AND FLIP



HPI pins (I2C Slave at address 0x08) can be connected to an SoC/MCU

FLIP pin can be connected to a MUX
 FLIP = 0 when Type-C Plug is upside-up
 FLIP = 1 when Type-C Plug is upside-down
 (Output is open drain: 0 or High-Z)



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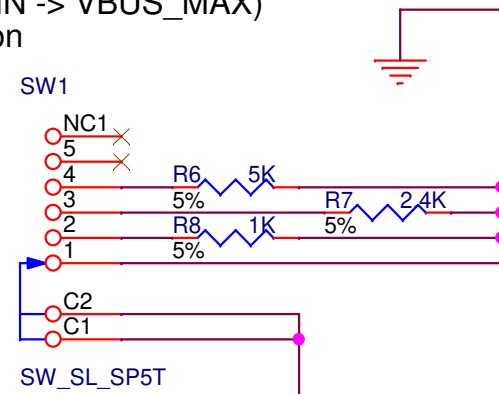
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VBUS VOLTAGE SELECTORS: VBUS_MAX and VBUS_MIN

Requested voltage = (VBUS_MIN -> VBUS_MAX)
= between 5V ~ rotary_sw_option

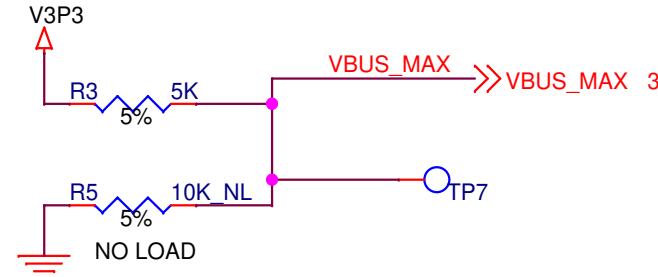
VBUS_MAX Rotary Switch Options

- Position 1 = 5V
- Position 2 = 9V
- Position 3 = 12V
- Position 4 = 15V
- Position 5 = 20V

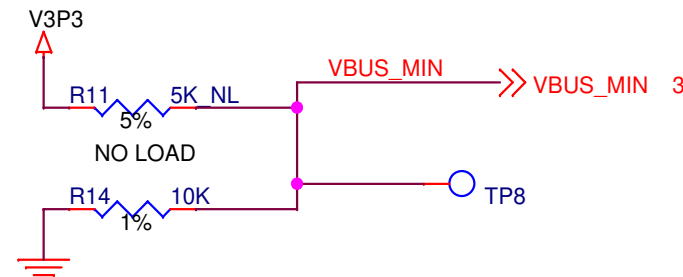


Part Number = SS-10-15SPE
Manufacturer = Nidec Copal Electronics

VBUS_MAX



VBUS_MAX is decided by the rotary switch

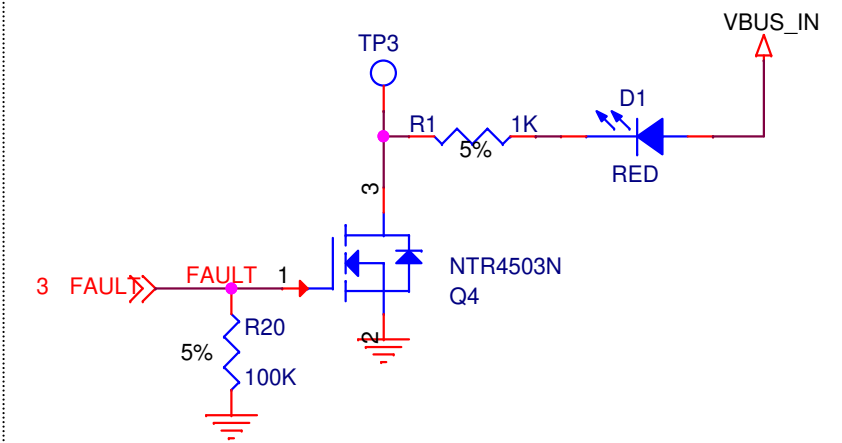


VBUS_MIN is set to 5V

VBUS_MIN and VBUS_MAX Resistor Options Table

V3P3 RATIO	0/6	1/6	2/6	3/6	4/6	5/6	6/6
VBUS_MAX, VBUS_MIN	5V	9V	12V	15V	19V	20V	
PULLUP (R3, R11)	none	5k	5k	5k	5k	0*	
PULLDOWN (R5, R14)	0*	1k	2.4k	5k	10k	none	

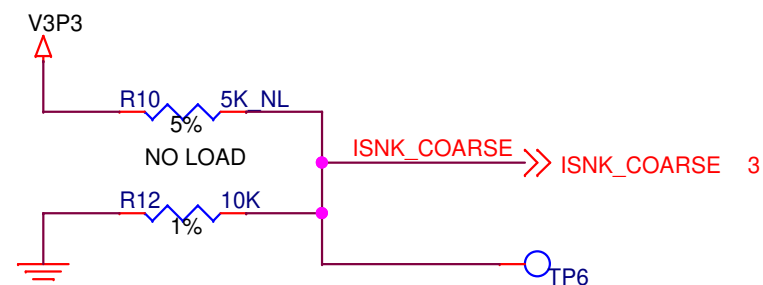
FAULT LED



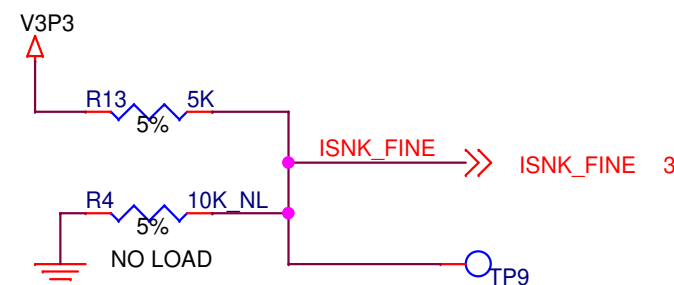
FAULT pin goes HIGH when
(a) Power adapter does not advertise compatible PDOs
(b) VBUS is out of (vbus_min, vbus_max) range

VBUS CURRENT SELECTORS: ISNK_COARSE and ISNK_FINE

Requested (RDO) current = ISNK_COARSE + ISNK_FINE = 900mA



ISNK_COARSE is set to 0A



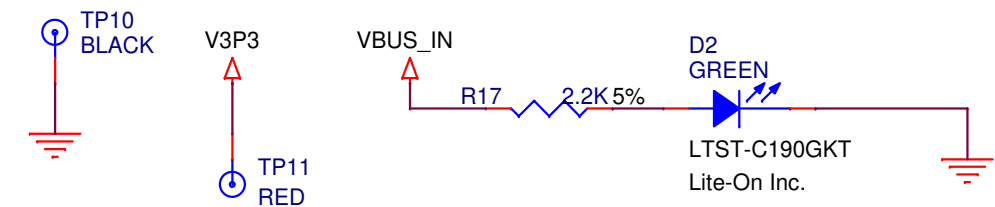
ISNK_FINE is set to +900mA

ISNK_COARSE and ISNK_FINE Resistor Options Table

V3P3 RATIO	0/6	1/6	2/6	3/6	4/6	>=5/6
ISNK_COARSE	0A	1A	2A	3A	4A	5A
ISNK_FINE	0mA	250mA	500mA	750mA	900mA	
PULLUP (R10, R13)	none	5k	5k	5k	5k	0*
PULLDOWN (R12, R4)	0*	1k	2.4k	5k	10k	none

* When pullup-pulldown combination is 0-none or none-0, use any resistor instead of 0-ohm

LED AND TEST POINTS

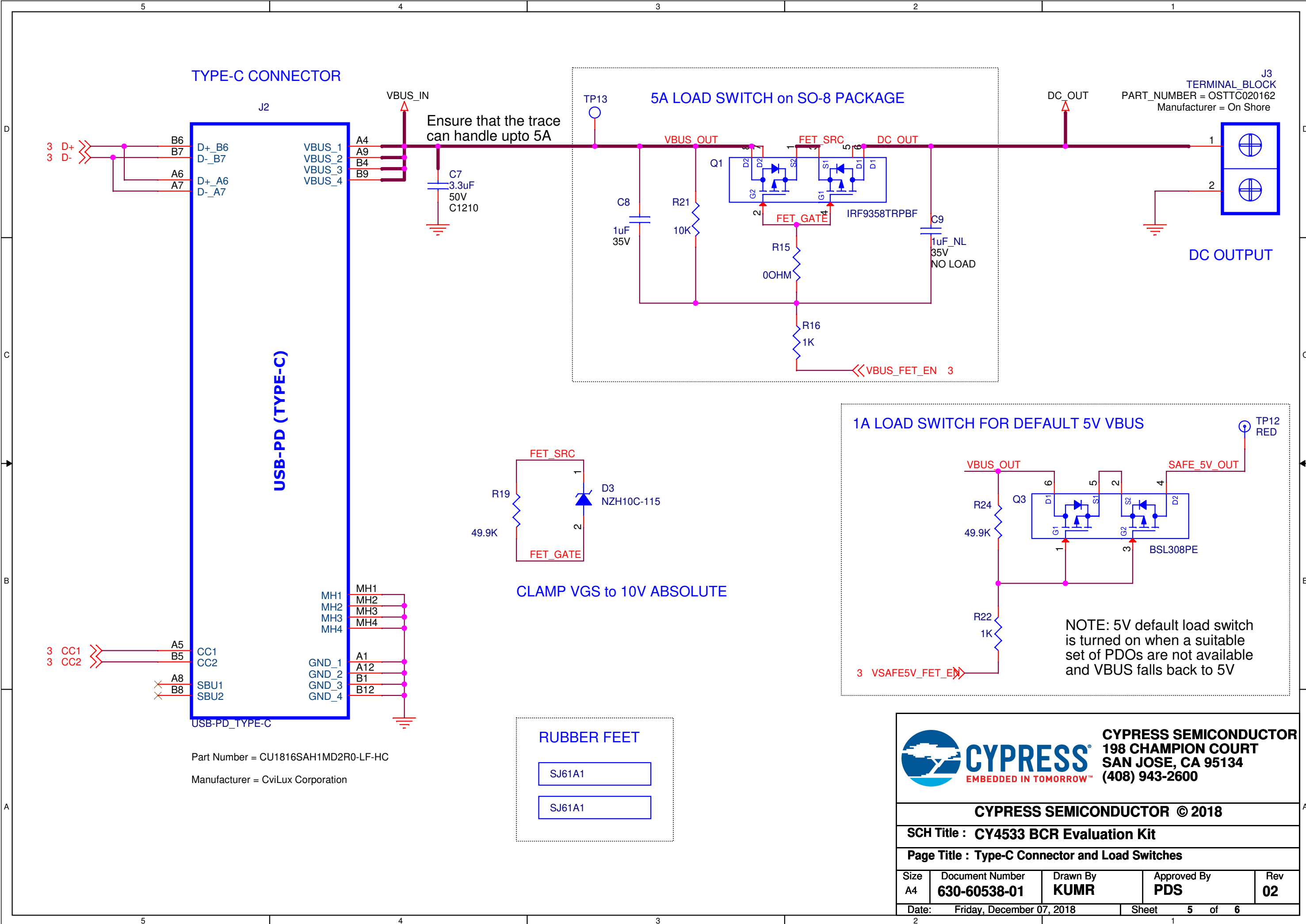


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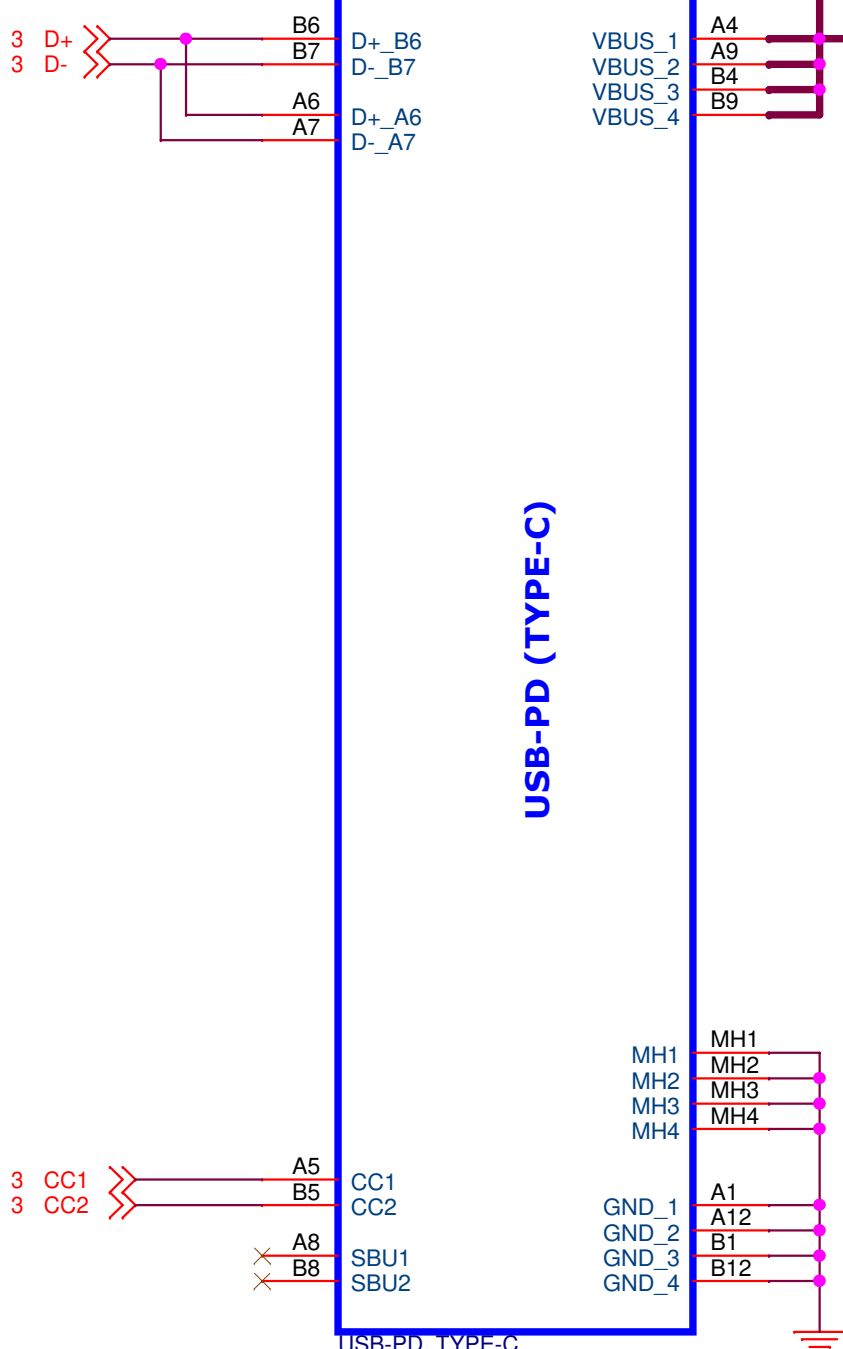
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TYPE-C CONNECTOR

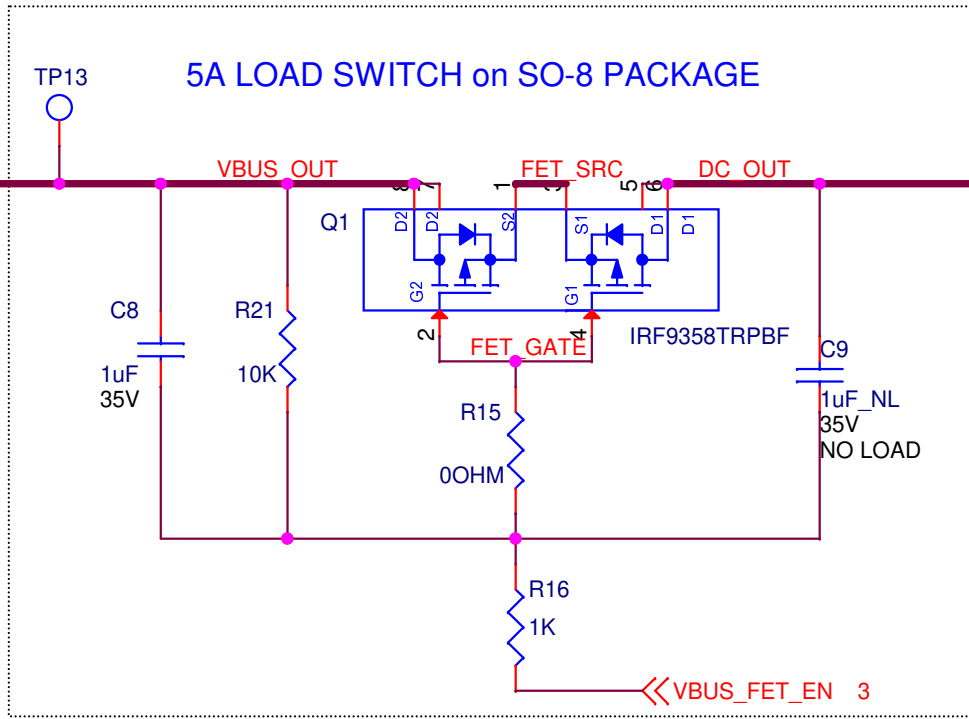
J2



USB-PD_TYPE-C

Part Number = CU1816SAH1MD2R0-LF-HC
 Manufacturer = CviLux Corporation

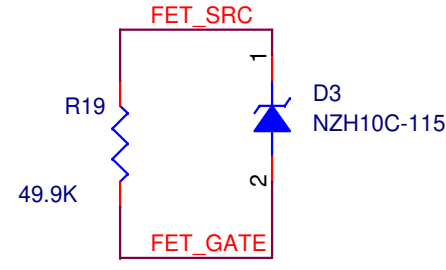
Ensure that the trace can handle up to 5A



5A LOAD SWITCH on SO-8 PACKAGE

J3
 TERMINAL_BLOCK
 PART_NUMBER = OSTTC020162
 Manufacturer = On Shore

DC OUTPUT

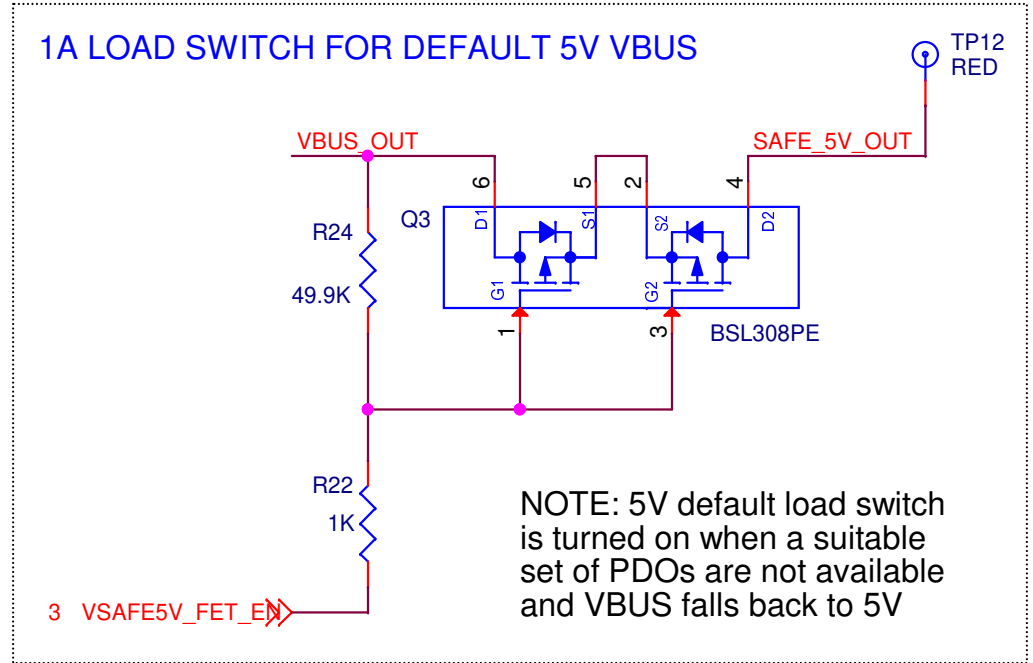


CLAMP VGS to 10V ABSOLUTE

RUBBER FEET

- SJ61A1
- SJ61A1

1A LOAD SWITCH FOR DEFAULT 5V VBUS



NOTE: 5V default load switch is turned on when a suitable set of PDOs are not available and VBUS falls back to 5V

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REVISION HISTORY

REV	DESCRIPTION OF CHANGE	DATE
01	Internal release of the CY4533 EVK schematic	2018/09/24
02	Change P-FET to IRF9358TRPBF. Add RC network on drain-source pins of FET. Change BCR and rubber feet P/N	2018/12/07



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