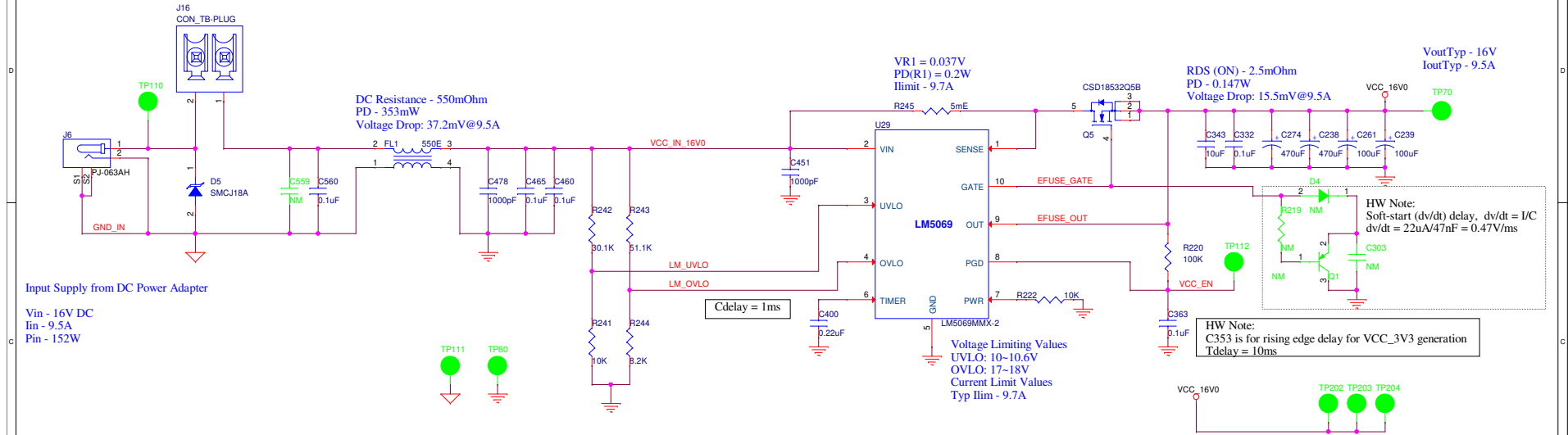


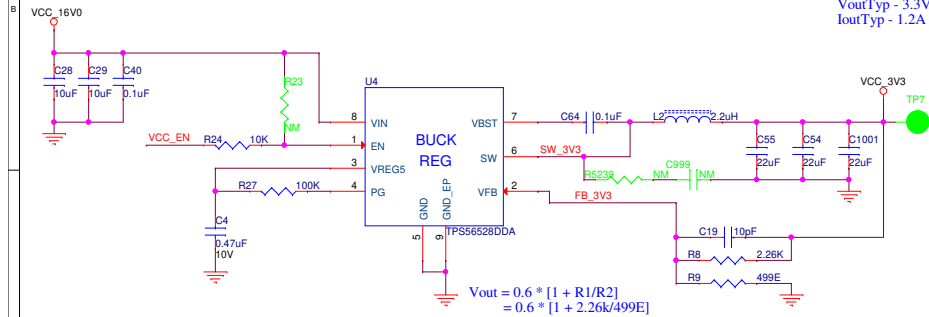
16V - 6.2 A Input Protection Circuit



3V3 BUCK REGULATOR

VinTyp - 16V
IinTyp - 0.209A

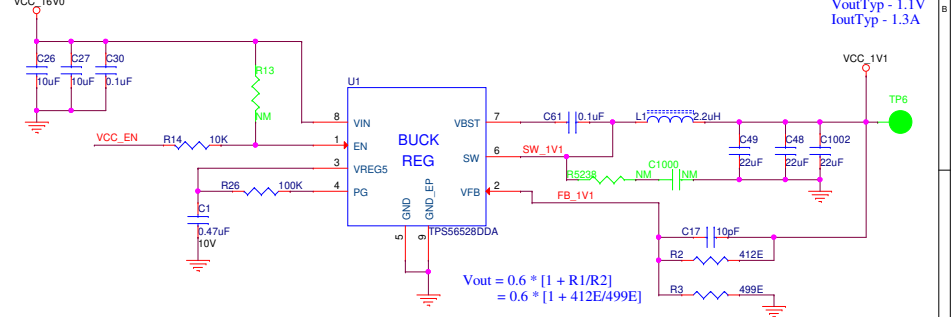
VoutTyp - 3.3V
IoutTyp - 1.2A



1V1 BUCK REGULATOR

VinTyp - 16V
IinTyp - 0.091A

VoutTyp - 1.1V
IoutTyp - 1.3A



JVCJ DOCK



A3

Title : MAIN SUPPLY PROTECTION

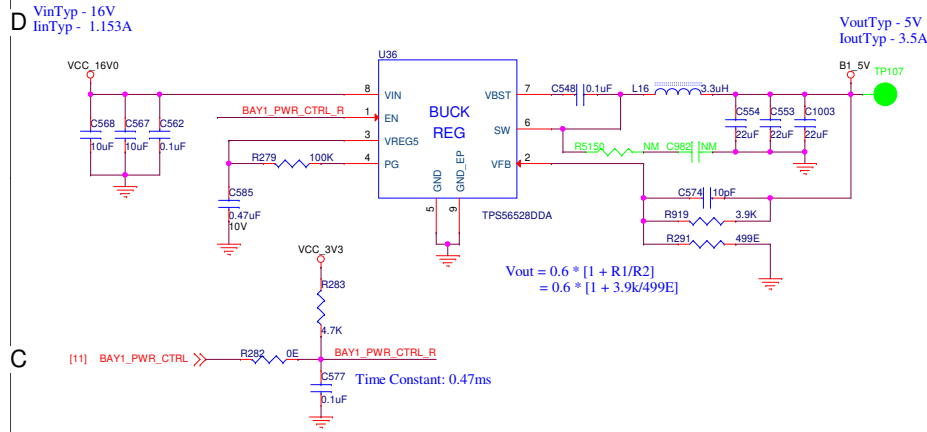
Fab No : 501-1-03918

Rev: A1

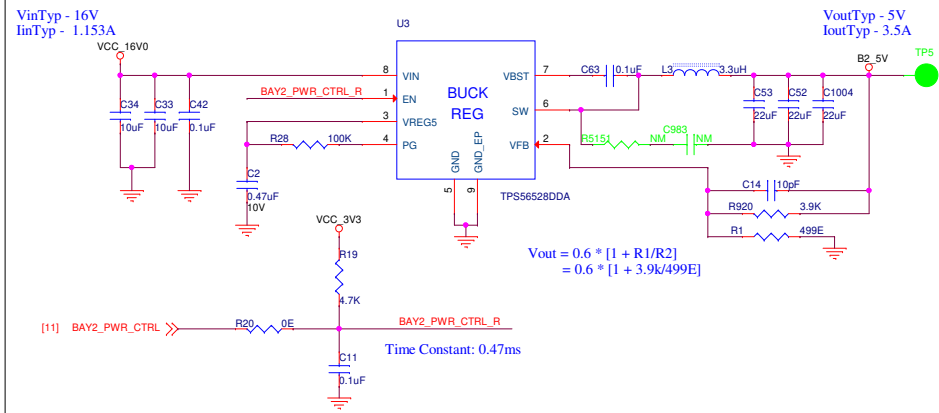
Asy No : 701-1-04855

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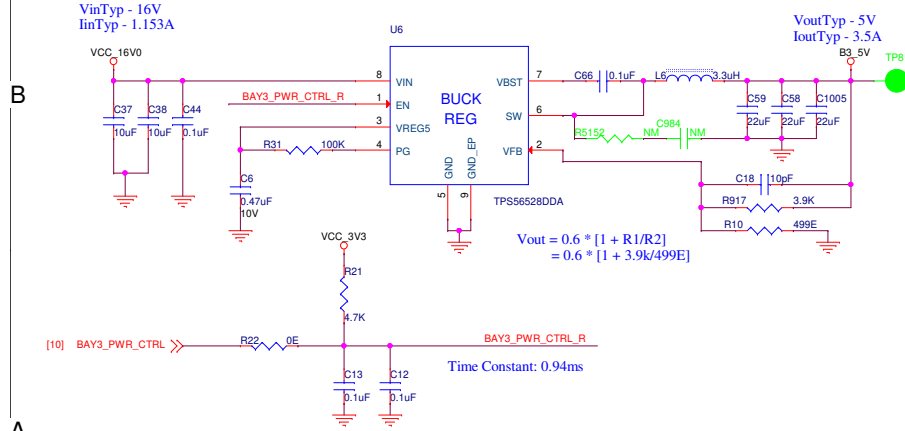
5 4 USB Power Buck Regulator : 5V @ 3A - BAY1



3 2 1 USB Power Buck Regulator : 5V @ 3A - BAY2

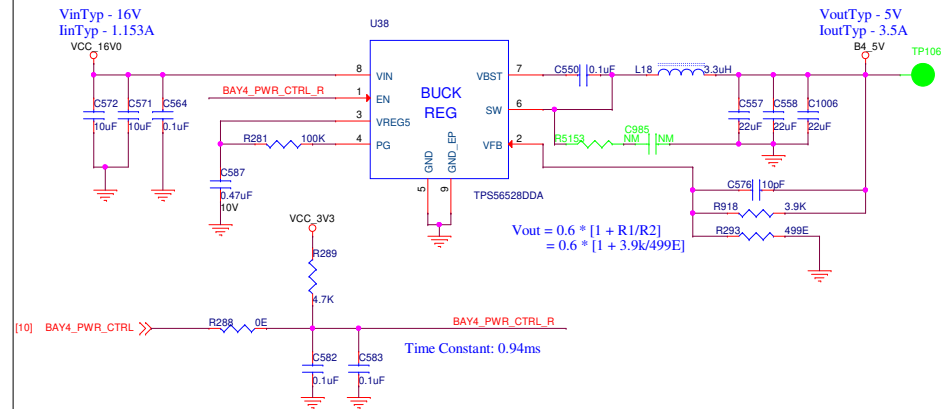


USB Power Buck Regulator : 5V @ 3A - BAY3



CAD Note : Place C12 and C13 near to each other

USB Power Buck Regulator : 5V @ 3A - BAY4

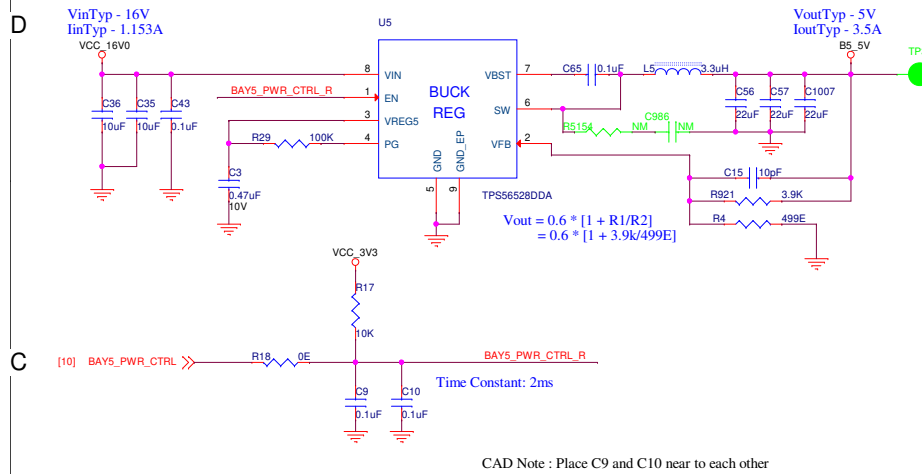


CAD Note : Place C582 and C583 near to each other

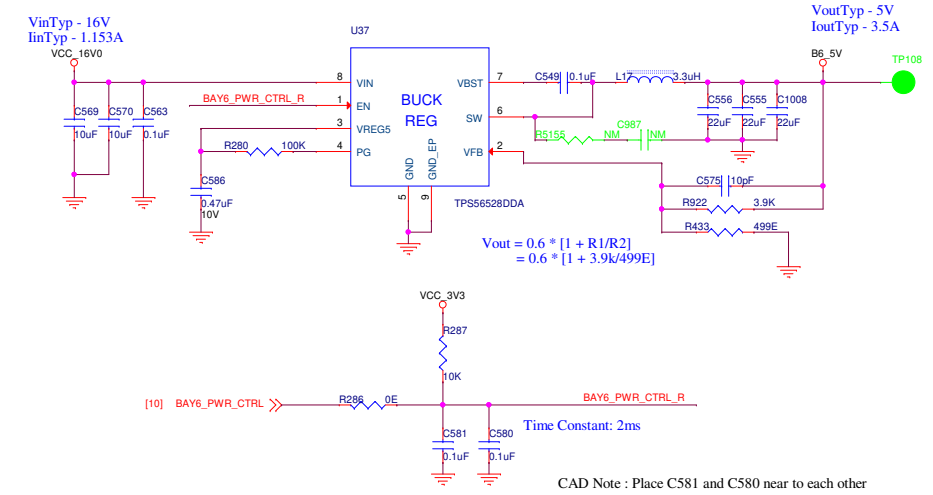
JVCJ DOCK

	A3	Title : USB POWER BUCK CONVERTER - I	
	Fab No : 501-1-03918		Rev: A1
	Asy No : 701-1-04855		Sheet 8 of 32

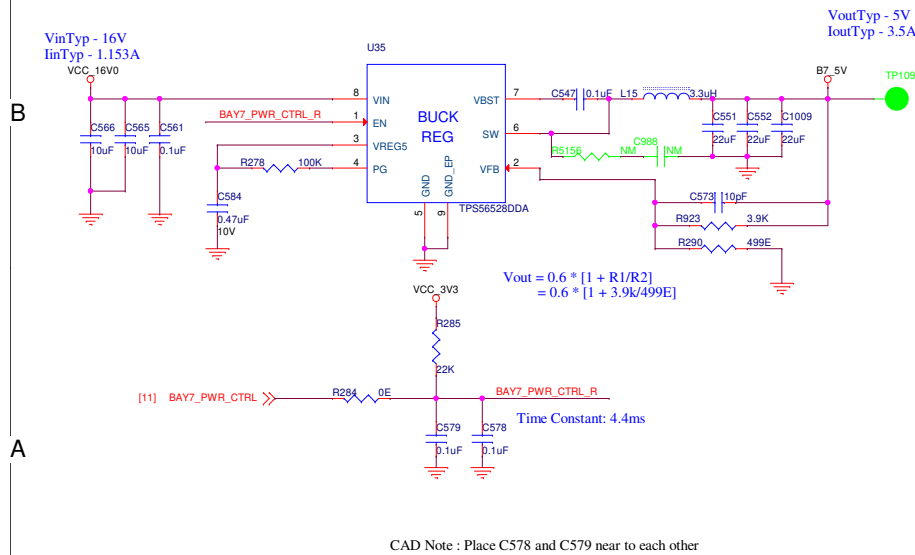
USB Power Buck Regulator : 5V @ 3A - BAY5



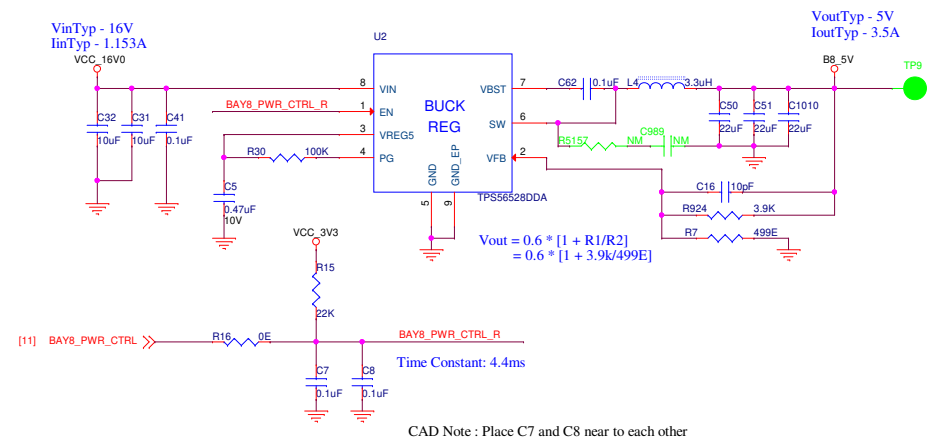
USB Power Buck Regulator : 5V @ 3A - BAY6



USB Power Buck Regulator : 5V @ 3A - BAY7



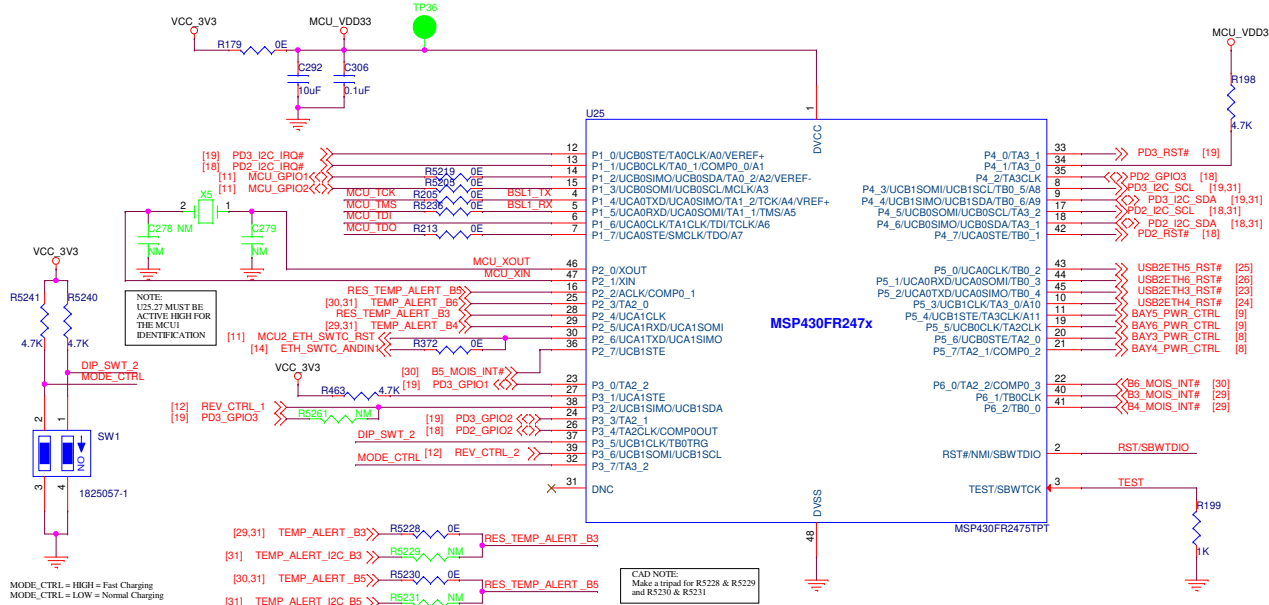
USB Power Buck Regulator : 5V @ 3A - BAY8



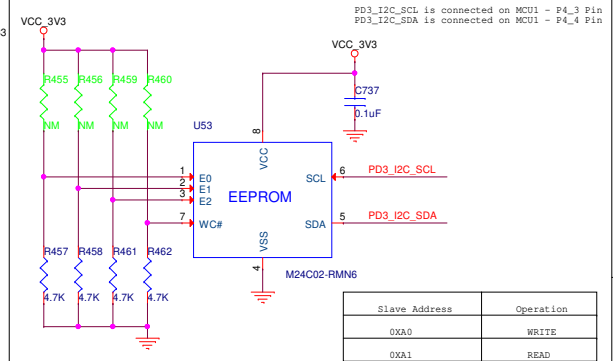
JVCJ DOCK

	A3	Title : USB POWER BUCK CONVERTER - II	
	Fab No : 501-1-03918		Rev: A1
	Asy No : 701-1-04855		Sheet 9 of 32

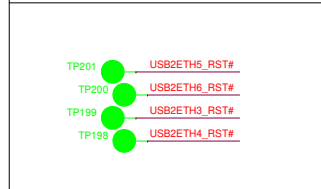
MCU Interface - 1



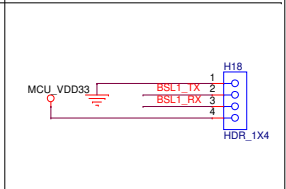
EEPROM



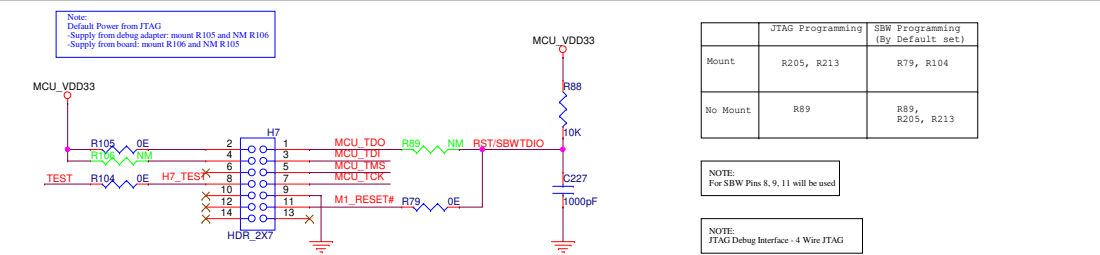
USB2ETH Reset Test Points



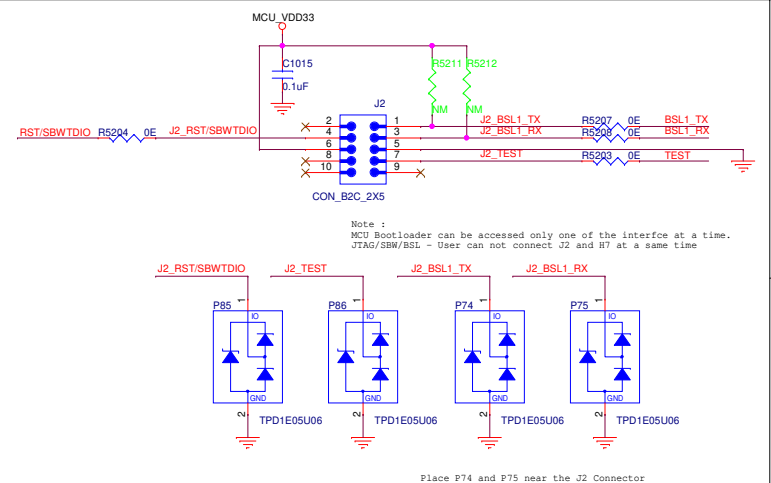
Debug UART



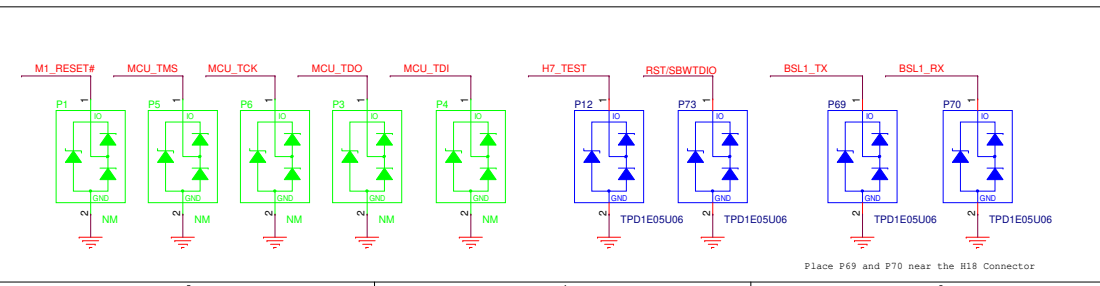
JTAG Programming Header



BSL Programming Header



ESD Protection



VVDN TECHNOLOGIES

Title : MCU SECTION

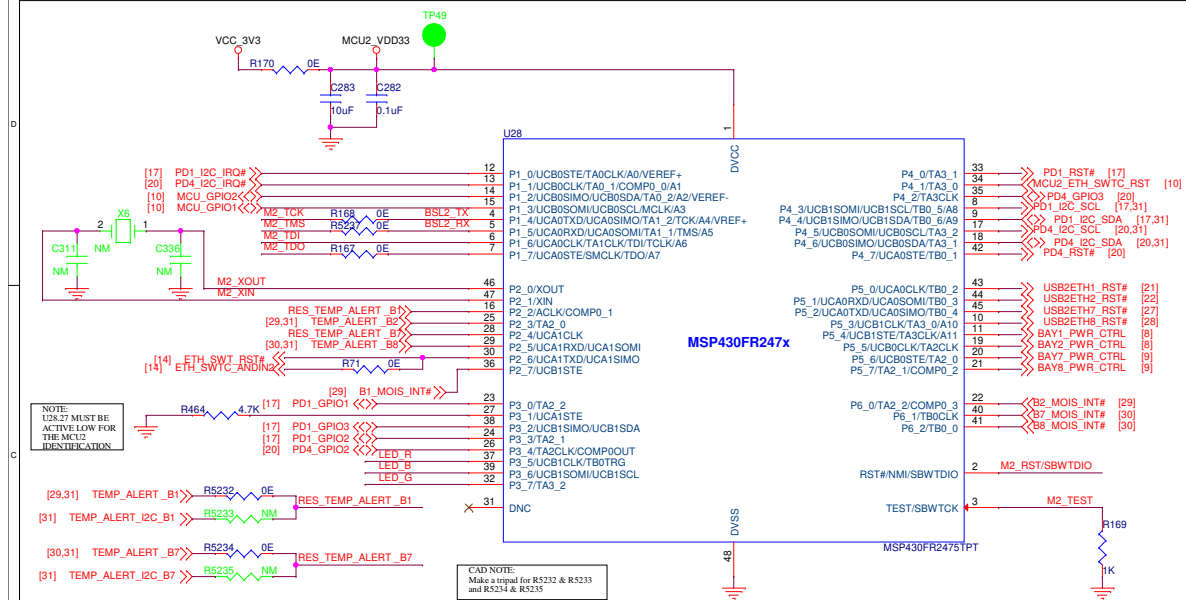
Fab No : 501-1-03918

Rev: A1

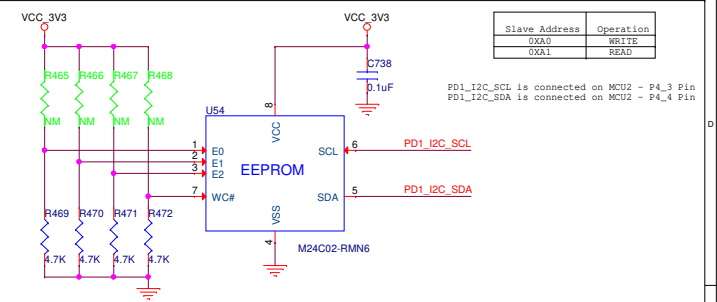
Asy No : 701-1-04855

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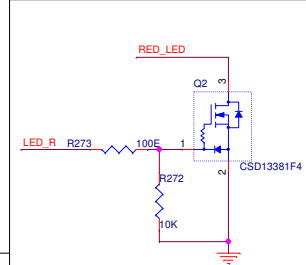
MCU Interface - 2



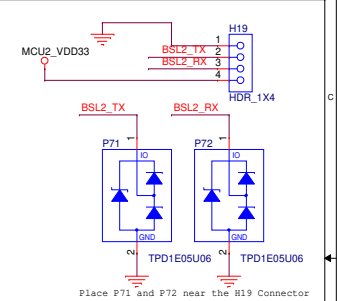
EEPROM



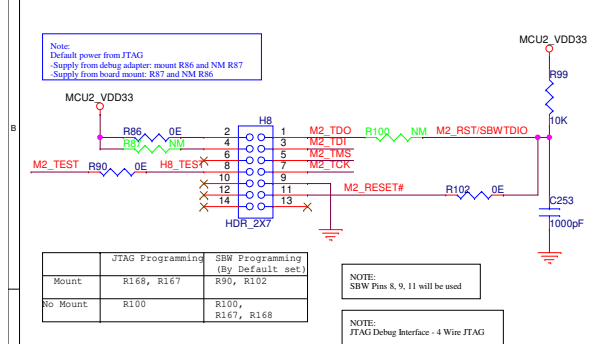
Status RGB LED



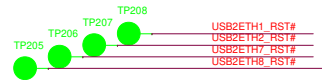
Debug UART



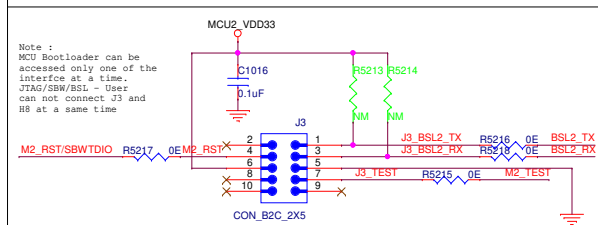
JTAG Programming Header



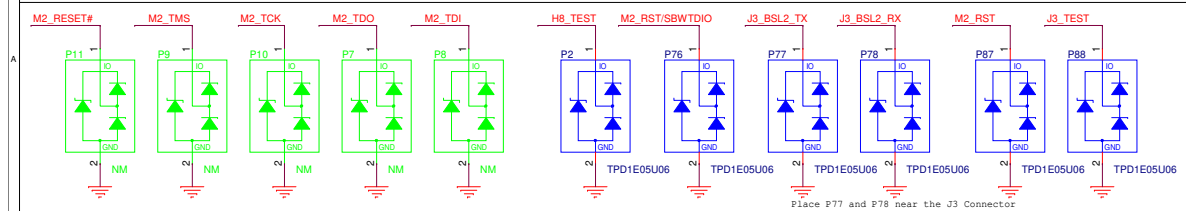
USB2ETH Reset Test Points



BSL Programming Header



ESD Protection



JVCJ DOCK



A3	Title : MCU SECTION - 2		
Fab No : 501-I-03918			Rev: A1
Asy No : 701-I-04855		Sheet	11 of 32

USB PD 3.0 Controller Interface - I

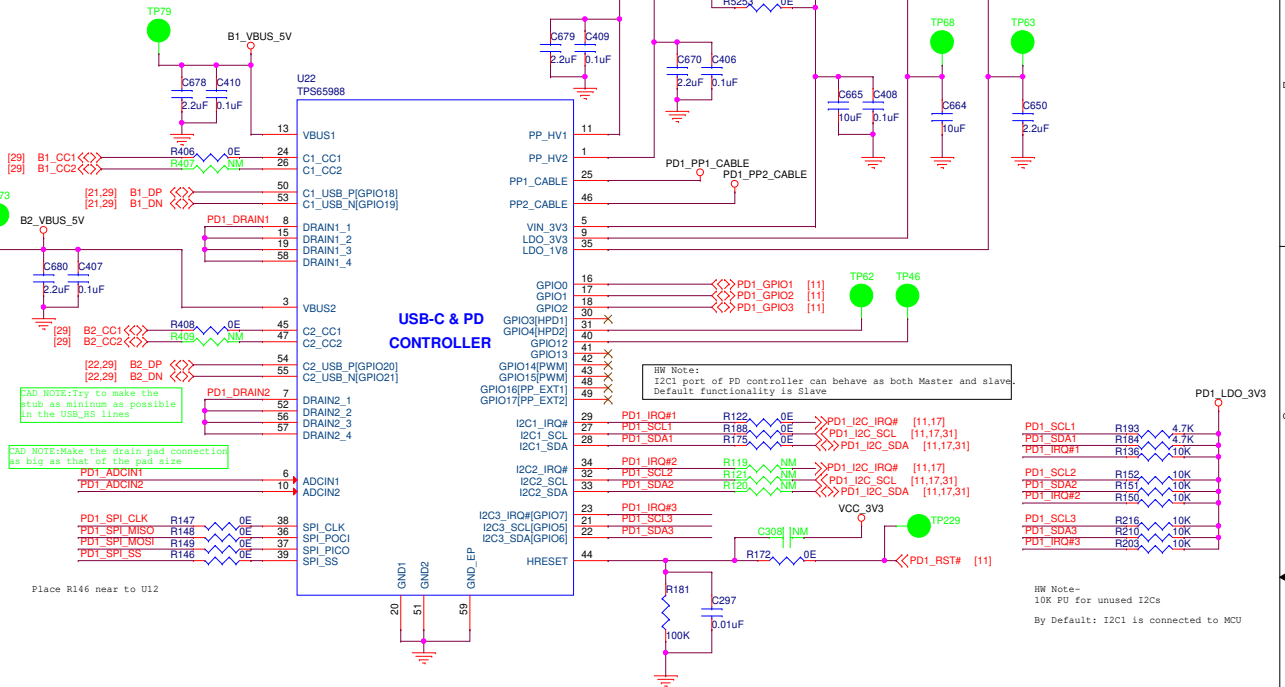
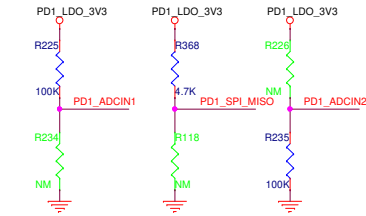
Boot and I2C Slave Addr Configuration

ADCIN1 = 1 and SPI_MISO = 1
Dead Battery Mode -> BP_NoResponse->Safe Configuration

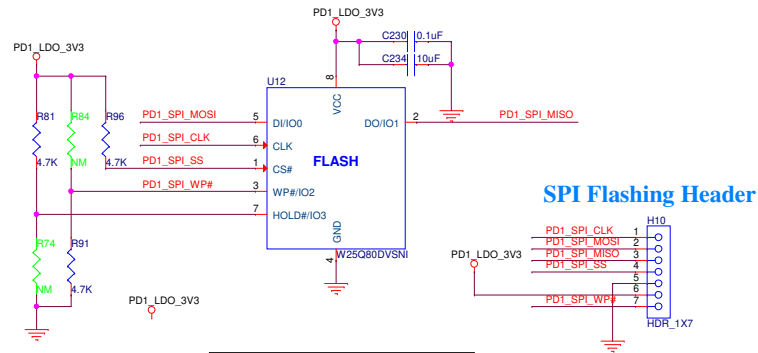
SPI_MISO	DIV = R2/(R1+R2)	ADCIN1	Dead Battery Mode	Device Configuration
1	Div min	Div max	BP_NoResponse	Safe Configuration
	0.00	0.18		

No power switch is enabled and the device does not start-up until VIN_3V3 is present

DIV = R2/(R1+R2)		I2C1 Address	
Div min	Div max	Port 1	Port 2
Short ADCIN2 to GND		0x20	0x24
0.20	0.38	0x21	0x25
0.40	0.58	0x22	0x26
Short ADCIN2 to LDO_3V3		0x23	0x27

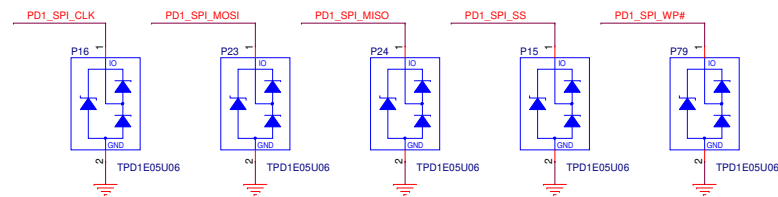


SPI NOR Flash

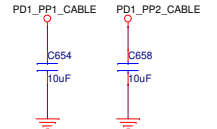


HW Note: Connect PD1_SPI_WP# signal with PD1_LDO_3V3 during flashing the device

ESD Protection



HW Note: Application power delivery is 2A, active cable not required for USB



JVCJ DOCK

	A3	Title : USB PD CONTROLLER I	
	Fab No : 501-1-03918		Rev: A1
	Asy No : 701-1-04855		Sheet 18 of 32

ADGIN1	Dead Battery	Down

SPI_MISO	ADCIN1 DIV = R2/(R1+R2)		Dead Battery Mode	Device Configuration
1	Div min	Div max	BP_NoResponse	Safe Configuration
	0.00	0.18		

DIV - R2/(R1+R2)		I2C1 Address	
Div min	Div max	Port 1	Port 2
Short ADCIN2 to GND		0x20	0x24
0.20	0.38	0x21	0x25
0.40	0.58	0x22	0x26
Short ADCIN2 to LDO_3V3		0x23	0x27



Pin configuration diagram for the PD2 module. The diagram shows a 7-pin header labeled H12 and HDR_1X7. The pins are connected as follows:

- Pin 1: PD2_SPI_CLK
- Pin 2: PD2_SPI_MOSI
- Pin 3: PD2_SPI_MISO
- Pin 4: PD2_SPI_SS
- Pin 5: PD2_SPI_WP#
- Pin 6: PD2_LDO_3V3
- Pin 7: Ground



 VVDN TECHNOLOGIES	A3	Title : USB PD CONTROLLER II		
	Fab No : 501-1-03918			Rev: A1
	Asy No : 701-1-04855		Sheet	19 of 32

USB PD 3.0 Controller Interface - III

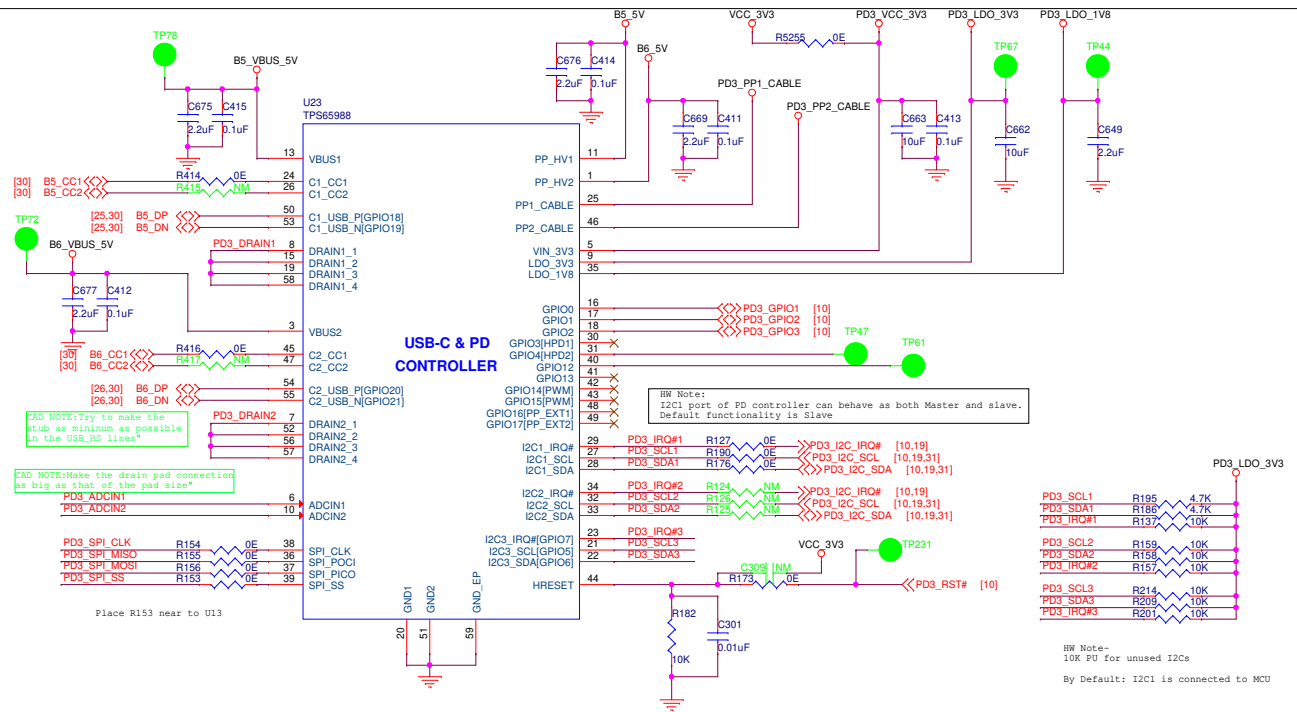
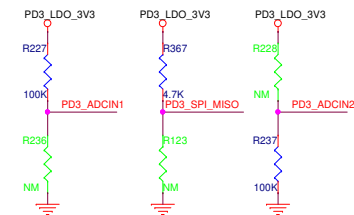
Boot and I2C Slave Addr Configuration

ADCIN1 = 1 and SPL_MISO = 1
Dead Battery Mode -> BP_NoResponse->Safe Configuration

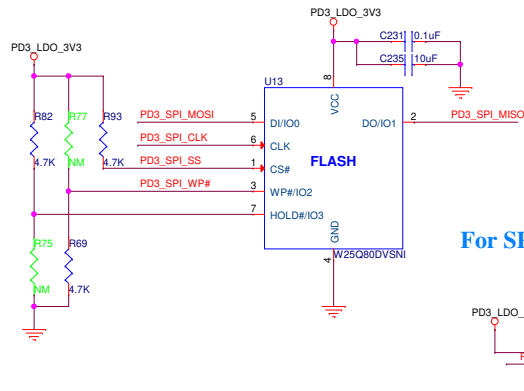
SPL_MISO	DIV_min	DIV_max	Dead Battery Mode	Device Configuration
1	0.00	0.18	BP_NoResponse	Safe Configuration

No power switch is enabled and the device does not start-up until VIN_3V3 is present

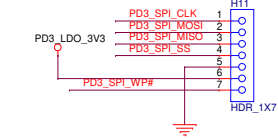
DIV = R2/(R1+R2)		I2C1 Address	
Div_min	Div_max	Port 1	Port 2
Short ADCIN2 to GND		0x20	0x24
0.20	0.38	0x21	0x25
0.40	0.58	0x22	0x26
Short ADCIN2 to LDO_3V3		0x23	0x27



SPI NOR Flash

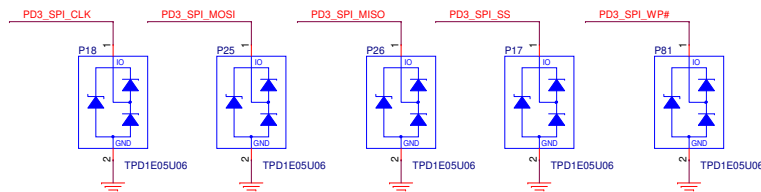


For SPI Flash Programming

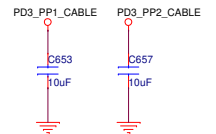


HW Note: Connect PD3_SPI_WP# signal with PD3_LDO_3V3 during the Flashing the device

ESD Protection



HW Note: Application power delivery is 2A, active cable not required for USB



JVCJ DOCK

	A3	Title : USB PD CONTROLLER III	
	Fab No : 501-1-03918		Rev: A1
	Asy No : 701-1-04855		Sheet 20 of 32

A3	Title : USB PD CONTROLLER IV		
Fab No : 501-1-03918			Rev: A1
Asy No : 701-1-04855		Sheet	21 of 32