

CONTROL CARD DESIGN

TMS320F28374DPTPT

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03	Microcontrooler, Crystal Oscillator, OV&UV, Filter

Note:

Total number of Controller pins 176. Total number of Connector pins 128. Controller pins should not be connected to Connector

Controller Pins	No.Pins
Power Pins	41
GND Pins	6
GPIO Pins	97
ADC	20
JTAG	5
FLT	2
Others	5
Total	176

Connector Pins	No.Pins
Power Pins	6
GND Pins	8
GPIO Pins	94
ADC	20
Total	128

Controller Pins	No.Pins
Power Pins	41
GND Pins	6
JTAG	5
FLT	2
Others	4
GPIO Pins	4
Total	62

EXT_5V0 - External voltage supply
VDD_3V3 - 3.3V Flash voltage supply (VDD3VFL)
VDD_1V2 - 1.2V LDO o/p for digital logic voltage
VDD_MCU_3V3 - 3.3V to uC digital I/O voltage supply(VDDIO)
VDDA_MCU_3V3 - 3.3V to uC analog voltage supply(VDDA)
VDDOSC_MCU_3V3 - 3.3V to uC on-chip crystal oscillator (VDDOSC)
VDD_MCU_1V2 - 1.2V to uC digital logic voltage supply(VDD)

Title			CONTROL CARD DESIGN
Size	Number	Revision	
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Date:	12/15/2025	Sheet of	
File:	C:\Users\...\Introduction.SchDoc	Drawn By:	Anusha Saunshi

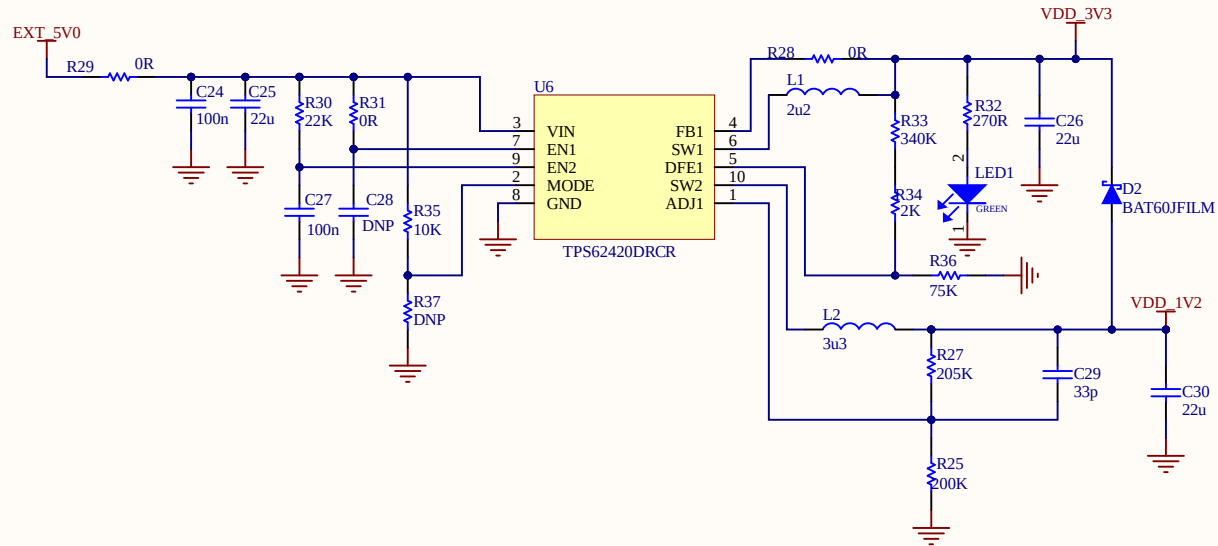
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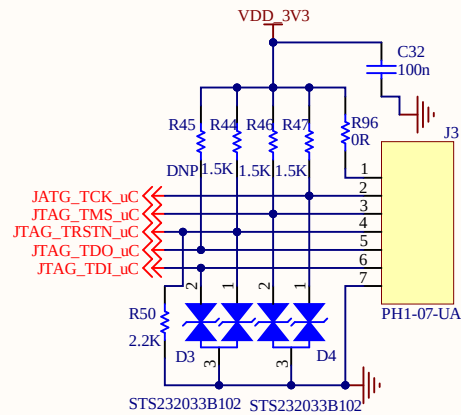
B

D

Controller Power Supply

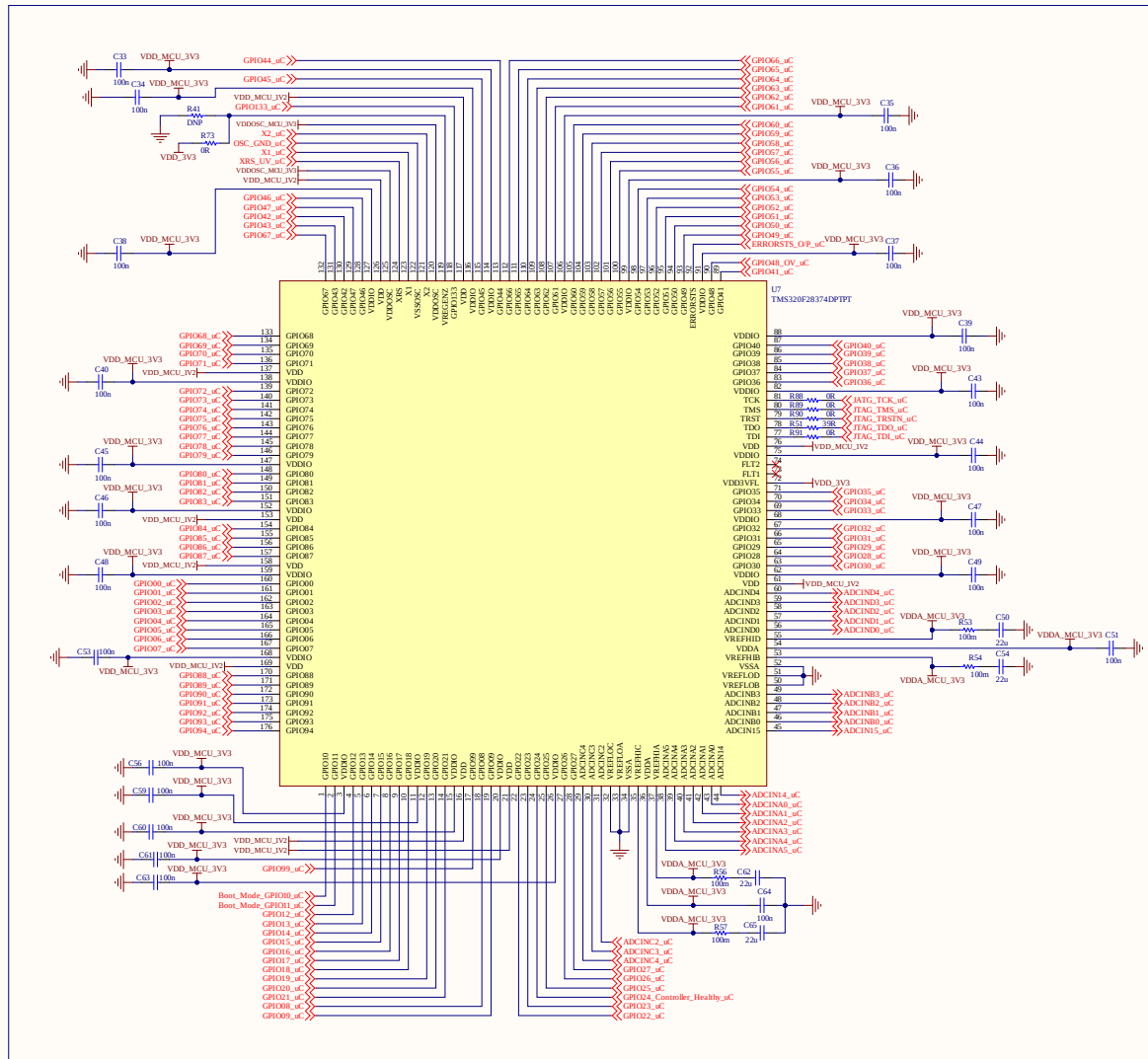


JTAG Connector

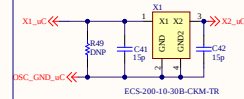


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File:	C:\Users\...\Power.SchDoc	Drawn By: Anusha Saunshi

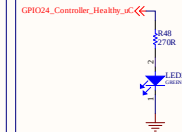
CONTROLLER



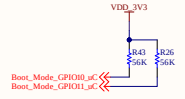
Crystal_Oscillator



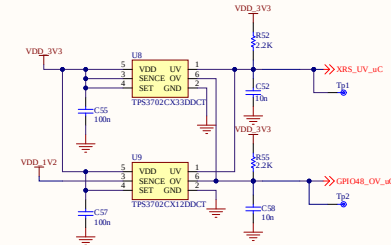
Controller Healthy and Fault Indication



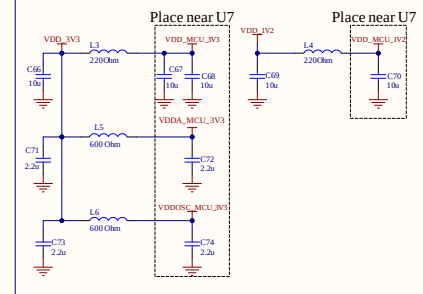
Boot Mode Selection



VDD_3V3 OV&UV Monitoring



Controller Power Supply Filter Circuit



Title		
CONTROL CARD DESIGN		
Size A2	Number 04	Revision 0.2
Date 12/15/2025	Sheet of C:\Users\A\Microcontroller\SchDoc	Drawn By: <i>Amisha Saumbi</i>