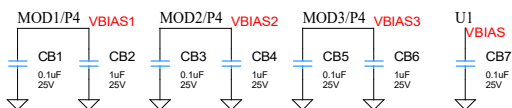
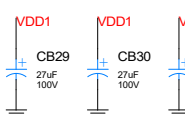
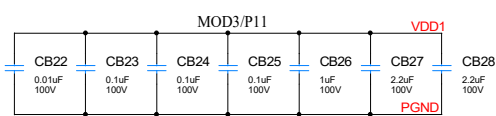
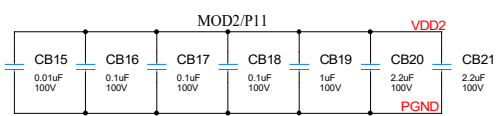
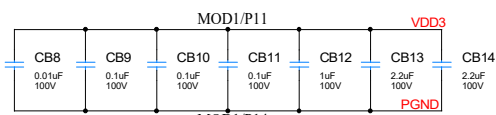


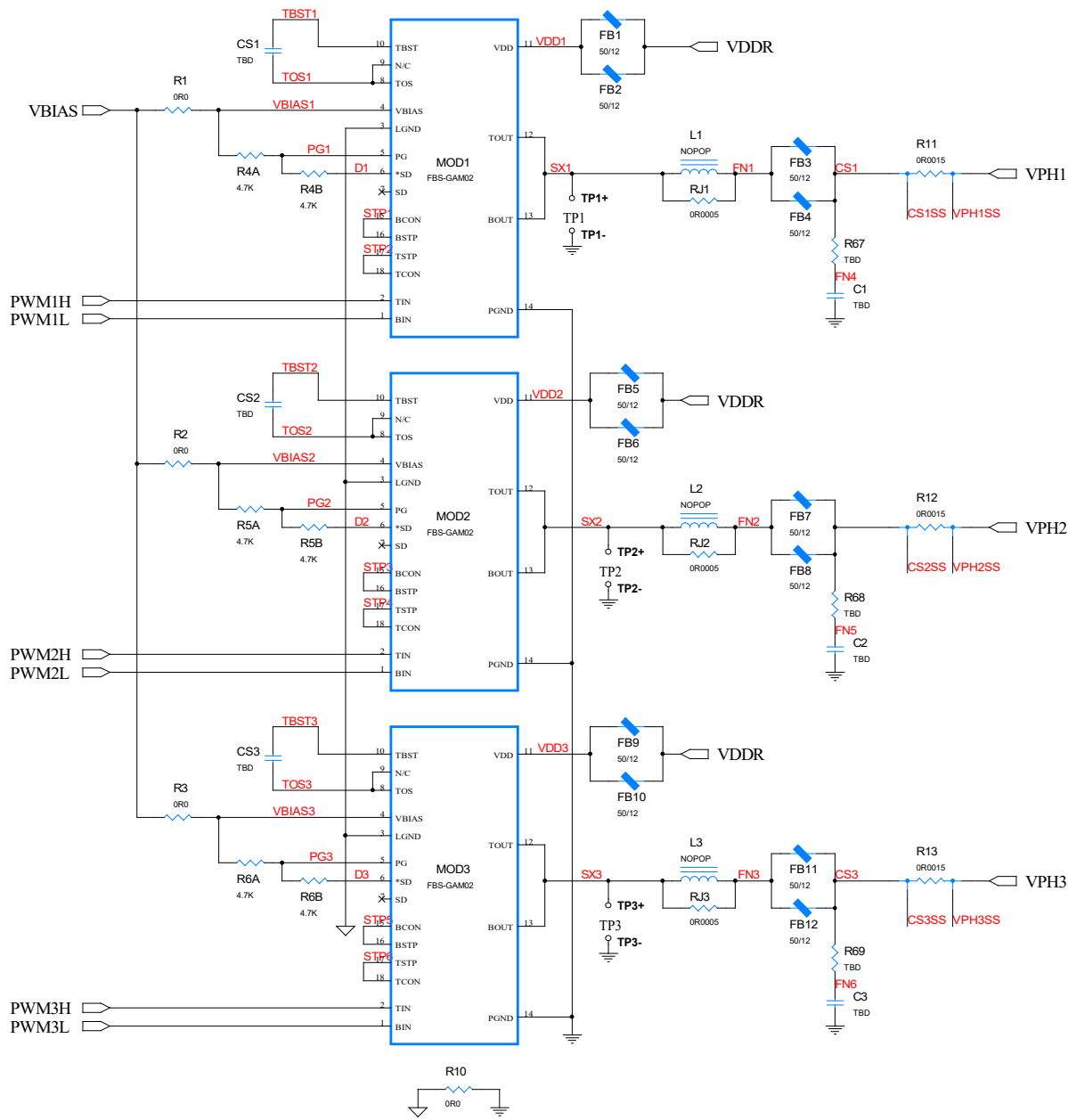
Power Good Indicators



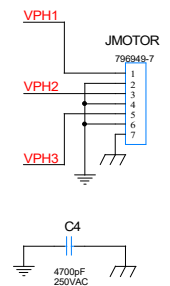
Logic Bypass Capacitors



VDD Bypass Capacitors

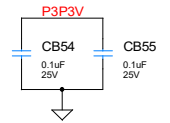
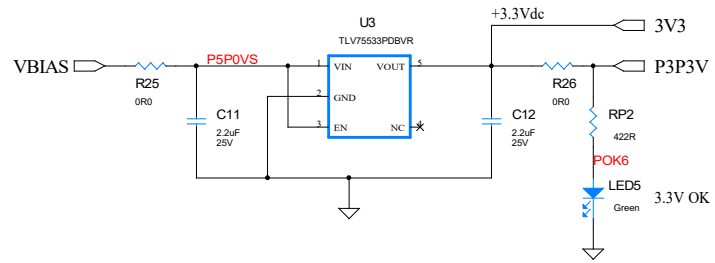
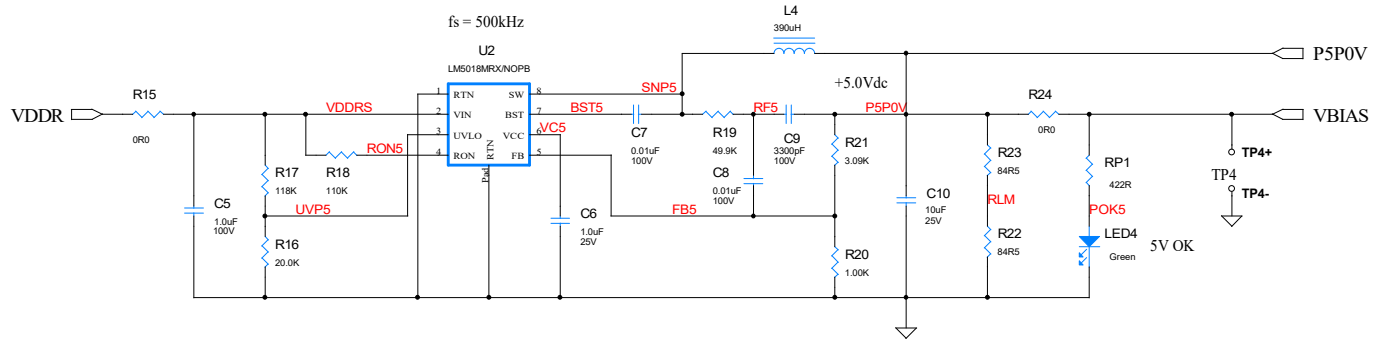
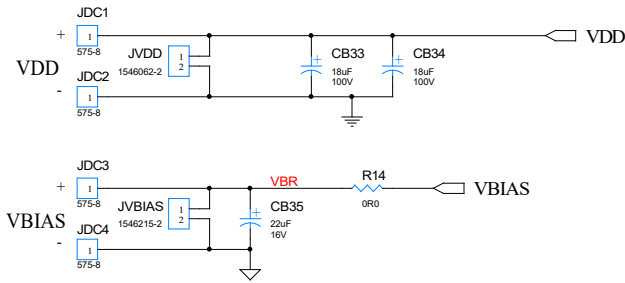


Three-Phase Half-Bridge Power Driver Stage



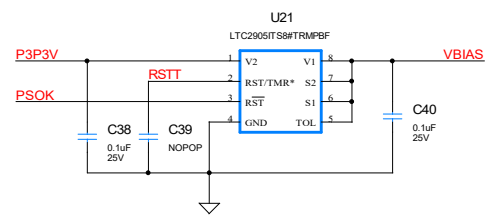
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<b>EPC Space LLC</b>		
17 Parkridge Road, Unit E		
Haverhill, MA 01835		
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Title		
<b>FBS-GAM02 Motor Driver Demo Board</b>		
Size	Document Number	Rev
C	Analog Motherboard	E4
Date:	Thursday, March 28, 2024	Sheet 1 of 5

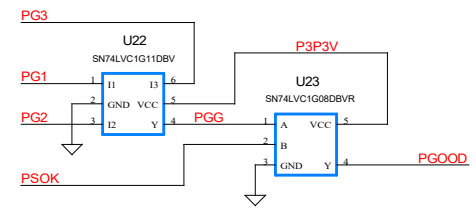


Motherboard Power Supplies

Logic Bypass Capacitors



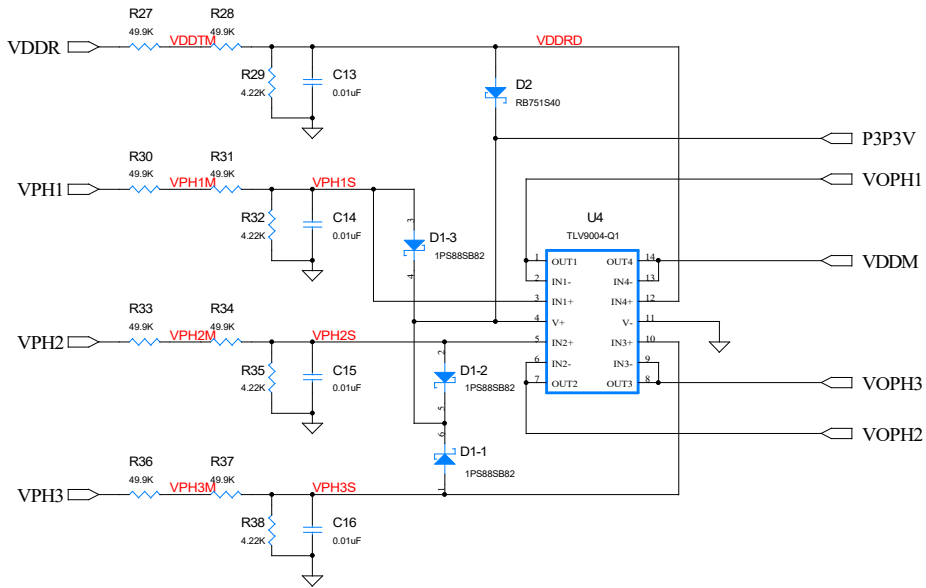
Power Supply Monitor



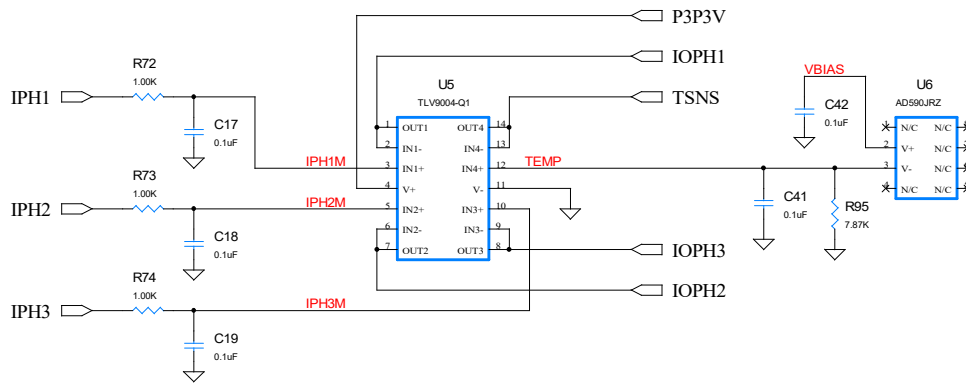
Power Good Logic

**EPC SPACE PROPRIETARY**

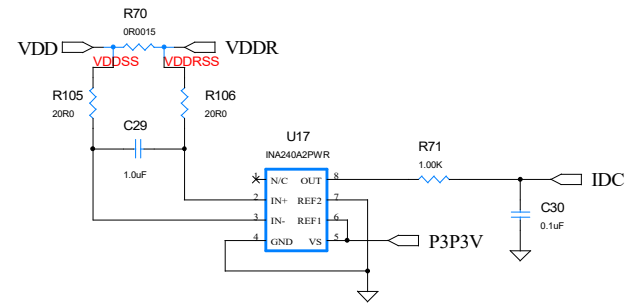
EPC Space LLC 17 Parkridge Road, Unit E Haverhill, MA 01835 epc.space		
Title <b>FBS-GAM02 Motor Driver Demo Board</b>		
Size C	Document Number Analog Motherboard	Rev E4
Date: Monday, April 20, 2026	Sheet 2	of 5



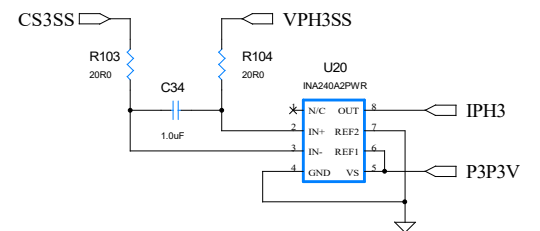
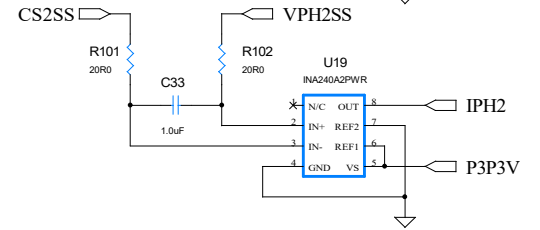
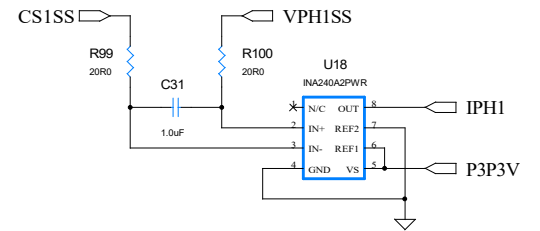
VDD and Phase Voltage Signal Conditioning (VDD, VPH \* 0.05)



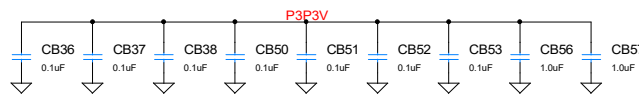
Temperature and Phase Current Signal Conditioning (IPH \* 0.1)



VDD DC Current Sense Amplifier (IDC \* 0.1)



Phase Current Sense Amplifiers (IP \* 0.1)



Bypass Capacitors

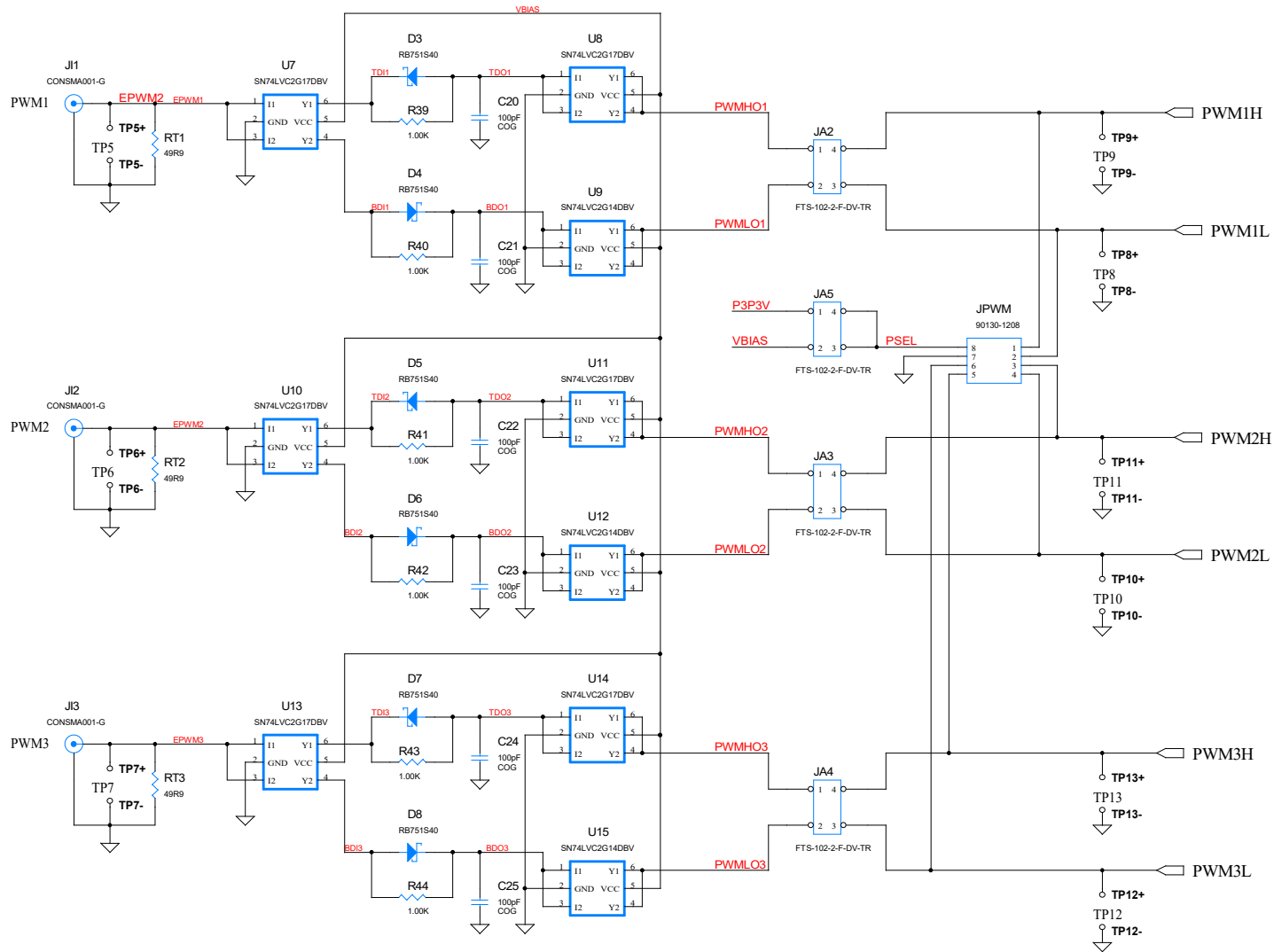
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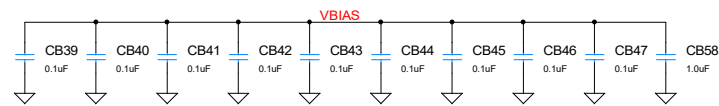
Title: **FBS-GAM02 Motor Driver Demo Board**

Size: Document Number: **Analog Motherboard** Rev: E4

Date: Monday, April 20, 2026 Sheet 3 of 5



### Three-Phase Dead Time Generation



### Logic Bypass Capacitors

2.) For 5V power to JPWM place a jumper M50-2000005 across pins 1 and 4 of JA5. For 3.3V power to JPWM place a jumper M50-2000005 across pins 2 and 3 of JA5.

1.) To enable PWM inputs J11, J12 and J13, place shunt jumpers M50-2000005 across both sets of pins on JA2, JA3 and JA4, and omit six sets of jumpers on JA1.

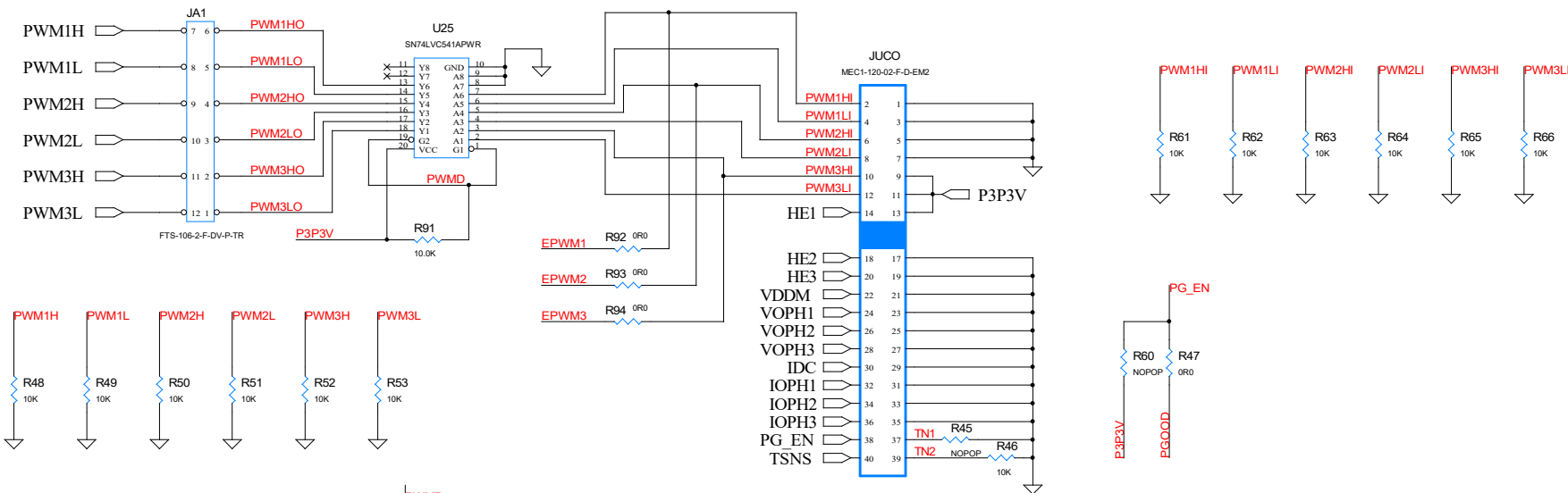
### NOTES:

**EPC SPACE PROPRIETARY**

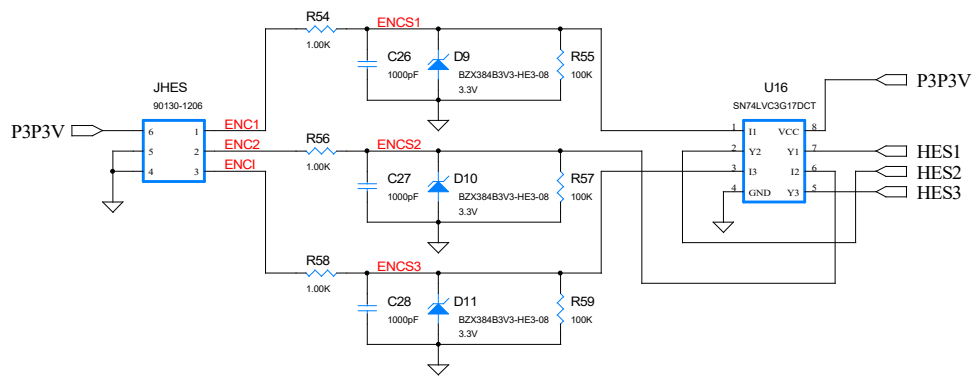
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Title		
FBS-GAM02 Motor Driver Demo Board		
Size	Document Number	Rev
C	Analog Motherboard	ES
Date:	Monday, April 20, 2026	Sheet 4 of 5

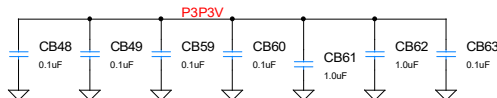
### PWM Disconnect



### EPC Microcontroller Interface

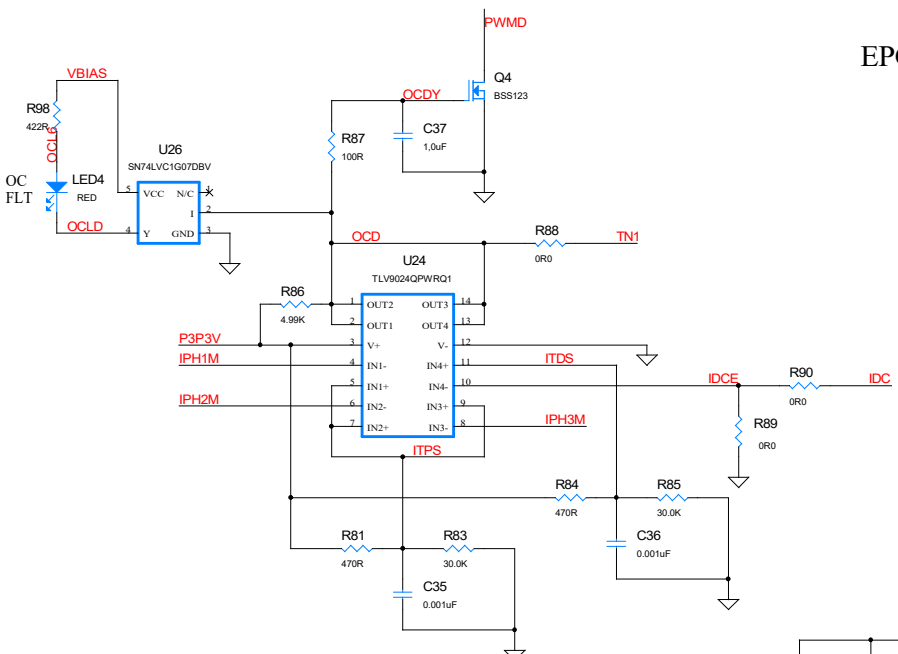


### Hall Effect/Priority Encoder Signal Conditioning



### Logic Bypass Capacitors

### Over-Current Detection



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### FBS-GAM02 Motor Driver Demo Board

Size	Document Number	Rev
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Date:	Monday, April 20, 2026	Sheet 5 of 5

1.) To enable PWM inputs from JUCO, place shunt jumpers M50-2000005 across the six sets of pins on JA1 and omit the three pairs of jumpers on JA2, JA3 and JA4.

### NOTES: