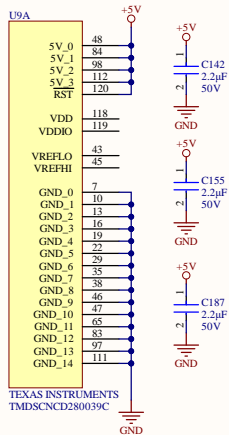


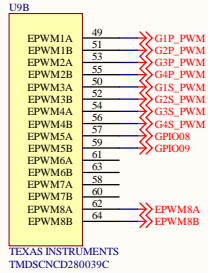
## CONTROLLER

### POWER



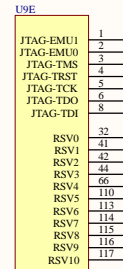
TEXAS INSTRUMENTS  
TMDSCNCD280039C

### PWM



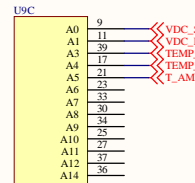
TEXAS INSTRUMENTS  
TMDSCNCD280039C

### OTHER



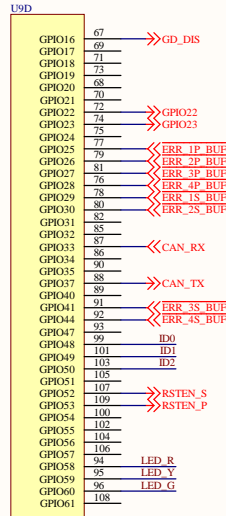
TEXAS INSTRUMENTS  
TMDSCNCD280039C

### ANALOG



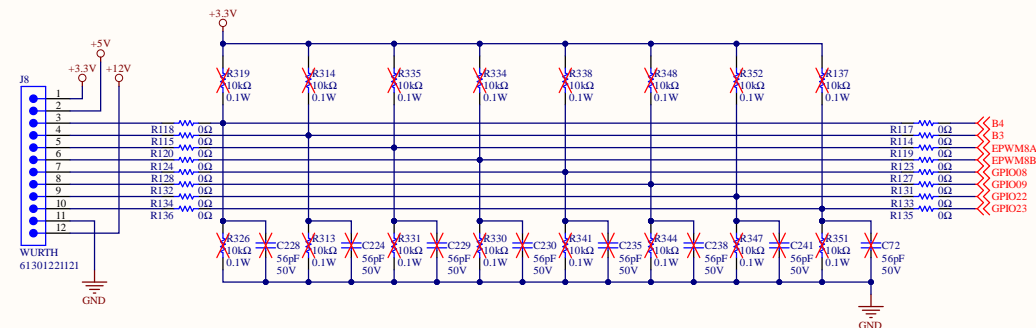
TEXAS INSTRUMENTS  
TMDSCNCD280039C

### GPIO



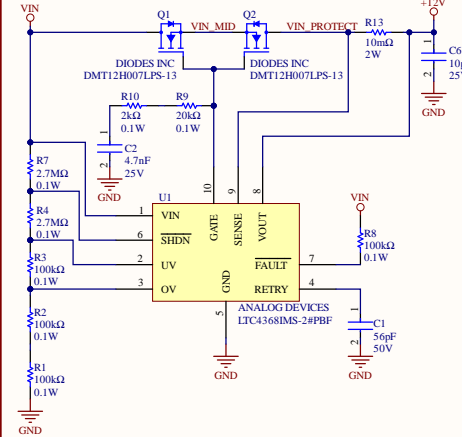
TEXAS INSTRUMENTS  
TMDSCNCD280039C

## SPARE INPUTS/OUTPUTS

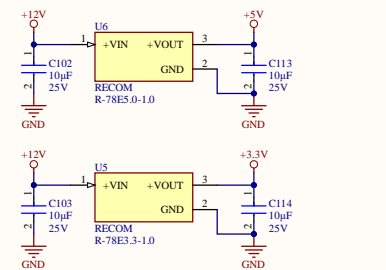


WURTH  
6130122121

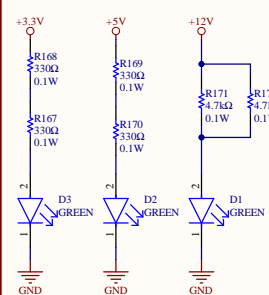
## INPUT POWER CONDITIONING



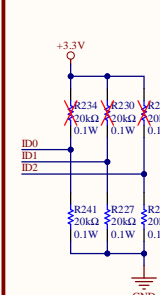
## +3.3V AND +5V RAILS



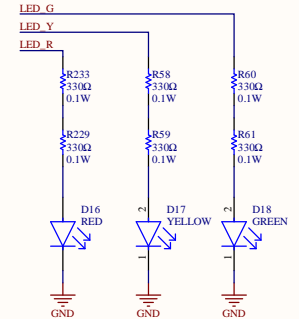
## STATUS LEDS



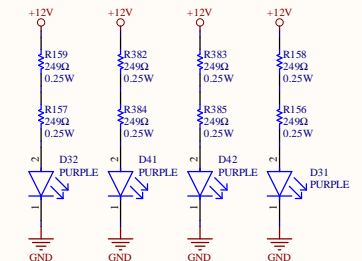
## IDENTIFICATION



## PROGRAMMABLE LEDS



## UNDERGLOW



Vf = 3.3V  
I = (12V-3.3V) / 490ohm = 17mA  
P = 0.017\*2 / 2490hm = 72mW

**WolfSpeed**

[No Variations]

Title: CONTROL/POWER - 60KW GM4 DAB CONTROL

Drawing No: CRD60DD12N-GMB-CONTROL

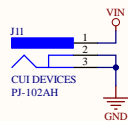
Date: 02/2025

Size: B

Revision: 2.0

Sheet: 1 of 12

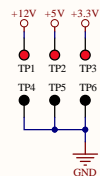
## INPUT POWER



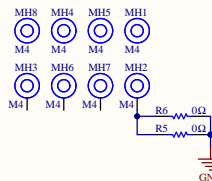
## FAN POWER



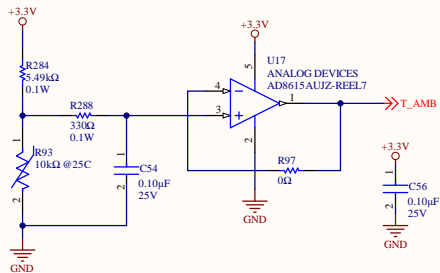
## TEST POINTS



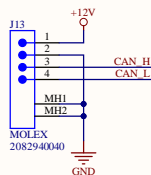
## MOUNTING HOLES



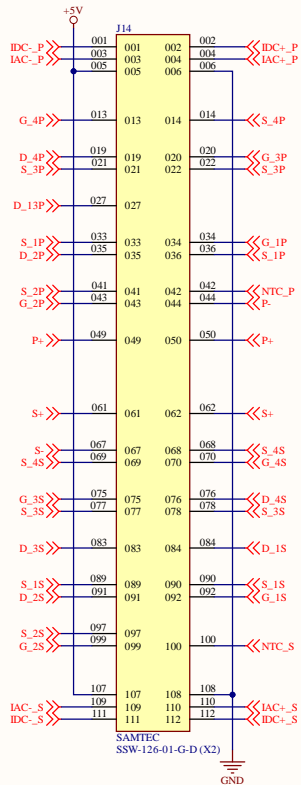
## AMBIENT TEMPERATURE



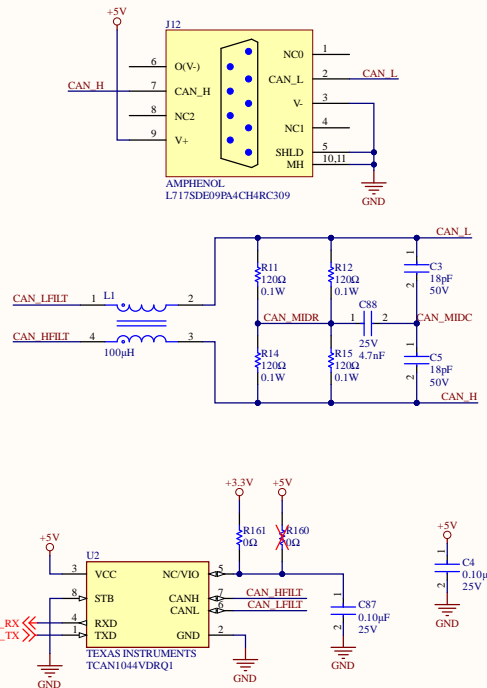
## DAISY CHAIN



## POWER STAGE



## CAN



**Wolfspeed**

[No Variations]

Title: INPUT/OUTPUT - 60KW GM4 DAB CONTROL

Drawing No: CRD60DD12N-GMB-CONTROL

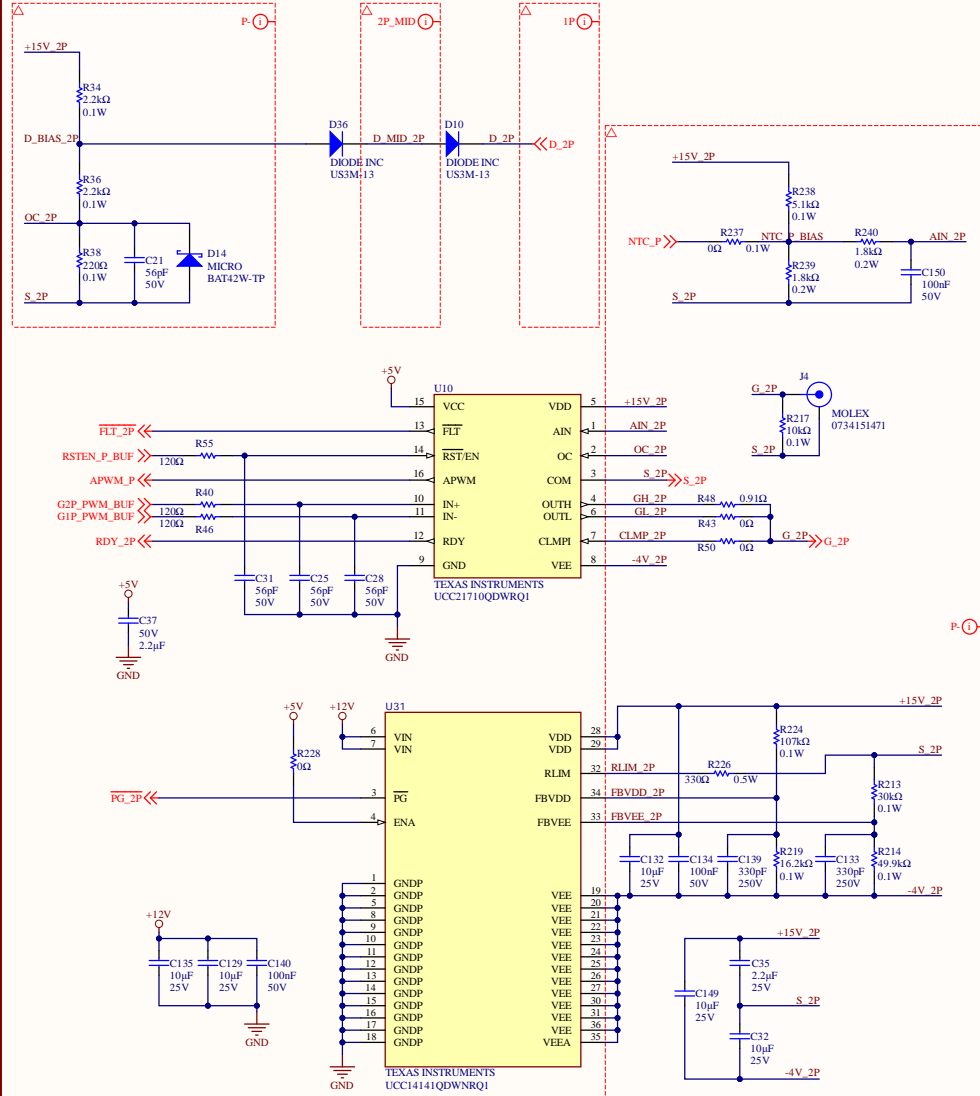
Date: 02/2025

Size: B

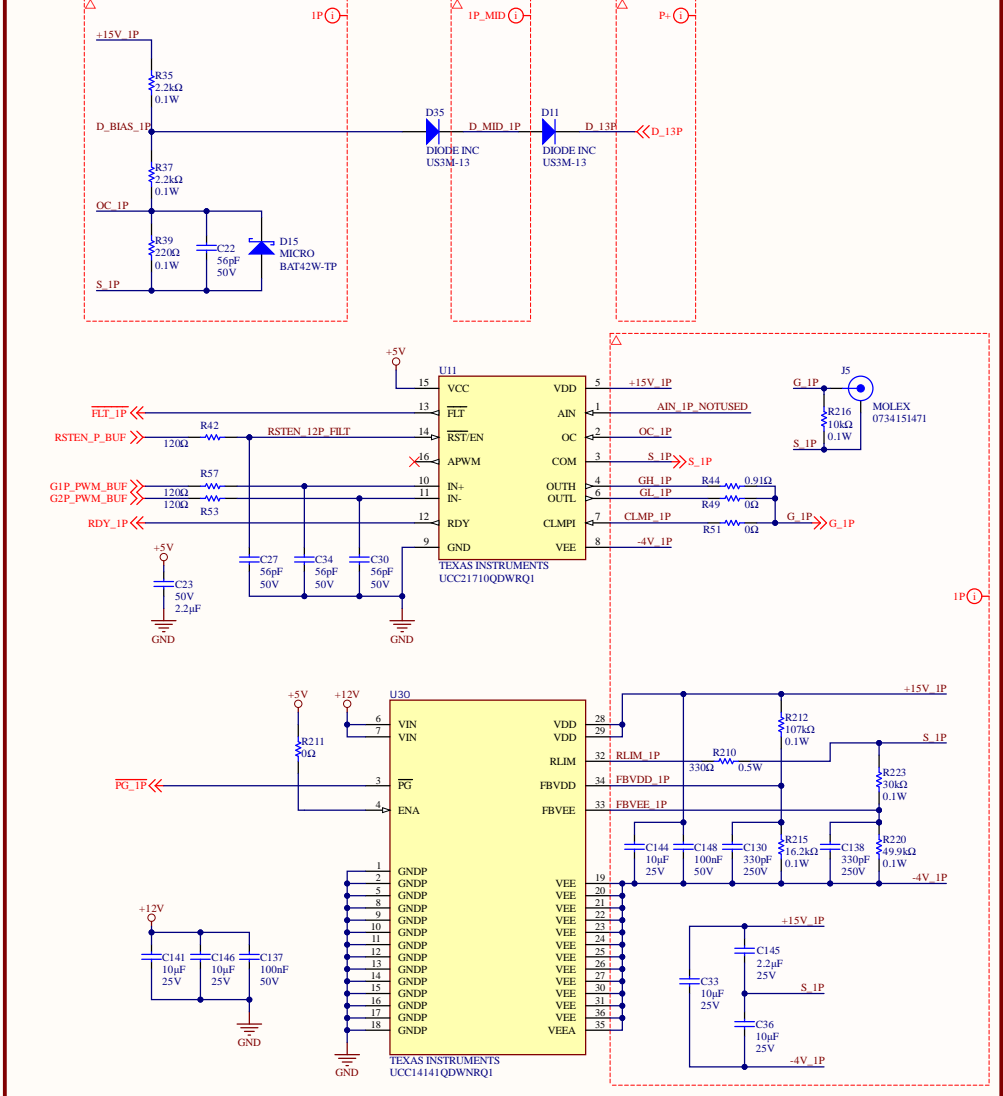
Revision: 2.0

Sheet: 2 of 12

## PRIMARY - GATE 2



## PRIMARY - GATE 1



**Wolfspeed**

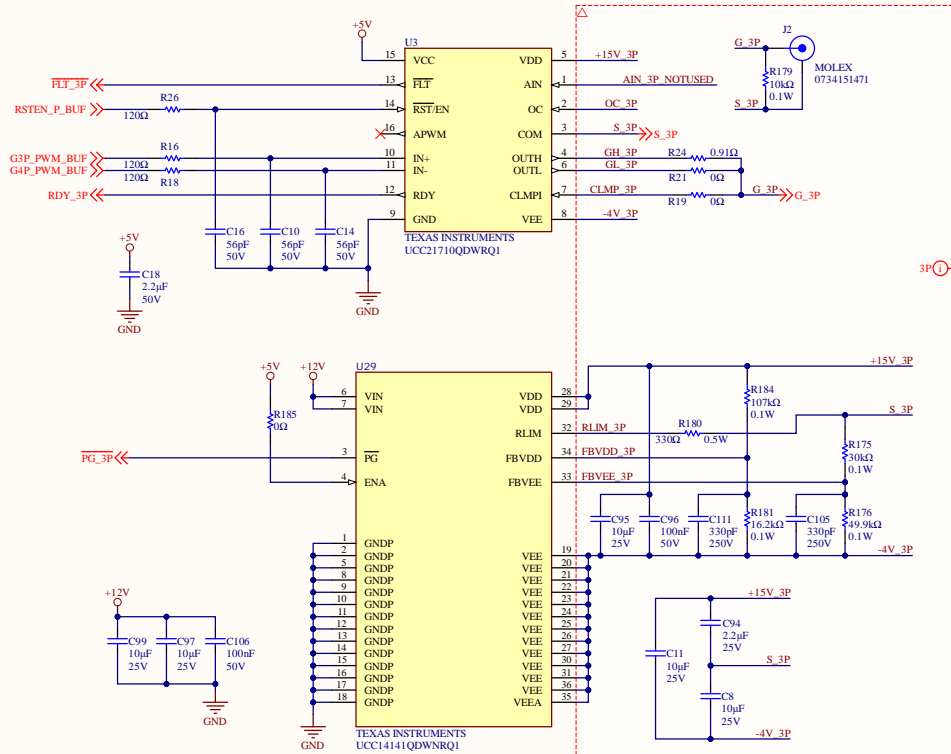
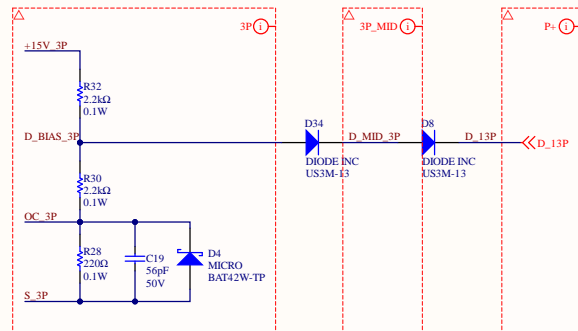
[No Variations]

Title: DRIVERS (12P) - 60KW GM4 DAB CONTROL

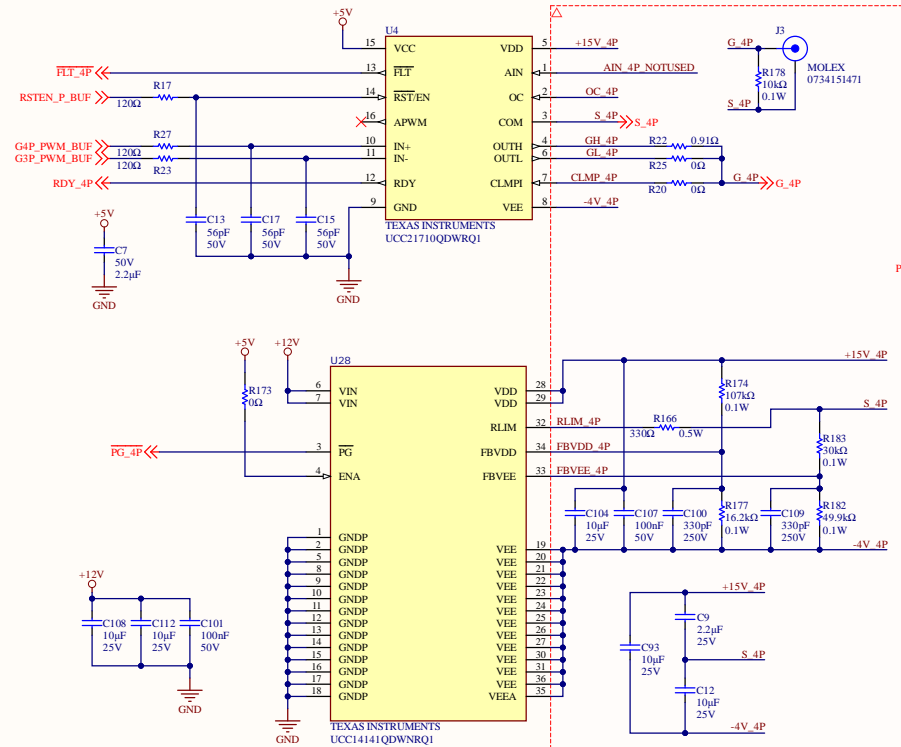
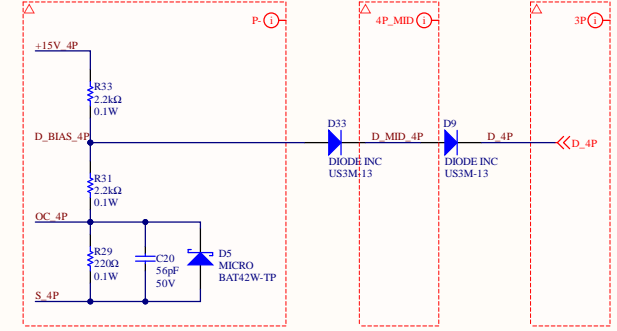
Drawing No: CRD60DD12N-GMB-CONTROL

Date: 02/2025 Size: B Revision: 2.0 Sheet: 3 of 12

**PRIMARY - GATE 3**



**PRIMARY - GATE 4**



[No Variations]

Title: DRIVERS (34P) - 60KW GM4 DAB CONTROL

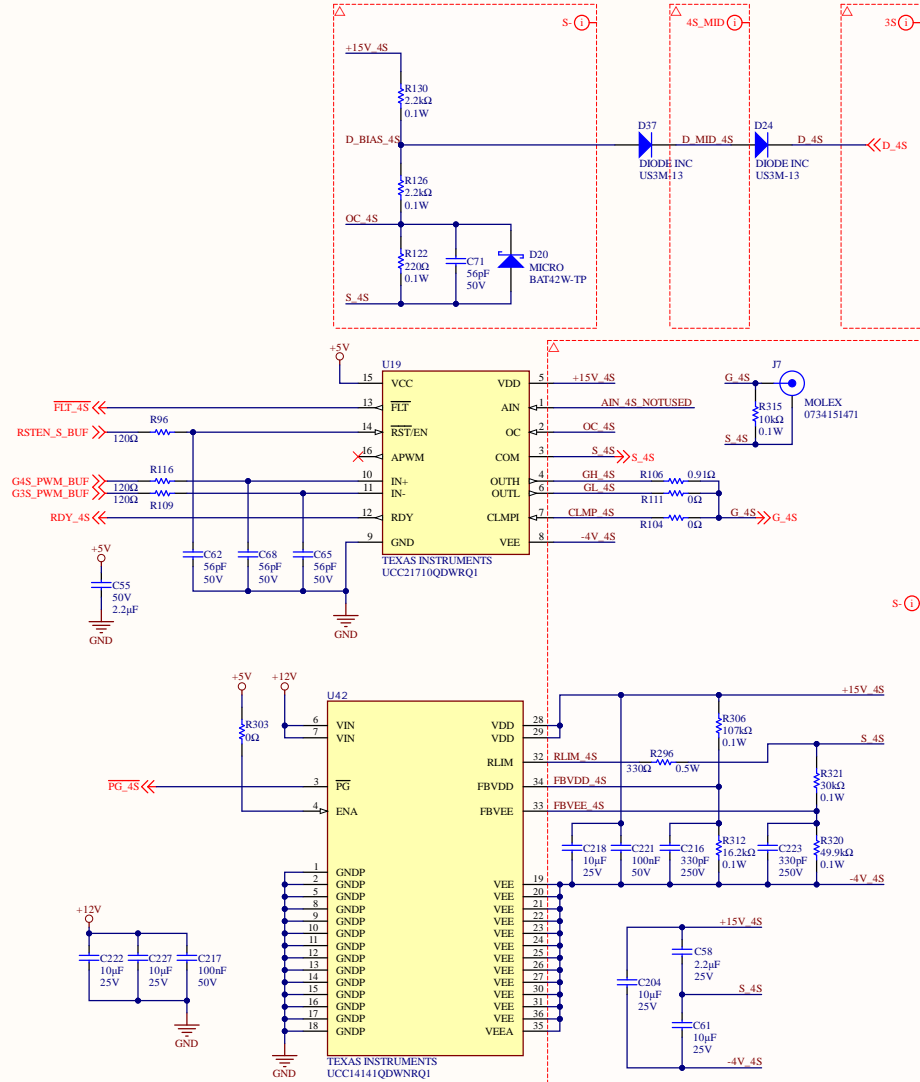
Drawing No: CRD60DD12N-GMB-CONTROL

Date: 02/2025	Size: B	Revision: 2.0	Sheet: 4 of 12
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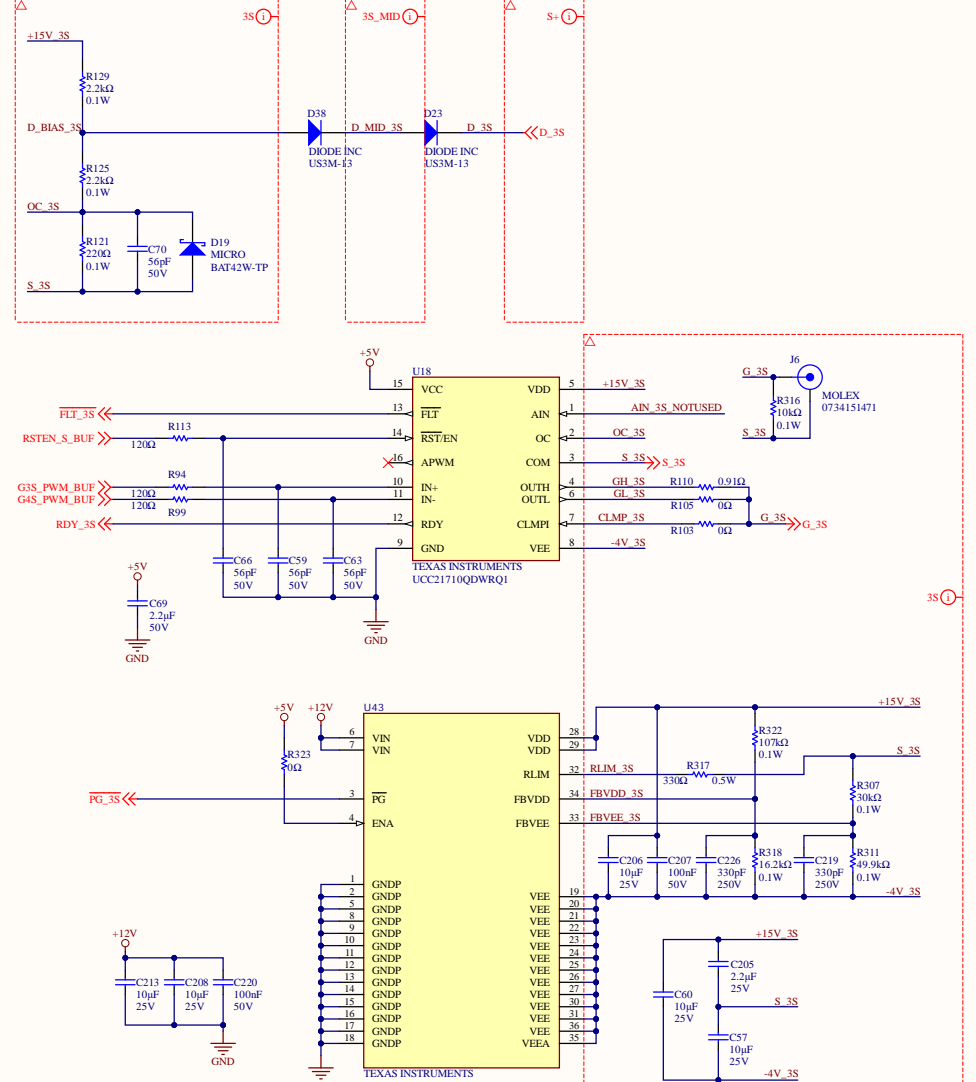


Date:	02/2025	Size:	B	Revision:	2.0	Sheet:	5	of	12
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## SECONDARY - GATE 4



## SECONDARY - GATE 3



**Wolfspeed**

[No Variations]

Title: DRIVERS (34S) - 60KW GM4 DAB CONTROL

Drawing No: CRD60DD12N-GMB-CONTROL

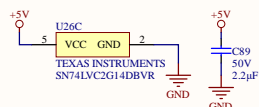
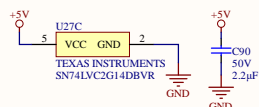
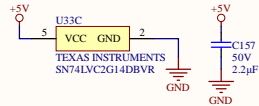
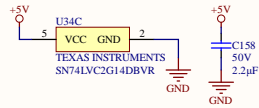
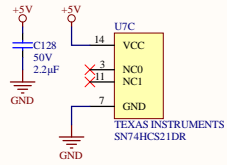
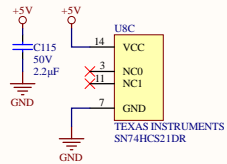
Date: 02/2025

Size: B

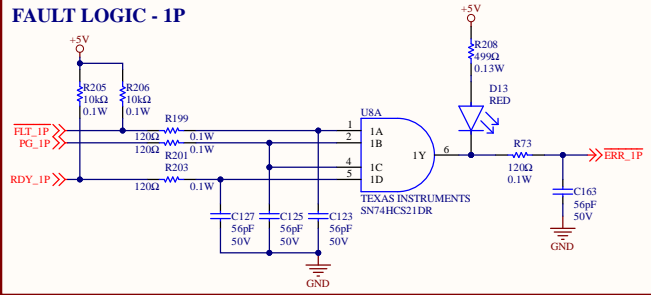
Revision: 2.0

Sheet: 6 of 12

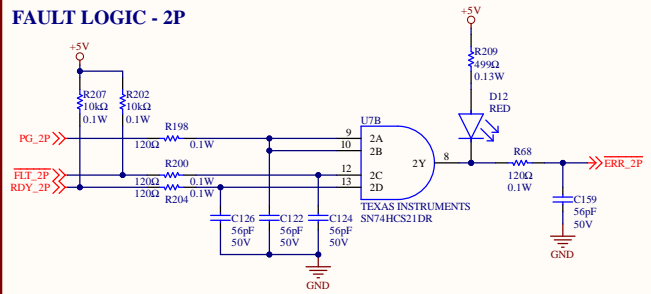
## PRIMARY FAULT LOGIC POWER



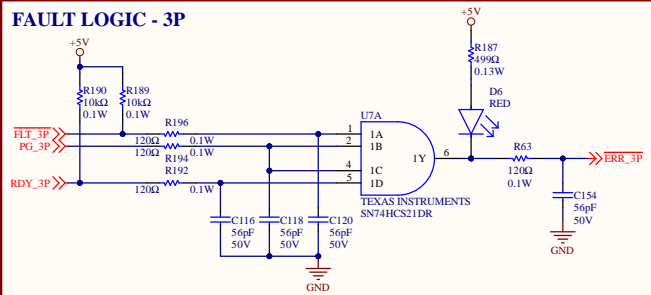
## FAULT LOGIC - 1P



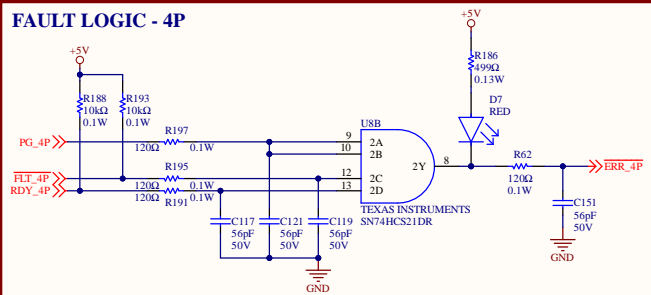
## FAULT LOGIC - 2P



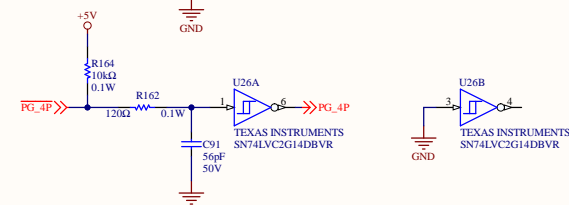
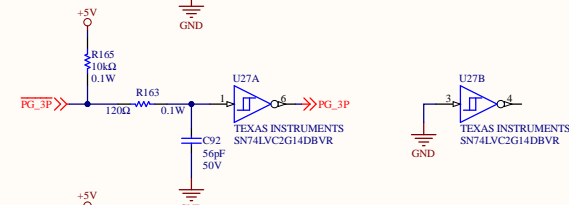
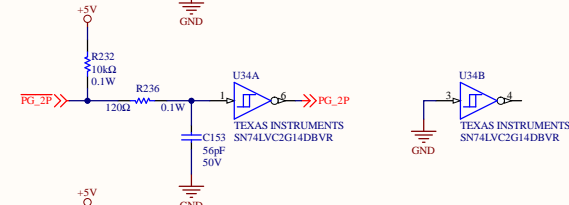
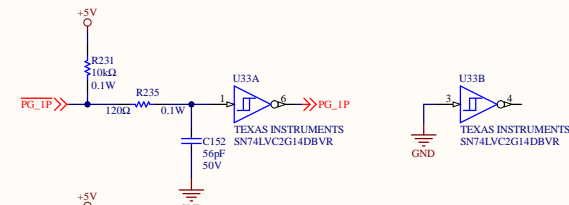
## FAULT LOGIC - 3P




## FAULT LOGIC - 4P

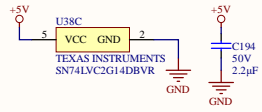
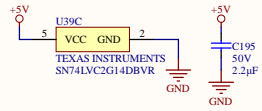
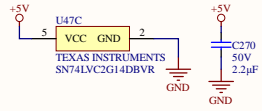
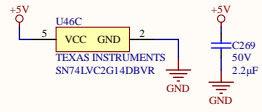
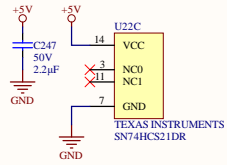
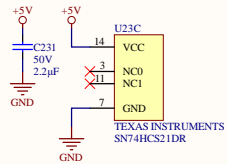


## INVERT POWER GOOD SIGNALS

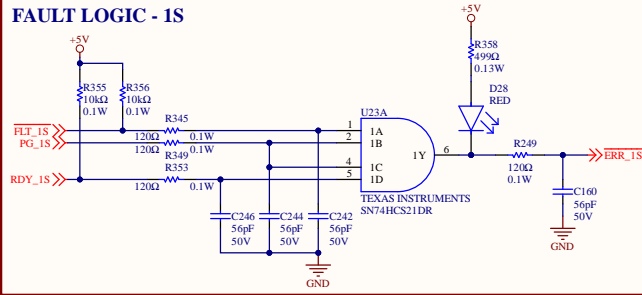


 <b>WolfSpeed®</b>		[No Variations]	
Title: <b>FAULT LOGIC (P) - 60KW GM4 DAB CONTROL</b>			
Drawing No: <b>CRD60DD12N-GMB-CONTROL</b>			
Date: <b>02/2025</b>	Size: <b>B</b>	Revision: <b>2.0</b>	Sheet: <b>7</b> of <b>12</b>

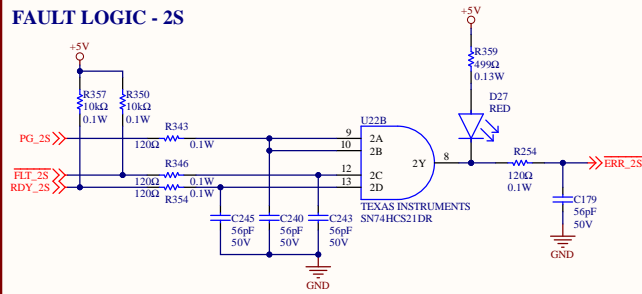
## SECONDARY FAULT LOGIC POWER



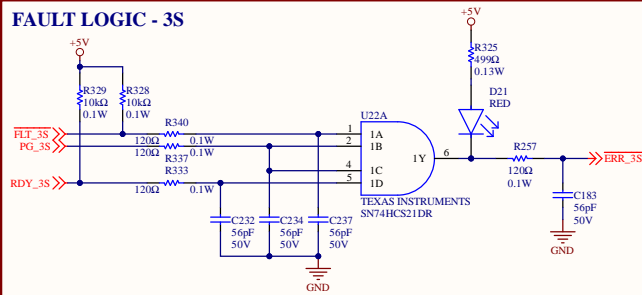
## FAULT LOGIC - 1S



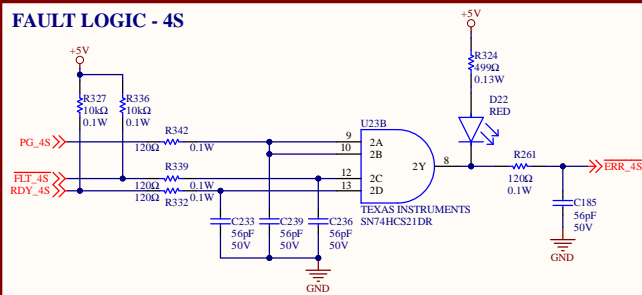
## FAULT LOGIC - 2S



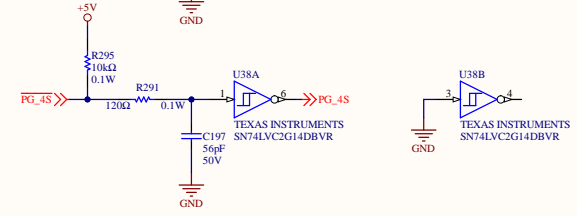
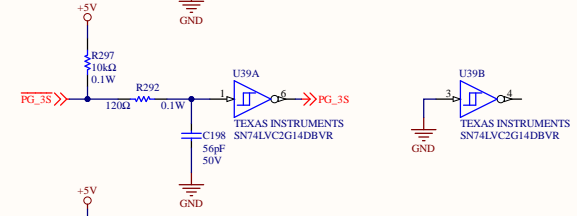
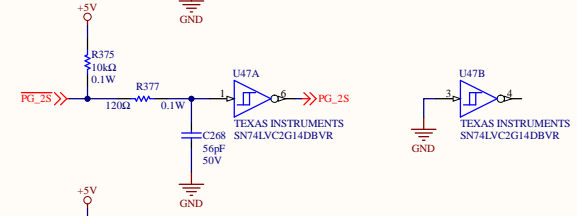
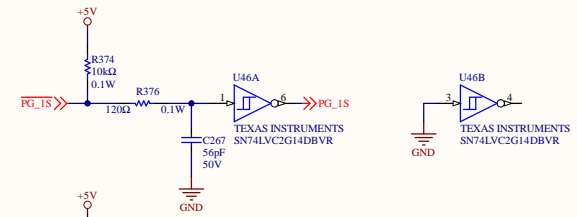
## FAULT LOGIC - 3S



## FAULT LOGIC - 4S



## INVERT POWER GOOD SIGNALS



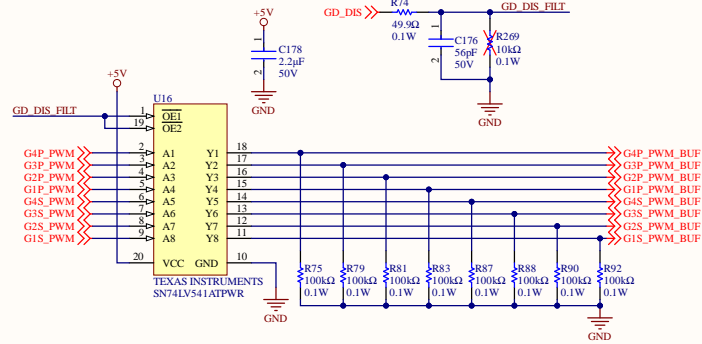
[No Variations]

Title: FAULT LOGIC (S) - 60KW GM4 DAB CONTROL

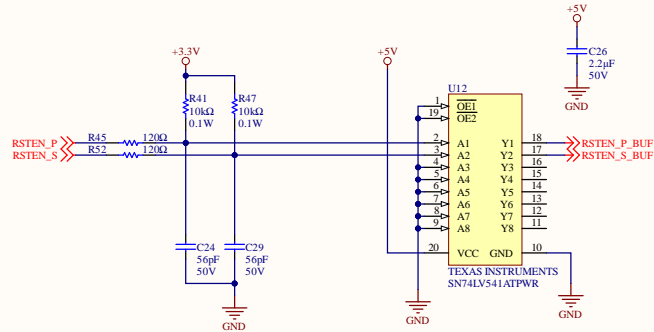
Drawing No: CRD60DD12N-GMB-CONTROL

Date: 02/2025	Size: B	Revision: 2.0	Sheet: 8 of 12
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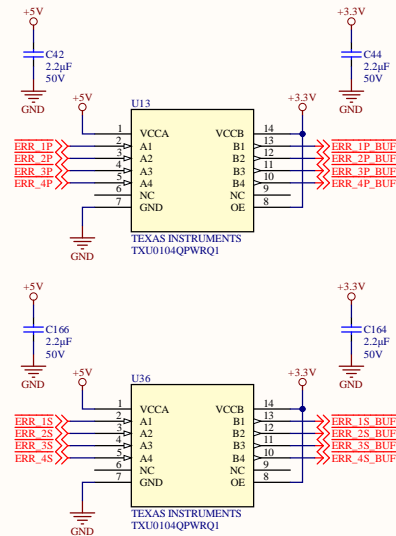
## GATE DRIVER BUFFER



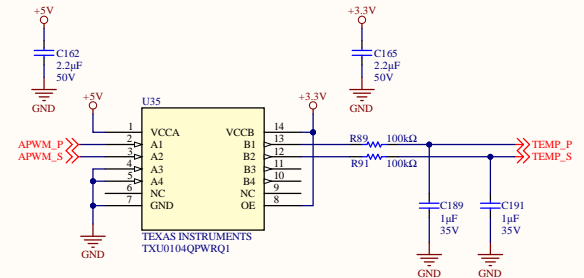
## ENABLE BUFFER



## FAULT LEVEL SHIFT (5V-TO-3.3V)



## NTC PWM LEVEL SHIFT (5V-TO-3.3V)



[No Variations]

Title: LEVEL SHIFT - 60KW GM4 DAB CONTROL

Drawing No: CRD60DD12N-GMB-CONTROL

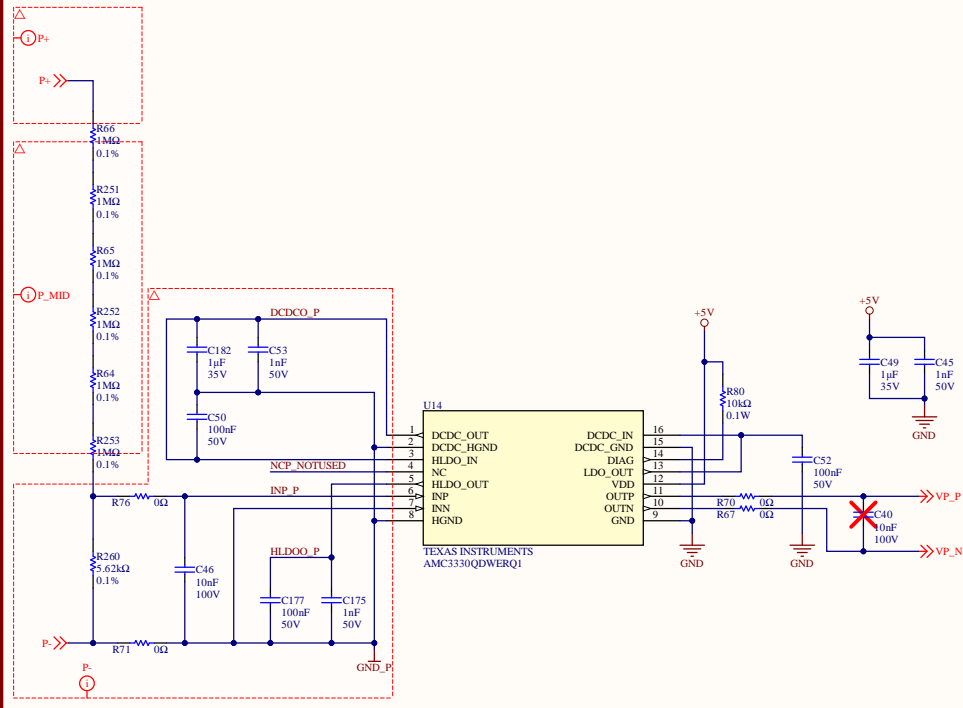
Date: 02/2025

Size: B

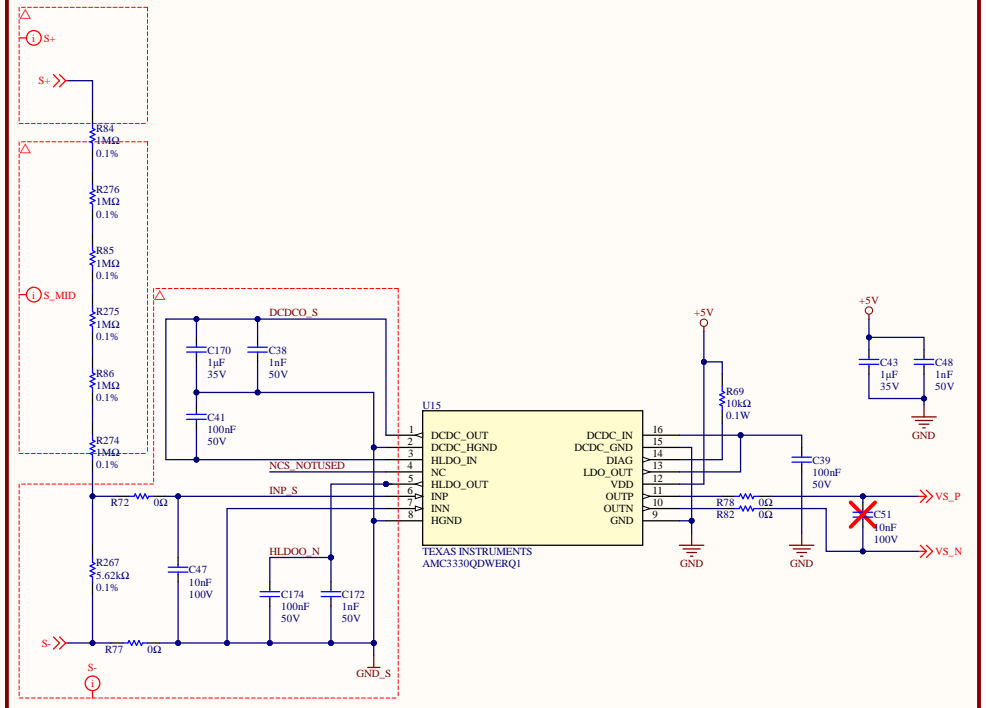
Revision: 2.0

Sheet: 9 of 12

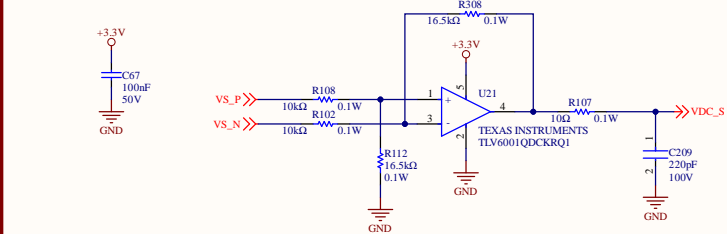
## PRIMARY DC VOLTAGE MEASUREMENT - ISOLATED



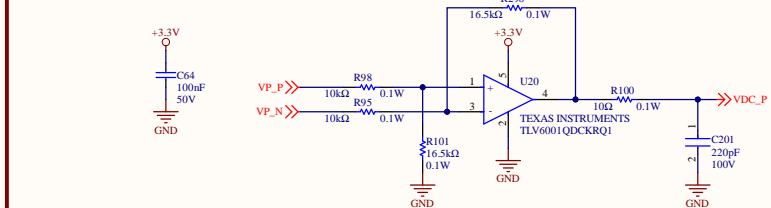
## SECONDARY DC VOLTAGE MEASUREMENT - ISOLATED



## PRIMARY DC VOLTAGE DIFFERENTIAL TO SINGLE-ENDED - NON-ISOLATED



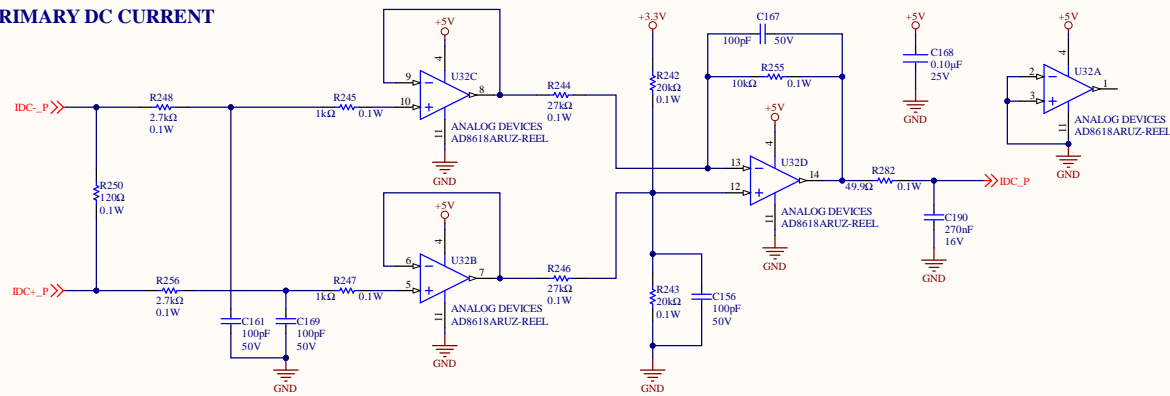
## PRIMARY DC VOLTAGE DIFFERENTIAL TO SINGLE-ENDED - NON-ISOLATED



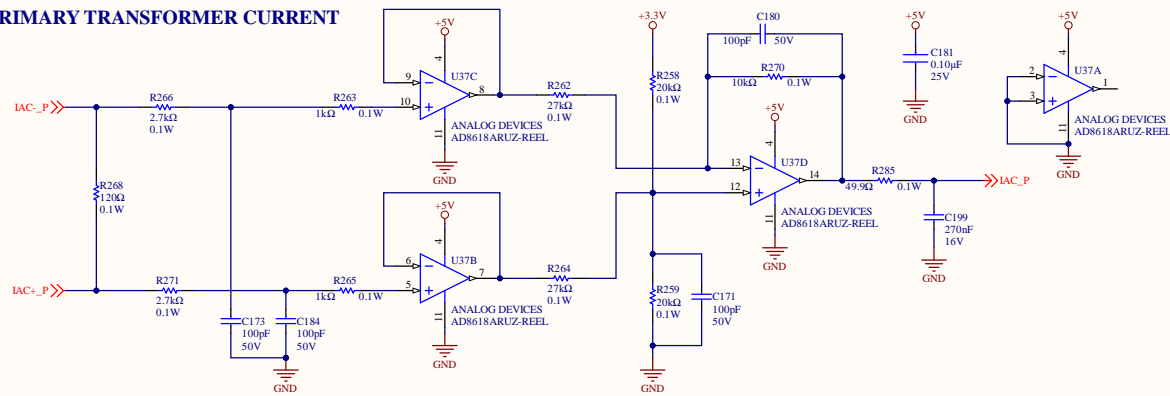
[No Variations]

Title:	VOLTAGE SENSE - 60KW GM4 DAB CONTROL				
Drawing No:	CRD60DD12N-GMB-CONTROL				
Date:	02/2025	Size:	B	Revision:	2.0
Sheet:	10	d	12		

# PRIMARY DC CURRENT



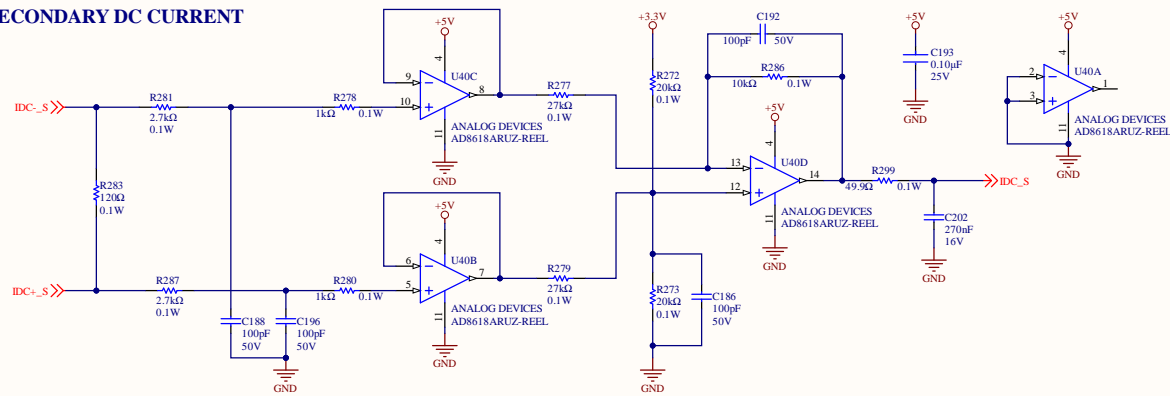
# PRIMARY TRANSFORMER CURRENT



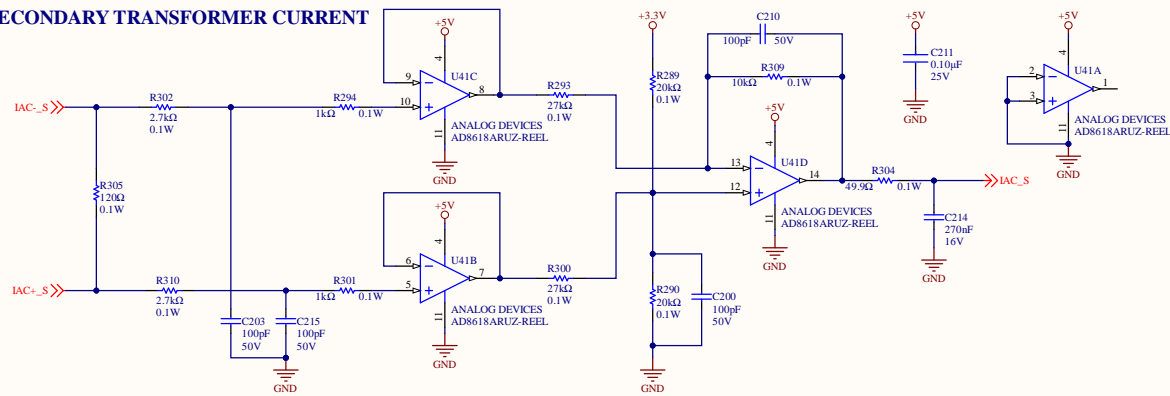
[No Variations]

Title:	CURRENT SENSE (P) - 60KW GM4 DAB CONTROL				
Drawing No:	CRD60DD12N-GMB-CONTROL				
Date:	02/2025	Size:	B	Revision:	2.0
Sheet:	11	d	12		

## SECONDARY DC CURRENT



## SECONDARY TRANSFORMER CURRENT



[No Variations]

Title:	CURRENT SENSE (S) - 60KW GM4 DAB CONTROL				
Drawing No:	CRD60DD12N-GMB-CONTROL				
Date:	02/2025	Size:	B	Revision:	2.0
Sheet:	12	d	12		