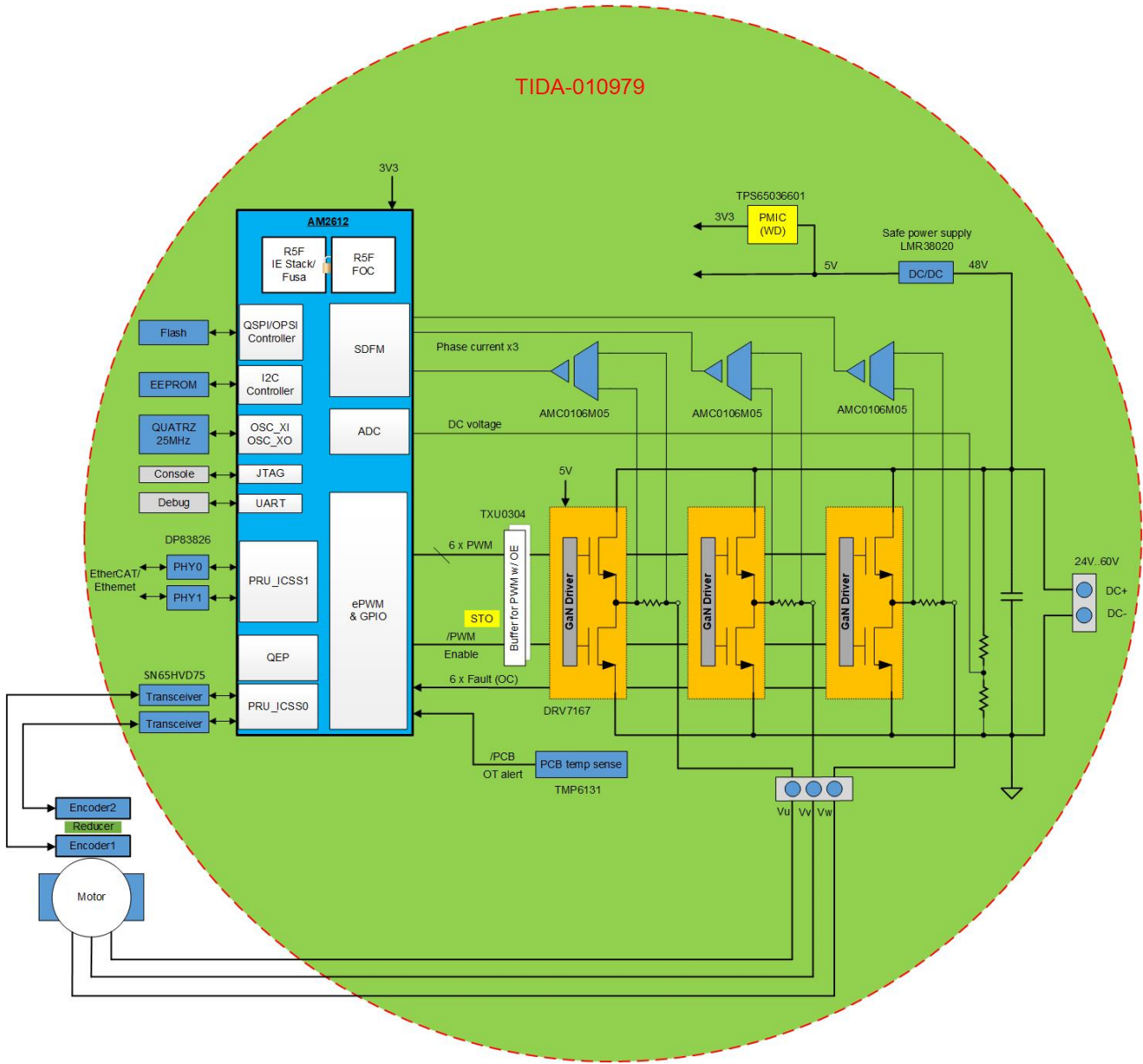


Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
N/A	N/A	N/A	N/A	N/A



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Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 8/4/2025
TID #: TIDA-010979	Project Title: TIDA-010979	
Number: TIDA-010979	Rev: E1	Sheet: 1 of 11
SVN Rev: Not in version control	Assembly Variant: 001	Size: B
Drawn By: Chen Gao	File: TIDA-010979_01_CoverSheet.SchDoc	
Engineer: Chen Gao	Contact: http://www.ti.com/support	

VIN Connector

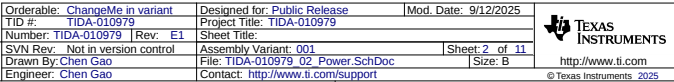
48VDC (12-60VDC)

DC+ 1 VDC

MTG_Pads

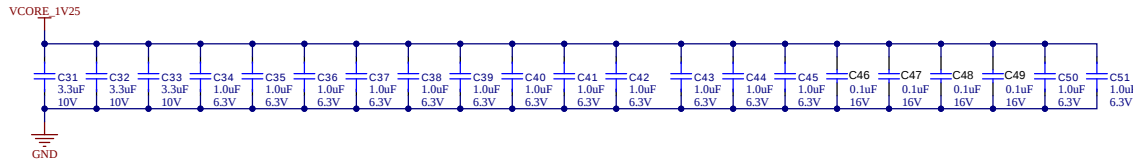
GND 1 PGND

MTG_Pads

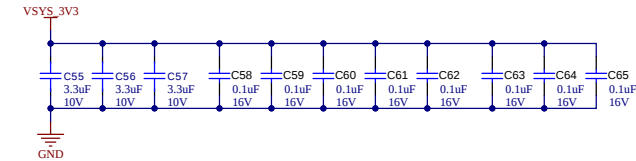


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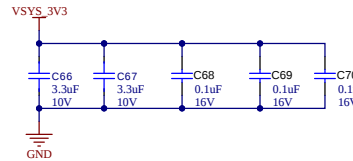
VDD 1V25 Core Digital



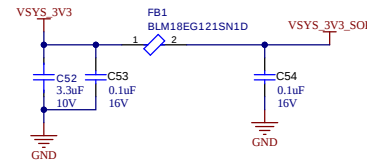
VDDSHV 3V3 Digital



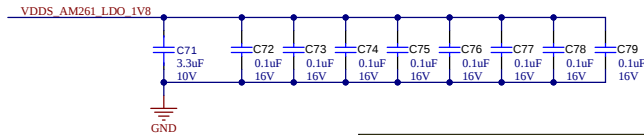
VDDSHV 3V3_D/E Flash



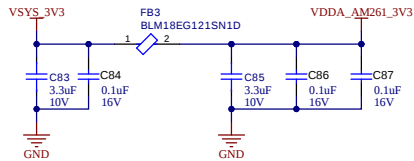
VSYS_3V3_SOP



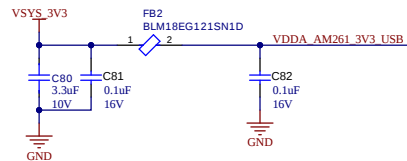
VDD 1V8 Digital



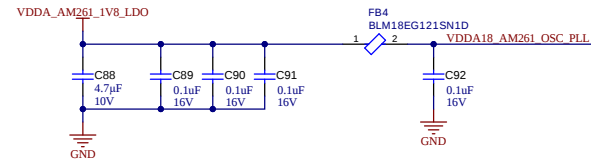
VDDA 3V3 Analog



VDDA 3V3 USB

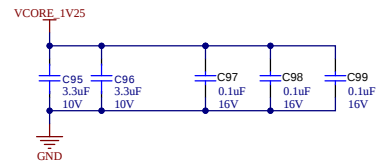


VDDA 1V8 Analog

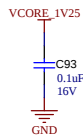


Notes VDDA1V8:
- May not need ferrite filtering, but will keep this for experimenting

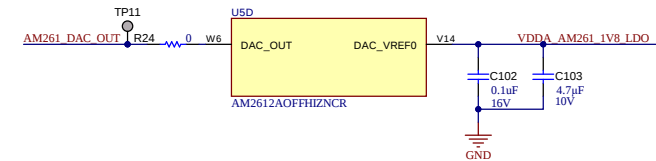
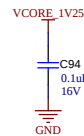
VDDAR[3:2] 1V25 SRAM Array



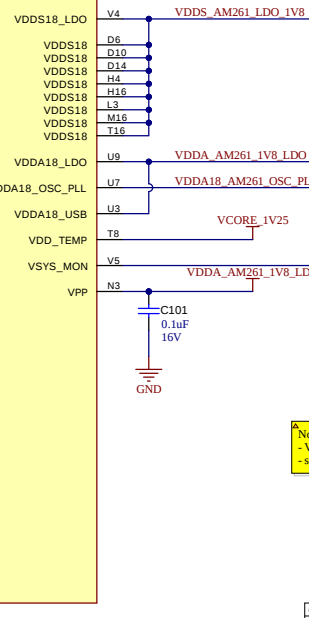
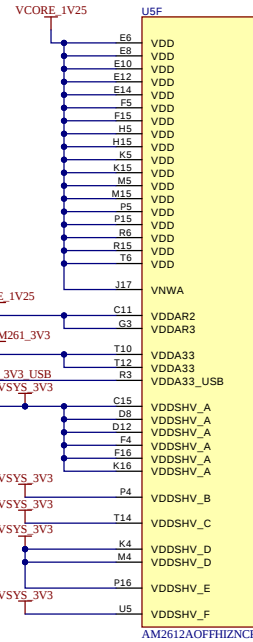
VNWA 1V2



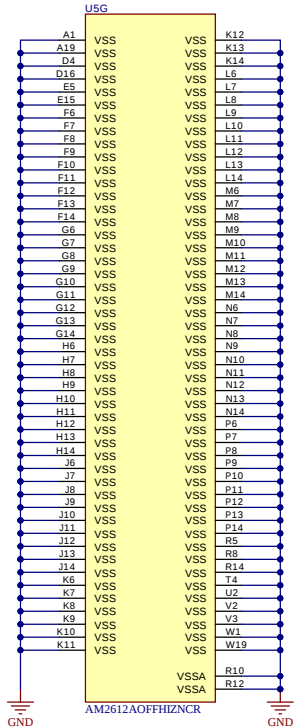
VDD 1V2 Temperature



Notes VDDSHV_D-FLASH0
VDDSHV_E-FLASH1



Notes: VSYS_MON
- Vmax 1.8V
- scaling 2.805V (3.3V -15%) to 0.895V for 0.9V Vmin comparator

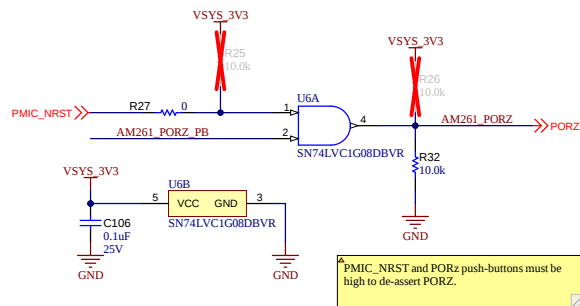


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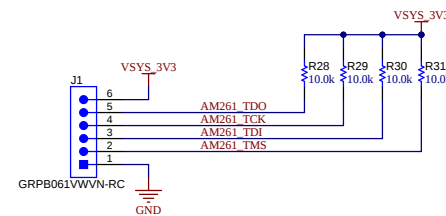
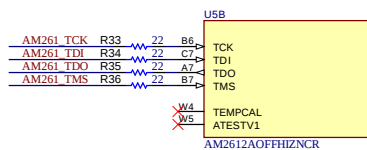
Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 6/26/2025
TID #: TIDA-010979	Project Title: TIDA-010979	
Number: TIDA-010979	Rev: E1	Sheet 3 of 11
SVN Rev: Not in version control	Assembly Variant: 001	Size: B
Drawn By: Chen Gao	File: TIDA-010979_03_SoC_Power_SchDoc	
Engineer: Chen Gao	Contact: http://www.ti.com/support	

AM261x Clock, Reset, JTAG, EEPROM

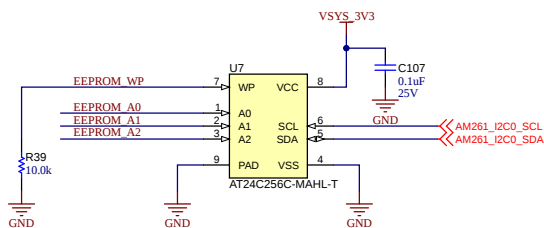
POR Generation



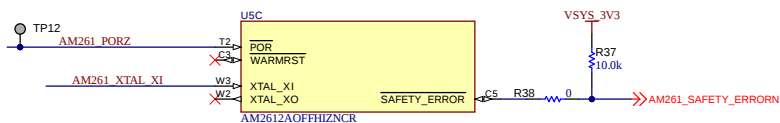
JTAG



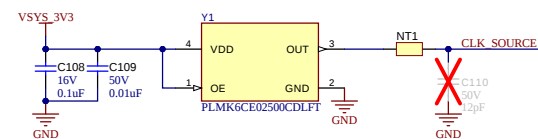
Board ID EEPROM



CLOCK INPUT

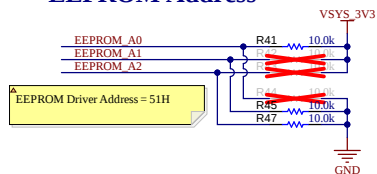


25 MHz Oscillator

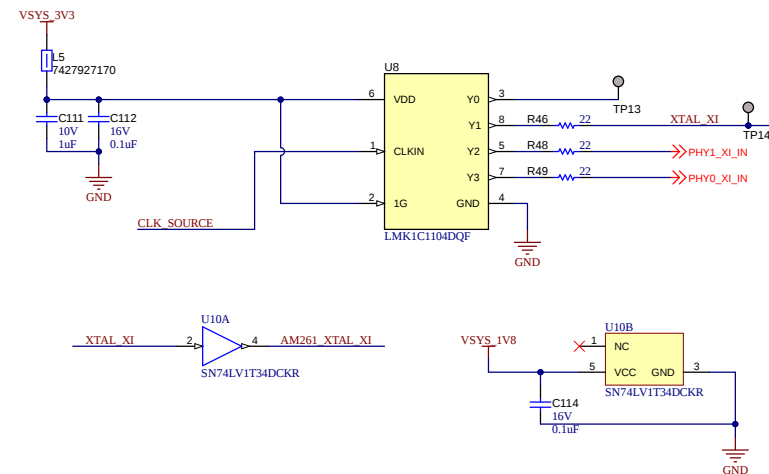
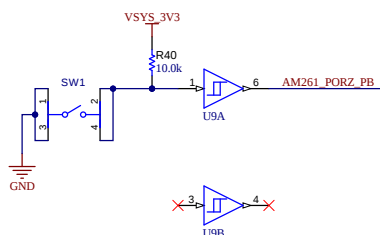


p2p: CAT24M01HU5I-GT3

EEPROM Address



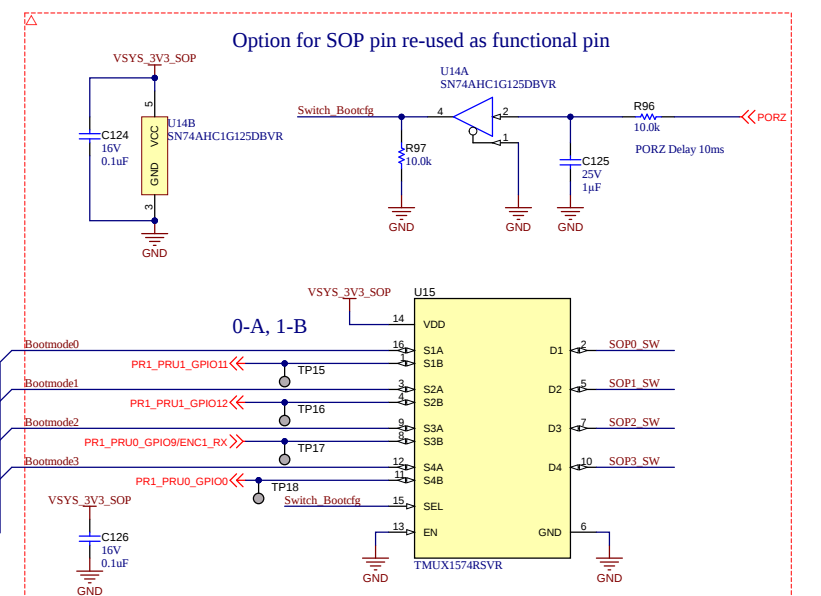
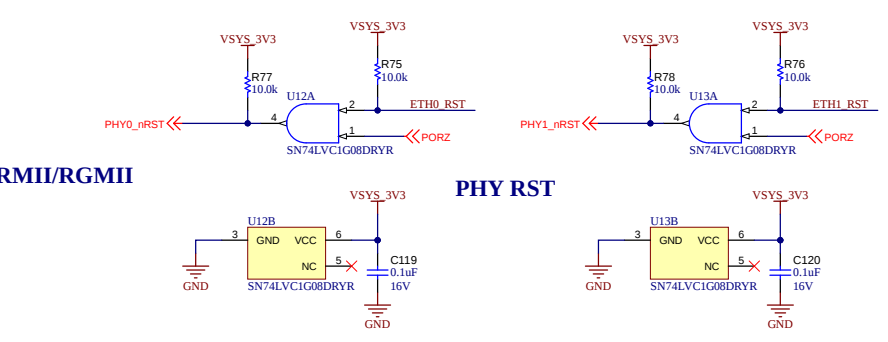
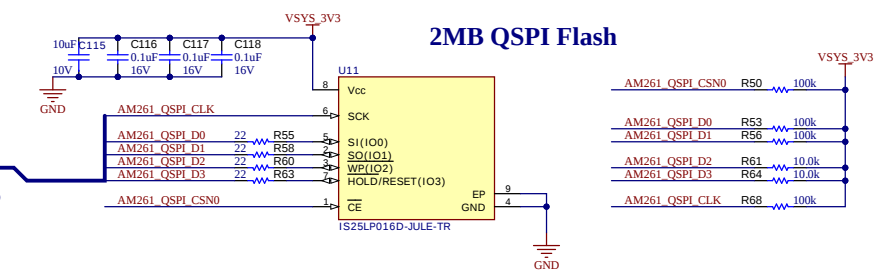
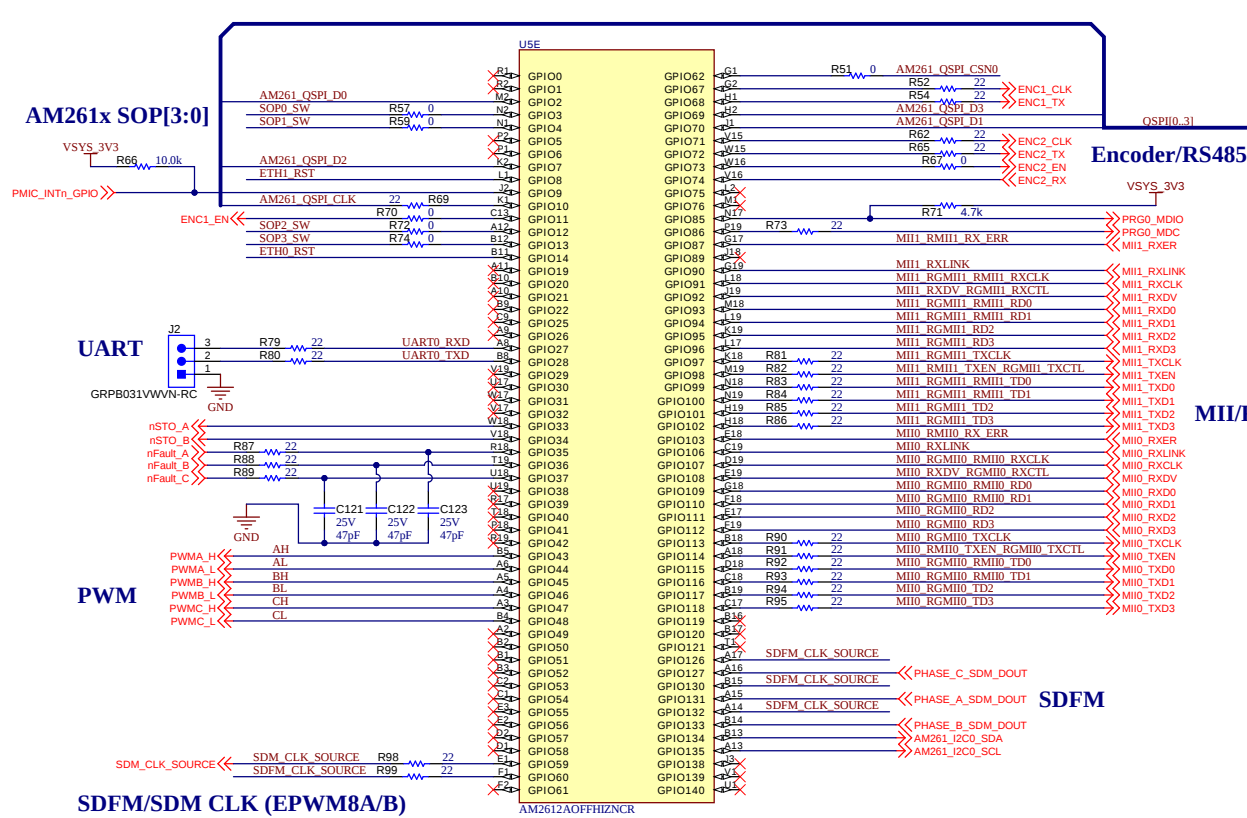
PORZ & RST Push-Button



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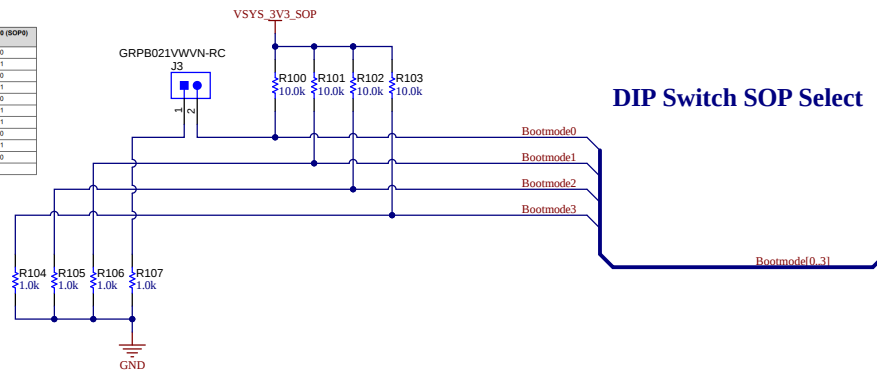
Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 6/26/2025
TID #: TIDA-010979	Project Title: TIDA-010979	
Number: TIDA-010979	Rev: E1	Sheet Title:
SVN Rev: Not in version control	Assembly Variant: 001	Sheet 4 of 11
Drawn By: Chen Gao	File: TIDA-010979_04_CLK_RST_Boot_JTAG_Sch.Dwg	Size: B
Engineer: Chen Gao	Contact: http://www.ti.com/support	

AM261x Debug console, Boot, IOs



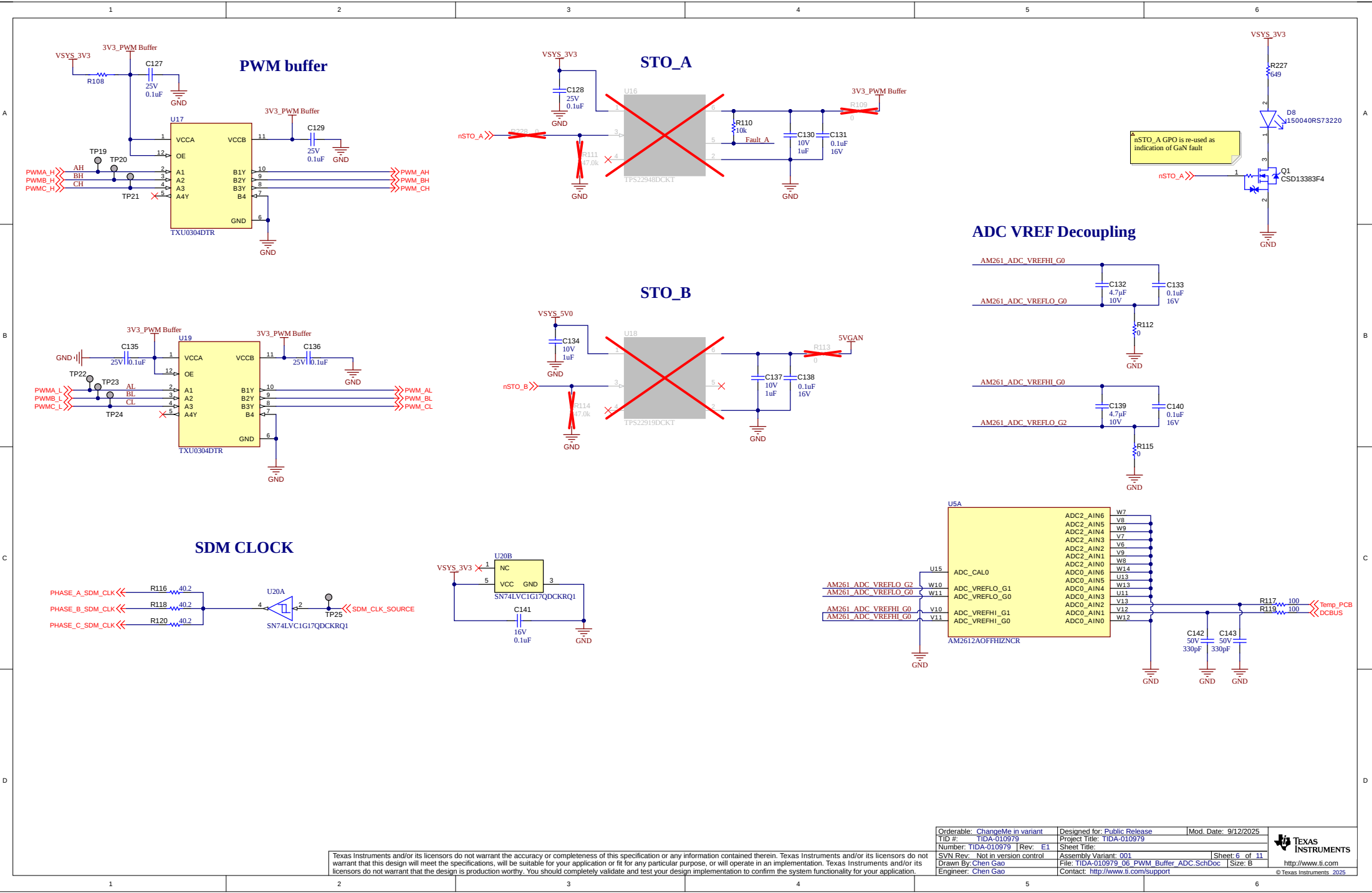
Boot Mode	SPIN_06_pos[0]	SPIN_CLK_pos[0]	GSPI_D1 (SOP1)	GSPI_D0 (SOP0)
GSPI (SS) - Quad Read Mode	0	0	0	0
UART	0	0	0	0
GSPI (CS) - Single Read Mode	0	0	1	1
GSPI (BS) - Octal Read Mode	0	0	1	1
GSPI Serial NAND (CS) - Single Read Mode	0	1	1	1
GSPI Serial NAND (SS) - Quad Read Mode	0	1	1	1
Disabled	1	0	1	1
eSPI (SOP) (SOP0)	1	1	0	0
GSPI Serial NAND (BS) - Octal Read Mode	1	1	0	1
GSPI CPU	1	1	1	1

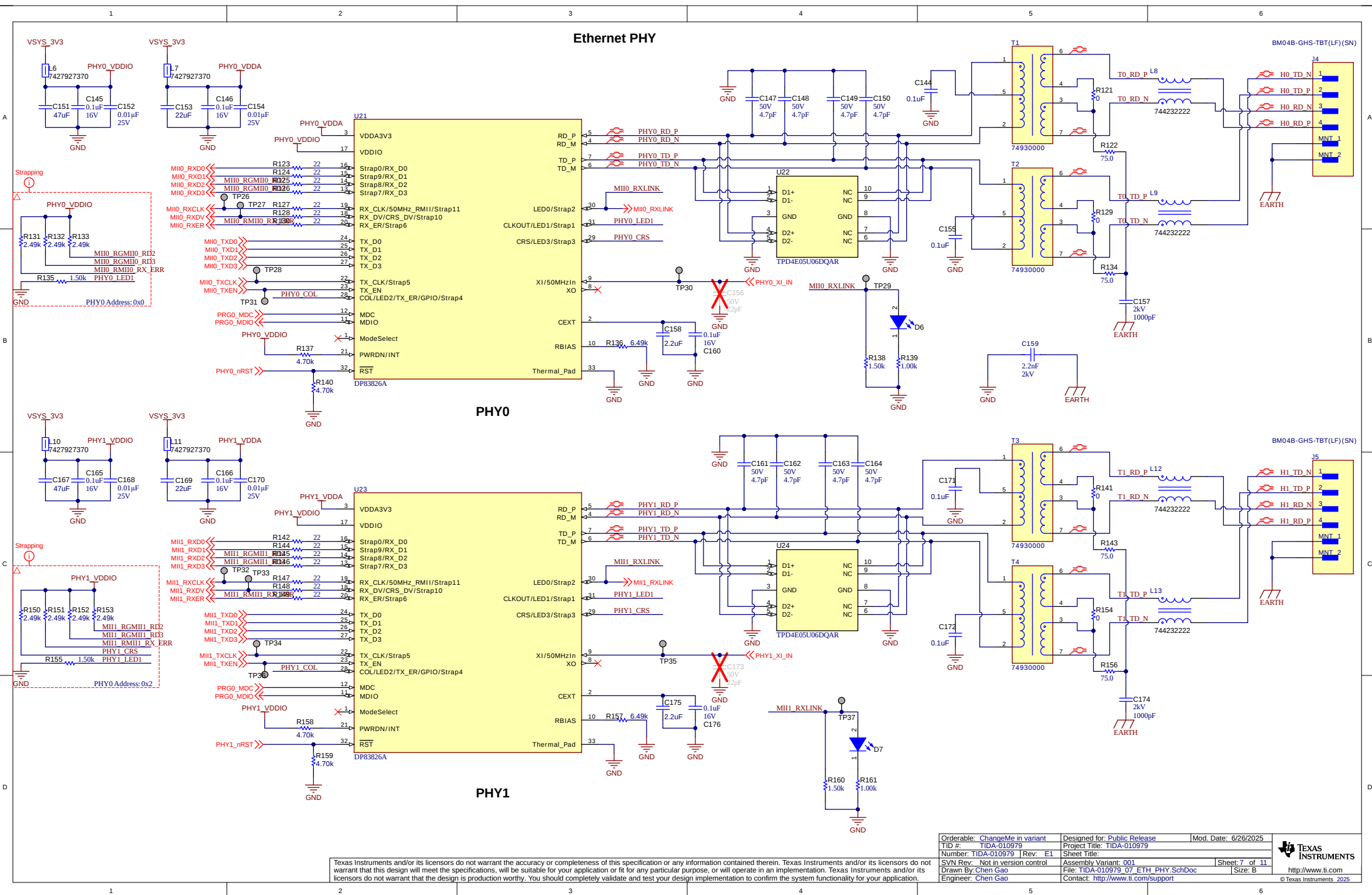
Unprogrammed Boot Mode All other combinations not defined above

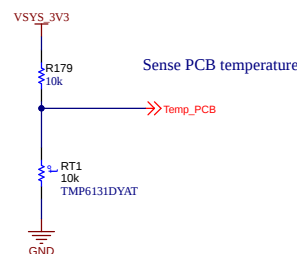
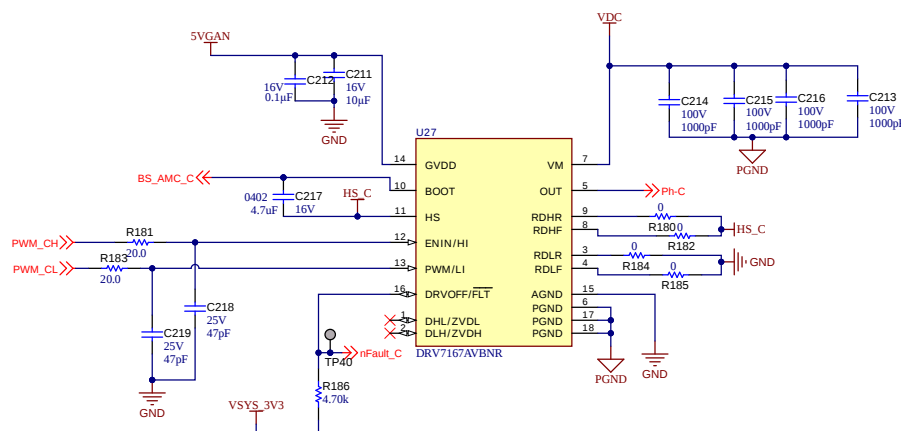
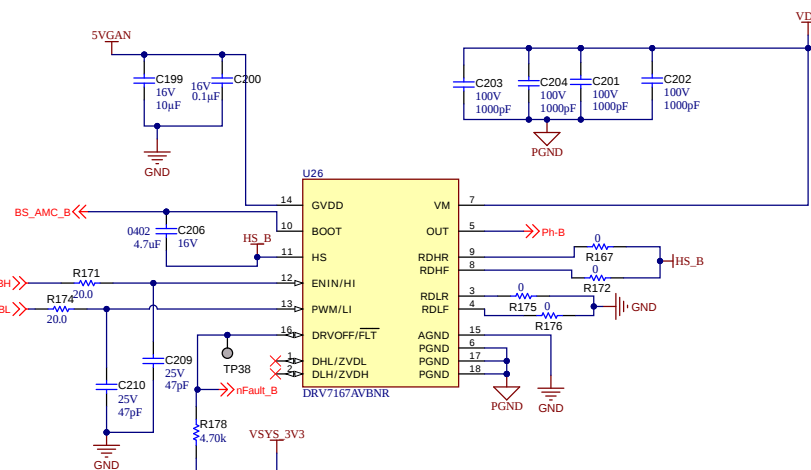
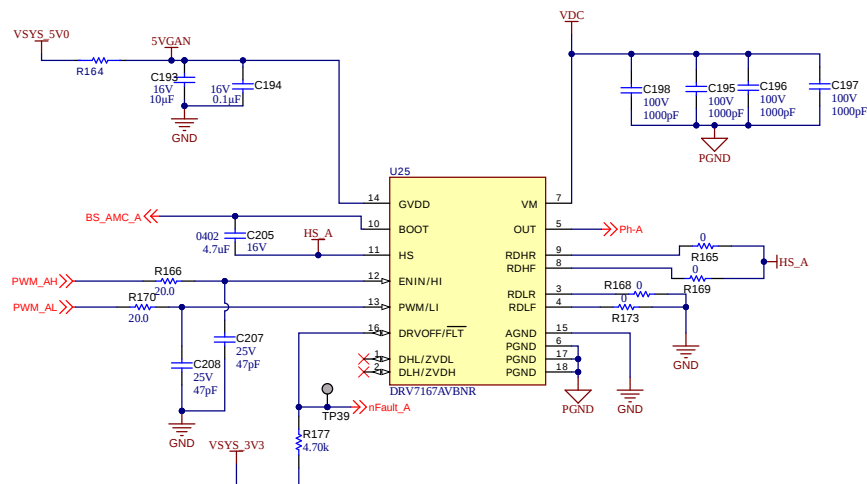
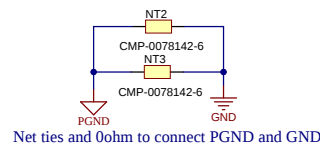
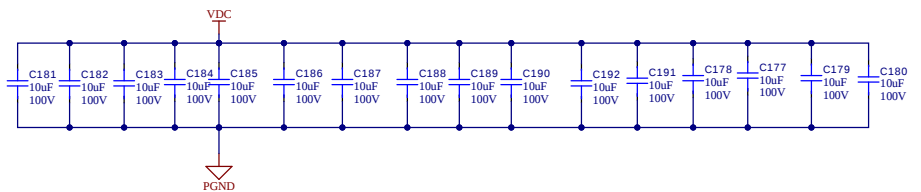


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Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 6/26/2025	 TEXAS INSTRUMENTS http://www.ti.com © Texas Instruments 2025
TID #: TIDA-010979	Project Title: TIDA-010979		
Number: TIDA-010979 Rev: E1	Sheet Title:		
SVN Rev: Not in version control	Assembly Variant: 001	Sheet 5 of 11	
Drawn by: Chen Gao	File: TIDA-010979_05_Debug_Console_IOs_SchDoc	Size: B	
Engineer: Chen Gao	Contact: http://www.ti.com/support		



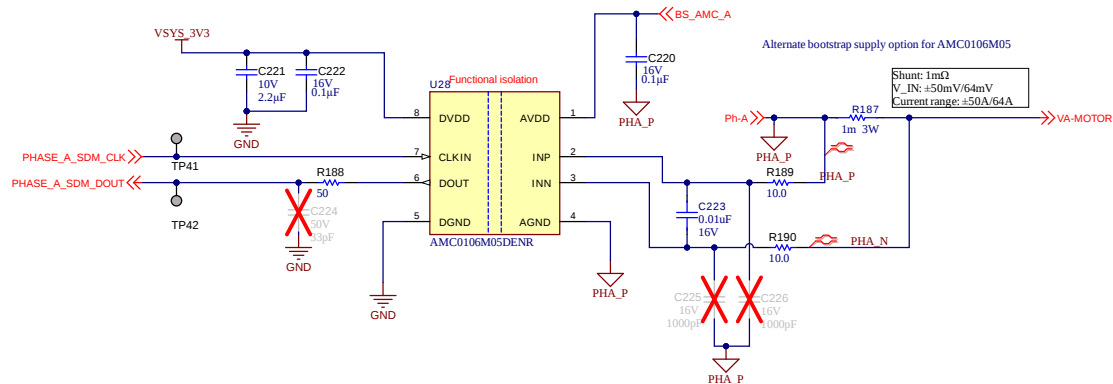




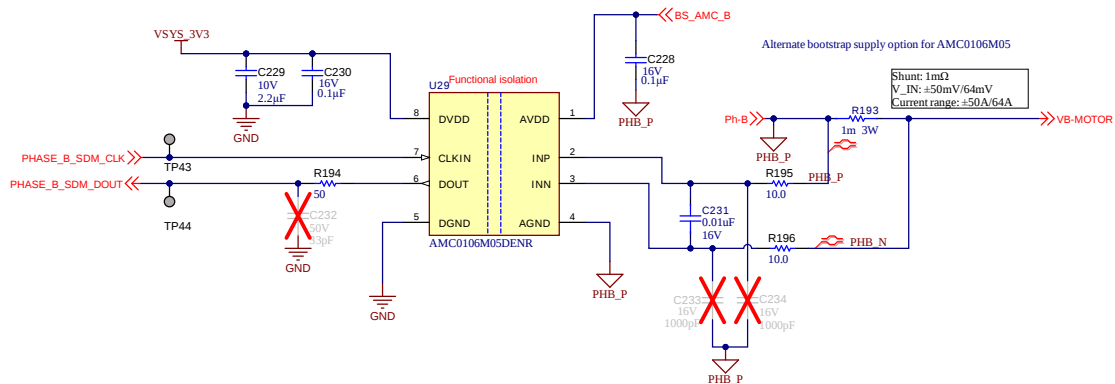
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Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 9/15/2025
TID #: TIDA-010979	Project Title: TIDA-010979	
Number: TIDA-010979 Rev: E1	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet 8 of 11
Drawn By: Chen Gao	File: TIDA-010979_08_GaN_SchDoc	Size: B
Engineer: Chen Gao	Contact: http://www.ti.com/support	

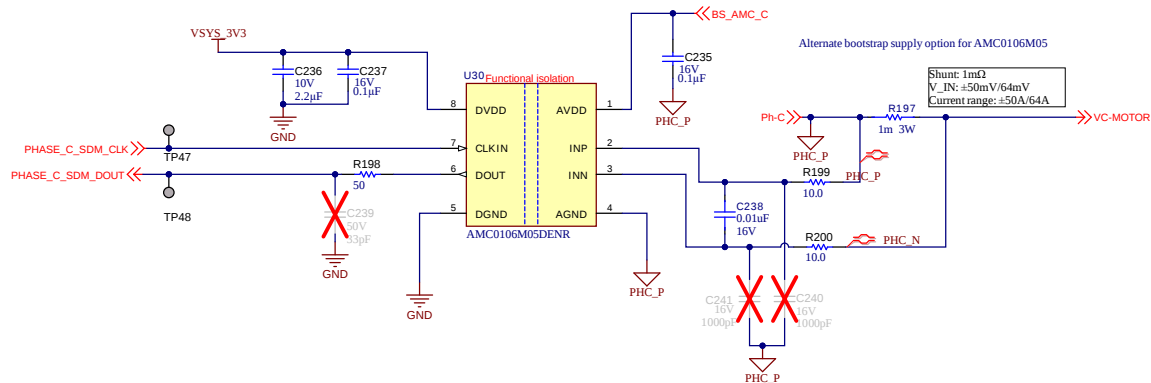
Phase A current sensing



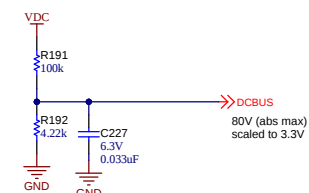
Phase B current sensing



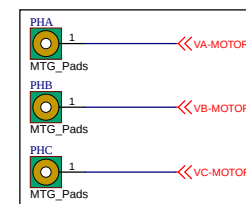
Phase C current sensing



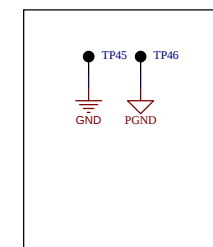
DC bus voltage sensing



Motor Connector



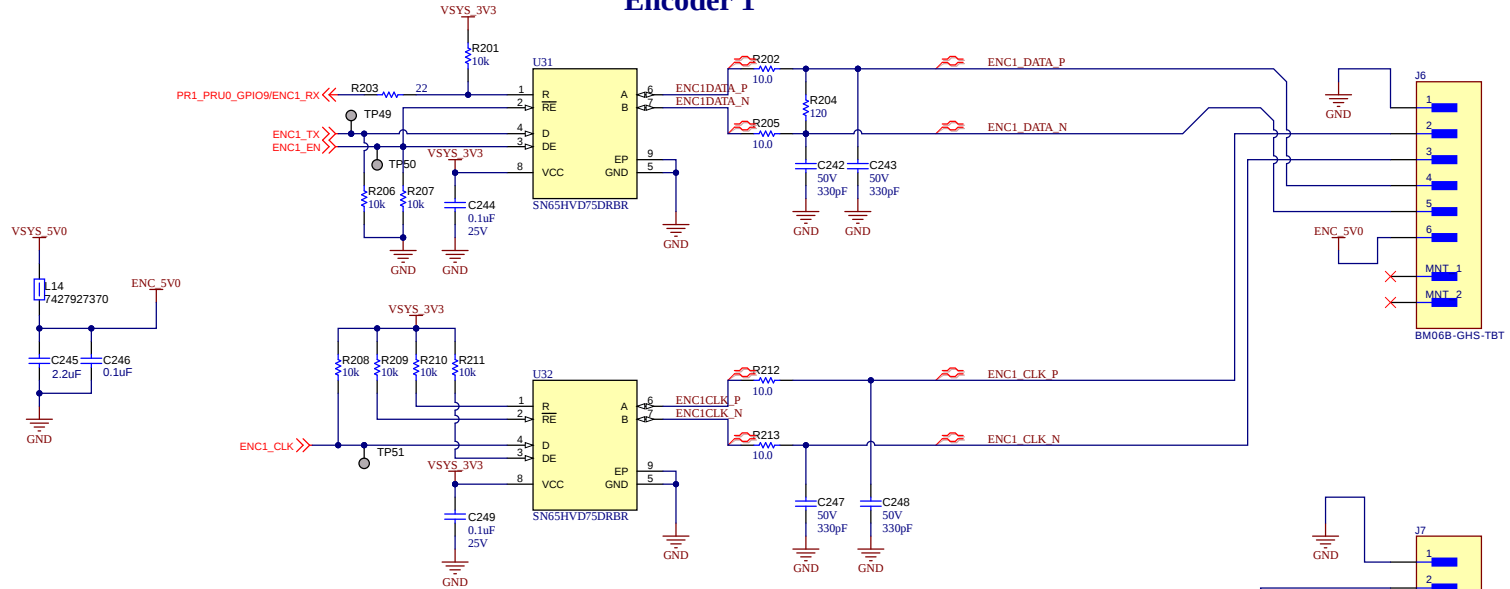
Test Points



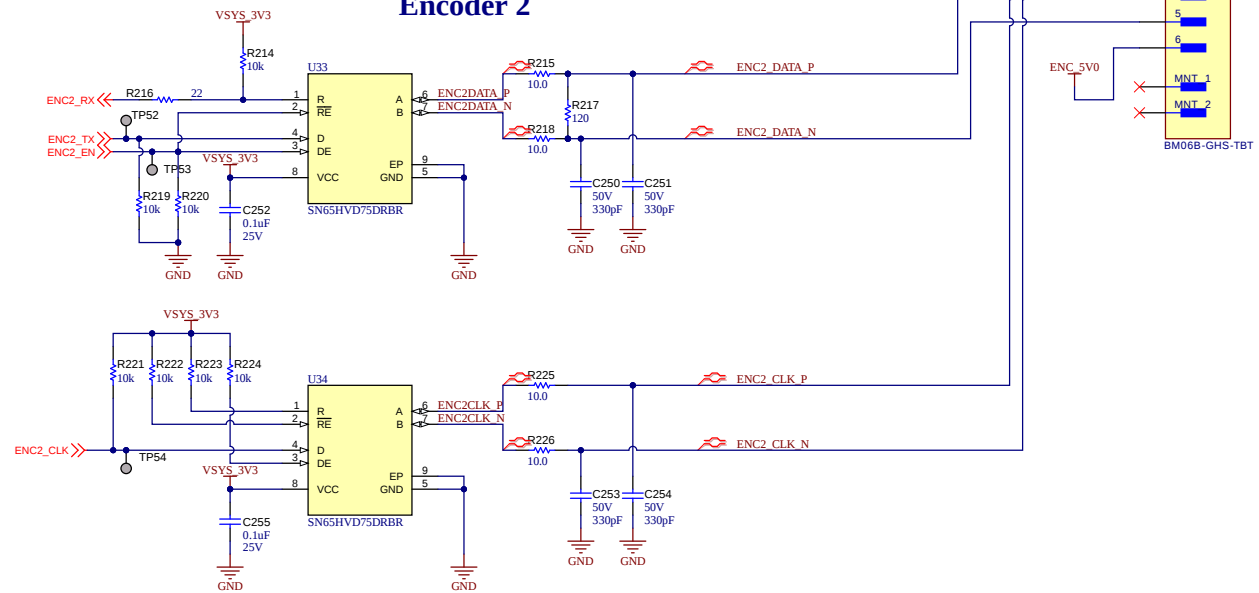
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Orderable: ChangeMe in variant TID #: TIDA-010979 Number: TIDA-010979 [Rev: E1] SVN Rev: Not in version control Drawn By: Chen Gao Engineer: Chen Gao	Designed for: Public Release Project Title: TIDA-010979 Sheet Title: Assembly Variant: 001 File: TIDA-010979_09_Current_Sense_SchDoc Contact: http://www.ti.com/support	Mod. Date: 6/26/2025 Sheet 9 of 11 Size: B http://www.ti.com © Texas Instruments 2025
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Encoder 1



Encoder 2



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Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 6/26/2025
TID #: TIDA-010979	Project Title: TIDA-010979	
Number: TIDA-010979	Rev: E1	Sheet Title:
SVN Rev: Not in version control	Assembly Variant: 001	Sheet 10 of 11
Drawn By: Chen Gao	File: TIDA-010979_10_Encoder interface GH125.54	Size: B
Engineer: Chen Gao	Contact: http://www.ti.com/support	



PCB Number: TIDA-010979
PCB Rev: E1



PCB
LOGO
FCC disclaimer

PCB
LOGO
WEEE logo



CAUTION HOT SURFACE

Variant/Label Table	
Variant	Label Text
001	TIDA-010979E1

ZZ1
Label Assembly Note
This Assembly Note is for PCB labels only

ZZ2
Assembly Note
These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ3
Assembly Note
These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

ZZ4
Assembly Note
These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

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Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 9/12/2025
TID #: TIDA-010979	Project Title: TIDA-010979	
Number: TIDA-010979	Rev: E1	Sheet Title:
SVN Rev.: Not in version control	Assembly Variant: 001	Sheet: 11 of 11
Drawn By: Chen Gao	File: TIDA-010979_Hardware_SchDoc	Size: B
Engineer: Chen Gao	Contact: http://www.ti.com/support	

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