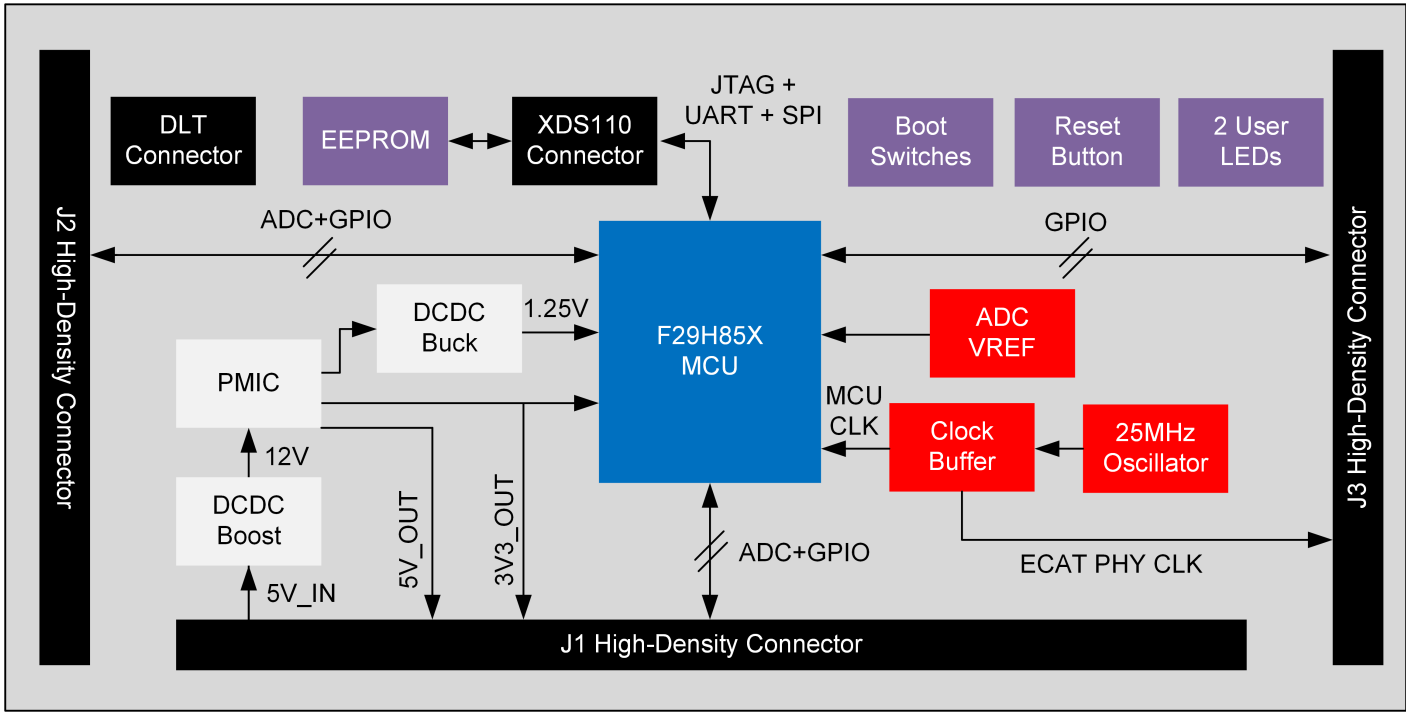


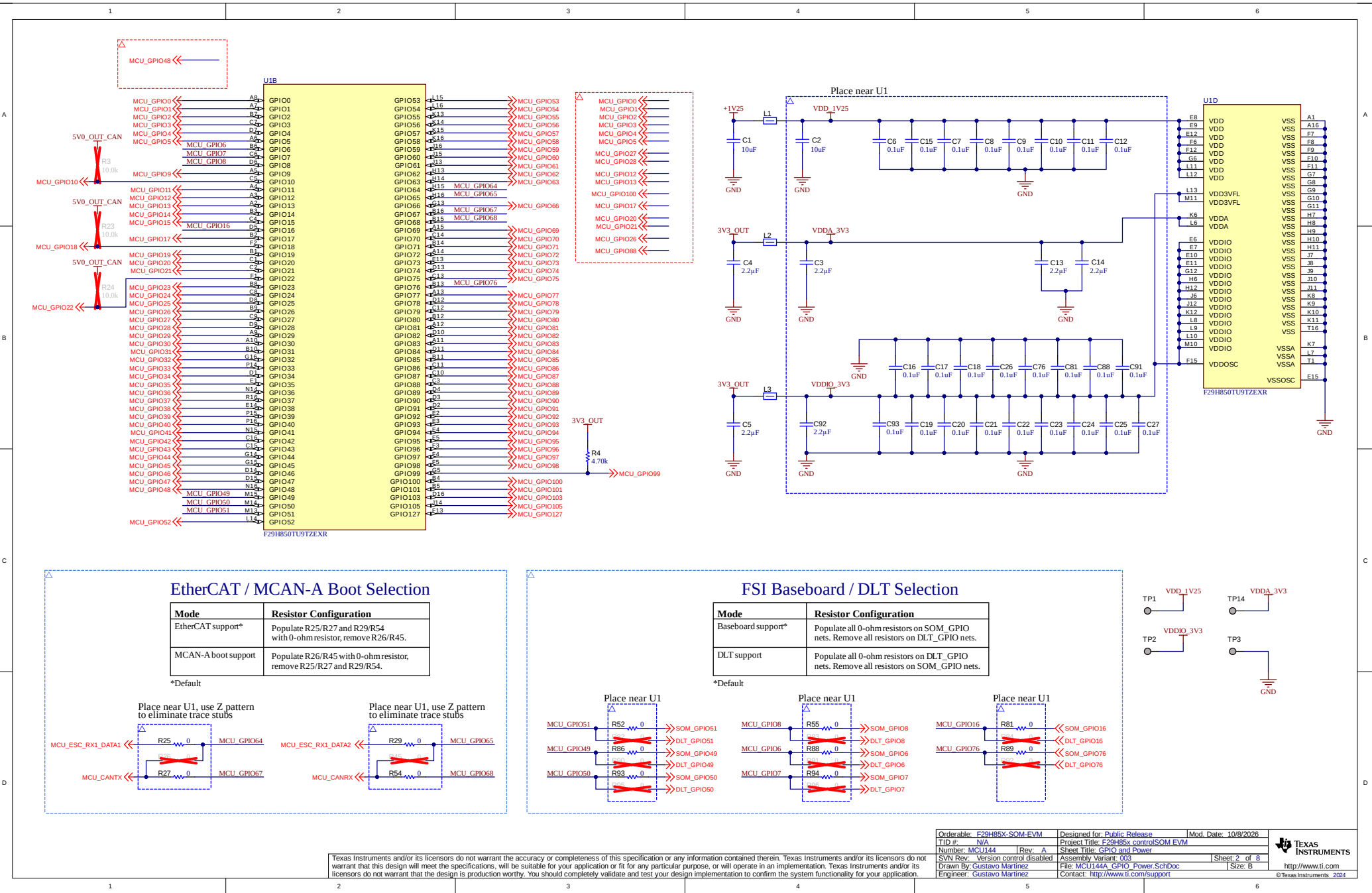
Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
E1	N/A	N/A	GM	Original engineering release.
A	N/A	Oct. 17, 2024	GM	- Changed default boot mode to 11b - Changed C97 part number - Changed internal VREF connection on S3/S4 - Changed FSI connections on J5 - Removed tracking feature from U7 - Added soft start capacitor to U7 - Changed filtering scheme for ADC external reference
A	N/A	Oct. 20, 2025	GM	Updated notes in SOM power schematic; no functional change to EVM.



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Orderable: F29H85X-SOM-EVM	Designed for: Public Release	Mod. Date: 10/20/2025
TID #: N/A	Project Title: F29H85X controlSOM EVM	
Number: MCU144	Rev: A	Sheet Title: Block Diagram
SVN Rev: Version control disabled	Assembly Variant: 003	Sheet: 1 of 8
Drawn By: Gustavo Martinez	File: MCU144A_Coversheet.SchDoc	Size: B
Engineer: Gustavo Martinez	Contact: http://www.ti.com/support	http://www.ti.com

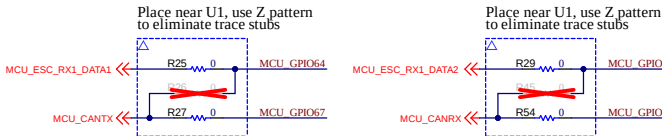




EtherCAT / MCAN-A Boot Selection

Mode	Resistor Configuration
EtherCAT support*	Populate R25/R27 and R29/R54 with 0-ohm resistor, remove R26/R45.
MCAN-A boot support	Populate R26/R45 with 0-ohm resistor, remove R25/R27 and R29/R54.

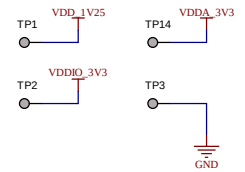
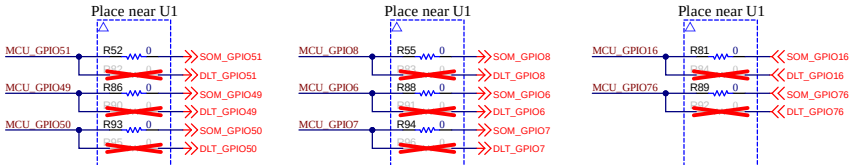
*Default



FSI Baseboard / DLT Selection

Mode	Resistor Configuration
Baseboard support*	Populate all 0-ohm resistors on SOM_GPIO nets. Remove all resistors on DLT_GPIO nets.
DLT support	Populate all 0-ohm resistors on DLT_GPIO nets. Remove all resistors on SOM_GPIO nets.

*Default



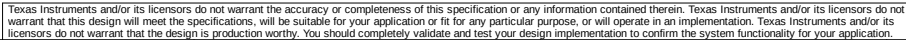
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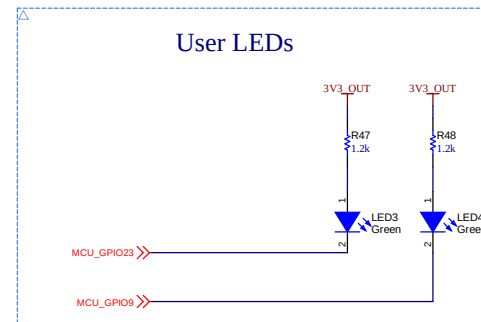
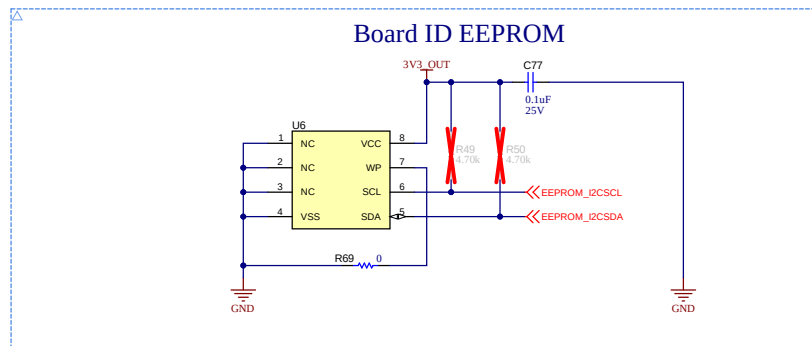
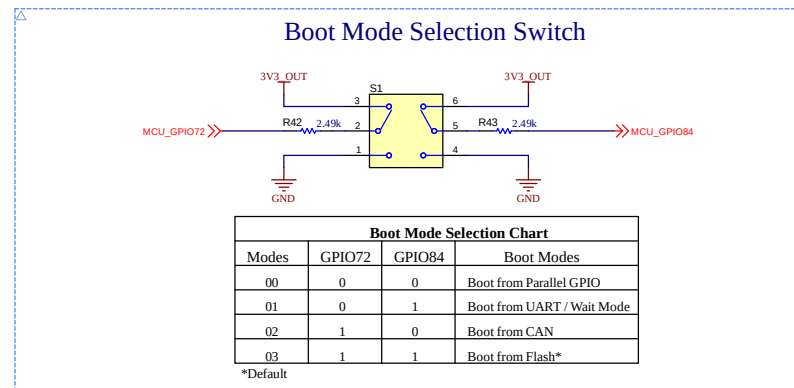
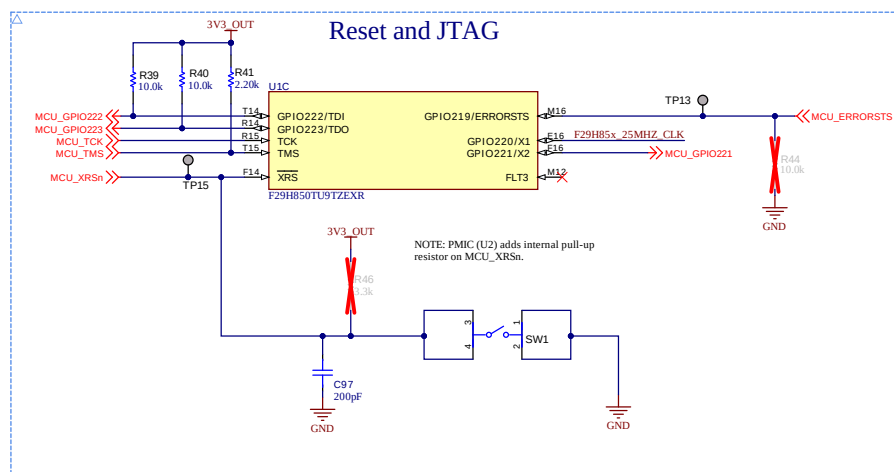
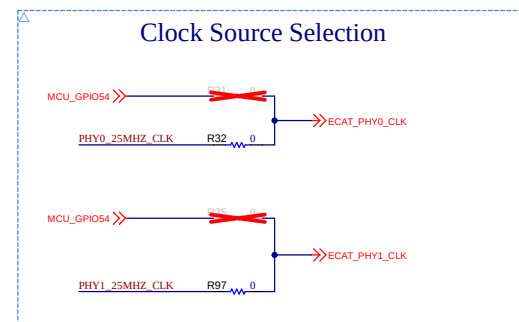
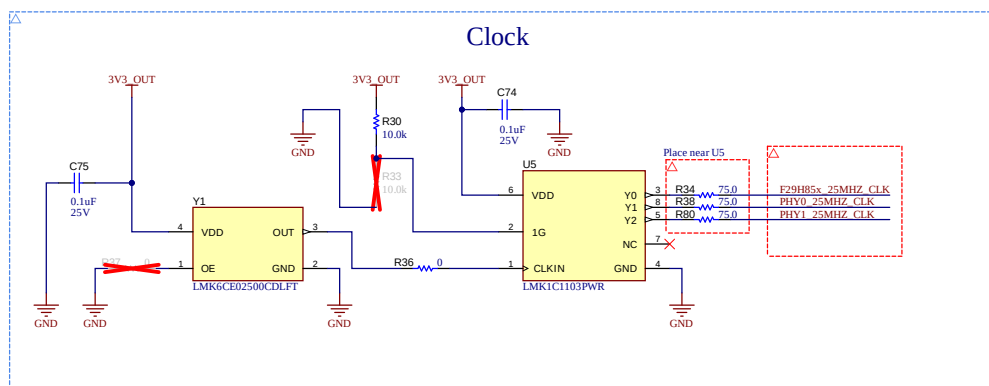
Orderable: F29H85X-SOM-EVM
TID #: N/A
Number: MCUI44
SVN Rev: Version control disabled
Drawn By: Gustavo Martinez
Engineer: Gustavo Martinez

Designed for: Public Release
Project Title: F29H85X control SOM EVM
Sheet Title: GPIO and Power
Assembly Variant: 003
File: MCUI44A_GPIO_Power.SchDoc
Contact: <http://www.ti.com/support>

Mod. Date: 10/8/2026
SOM EVM
Sheet: 2 of 8
Size: B

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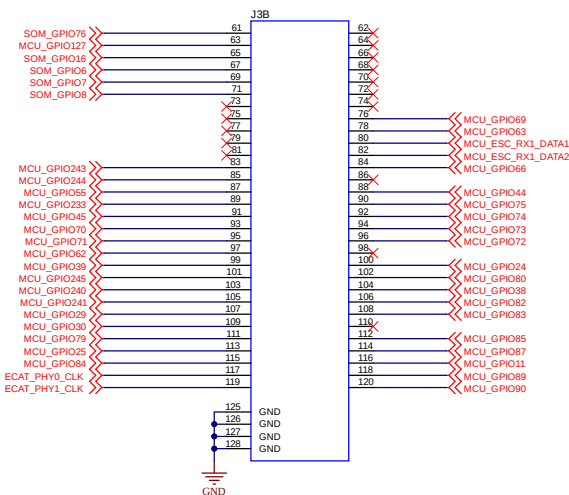
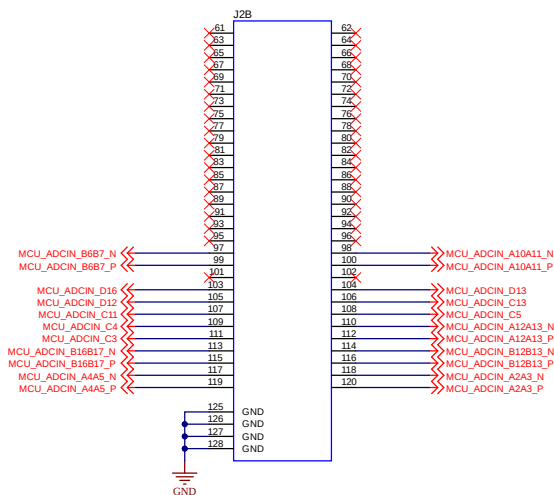
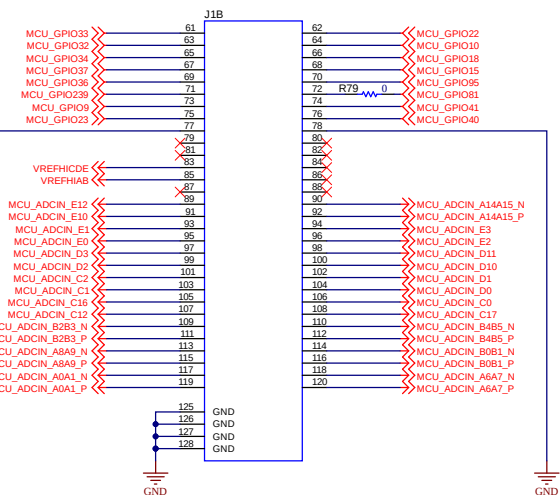
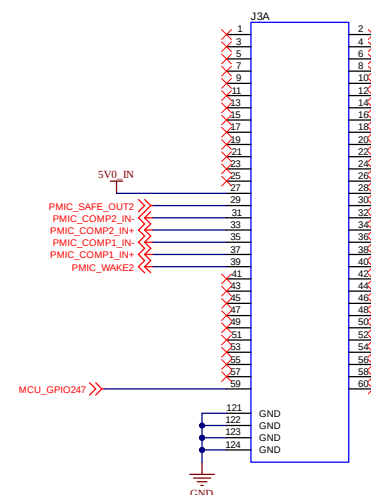
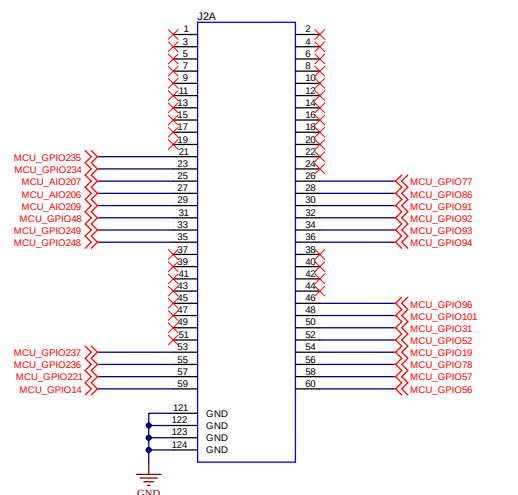
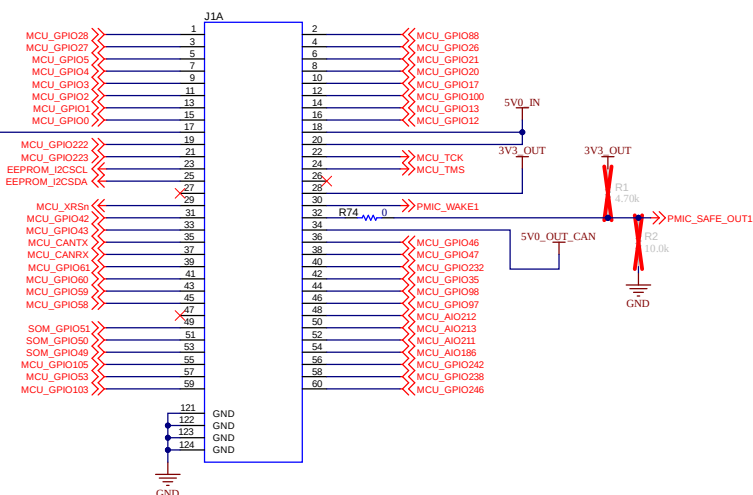




High Density Connector J1

High Density Connector J2

High Density Connector J3



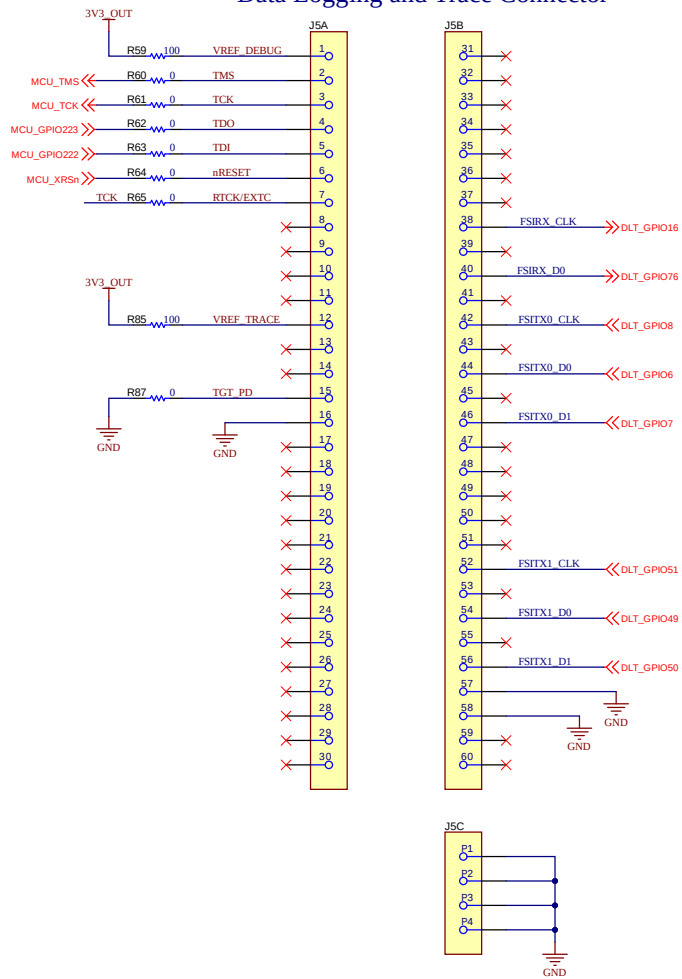
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Orderable: F29H85X-SOM-EVM	Designed for: Public Release	Mod. Date: 7/1/2024
TID #: N/A	Project Title: F29H85X controlSOM EVM	
Number: MCU144	Rev: A	Sheet Title: Baseboard Connectors
SVN Rev: Version control disabled	Assembly Variant: 003	Sheet: 6 of 8
Drawn By: Gustavo Martinez	File: MCU144A_Baseboard_Connectors_SchDoc	Size: B
Engineer: Gustavo Martinez	Contact: http://www.ti.com/support	

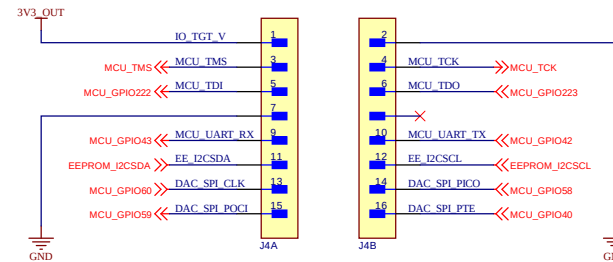


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Data Logging and Trace Connector



Emulator Connector



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Orderable: F29H85X-SOM-EVM	Designed for: Public Release	Mod. Date: 10/23/2024
TID #: N/A	Project Title: F29H85X controlSOM EVM	
Number: MCU144	Rev: A	Sheet Title: Emulation Connectors
SVN Rev: Version control disabled	Assembly Variant: 003	Sheet: 7 of 8
Drawn By: Gustavo Martinez	File: MCU144A Emulation Connectors.SchDoc	Size: B
Engineer: Gustavo Martinez	Contact: http://www.ti.com/support	http://www.ti.com



PCB Number: MCU144
PCB Rev: A

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FCC disclaimer

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WEEE logo



MTG NoPads



MTG NoPads



MTG NoPads



MTG NoPads

Variant/Label Table	
Variant	Variant Description
001	25-MHz clock disabled; U2 NRST read-back disabled; see user guide for details.
002	25-MHz clock disabled; see user guide for details.
003	Full-feature
004	Full-feature with L1 alternate part

ZZ1

Label Assembly Note

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.

Orderable: F29H85X-SOM-EVM		Designed for: Public Release		Mod. Date: 10/8/2026	
TID #: N/A		Project Title: F29H85X-ctrl-toSOM EVM		 TEXAS INSTRUMENTS	
Number: MCU144		Rev: A			
SVN Rev: Version control disabled		Assembly Name: 003		Sheet: 8 of 8	
Drawn by: Gustavo Martinez		File: MCU144A EVM Hardware_SchDoc		Size: B	
Engineer: Gustavo Martinez		Contact: http://www.ti.com/support		http://www.ti.com © Texas Instruments 2024	

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