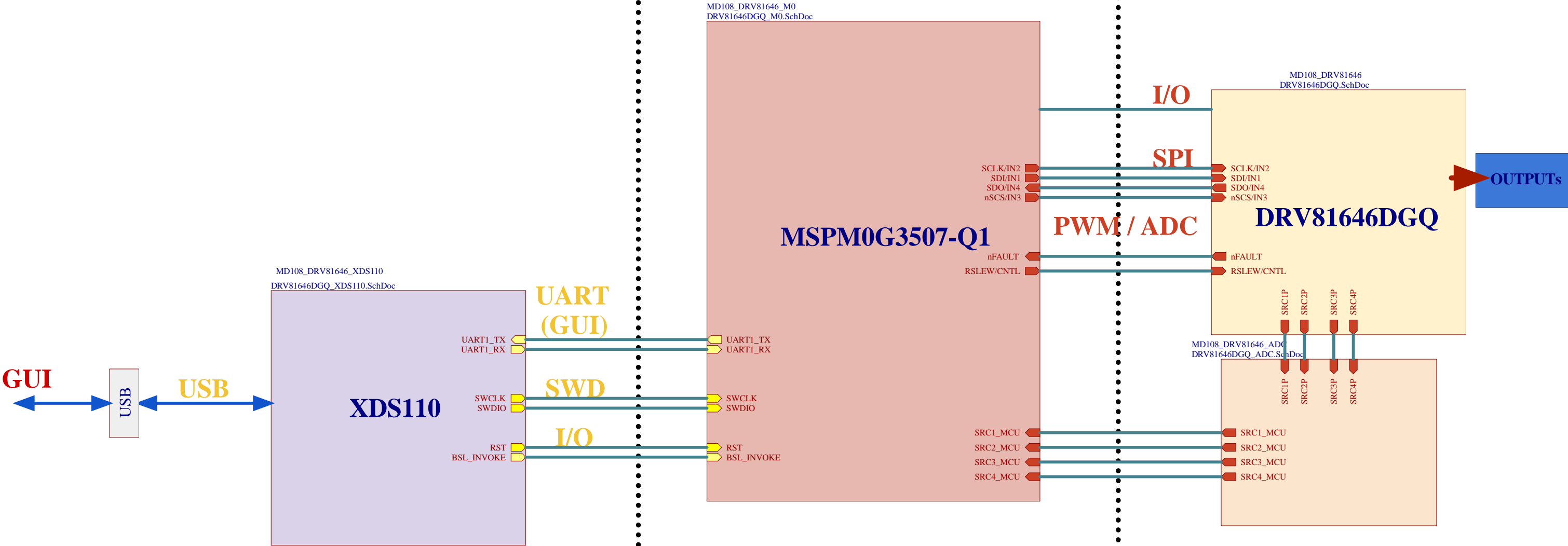


DRV81646DGQ TOP LEVEL SCHEMATIC

PROCESSING


DRIVER + OUTPUTS



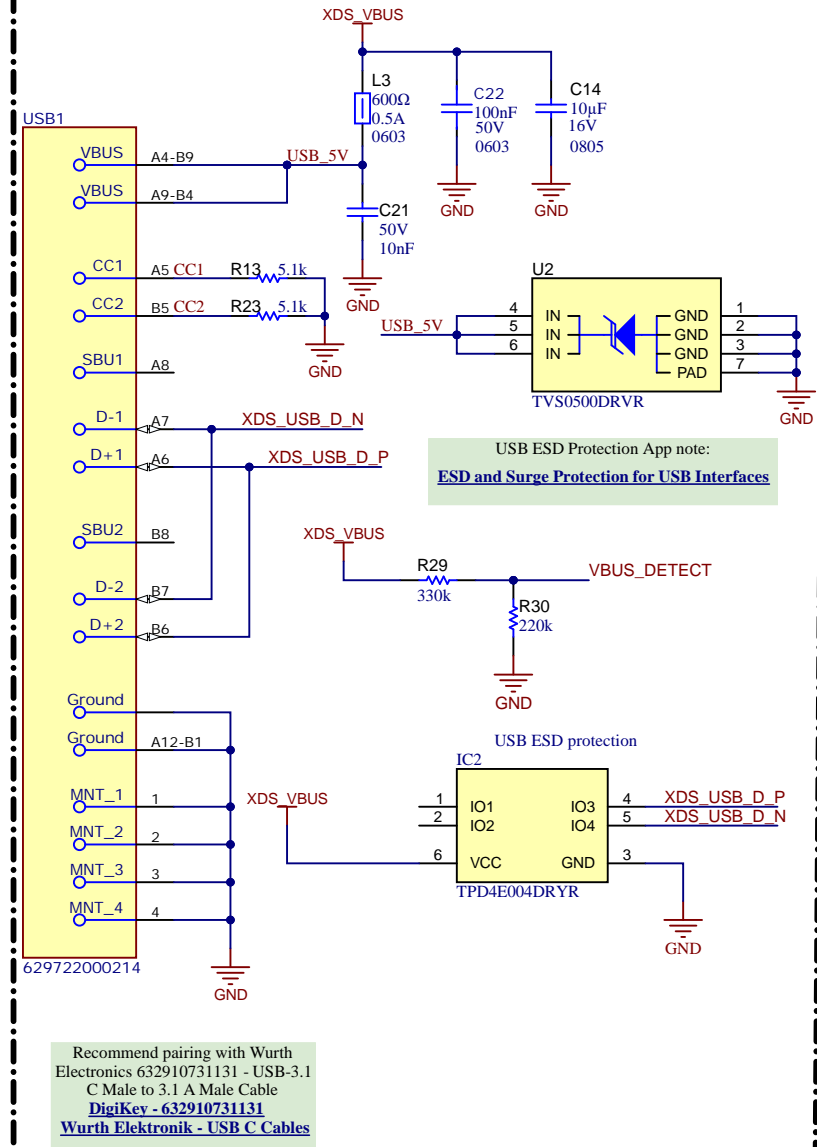
MD108_DRV81646__Hardware
DRV81646DGQ_Hardware.SchDoc

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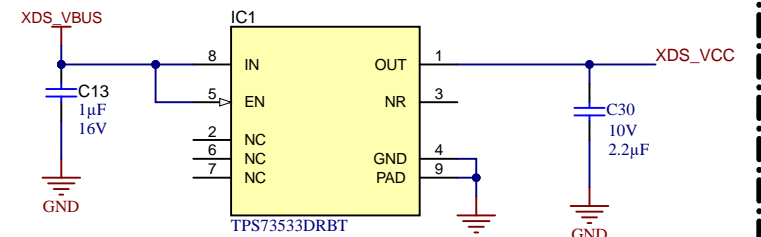
Orderable: DRV81646DGQEVM	Designed for: Public Release	Mod. Date: 6/6/2025
TID #: N/A	Project Title: DRV81646DGQ	
Number: MD108-001	Rev: E1	Sheet Title: TOP LEVEL SCHEMATIC
SVN Rev: Not in version control	Assembly Variant: DRV81646DGQ	Sheet: 0 of 5
Drawn By: Mojtaba Afshar	File: DRV81646DGQ_Top_Level.SchDoc	Size: B
Engineer: Mojtaba Afshar	Contact: http://www.ti.com/support	

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INSTRUMENTS**
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USB-C Interface, ESD Protection



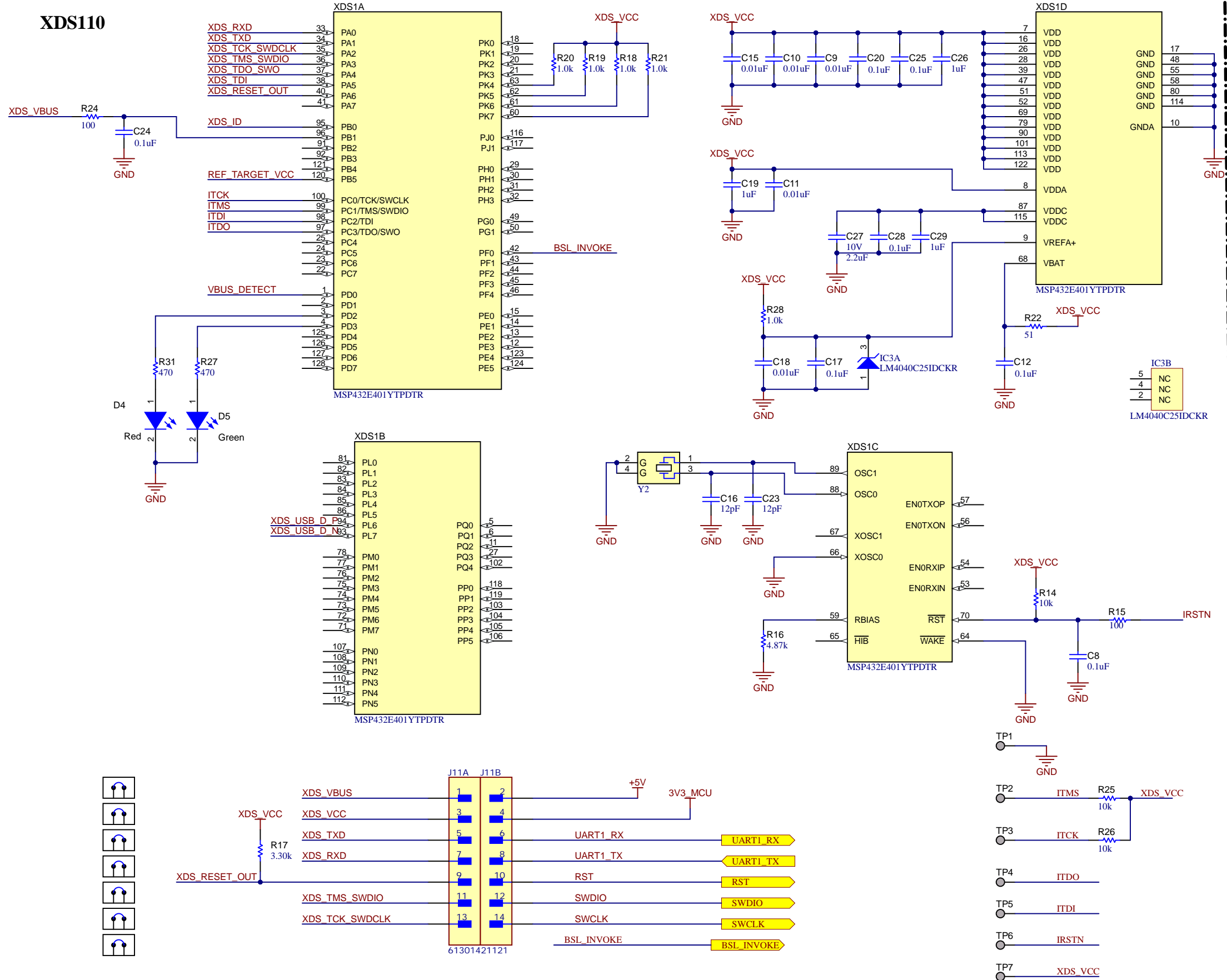
3.3V LDO



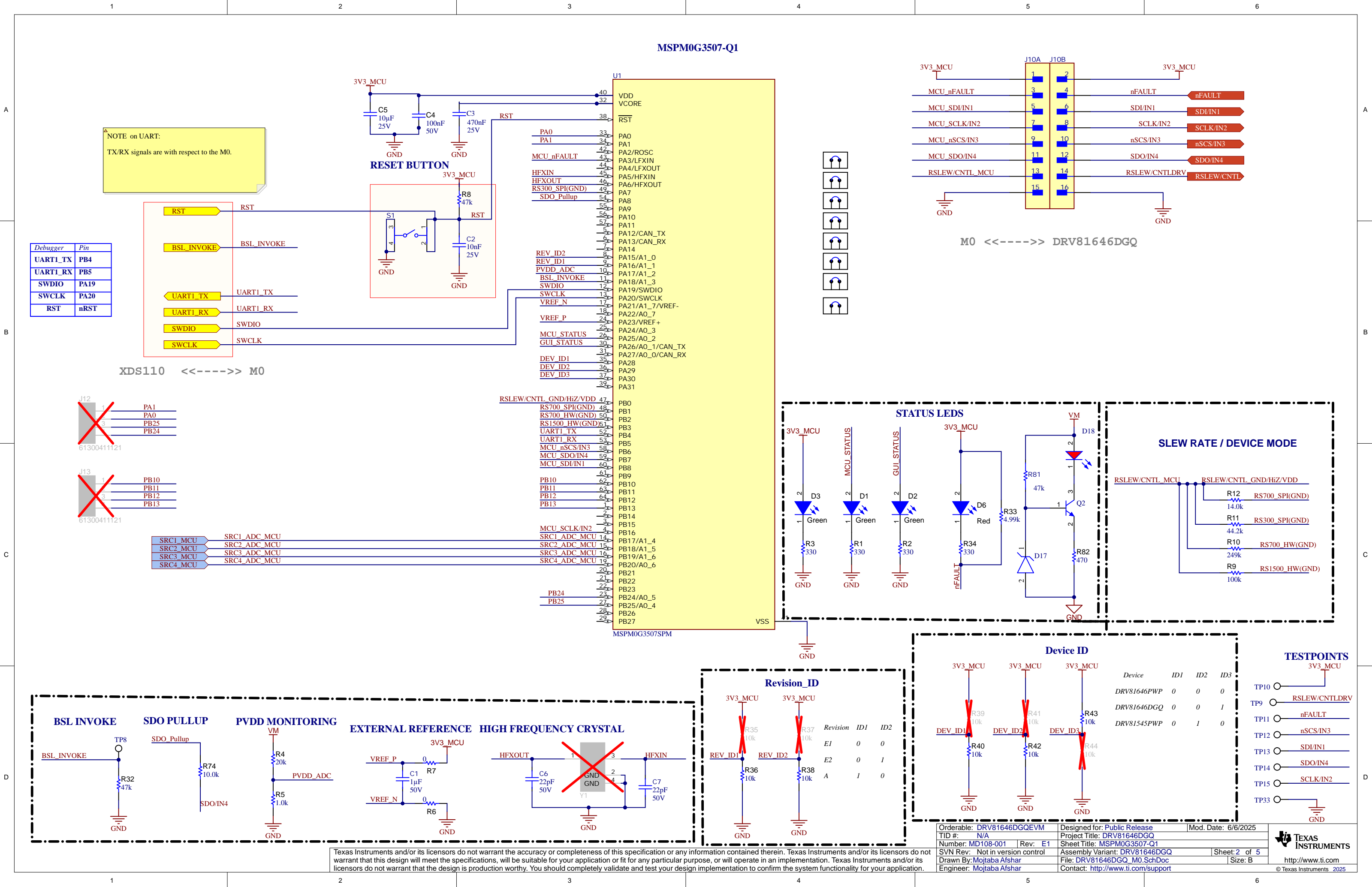
500-mA
Low IQ: 45 μA
Stable With a Ceramic, 2.2-μF, Low-ESR Output Capacitor

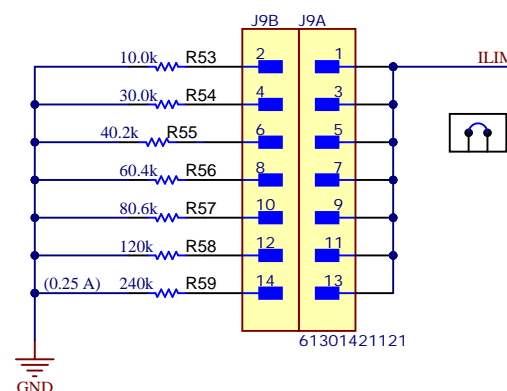
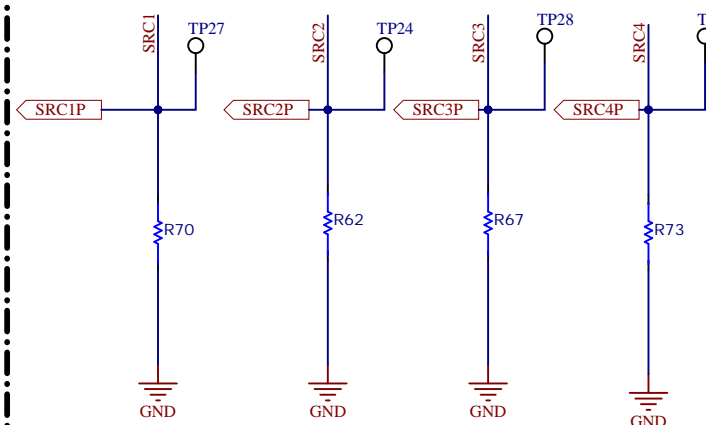
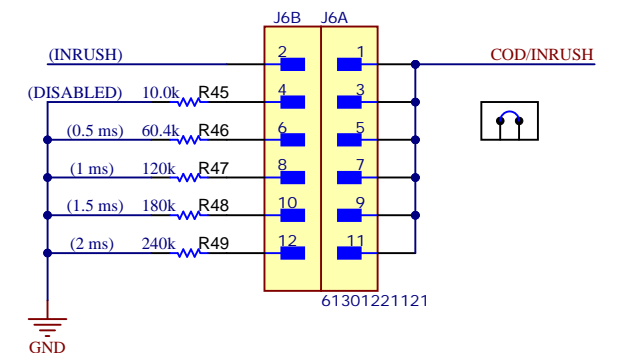
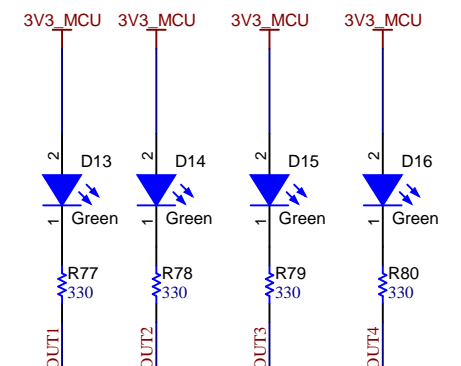
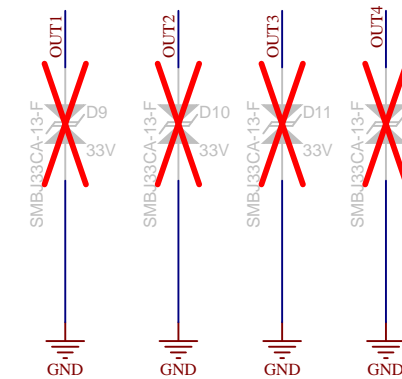
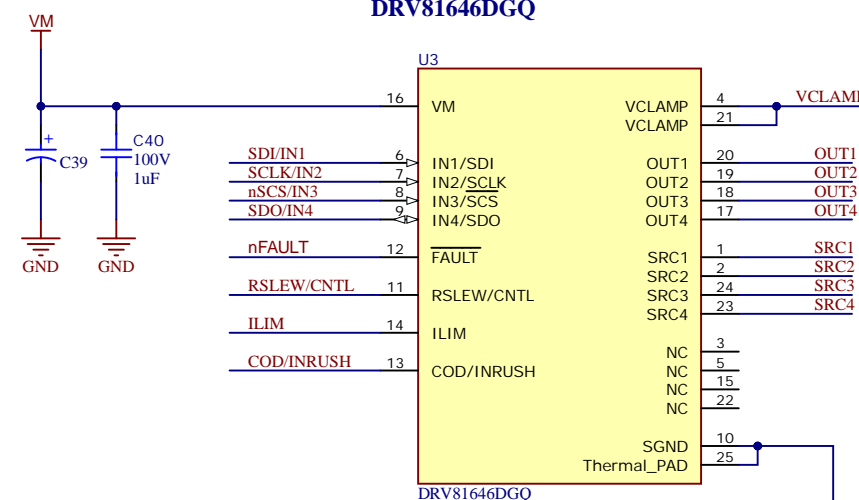
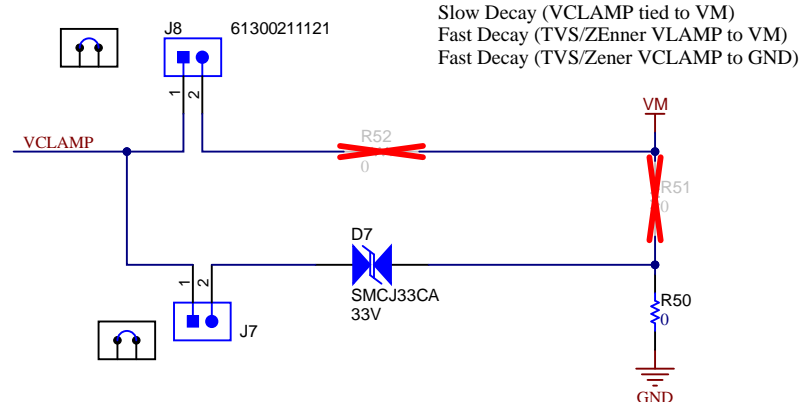
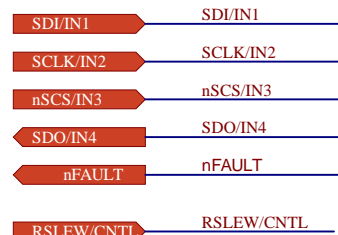
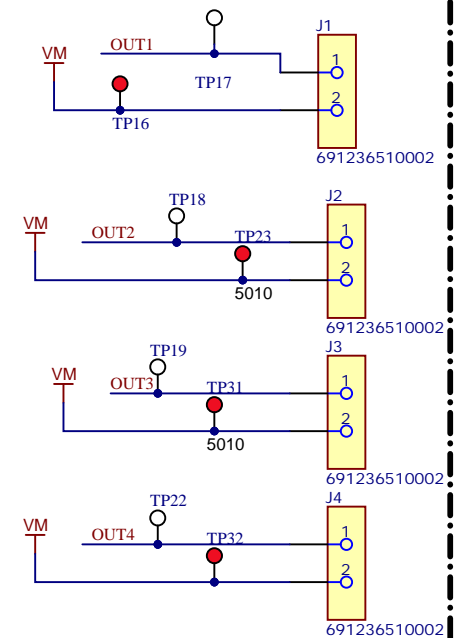
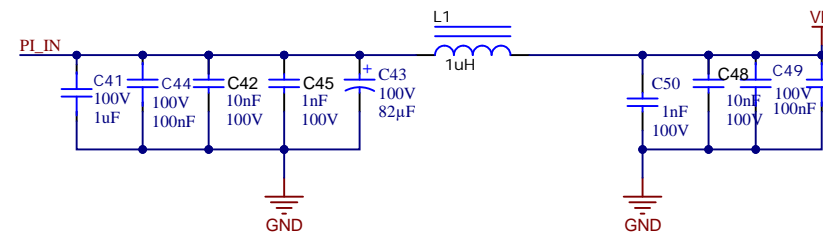
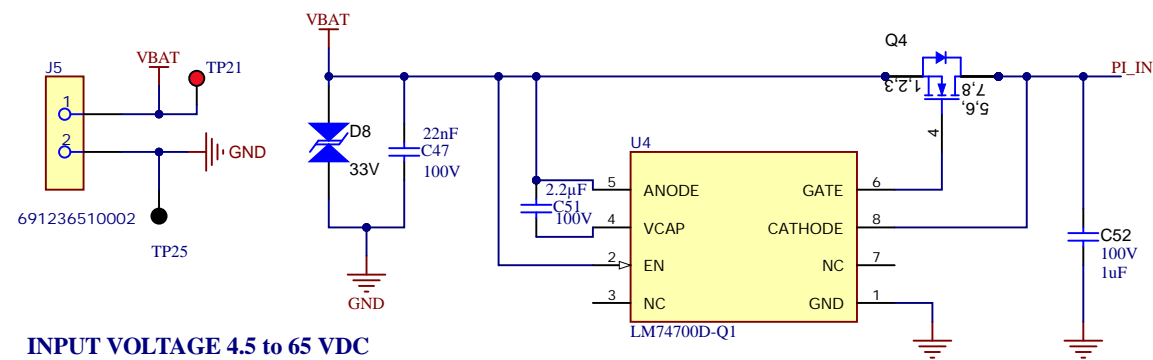
XDS--
LDO current IINRUSH Inrush current 50 max 250 mA
Peripheral Current Consumption

XDS110



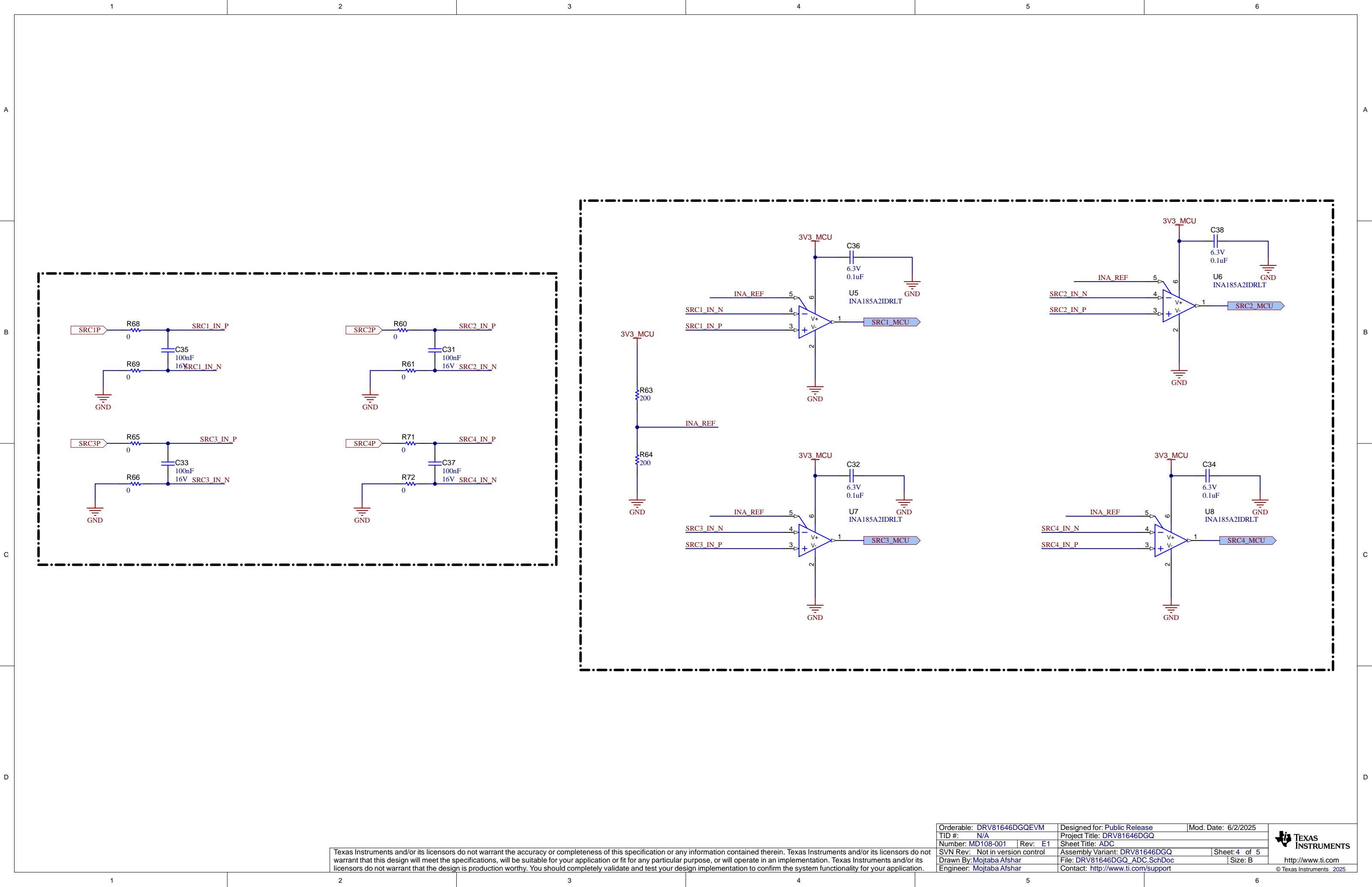
Orderable: DRV81646DGQEV	Designed for: Public Release	Mod. Date: 5/18/2025
TID #: N/A	Project Title: DRV81646DGQ	
Number: MD108-001	Rev: E1	Sheet Title: XDS110
SVN Rev: Not in version control	Assembly Variant: DRV81646DGQ	Sheet: 1 of 5
Drawn By: Mojtaba Afshar	File: DRV81646DGQ_XDS110.SchDoc	Size: B
Engineer: Mojtaba Afshar	Contact: http://www.ti.com/support	





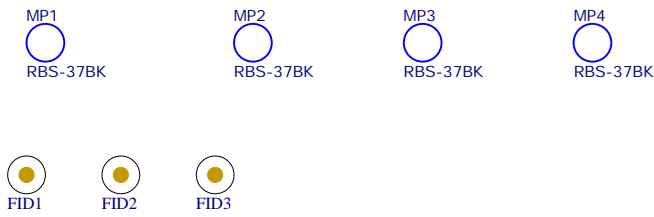
RILIM Resistor between ILIM and SGND
 $0 < \text{RILIM} < 20\text{k}\Omega$: ILIM Limited to 3A
 $30\text{k}\Omega \leq \text{RILIM} < 120\text{k}\Omega$: ILIM Limited to 60 / RILIM (k Ω)
 $120\text{k}\Omega \leq \text{RILIM}$: ILIM Limited to 60 / RILIM (k Ω). Linearity is not guaranteed.

COD/INRUSH
 $0 \leq \text{RCOD} < 20\text{k}\Omega$: Disabled
 $60\text{k}\Omega \leq \text{RCOD} \leq 240\text{k}\Omega \rightarrow \text{tCOD (ms)} = \text{RCOD(k}\Omega)/120$
 Unconnected: INRUSH mode




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Orderable: DRV81646DGGQEV	Designed for: Public Release	Mod. Date: 6/2/2025
TID #: N/A	Project Title: DRV81646DGGQ	
Number: MD108-001	Rev: E1	Sheet Title: ADC
SVN Rev: Not in version control	Assembly Variant: DRV81646DGGQ	Sheet: 4 of 5
Drawn By: Mojtaba Afshar	File: DRV81646DGGQ_ADC.SchDoc	Size: B
Engineer: Mojtaba Afshar	Contact: http://www.ti.com/support	




PCB Number: MD108-001
PCB Rev: E1

PCB
LOGO
Texas Instruments


CE Mark

PCB
LOGO
FCC disclaimer

PCB
LOGO
WEEE logo


CAUTION HOT SURFACE

PCB
LOGO
CAUTION. READ USER GUIDE BEFORE USE

Variant/Label Table	
Variant	Label Text
001	DRV8000-Q1EVM

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.