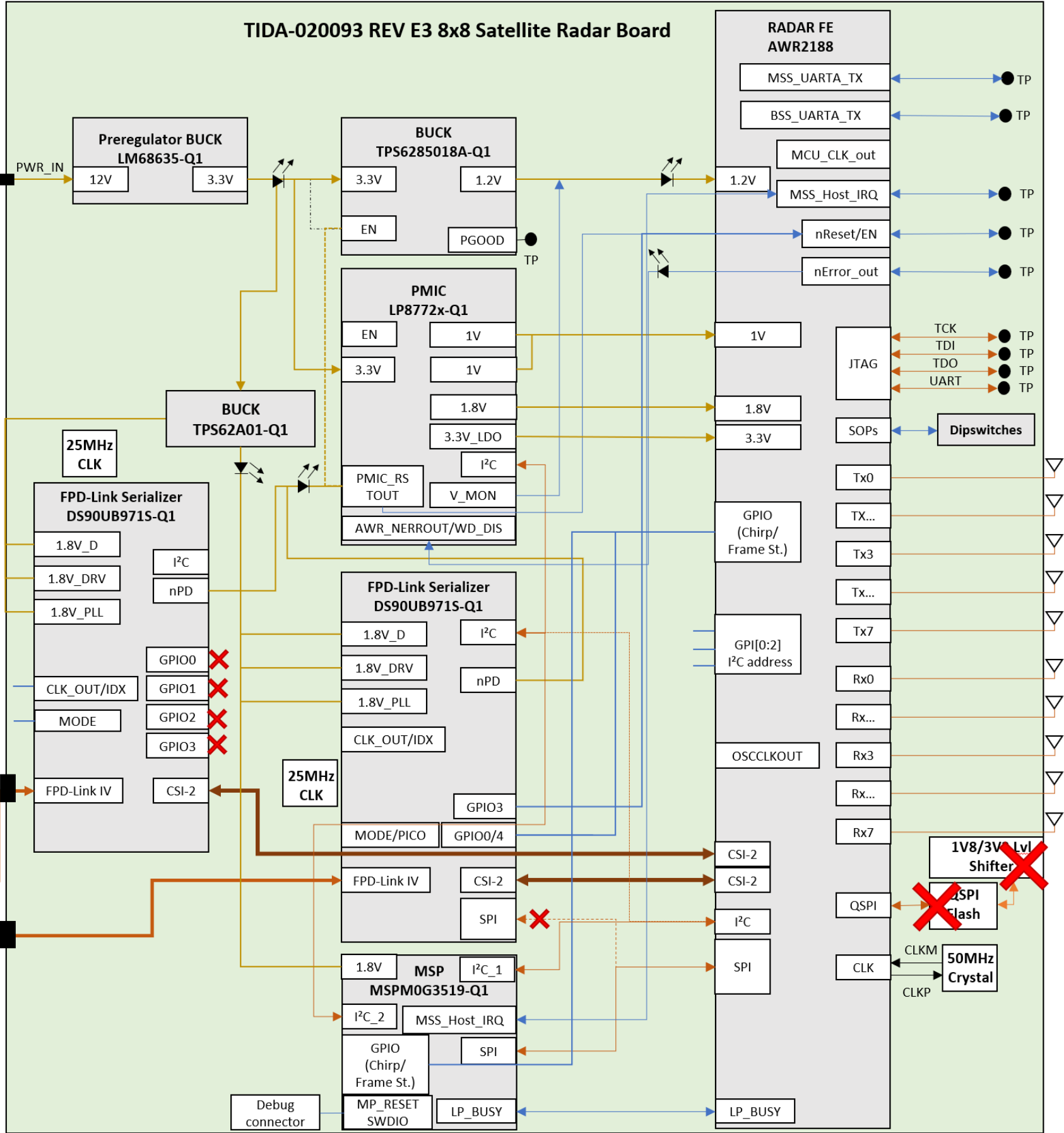
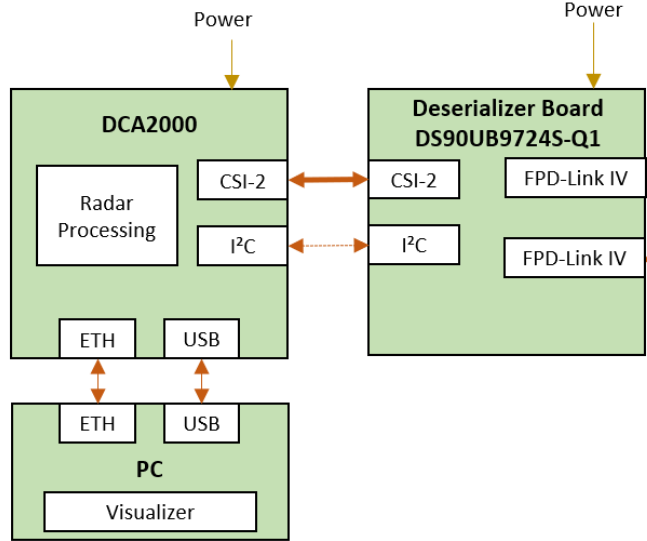


TIDA-020093: AWR2188 SATELLITE RADAR REFERENCE DESIGN

- 12V Input via PoC or Barrel Jack

Status
Power
Data
● Test Point
TP

ESP1.0 of AWR is represented by variant PG1.0 (usage of 2x971 in non-synchronous mode, MSPM0 for I2C to SPI conversion).
ESP2.0 of AWR (one CSI2) is represented by variant PG2.0 (usage of 1x971S directly connected via SPI to AWR)



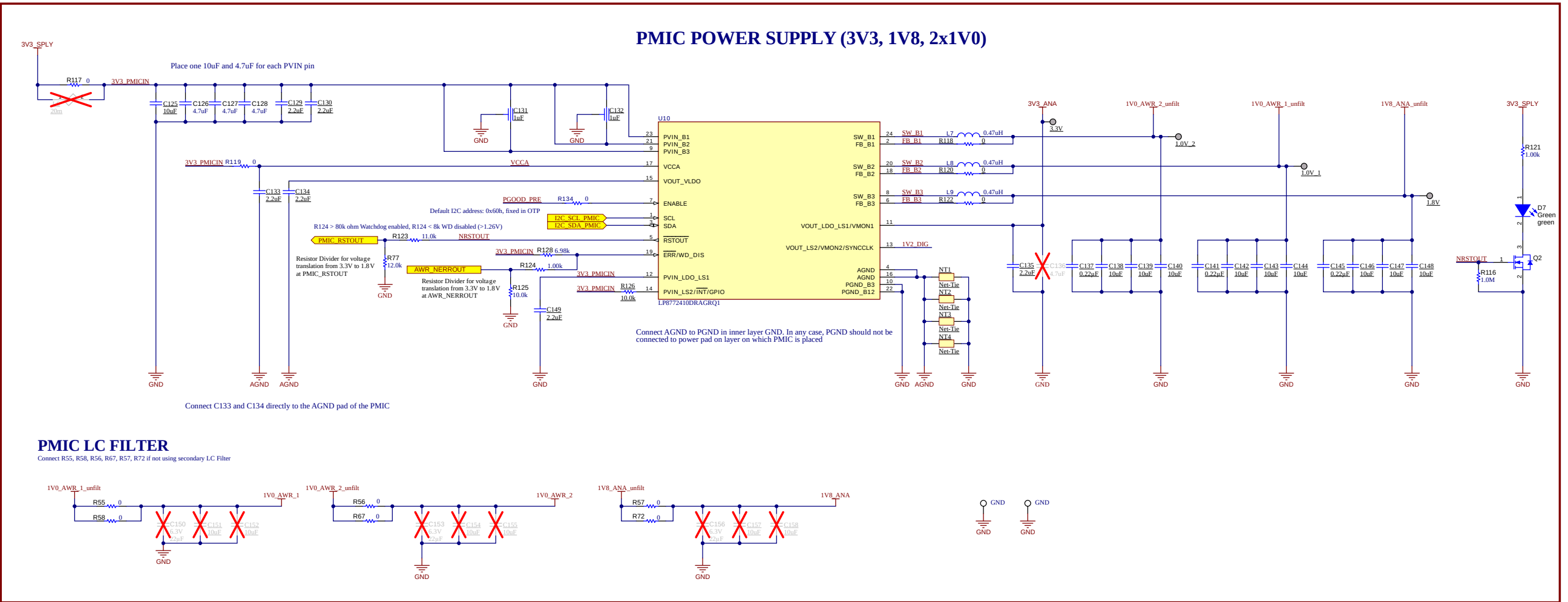
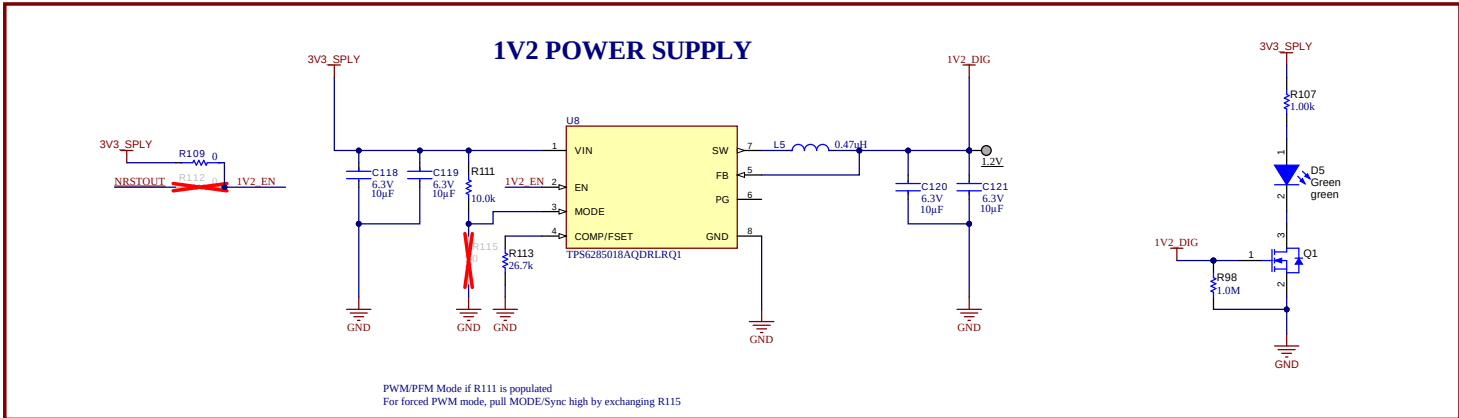
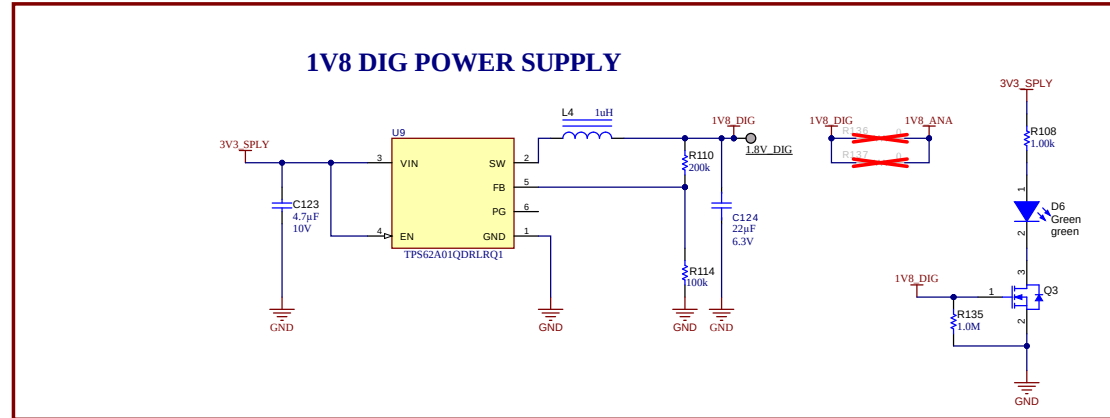
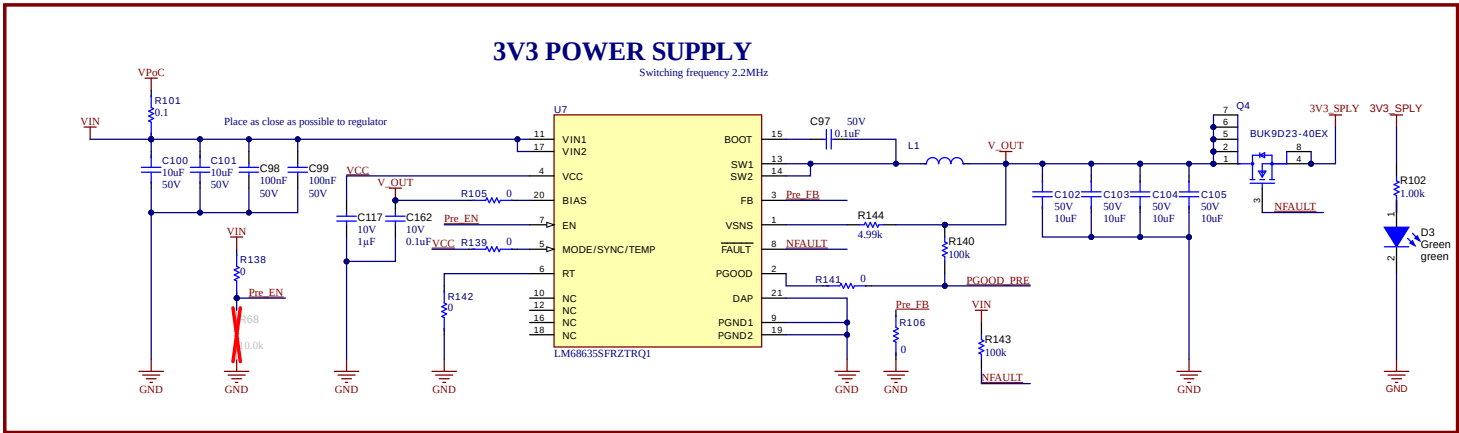
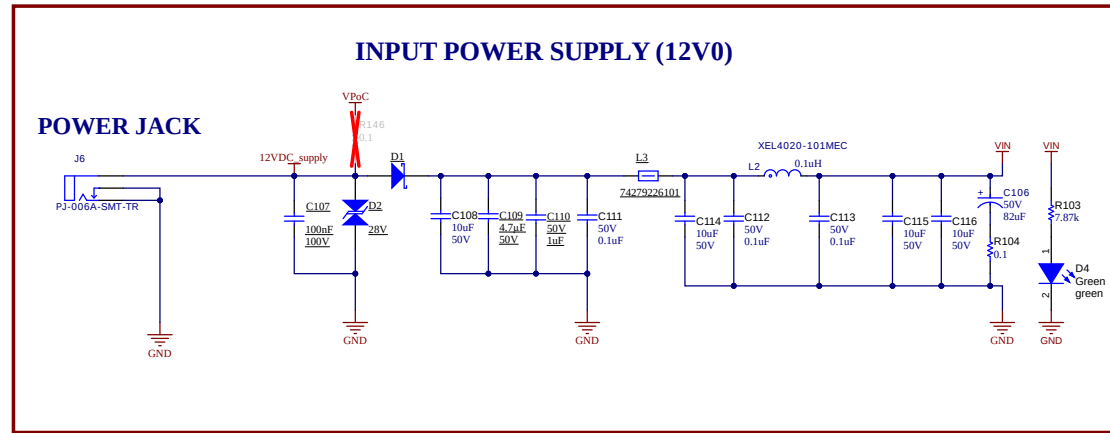
Texas Instruments and/or its licensors do not warrant the accuracy or completeness of this specification or any information contained therein. Texas Instruments and/or its licensors do not warrant that this design will meet the specifications, will be suitable for your application or fit for any particular purpose, or will operate in an implementation. Texas Instruments and/or its licensors do not warrant that the design is production worthy. You should completely validate and test your design implementation to confirm the system functionality for your application.

Orderable: N/A
TID #: TIDA-020093
Number: TIDA-020093 Rev: E3
SVN Rev: Not in version control
Drawn By: Katharina Ehmke
Engineer: Yannik Muendler

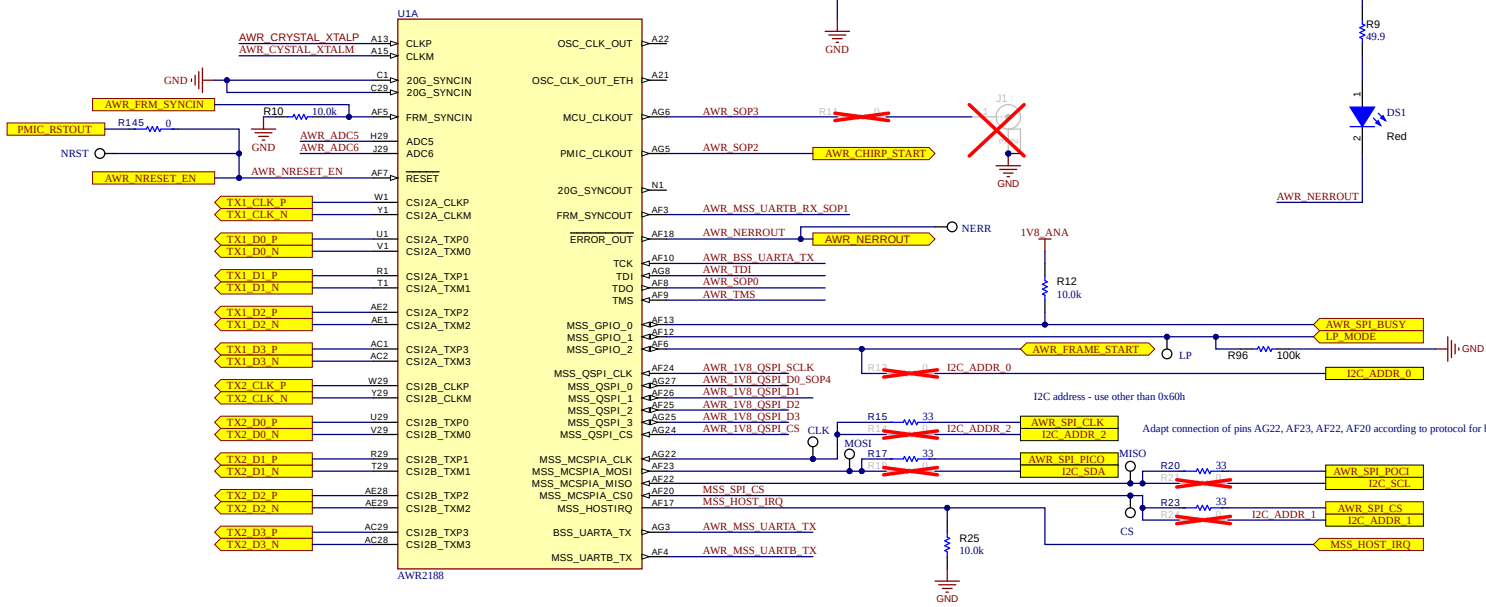
Designed for: Public Release
Project Title: AWR2188 SATELLITE
Sheet Title: Assembly Variant: AWR2188 PG1.0 971S I2C
File: TIDA-020093-COVERSHEET_SchDoc
Contact: <http://www.ti.com/support>

Mod. Date: 9/4/2025
Project: AWR2188 SATELLITE
Sheet: 1 of 7
Size: C

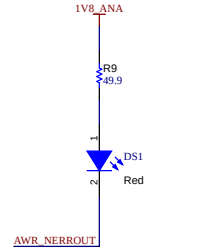




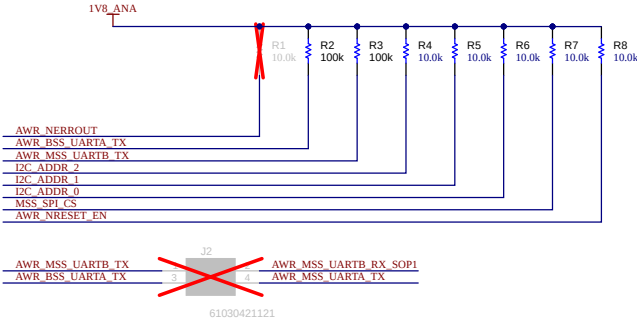
AWR DIGITAL I/O



NERROROUT LED

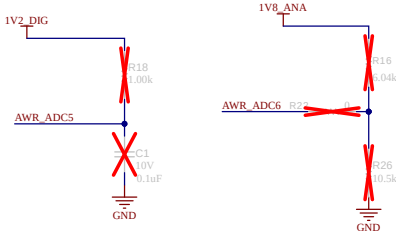


PULL UP & PULL DOWN OPTIONS



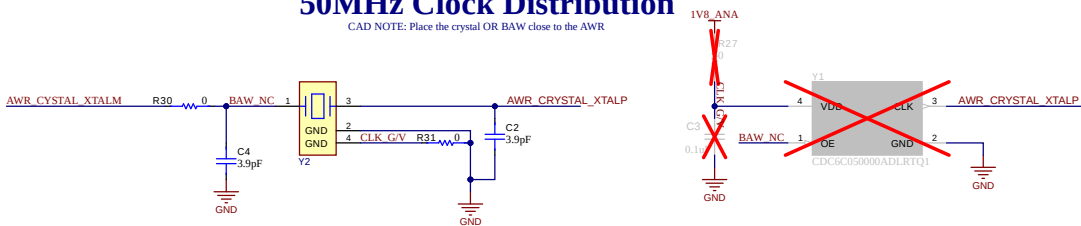
ADC Voltage Monitoring

Optional for monitoring 1.2V and 1.8V rails via AWR ADC pins



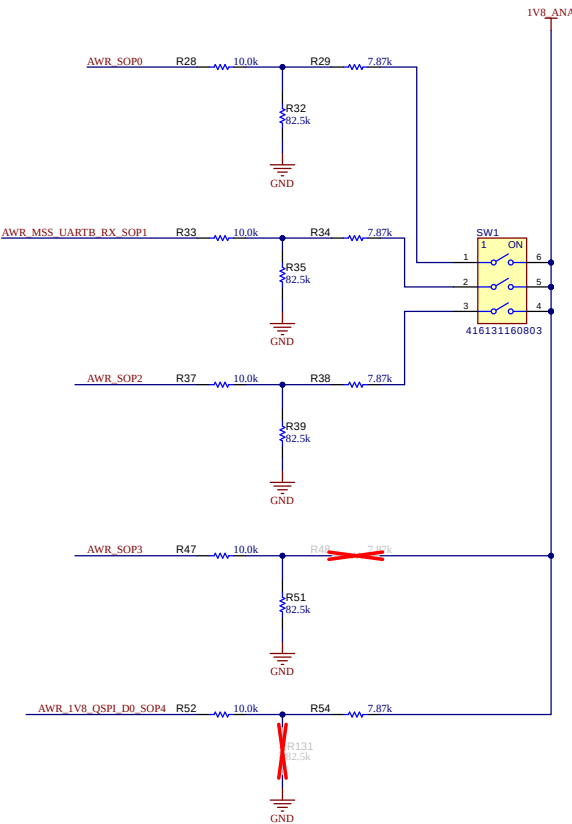
50MHz Clock Distribution

CAD NOTE: Place the crystal OR BAW close to the AWR



SOP REFERENCE

Green: applicable/used



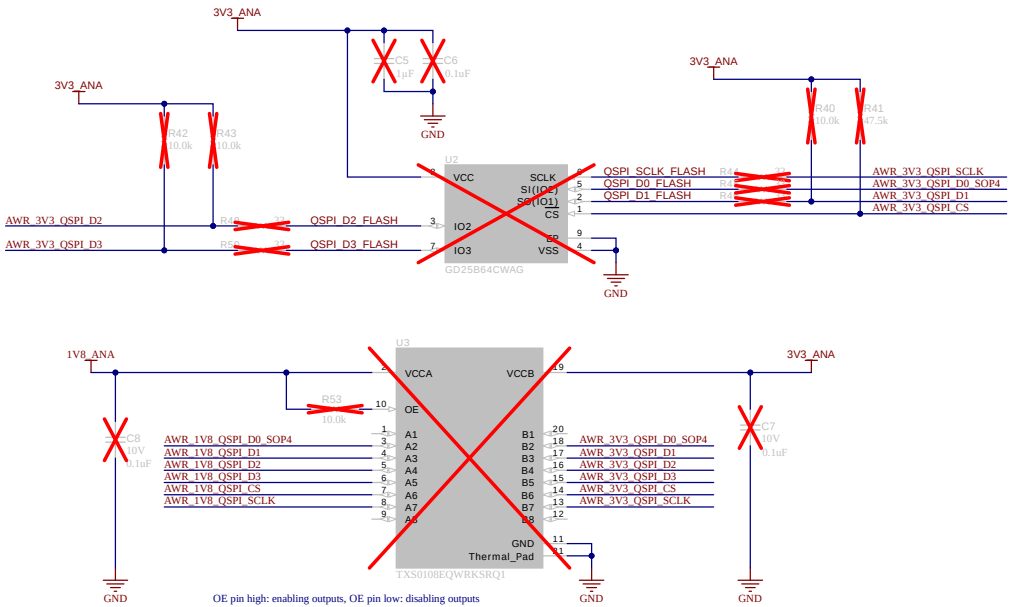
MODES	SOP(2,1,0)
SOP_TEST	0 1 0
SOP_DEBUG	0 1 1
SOP_THB	0 0 0
SOP_FUNC	0 0 1
SOP_DEV_MGMT	1 0 1

SOP_3 MODES	
NON_CASCADE	0
CASCADE	1

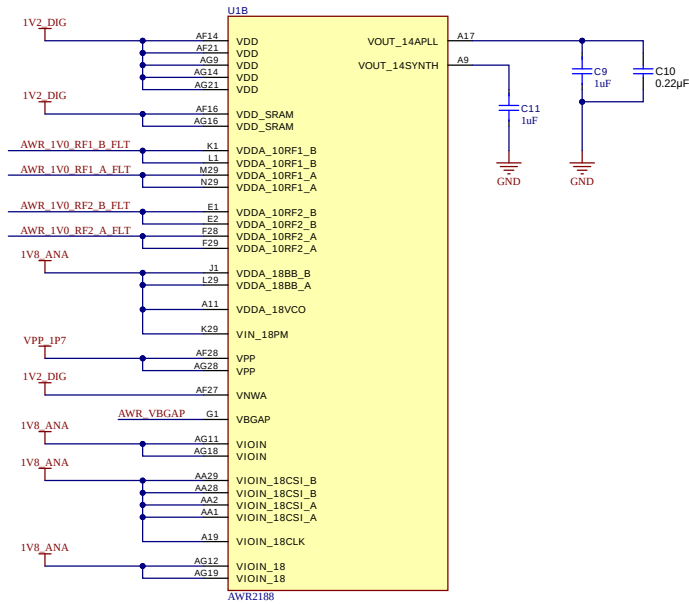
SOP_4 MODES	
40 MHz XTAL	0
50MHz XTAL	1

QSPI FLASH REFERENCE

QSPI and LVL Shifter not needed, if MSPM0 is used for flash + configuring AWR2188



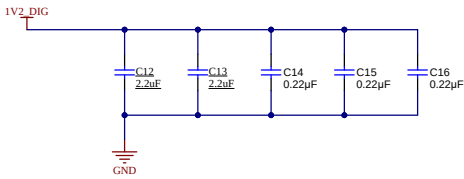
AWR POWER CONNECTION



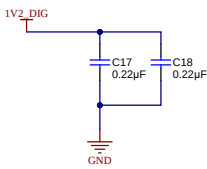
DECOUPLING REFERENCE

Some caps may get erased from design using Lab evaluation - place as close as possible to AWR

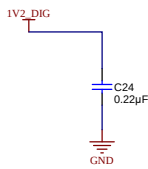
1.2V DIGITAL SUPPLY



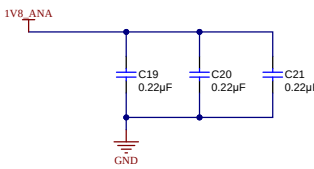
SRAM SUPPLY



VNWA SUPPLY



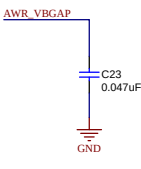
1.8V VIOIN SUPPLY



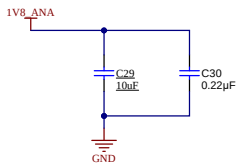
VPP SUPPLY



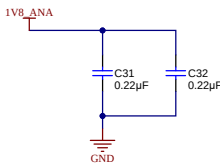
BANDGAP SUPPLY



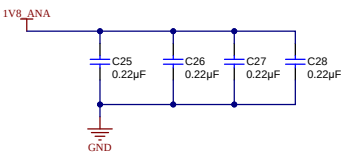
1.8V CLOCK SUPPLY



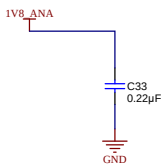
1.8V VIOIN_18 SUPPLY



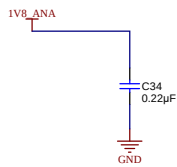
1.8V CSI SUPPLY



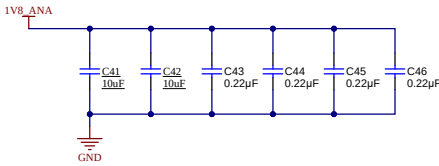
1.8V PM SUPPLY



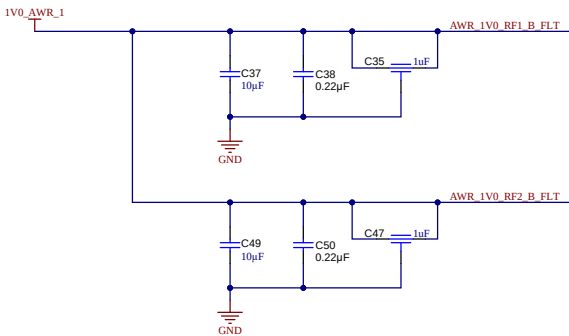
1.8V VCO SUPPLY



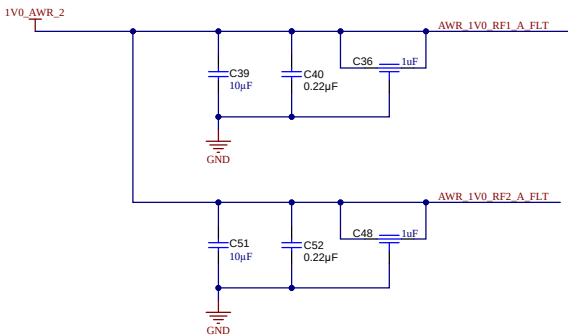
1.8V BB SUPPLY



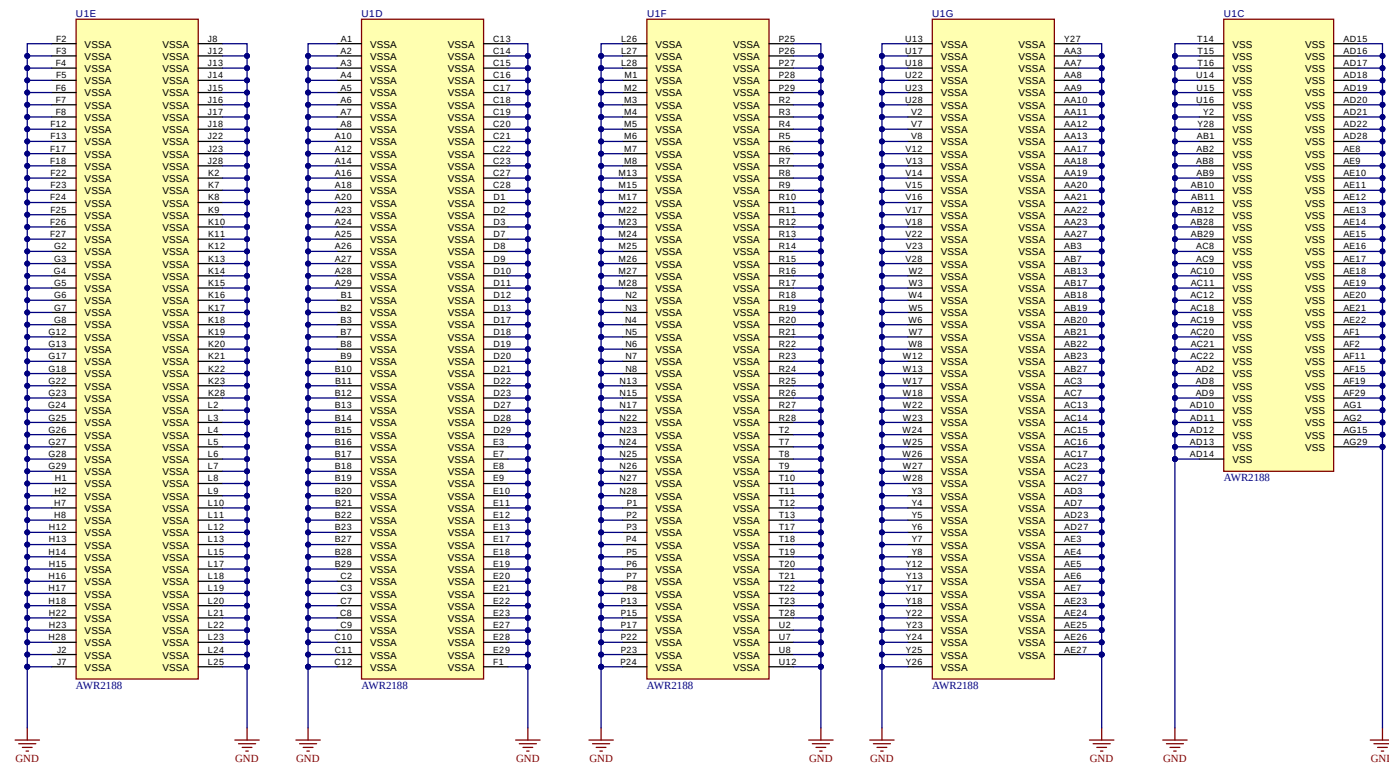
AWR 1V0 2/B SUPPLY



AWR 1V0 1/A SUPPLY



AWR Ground Reference



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