

FMC Interface

Power and Monitoring

A/D
Ch A&B

A/D
Ch C&D

Clock Tree

Level

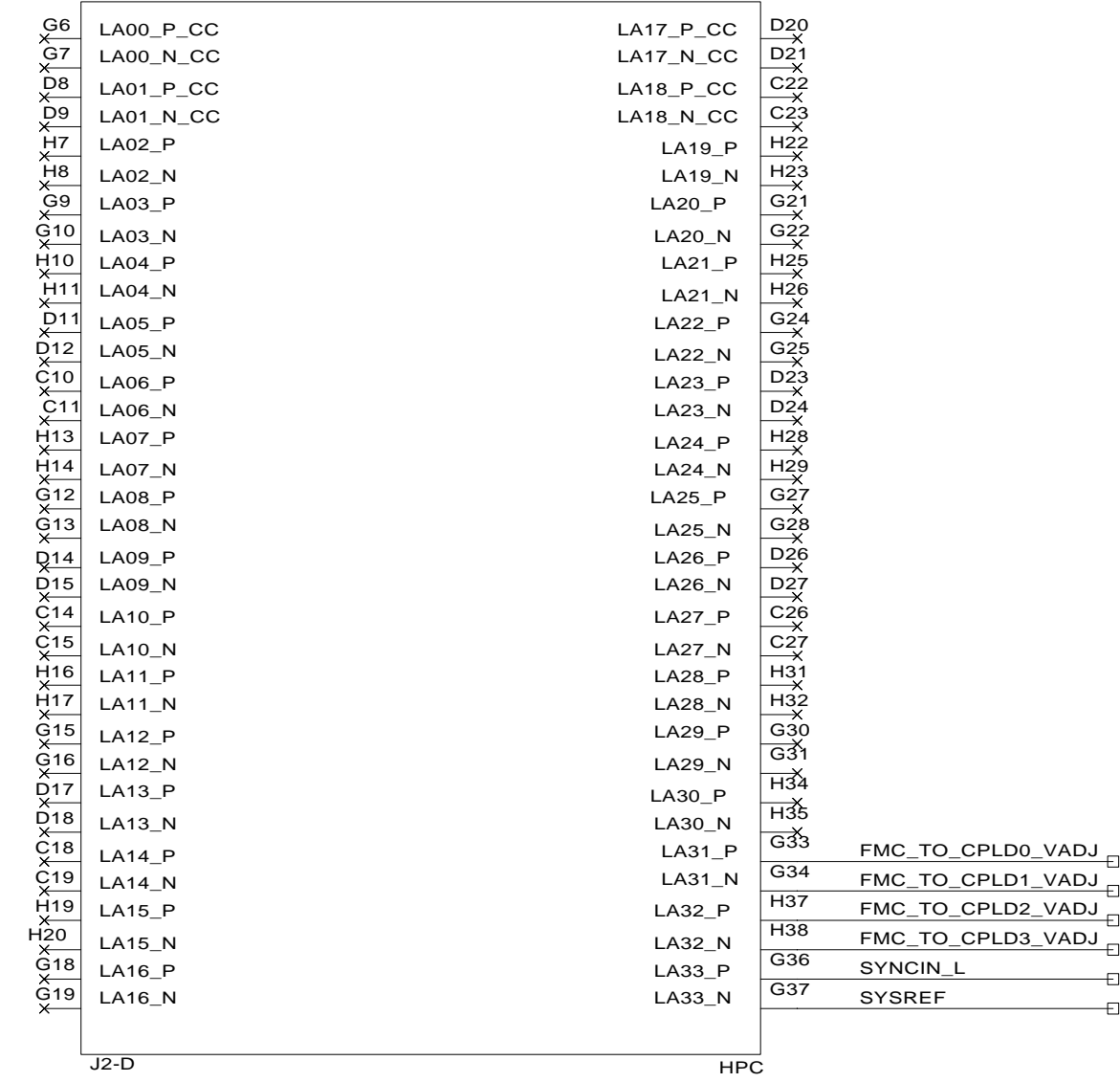
4DSP

4DSP is an engineering services provider,
producer of FPGA Intellectual Property Cores,
board level products and turn key solutions
for high-speed Digital Signal Processing
applications (<http://www.4dsp.com>).

CONTRACT NO.		COMPANY NAME		
		4DSP LLC		
APPROVALS	DATE	DWG FMC174 - Quad A/D		
DRAWN	20130226	SIZE	FSCM NO.	DWG NO.
CHECKED	20130303	o		1.1
ISSUED	20130305	SCALE		SHEET 1 of 7

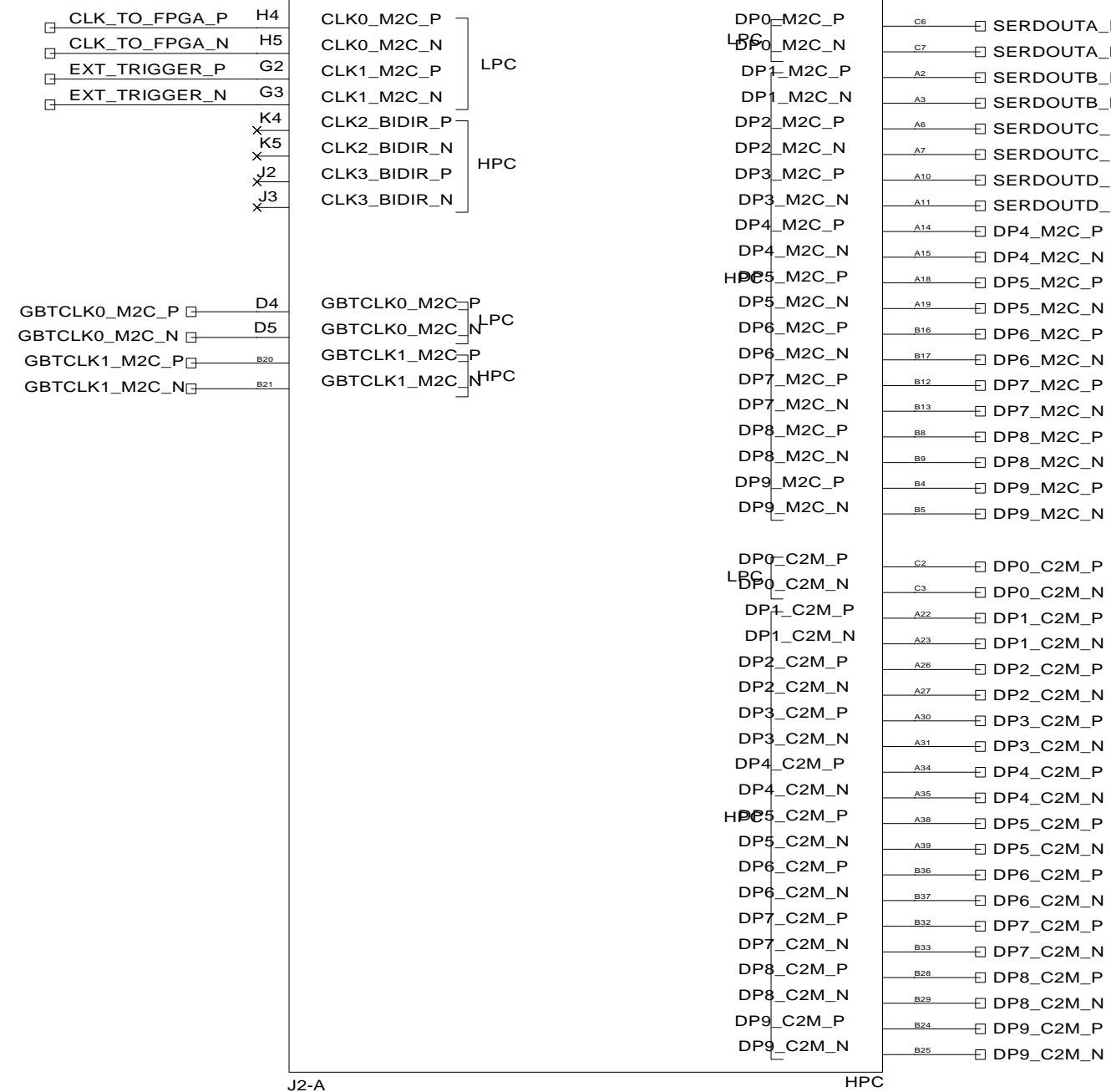
FMC HPC Connector

FMC LPC A

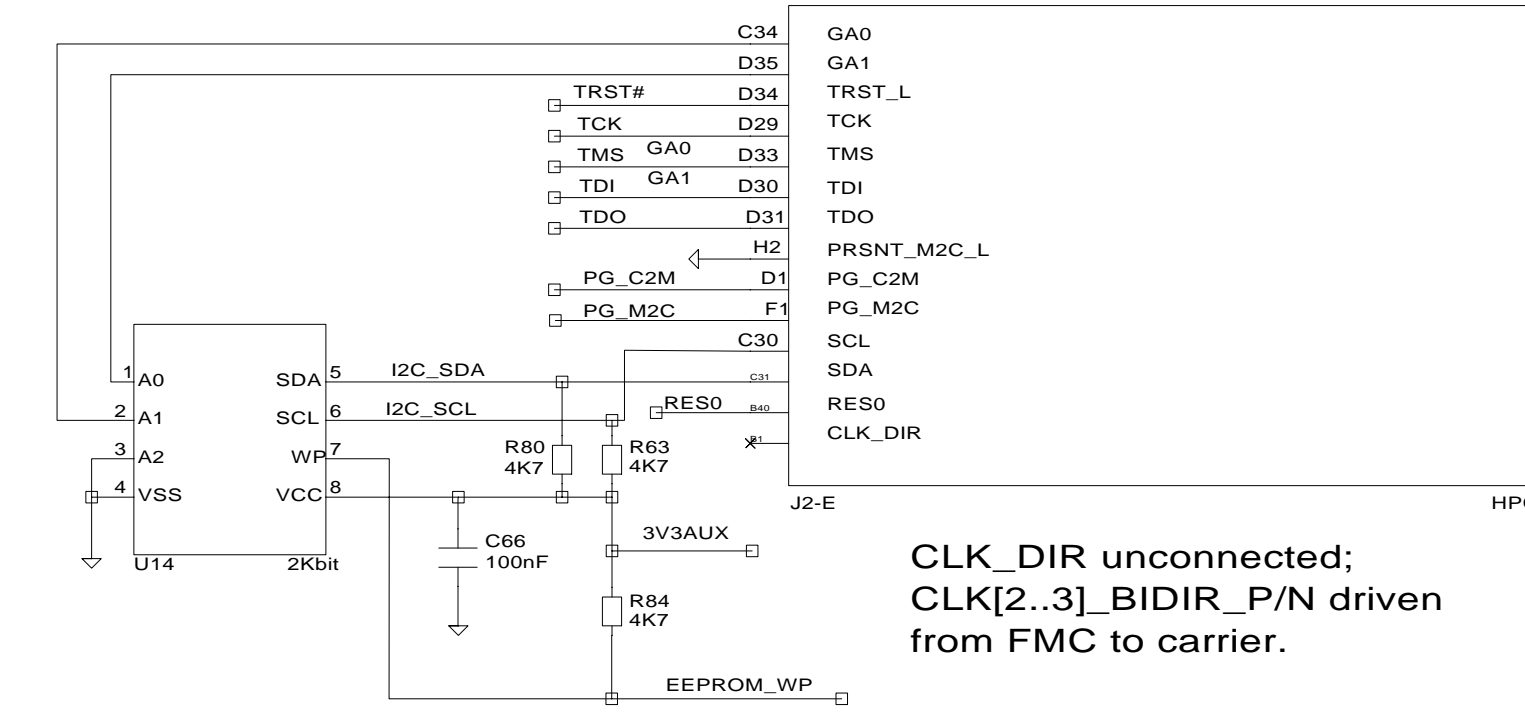


Bank A is populated with LVDS and LVCMOS25 signals. VADJ between 1.2V and 3.3V is supported

FMC CLK and DP

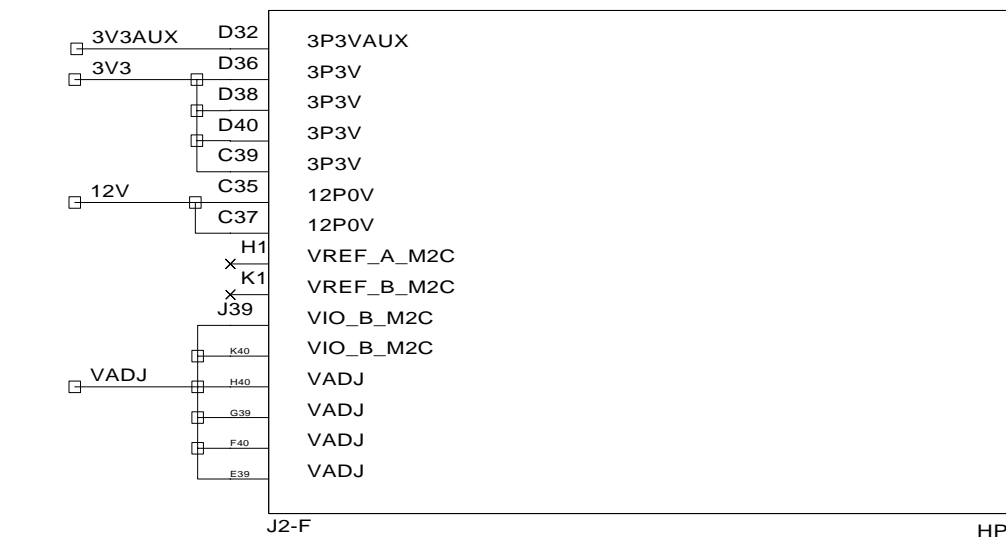


FMC Misc

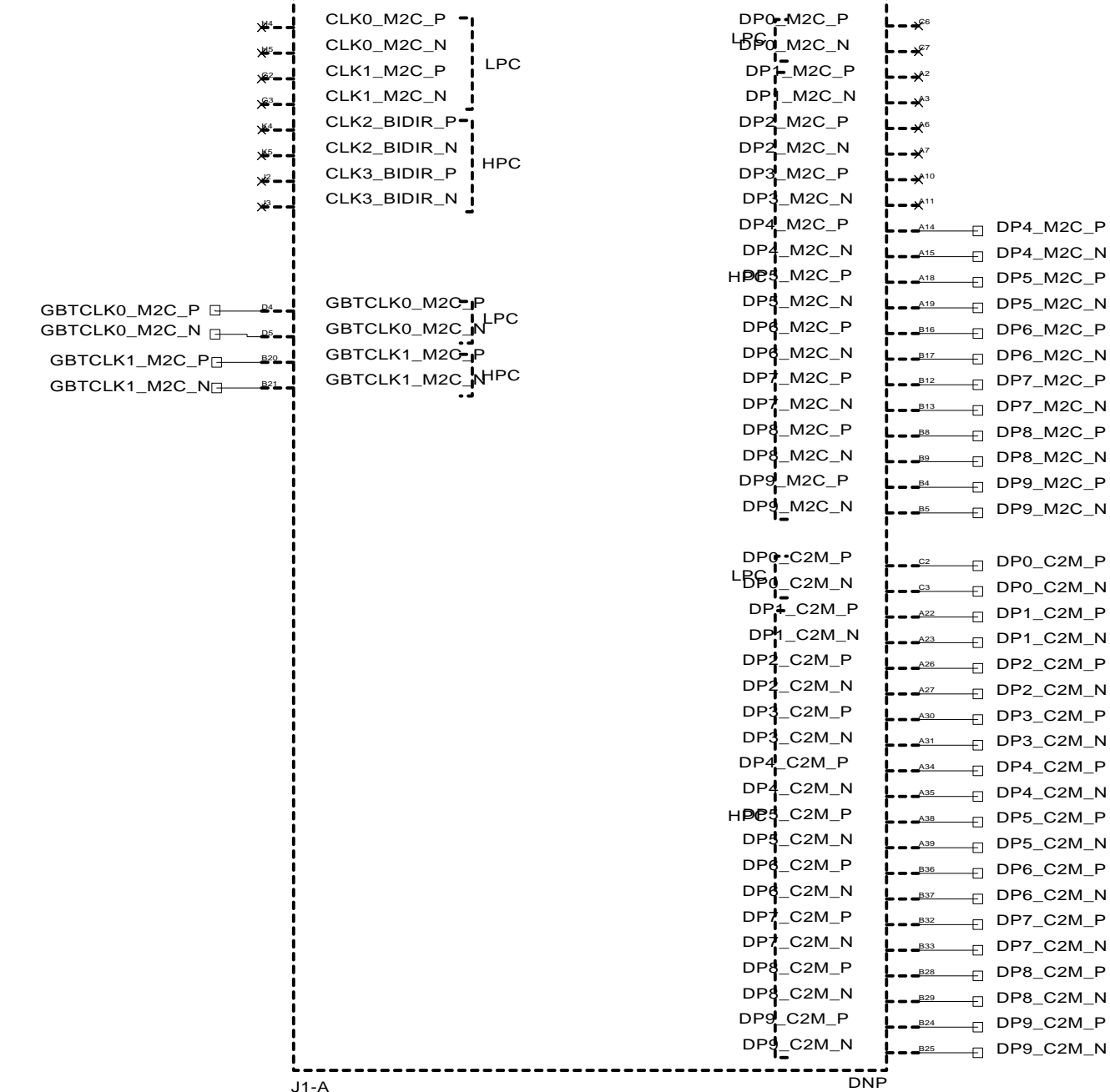


CLK_DIR unconnected; CLK[2..3]_BIDIR_P/N driven from FMC to carrier.

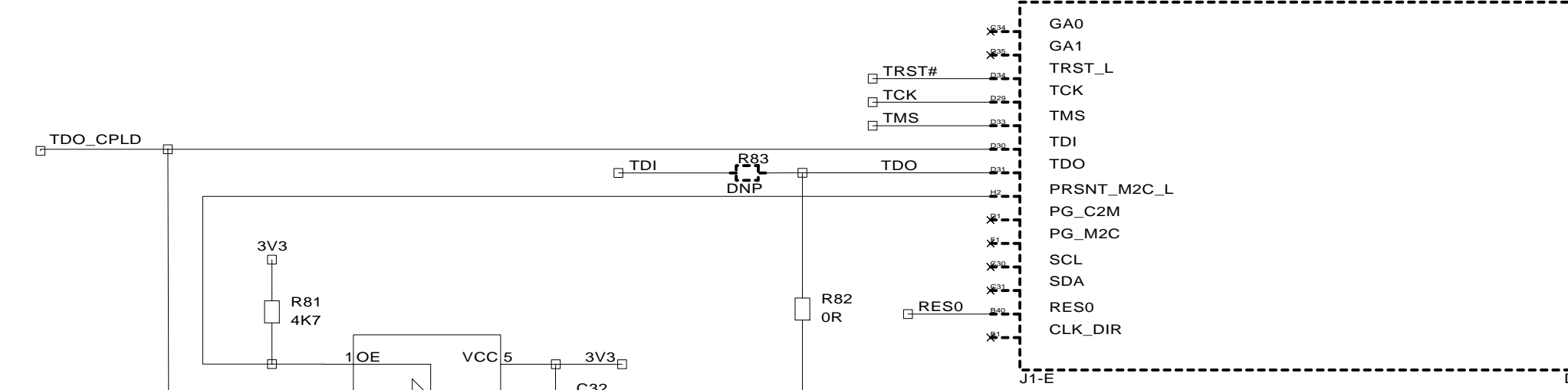
FMC Power



FMC CLK and DP

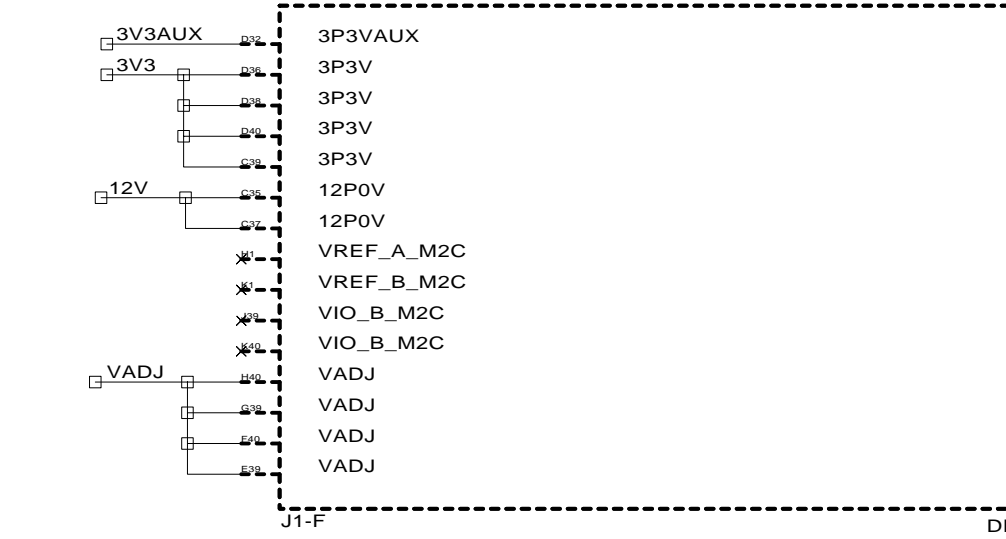


FMC Misc



In normal operation TDI connects to TDO.

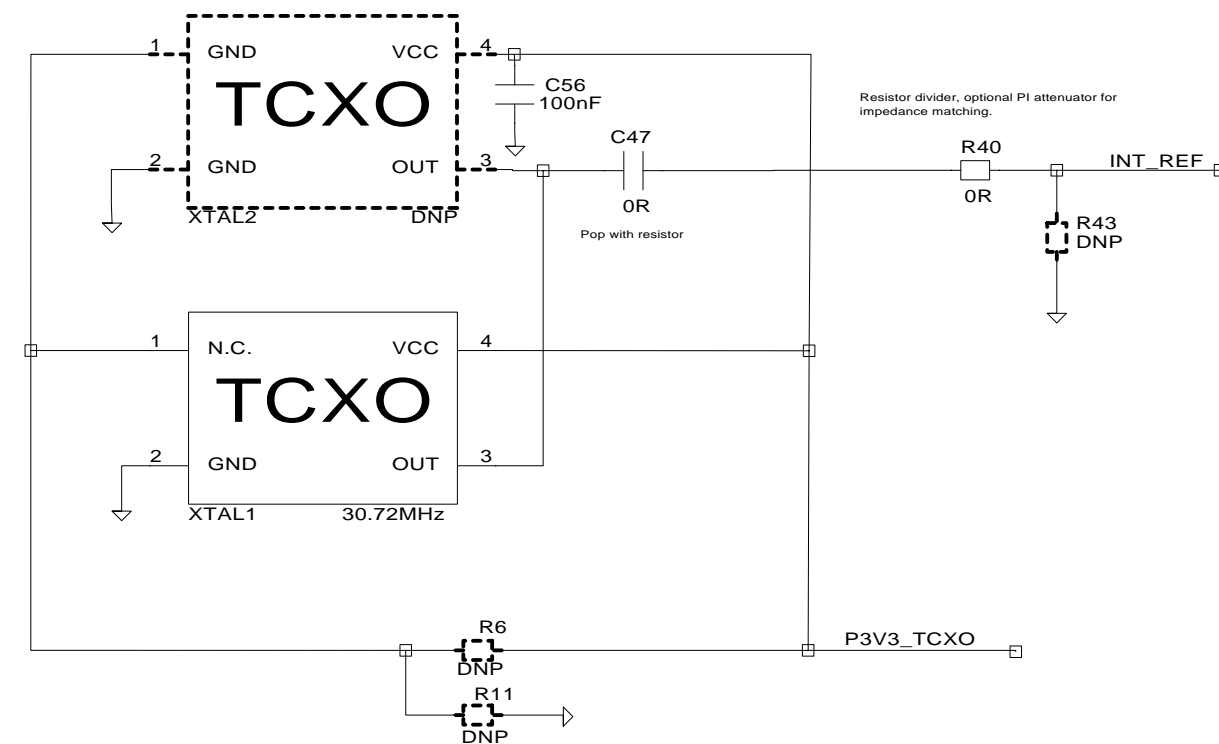
FMC Power



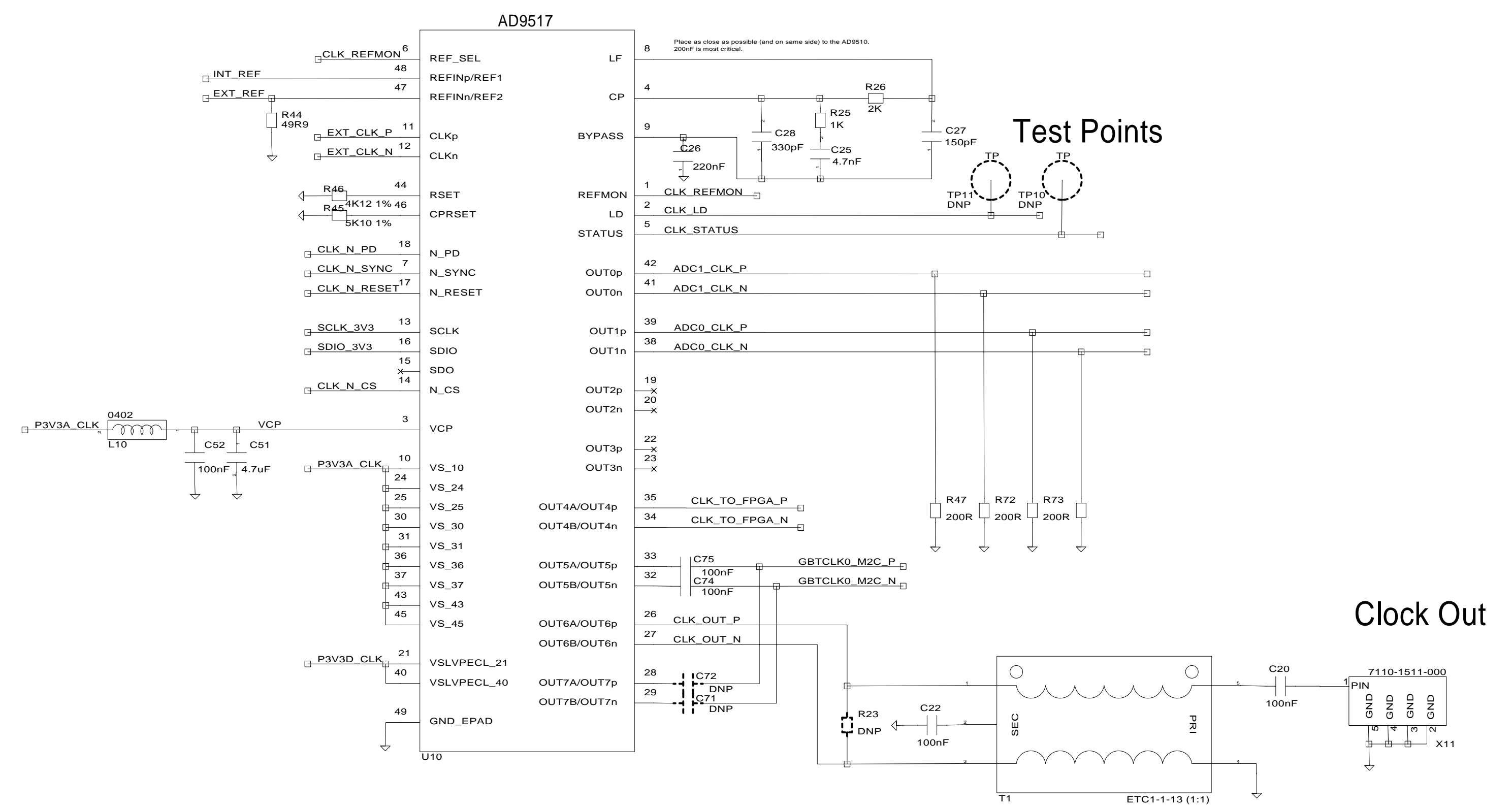
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CONTRACT NO.	DATE	COMPANY NAME	4DSP LLC
APPROVALS	DATE	DWG	FMC174 - Quad A/D
DRAWN	2013/02/26	SIZE	A
CHECKED	2013/03/03	FSCM NO.	
ISSUED	2013/03/05	SCALE	
			REV. 1.1
			SHEET 2 of 7

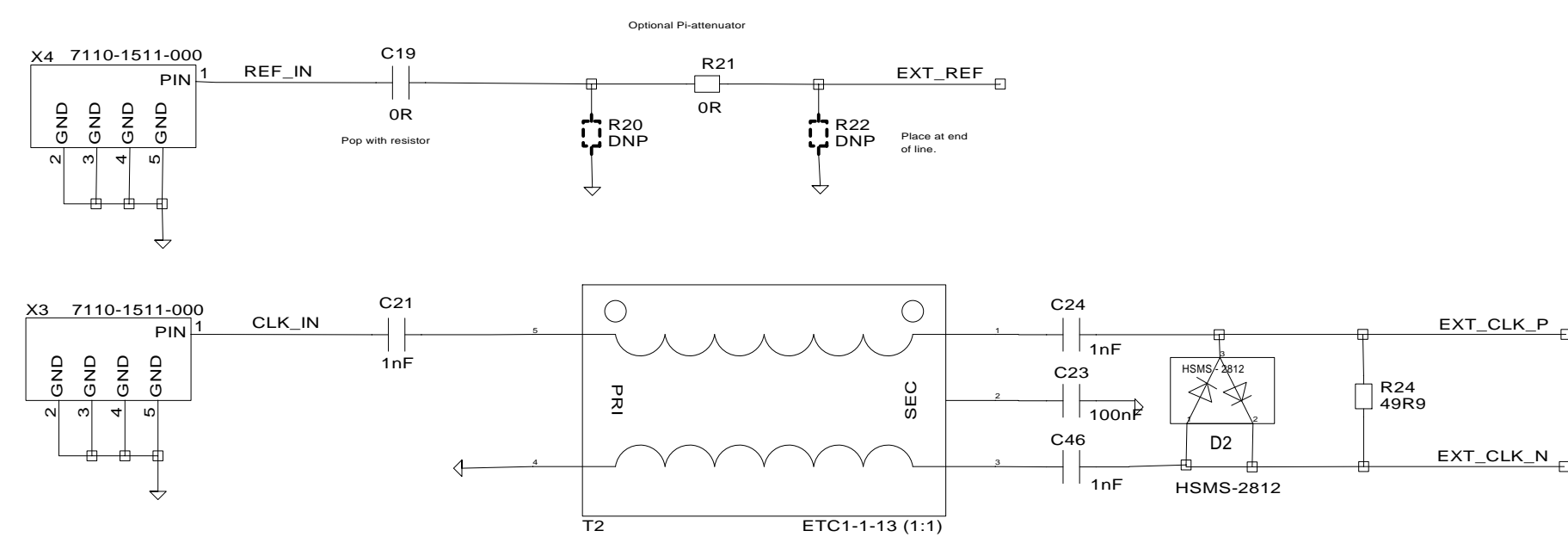
Internal Reference Clock



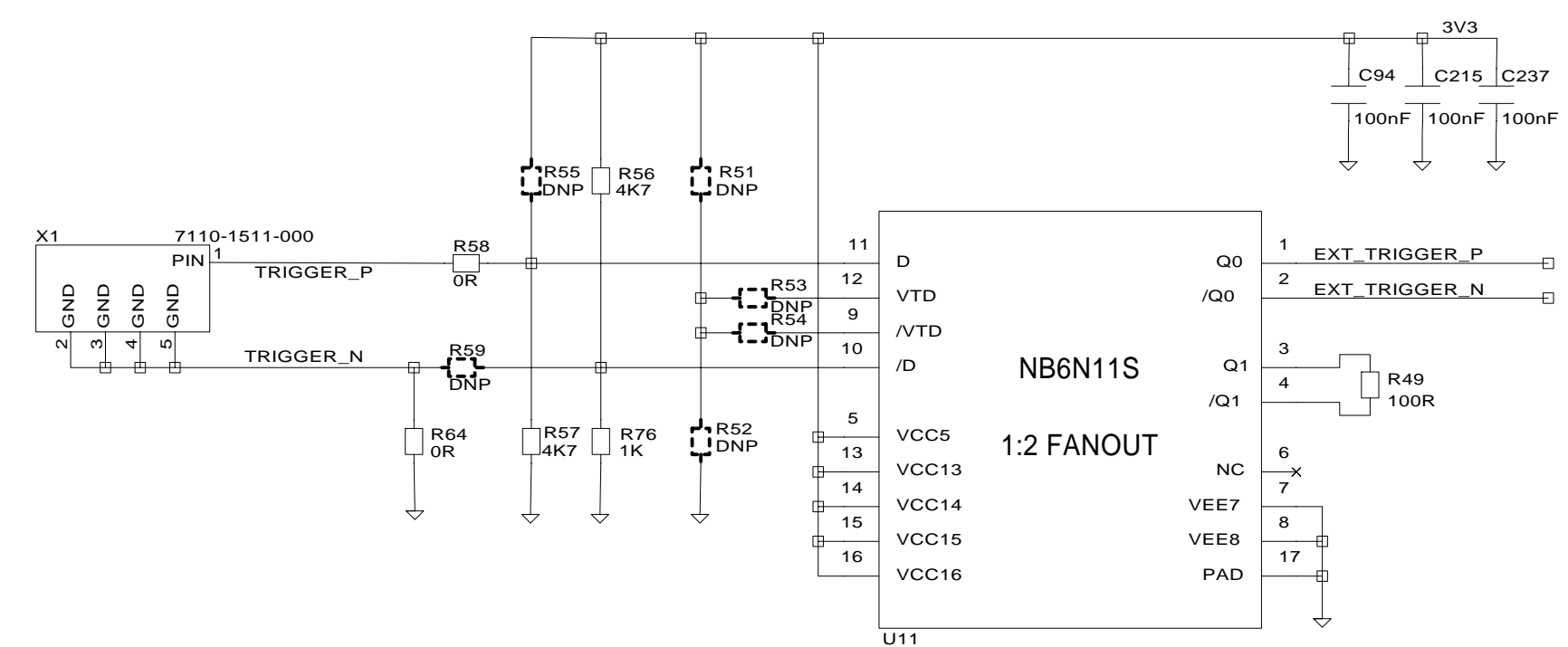
Phase Locked Loop & Clock Distribution



External Reference / Clock Input

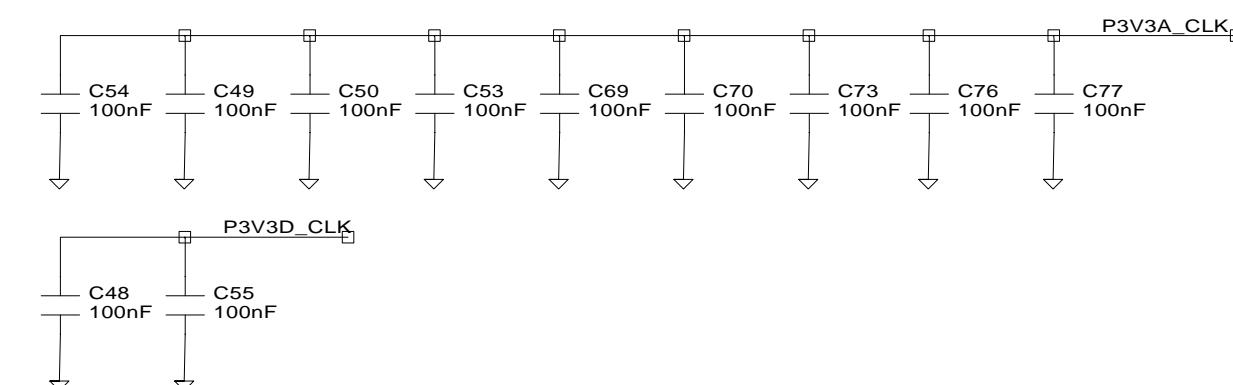


External Trigger Input



Input is configured as single ended.
Threshold 1.25V.

Decoupling

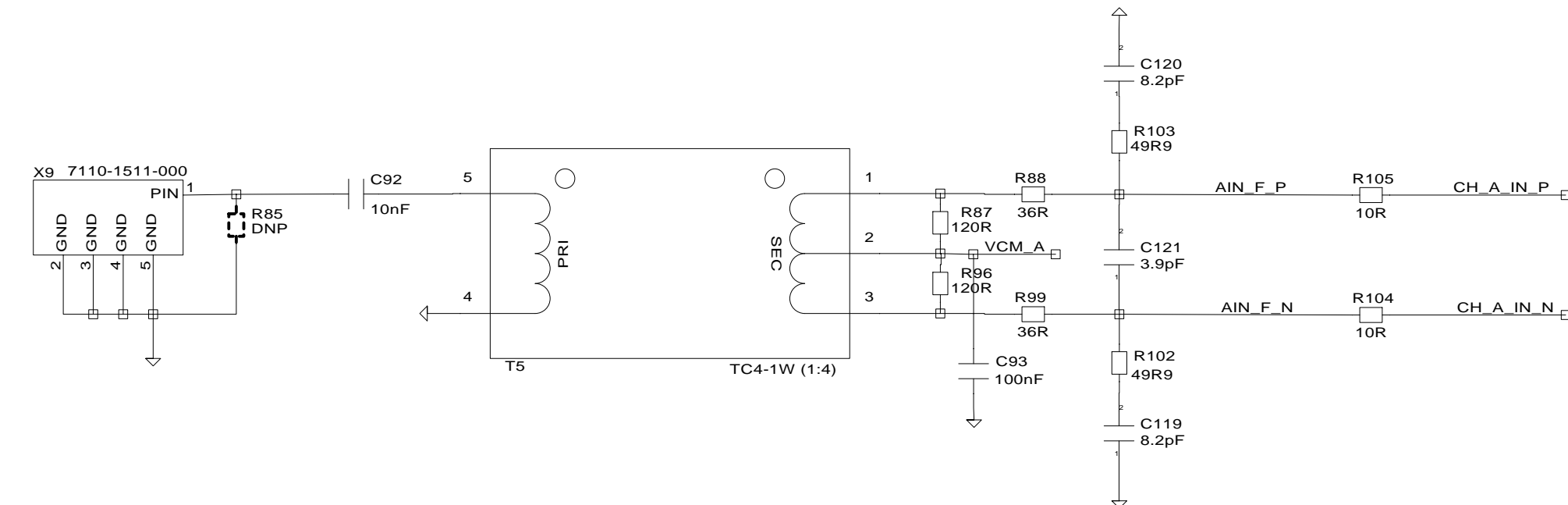


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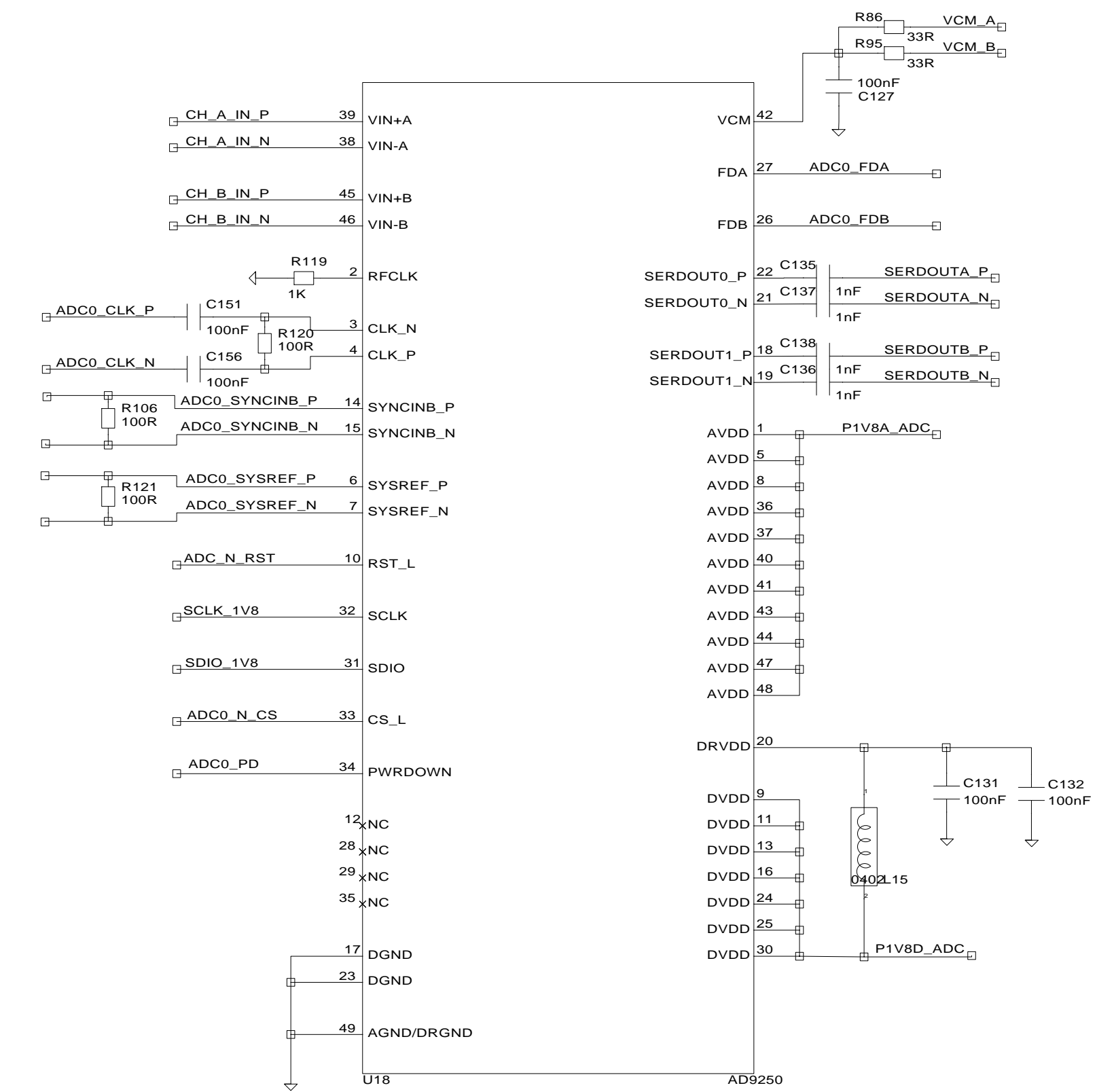
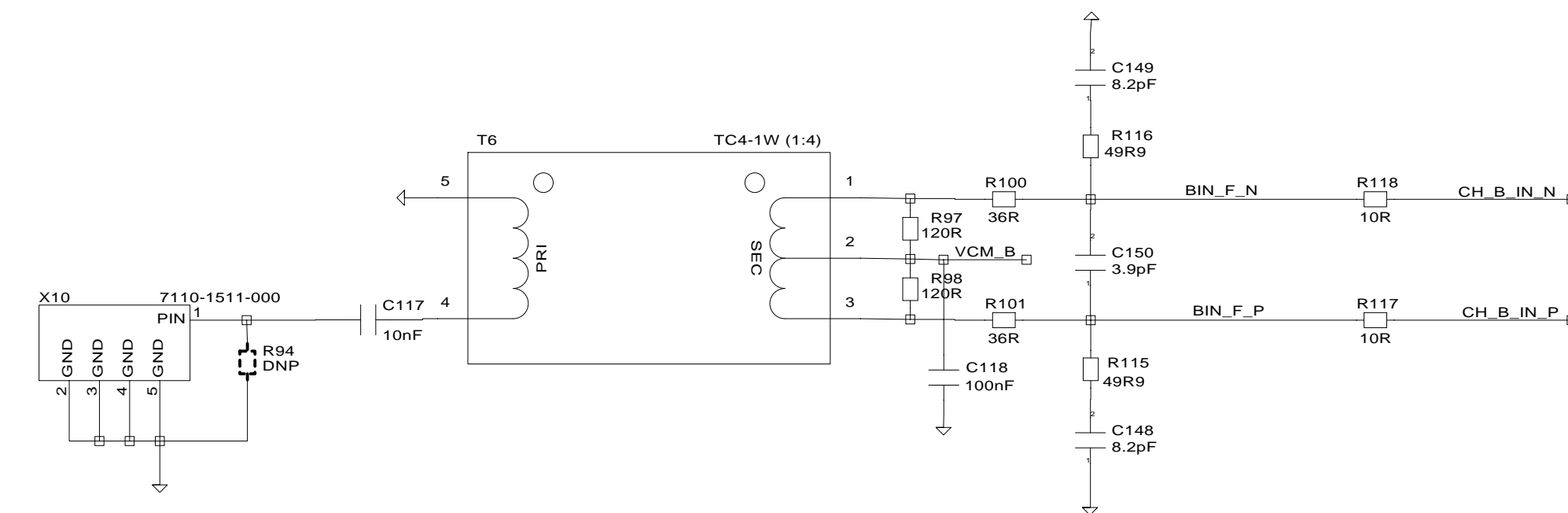
CONTRACT NO.		COMPANY NAME	
APPROVALS		DATE	
DRAWN		DWG	
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ISSUED		SCALE	
4DSP LLC		FMC174 - Quad A/D	
1.1	REV.	1.1	DWG NO.
3 of 7	SHEET		

Analog-to-Digital

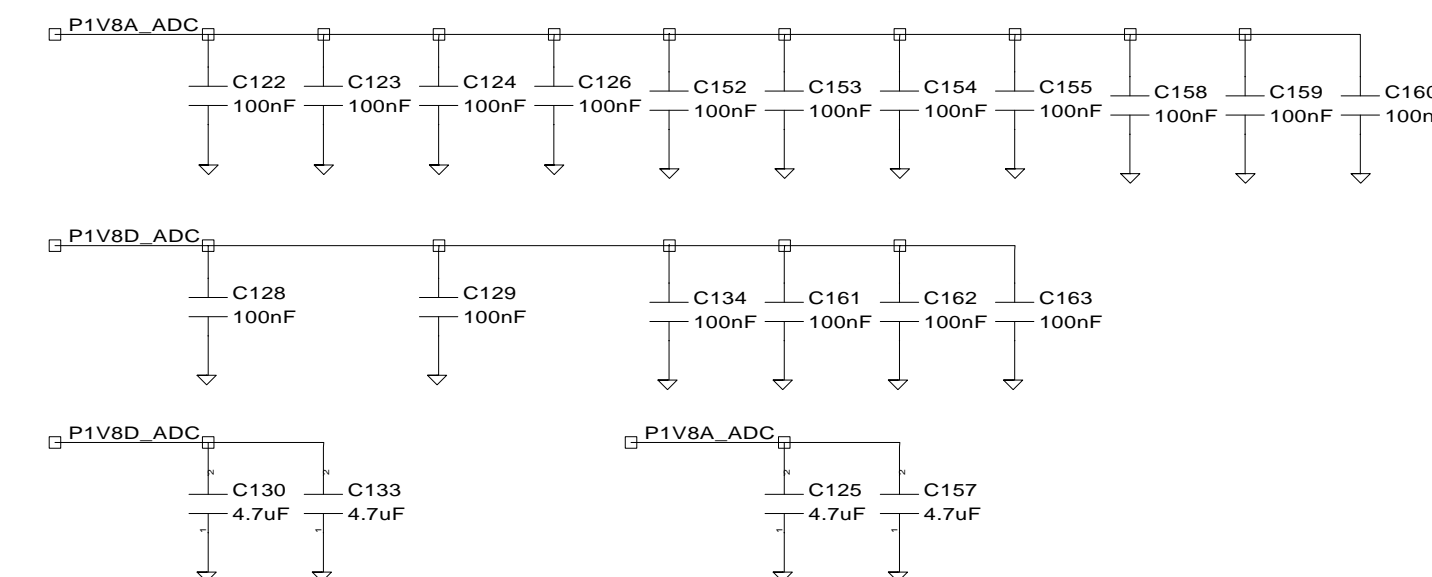
Channel A



Channel B



Decoupling

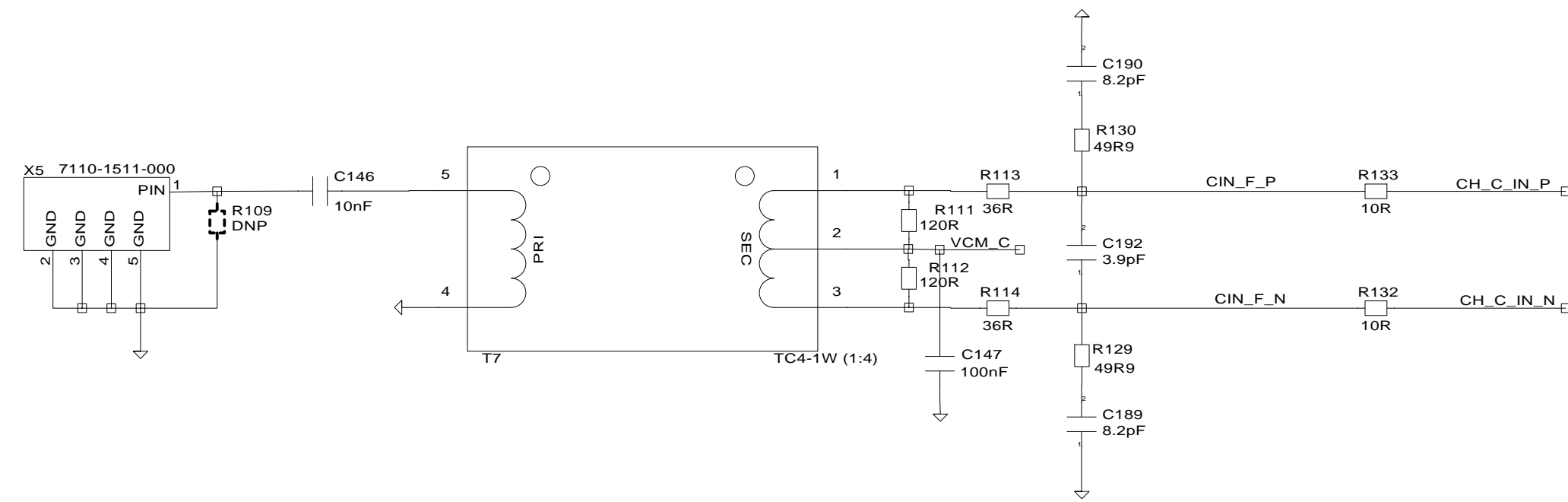


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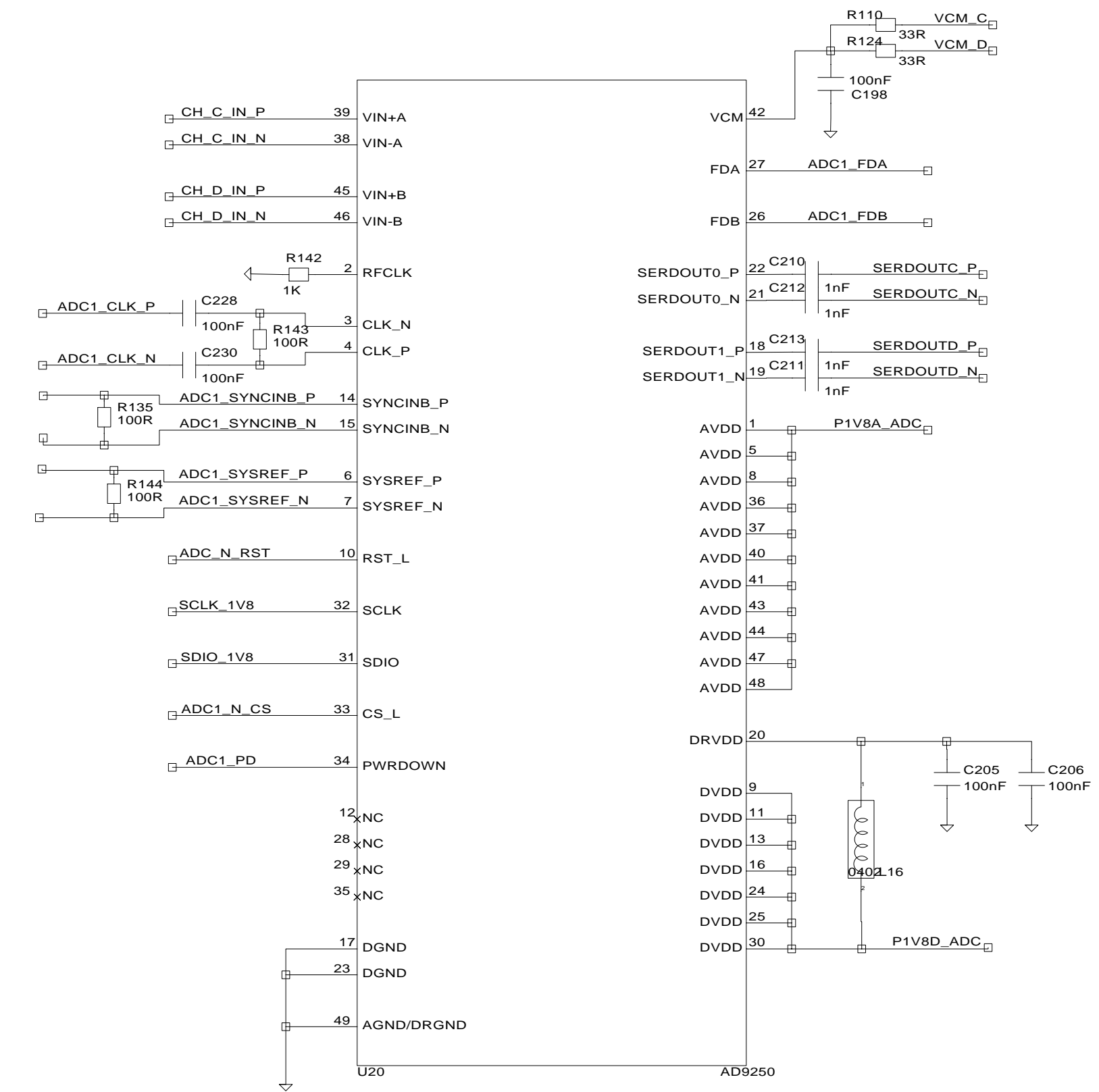
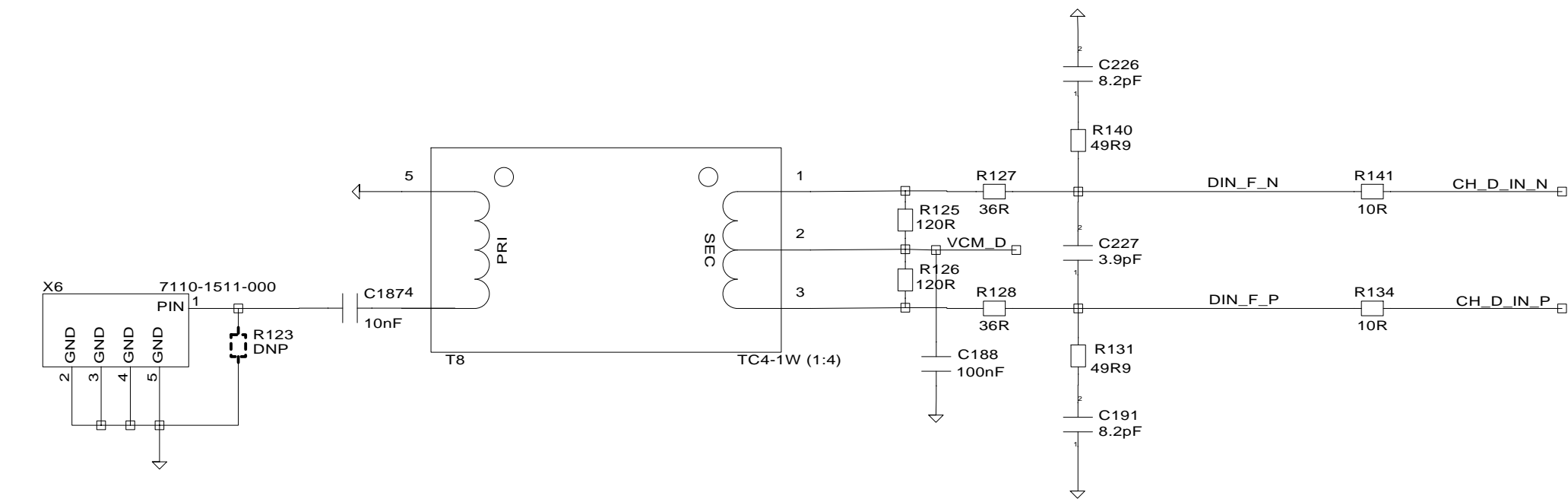
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		4DSP LLC	
APPROVALS	DATE	DWG FMC174 - Quad A/D	
DRAWN	20130226	SIZE	FSCM NO.
CHECKED	20130303	DWG NO.	REV. 1.1
ISSUED	20130305	SCALE	SHEET 4 of 7

Analog-to-Digital

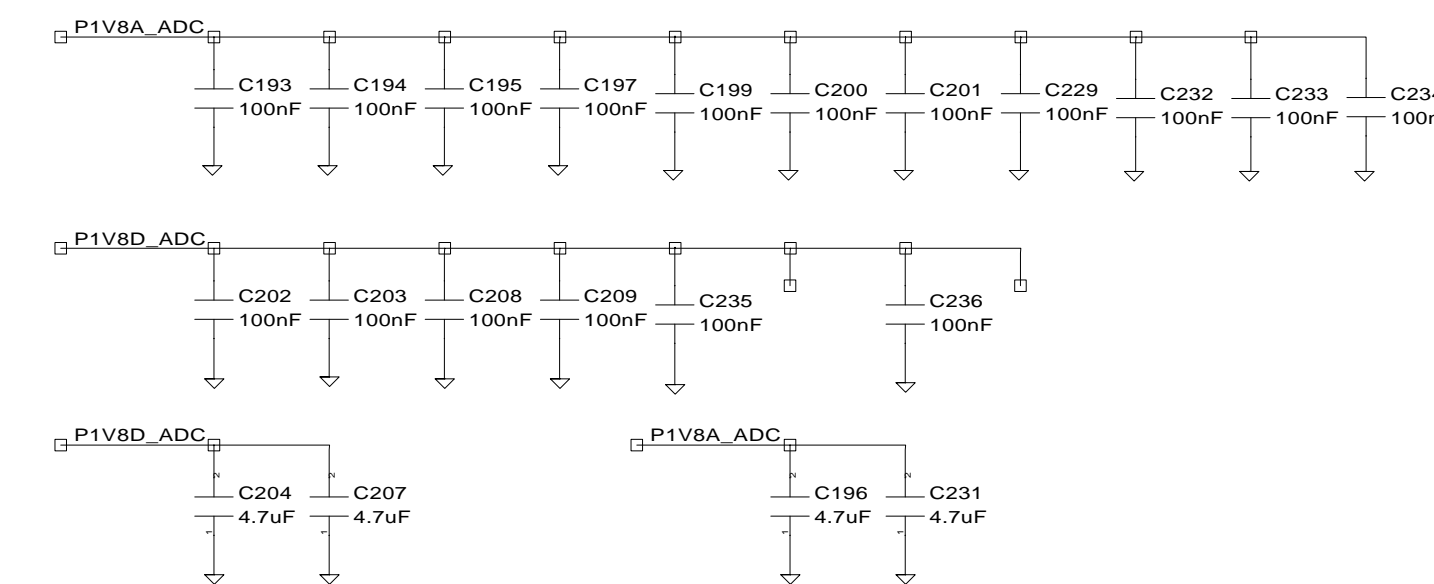
Channel C



Channel D



Decoupling

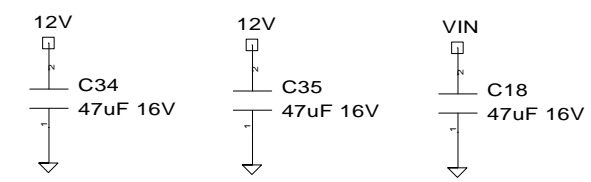
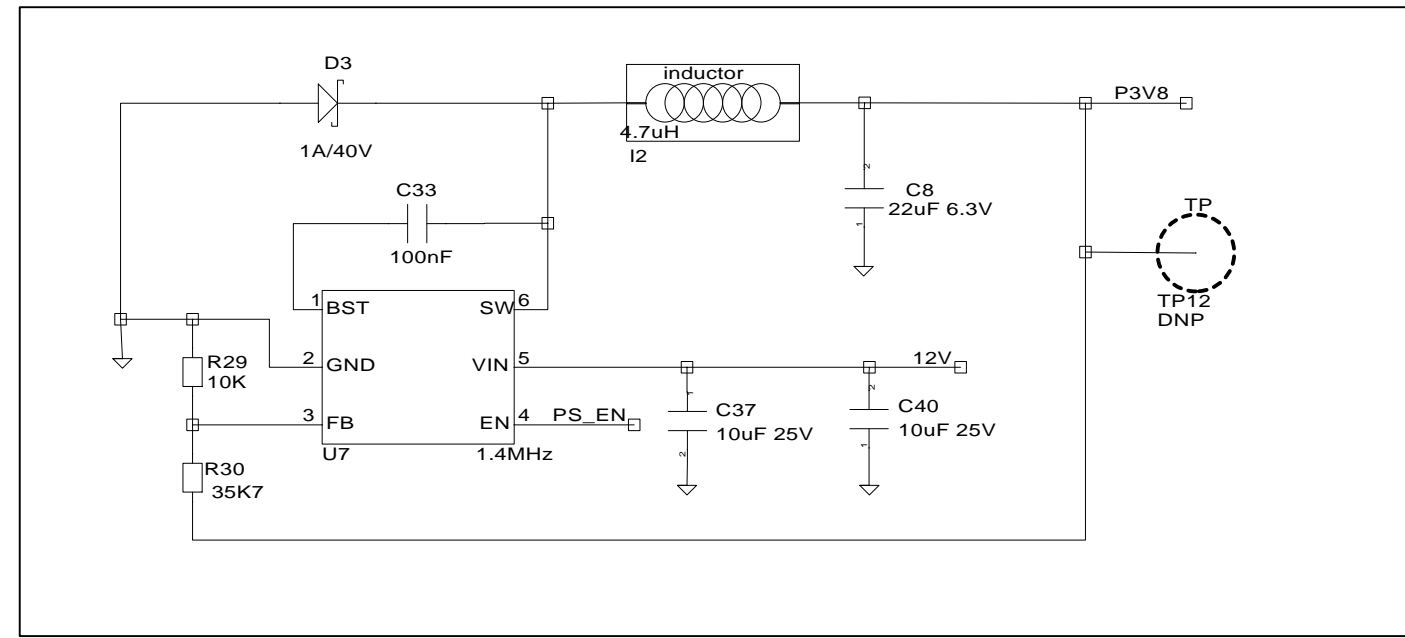


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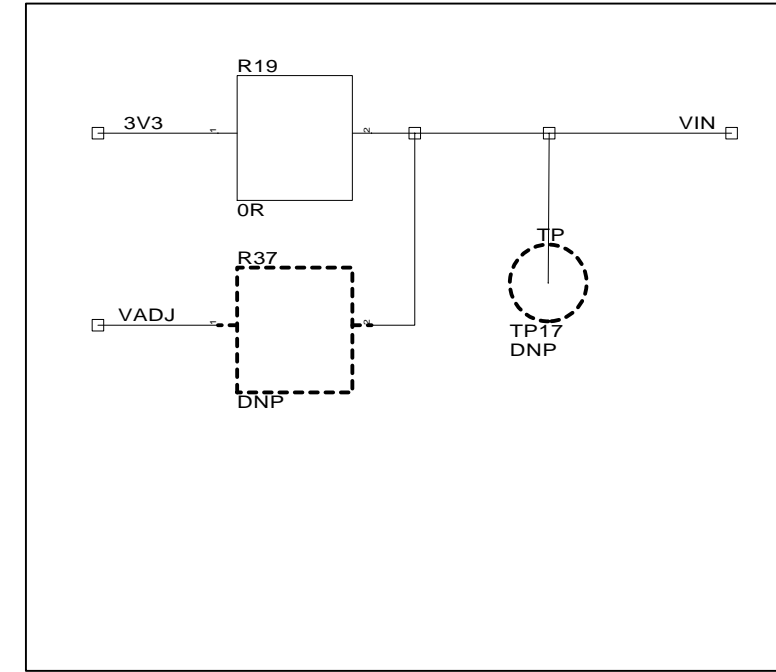
CONTRACT NO.		COMPANY NAME	
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DRAWN		DWG	
CHECKED		FSCM NO.	
ISSUED		SCALE	
		SHEET 5 of 7	

4DSP LLC
FMC174 - Quad A/D
1.1

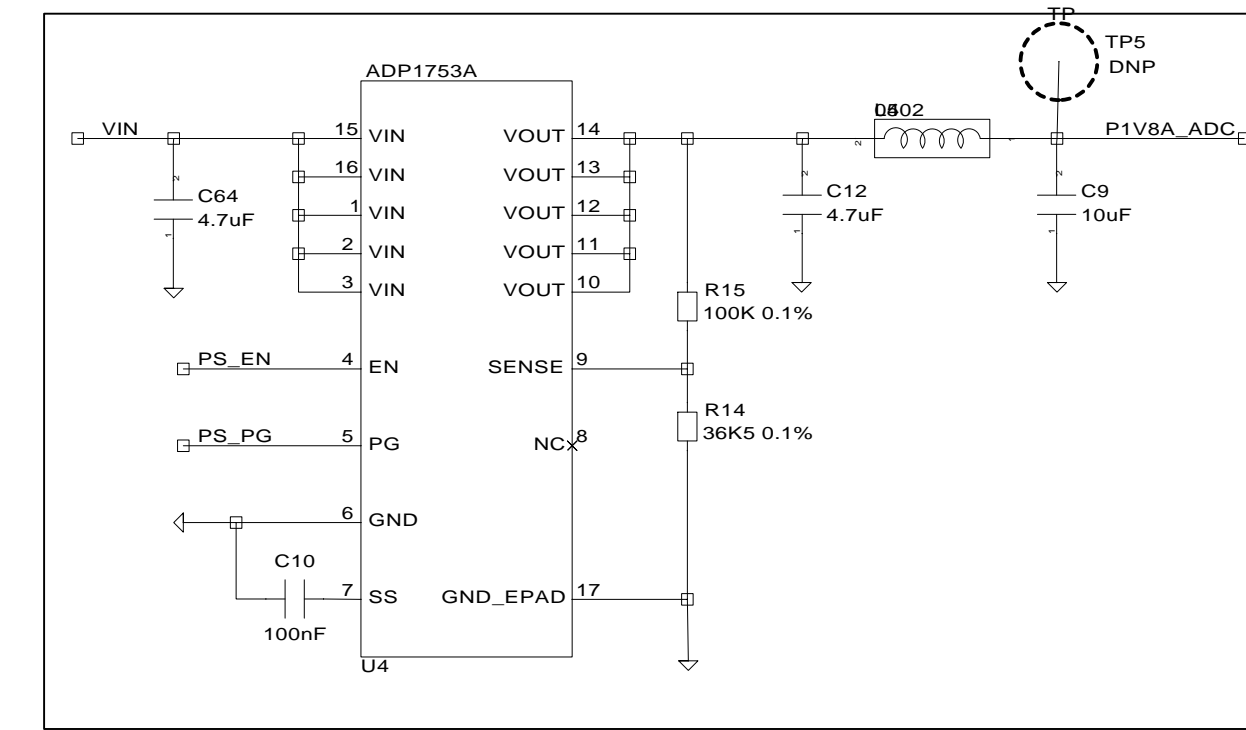
12V to 3.6V Generation



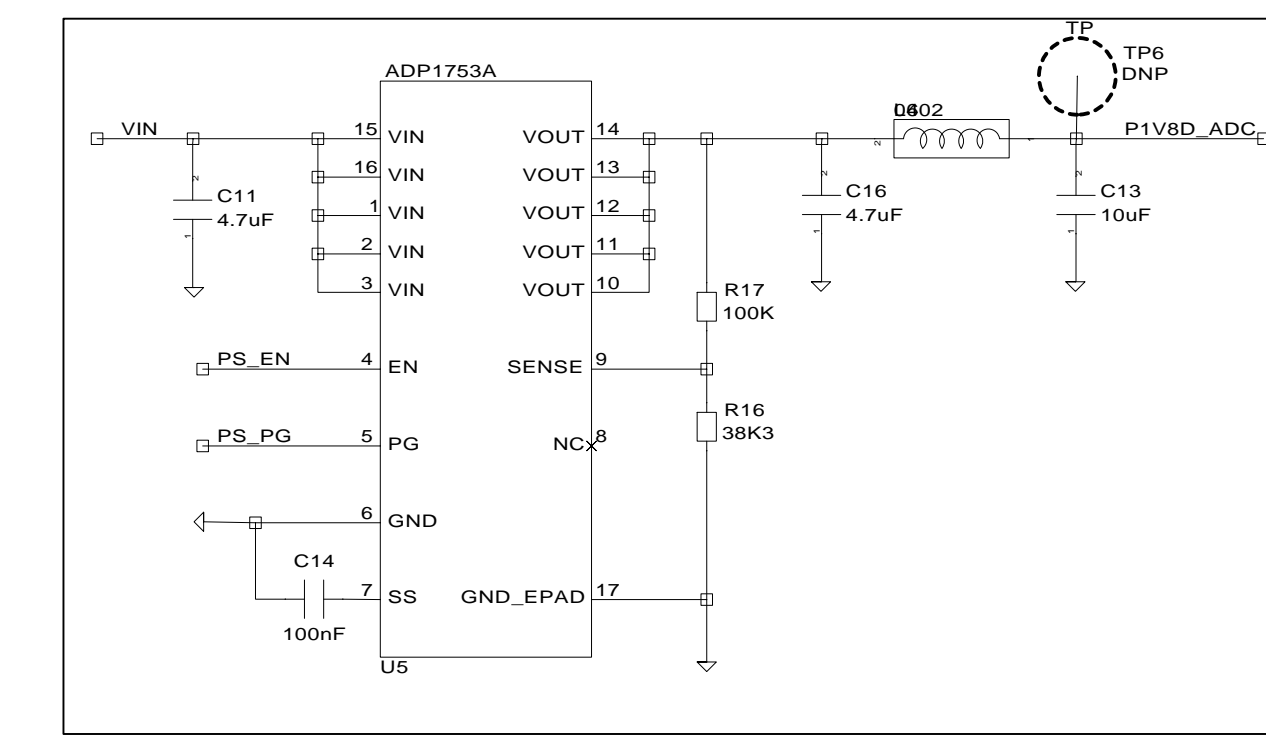
VIN SELECTION



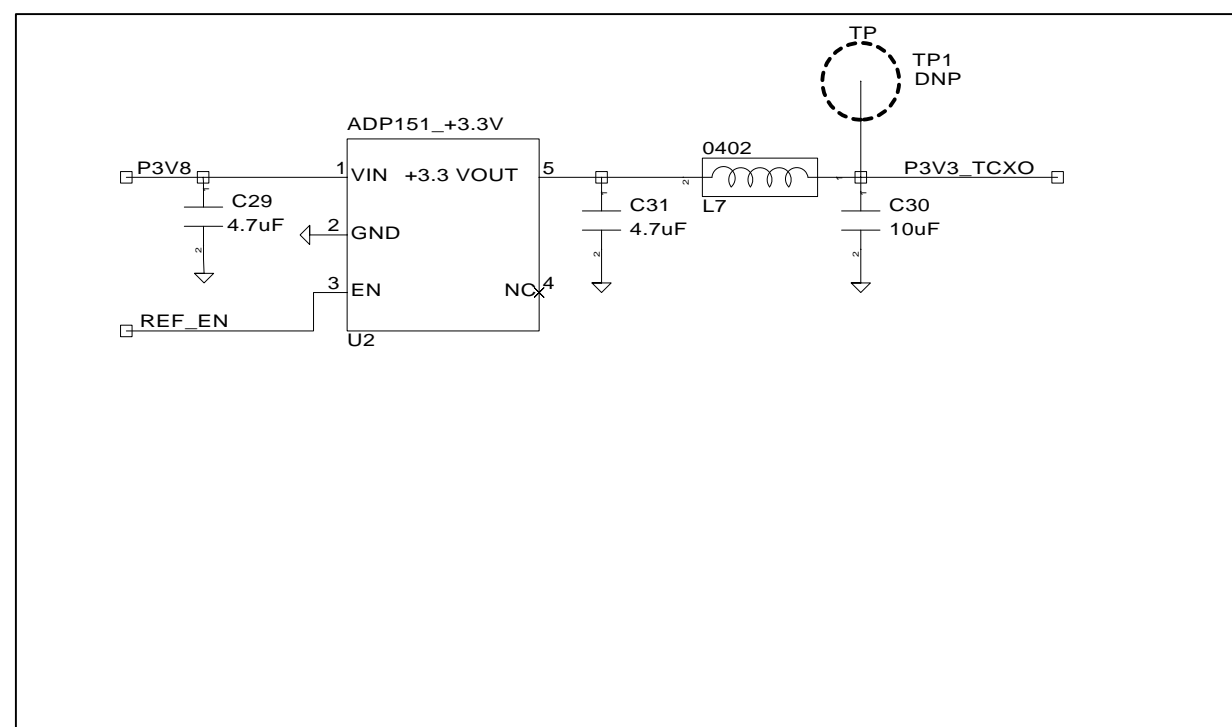
ADC Analog Power



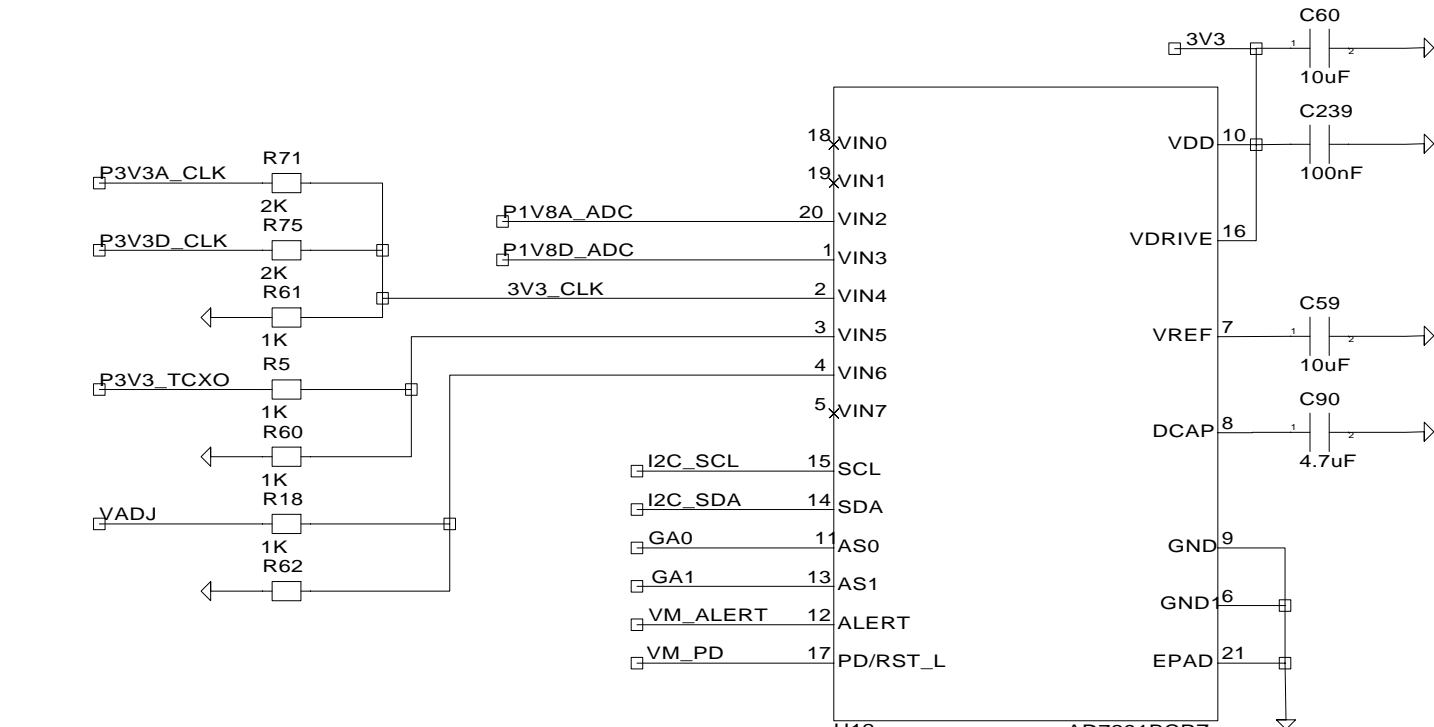
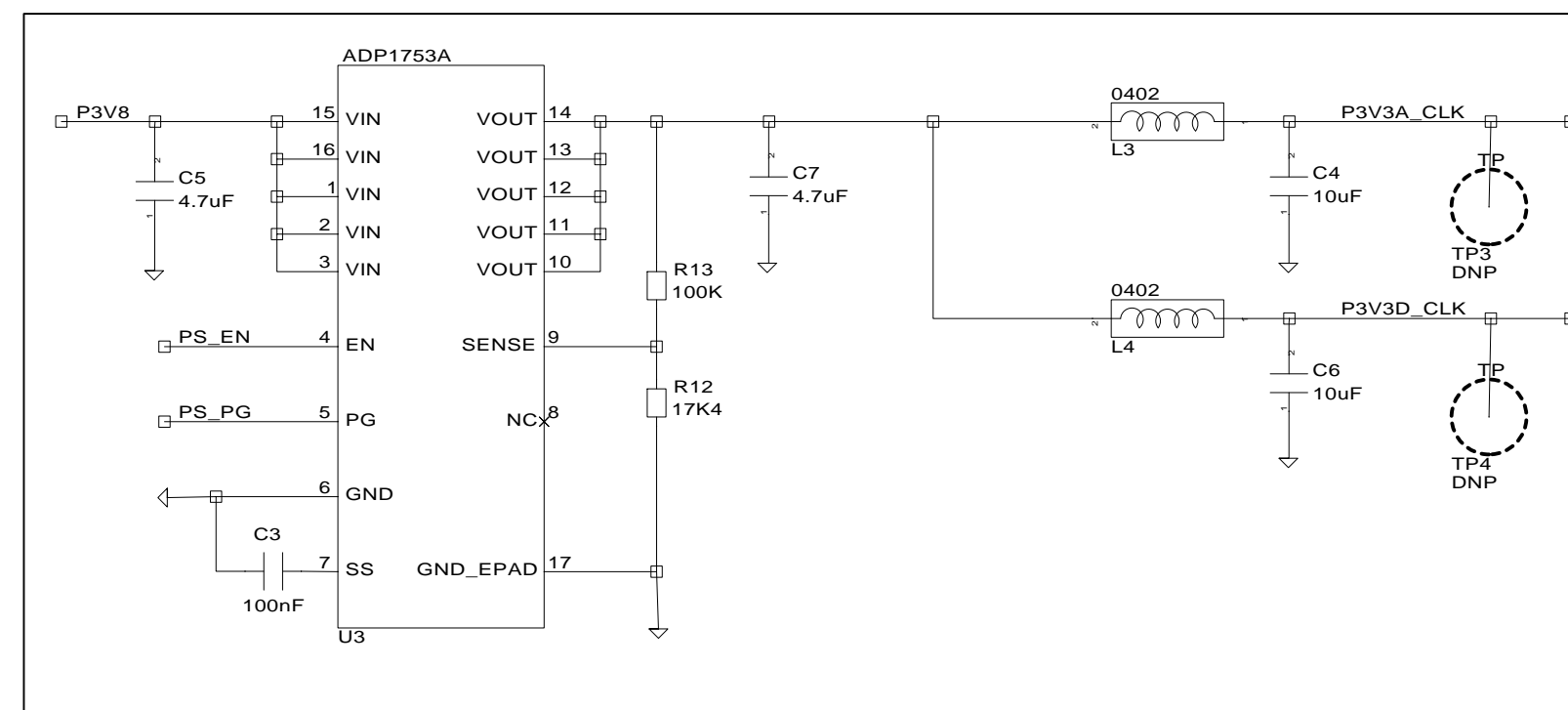
ADC Digital Power



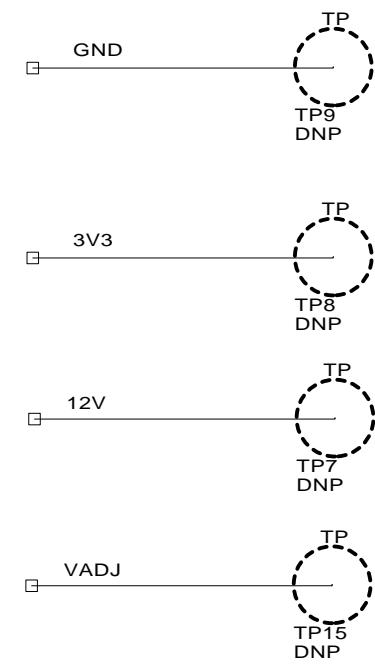
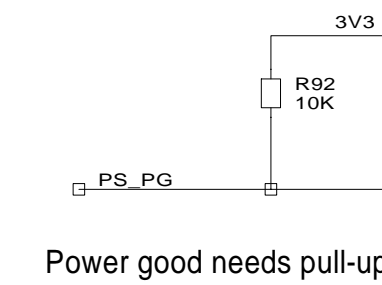
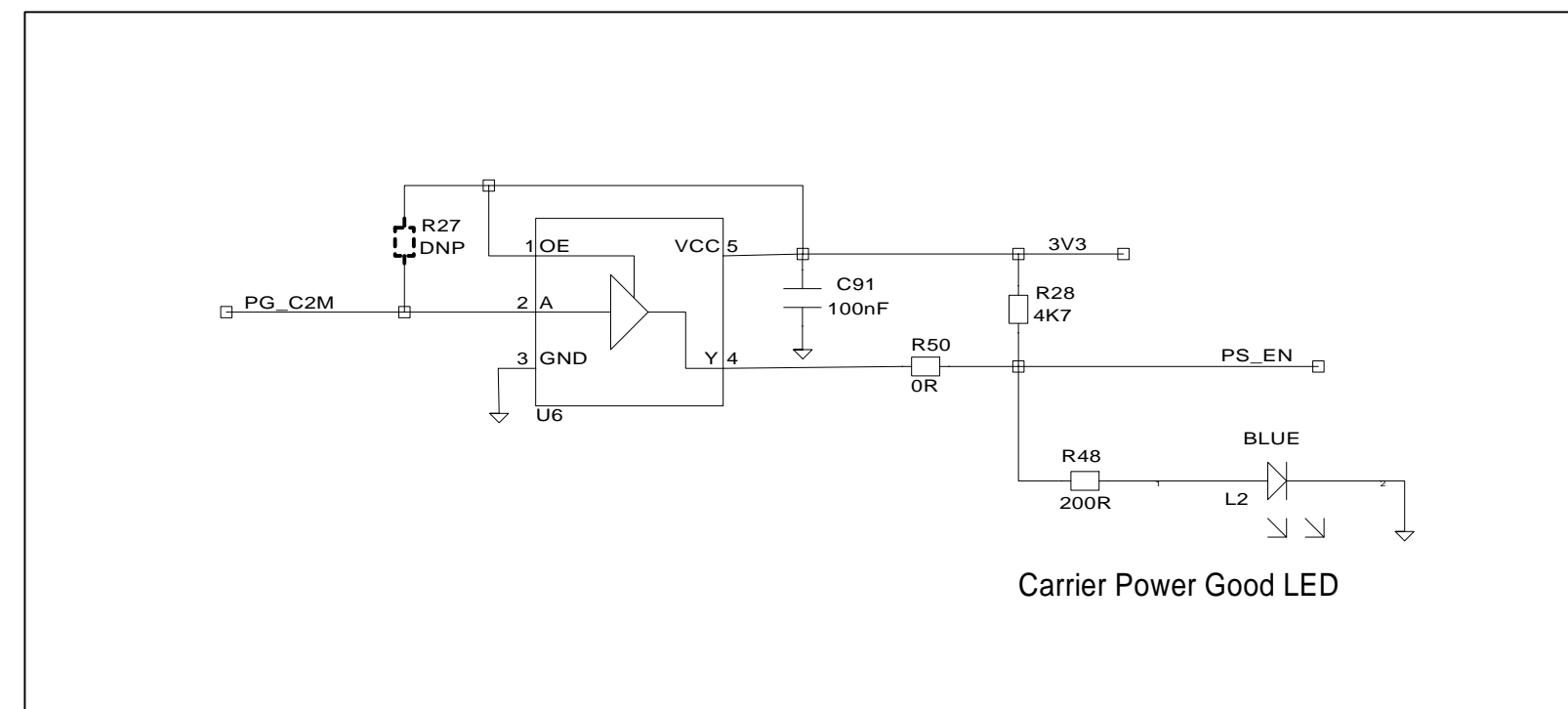
TCXO Power



CLK Power



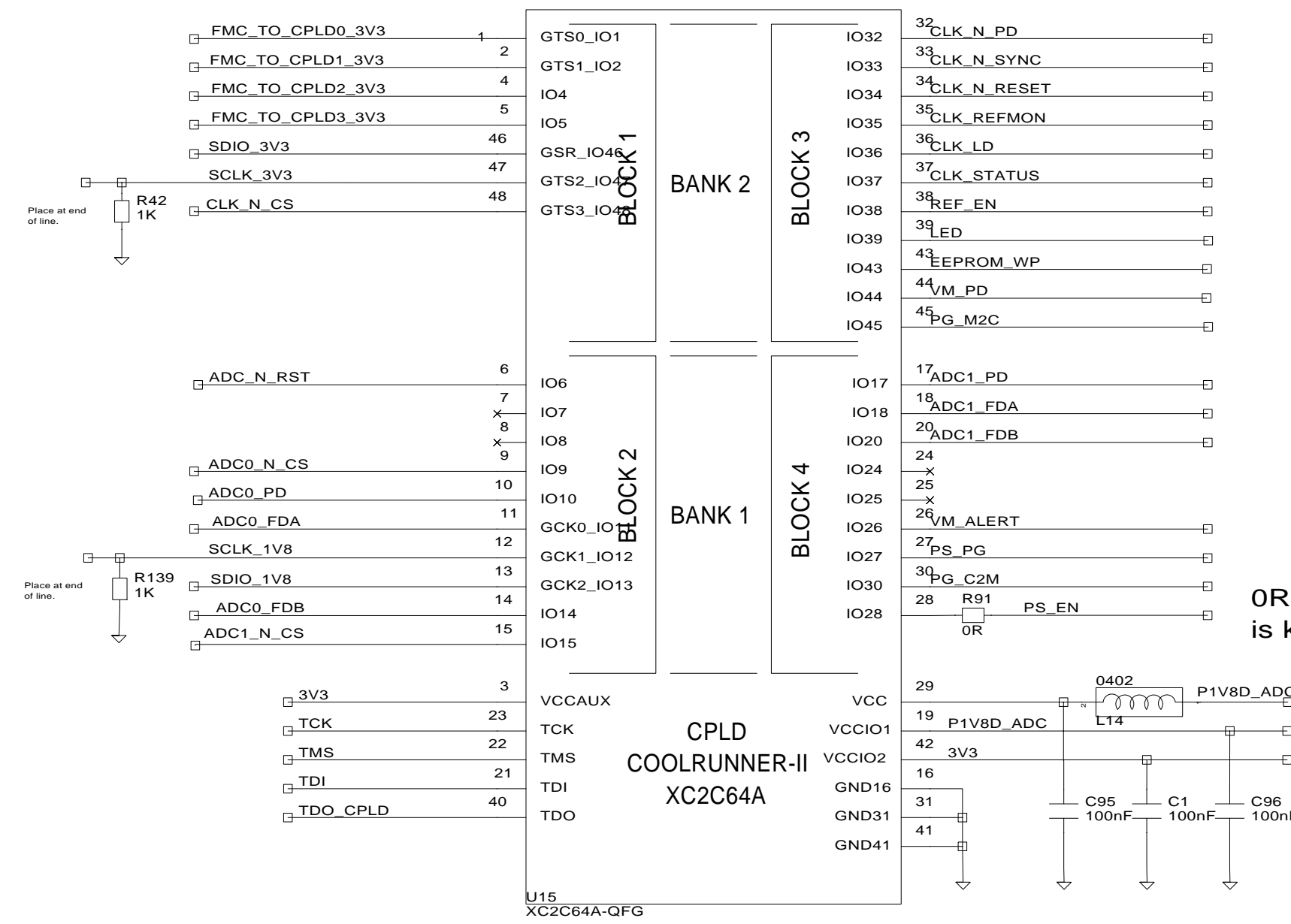
Power Enable



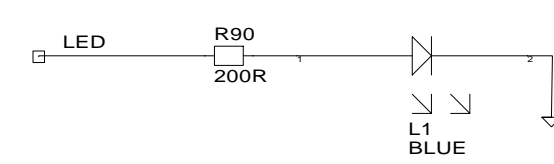
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CHECKED	20130303	FSCM NO.	
ISSUED	20130305	SCALE	SHEET 6 of 7

CPLD & Voltage Level Translation

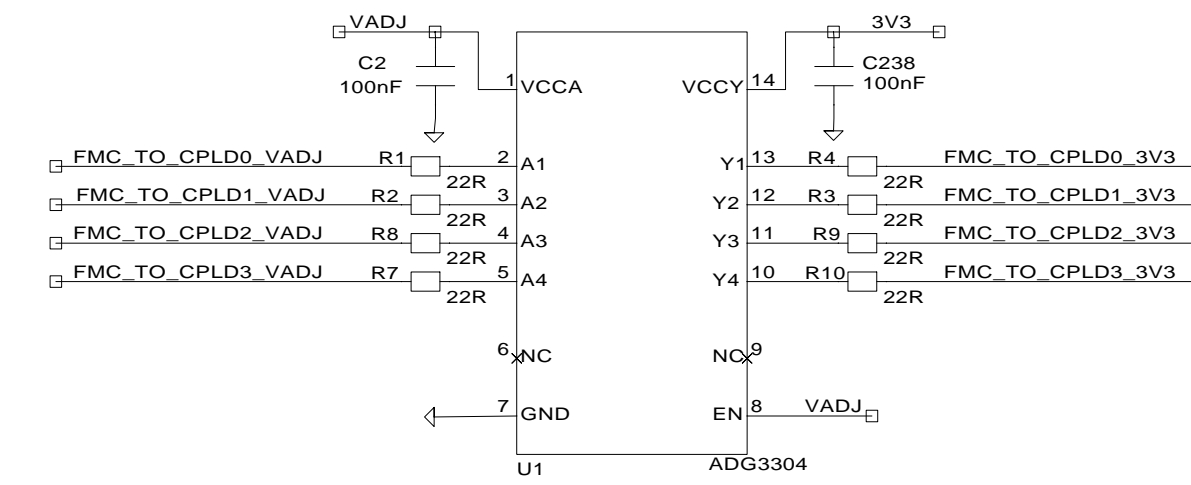


OR resistor can be removed if the CPLD is keeping PS_EN low by accident.

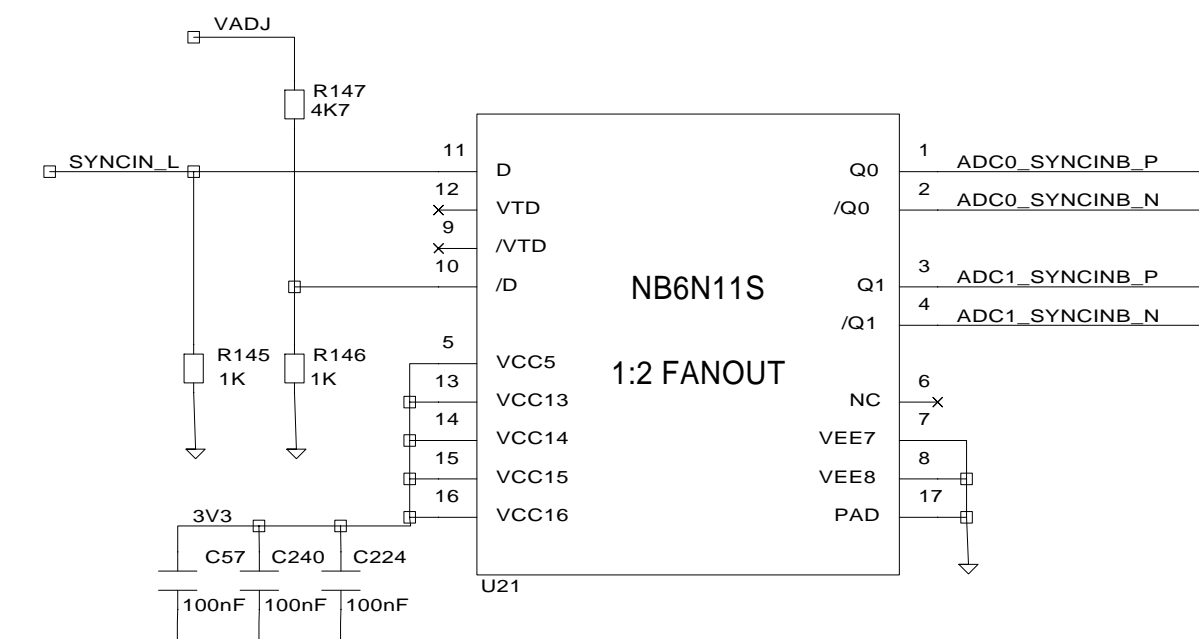


Level Translation

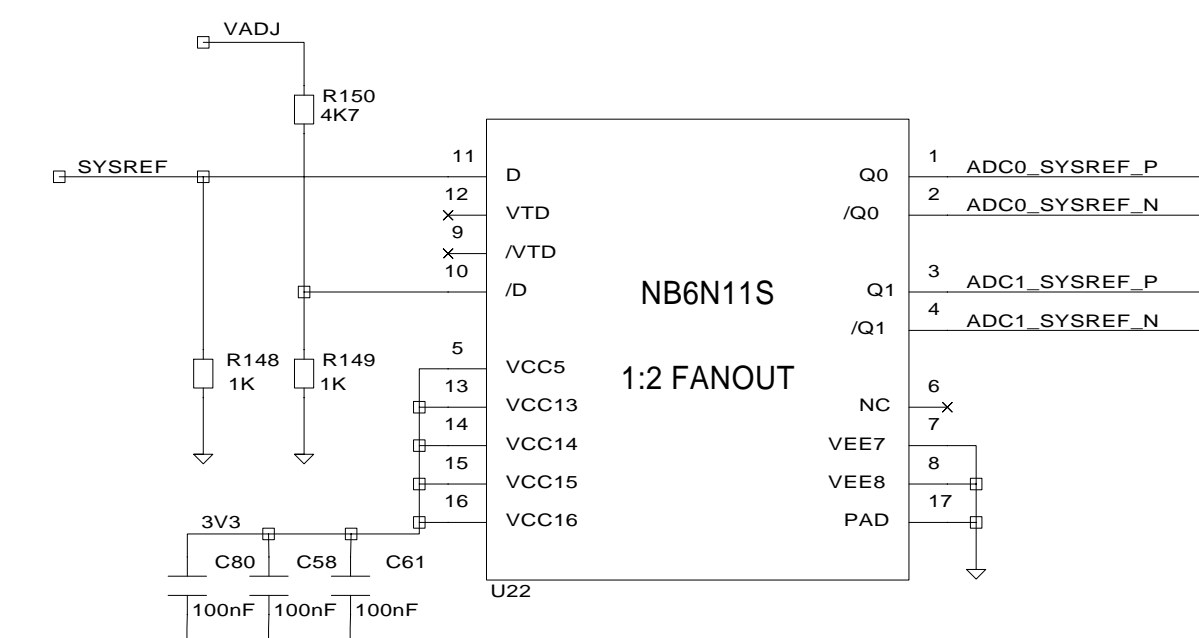
VCCA must always be less than VCCY



LVTTTL to LVDS



Input is configured as single ended.



Input is configured as single ended.



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CHECKED	20130303	SCALE		REV. 1.1
ISSUED	20130305			SHEET 7 of 7