

Project Title: Nano Motherboard Schematic Rev 2

Project File Name: ONYX Nano

Assembly Variant: 2.00

Version History:

Rev 02.01 - ADC Filter Values Changed and Right Angled SMA / Updated for SNR and after original BoM given to IC / 24.10.2024 / GB

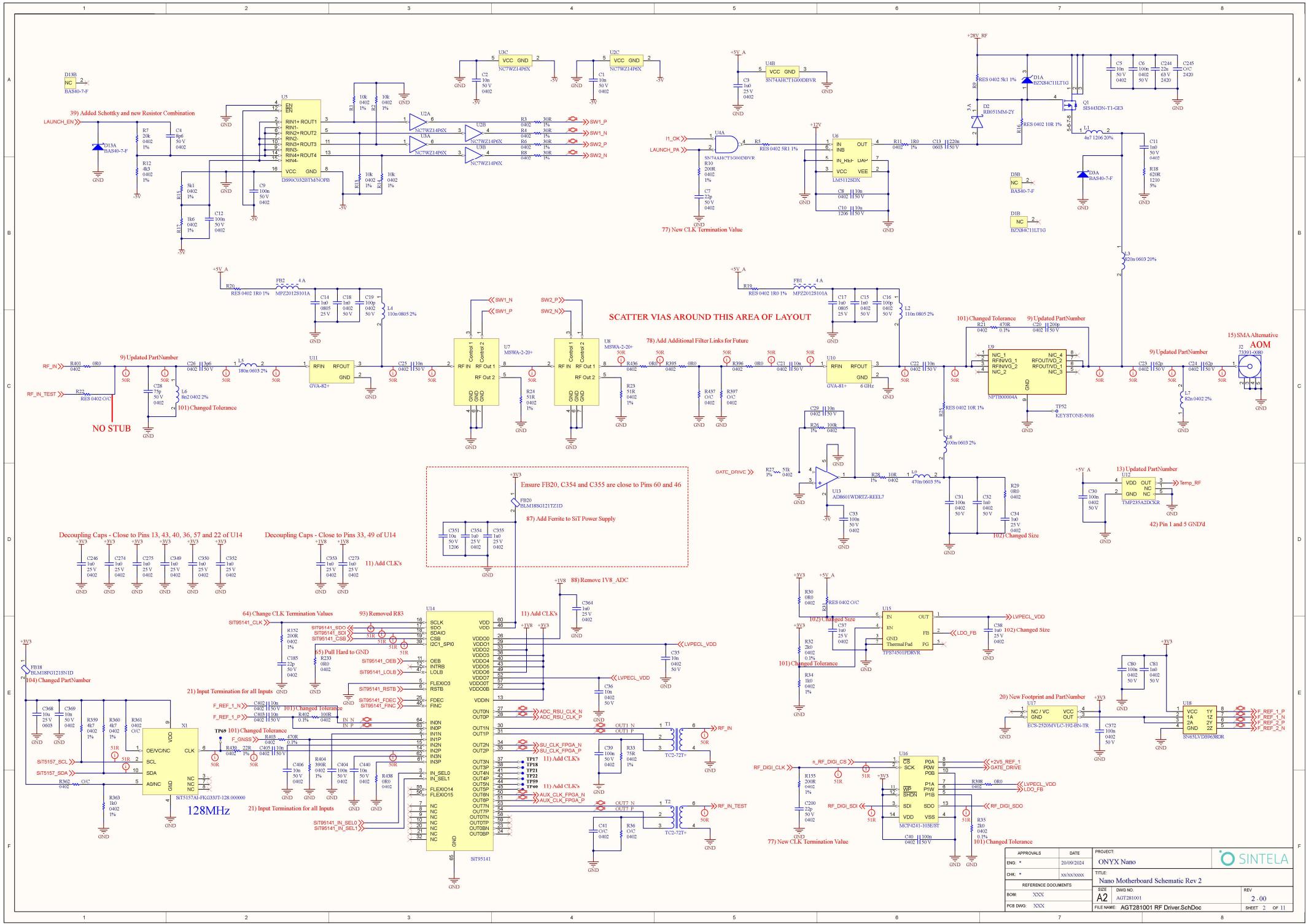
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Rev 02.02 - Additional ADC Filter Values, Two Additional 22R, R18 changed to 620R / Updated after Dris Review / 30.10.2024 / GB

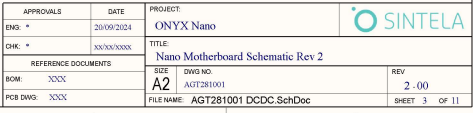
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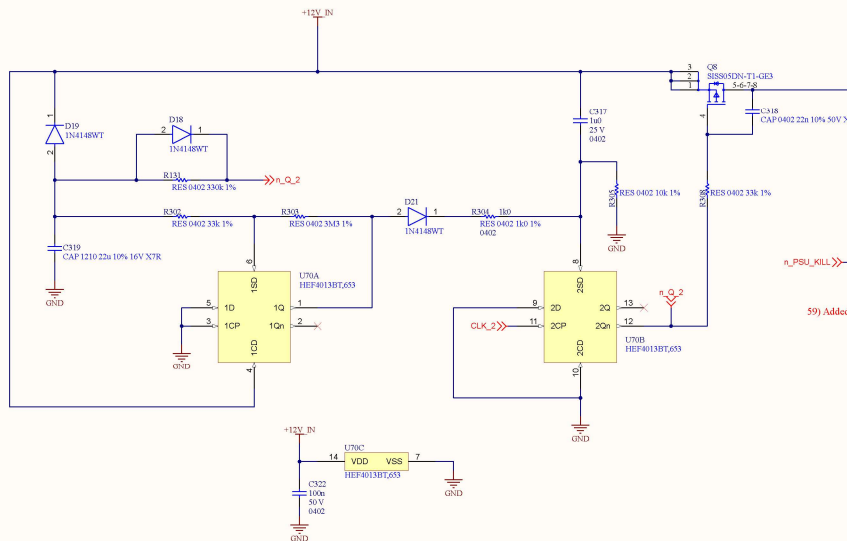
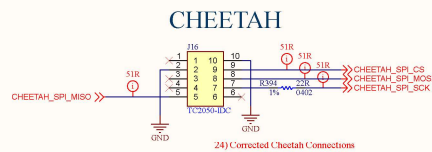
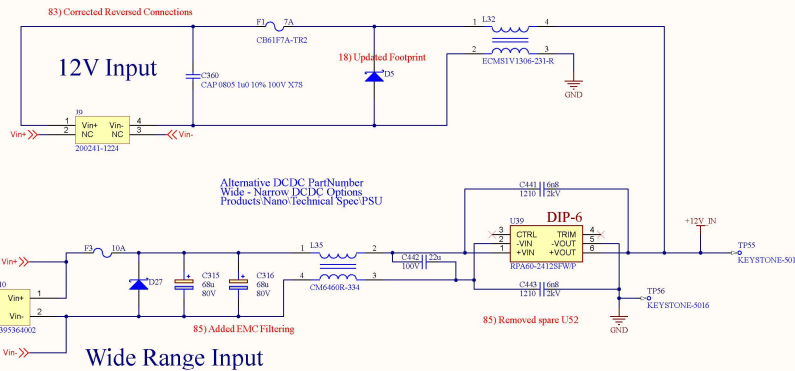
Rev 2.03 - Changed FPGA Decoupling caps from 0805 to 0603 for Layout, Added extra circuitry to U69 EN pin, added 4k7 pullups to U85 / Updated after Steve Review / BoM USED FOR BOARDS (Ignore Rev 02.02 and before) / 15/11/2024 / GB

APPROVALS		DATE	PROJECT		
ENG: *		20/09/2024	ONYX Nano		
CHK: *		XX/XX/XXXX	TITLE		
REFERENCE DOCUMENTS			Nano Motherboard Schematic Rev 2		
BOM:	XXXX		SIZE	DWG NO.	REV
PCB DWG:	XXXX		A2	AGT281001	2.00
			FILE NAME: AGT281001 Revision History SchDoc		SHEET 1 OF 11



APPROVALS		DATE	PROJECT	SINTELA
ENG *		20/09/2024	ONYX Nano	
CHK *		XX/XX/XXXX		
REFERENCE DOCUMENTS				
BSM	XXXX	DWG NO.	AGT281001	REV 2.00
PCB DWG	XXXX	FILE NAME	AGT281001 RF Driver.SchDoc	SHEET 3 OF 11





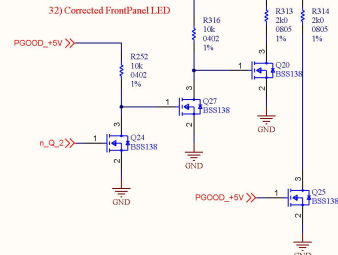
RED: +12V_IN (Box Power but NO Intrnal Power Rails)

RED: n_Q_2 High (Box Power and Over/Under Voltagued)

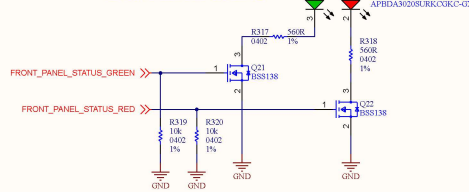
ORANGE: n_Q_2 HIGH and PGOOD_+5V - ORANGE (Box Power and Internal Power but Over/Under Voltagued)

GREEN: PGOOD_+5V (Box and Internal Power)

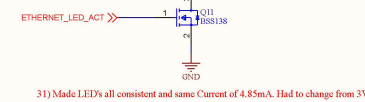
FRONT PANEL 'POWER'



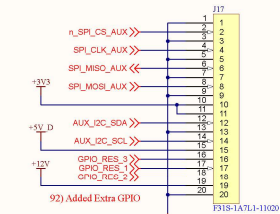
FRONT PANEL 'COMMS'



FRONT PANEL 'STATUS'



DISPLAY CONNECTOR



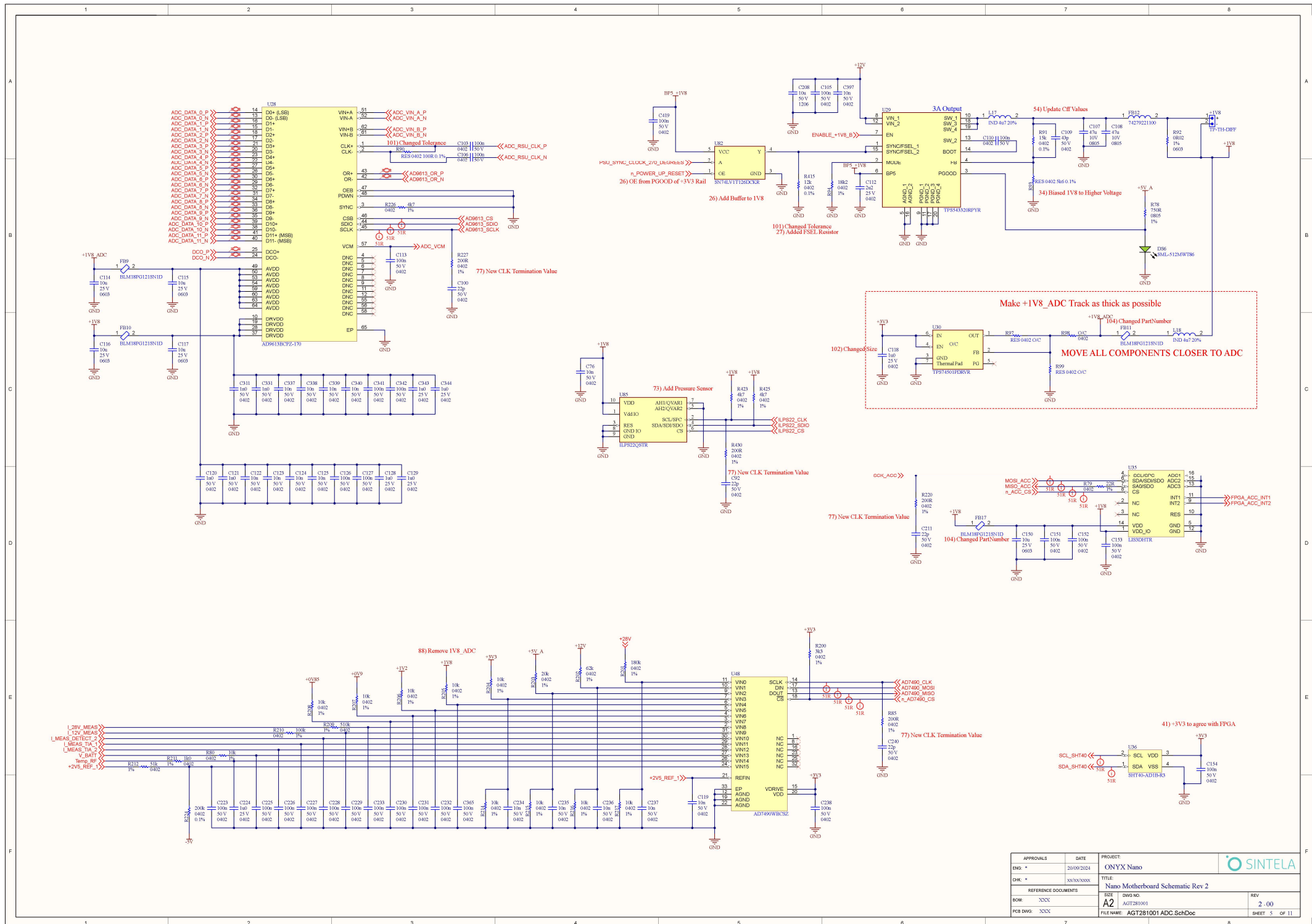
TOP TO BOTTOM

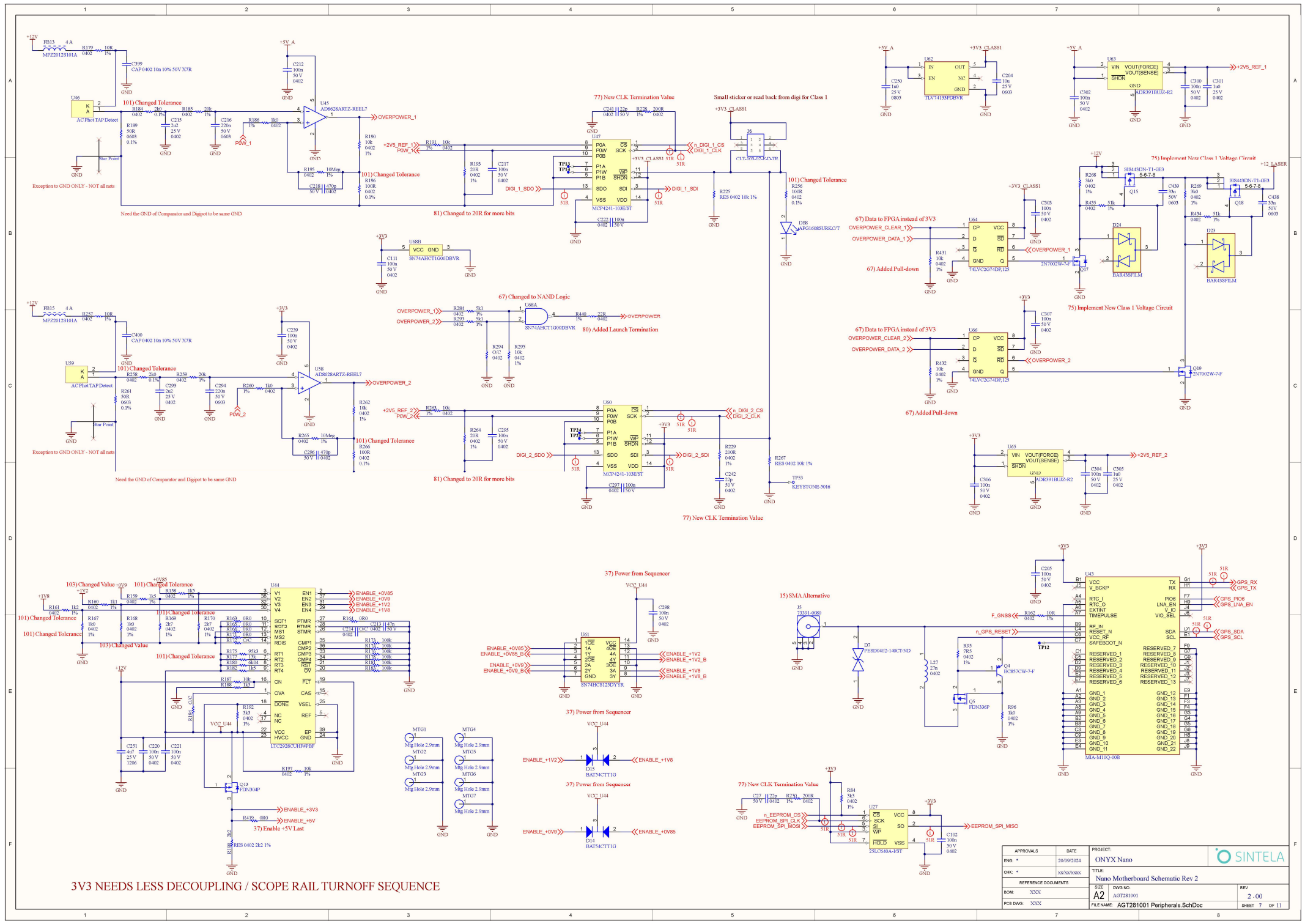
COMMS (DS11)

STATUS (DS10)

POWER (DS9)

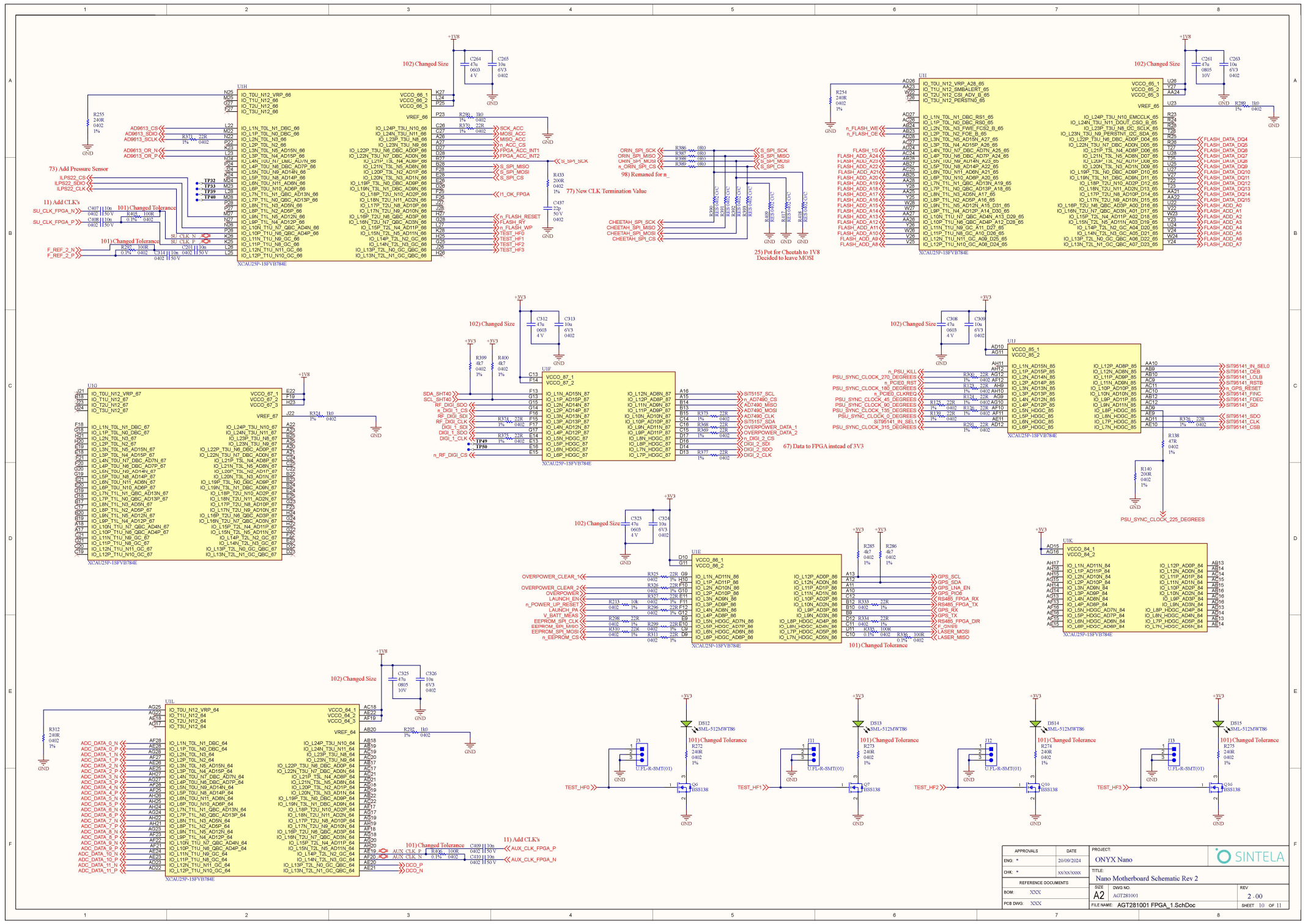
APPROVALS		DATE	PROJECT	
ENG: *		20/09/2024	ONYX Nano	
CHK: *		XX/XX/XXXX	TITLE	
REFERENCE DOCUMENTS			Nano Motherboard Schematic Rev 2	
BOM:	XXXX	SIZE	DWG NO.	
PCB DWG: XXXX		A2	AGT281001	2.00
FILE NAME			AGT281001 DC PSU.SchDoc	
			SHEET 4 OF 11	





3V3 NEEDS LESS DECOUPLING / SCOPE RAIL TURNOFF SEQUENCE

APPROVALS		DATE	PROJECT	SINTELA
ENG *		20/09/2024	ONYX Nano	
CHK *		XX/XX/XXXX		
REFERENCE DOCUMENTS				
BOM	XXX	SIZE	DWG NO.	REV
PCB DWG	XXX	A2	AGT281001	2.00
FILE NAME				SHEET 7 OF 11



APPROVALS		DATE	PROJECT	SINTELA
ENG *		20/09/2024	ONYX Nano	
CHK *		XX/XX/XXXX		
REFERENCE DOCUMENTS		FILE NAME	REV	
BOM	XXX	AGT281001	2.00	
PCB DWG	XXX	AGT281001_FPGA_1_SchDoc		

