

Notes :

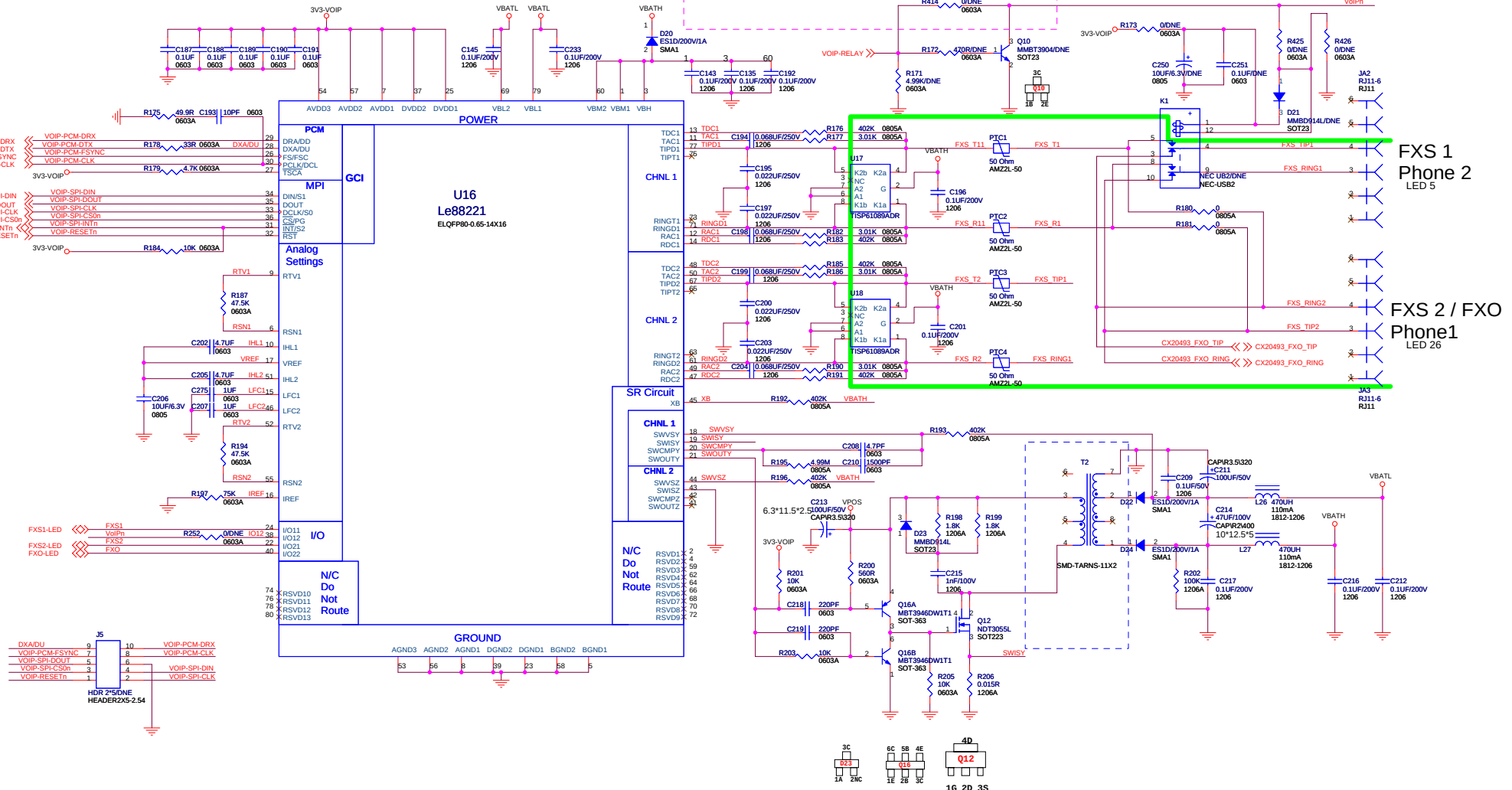
Item	Function	System Power	Logic for net VOIP-RELAY	Logic for pin 12 of K1 relay	K1 Relay path through	Status			Do not populate	Signal paths	Signal to CO or PSTN
						ADSL	FXS	FXO			
1	ADSL+2FXS	ON	No function	No function	No function	Working	Working	No function	FXO ckt and K1 relay	Line 1 - FXS / CH 1 - CPU - AFE - CO Line 2 - FXS / CH 2 -	Data
2	ADSL+FXS+FXO	OFF	No function	No function	pin 3 - pin 4 pin 10 - pin 9	No function	No function	No function	CH 2 of U16 FXS ckt R180, R181	Line 1 - K1 Relay - Line 2 - PSTN	Voice
3	ADSL+FXS+FXO	ON	High	Low	pin 5 - pin 4 pin 8 - pin 9	Working	Working	Working	CH 2 of U16 FXS ckt R180, R181	Line 1 - FXS / CH 1 - CPU - AFE - CO Line 1 - FXS / CH 1 - CPU - FXO - PSTN	Data Voice
4	ADSL+FXS+FXO	ON	Low	High	pin 3 - pin 4 pin 10 - pin 9	No Link	Working	No Link	CH 2 of U16 FXS ckt R180, R181	Line 1 - K1 Relay - Line 2 - PSTN	Voice

VOIP OPTION

2FXS : populate R180,R181,R185,R186,R190,R191
C199,C200,C201,C203,C204
PTC3,PTC4,U18
omit K1,R171,R172,R173,C250,C251,D21,Q10

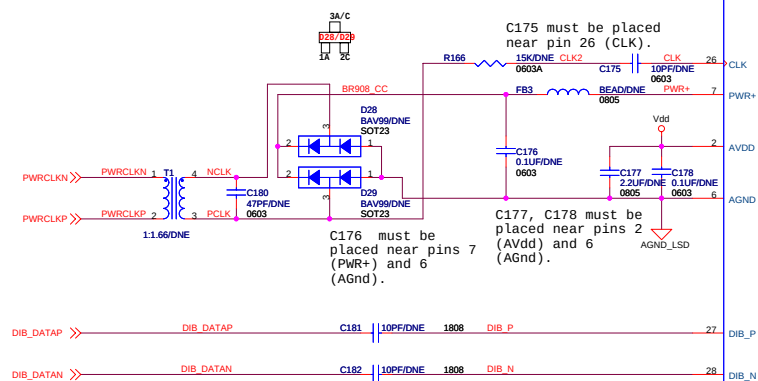
FXS+FXO : populate R171,R172,R173,R425,C250,C251
D21,Q10,K1
omit R180,R181,R185,R186,R190,R191
C199,C200,C201,C203,C204
PTC3,PTC4,U18

Special Note : Do not populate R414 in any case unless the logic of the net VOIP-RELAY can not be controlled by software.



For FXO only

FXO - CX20493

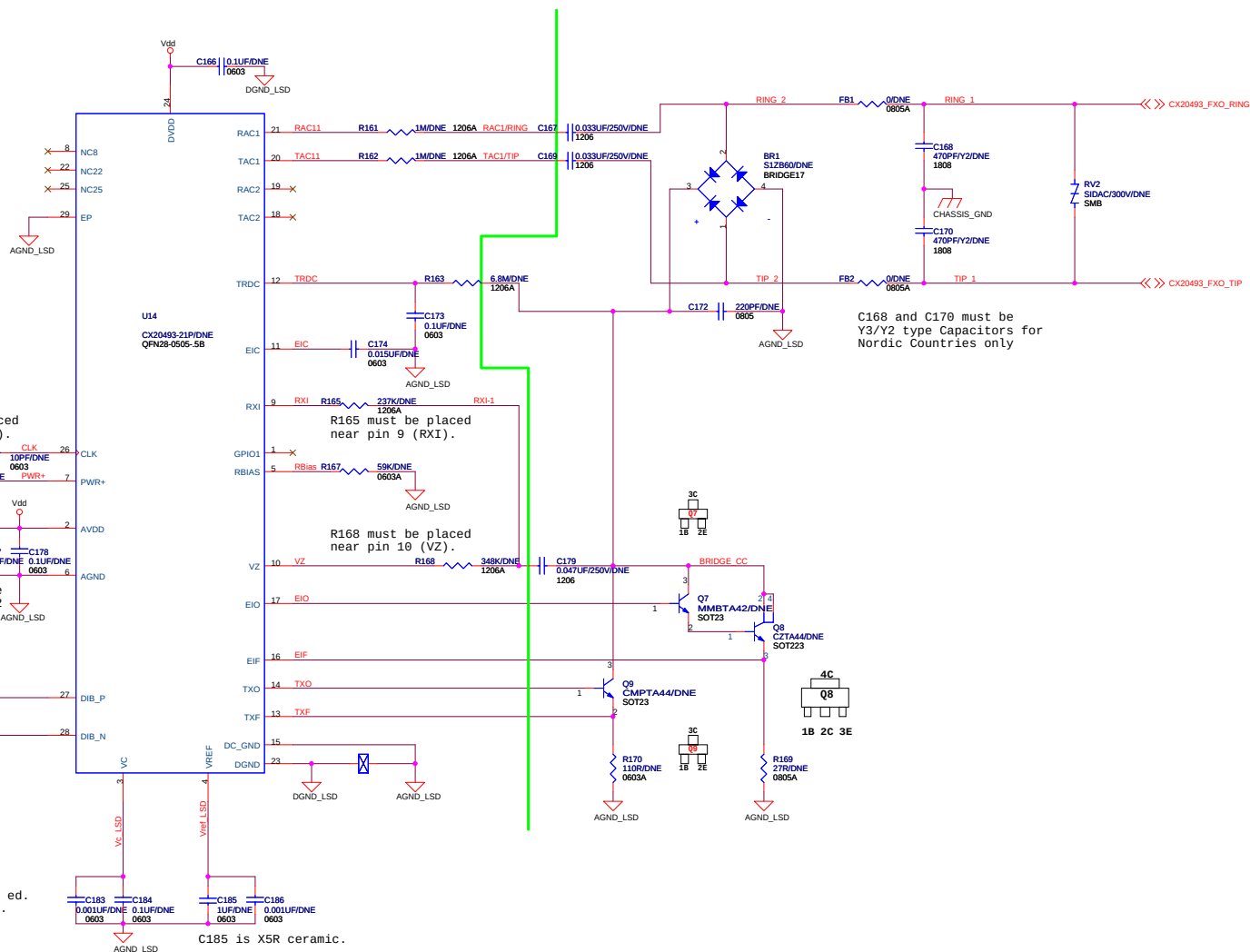


Depending of the design target and DIB length,
DIB components can be:

- C181/C182 10pF
- C181/C182 47pF (Validation in progress)

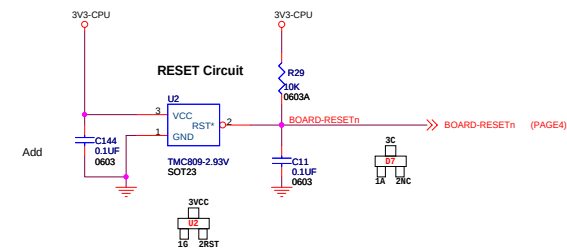
C181, C182, C168, and C170, must be Y3 type Capacitors in order to comply with Nordic Countries deviations of IEC60950 2nd and 3rd ed. Y3 type capacitors must also be certified for a 2.5KV impulse test. This must be checked in vendors' specifications (see AVL).

Circuit traces for C181 and C182 should be less than 2 inches.



C183, C184 and C186 must be placed near pins 3 (Vc) and 4 (VRef).

USB



3V3-V01P

R35
1K
0603A

SW1

1 2

SHIELD

SPST
SW-PUSH-RT

R14
100R
0603A

R36
10K
0603A

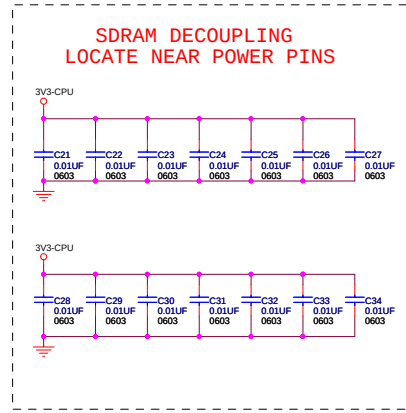
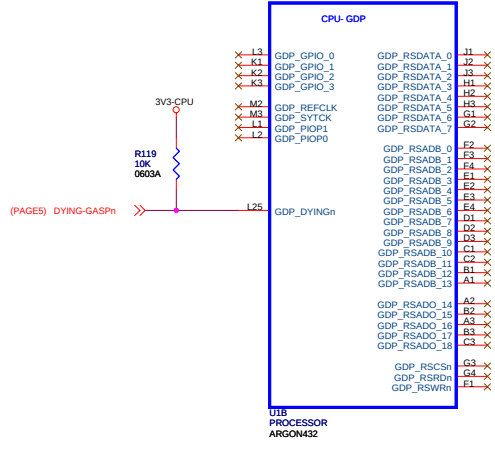
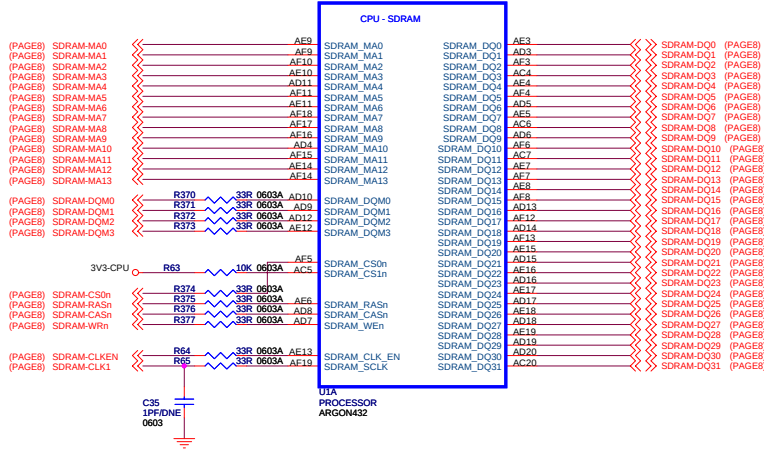
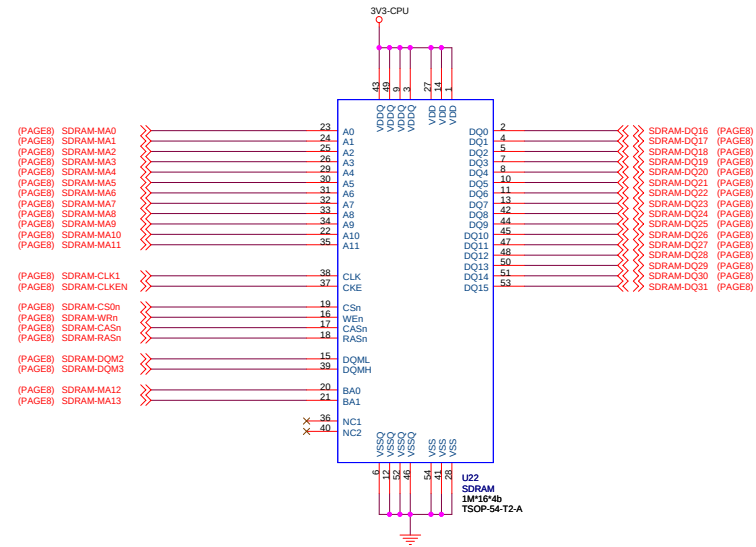
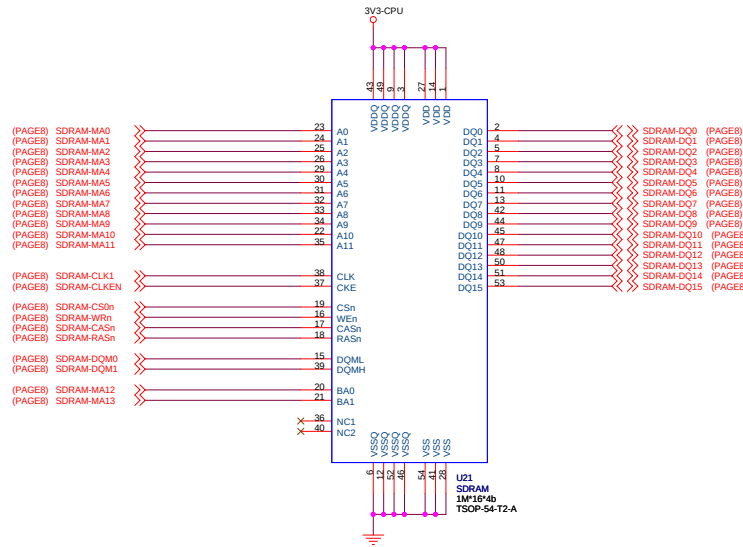
C232
0.001uF
0603

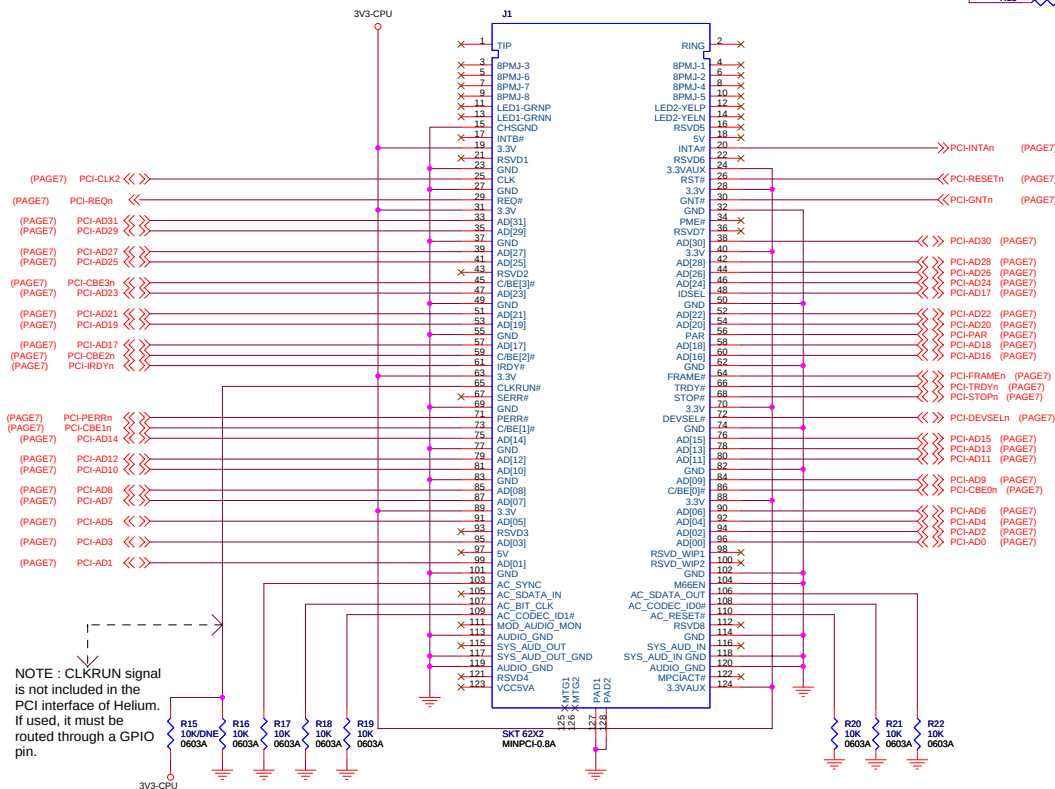
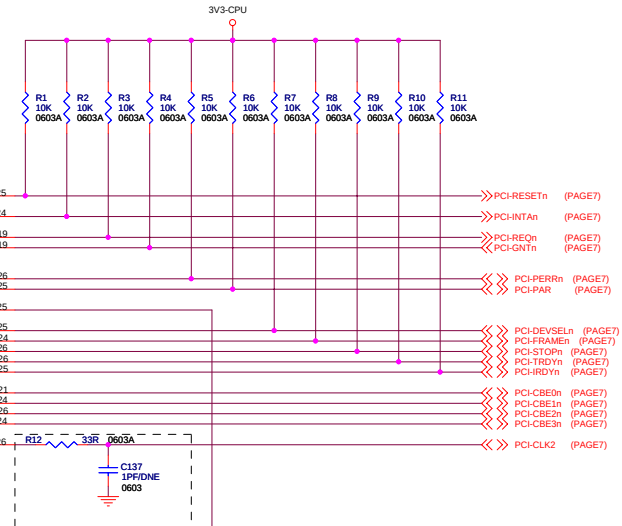
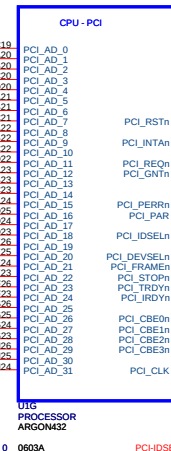
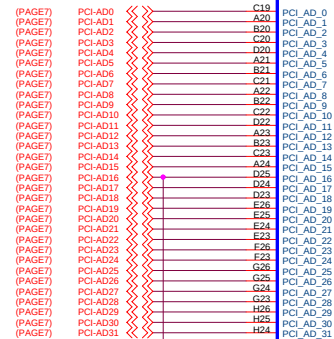
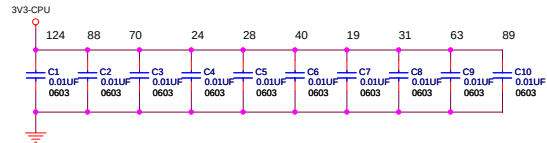
R62
220R
0603A

RESET-DEFAULT Tr-PLED (PAGE6)

2FXS : populate R27,R331 / omitR332,R432
FXS+FXO : populate R332,R432 / omit R27,R331

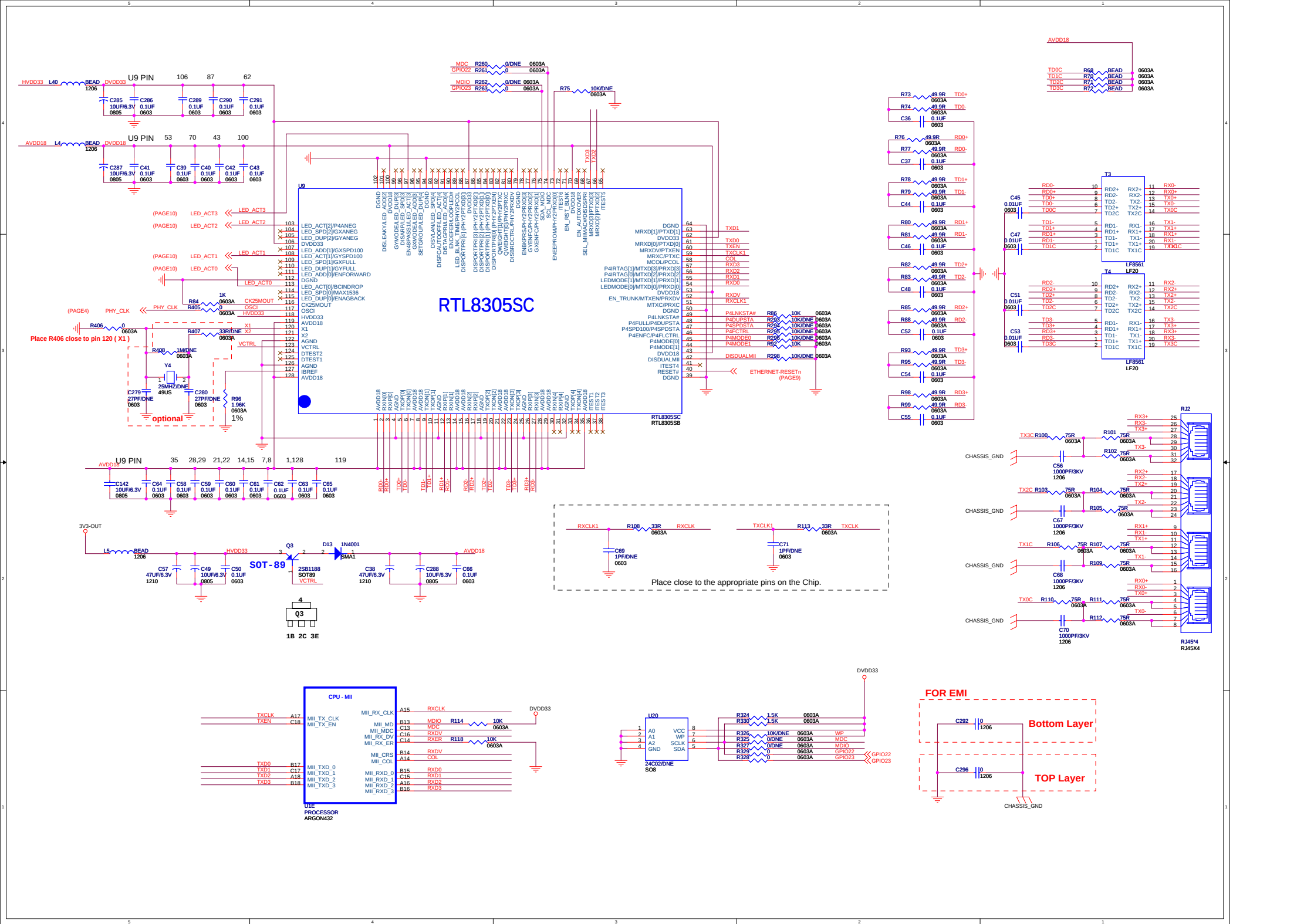
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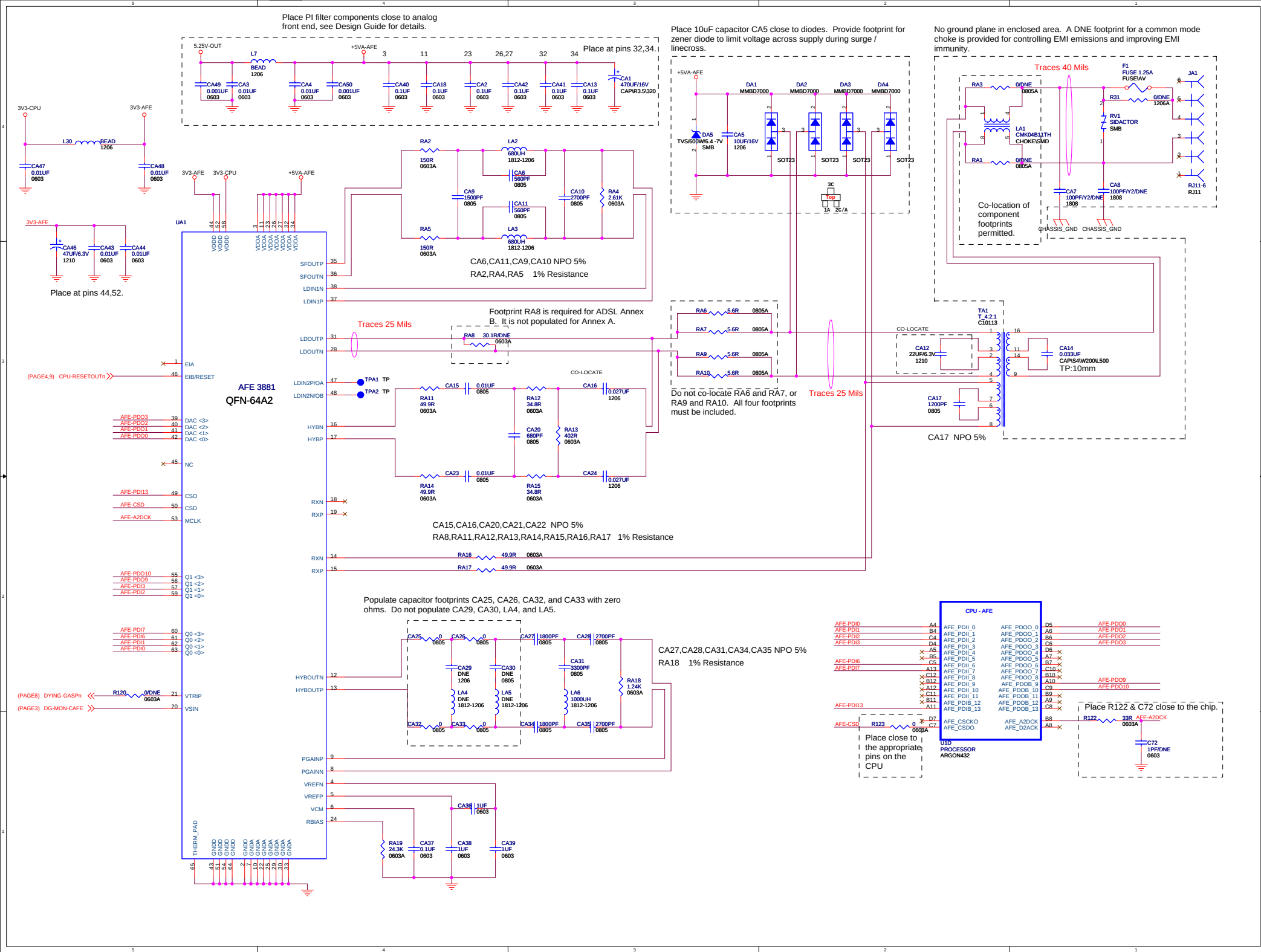


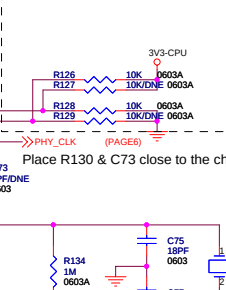
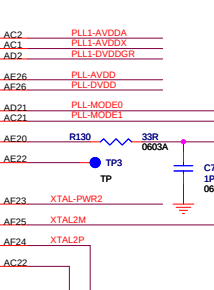
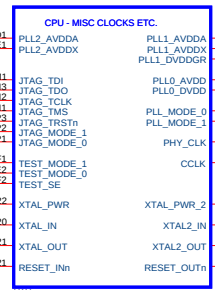
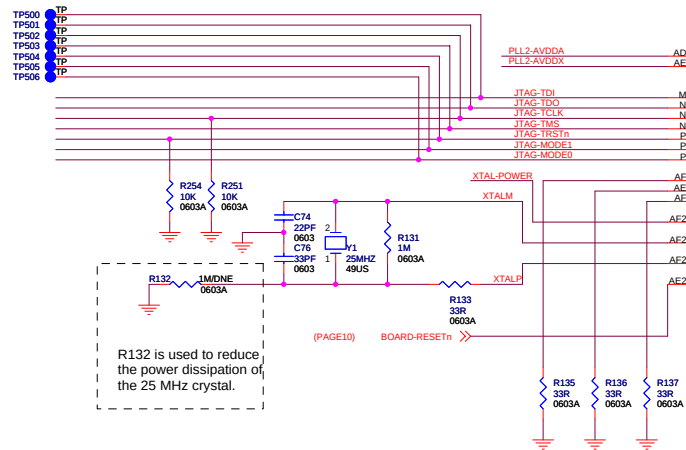


NOTE : CLKRUN signal is not included in the PCI interface of Hellum. If used, it must be routed through a GPIO pin.

Place close to the appropriate pins on the CPU



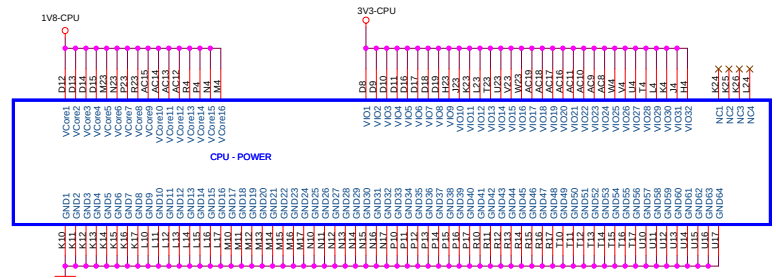




PLL_MODE		Crystal reference frequency (MHz)	Core clock frequency (MHz)
1	0		
0	0	25	80
0	1	25	48
1	0	25	96
1	1	25	External Clock 70 MHz maximum

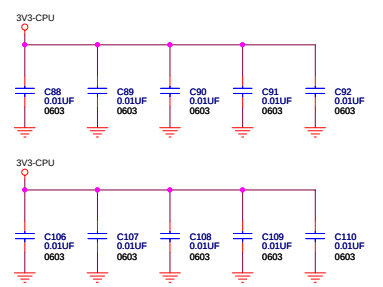
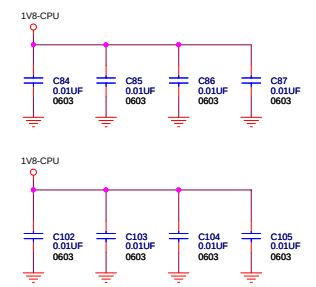
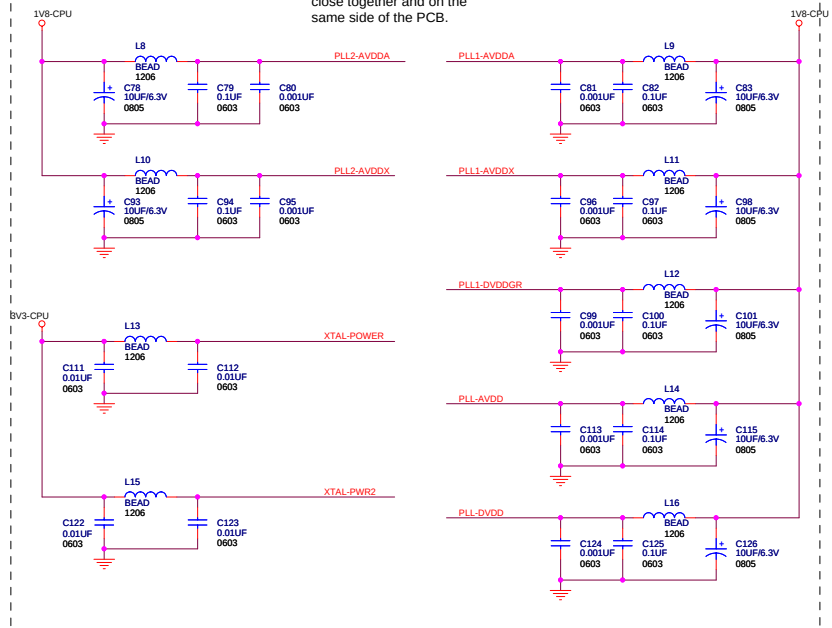
R132 is used to reduce the power dissipation of the 25 MHz crystal.

Note: Place the crystal and its associated components close to the chip.



U11 PROCESSOR ARGON432

Place Pi filter components close together and on the same side of the PCB.

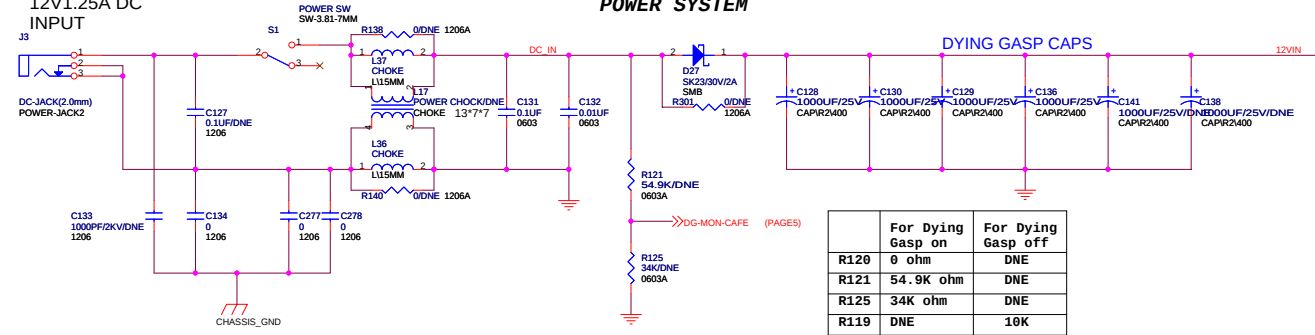


Place close to the appropriate pins on the CPU

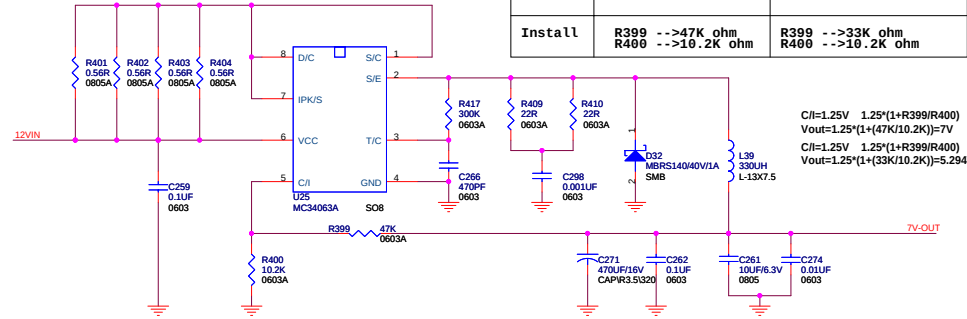
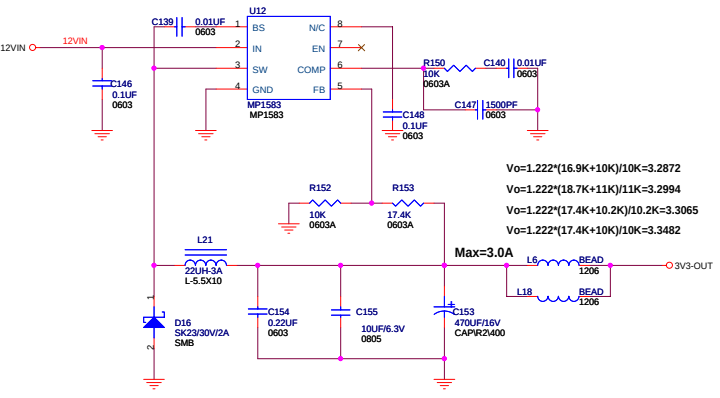
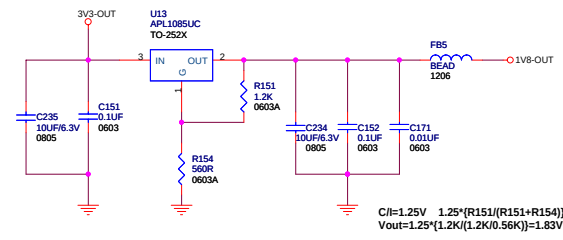
12V1.25A DC INPUT

POWER SYSTEM

DYING GASP CAPS

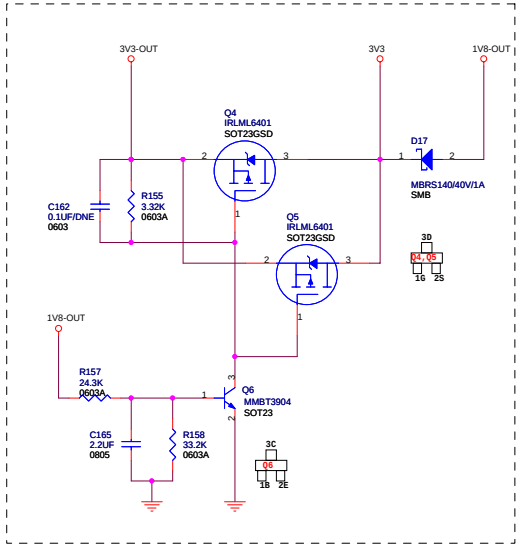


	For Dying Gasp on	For Dying Gasp off
R120	0 ohm	DNE
R121	54.9K ohm	DNE
R125	34K ohm	DNE
R119	DNE	10K

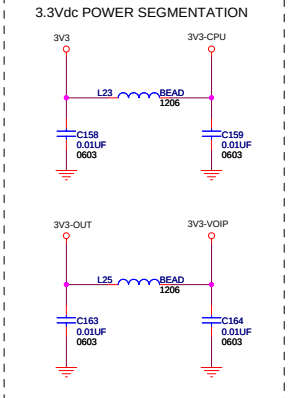


	U25 Power Out -->7V	U25 Power Out -->5.25V
Install	R399 -->47K ohm R400 -->10.2K ohm	R399 -->33K ohm R400 -->10.2K ohm

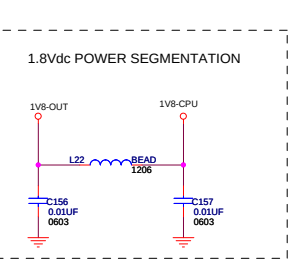
Power sequencing circuitry. Place components close to 1.8V regulators. Please refer to application note DO-400569-AN.



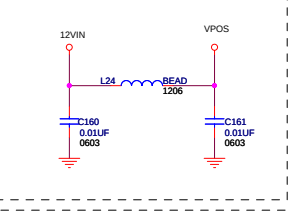
Place Pi filter components close together and on the same side of the PCB.



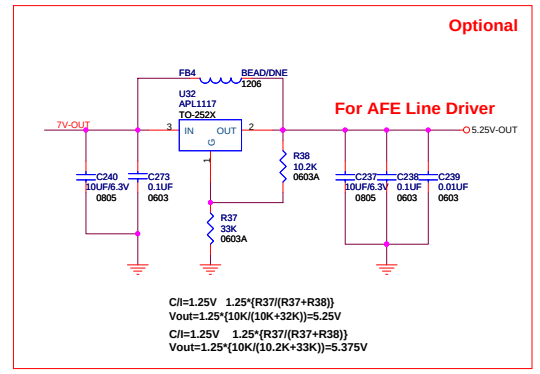
Place Pi filter components close together and on the same side of the PCB.



12Vdc POWER SEGMENTATION

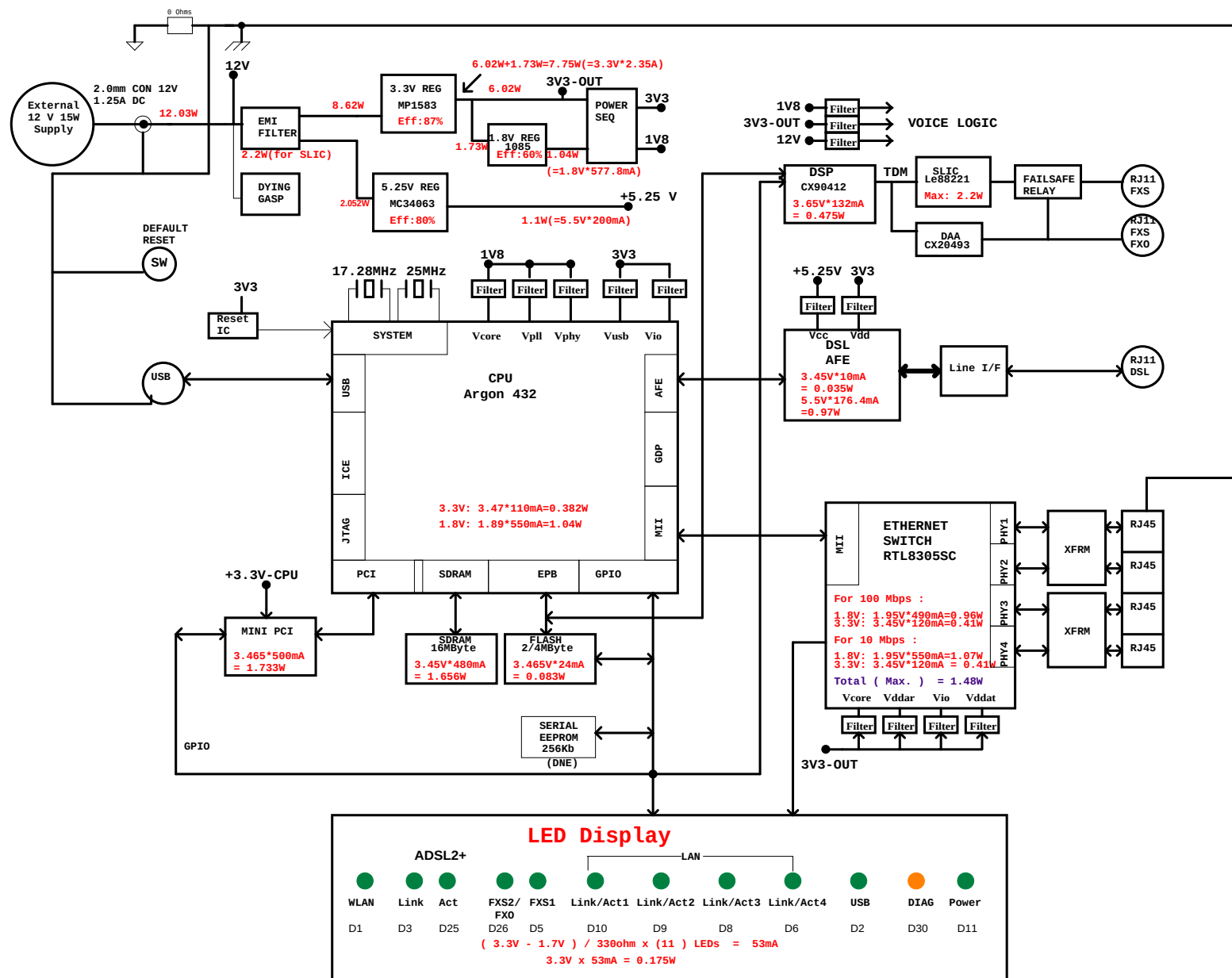


Optional



CHASSIS GROUND





VDR824G Schematic

Table of Contents

Sheet	Description
1	Revision History
2	Block Diagram
3	POWER 5.25V/3.3V/1.8V
4	CPU CLOCKS/JTAG/POWER
5	AFE BAZ3881
6	Ethernet / RTL8305SC
7	MINI PCI CONNECTOR
8	SDRAM
9	MEMORY / EEPROM / USB
10	LEDs / Reset/Serial Port
11	CX20493/DNE
12	LE88221/2FXS
13	CX90412-11