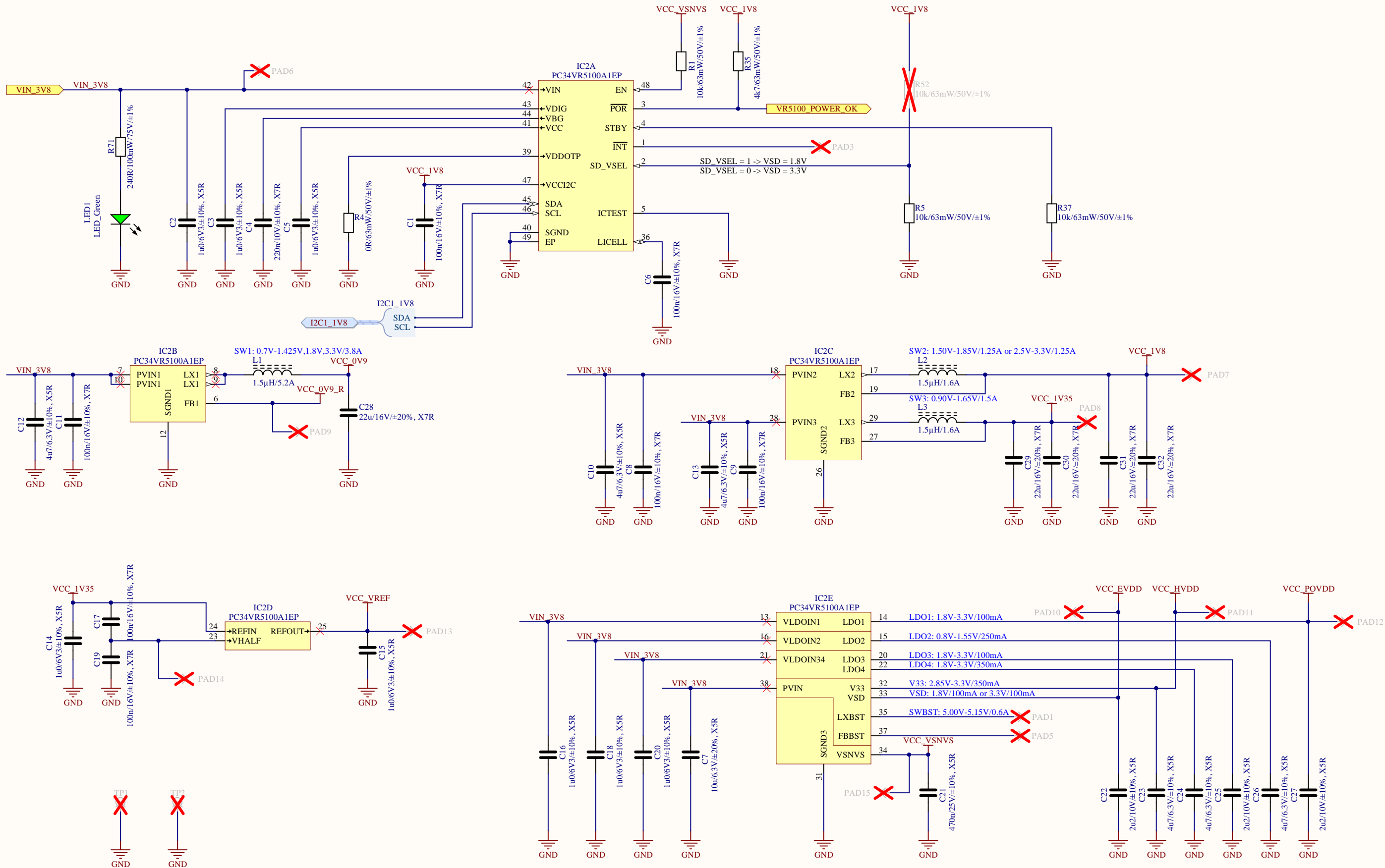
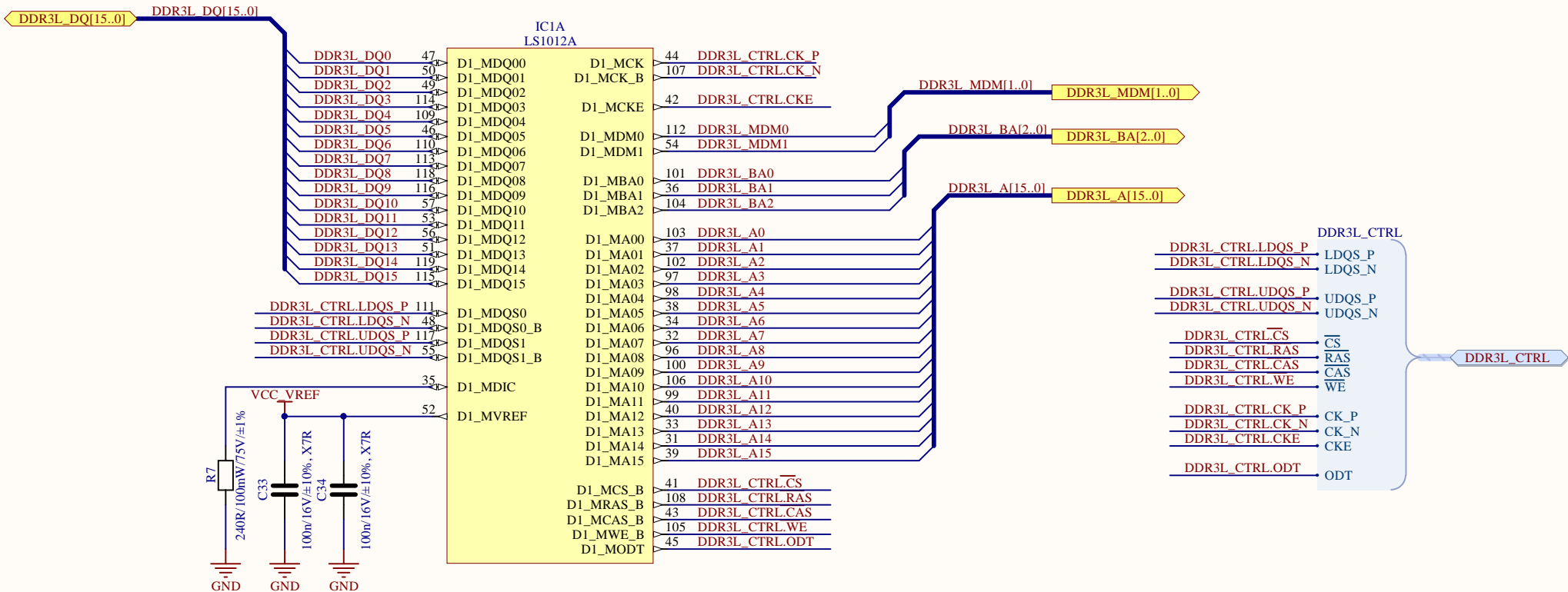


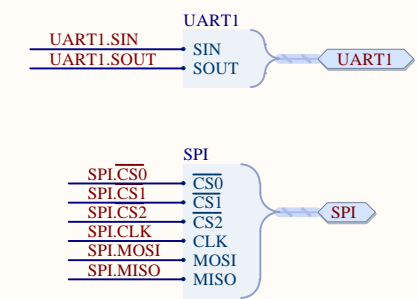
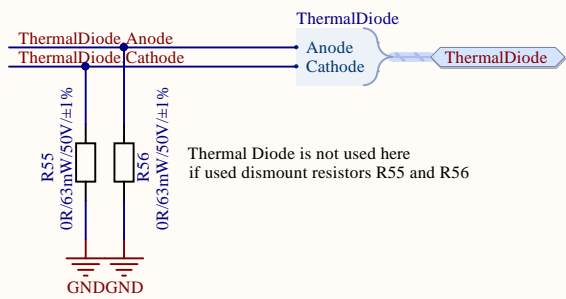
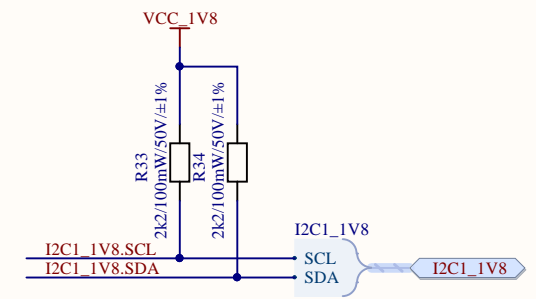
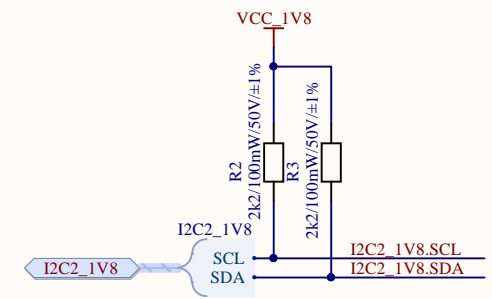
Schematics		SYS?ART GmbH	
Project:	SaM-Board1012_V200.PrfPcb	www.systart.de	
Document:	TOPSHEET.SchDoc	Date:	17.11.2017
Author:	SAM	Date:	18.11.2017
Auditor:	MSB	Page:	1
Status:	Confirmed		



Schematics		SYS <sup>?</sup> ART GmbH
Project: SaM-Board1012_V200.PrjPcb		
Document:	PMIC_VR5100.SchDoc	www.systart.de
Author:	SAM	Date: 17.11.2017
Auditor:	MSB	Date: 18.11.2017
Status:	Confirmed	Page: 2



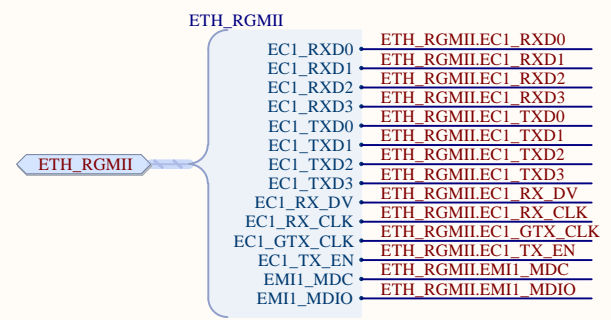
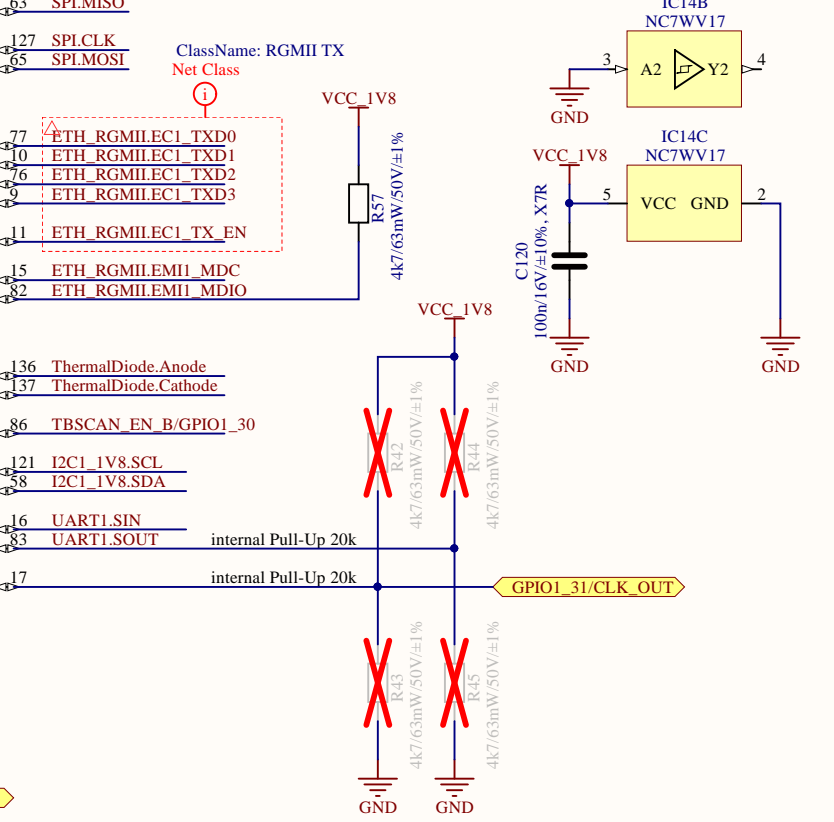
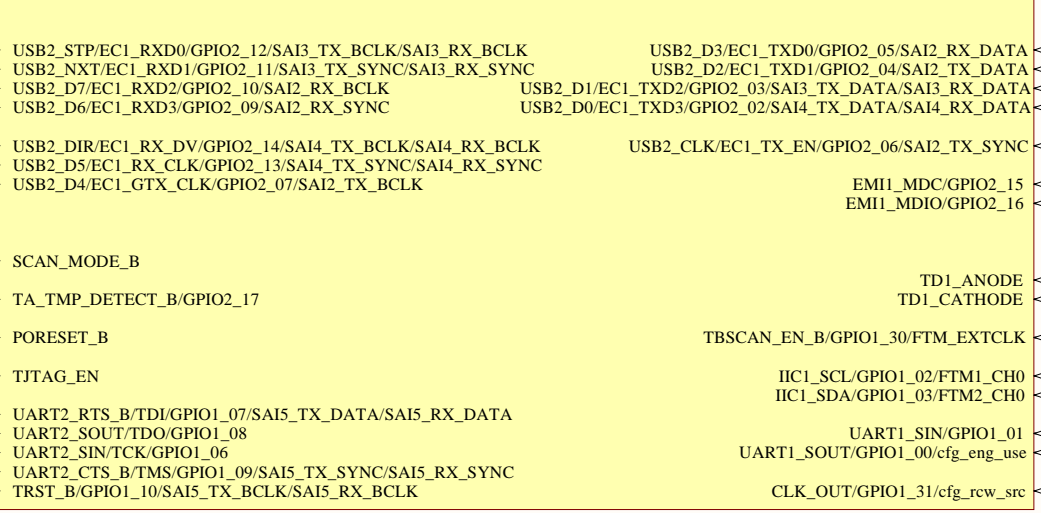
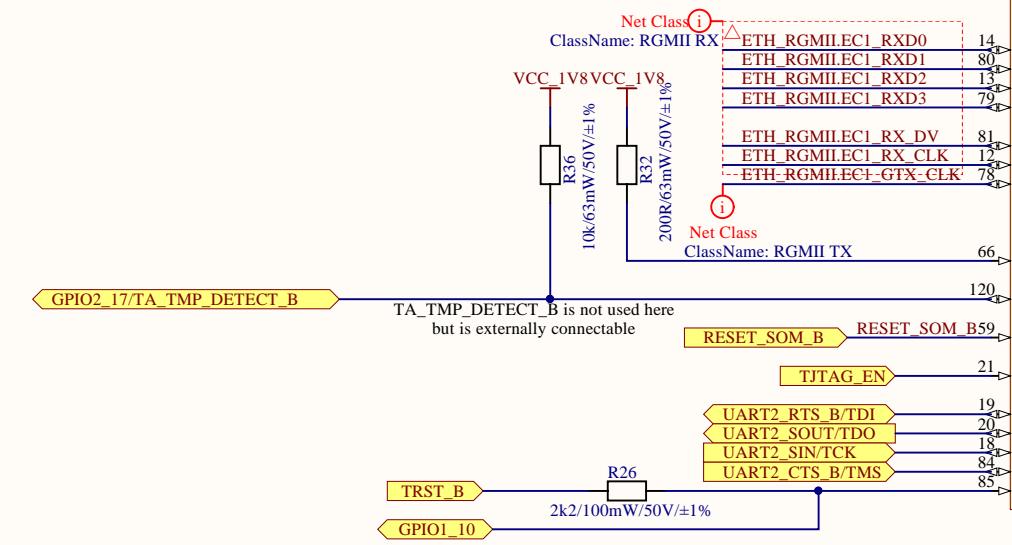
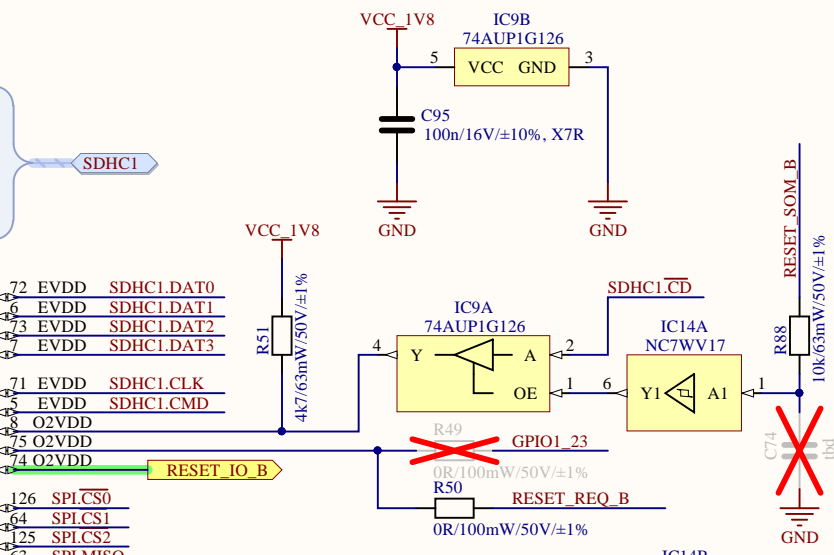
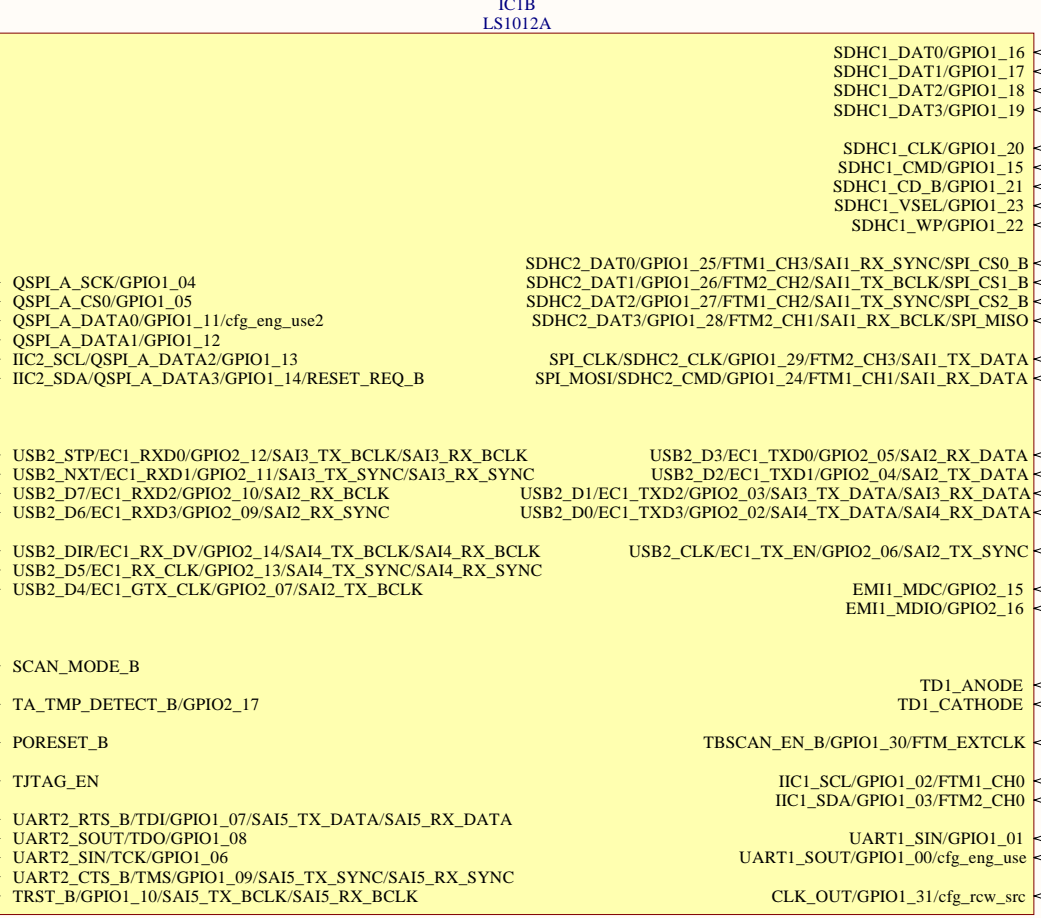
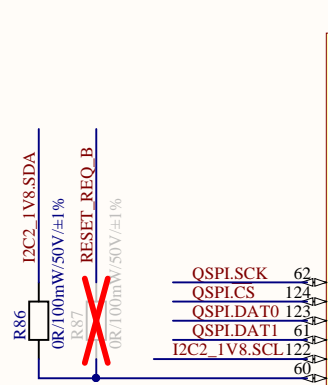
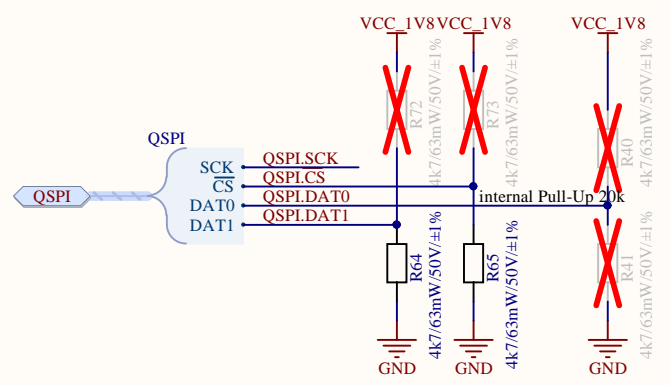
Schematics		
Project: SaM-Board1012_V200.PriPcb		
Document:	LS1012A_DDR3.SchDoc	www.systart.de
Author:	SAM	Date: 17.11.2017
Auditor:	MSB	Date: 18.11.2017
Status:	Confirmed	Page: 3



cfg\_func\_backup, cfg\_sysclk\_sel  
QSPIDAT1, QSPIDCS  
Select the Clock mode based on the Usecase, check the Clocking recommendations for more details.  
• 0b'11- Crystal Clock Mode  
• 0b'00- External Oscillator Clock Mode

cfg_eng_use2	cfg_eng_use	Transconductance
0	0	0.21x
0	1	0.55x
1	0	0.66x
1	1	1.00x

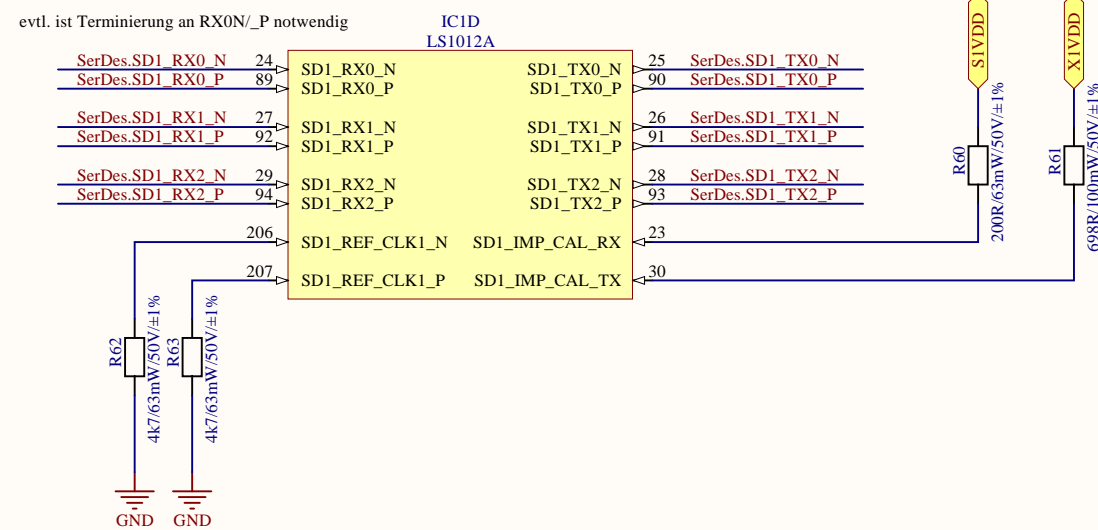
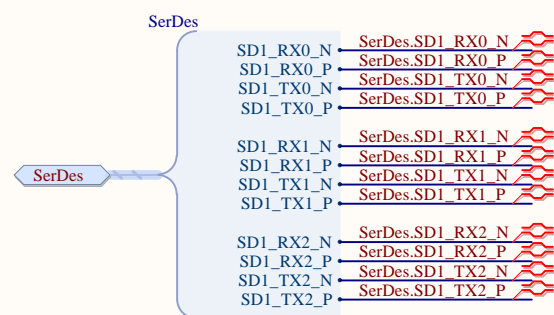
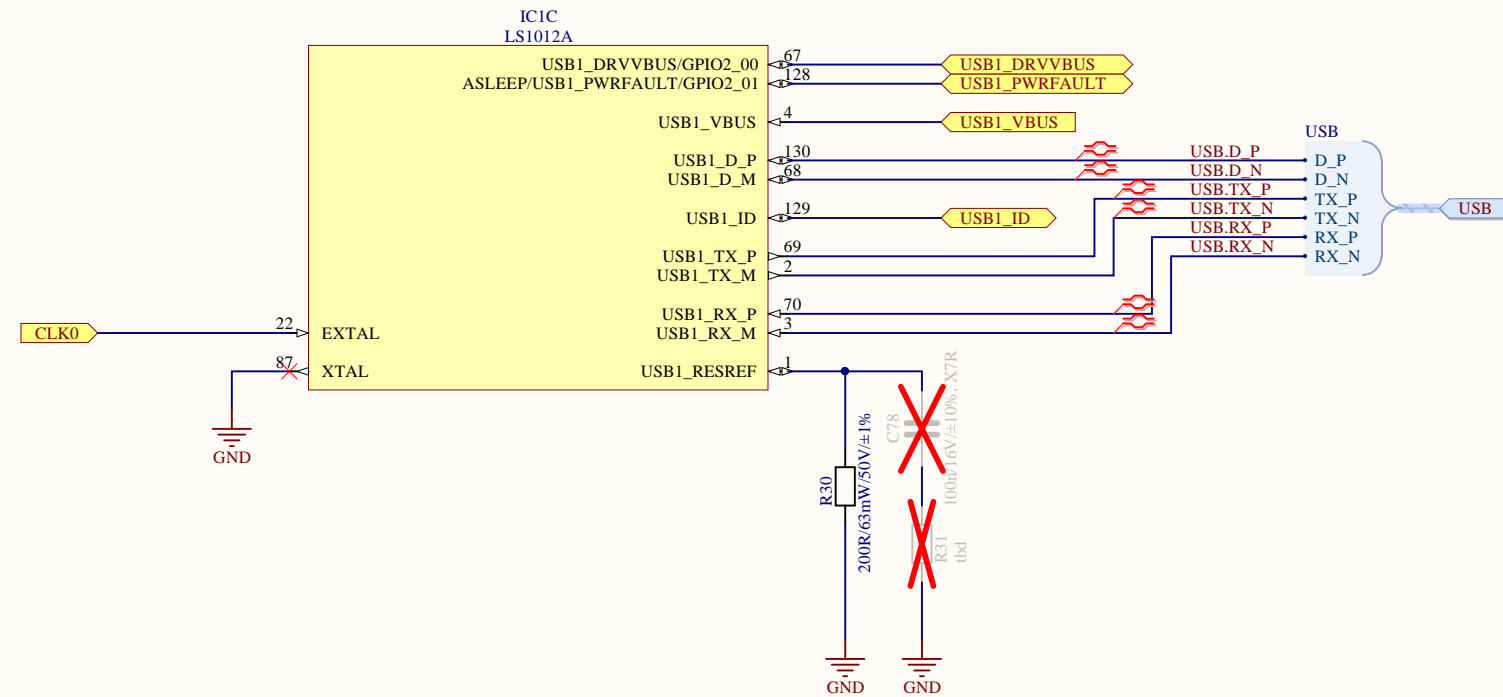
cfg\_rw\_src  
CLK\_OUT  
Since LS1012A supports only one RCW source which is QSPI, this bit must be set to 1 with a valid 512-bit RCW in the QSPI Flash. The 512-bit RCW word has all the necessary configuration information for the chip. If there is no valid RCW in the external memory, it can be programmed using the Code Warrior or other programmer. The JTAG configuration files can be used in the following situations:  
• target boards that do not have RCW already programmed  
• new board bring up  
• recovering boards with blank or damaged flash



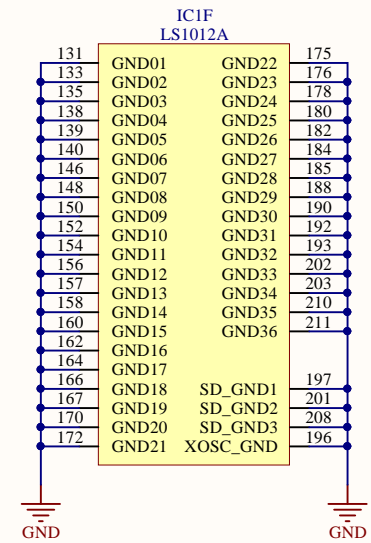
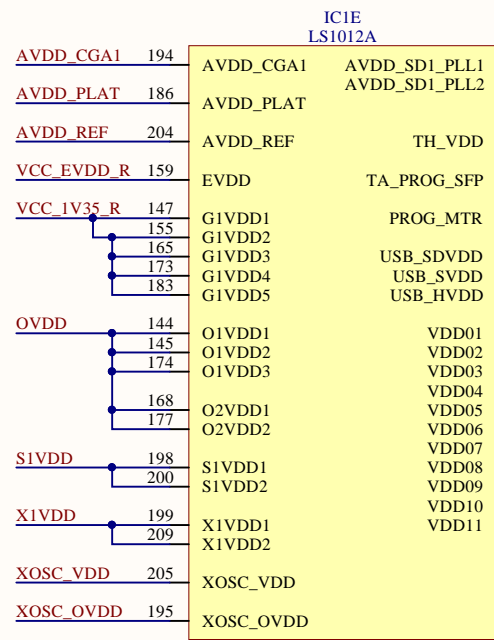
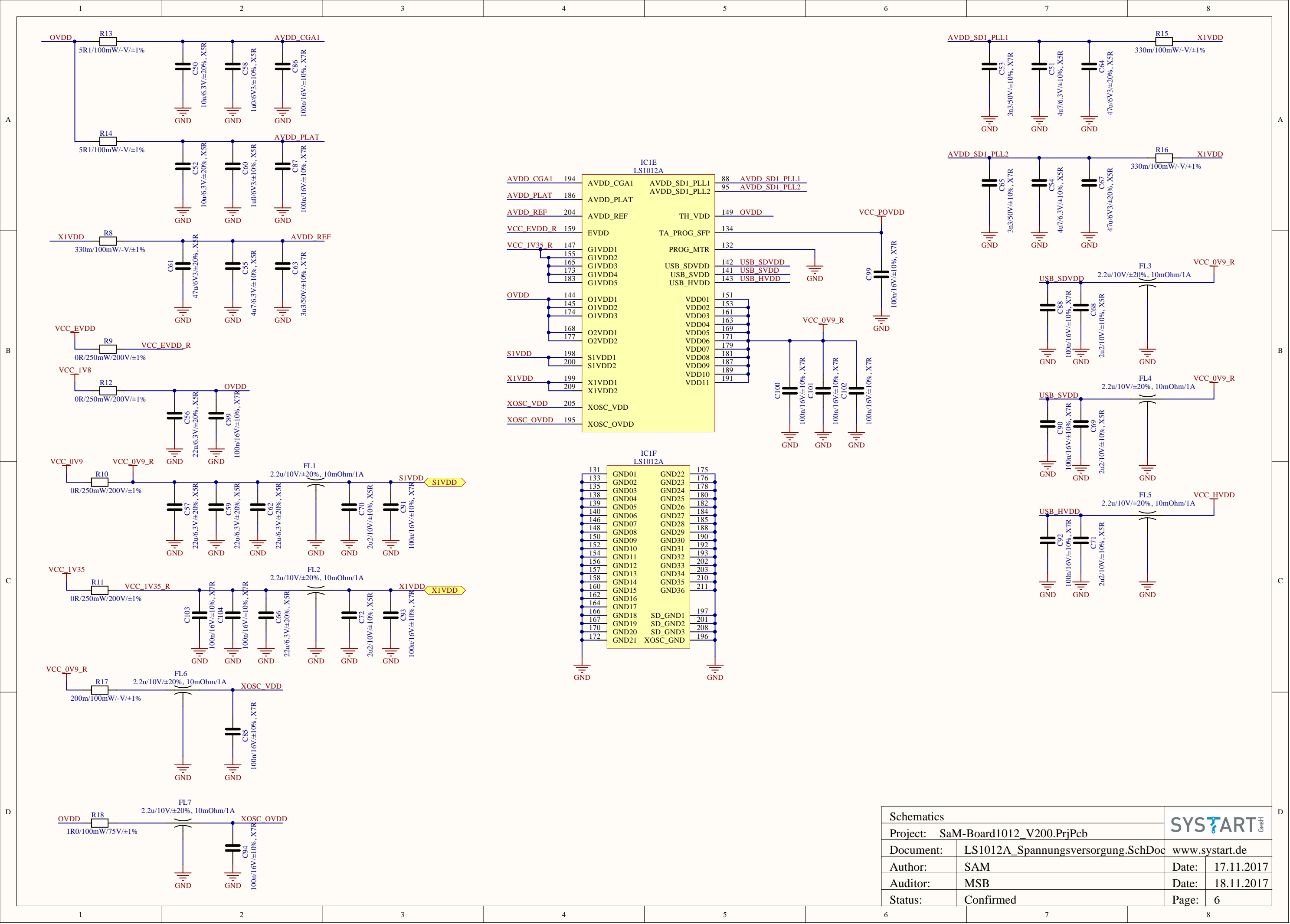
SaM-Board mounted on Oxalis:  
- Reset\_Req\_B-Signal can't be used because I2C2-SDA is needed  
- GPIO1\_23 is used as alternative for Reset\_Req\_B-Signal  
- R86 and R50 are mounted, R87 and R49 are unmounted

SaM-Board on other Board:  
- if I2C2-SDA is not needed Reset\_Req\_B can be used  
- GPIO1\_23 can be connected to other Board  
- R87 and R49 are mounted, R86 and R50 are unmounted

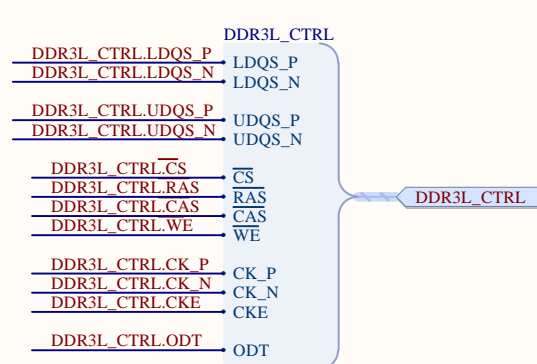
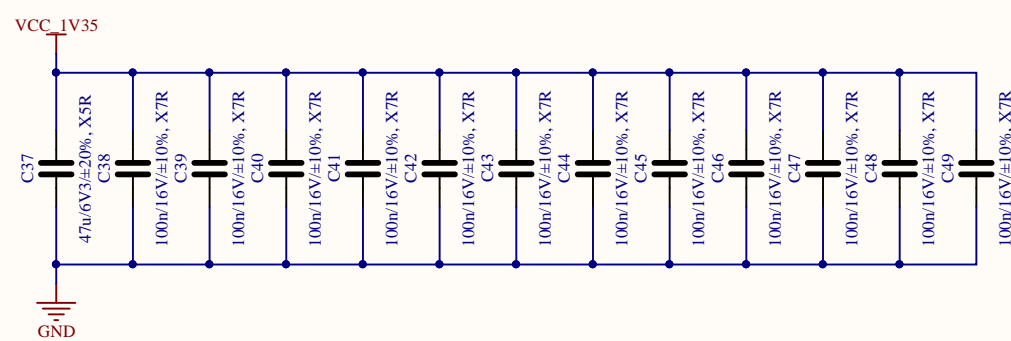
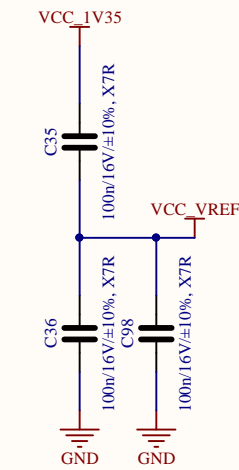
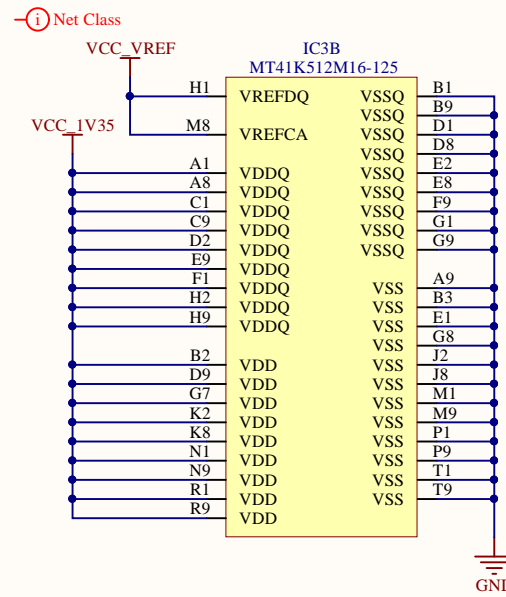
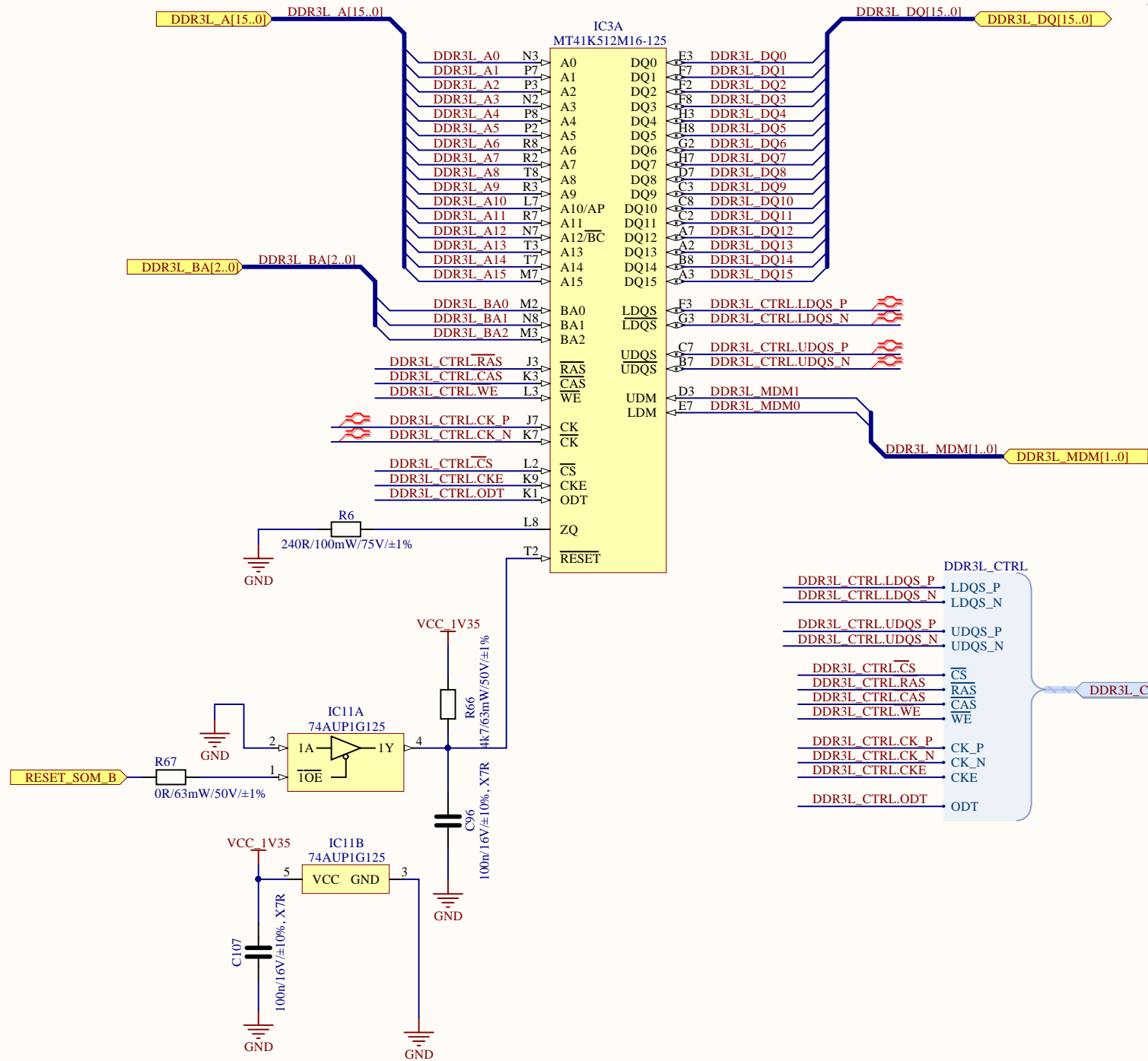
Schematics		SYS?ART GmbH
Project:	SaM-Board1012_V200.PrjPcb	
Document:	LS1012A_Schnittstellen_GPIO.SchDoc	Date: 17.11.2017
Author:	SAM	Date: 18.11.2017
Auditor:	MSB	Page: 4
Status:	Confirmed	



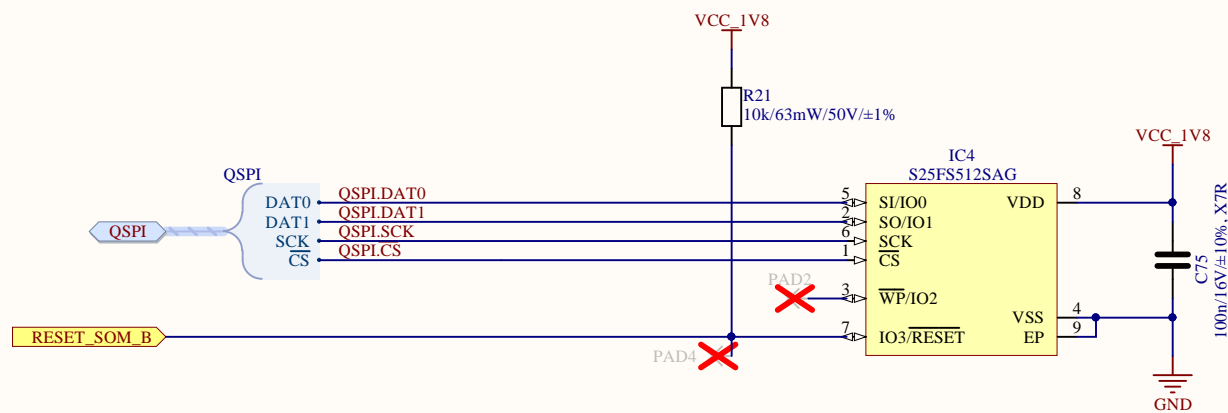
Schematics		SYS <sup>?</sup> ART GmbH	
Project:	SaM-Board1012_V200.PrjPcb		www.systart.de
Document:	LS1012A_USB3.0_SerDes.SchDoc		Date: 17.11.2017
Author:	SAM		Date: 18.11.2017
Auditor:	MSB		Status: Confirmed
Status:	Confirmed		Page: 5



Schematics		SYS <sup>?</sup> ART GmbH	
Project:	SaM-Board1012_V200.PrjPcb		www.systart.de
Document:	LS1012A_Spannungsversorgung.SchDoc		Date: 17.11.2017
Author:	SAM		Date: 18.11.2017
Auditor:	MSB		Page: 6
Status:	Confirmed		



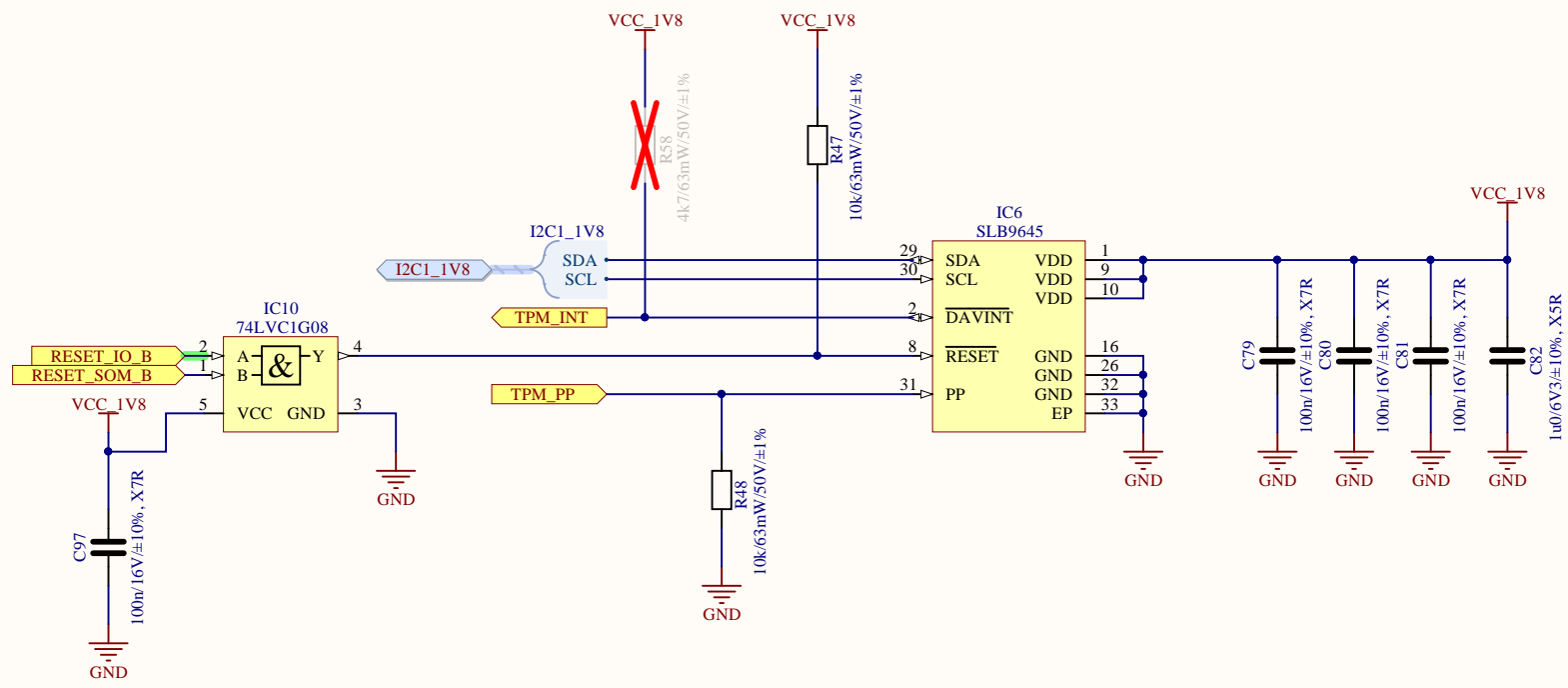
Schematics		SYS <sup>?</sup> ART GmbH
Project: SaM-Board1012_V200.PrjPcb		
Document:	DDR3L.SchDoc	www.systart.de
Author:	SAM	Date: 17.11.2017
Auditor:	MSB	Date: 18.11.2017
Status:	Confirmed	Page: 7



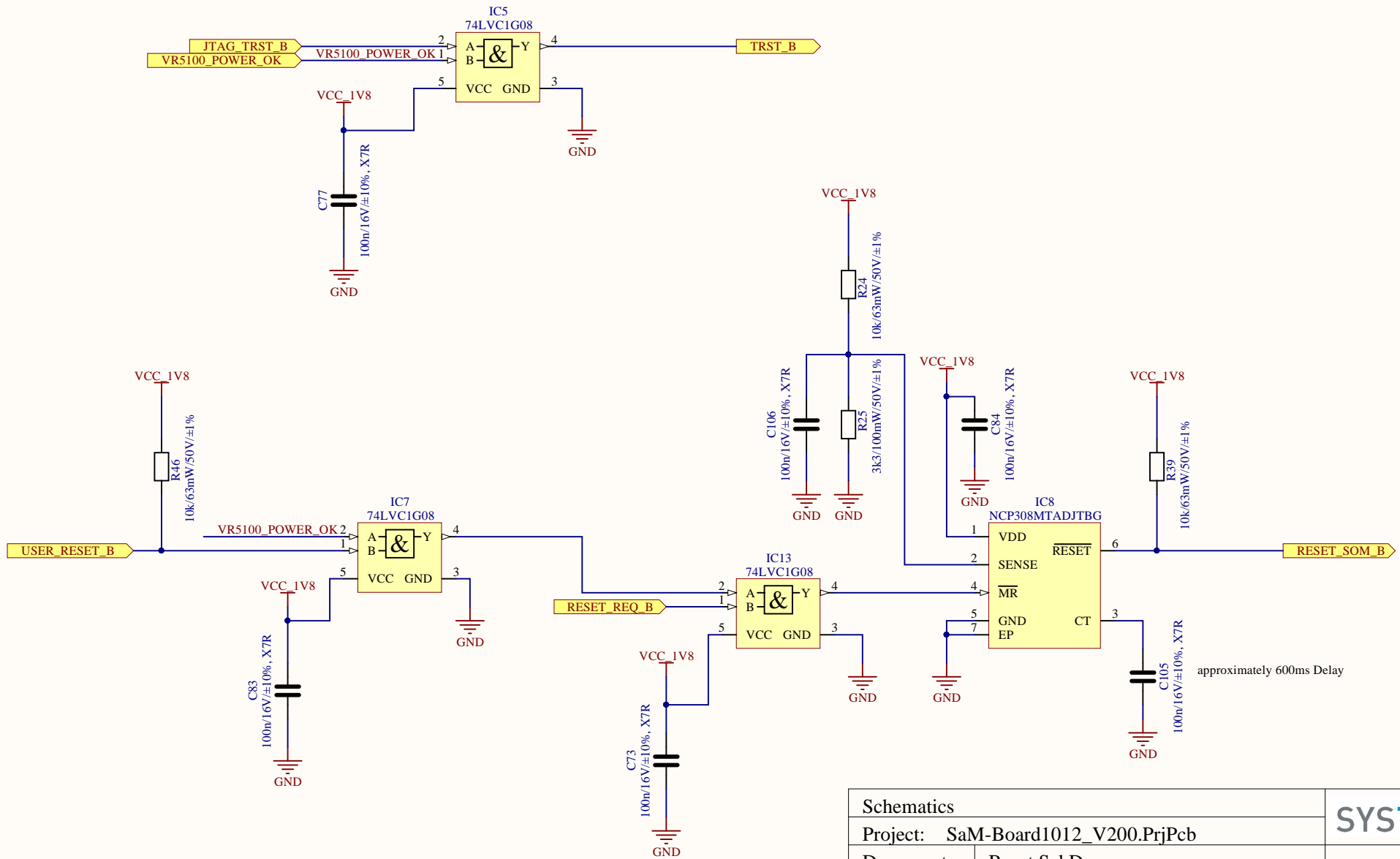
WPn/IO2:  
The signal has an internal pull-up resistor and

Schematics		
Project: SaM-Board1012_V200.PriJPcb		
Document:	QSPI-Flash.SchDoc	www.systart.de
Author:	SAM	Date: 17.11.2017
Auditor:	MSB	Date: 18.11.2017
Status:	Confirmed	Page: 8

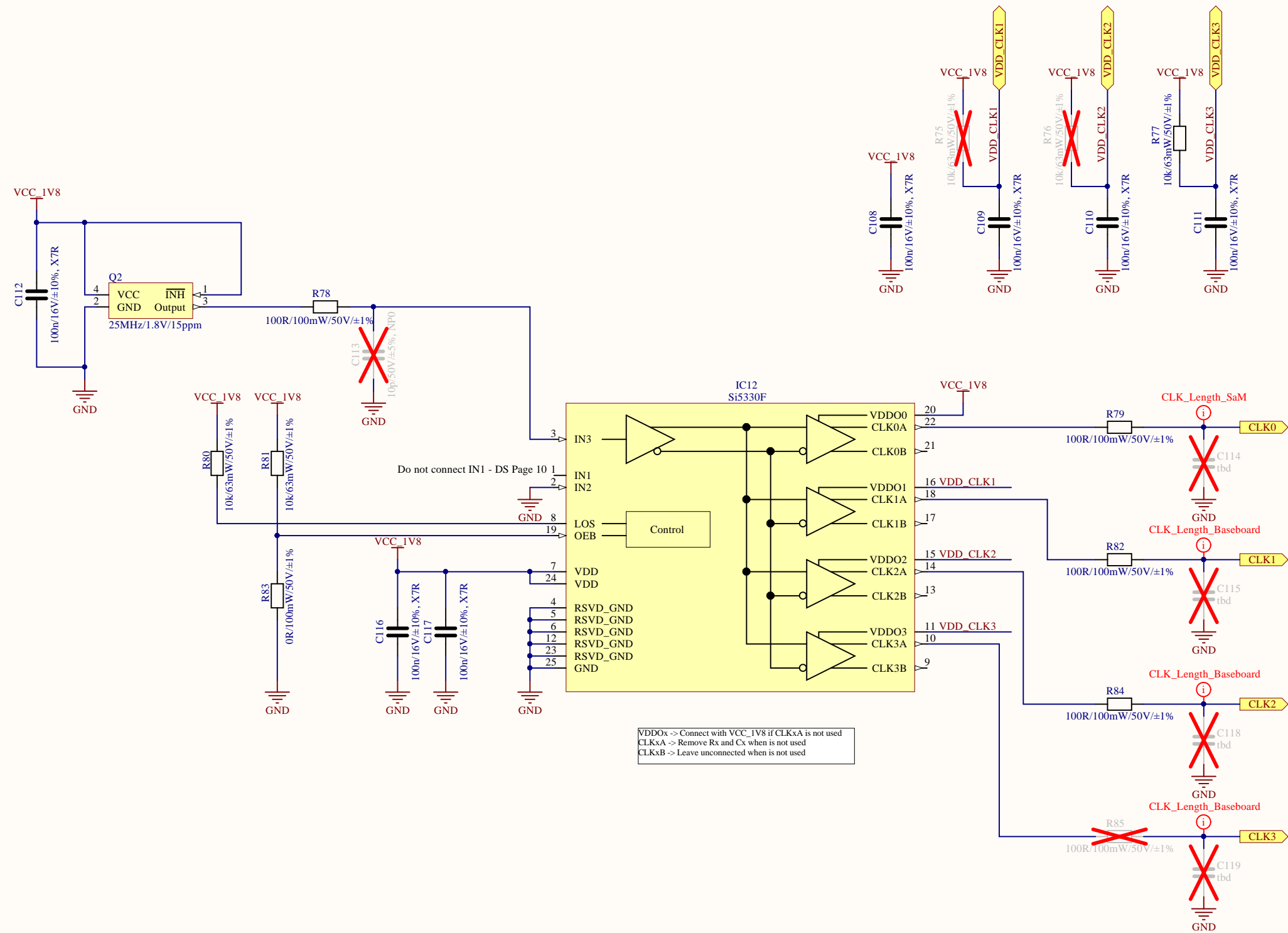




Schematics		
Project: SaM-Board1012_V200.PrijPcb		
Document:	TPM-Modul.SchDoc	www.systart.de
Author:	SAM	Date: 17.11.2017
Auditor:	MSB	Date: 18.11.2017
Status:	Confirmed	Page: 9



Schematics		SYS <sup>?</sup> ART GmbH	
Project:	SaM-Board1012_V200.PriPcb		www.systart.de
Document:	Reset.SchDoc		Date: 17.11.2017
Author:	SAM		Date: 18.11.2017
Auditor:	MSB		Date: 18.11.2017
Status:	Confirmed		Page: 10



Schematics		
Project: SaM-Board1012_V200.PrjPcb		
Document:	ClockBuffer.SchDoc	www.systart.de
Author:	SAM	Date: 17.11.2017
Auditor:	MSB	Date: 18.11.2017
Status:	Confirmed	Page: 11