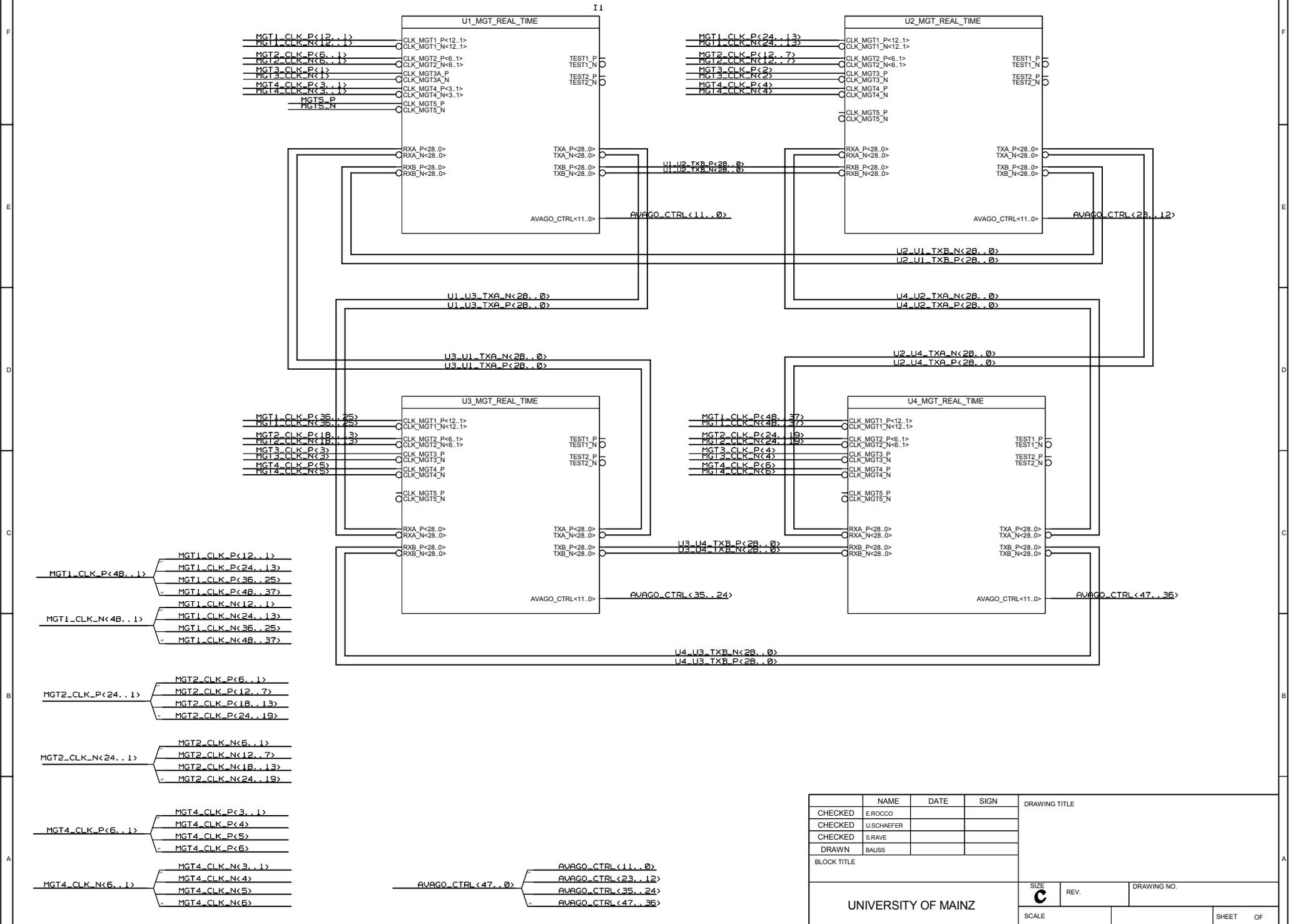


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ZONE	LTR	DESCRIPTION	DATE	APPR.

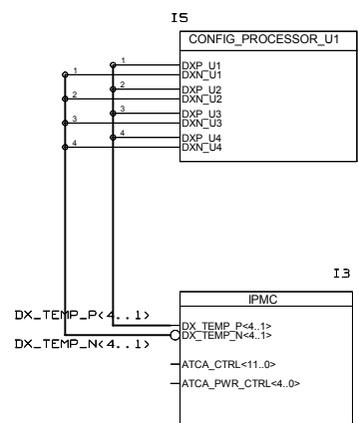
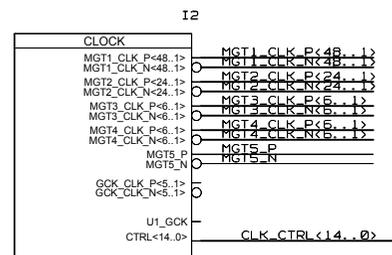
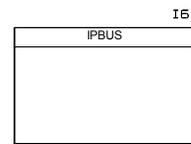
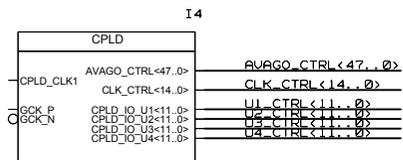
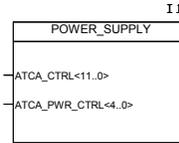
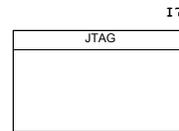
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REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



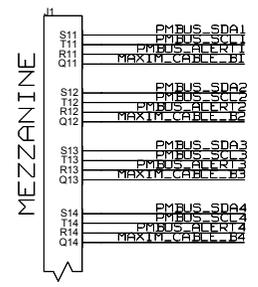
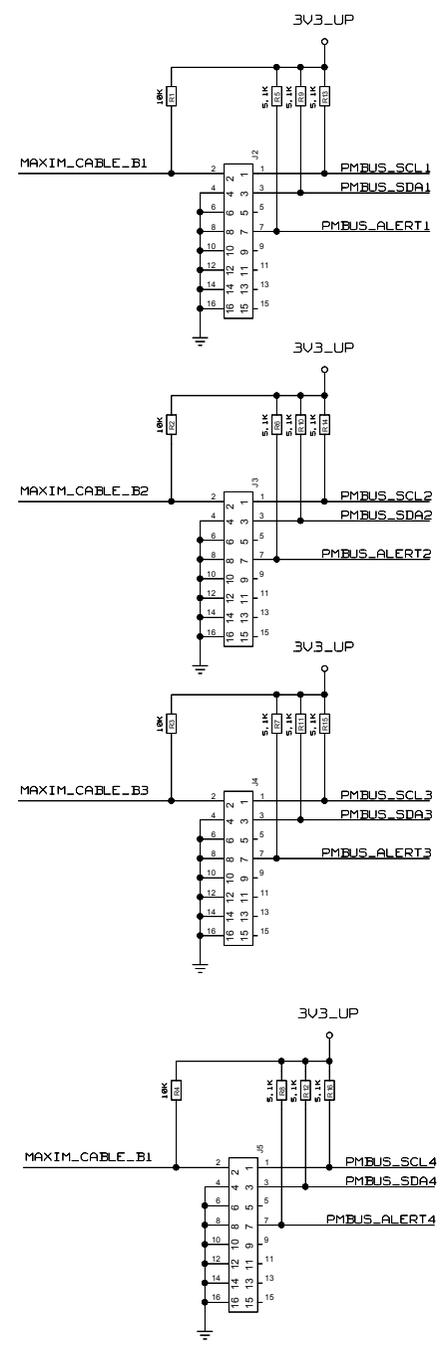
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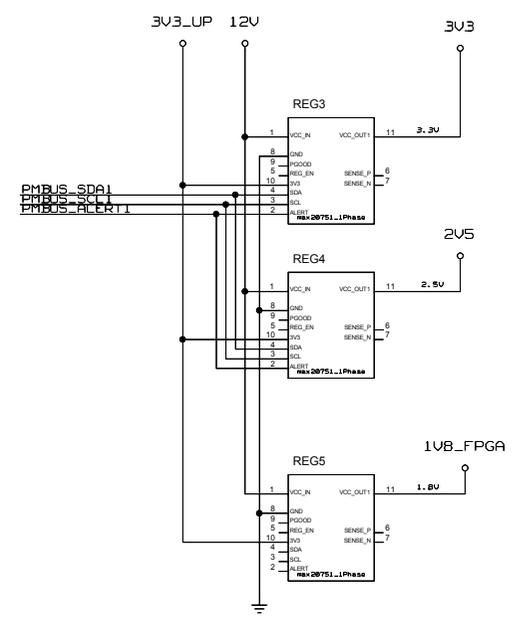
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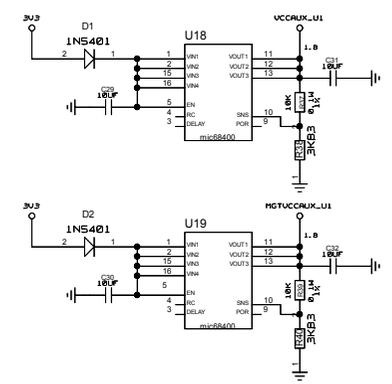
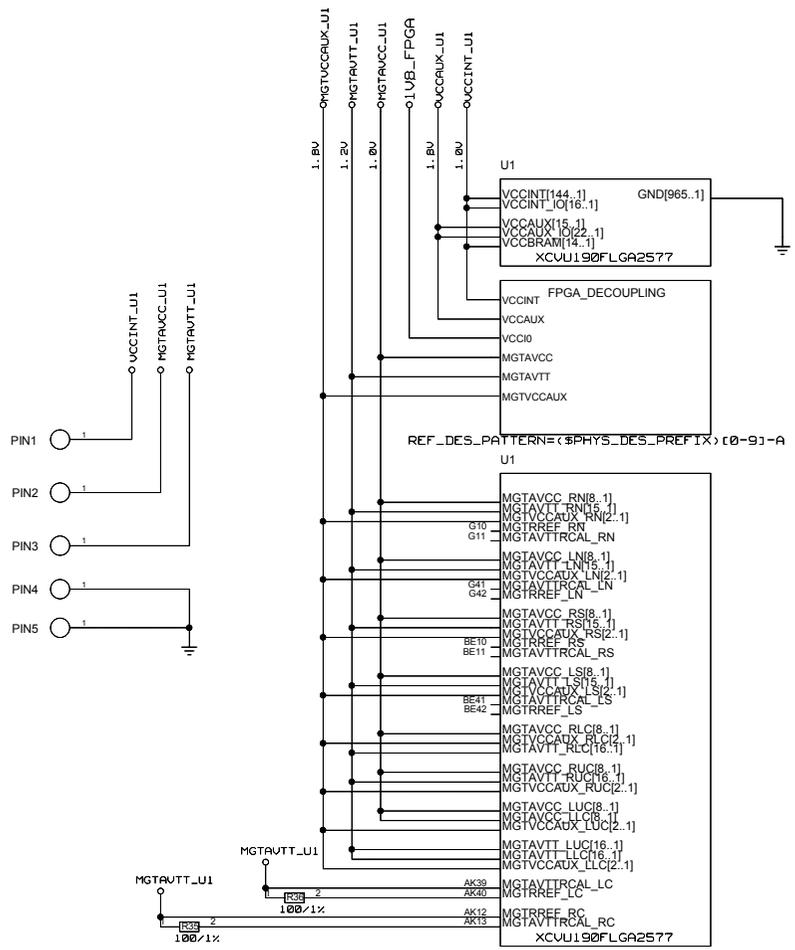
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UNIVERSITY OF MAINZ				REV.
SCALE			DRAWING NO.	SHEET OF

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



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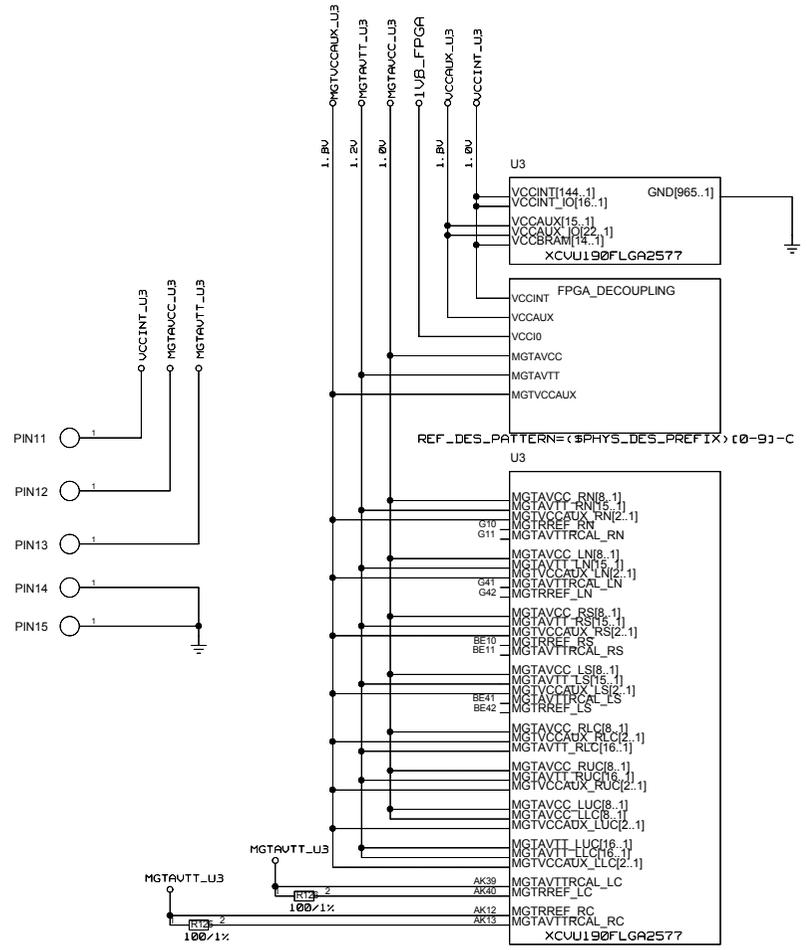
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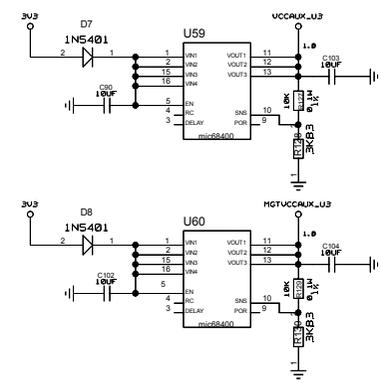
TRACE LENGTH FROM RESISTOR PINS
TO PIN SAME LENGTH
UG576 SHEET 297

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	S.RAVE					
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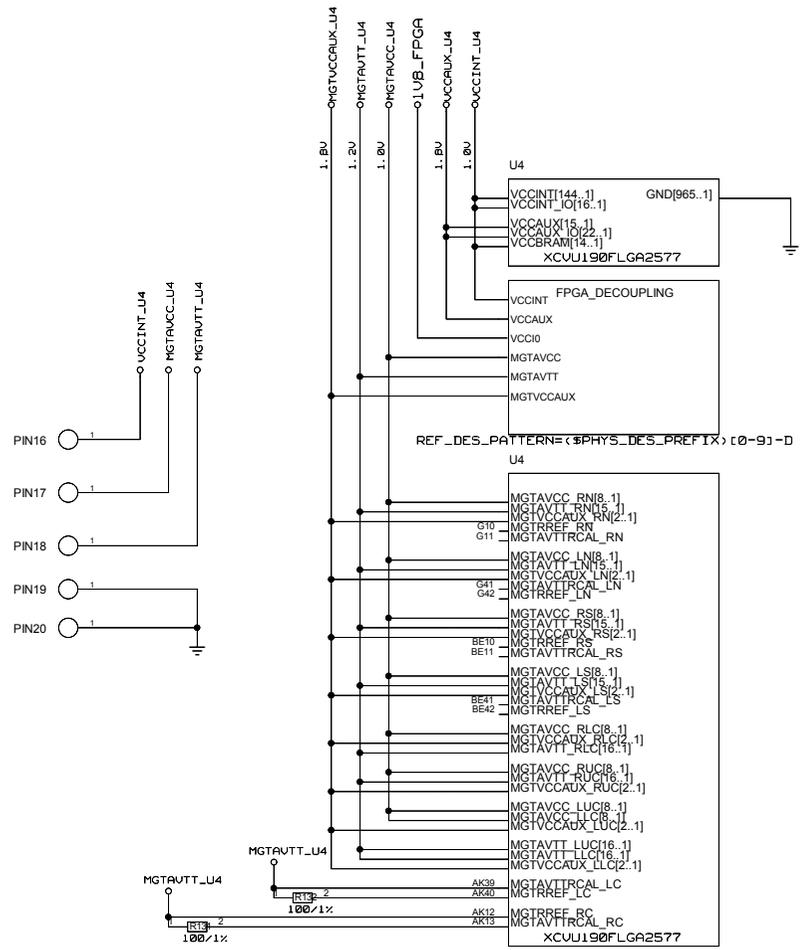


TRACE LENGTH FROM RESISTOR PINS
TO PIN SAME LENGTH
UG576 SHEET 297



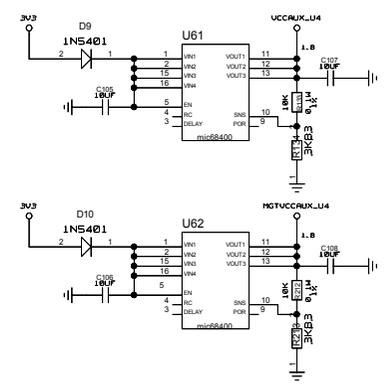
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ZONE	LTR	DESCRIPTION	DATE	APPR.



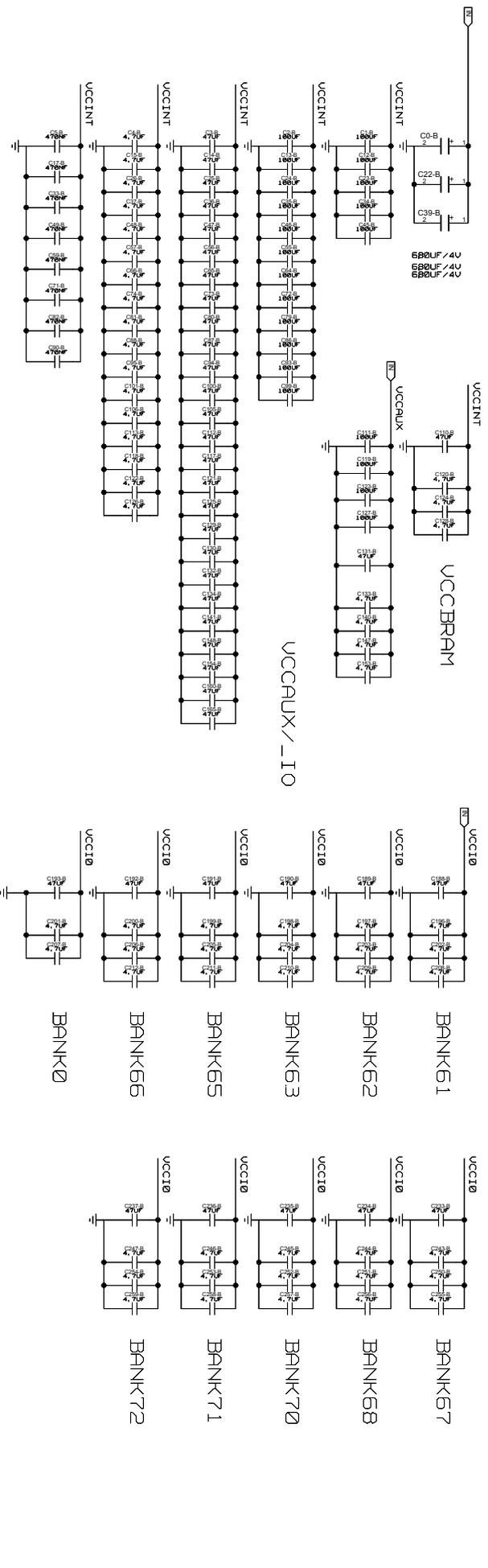
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TRACE LENGTH FROM RESISTOR PINS
TO PIN SAME LENGTH
UG576 SHEET 297

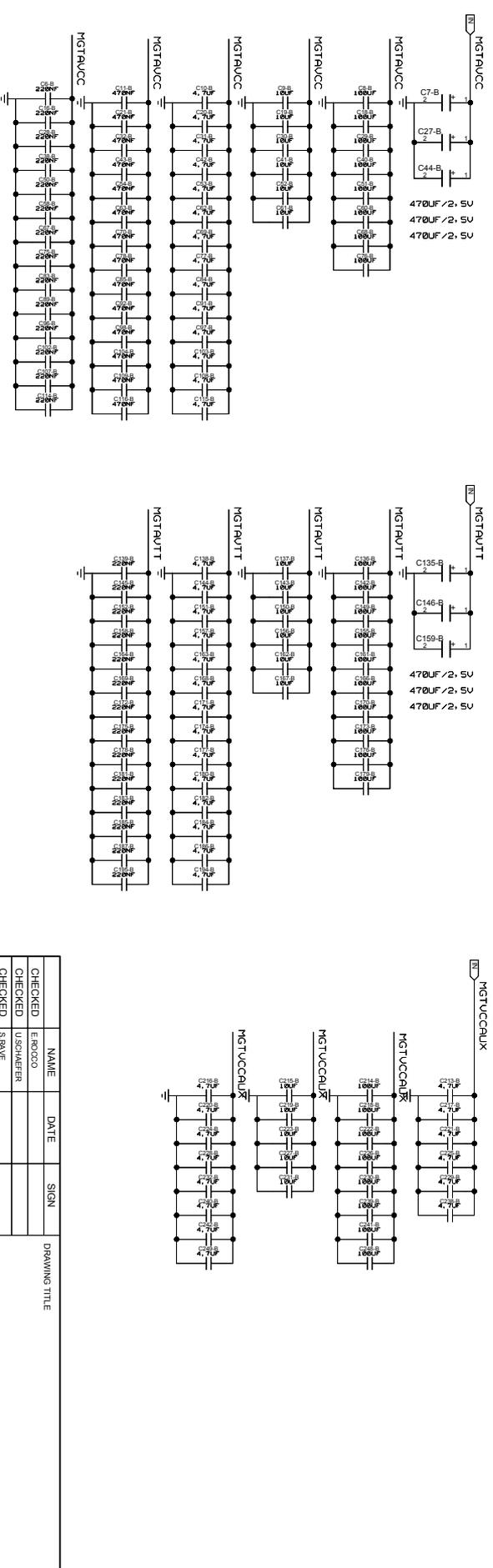


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				SCALE		SHEET OF

REVISIONS		DATE	APPR.
ZONE	TR	DESCRIPTION	



MGT DECOUPLING



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	USCHAEFER			
	SHAVE			
	BAUSS			

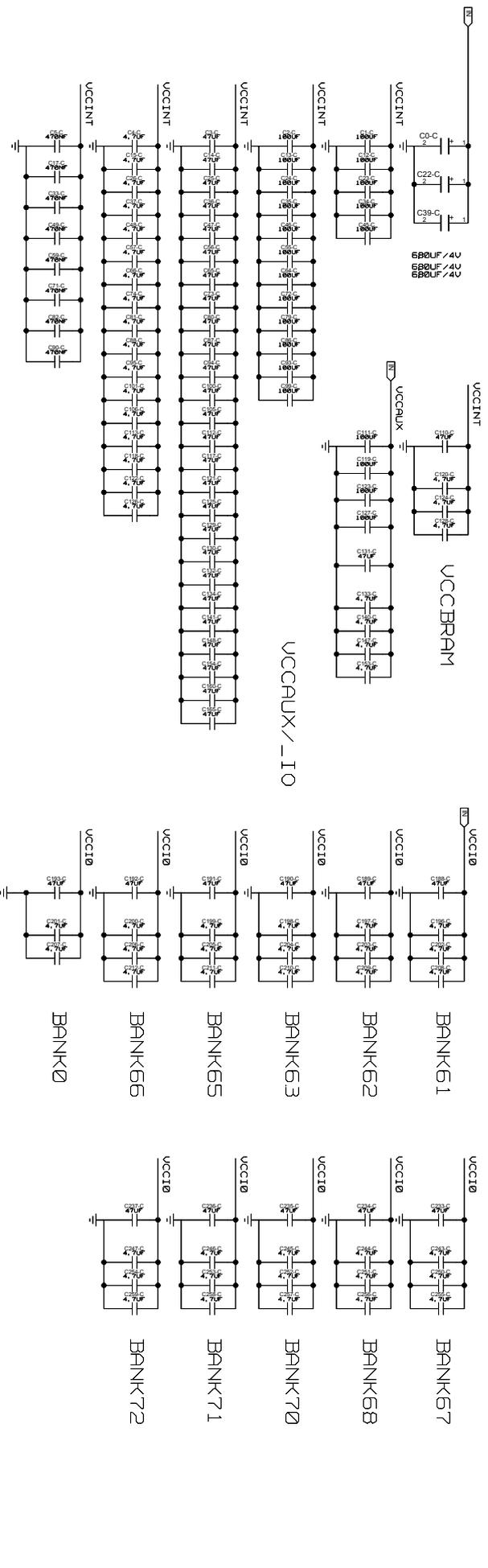
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UNIVERSITY OF MAINZ	SIZE	REV	DRAWING NO.
	C		
	SCALE		

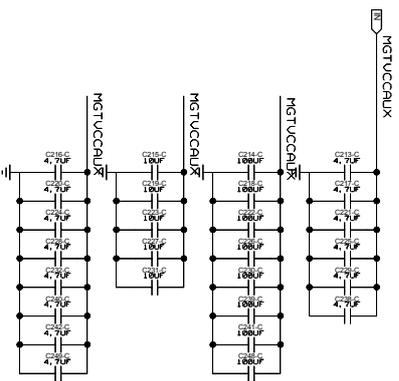
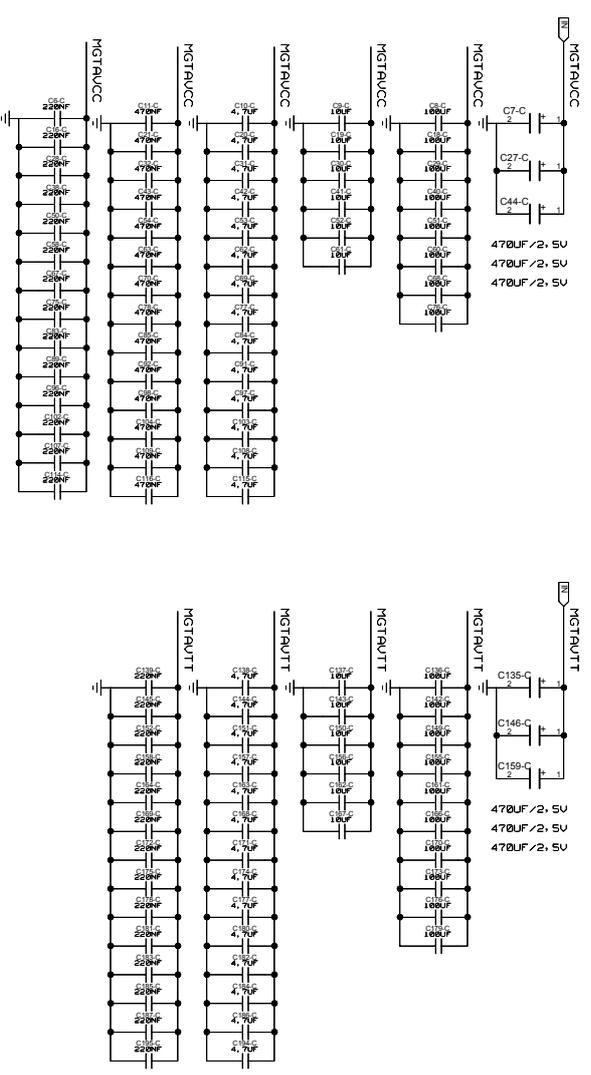
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A B C D E F

REVISIONS		DATE	APPR.
ZONE	UTR	DESCRIPTION	



MGT DECOUPLING



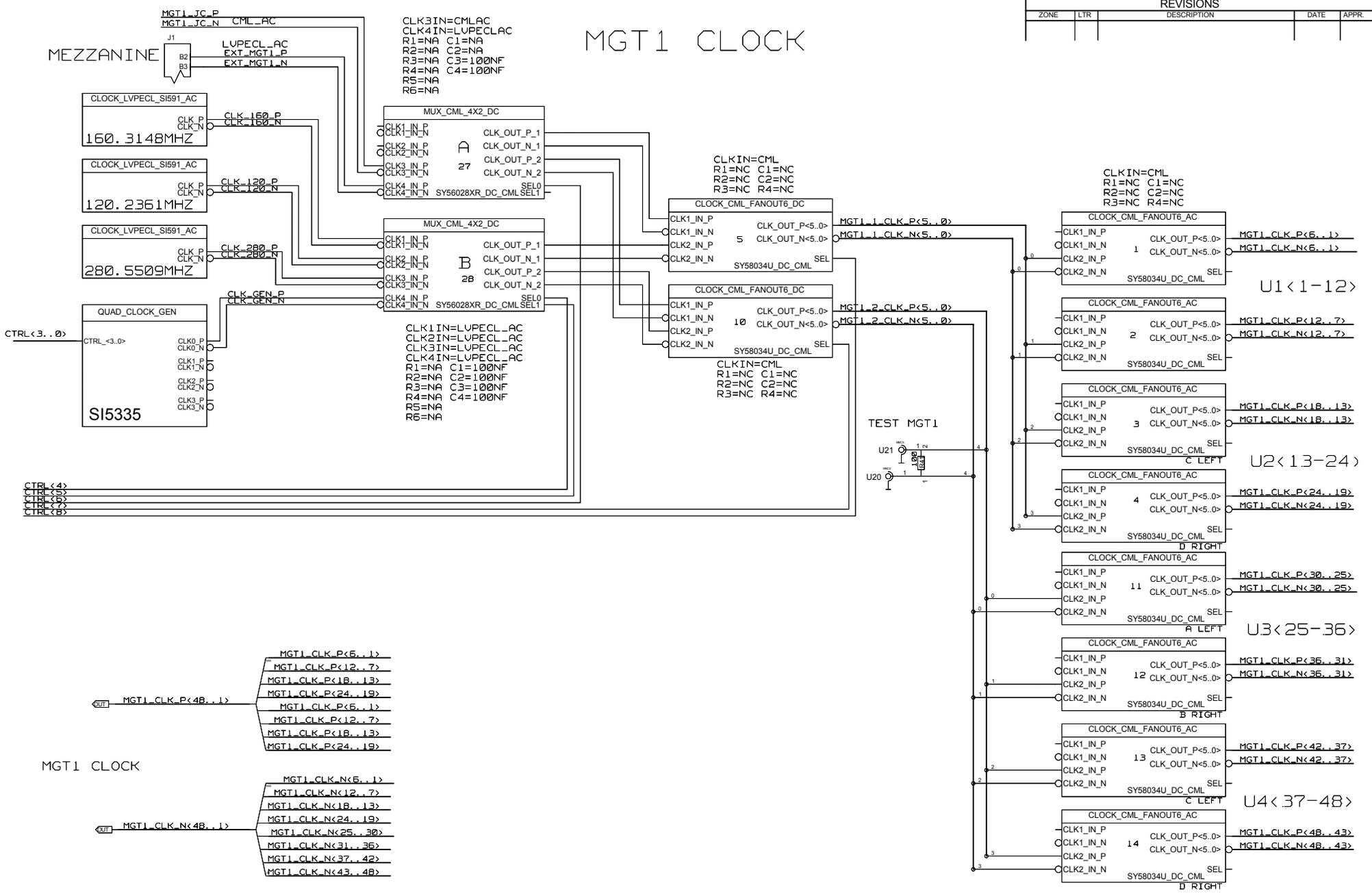
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BLOCK TITLE			

UNIVERSITY OF MAINZ	SIZE C	REV	DRAWING NO.
	SCALE		

8 7 6 5 4 3 2 1

REVISIONS		DATE	APPR.
ZONE	LTR		

MGT1 CLOCK

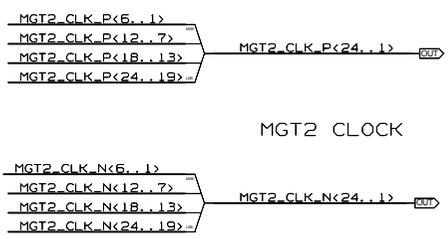
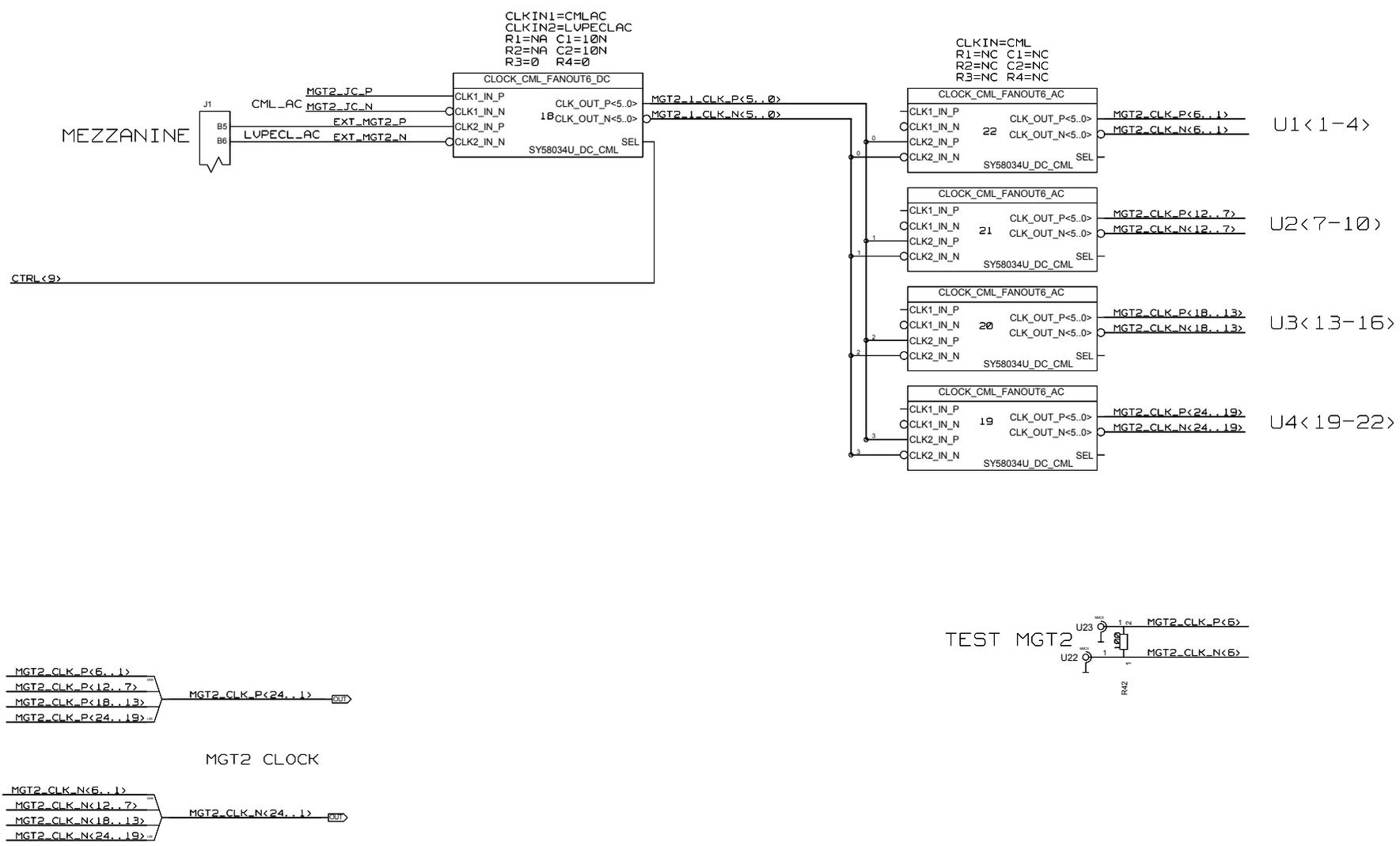


UPDATE PICK & PLACE DATA FOR FANOUT AND MUX

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CHECKED U.SCHAEFER			
CHECKED S.RAVE			
DRAWN BAUSS	17.08.2015		
BLOCK TITLE			DRAWING NO.
CLOCK			UNIVERSITY OF MAINZ
SIZE	REV.	DRAWING NO.	
C			
SCALE			SHEET 1 OF 5

MGT2 CLOCK

ZONE		LTR	DESCRIPTION	DATE	APPR.



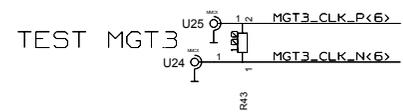
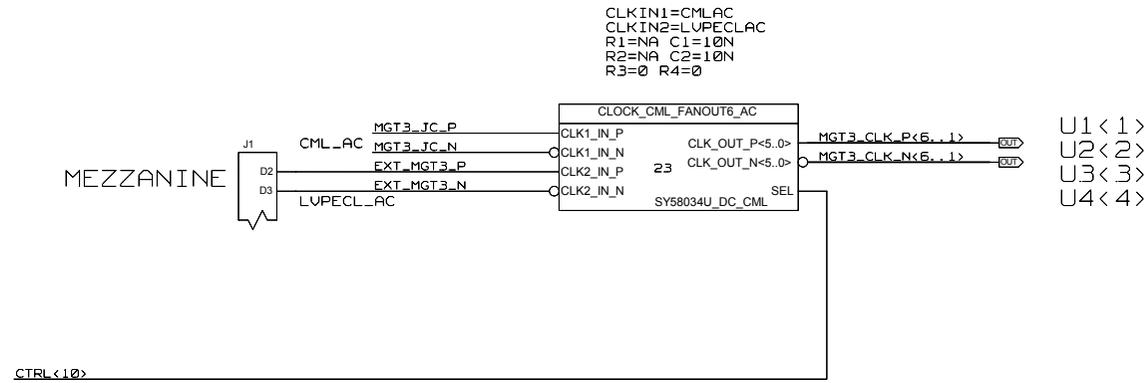
MGT2 CLOCK

UPDATE PICK & PLACE DATA FOR FANOUT AND MUX

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	S.RAVE				
	BAUSS	17.08.2015			
BLOCK TITLE				SIZE	DRAWING NO.
CLOCK				C	
UNIVERSITY OF MAINZ				SCALE	SHEET 2 OF 5

MGT3 CLOCK

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

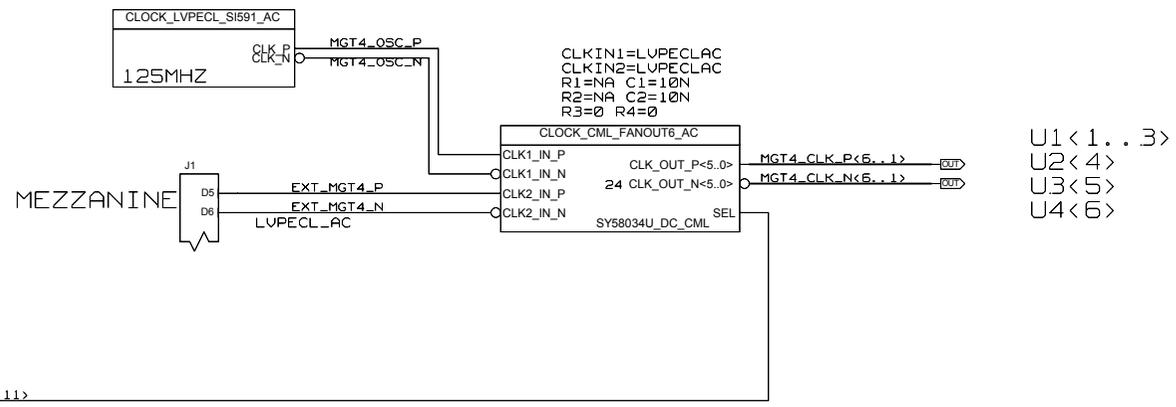


UPDATE PICK & PLACE DATA FOR FANOUT AND MUX

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CHECKED	S.RAVE				
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BLOCK TITLE				CLOCK	
UNIVERSITY OF MAINZ				SIZE C	REV. DRAWING NO.
SCALE				SHEET 3 OF 5	

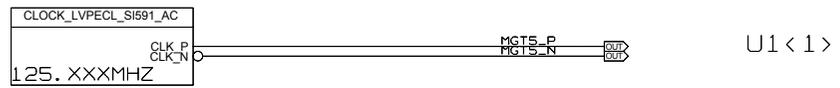
MGT4 CLOCK

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



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- U4 <6>

MGT5 CLOCK

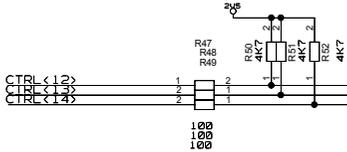
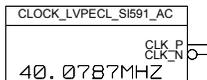
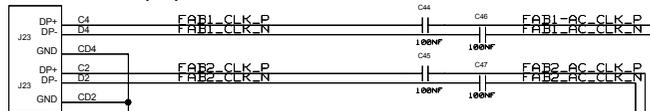
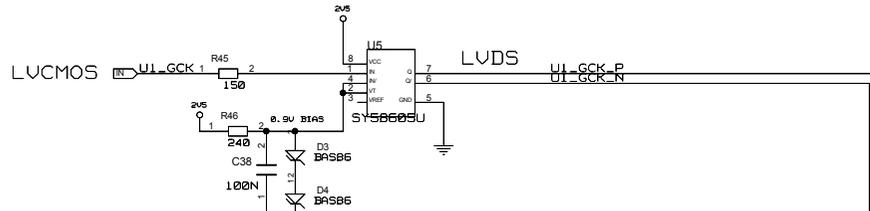


UPDATE PICK & PLACE DATA FOR FANOUT AND MUX

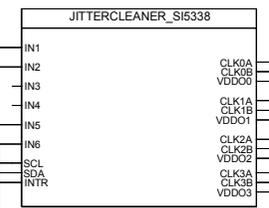
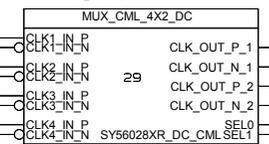
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SCALE				REV.
DRAWING NO.				SHEET 4 OF 5

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

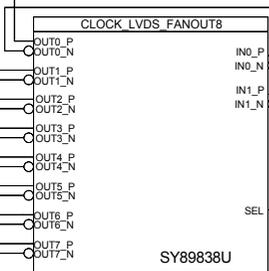
NEAR TO FPGA



CLK1IN=LVEPECL_AC
 CLK2IN=LVEPECL_AC
 CLK3IN=LVEPECL_AC
 CLK4IN=LVEPECL_AC
 R1=NA C1=100NF
 R2=NA C2=100NF
 R3=NA C3=100NF
 R4=NA C4=100NF
 R5=NA
 R6=NA



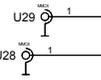
MEZZANINE



MEZZANINE

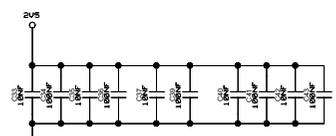


TEST GCK

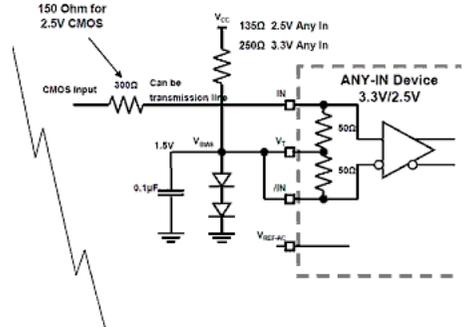


LVDS

GCK1 == CLK CPLD
 GCK2 == CLK U1
 GCK3 == CLK U2
 GCK4 == CLK U3
 GCK5 == CLK U4

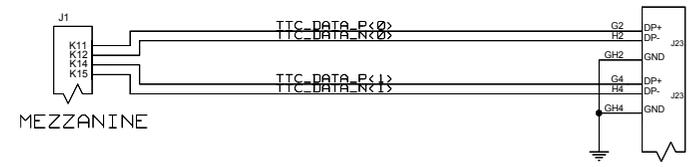


CMOS to Any-In



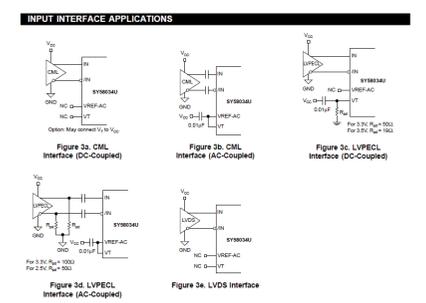
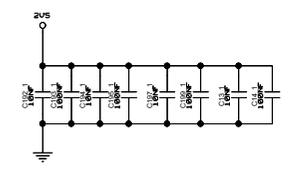
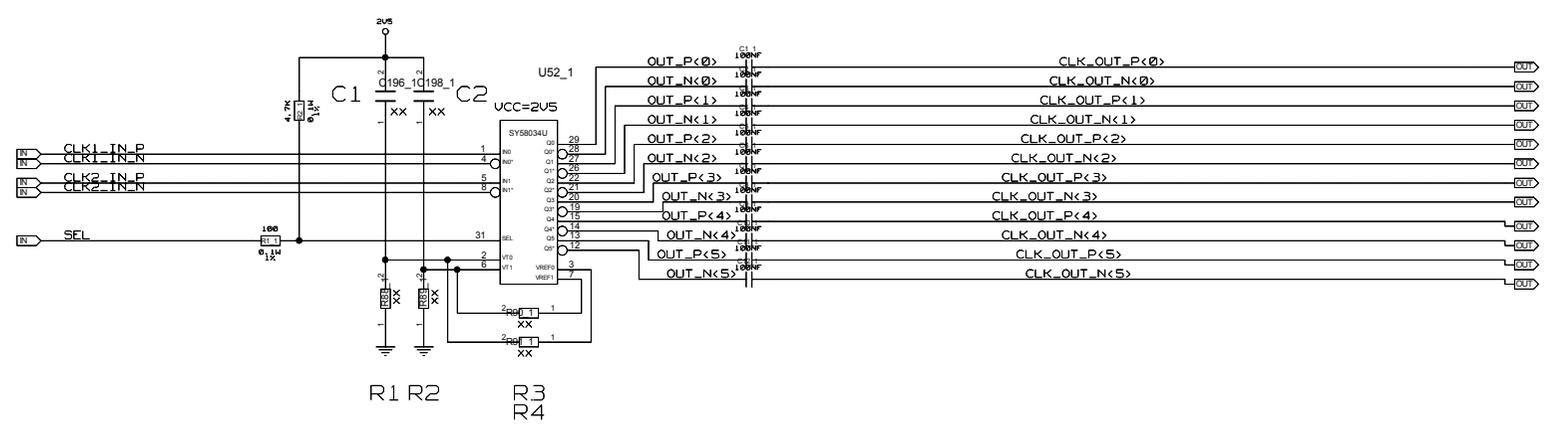
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CHECKED U.SCHAEFER			
CHECKED S.RAVE			
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SCALE			SHEET 5 OF 5

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



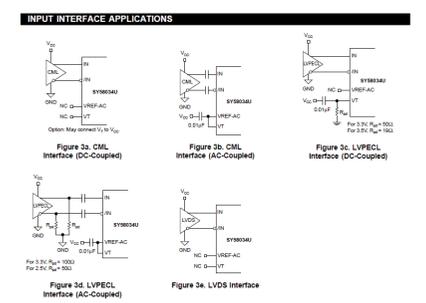
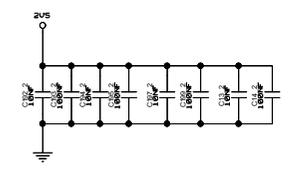
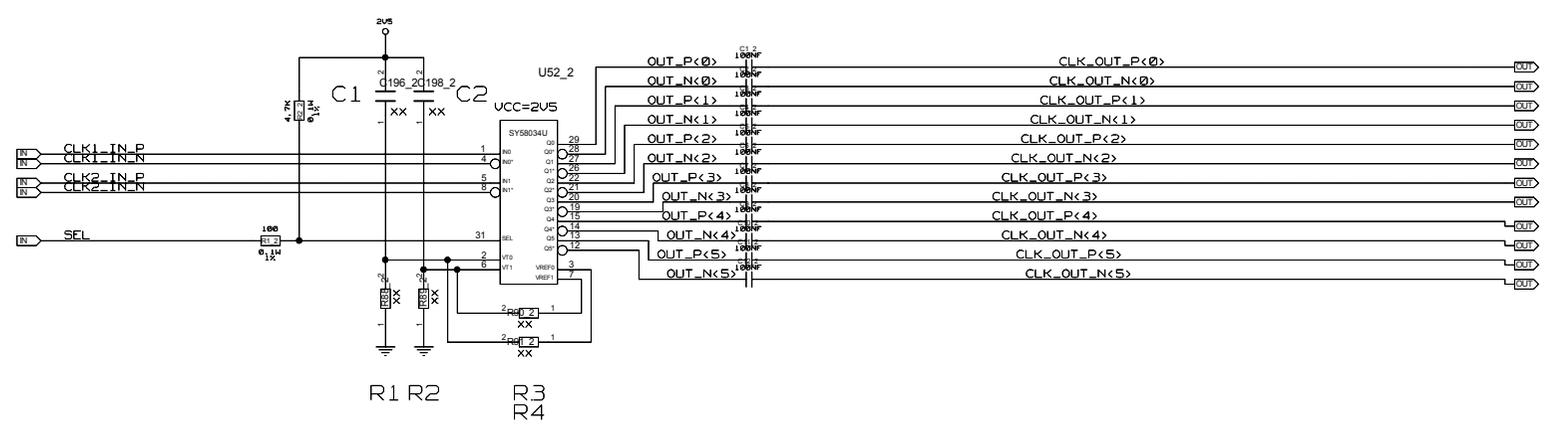
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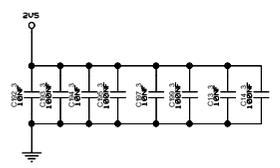
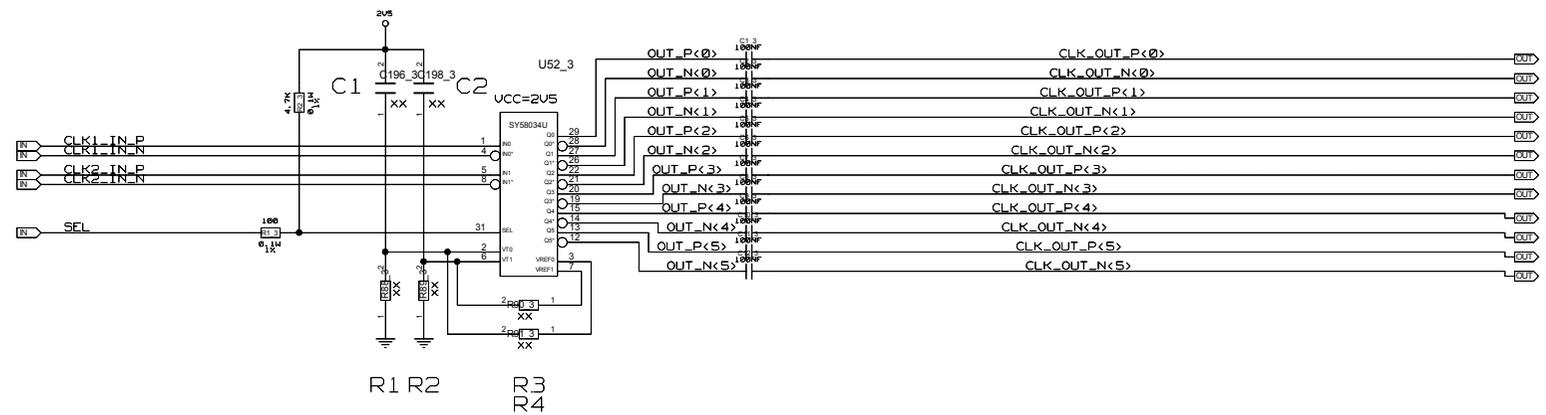
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CLOCK CML FANOUT6 AC				
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SIZE	REV.	DRAWING NO.		
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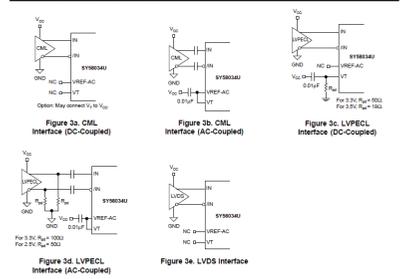


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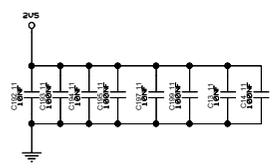
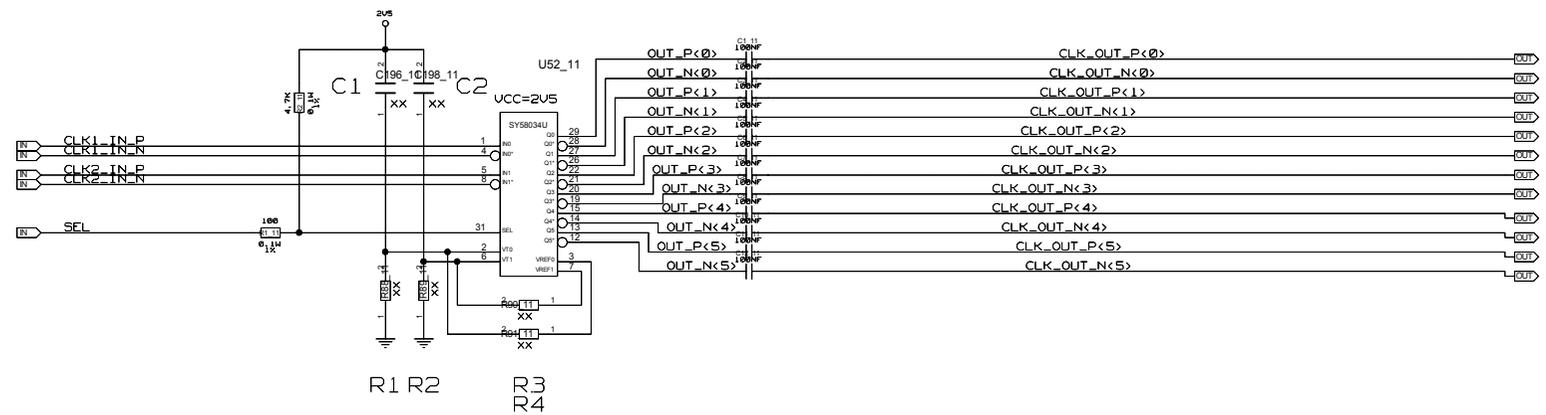


INPUT INTERFACE APPLICATIONS

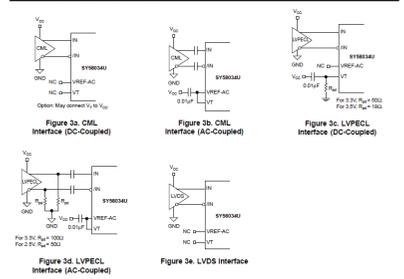


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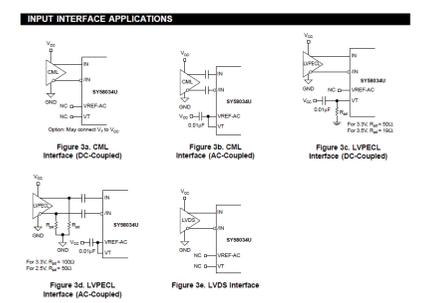
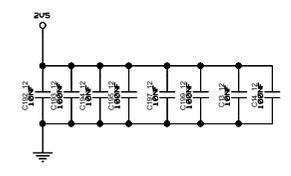
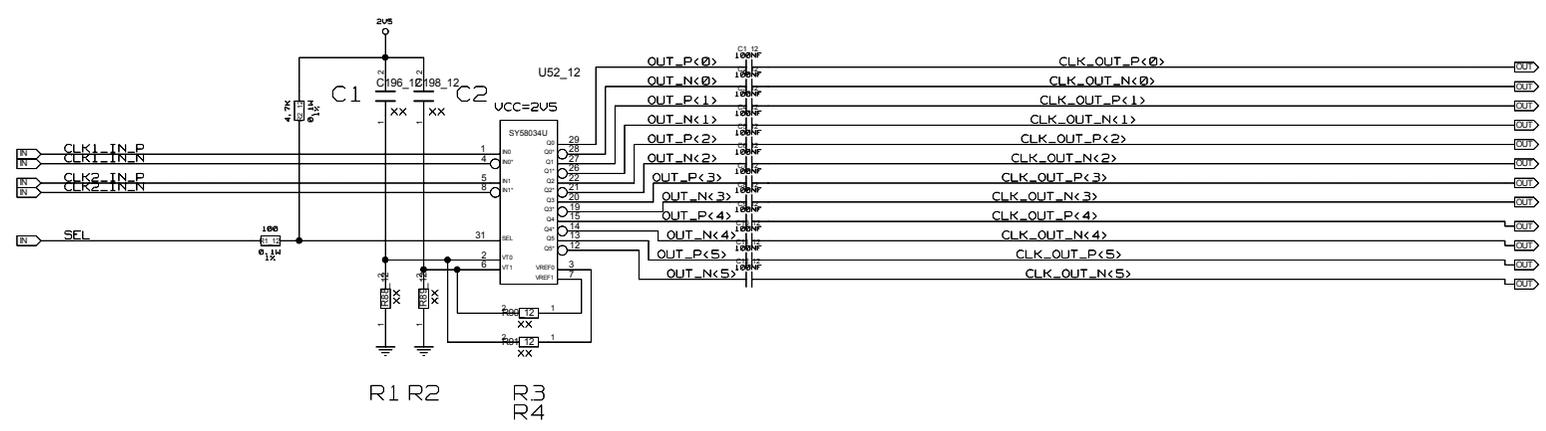


INPUT INTERFACE APPLICATIONS



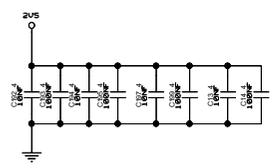
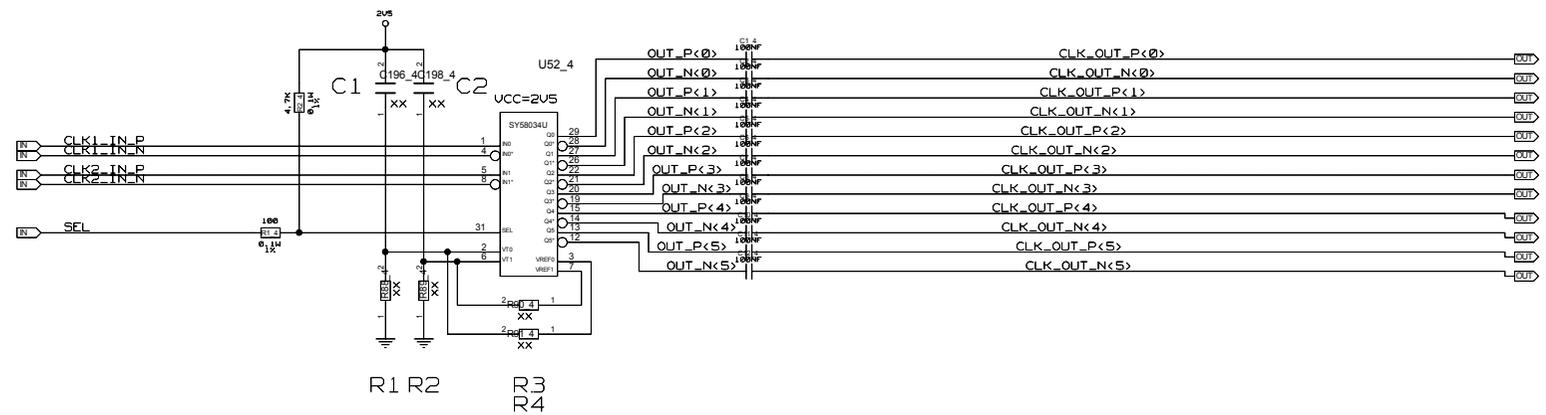
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	S.RAVE			
	BAUSS			
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UNIVERSITY OF MAINZ				
SIZE C	REV.	DRAWING NO.		
SCALE				SHEET OF

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



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CHECKED	U.SCHAEFER			
CHECKED	S.RAVE			
DRAWN	BAUSS			
BLOCK TITLE CLOCK CML FANOUT5 AC				
UNIVERSITY OF MAINZ		SIZE C	REV.	DRAWING NO.
SCALE				SHEET OF

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



INPUT INTERFACE APPLICATIONS

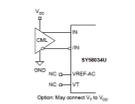


Figure 3a. CML Interface (DC-Coupled)

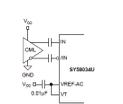


Figure 3b. CML Interface (AC-Coupled)

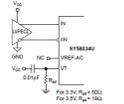


Figure 3c. LVPECL Interface (DC-Coupled)

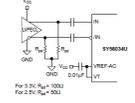


Figure 3d. LVPECL Interface (AC-Coupled)

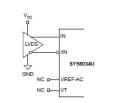
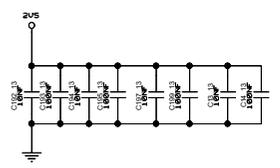
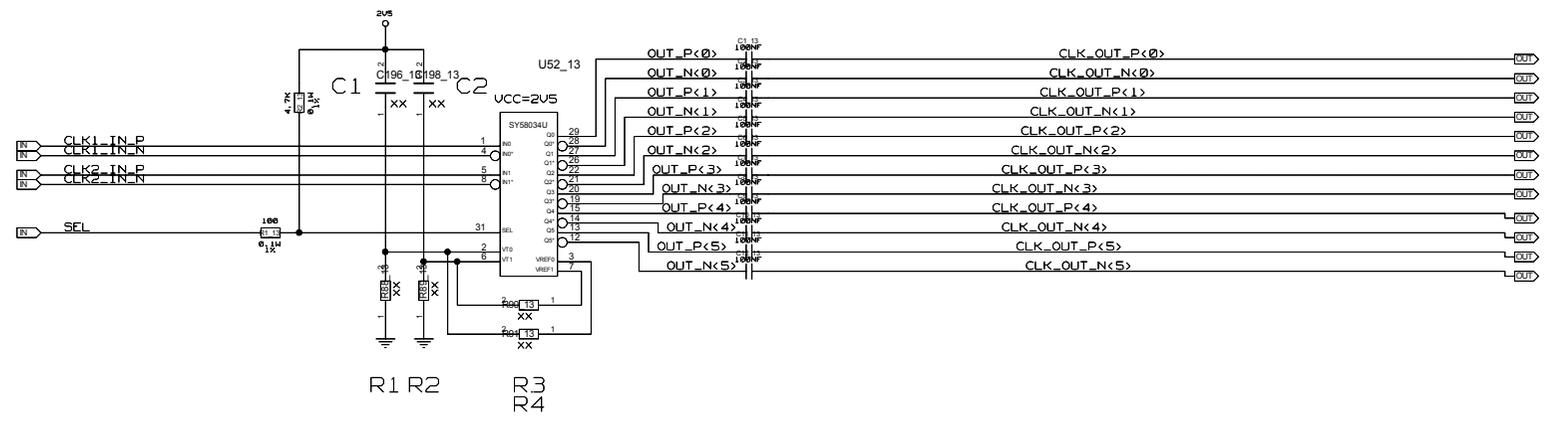


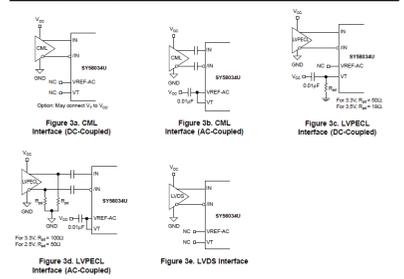
Figure 3e. LVDS Interface

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CHECKED	S.RAVE			
DRAWN	BAUSS			
BLOCK TITLE CLOCK CML FANOUT6 AC				
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ZONE	LTR	DESCRIPTION	DATE	APPR.

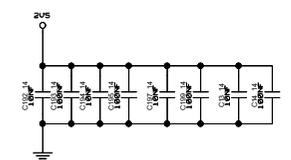
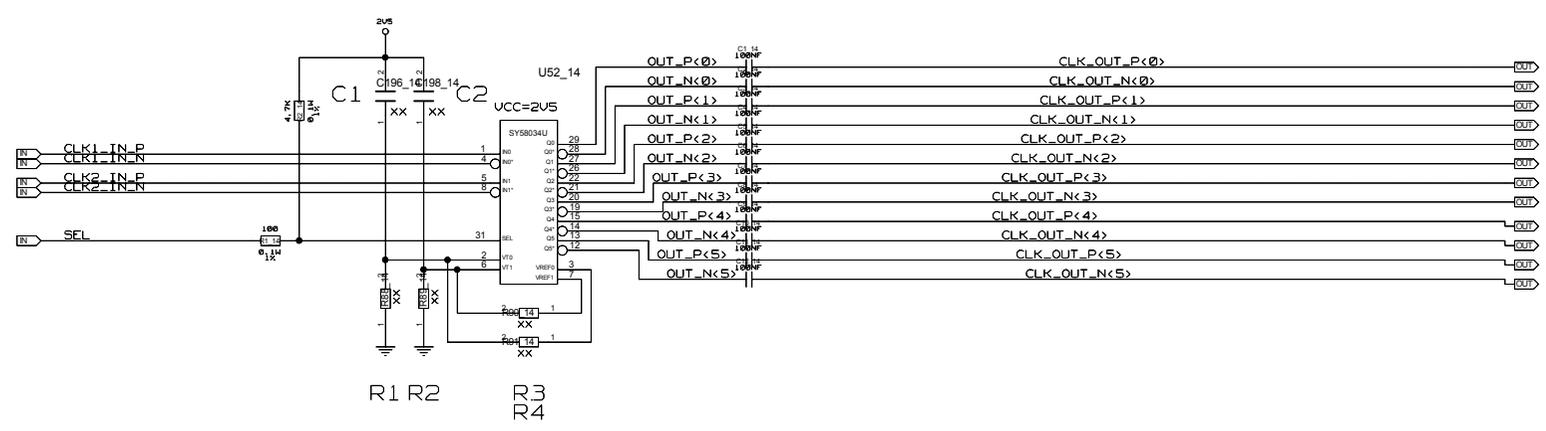


INPUT INTERFACE APPLICATIONS

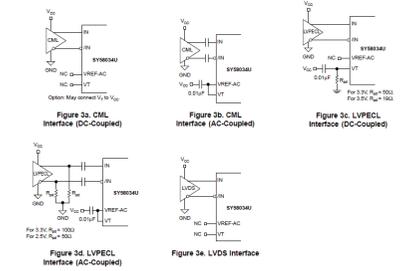


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	U.SCHAEFER				
	S.RAVE				
	BAUSS				
BLOCK TITLE CLOCK CML FANOUT5 AC					
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ZONE	LTR	DESCRIPTION	DATE	APPR.

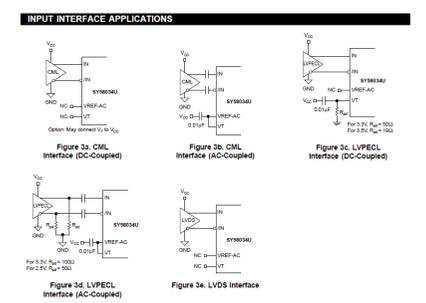
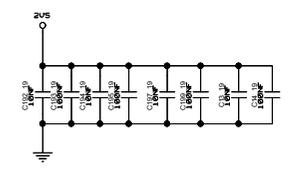
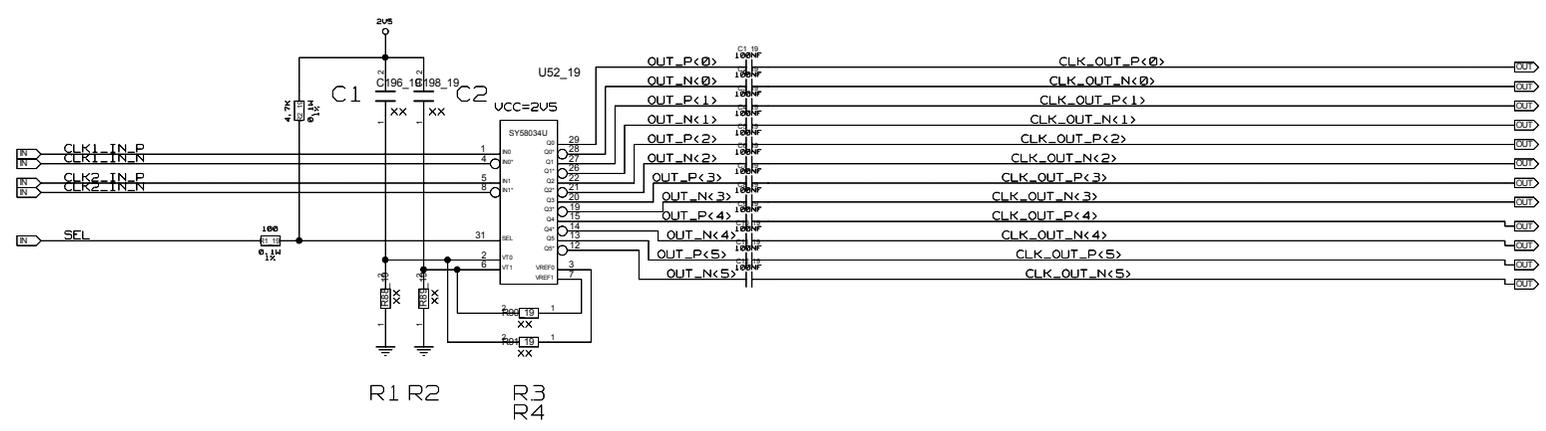


INPUT INTERFACE APPLICATIONS



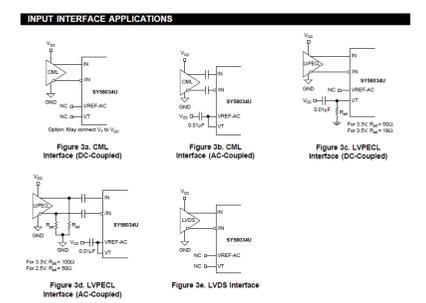
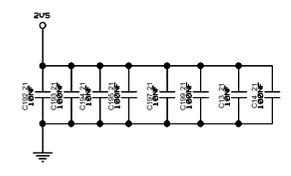
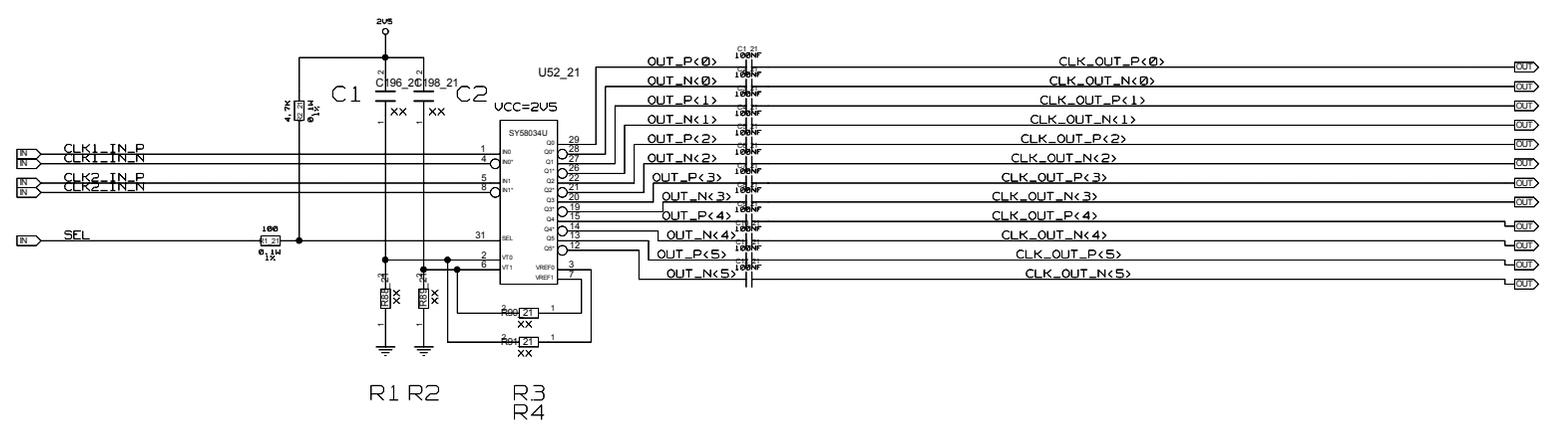
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SCALE				DRAWING NO.
				SHEET OF

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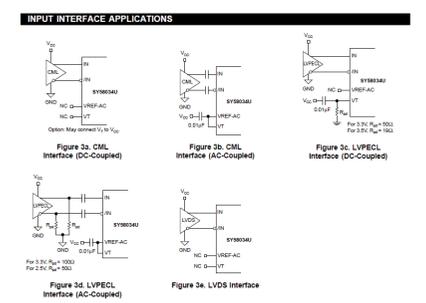
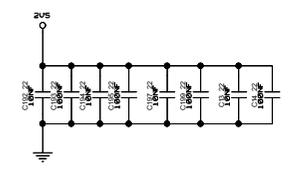
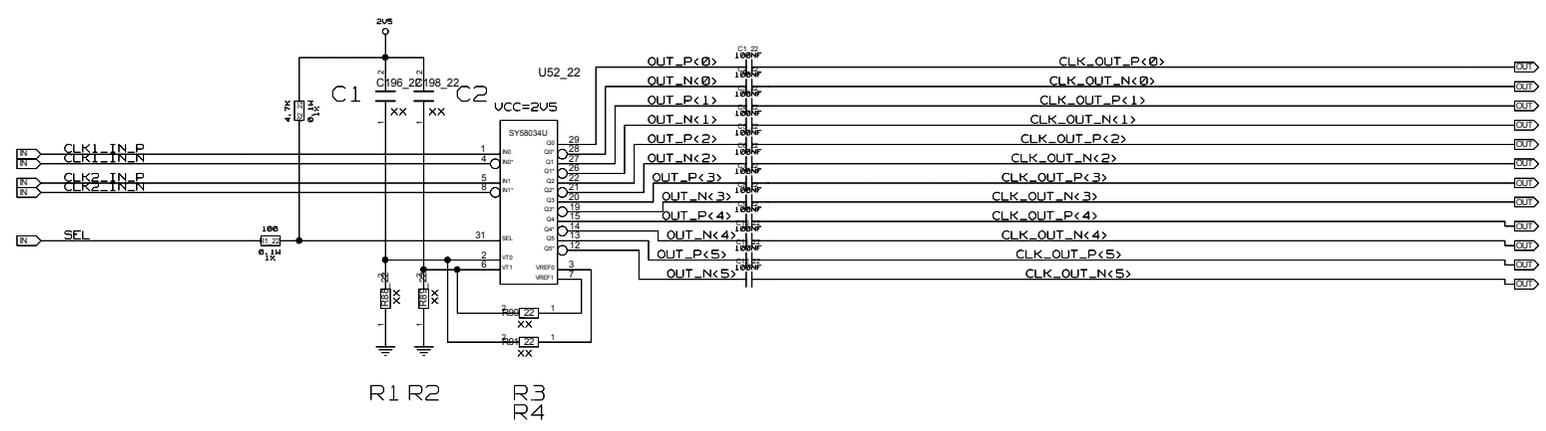
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BLOCK TITLE CLOCK CML FANOUT5 AC				SIZE C
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SCALE				DRAWING NO.
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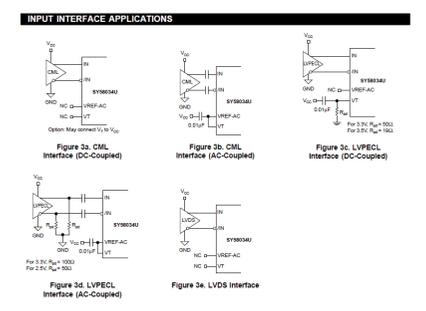
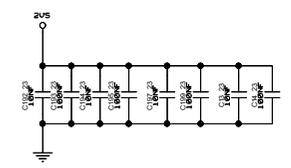
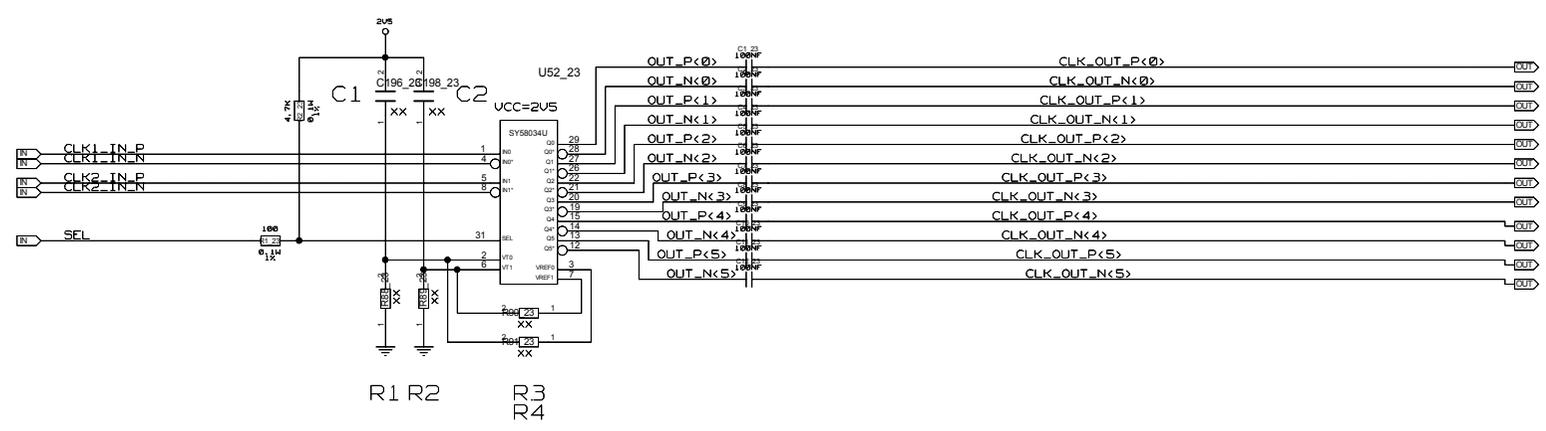
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	BAUSS			
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UNIVERSITY OF MAINZ				SIZE C
				REV.
				DRAWING NO.
				SCALE
				SHEET OF

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



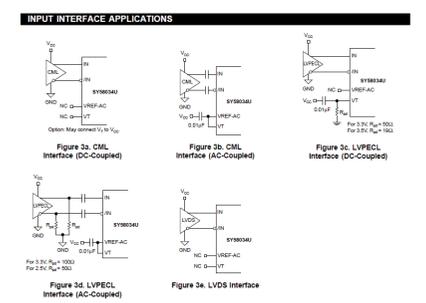
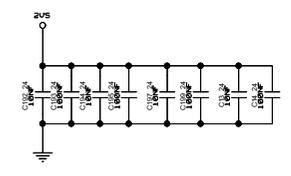
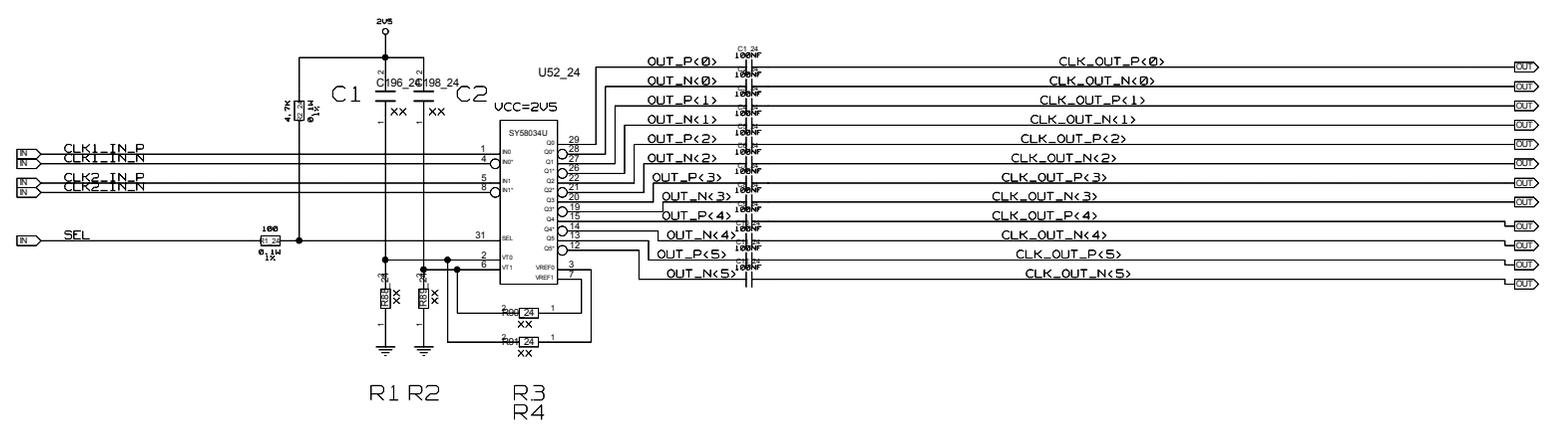
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DRAWN	BAUSS			
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SCALE			DRAWING NO.	
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REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



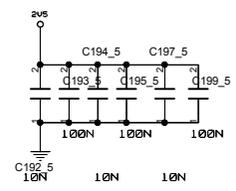
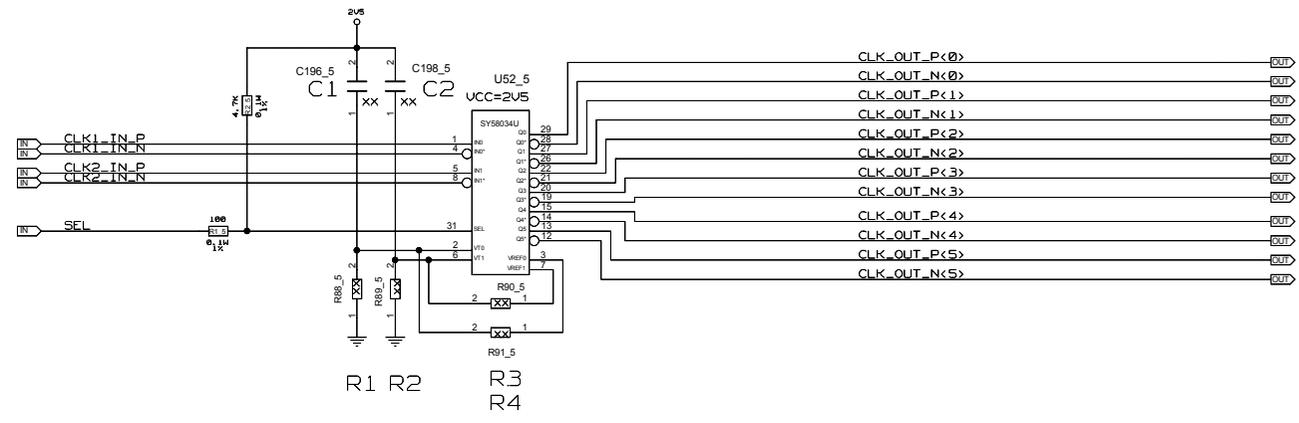
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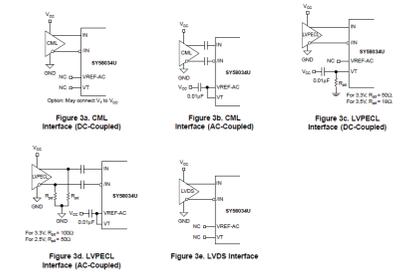


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CHECKED	S.RAVE			
DRAWN	BAUSS			
BLOCK TITLE				CLOCK
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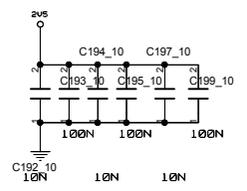
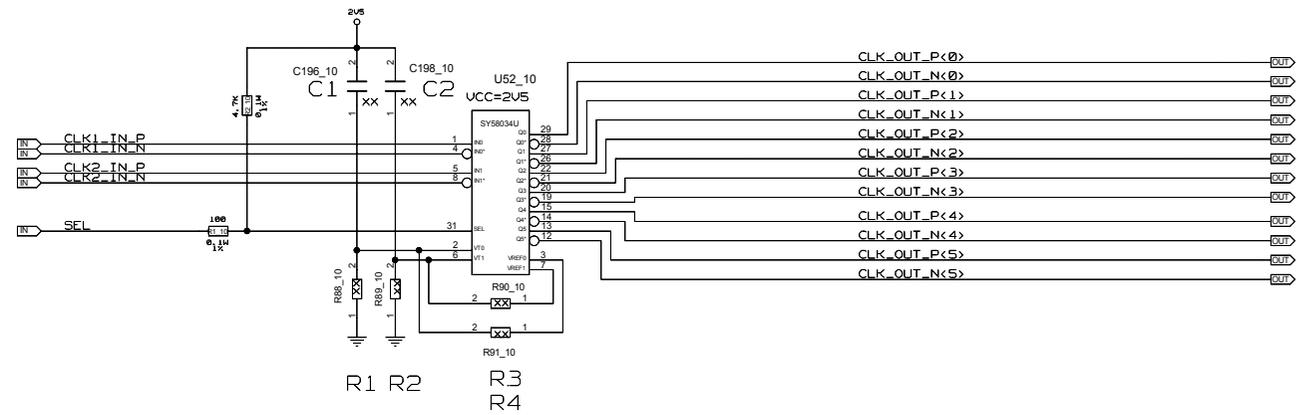


INPUT INTERFACE APPLICATIONS

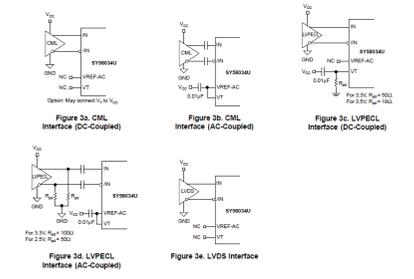


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SCALE				SHEET OF

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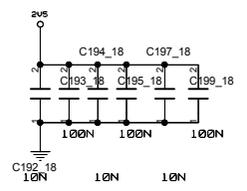
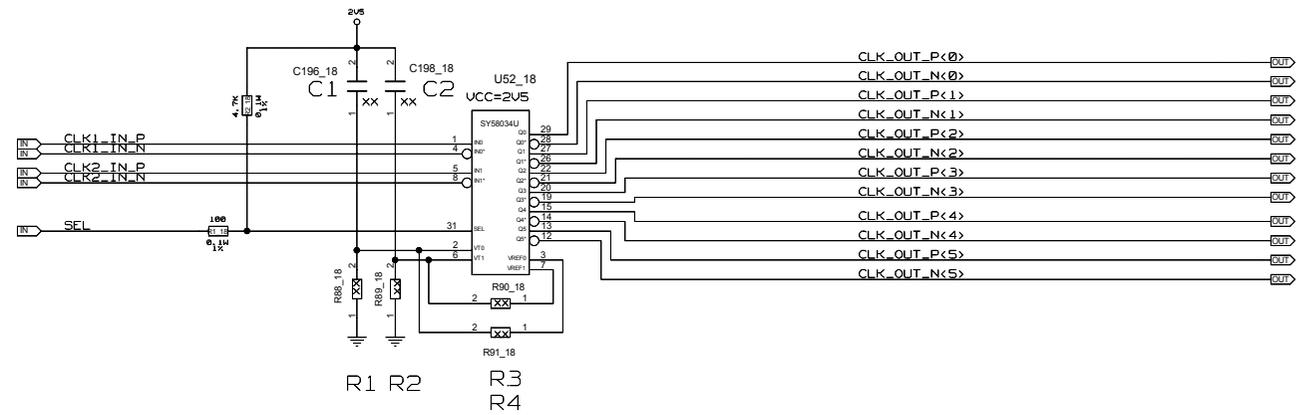


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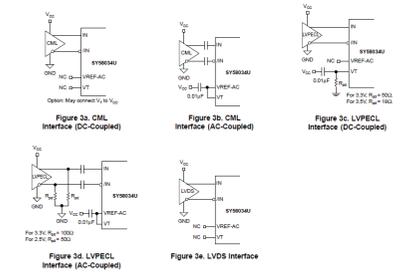


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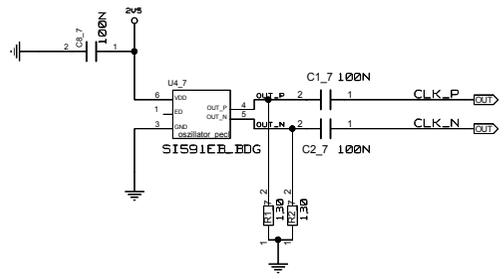


INPUT INTERFACE APPLICATIONS



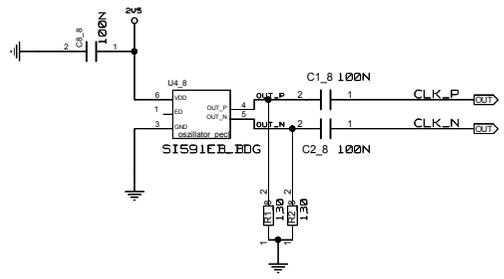
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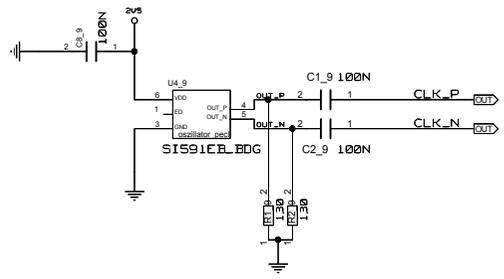
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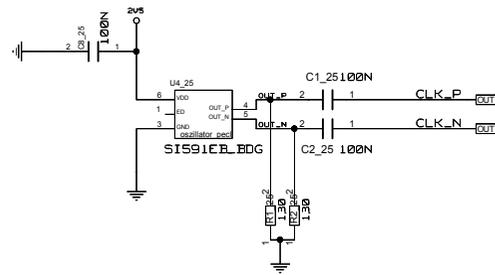
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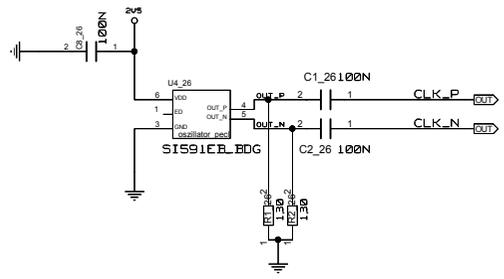
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UNIVERSITY OF MAINZ		SIZE C	REV.	DRAWING NO.
SCALE				SHEET OF

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



CHECKED	NAME	DATE	SIGN	DRAWING TITLE	
CHECKED	E.ROCCO			CLOCK	
CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS				
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UNIVERSITY OF MAINZ				DRAWING NO.	
SCALE				SHEET OF	

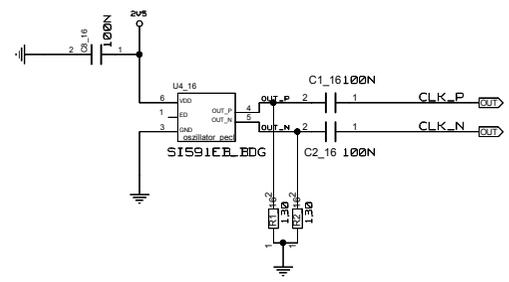
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ZONE	LTR	DESCRIPTION	DATE	APPR.



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DRAWN	BAUSS			
BLOCK TITLE CLOCK_LVPECL_AC				SIZE C
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SCALE				DRAWING NO.
				SHEET OF

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ZONE	LTR	DESCRIPTION	DATE	APPR.

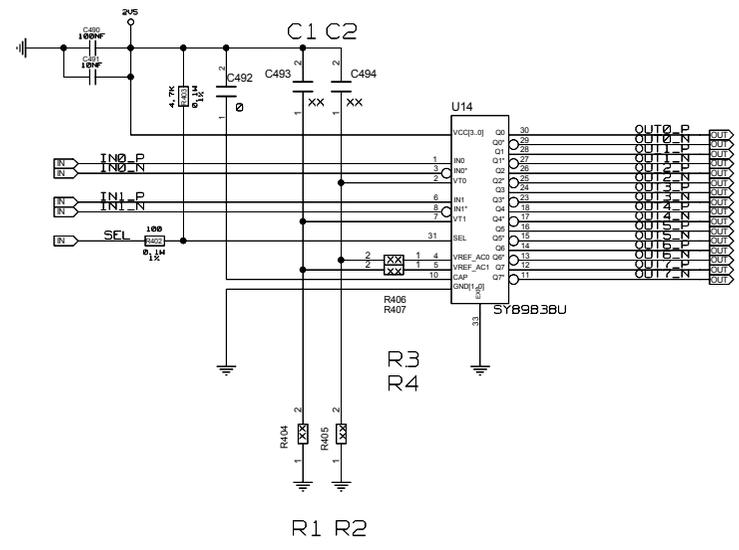
F
E
D
C
B
A



CHECKED	E.ROCCO	DATE	SIGN	DRAWING TITLE CLOCK		
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CHECKED	S.RAVE					
DRAWN	BAUSS					
BLOCK TITLE CLOCK_LVPECL_AC				SIZE C	REV.	DRAWING NO.
UNIVERSITY OF MAINZ				SCALE		SHEET OF

8 7 6 5 4 3 2 1

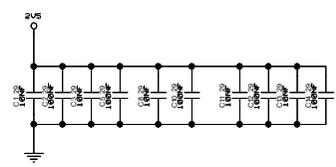
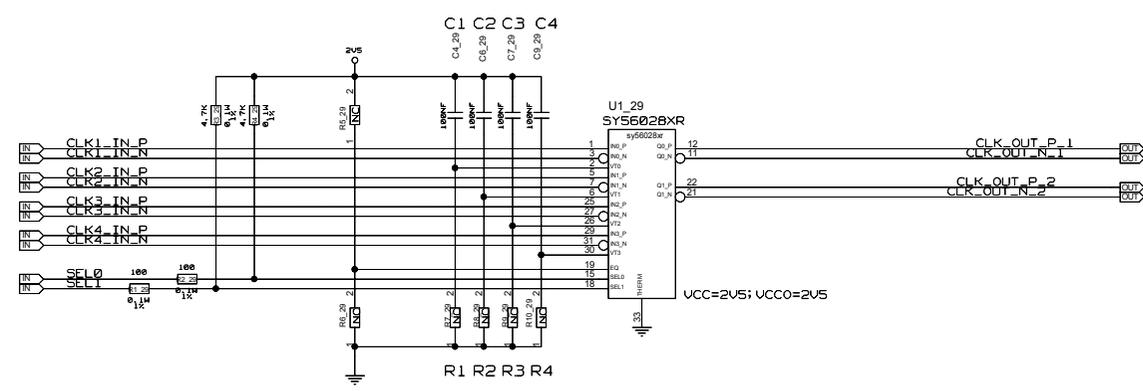
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



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OUT1_N	0409
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OUT6_P	100
OUT6_N	0414
OUT7_P	100
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CHECKED	E.ROCCO	DATE	SIGN	DRAWING TITLE CLOCK
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CHECKED	S.RAVE			
DRAWN	BAUSS			
BLOCK TITLE CLOCK_LLVD5_FANOUT8				
UNIVERSITY OF MAINZ			SIZE C	REV.
SCALE			DRAWING NO.	
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ZONE	LTR	DESCRIPTION	DATE	APPR.



Input Interface Applications

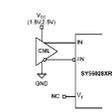


Figure 4b. CML Interface 100 Ω Differential (DC-Coupled, 1.8V, 2.5V)

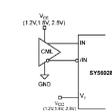


Figure 4c. CML Interface 80 Ω to VCC (DC-Coupled, 1.2V, 1.8V, 2.5V)

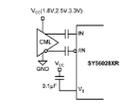


Figure 4c. CML Interface 80 Ω to VCC (DC-Coupled, 1.2V, 1.8V, 2.5V)

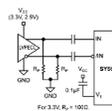


Figure 4d. LVPECL Interface (AC-Coupled)

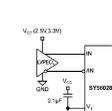


Figure 4e. LVPECL Interface (DC-Coupled 2.5V and 3.3V)

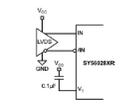
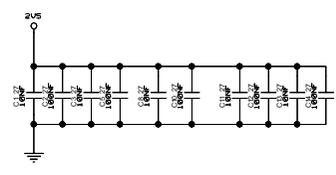
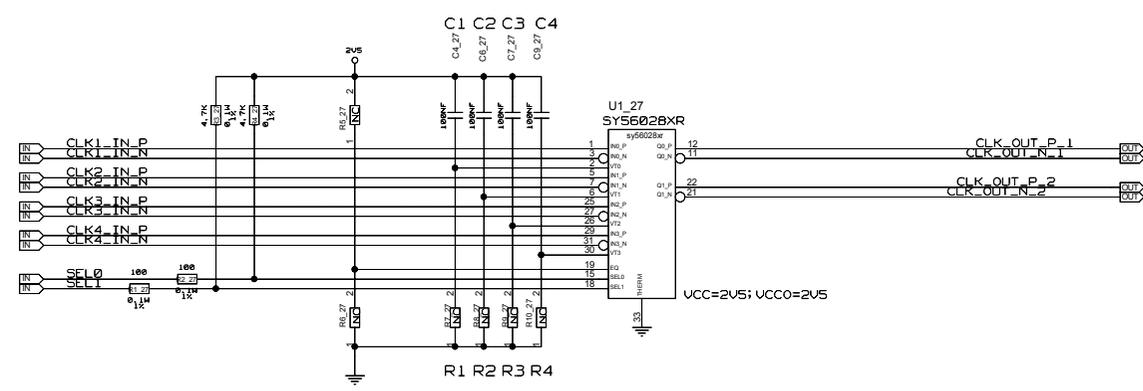


Figure 4f. LVDS Interface

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CHECKED	U.SCHAEFER			
CHECKED	S.RAVE			
DRAWN	BAUSS			
BLOCK TITLE				DRAWING NO.
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UNIVERSITY OF MAINZ				
SIZE		REV.	DRAWING NO.	
SCALE			SHEET OF	

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ZONE	LTR	DESCRIPTION	DATE	APPR.



Input Interface Applications

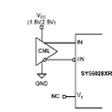


Figure 4b. CML Interface 100 Ω Differential (DC-Coupled, 1.8V, 2.8V)

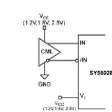


Figure 4c. CML Interface 80 Ω to VCC (DC-Coupled, 1.2V, 1.8V, 2.8V)

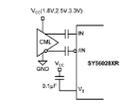


Figure 4c. CML Interface 80 Ω to VCC (DC-Coupled, 1.2V, 1.8V, 2.8V)

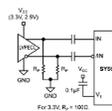


Figure 4d. LVPECL Interface (AC-Coupled)

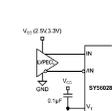


Figure 4e. LVPECL Interface (DC-Coupled 2.8V and 3.3V)

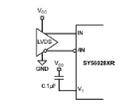
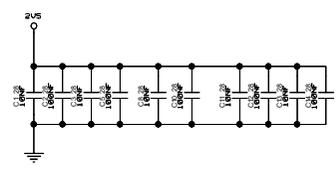
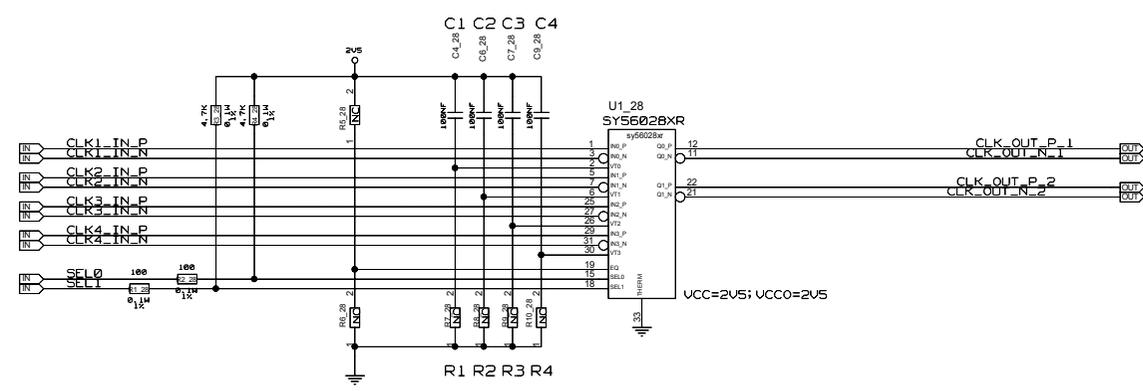


Figure 4f. LVDS Interface

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CHECKED	S.RAVE			
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SCALE				SHEET OF

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ZONE	LTR	DESCRIPTION	DATE	APPR.



Input Interface Applications

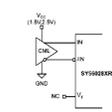


Figure 4b. CML Interface 100 Ω Differential (DC-Coupled, 1.8V, 2.5V)

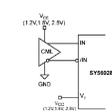


Figure 4c. CML Interface 80 Ω to VCC (DC-Coupled, 1.2V, 1.8V, 2.5V)

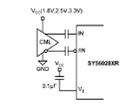


Figure 4c. CML Interface 80 Ω to VCC (DC-Coupled, 1.2V, 1.8V, 2.5V)

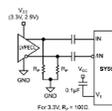


Figure 4e. LVPECL Interface (AC-Coupled)

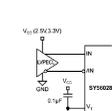


Figure 4e. LVPECL Interface (DC-Coupled 2.5V and 3.3V)

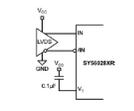
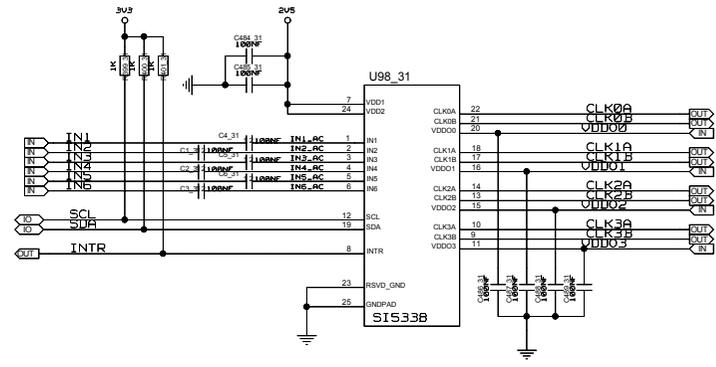


Figure 4f. LVDS Interface

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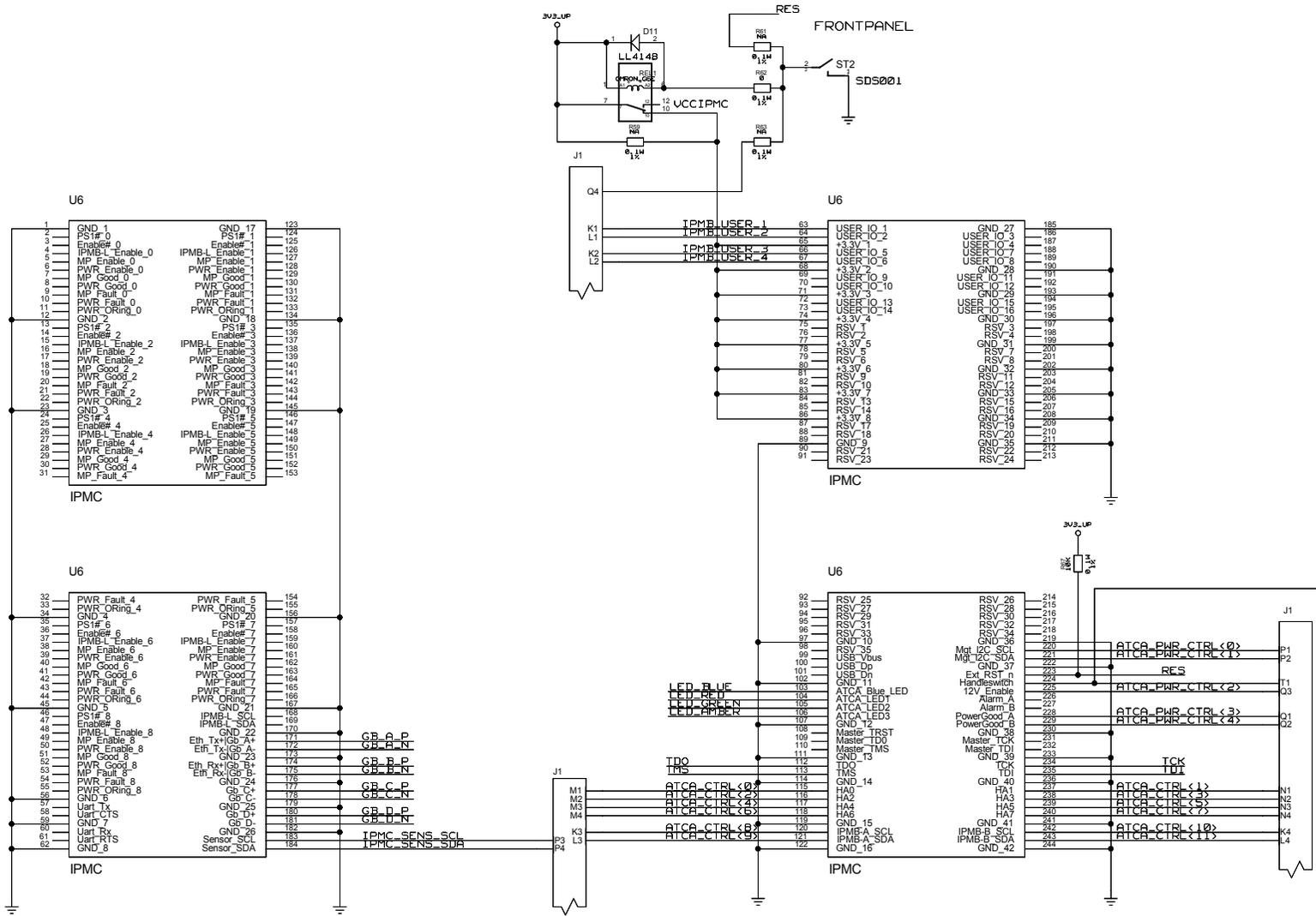
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ZONE	LTR	DESCRIPTION	DATE	APPR.



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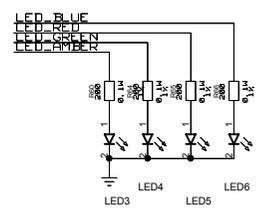
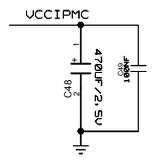
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CHANGED 17. 12. 2015
FRONTPANEL

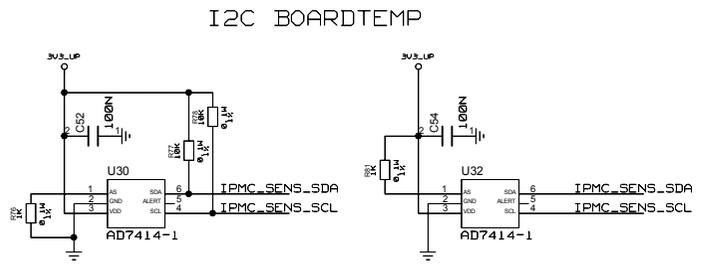
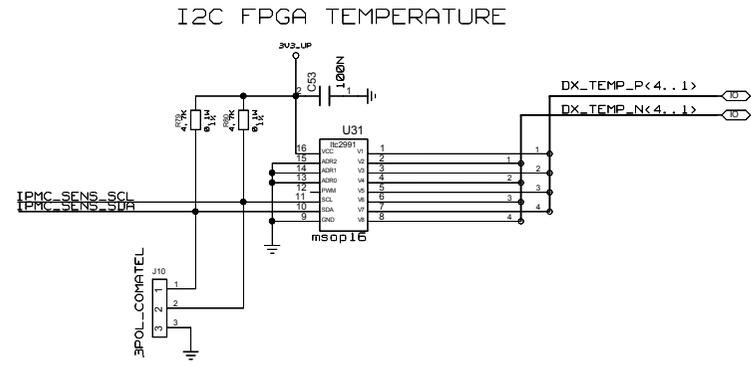
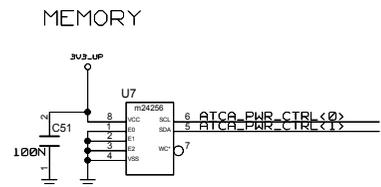
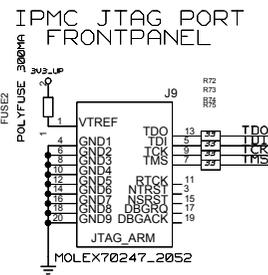
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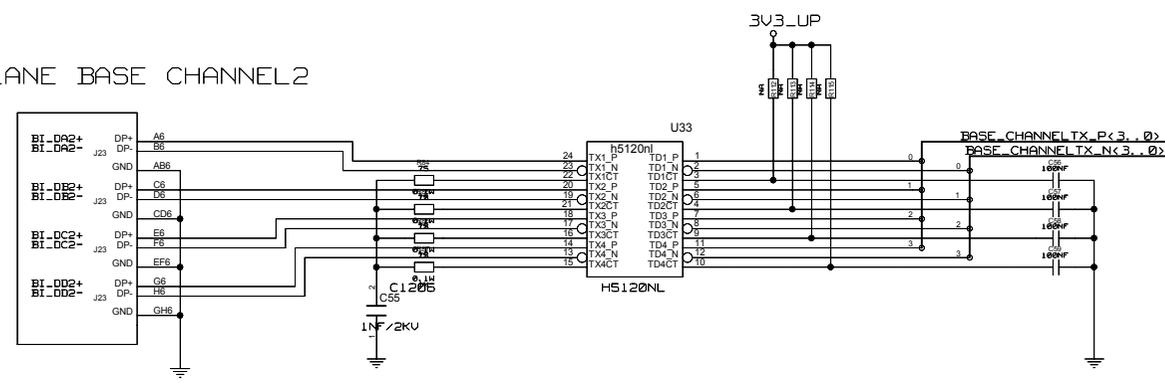
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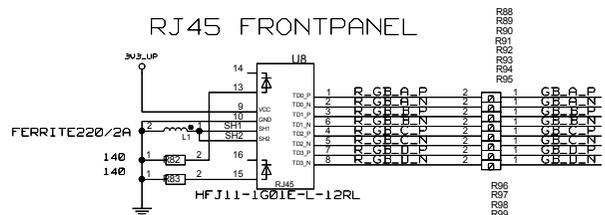
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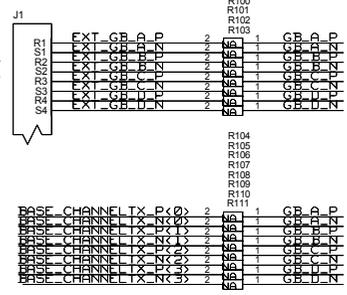
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RJ45 FRONTPANEL



MEZZANINE

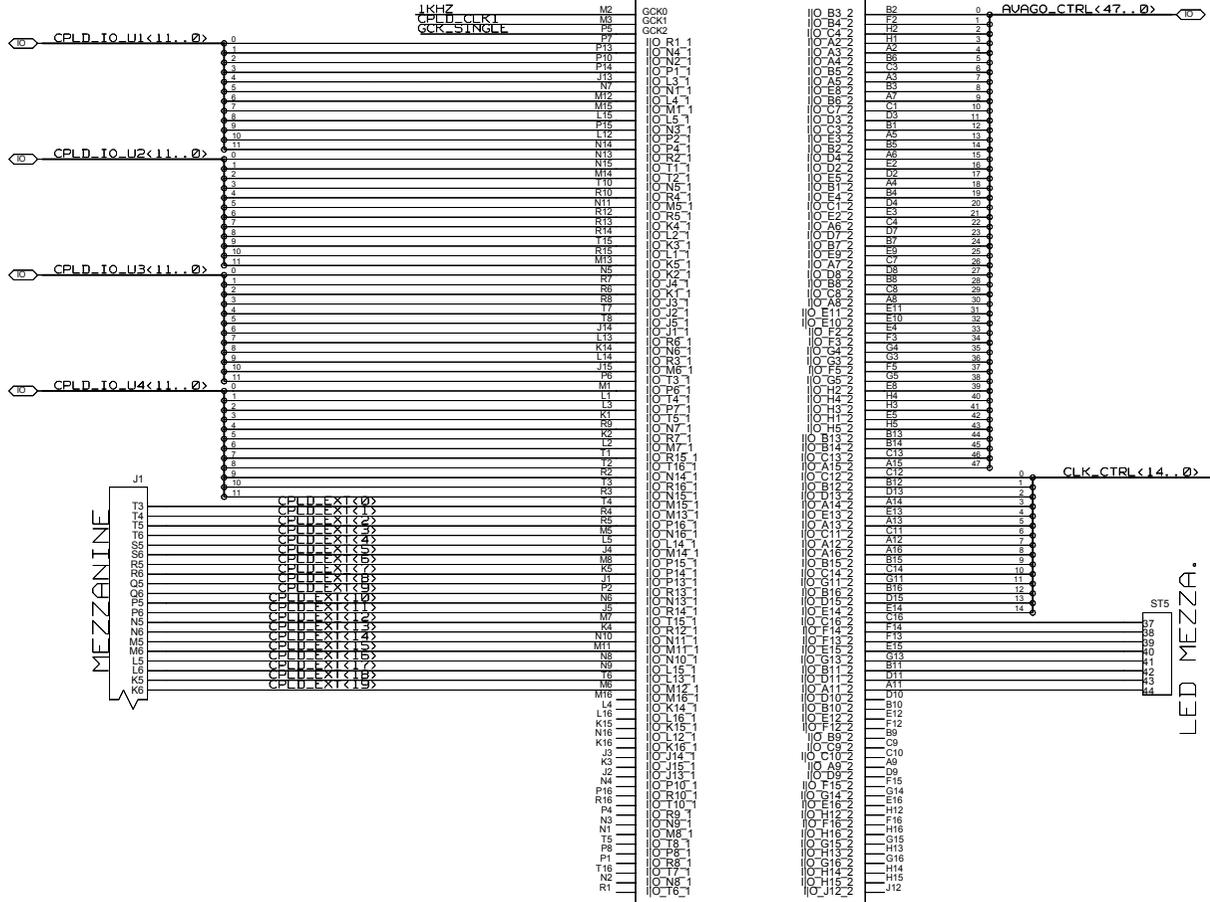


TO IPMC MODUL

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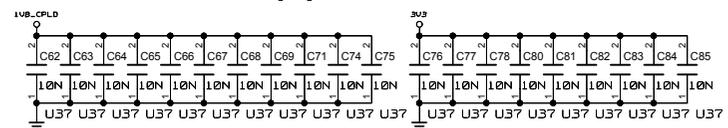
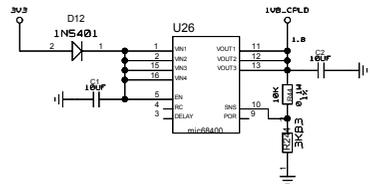
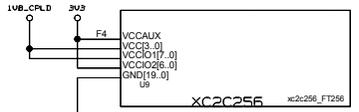
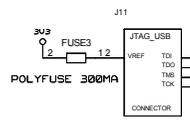
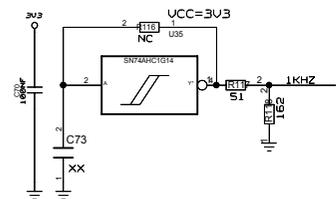
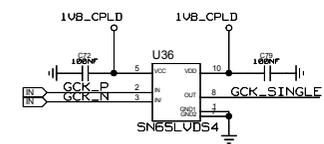
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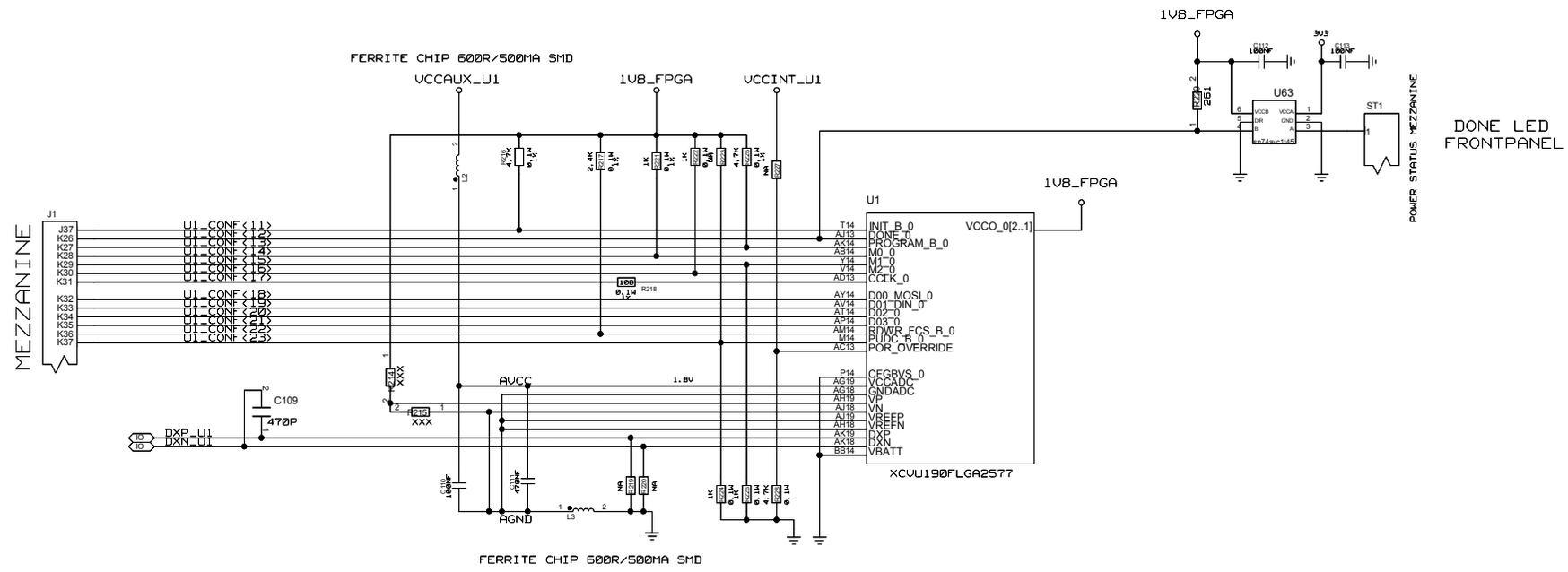
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CPLD CLOCK



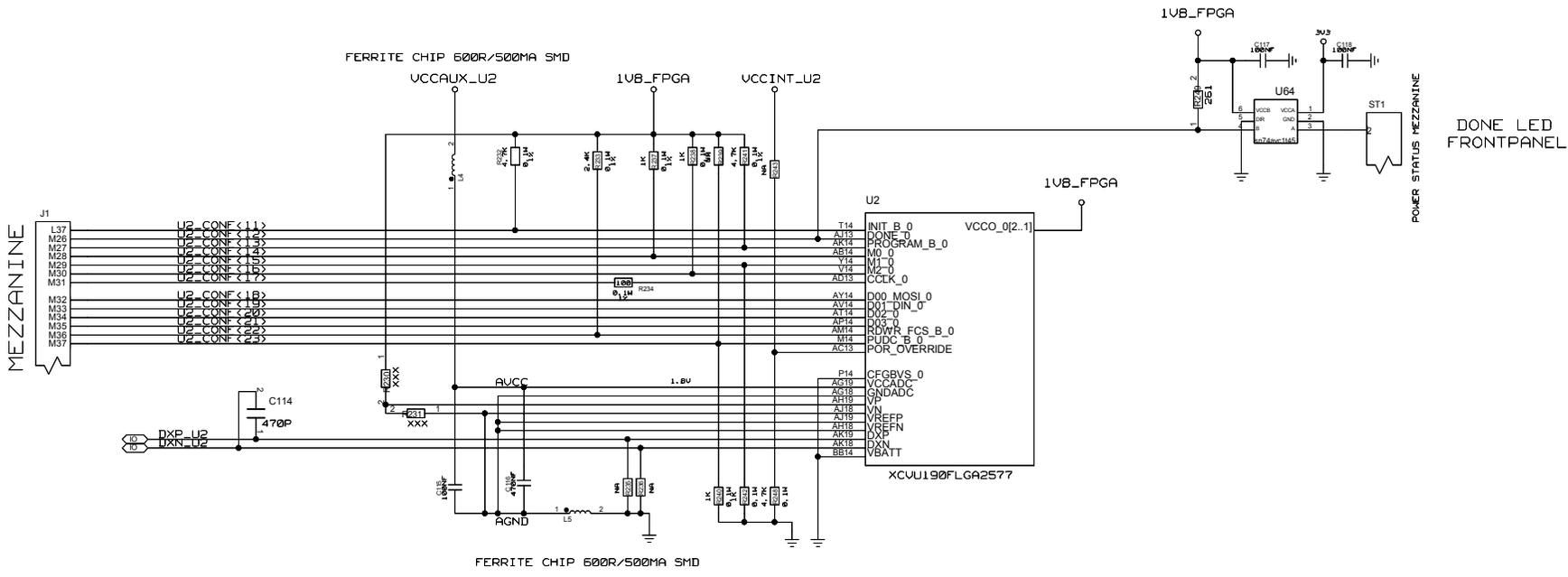
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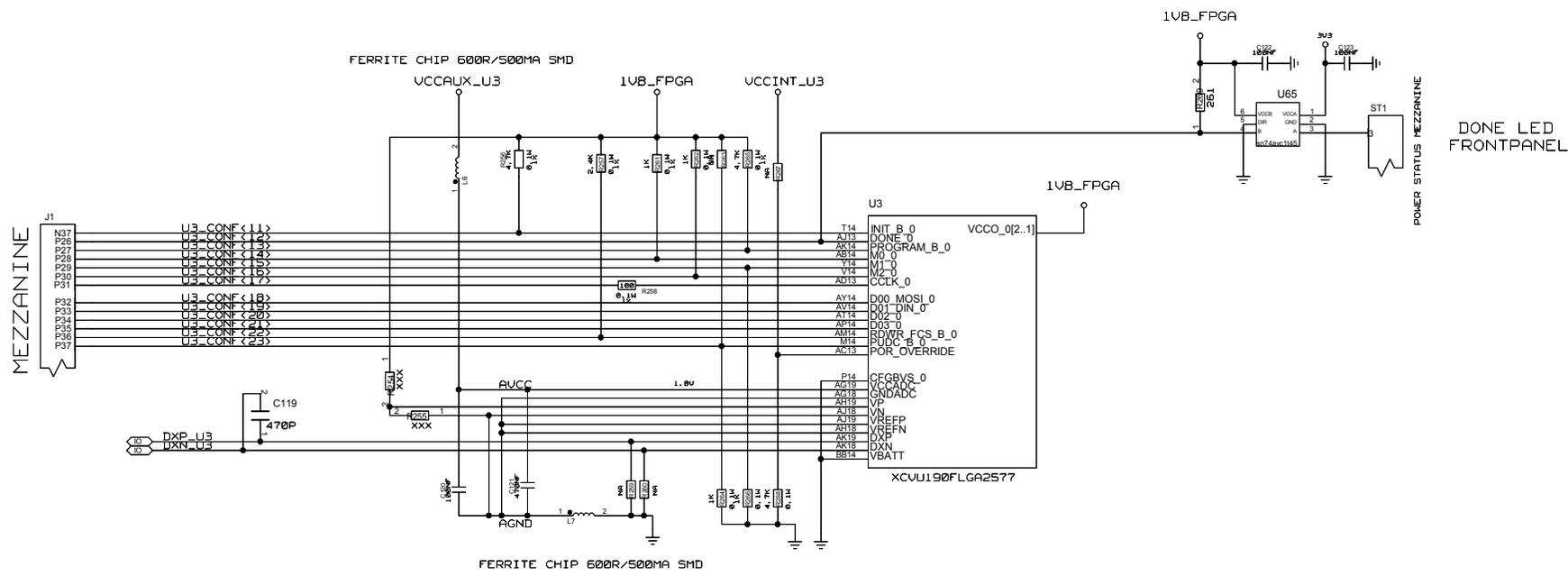
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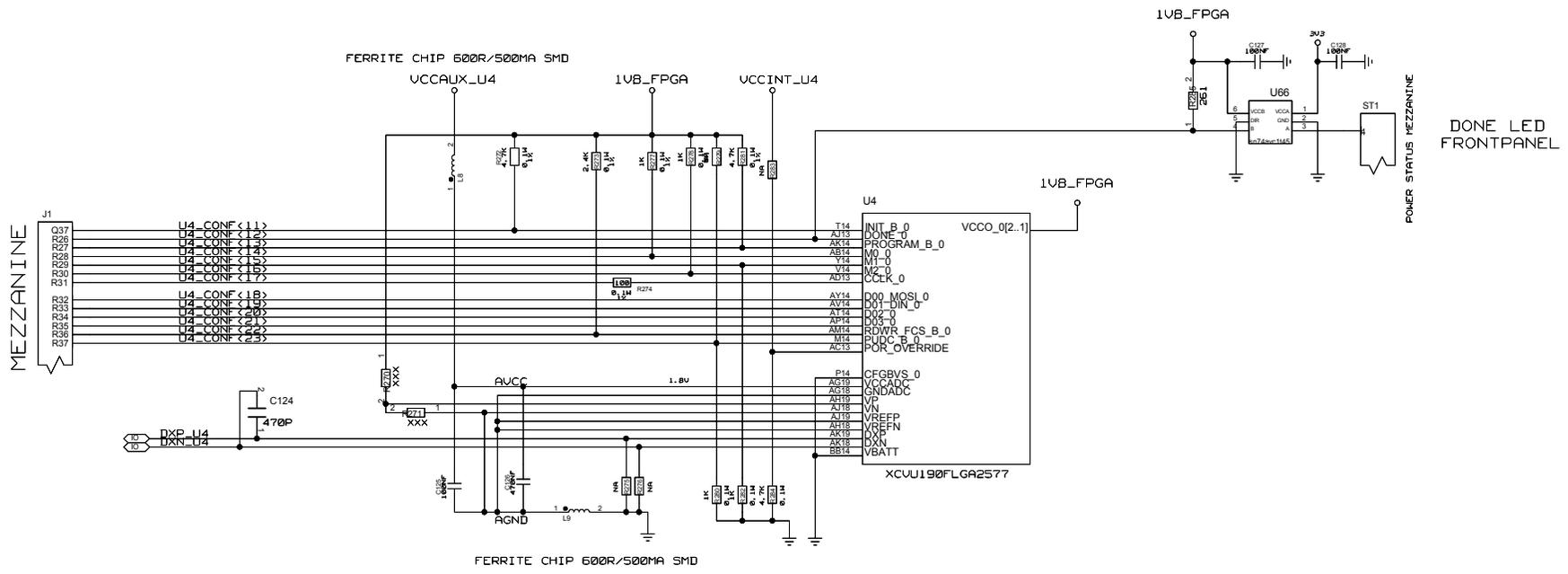
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ZONE	LTR	DESCRIPTION	DATE	APPR.



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DONE LED
FRONTPANEL

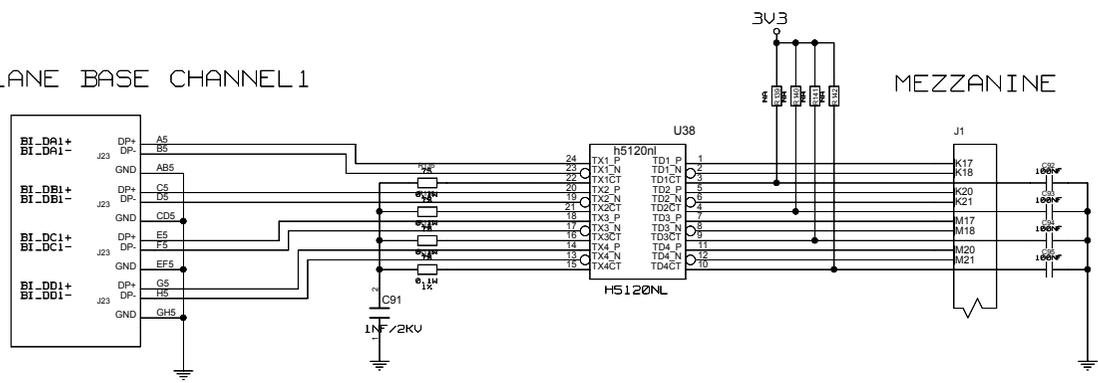
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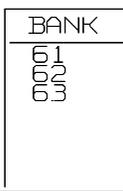
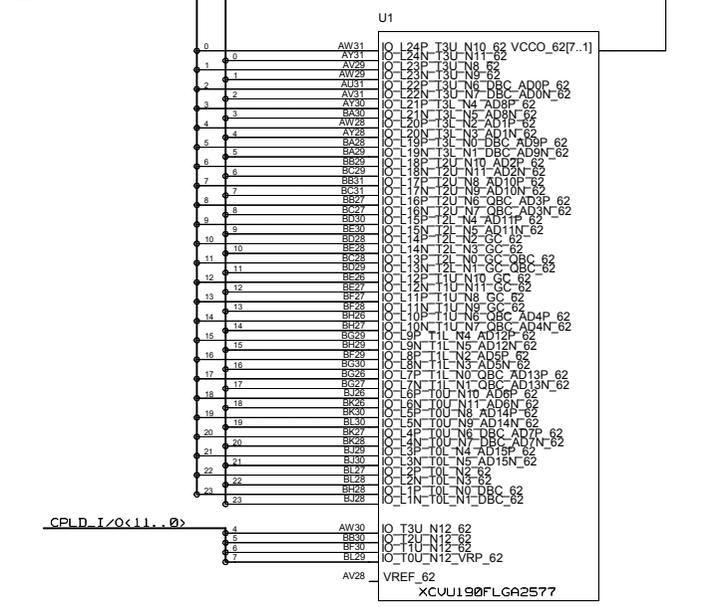
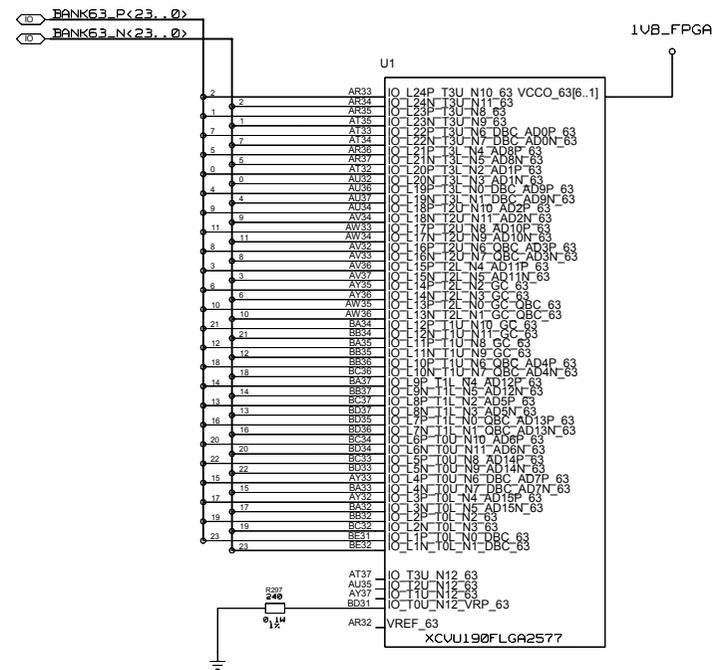
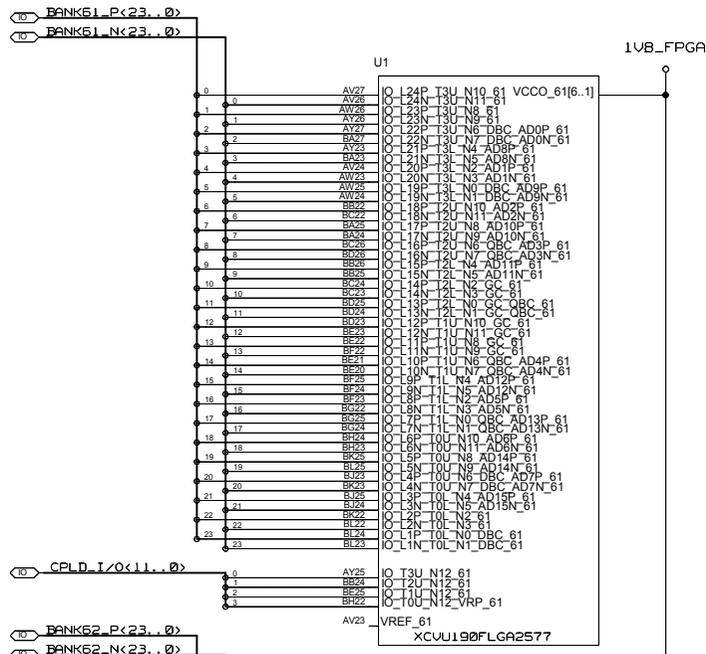
BACKPLANE BASE CHANNEL 1

MEZZANINE



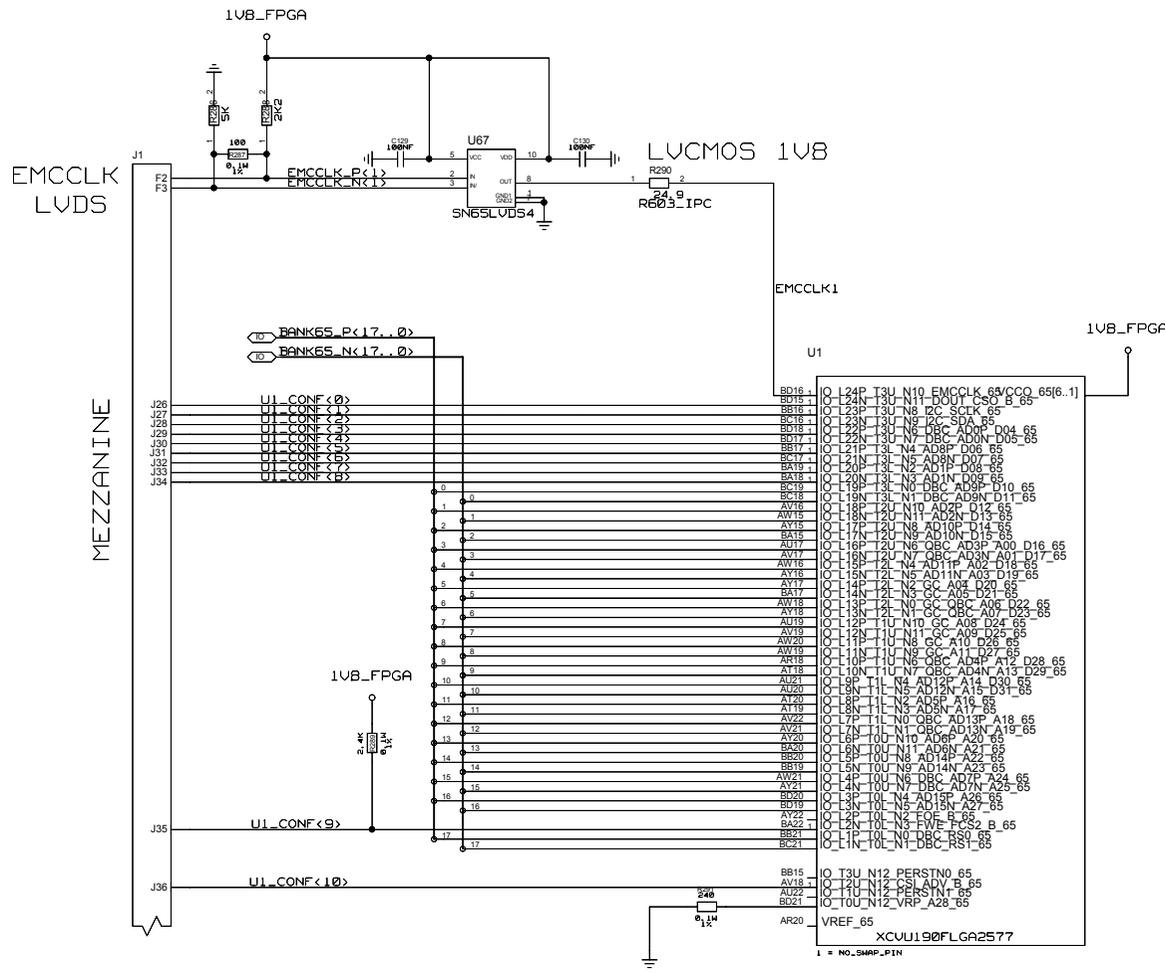
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ZONE	LTR	DESCRIPTION	DATE	APPR.



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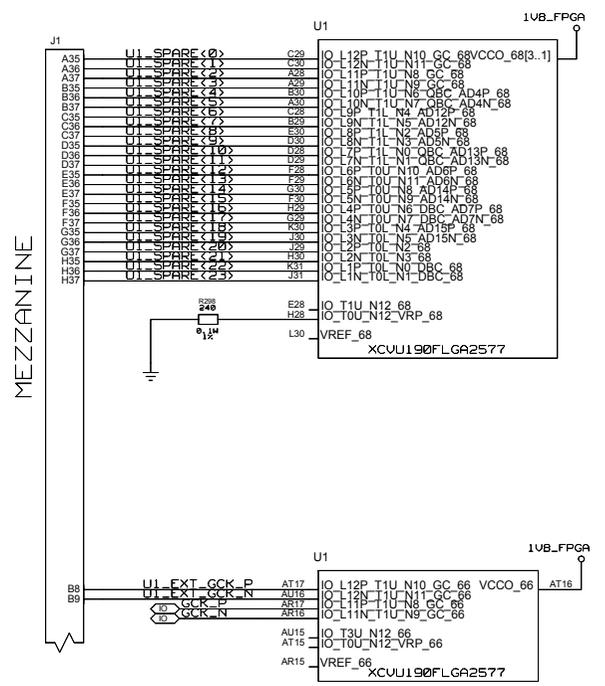
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ZONE	LTR			



BANK
65

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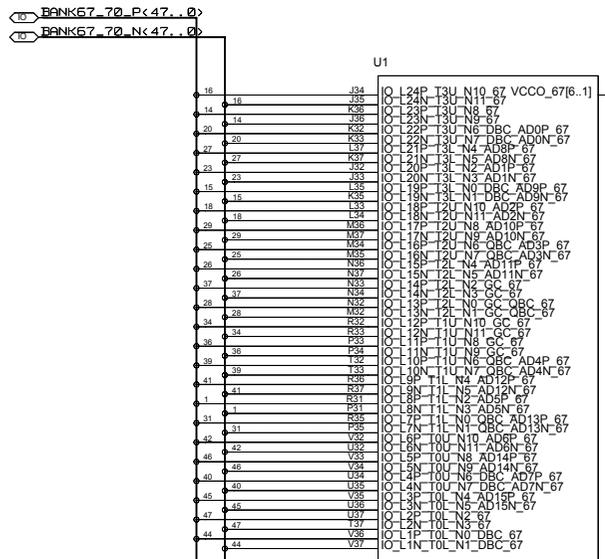
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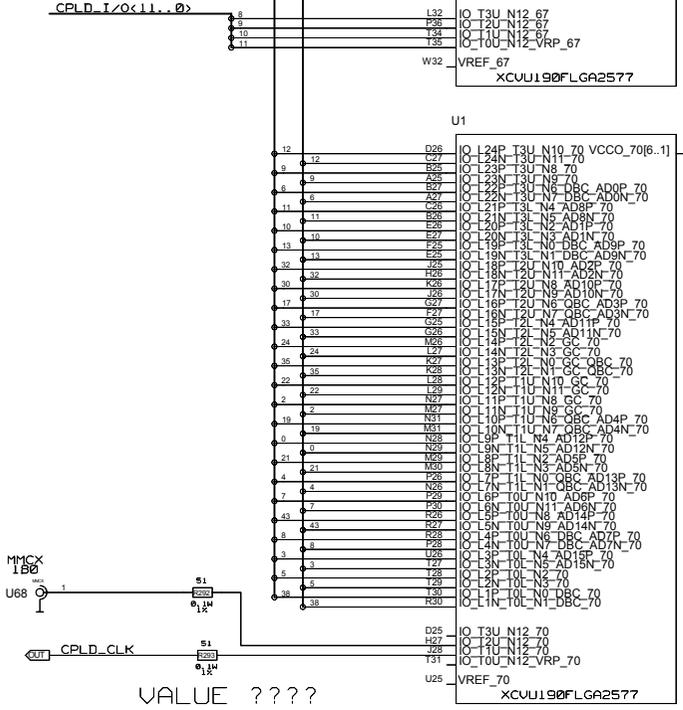


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W32

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IO_L4N_T0U_N6_DBC_AD7N_70
IO_L3N_T0U_N5_AD15N_70
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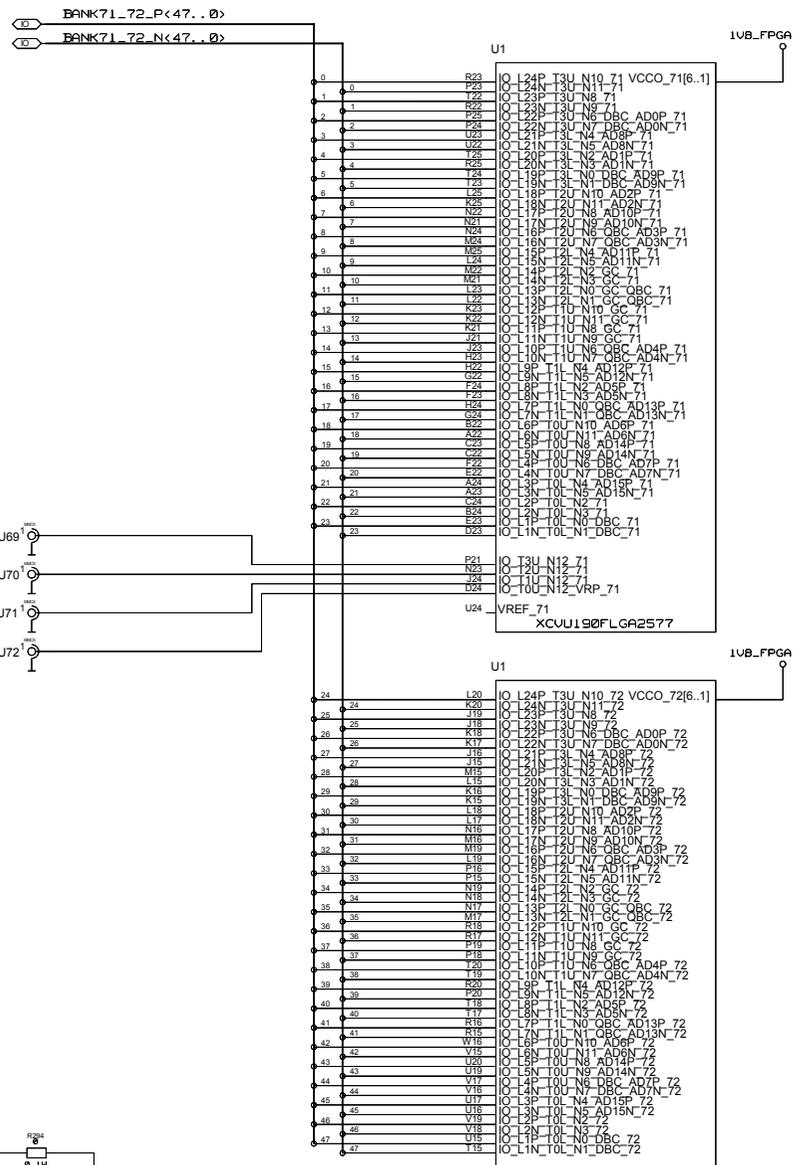
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VREF_70
XC7V190FLGA2577

BANK
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	U.SCHAEFER				
	S.RAVE				
	BAUSS	25.08.2015			
BLOCK TITLE					
U1_PARALLEL_I/O					
UNIVERSITY OF MAINZ				SIZE C	REV.
SCALE				DRAWING NO.	
				SHEET 4 OF 5	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

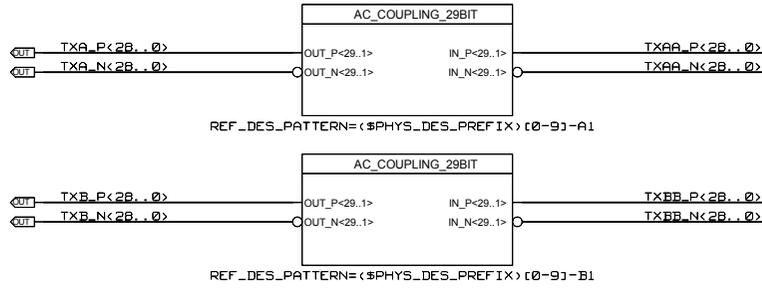


BANK
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CHECKED	NAME	DATE	SIGN	DRAWING TITLE JFEX
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	U.SCHAEFER			
	S.RAVE			
	BAUSS	25.08.2015		
DRAWN				
BLOCK TITLE U1_PARALLEL_I/O				
UNIVERSITY OF MAINZ		SIZE C	REV.	DRAWING NO.
SCALE				SHEET 5 OF 5

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

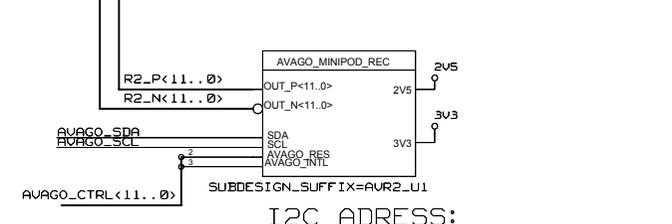
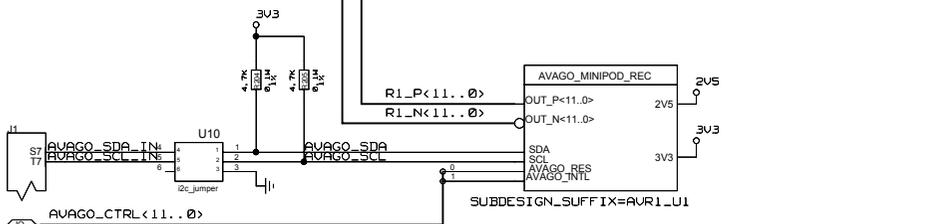
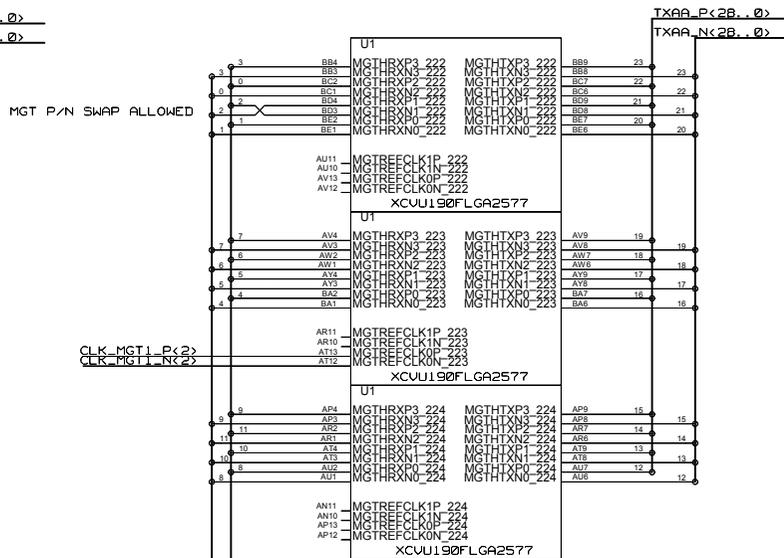
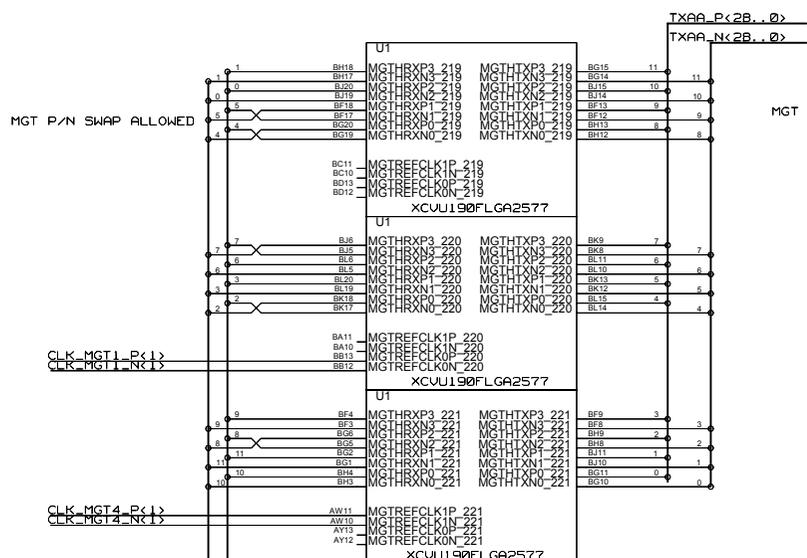
AC COUPLING



IN> CLK_MGT1_P<12..1>
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CHECKED	E.ROCCO	DATE	SIGN	DRAWING TITLE I/O + AC COUPLING
CHECKED	U.SCHAEFER			
CHECKED	S.RAVE			
DRAWN	BAUSS	07.08.2015		
BLOCK TITLE U1_MGT_REAL_TIME				SIZE C
UNIVERSITY OF MAINZ				REV.
SCALE				DRAWING NO.
SHEET 1 OF 7				

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



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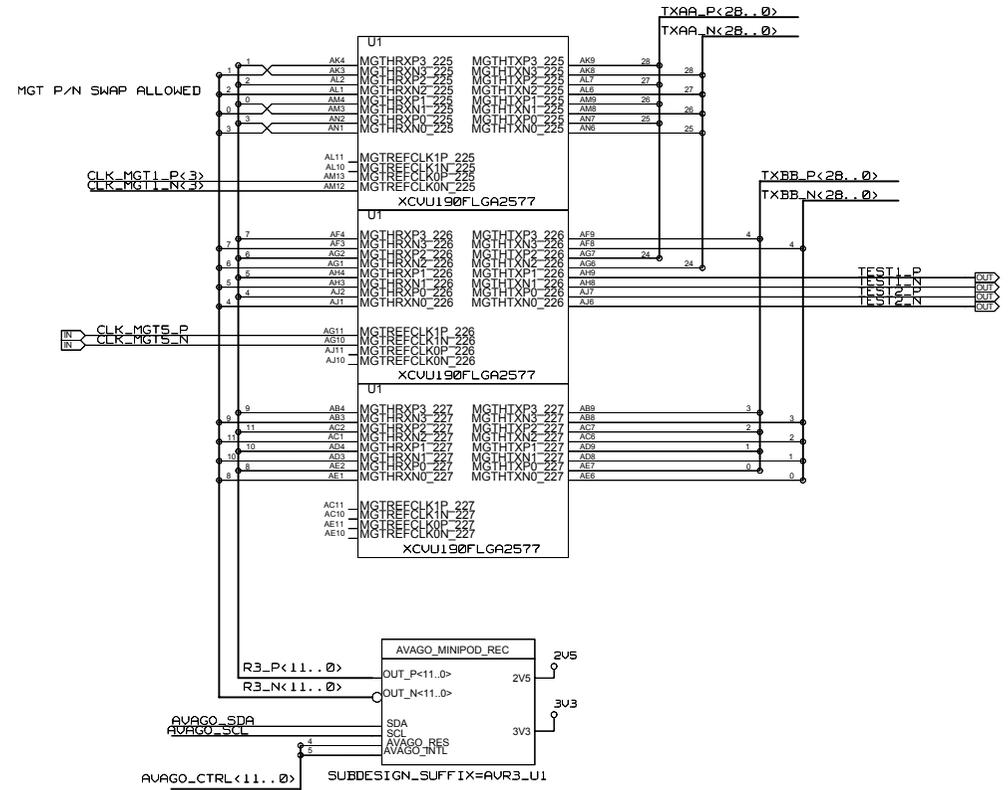
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I2C ADDRESS:
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CHECKED	NAME	DATE	SIGN	DRAWING TITLE
	E.ROCCO			AVAGO TXA
	U.SCHAEFER			
	S.RAVE			
	BAUSS	07.08.2015		
BLOCK TITLE				DRAWING NO.
U1_MGT_REAL_TIME				
UNIVERSITY OF MAINZ				
	SIZE	REV.	DRAWING NO.	
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	SCALE		SHEET 2 OF 7	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

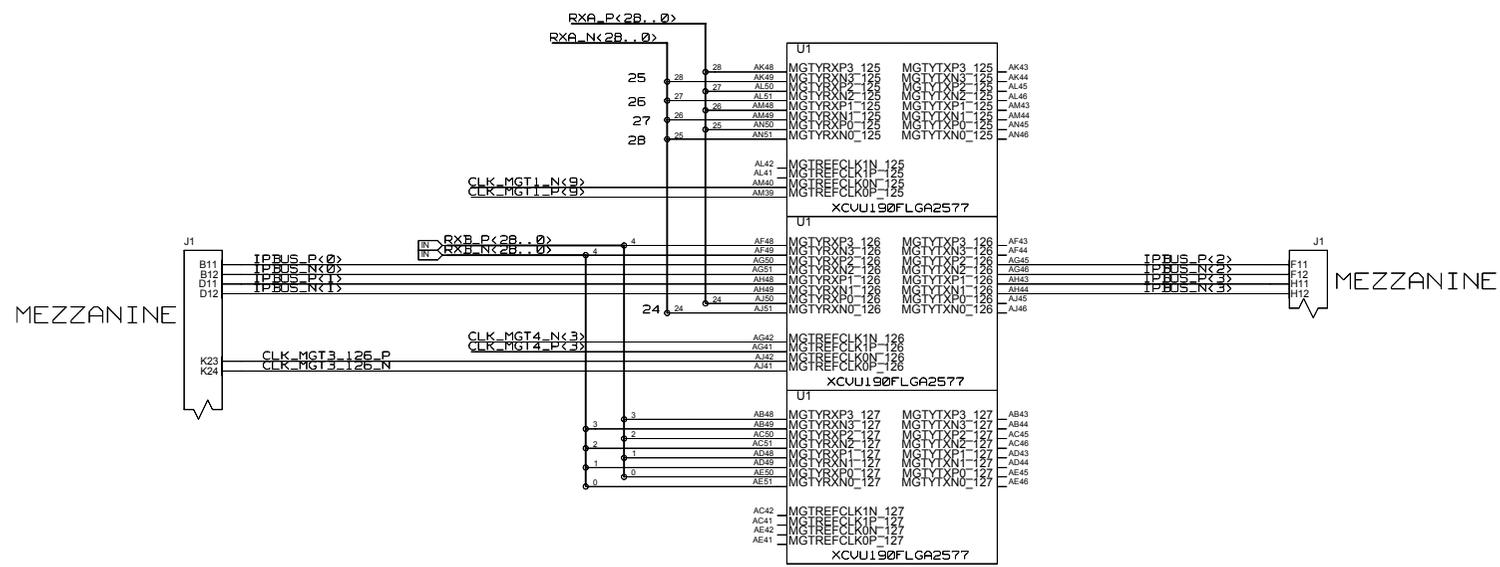


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R7=XXXX R8=XXXX

BANK
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CHECKED	NAME	DATE	SIGN	DRAWING TITLE
CHECKED	E.ROCCO			AVAGO TXA + TXB
CHECKED	U.SCHAEFER			
CHECKED	S.RAVE			
DRAWN	BAUSS	07.08.2015		
BLOCK TITLE	U1_MGT_REAL_TIME			
UNIVERSITY OF MAINZ				SIZE C
SCALE				REV. DRAWING NO. SHEET 3 OF 7

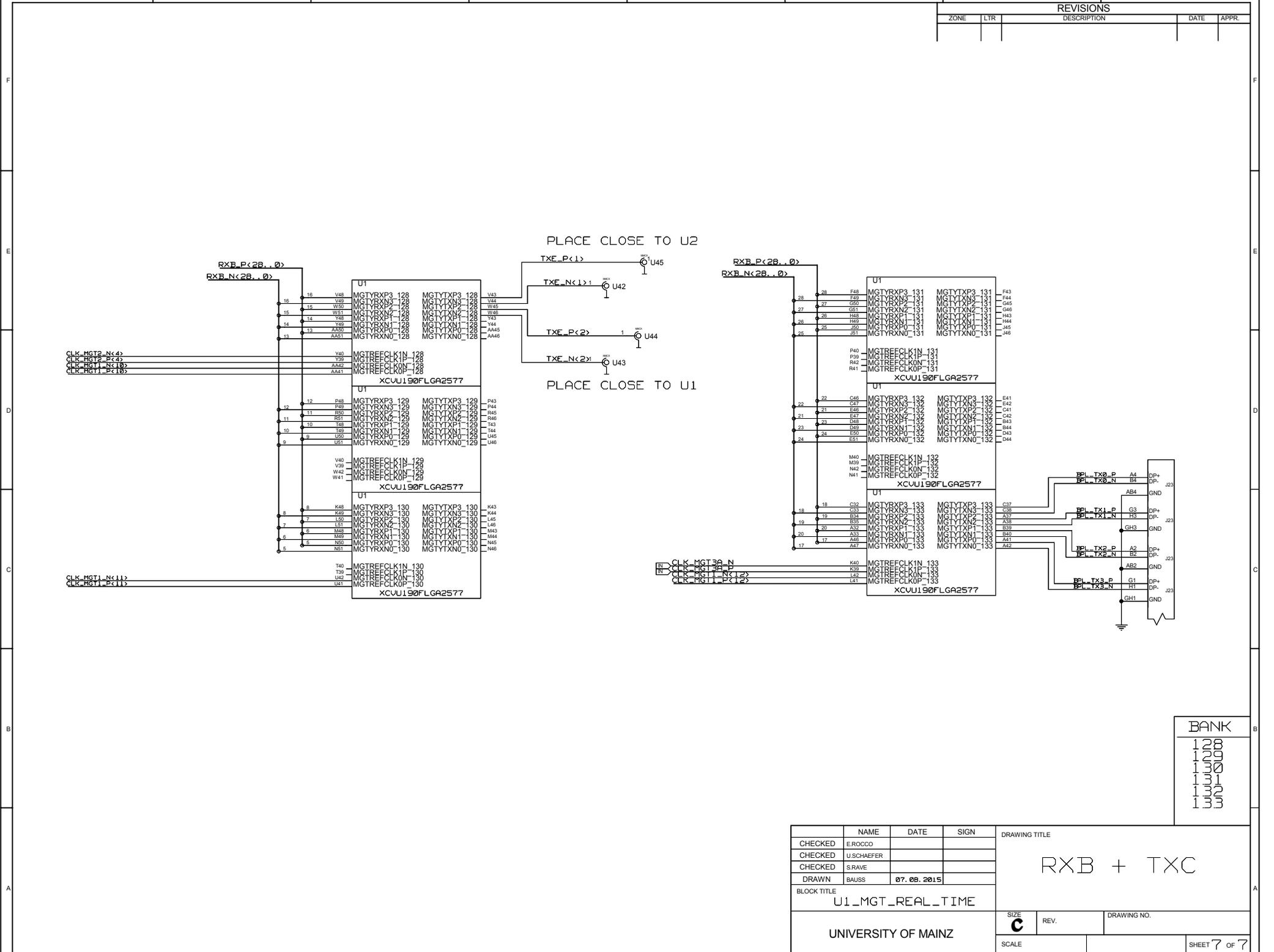
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ZONE	LTR	DESCRIPTION	DATE	APPR.



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CHECKED	E.ROCCO	DATE	SIGN	DRAWING TITLE RXA + RXB TXD + IPBUS		
CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
DRAWN	BAUSS	07.08.2015				
BLOCK TITLE	U1_MGT_REAL_TIME					
UNIVERSITY OF MAINZ				SIZE C	REV.	DRAWING NO.
SCALE				SHEET 6 OF 7		

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



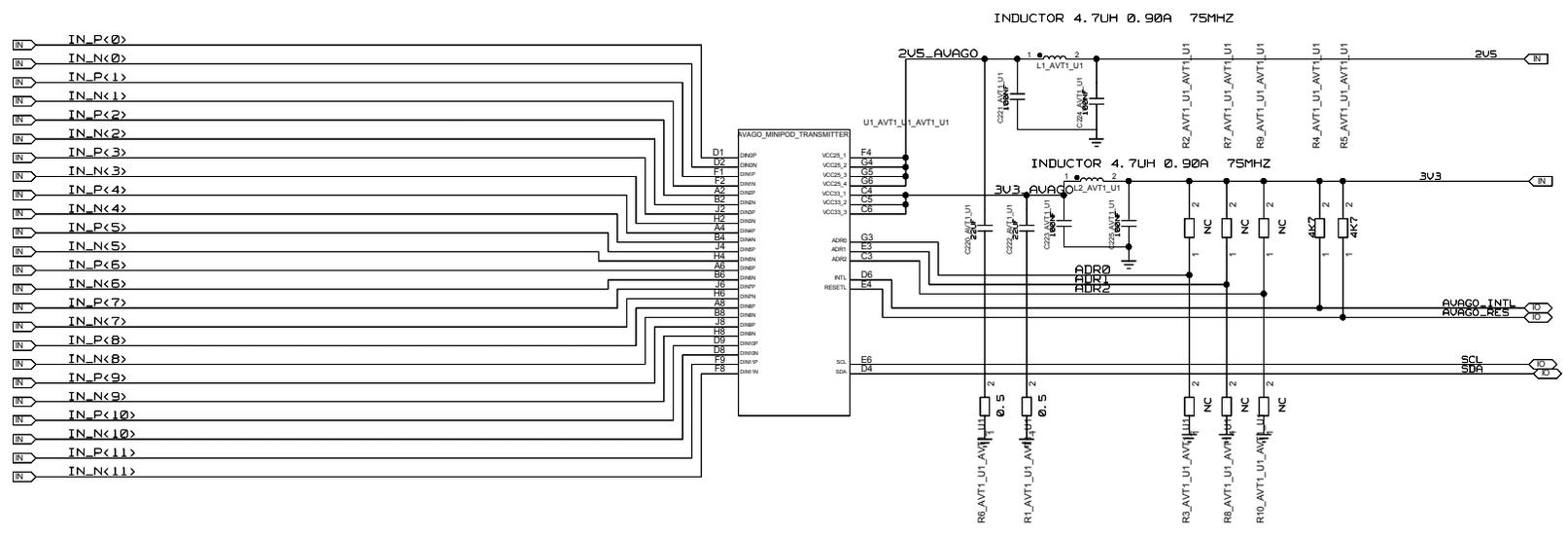
PLACE CLOSE TO U2

PLACE CLOSE TO U1

BANK
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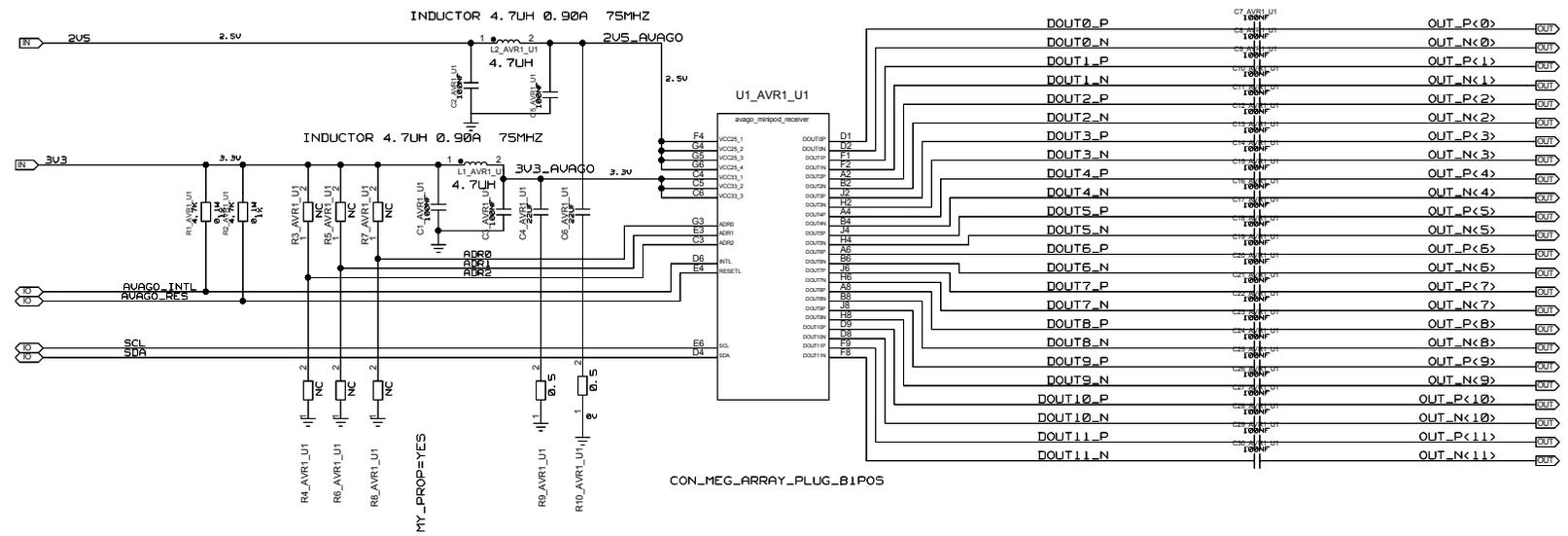
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CHECKED	U.SCHAEFER			
CHECKED	S.RAVE			
DRAWN	BAUSS	07.08.2015		
BLOCK TITLE U1_MGT_REAL_TIME				
UNIVERSITY OF MAINZ		SIZE C	REV.	DRAWING NO.
SCALE				SHEET 7 OF 7

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



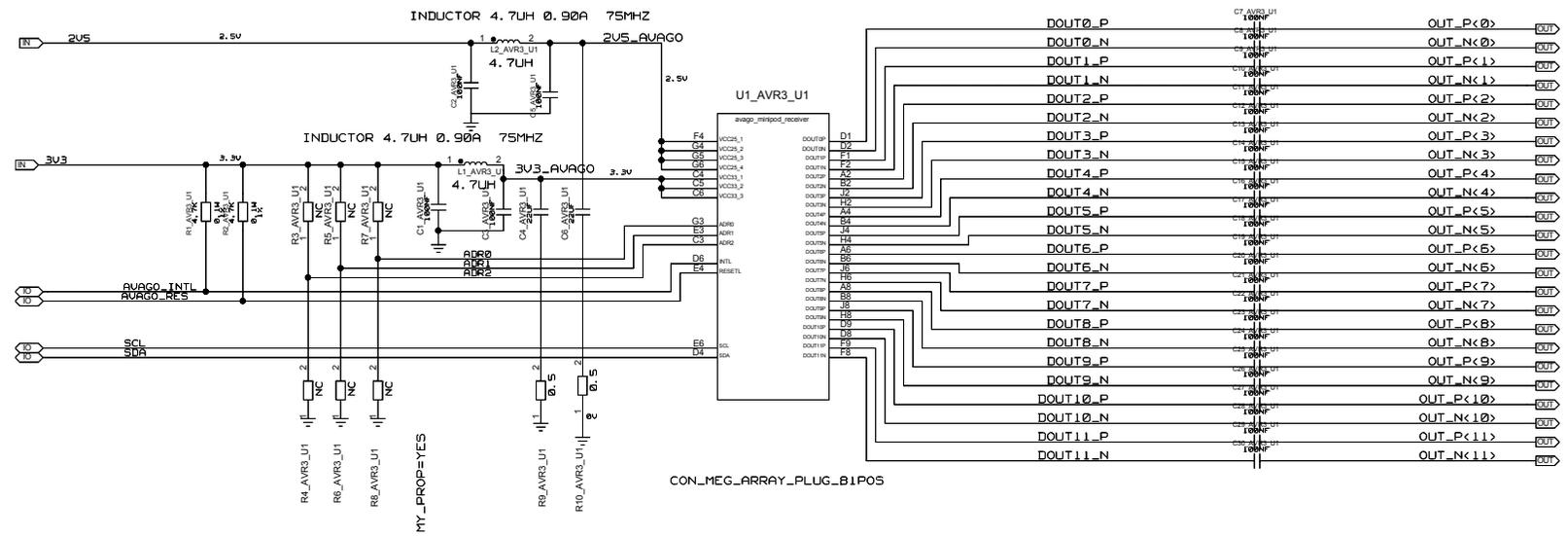
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SIZE C	REV.	DRAWING NO.	
SCALE			SHEET OF

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



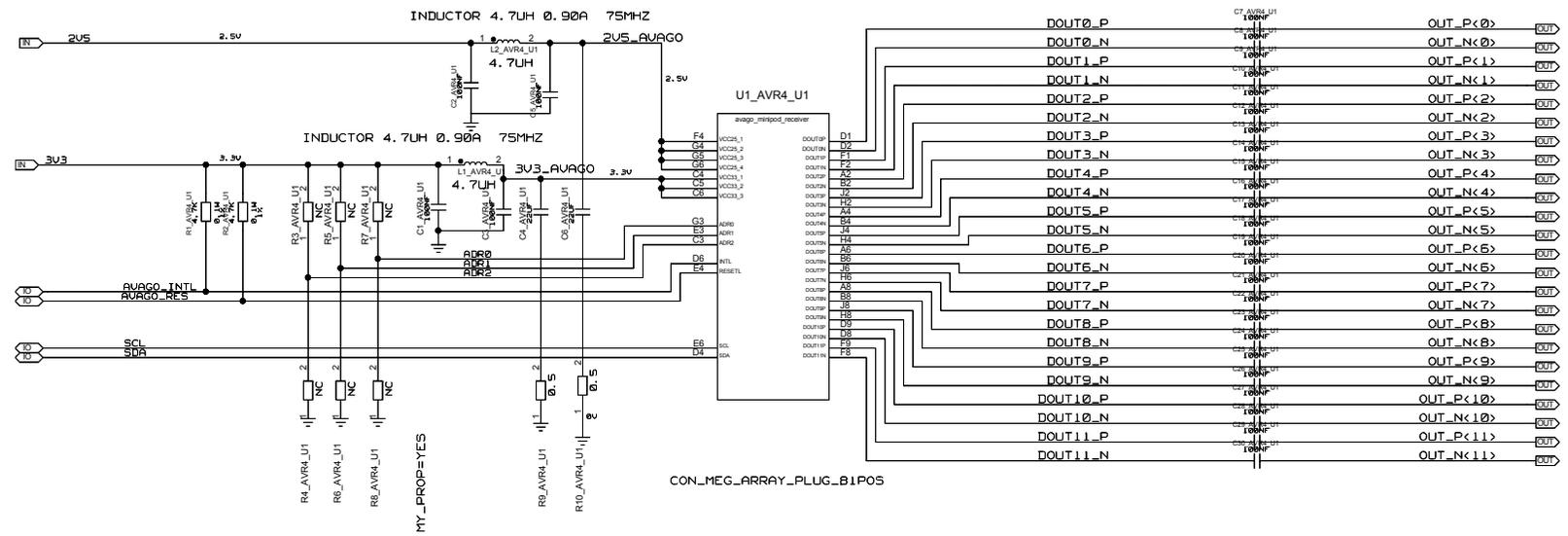
UNIVERSITY OF MAINZ		DRAWING TITLE	
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SIZE	REV.	DRAWING NO.	
C			
SCALE		SHEET OF	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



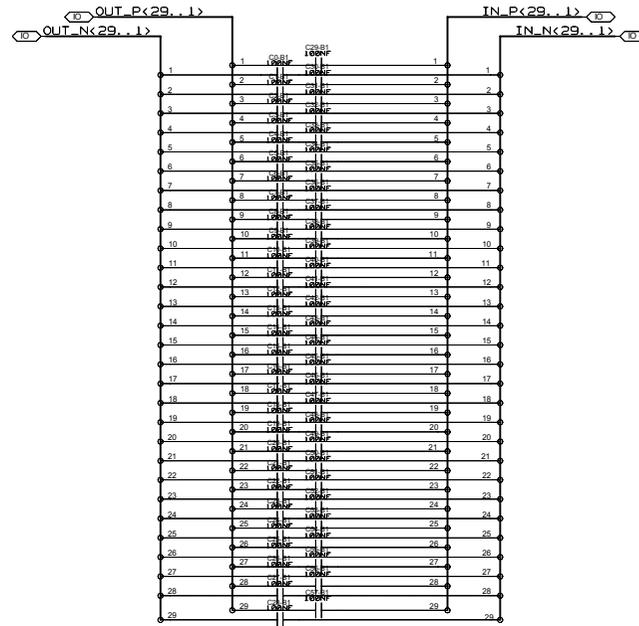
UNIVERSITY OF MAINZ		DRAWING TITLE	
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SIZE	REV.	DRAWING NO.	
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SCALE		SHEET OF	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



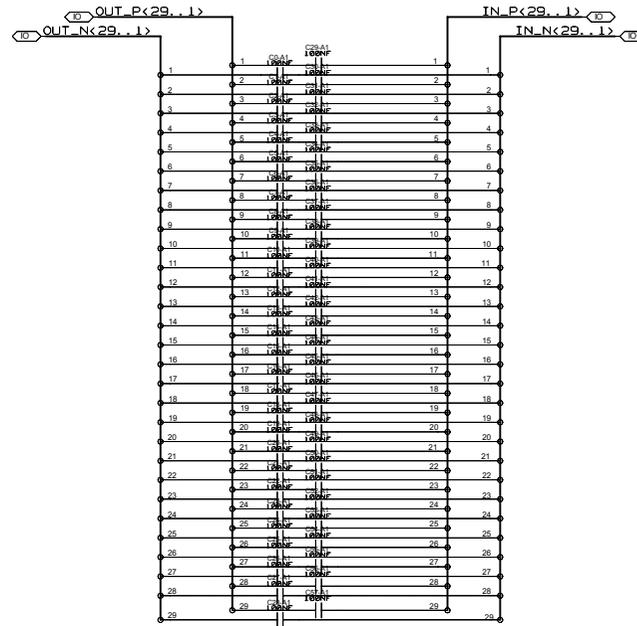
UNIVERSITY OF MAINZ		DRAWING TITLE	
		AVAGO RECEIVER	
SIZE	REV.	DRAWING NO.	
C			
SCALE		SHEET OF	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



CHECKED	NAME	DATE	SIGN	DRAWING TITLE AC COUPLING 29BIT	
CHECKED	E.ROCCO				
CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS			BLOCK TITLE	
UNIVERSITY OF MAINZ				SIZE C	REV.
				DRAWING NO.	

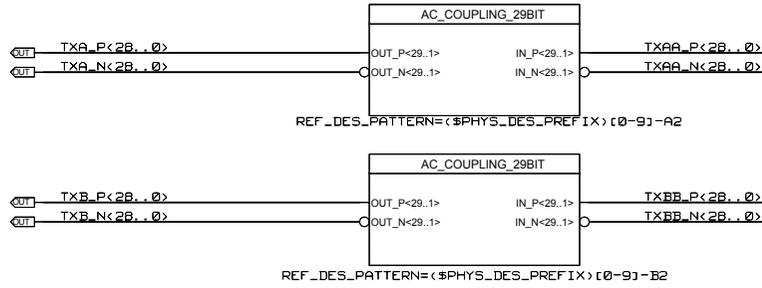
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



CHECKED	NAME	DATE	SIGN	DRAWING TITLE AC COUPLING 29BIT	
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CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS			BLOCK TITLE	
UNIVERSITY OF MAINZ				SIZE C	REV.
				DRAWING NO.	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

AC COUPLING

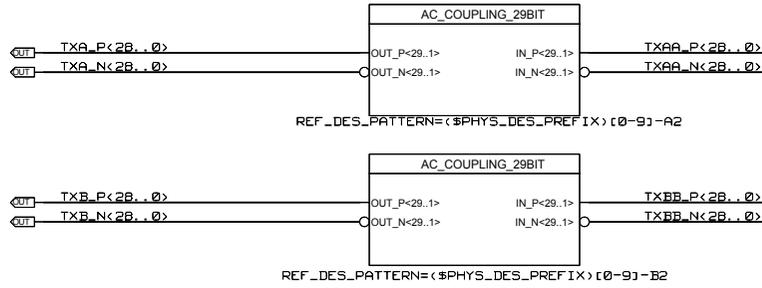


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 IN CLK_MGT1_N<12..1>
 IN CLK_MGT2_P<6..1>
 IN CLK_MGT2_N<6..1>

CHECKED	NAME	DATE	SIGN	DRAWING TITLE I/O + AC COUPLING	
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CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS	07.08.2015			
BLOCK TITLE U2_MGT_REAL_TIME				SIZE C	REV.
UNIVERSITY OF MAINZ				SCALE	DRAWING NO.
				SHEET 1 OF 7	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

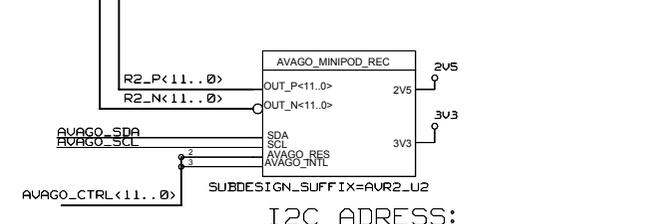
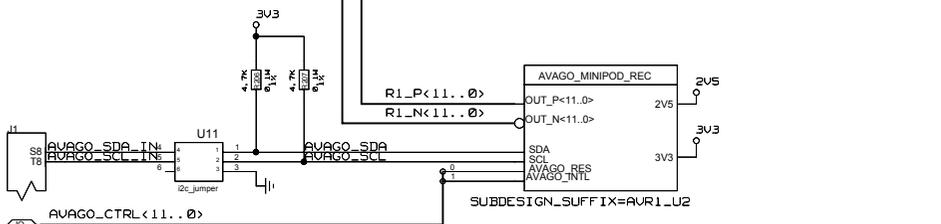
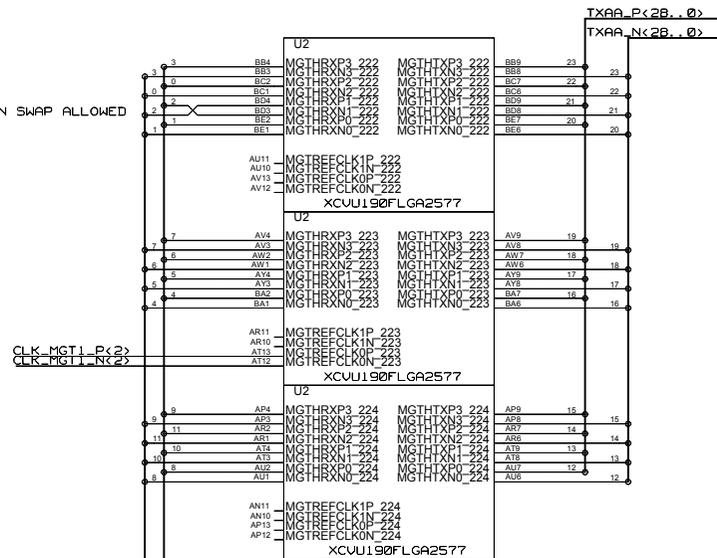
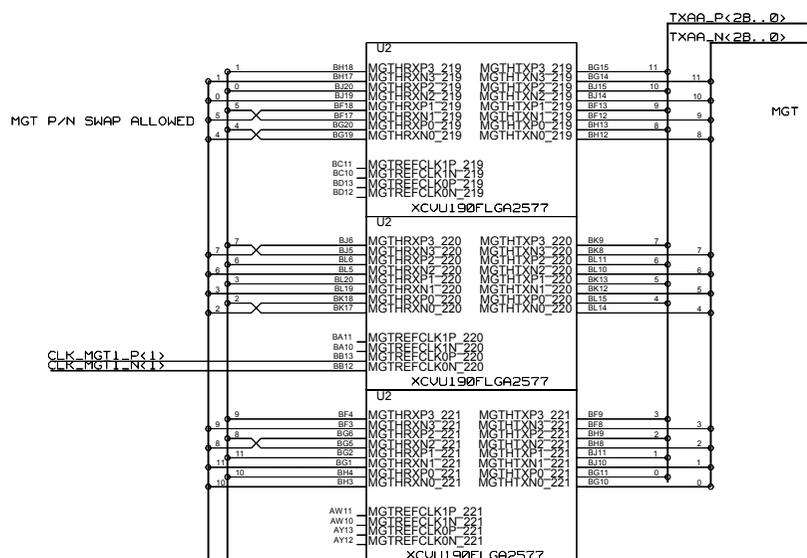
AC COUPLING



IN CLK_MGT1_P<12..1>
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 IN CLK_MGT2_N<6..1>

CHECKED	E.ROCCO	DATE	SIGN	DRAWING TITLE I/O + AC COUPLING
CHECKED	U.SCHAEFER			
CHECKED	S.RAVE			
DRAWN	BAUSS	07.08.2015		
BLOCK TITLE U2_MGT_REAL_TIME				SIZE C
UNIVERSITY OF MAINZ				REV.
SCALE				DRAWING NO.
SHEET 1 OF 7				

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



AVAGO_CTRL <11..0>
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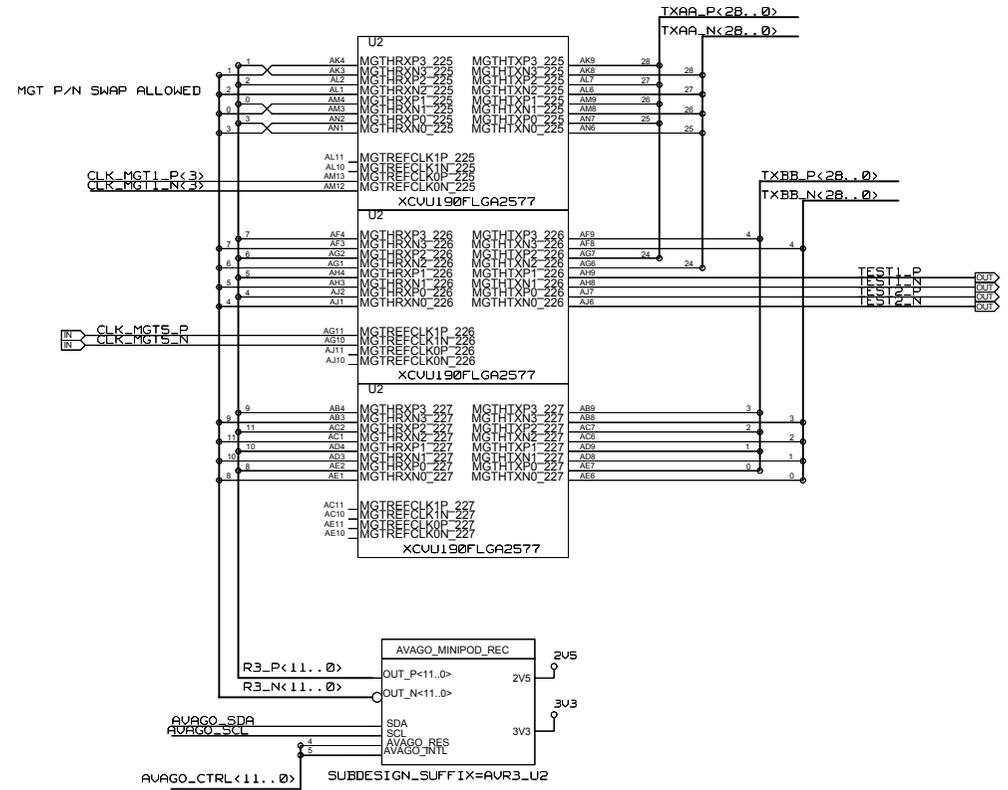
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 R5=XXX R6=XXX
 R7=XXX R8=XXX

I2C ADDRESS:
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 R5=XXX R6=XXX
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CHECKED	E.ROCCO	DATE	SIGN	DRAWING TITLE AVAGO TXA
CHECKED	U.SCHAEFER			
CHECKED	S.RAVE			
DRAWN	BAUSS	07.08.2015		
BLOCK TITLE	U2_MGT_REAL_TIME			
UNIVERSITY OF MAINZ				SIZE C REV.
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				SHEET 2 OF 7

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

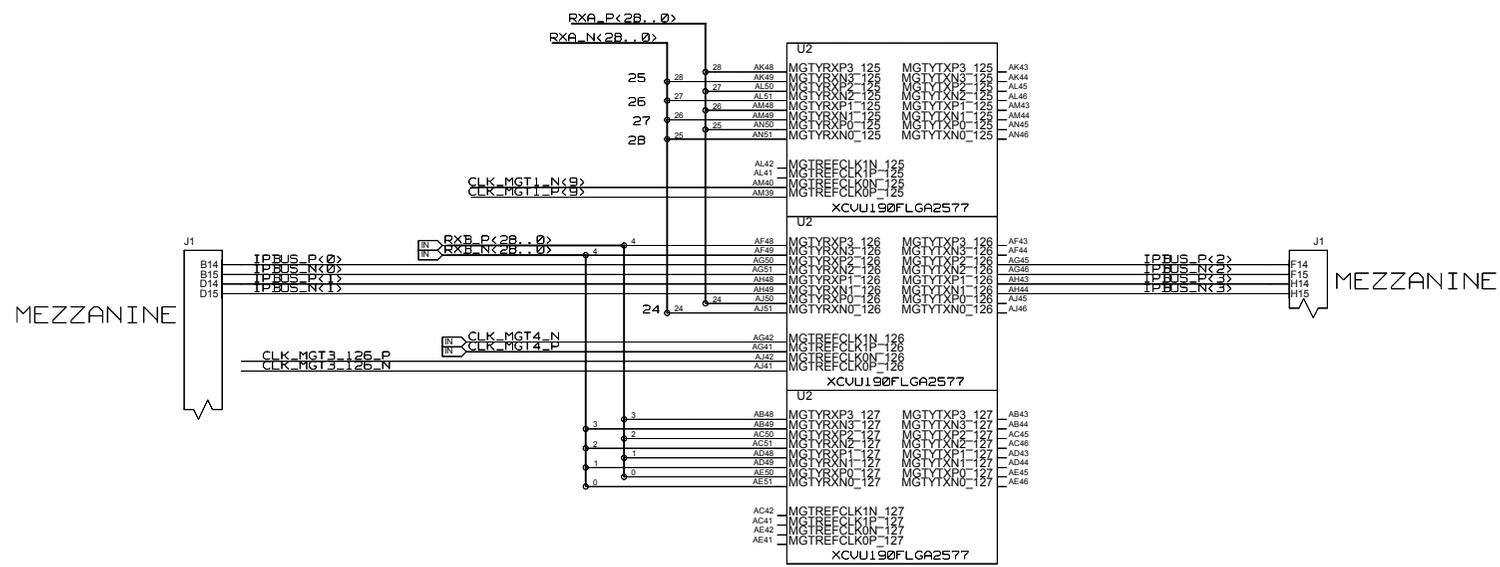


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CHECKED	NAME	DATE	SIGN	DRAWING TITLE		
CHECKED	E.ROCCO			AVAGO TXA + TXB		
CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
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BLOCK TITLE				SIZE	REV.	DRAWING NO.
UNIVERSITY OF MAINZ				C		
SCALE				SHEET 3 OF 7		

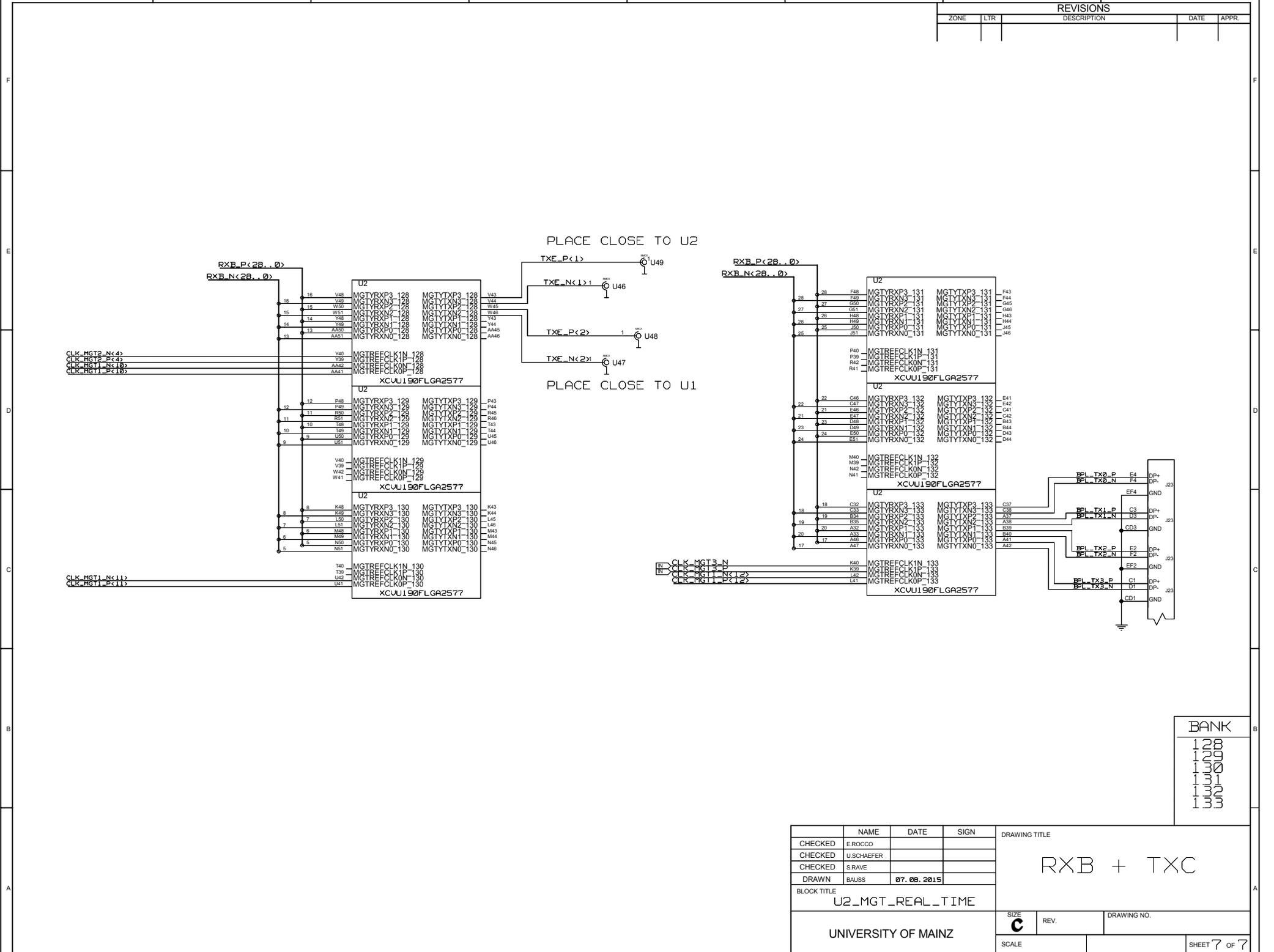
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ZONE	LTR	DESCRIPTION	DATE	APPR.



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CHECKED	E.ROCCO	DATE	SIGN	DRAWING TITLE RXA + RXB TXD + IPBUS
CHECKED	U.SCHAEFER			
CHECKED	S.RAVE			
DRAWN	BAUSS	07.08.2015		
BLOCK TITLE	U2_MGT_REAL_TIME			
UNIVERSITY OF MAINZ				SIZE C
SCALE				REV.
DRAWING NO.				SHEET 6 OF 7

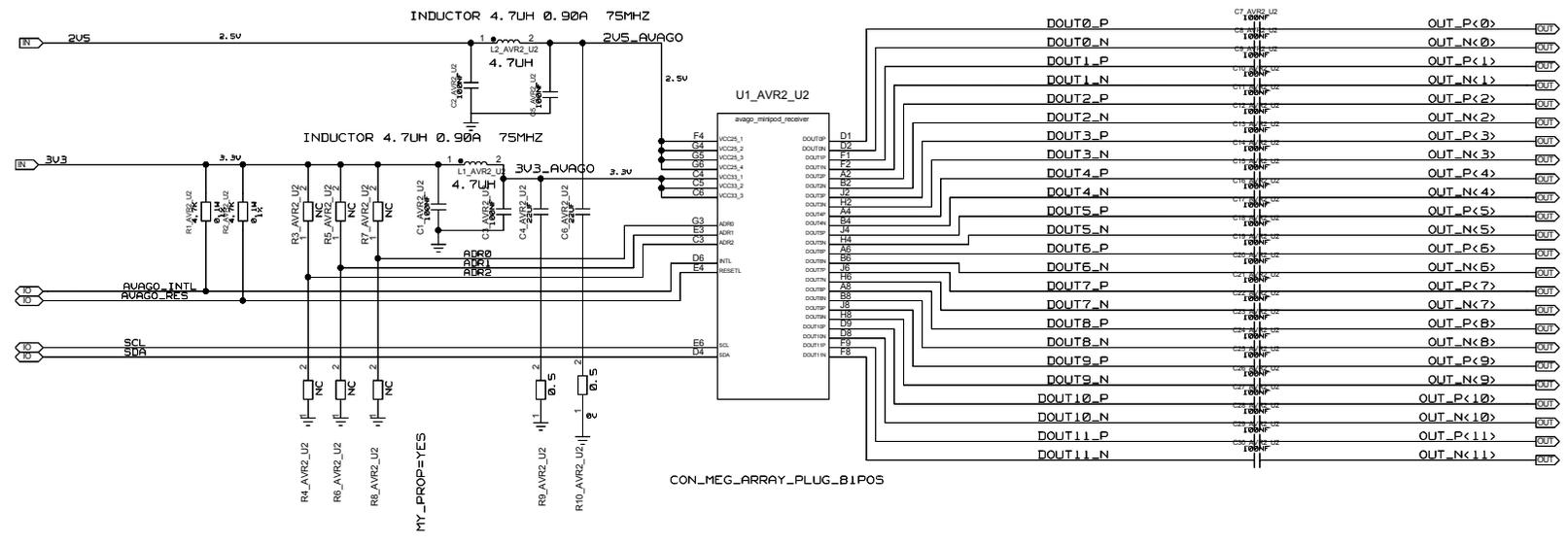
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ZONE	LTR	DESCRIPTION	DATE	APPR.



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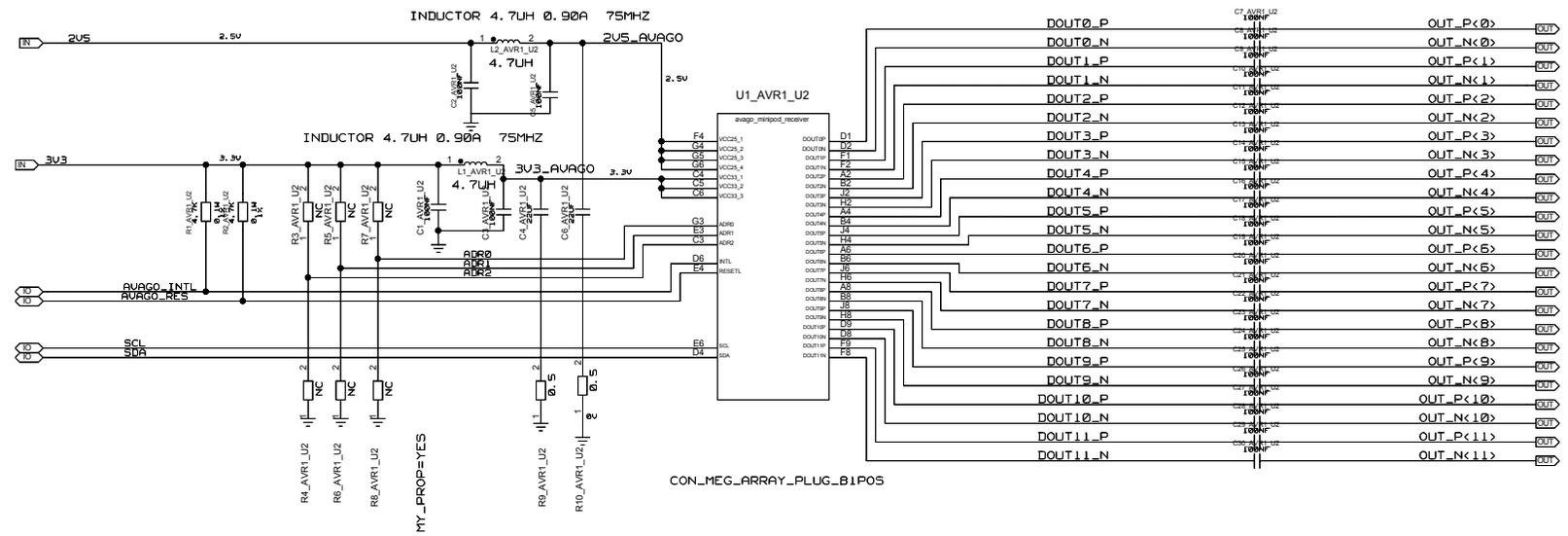
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CHECKED	U.SCHAEFER			
CHECKED	S.RAVE			
DRAWN	BAUSS	07.08.2015		
BLOCK TITLE U2_MGT_REAL_TIME				
UNIVERSITY OF MAINZ		SIZE C	REV.	DRAWING NO.
SCALE				SHEET 7 OF 7

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



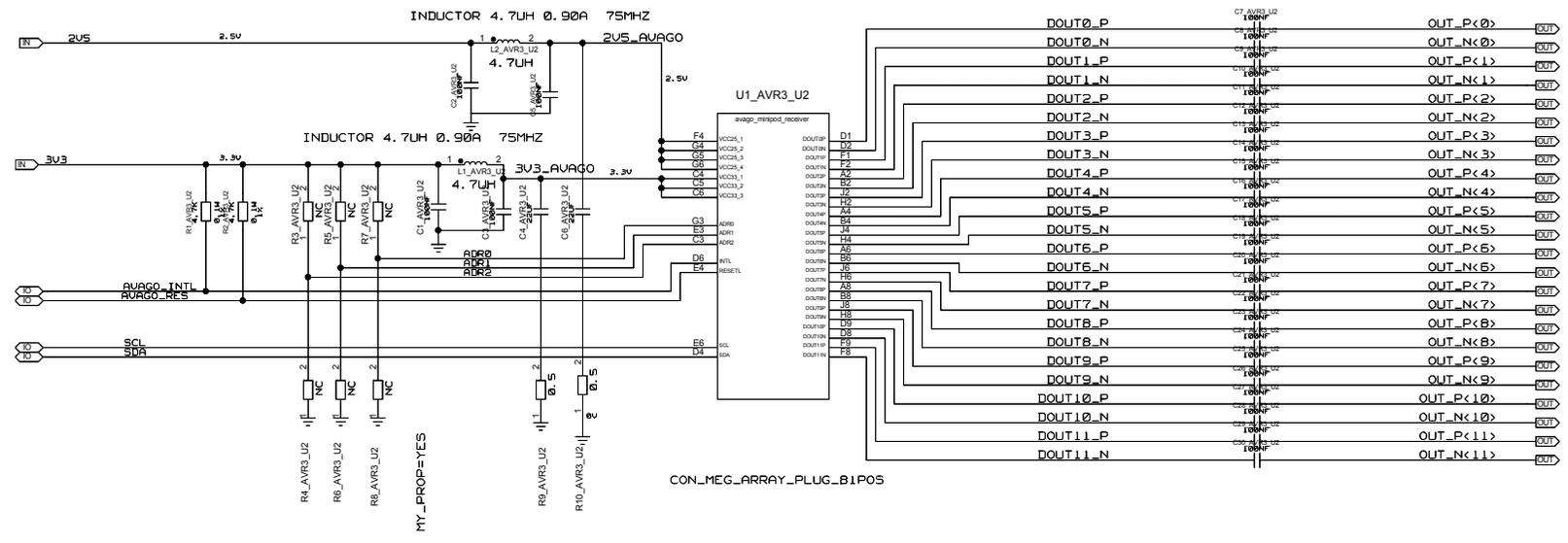
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SIZE	REV.	DRAWING NO.	
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SCALE		SHEET OF	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



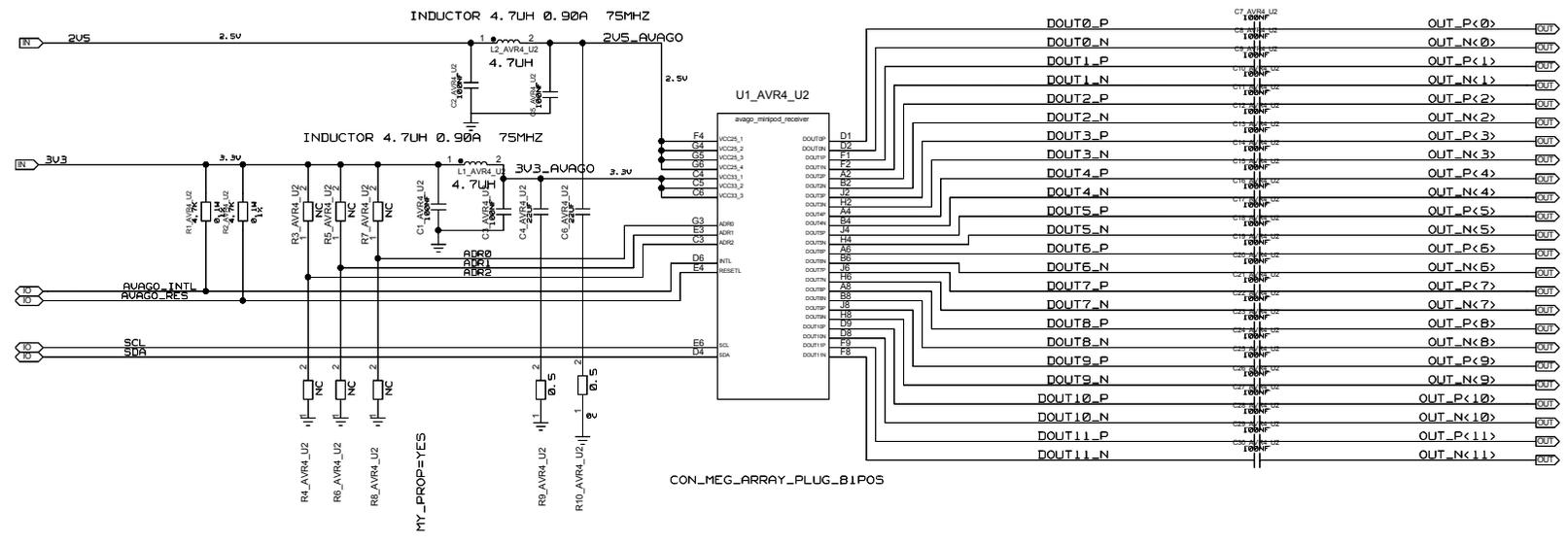
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SIZE	REV.	DRAWING NO.	
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SCALE			SHEET OF

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



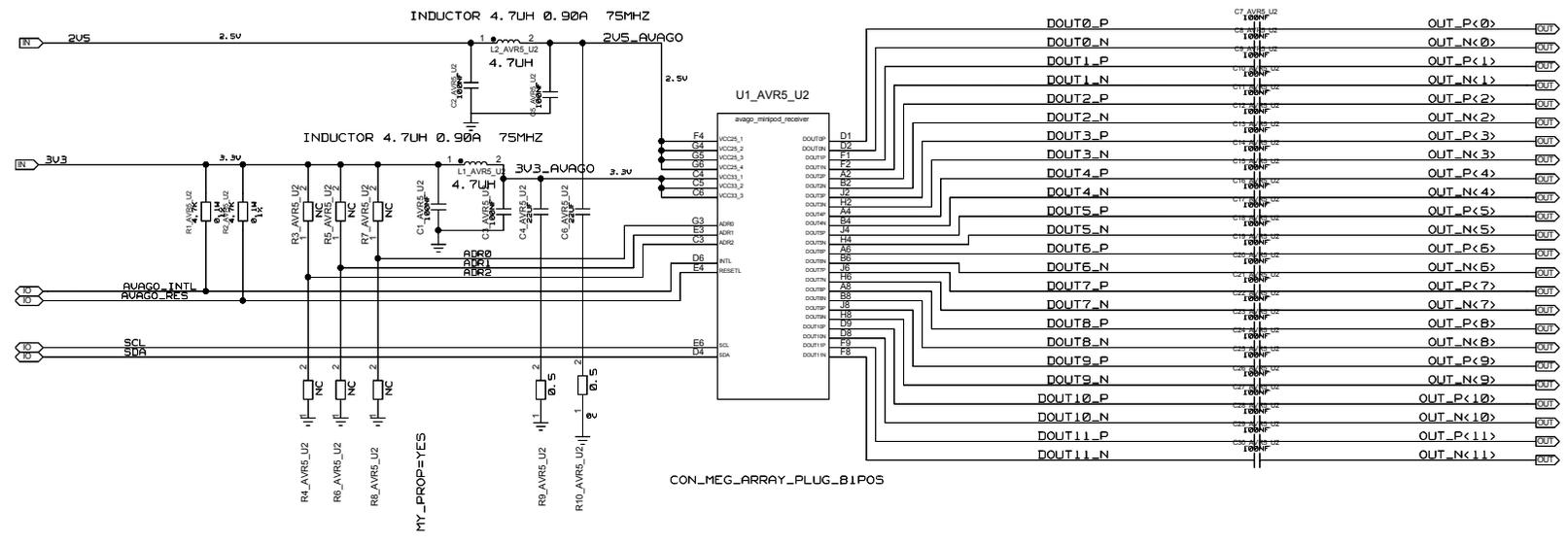
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SCALE		SHEET OF	

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ZONE	LTR	DESCRIPTION	DATE	APPR.



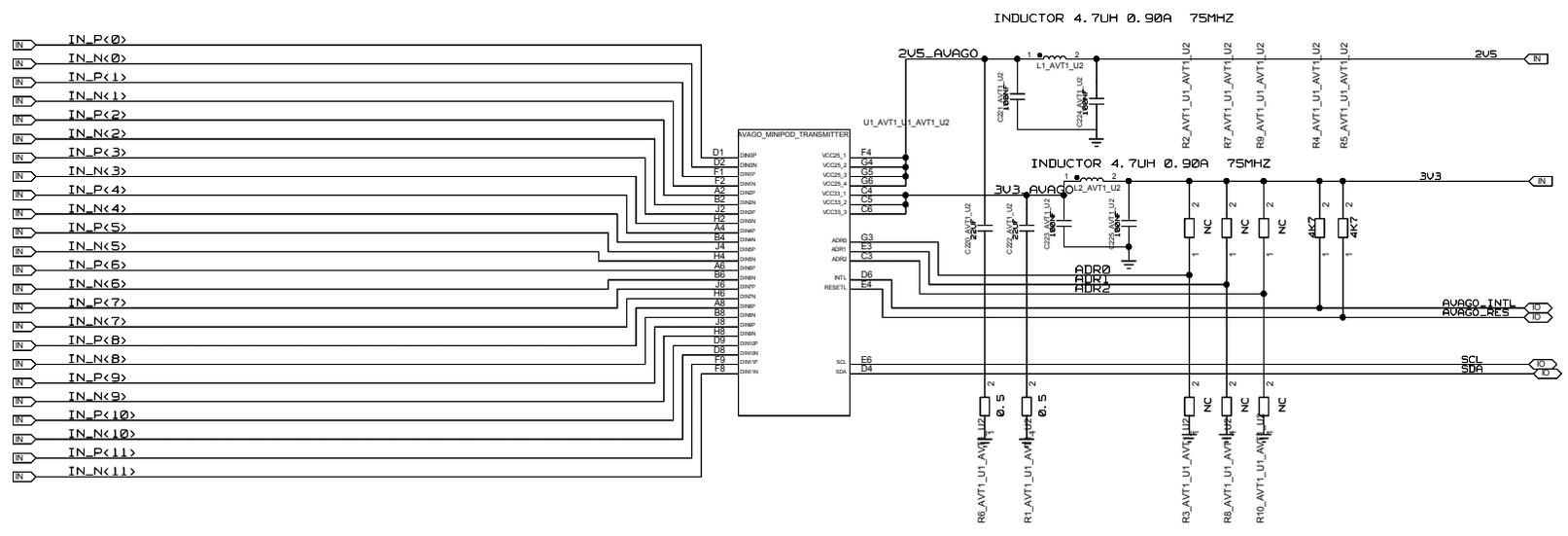
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SCALE		SHEET OF	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



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SIZE	REV.	DRAWING NO.	
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SCALE		SHEET OF	

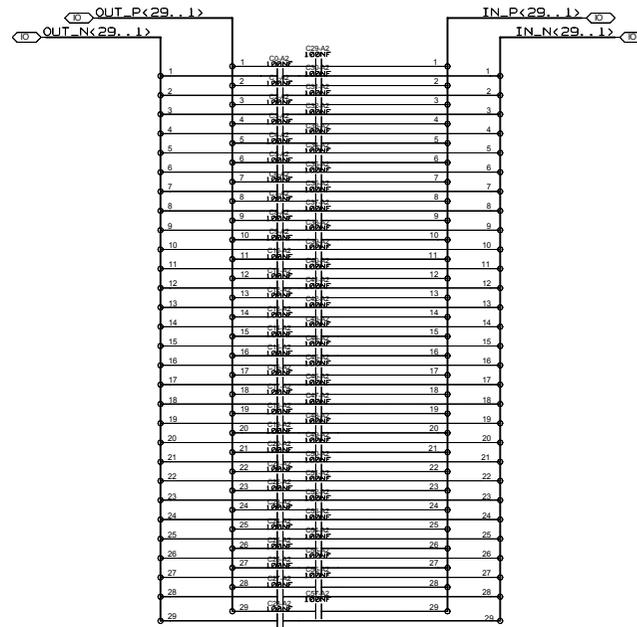
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



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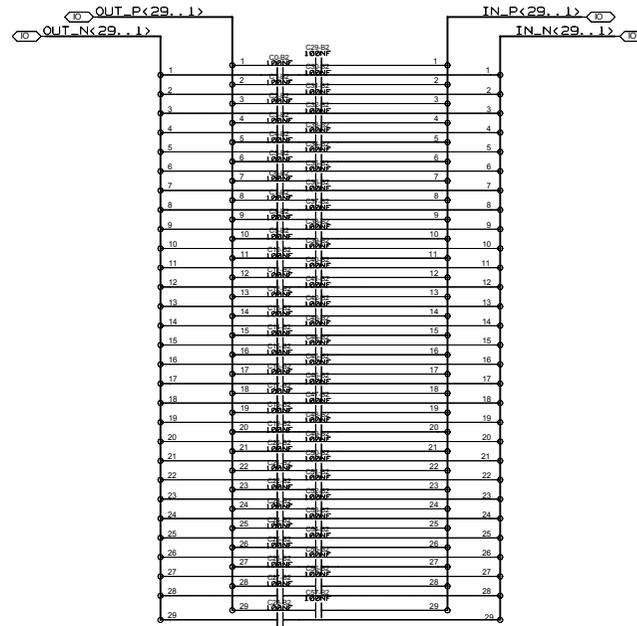
UNIVERSITY OF MAINZ		DRAWING TITLE	
		AVAGO TRANSMITTER	
SIZE	REV.	DRAWING NO.	
C			
SCALE		SHEET OF	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



CHECKED	NAME	DATE	SIGN	DRAWING TITLE AC COUPLING 29BIT		
CHECKED	E.ROCCO					
CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
DRAWN	BAUSS					
BLOCK TITLE						
UNIVERSITY OF MAINZ				SIZE C	REV.	DRAWING NO.
				SCALE		SHEET OF

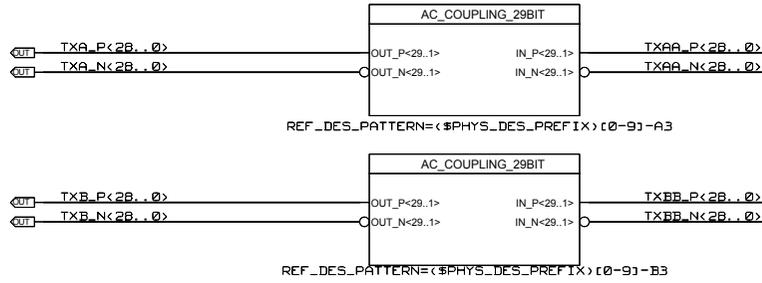
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



CHECKED	NAME	DATE	SIGN	DRAWING TITLE AC COUPLING 29BIT	
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CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS			BLOCK TITLE	
UNIVERSITY OF MAINZ				SIZE C	REV.
				DRAWING NO.	
SCALE			SHEET OF		

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

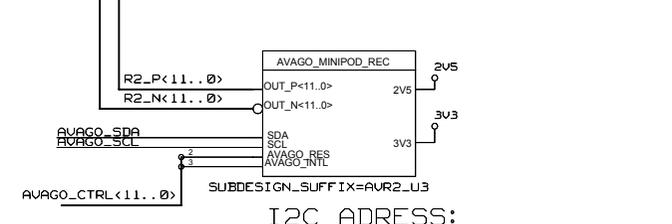
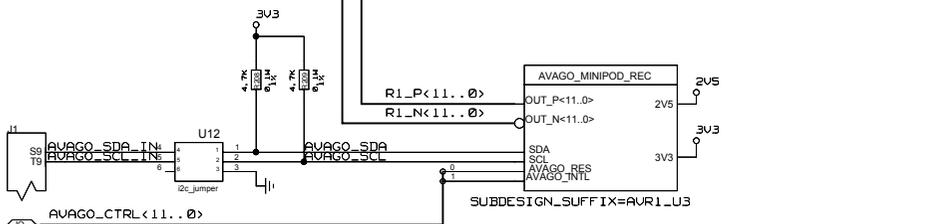
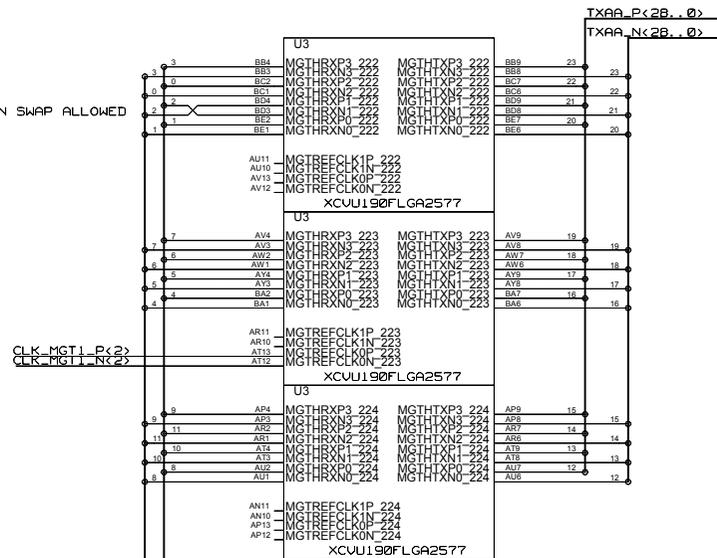
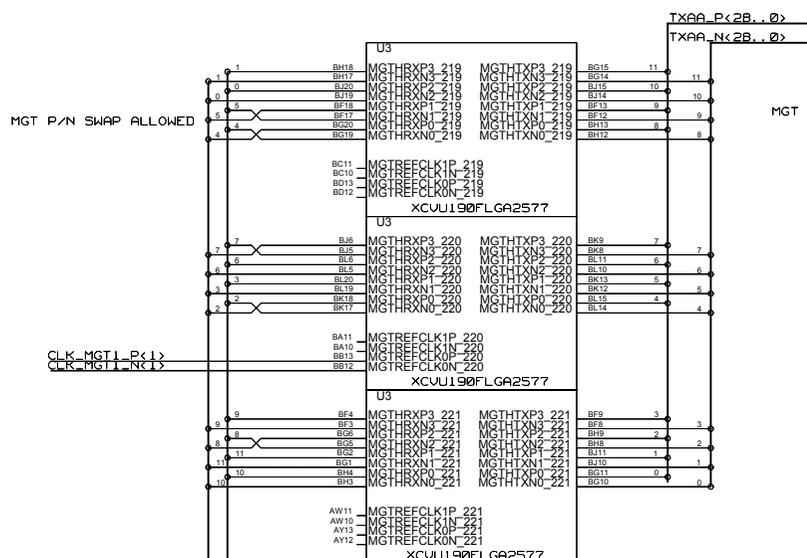
AC COUPLING



IN CLK_MGT1_P<12..1>
 IN CLK_MGT1_N<12..1>
 IN CLK_MGT2_P<6..1>
 IN CLK_MGT2_N<6..1>

CHECKED	NAME	DATE	SIGN	DRAWING TITLE I/O + AC COUPLING	
CHECKED	E.ROCCO				
CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS	07.08.2015			
BLOCK TITLE U3_MGT_REAL_TIME				SIZE C	REV.
UNIVERSITY OF MAINZ				DRAWING NO.	
SCALE				SHEET 1 OF 7	

ZONE		LTR	REVISIONS	DESCRIPTION	DATE	APPR.



AVAGO_CTRL <11..0>
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 AVAGO_CTRL 1, 3, 5, 7, 9, 11 = AVAGO_INTL_XX

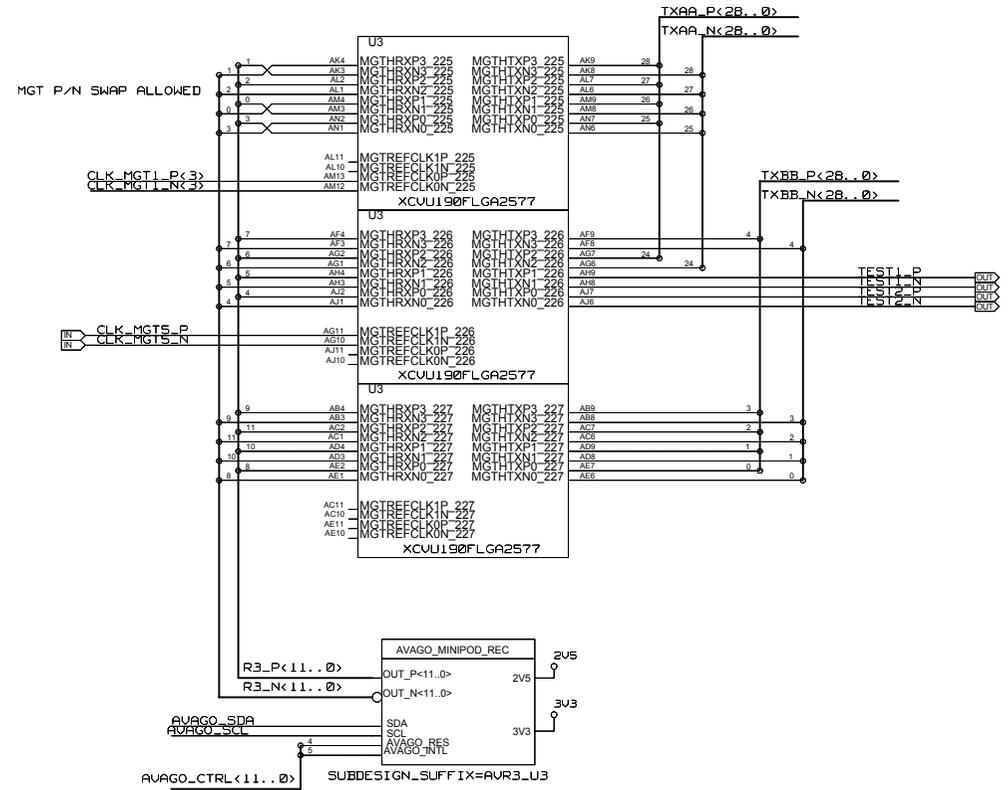
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 R5=XXX R6=XXX
 R7=XXX R8=XXX

I2C ADDRESS:
 R3=XXX R4=XXX
 R5=XXX R6=XXX
 R7=XXX R8=XXX



CHECKED	NAME	DATE	SIGN	DRAWING TITLE AVAGO TXA	
	E.ROCCO				
	U.SCHAEFER				
	S.RAVE				
	BAUSS	07.08.2015			
BLOCK TITLE U3_MGT_REAL_TIME				SIZE C	DRAWING NO.
UNIVERSITY OF MAINZ				SCALE	SHEET 2 OF 7

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

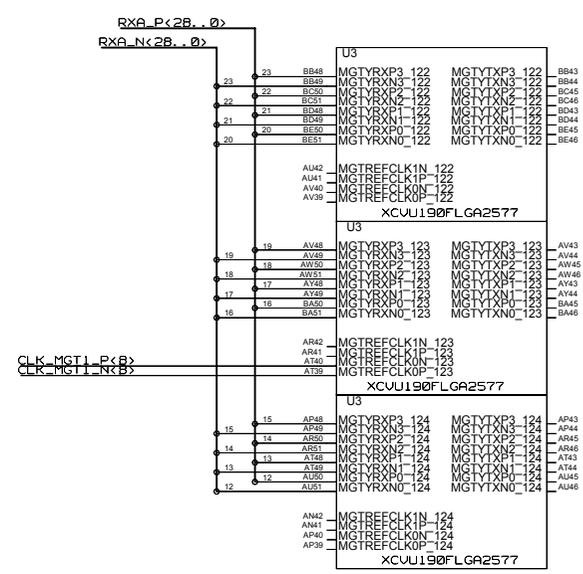
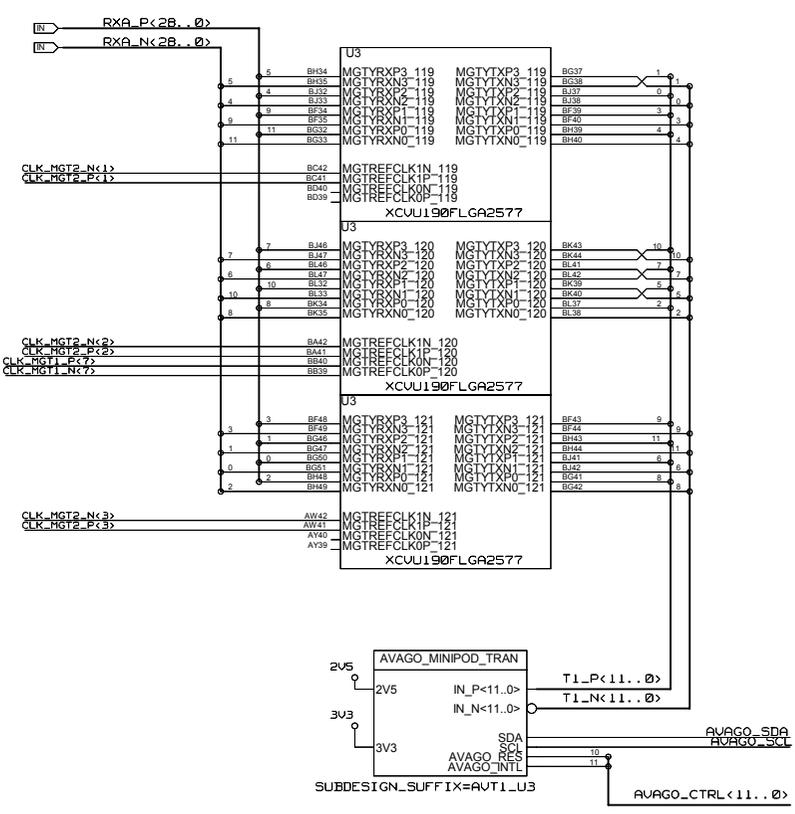


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R7=XXXX R8=XXXX

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CHECKED	NAME	DATE	SIGN	DRAWING TITLE	
CHECKED	E.ROCCO			<p style="text-align: center;">AVAGO TXA + TXB</p>	
CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS	07.08.2015			
BLOCK TITLE				SIZE	REV.
U3_MGT_REAL_TIME				C	
UNIVERSITY OF MAINZ				SCALE	DRAWING NO.
					SHEET 3 OF 7

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

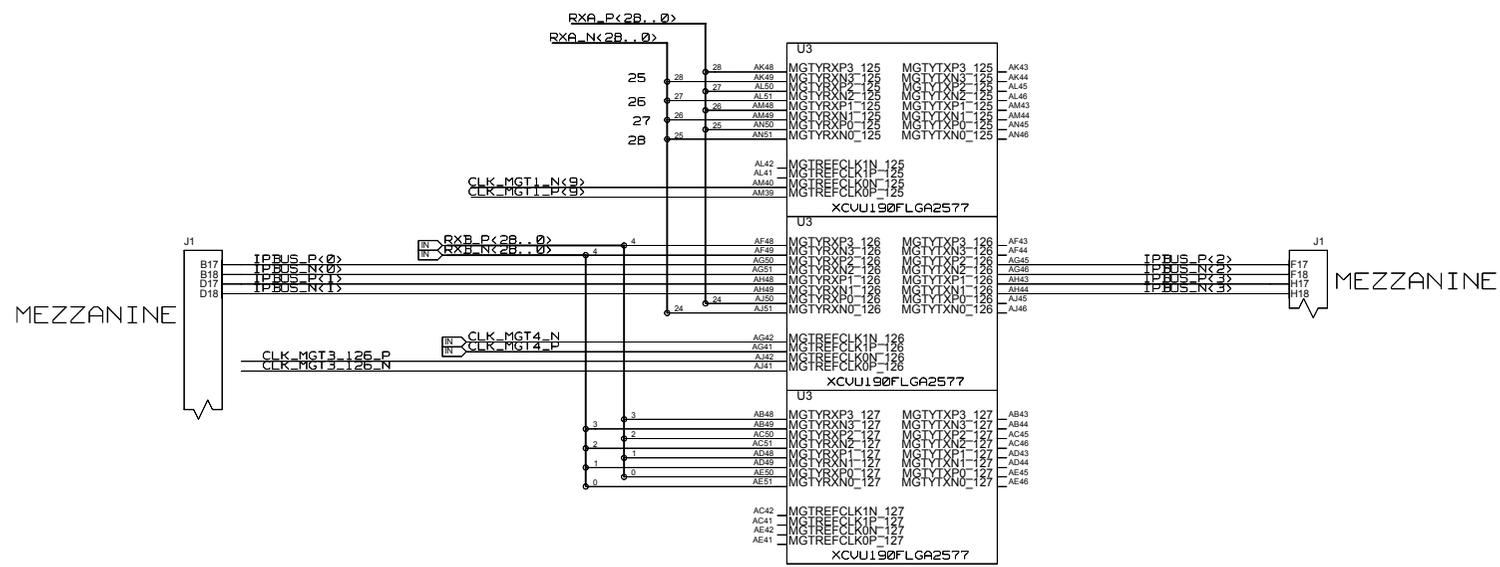


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CHECKED	NAME	DATE	SIGN	DRAWING TITLE AVAGO RXA		
	E.ROCCO					
	U.SCHAEFER					
	S.RAVE					
	BAUSS	07.08.2015				
BLOCK TITLE U3_MGT_REAL_TIME				SIZE C	REV.	DRAWING NO.
UNIVERSITY OF MAINZ				SCALE	SHEET 5 OF 7	

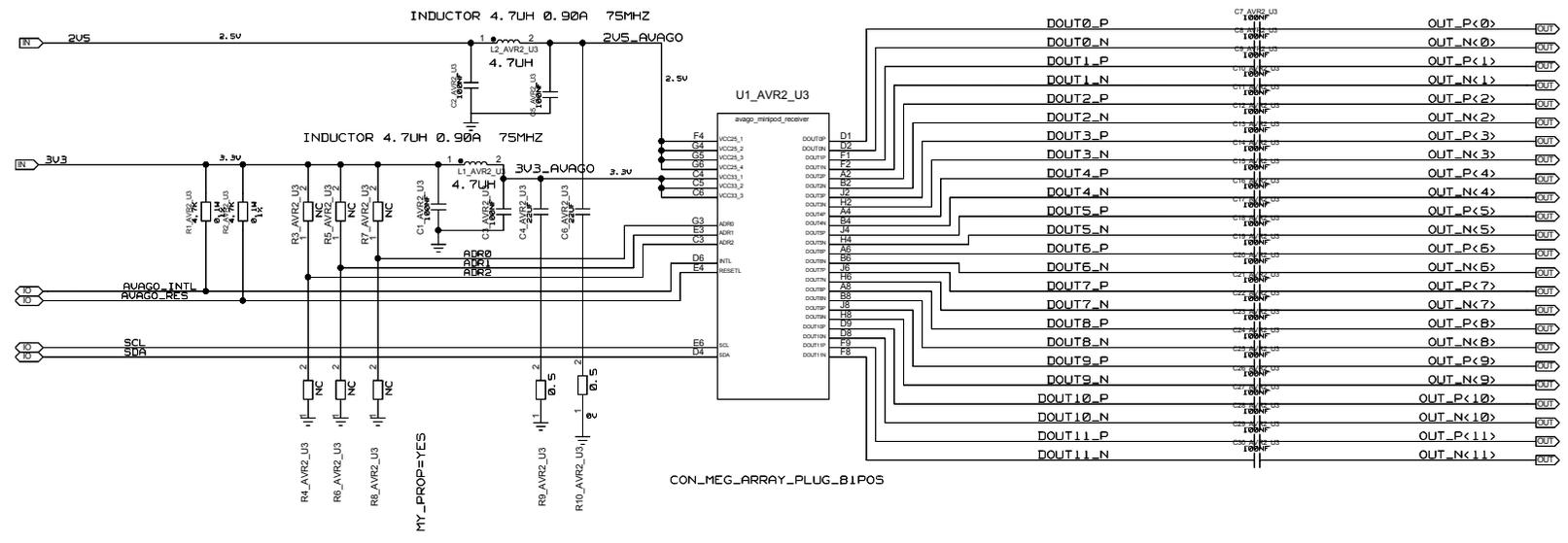
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



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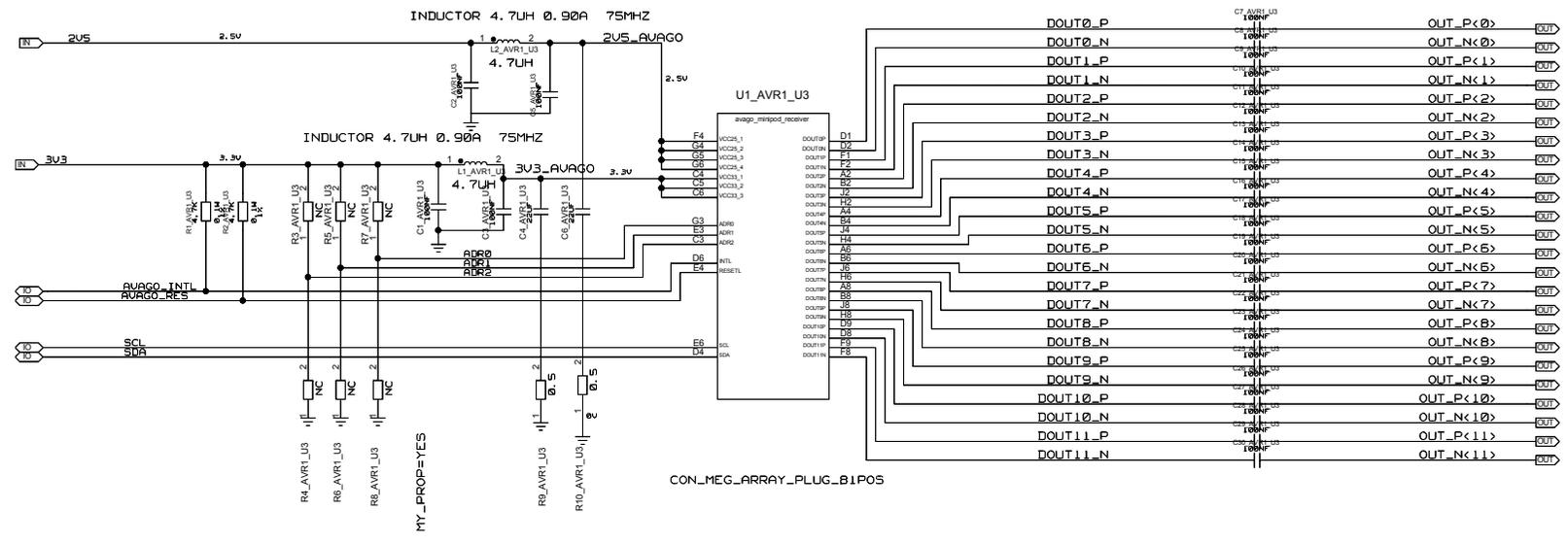
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CHECKED	U.SCHAEFER			
CHECKED	S.RAVE			
DRAWN	BAUSS	07.08.2015		
BLOCK TITLE	U3_MGT_REAL_TIME			
UNIVERSITY OF MAINZ				SIZE C
SCALE				REV.
DRAWING NO.				SHEET 6 OF 7

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



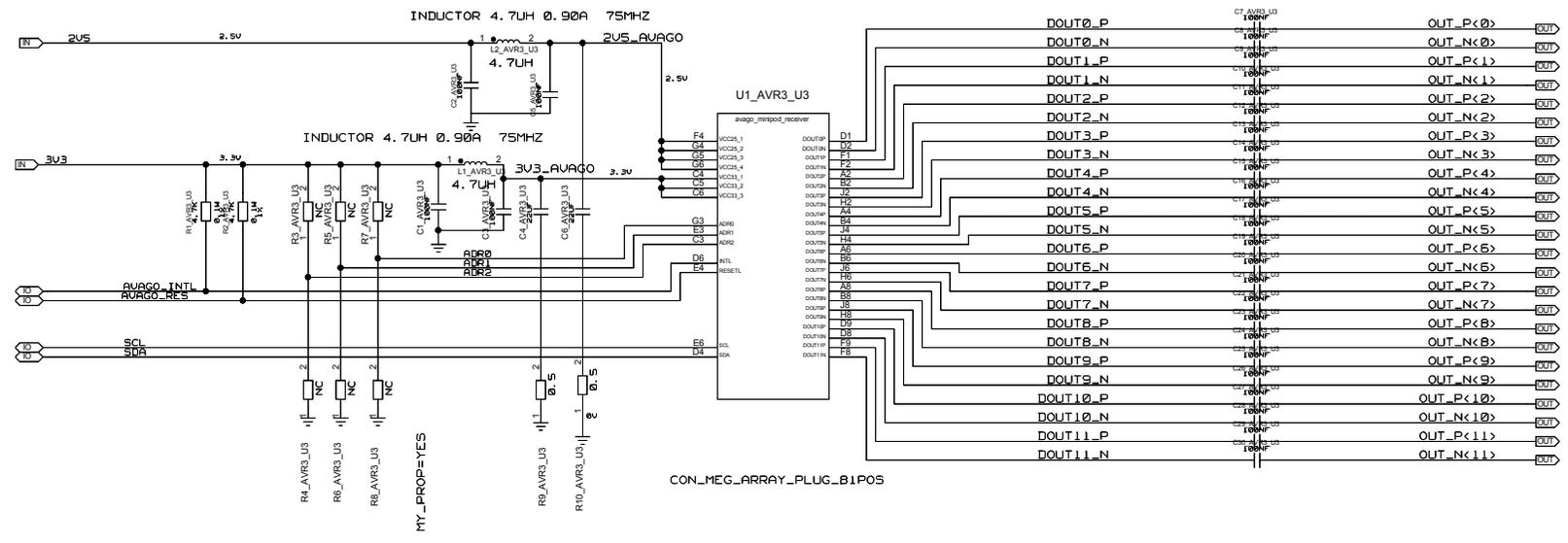
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SIZE	REV.	DRAWING NO.	
C			
SCALE		SHEET OF	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



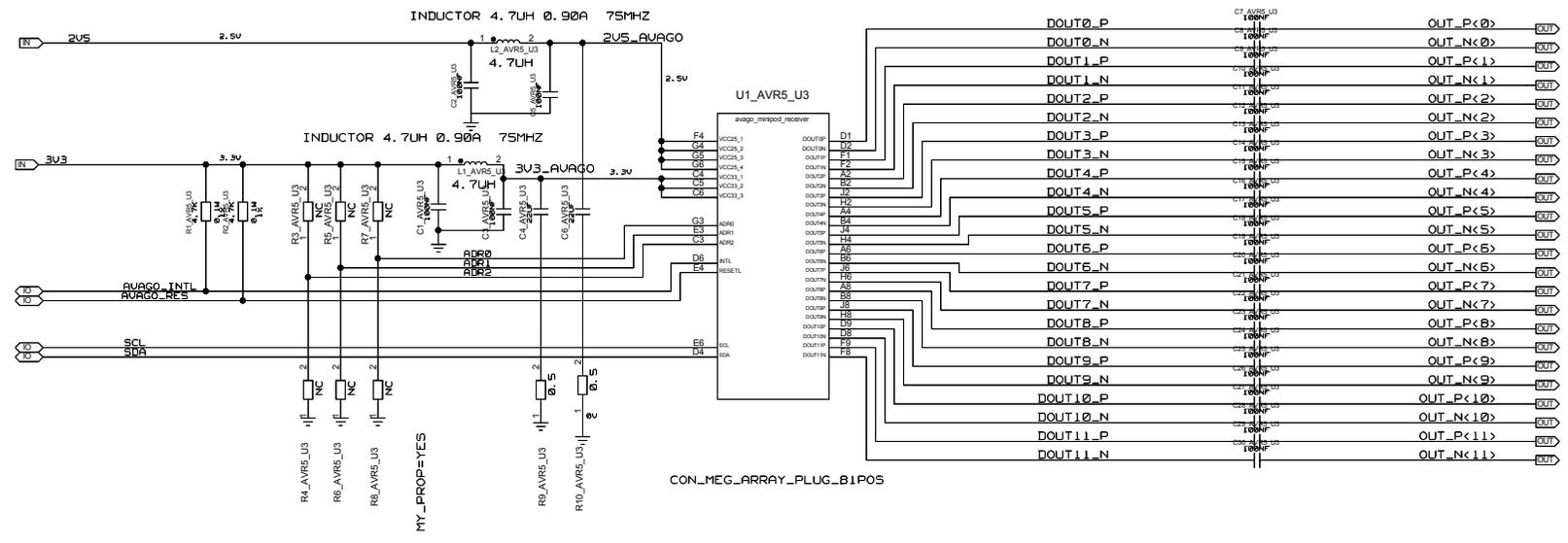
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SIZE	REV.	DRAWING NO.	
C			
SCALE		SHEET OF	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



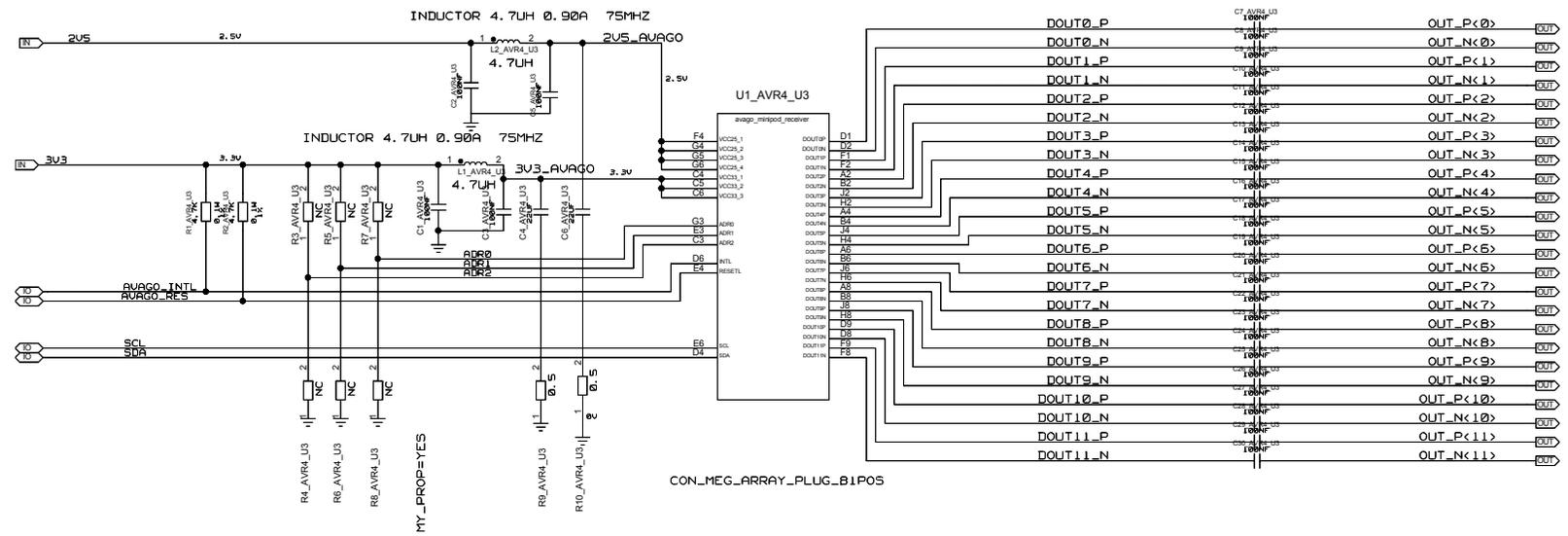
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SIZE	REV.	DRAWING NO.	
C			
SCALE		SHEET OF	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



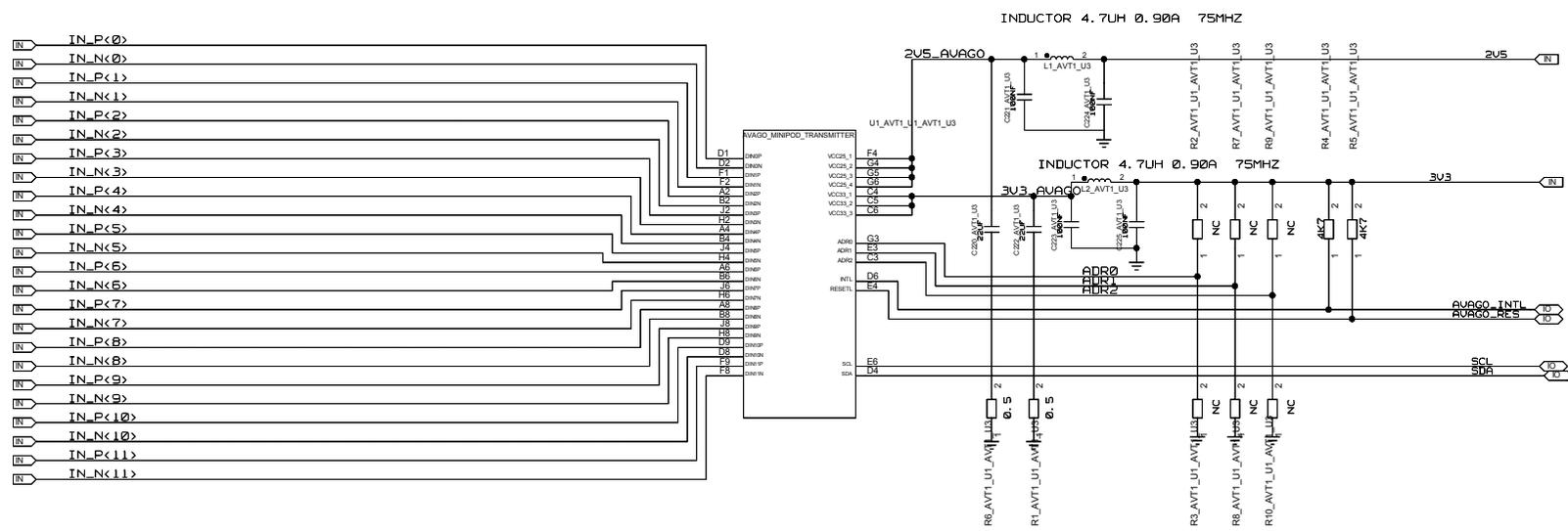
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C			
SCALE		SHEET OF	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



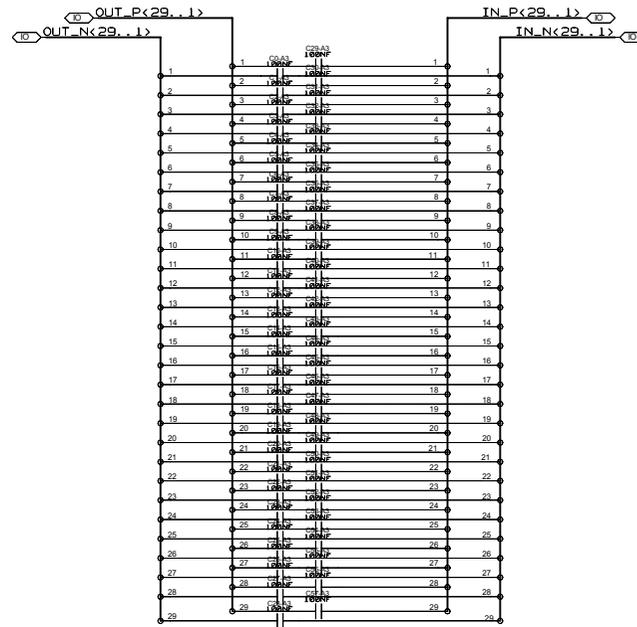
UNIVERSITY OF MAINZ		DRAWING TITLE	
		AVAGO RECEIVER	
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C			
SCALE		SHEET OF	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



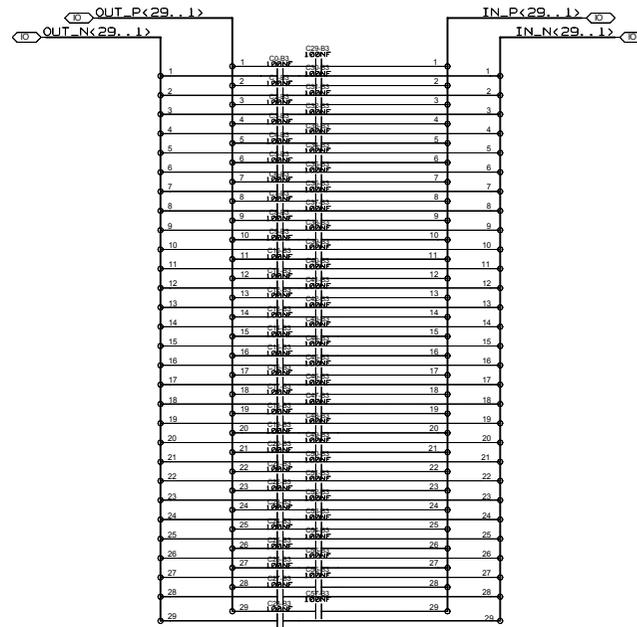
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SIZE C	REV.	DRAWING NO.	
SCALE			SHEET OF

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



CHECKED	NAME	DATE	SIGN	DRAWING TITLE AC COUPLING 29BIT	
CHECKED	E.ROCCO				
CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS			BLOCK TITLE	
UNIVERSITY OF MAINZ				SIZE C	REV.
				DRAWING NO.	

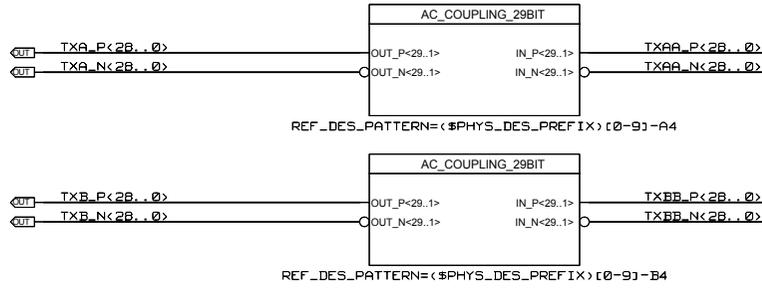
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



CHECKED	NAME	DATE	SIGN	DRAWING TITLE		
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CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
DRAWN	BAUSS			AC COUPLING 29BIT		
BLOCK TITLE						
UNIVERSITY OF MAINZ				SIZE	REV.	DRAWING NO.
				C		
SCALE					SHEET	OF

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

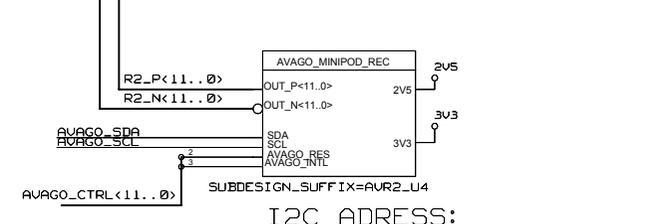
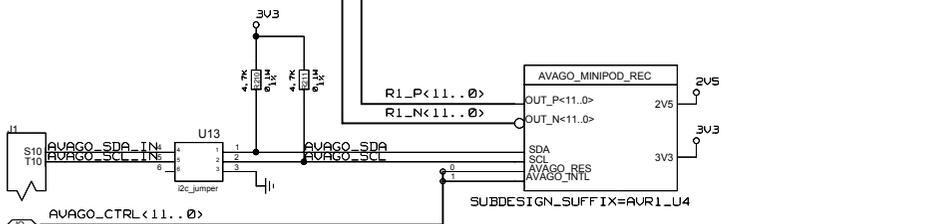
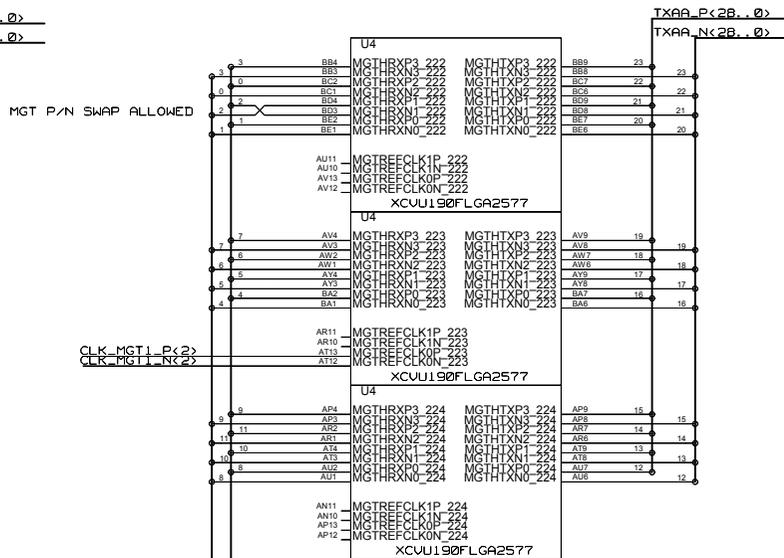
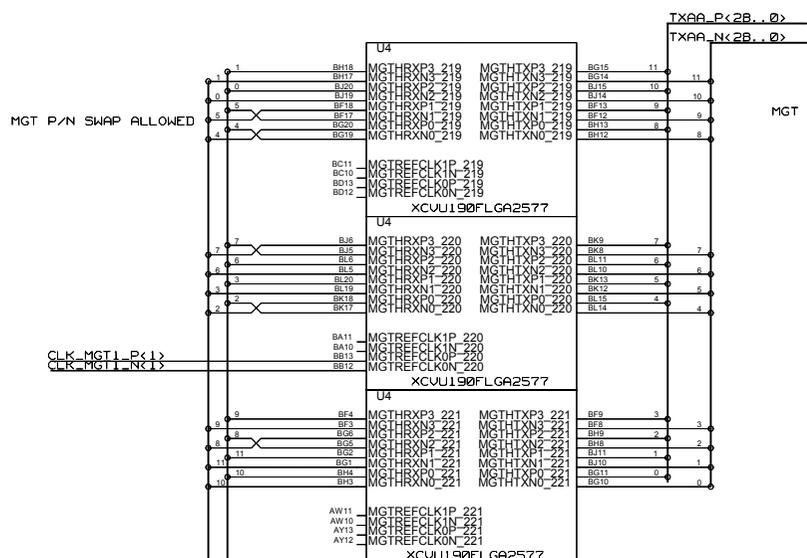
AC COUPLING



IN CLK_MGT1_P<12..1>
 IN CLK_MGT1_N<12..1>
 IN CLK_MGT2_P<6..1>
 IN CLK_MGT2_N<6..1>

CHECKED	NAME	DATE	SIGN	DRAWING TITLE I/O + AC COUPLING	
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CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS	07.08.2015			
BLOCK TITLE U4_MGT_REAL_TIME				SIZE C	REV.
UNIVERSITY OF MAINZ				SCALE	DRAWING NO.
				SHEET 1 OF 7	

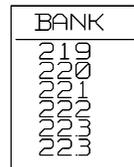
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



AVAGO_CTRL <11..0>
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 AVAGO_CTRL 1, 3, 5, 7, 9, 11 = AVAGO_INTL_XX

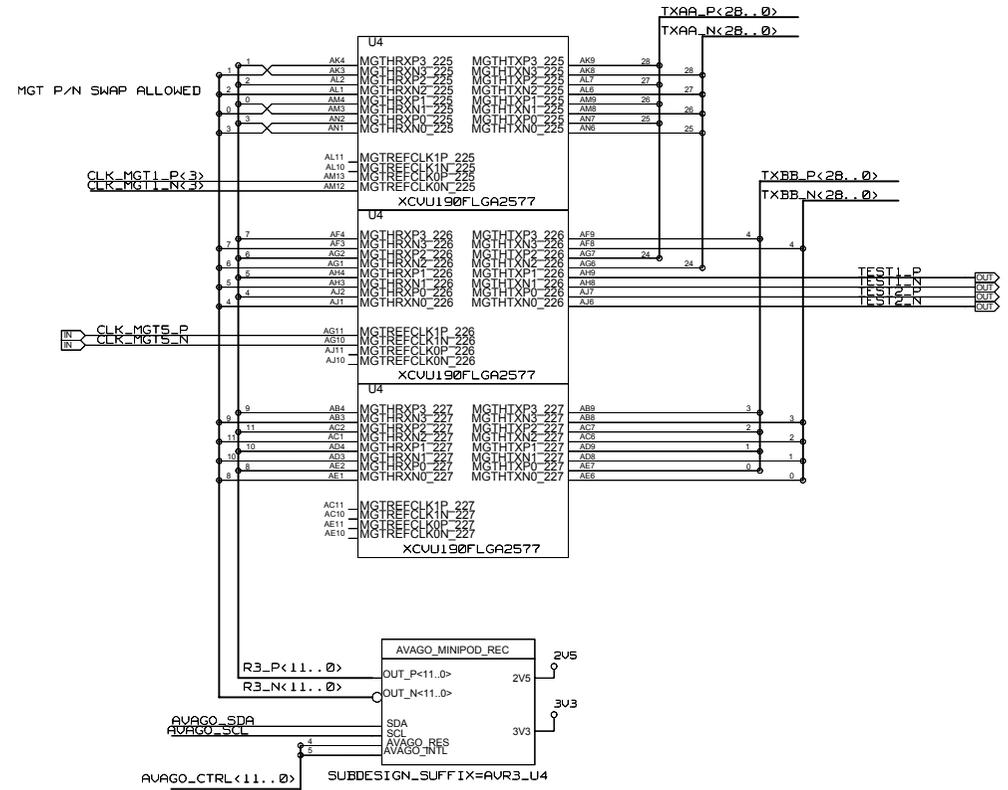
I2C ADDRESS:
 R3=XXX R4=XXX
 R5=XXX R6=XXX
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I2C ADDRESS:
 R3=XXX R4=XXX
 R5=XXX R6=XXX
 R7=XXX R8=XXX



CHECKED	NAME	DATE	SIGN	DRAWING TITLE
	E.ROCCO			AVAGO TXA
	U.SCHAEFER			
	S.RAVE			
	BAUSS	07.08.2015		
BLOCK TITLE				DRAWING NO.
U4_MGT_REAL_TIME				
UNIVERSITY OF MAINZ				
	SIZE	REV.	DRAWING NO.	
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	SCALE		SHEET 2 OF 7	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

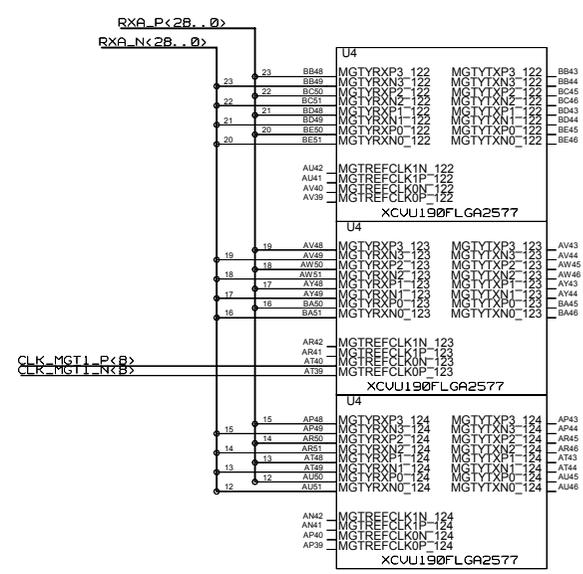
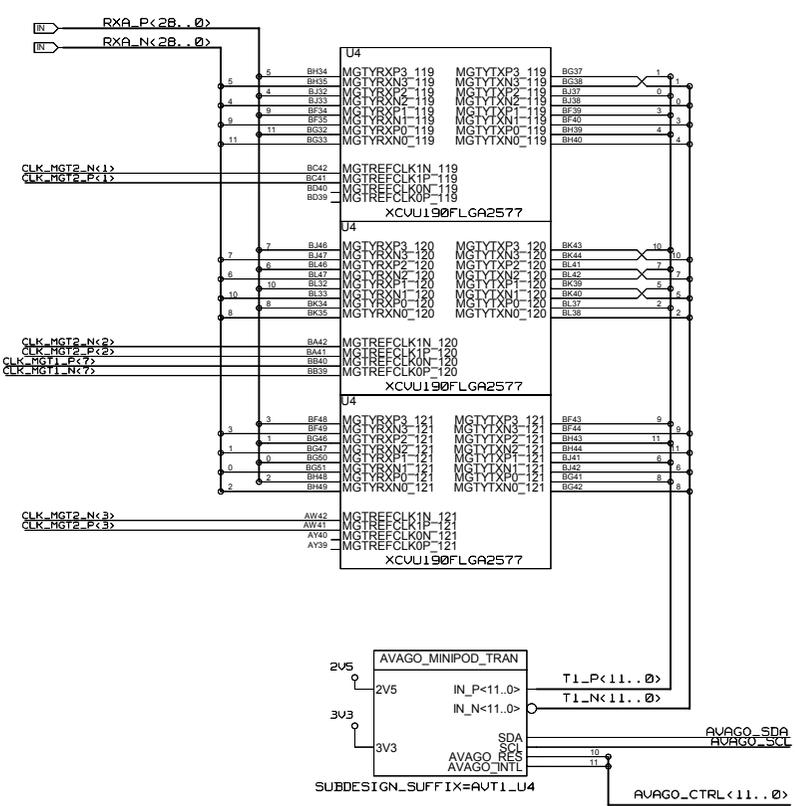


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R5=XXXX R6=XXXX
R7=XXXX R8=XXXX

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CHECKED	NAME	DATE	SIGN	DRAWING TITLE AVAGO TXA + TXB		
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CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
DRAWN	BAUSS	07.08.2015				
BLOCK TITLE U4_MGT_REAL_TIME				SIZE C	REV.	DRAWING NO.
UNIVERSITY OF MAINZ				SCALE	SHEET 3 OF 7	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

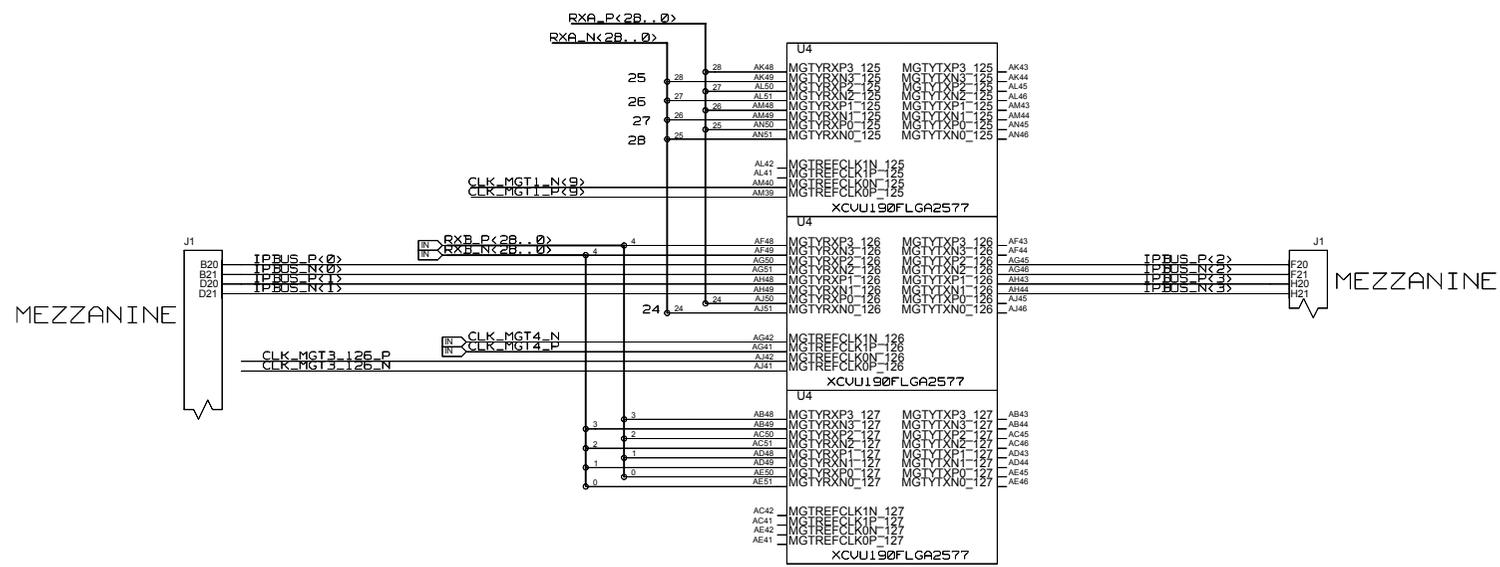


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CHECKED	NAME	DATE	SIGN	DRAWING TITLE AVAGO RXA
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	U.SCHAEFER			
	S.RAVE			
	BAUSS	07.08.2015		
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UNIVERSITY OF MAINZ				REV.
SCALE				DRAWING NO.
				SHEET 5 OF 7

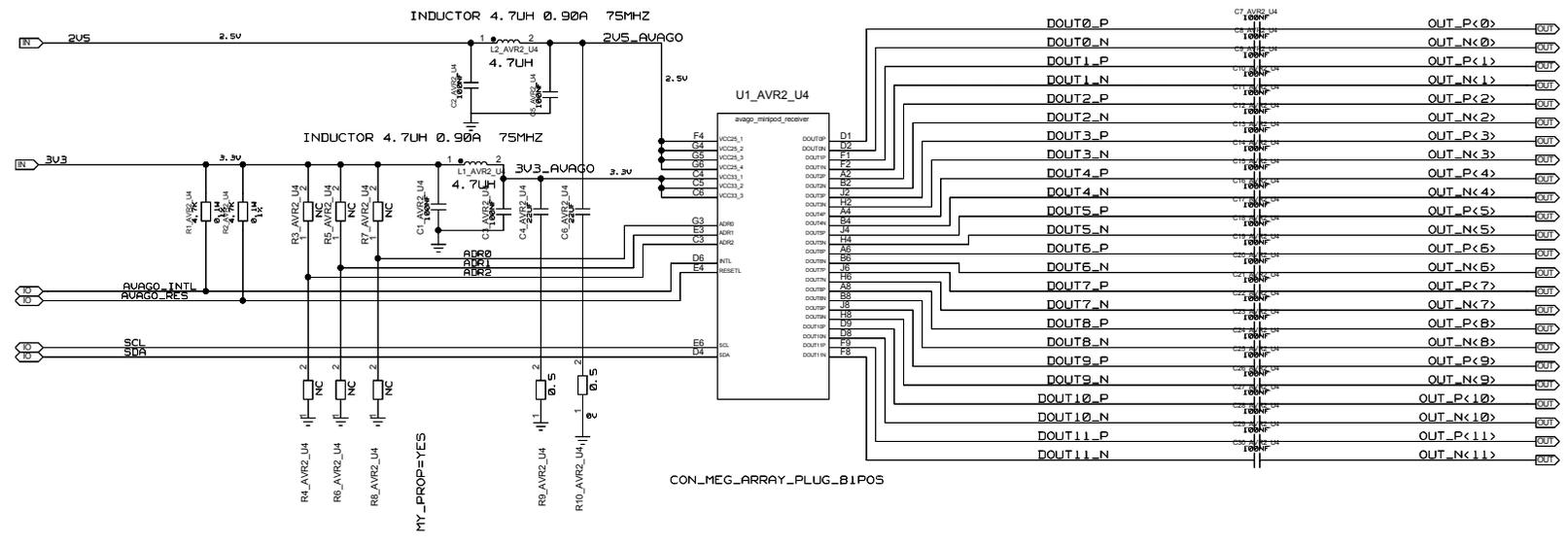
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



BANK
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CHECKED	E.ROCCO	DATE	SIGN	DRAWING TITLE RXA + RXB TXD + IPBUS		
CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
DRAWN	BAUSS	07.08.2015				
BLOCK TITLE	U4_MGT_REAL_TIME					
UNIVERSITY OF MAINZ				SIZE C	REV.	DRAWING NO.
SCALE				SHEET 6 OF 7		

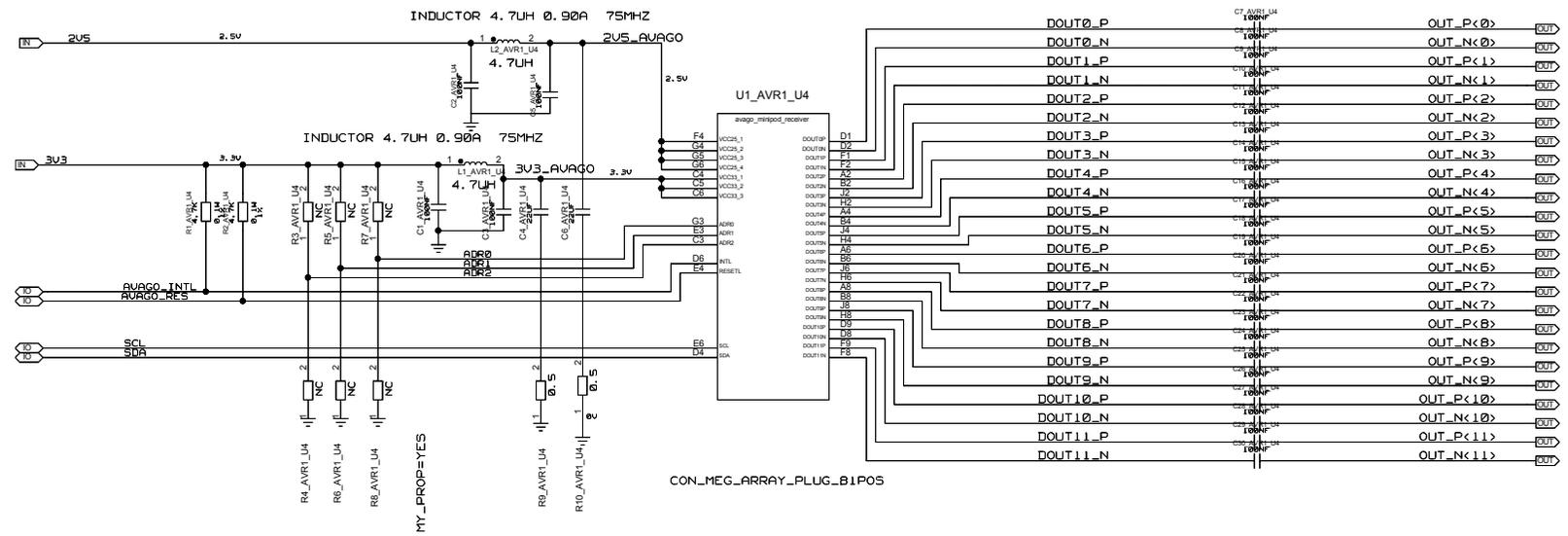
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



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DOUT2_P	C7_AVR2_U4	OUT_P<2>	OUT
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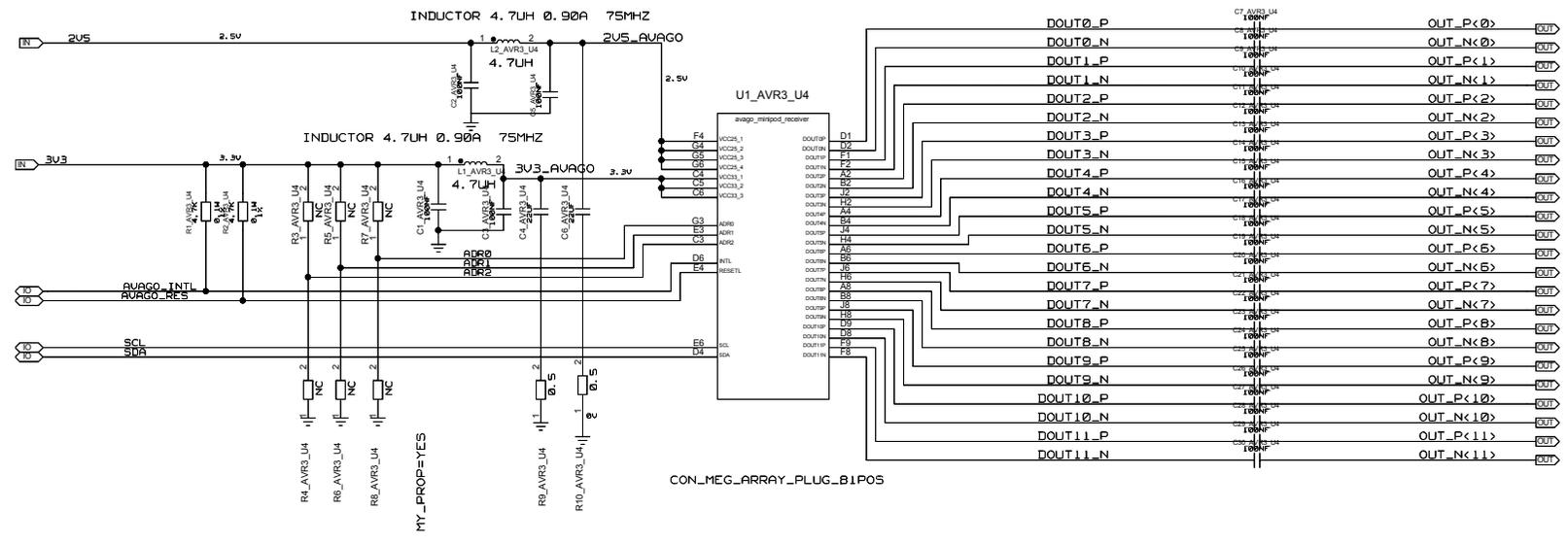
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SIZE	REV.	DRAWING NO.	
C			
SCALE		SHEET OF	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



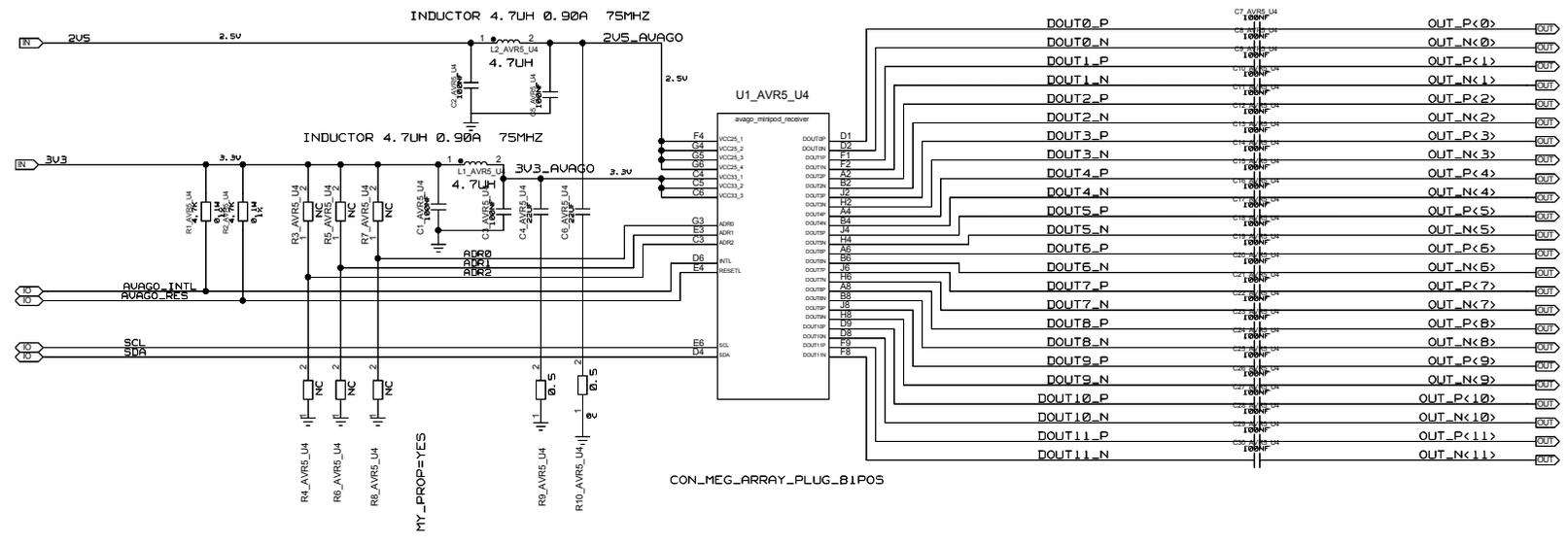
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REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



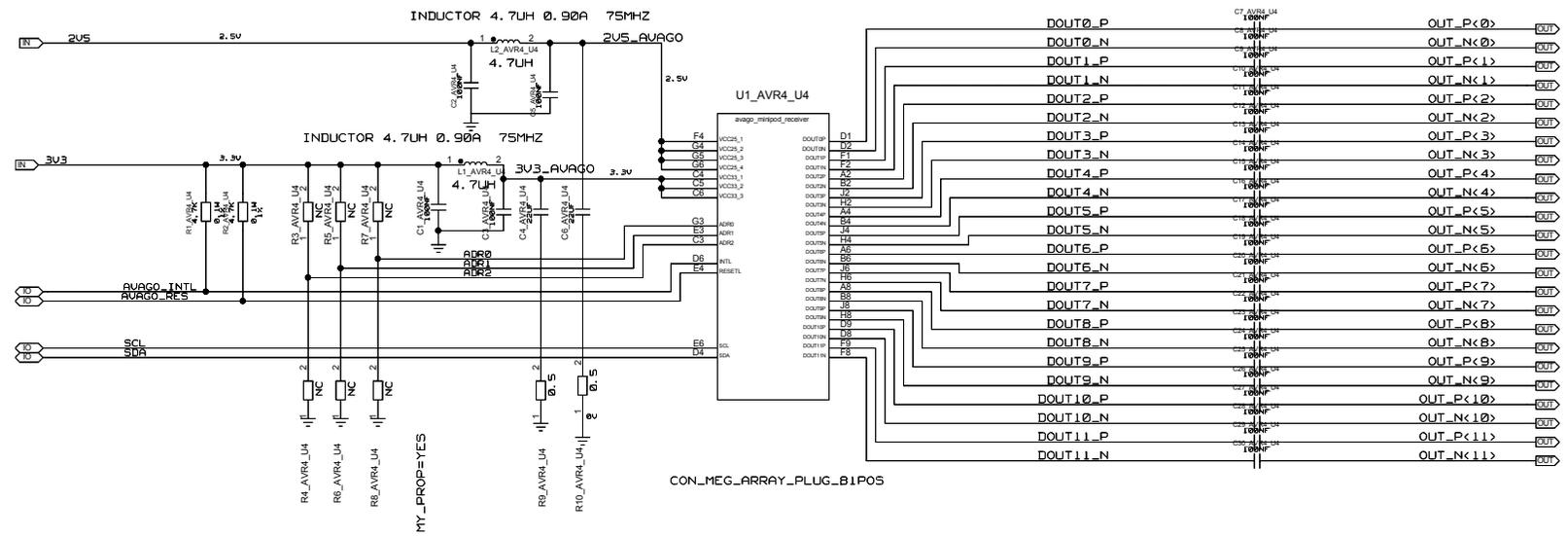
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		AVAGO RECEIVER	
SIZE	REV.	DRAWING NO.	
C			
SCALE		SHEET OF	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



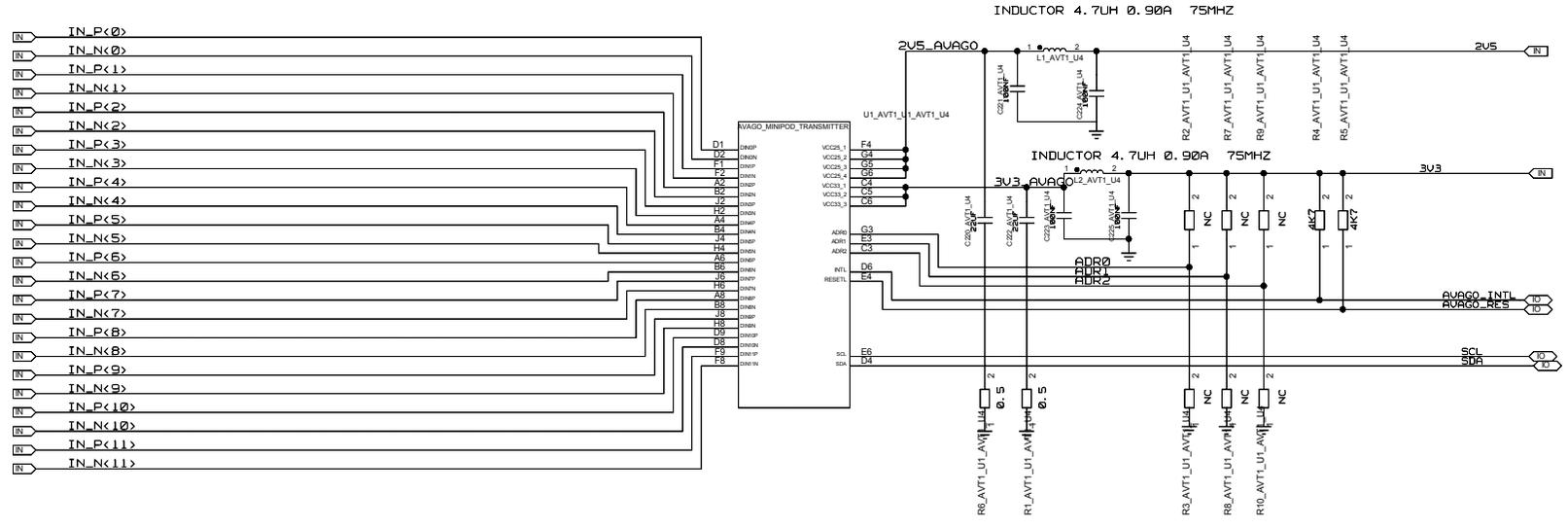
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SIZE	REV.	DRAWING NO.	
C			
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REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



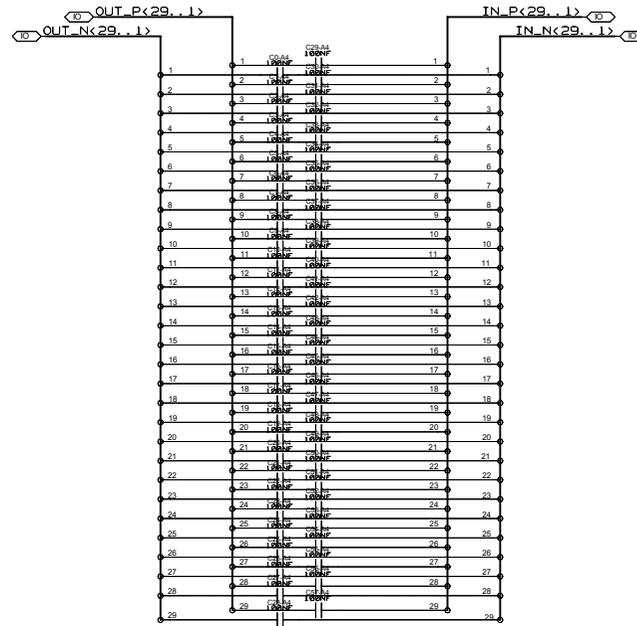
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C			
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ZONE	LTR	DESCRIPTION	DATE	APPR.



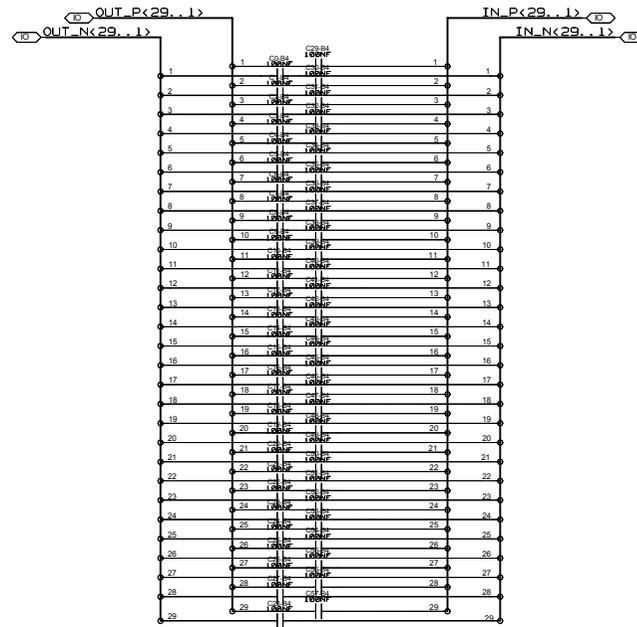
UNIVERSITY OF MAINZ		DRAWING TITLE	
		AVAGO TRANSMITTER	
SIZE	REV.	DRAWING NO.	
C			
SCALE		SHEET OF	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



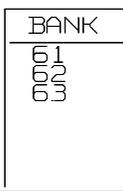
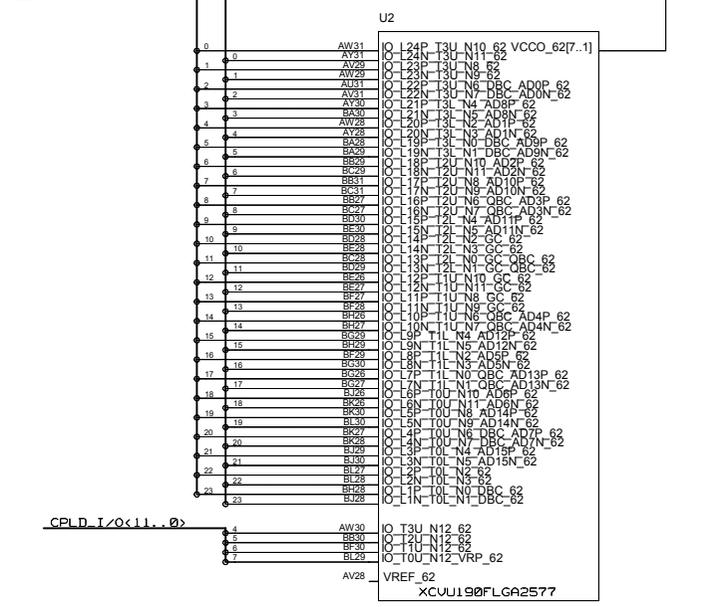
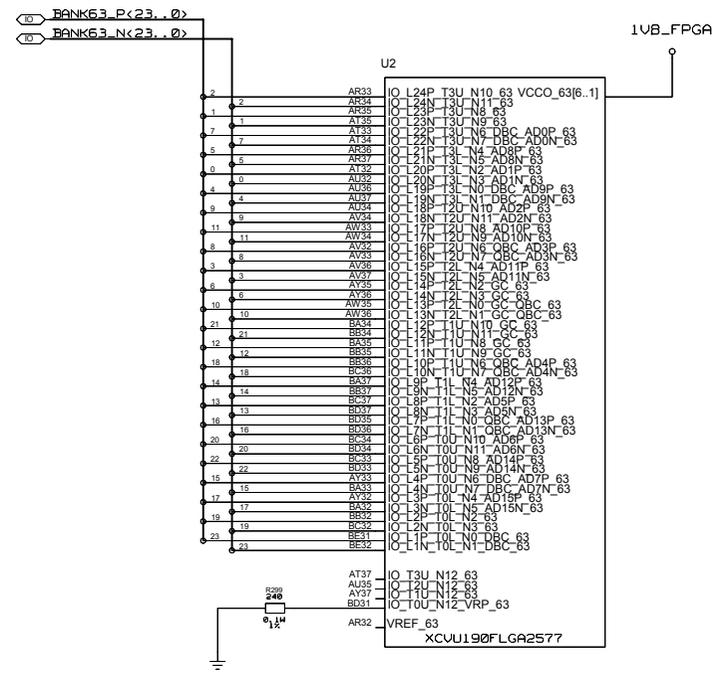
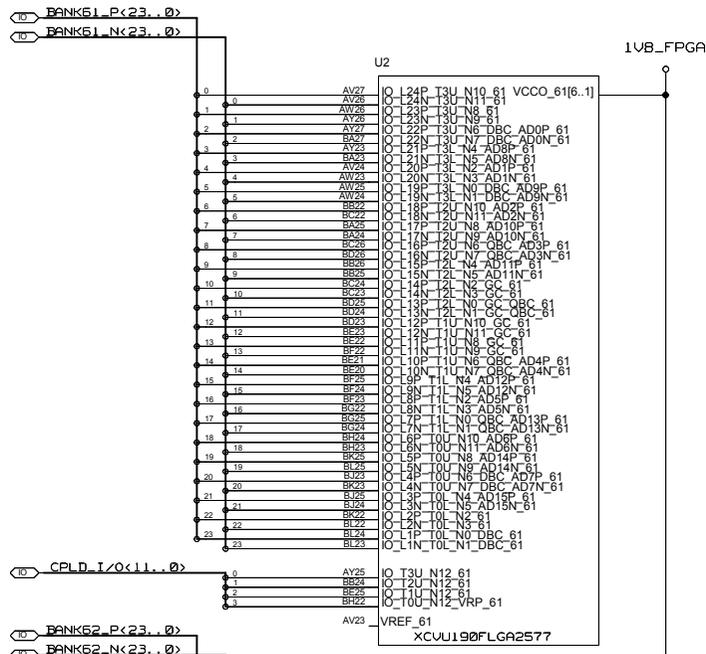
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CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS			BLOCK TITLE	
UNIVERSITY OF MAINZ				SIZE C	REV.
				DRAWING NO.	
SCALE			SHEET OF		

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



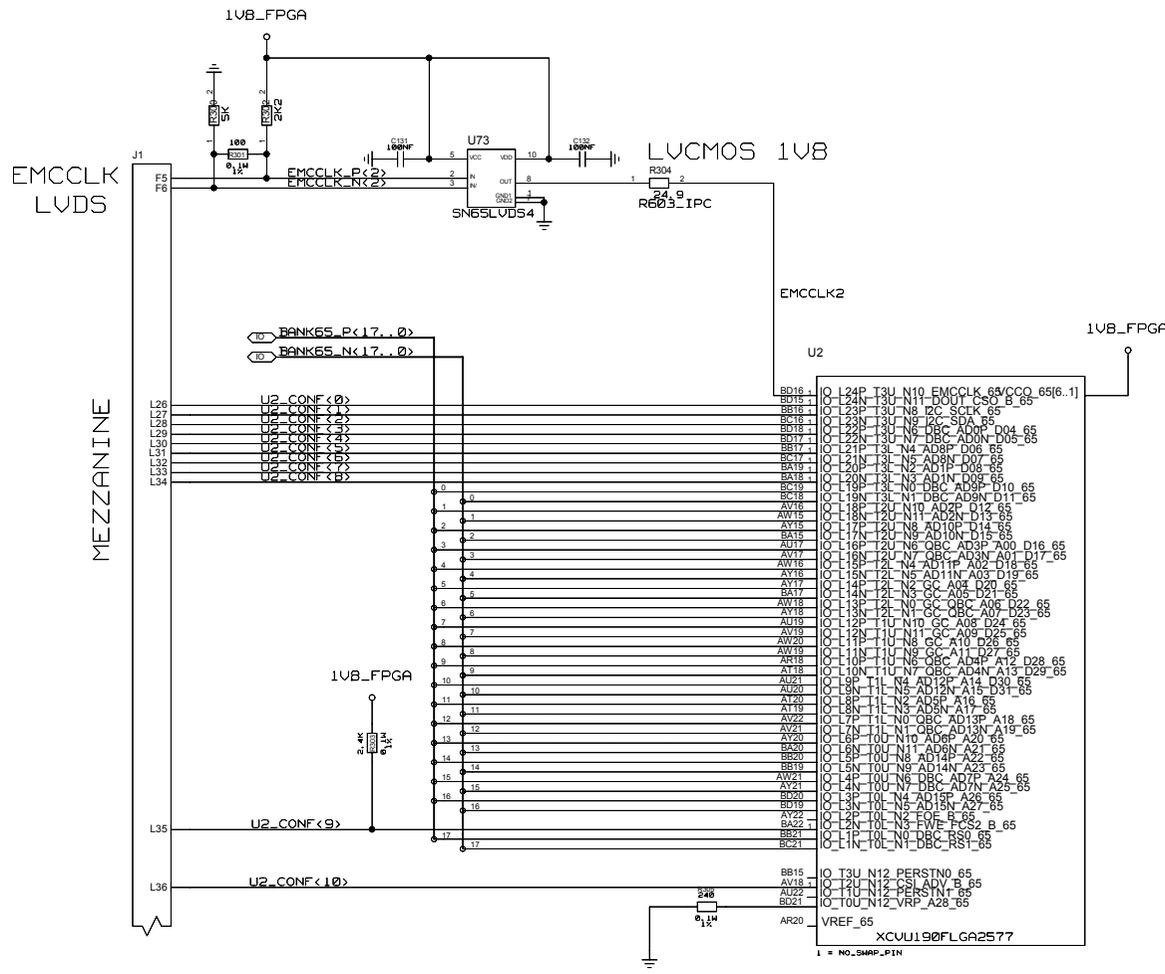
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CHECKED	E.ROCCO				AC COUPLING 29BIT	
CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
DRAWN	BAUSS					
BLOCK TITLE						
UNIVERSITY OF MAINZ				SIZE	REV.	DRAWING NO.
				SCALE		
				SHEET	OF	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



CHECKED	E.ROCCO	DATE	SIGN	DRAWING TITLE JFEX
CHECKED	U.SCHAEFER			
CHECKED	S.RAVE			
DRAWN	BAUSS	25.08.2015		
BLOCK TITLE U2_PARALLEL_I/O				SIZE C
UNIVERSITY OF MAINZ				REV.
SCALE				DRAWING NO.
SHEET 1 OF 5				

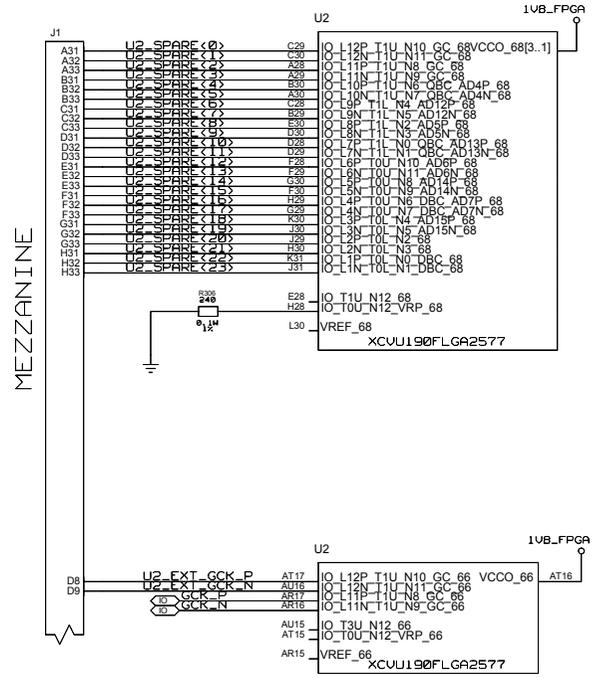
REVISIONS		DESCRIPTION	DATE	APPR.
ZONE	LTR			



BANK
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CHECKED	NAME	DATE	SIGN	DRAWING TITLE
CHECKED	E.ROCCO			JFEX
CHECKED	U.SCHAEFER			
CHECKED	S.RAVE			
DRAWN	BAUSS	25.08.2015		
BLOCK TITLE				UNIVERSITY OF MAINZ
SIZE				C
SCALE				REV.
DRAWING NO.				
SHEET				2 OF 5

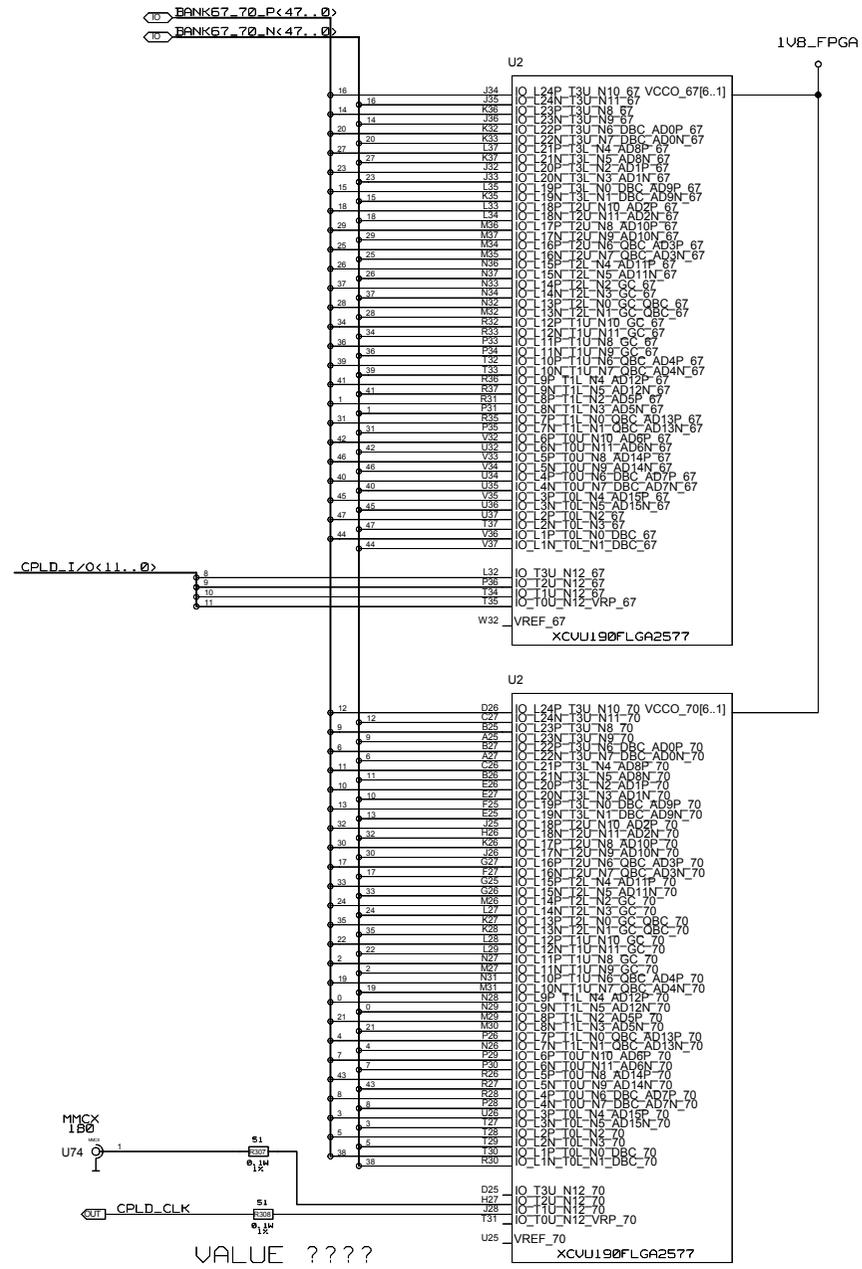
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ZONE	LTR	DESCRIPTION	DATE	APPR.



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CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
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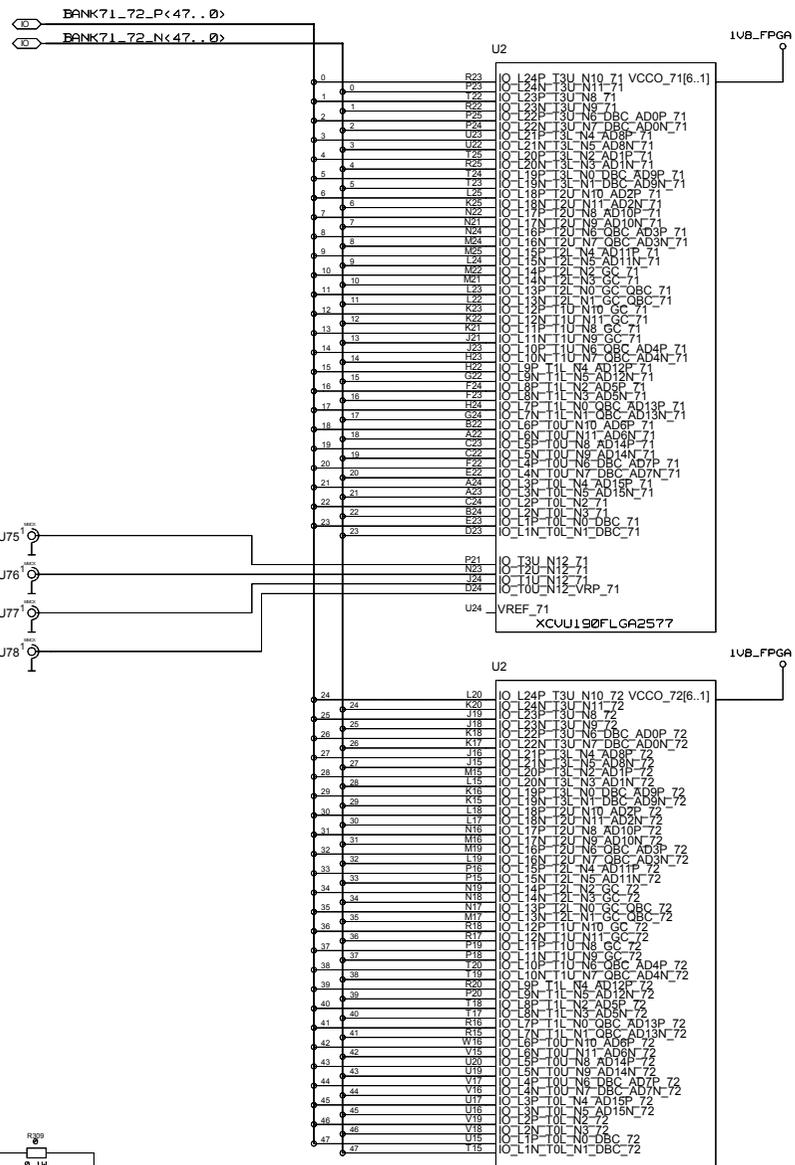
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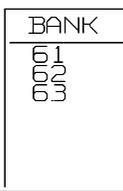
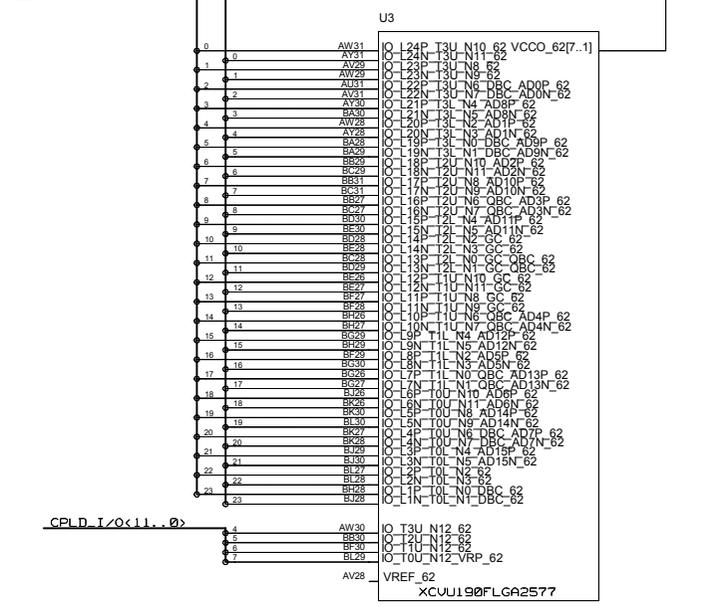
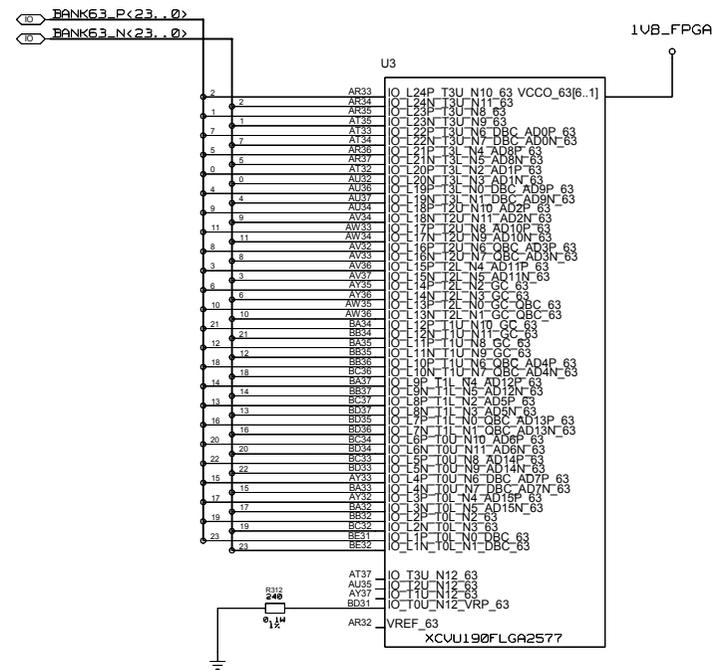
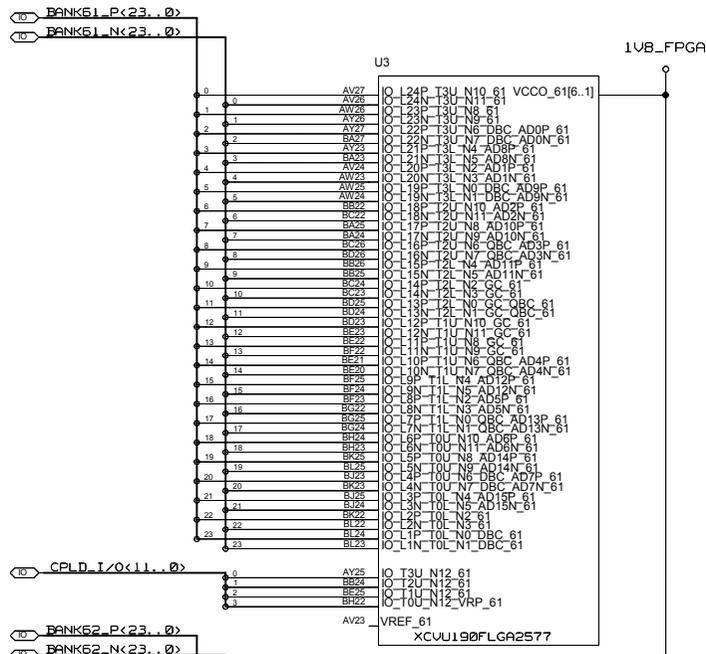
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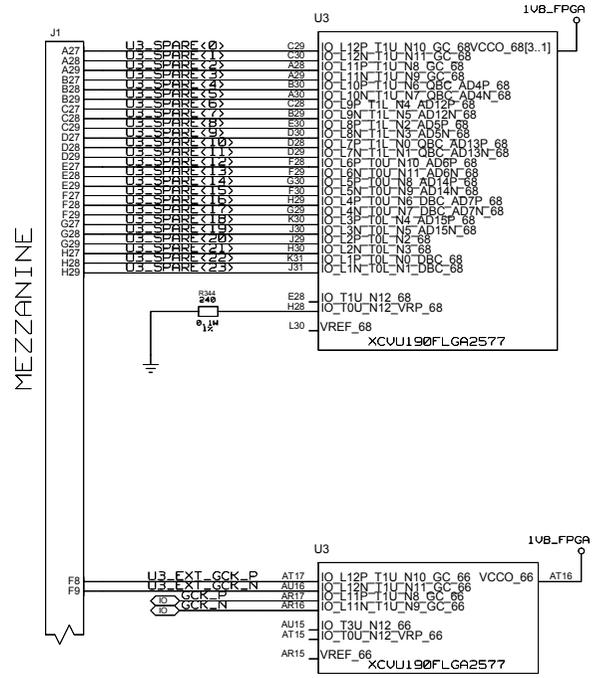
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REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



CHECKED	E.ROCCO	DATE	SIGN	DRAWING TITLE	JFEX
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SCALE				SHEET 1 OF 5	

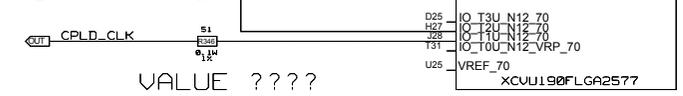
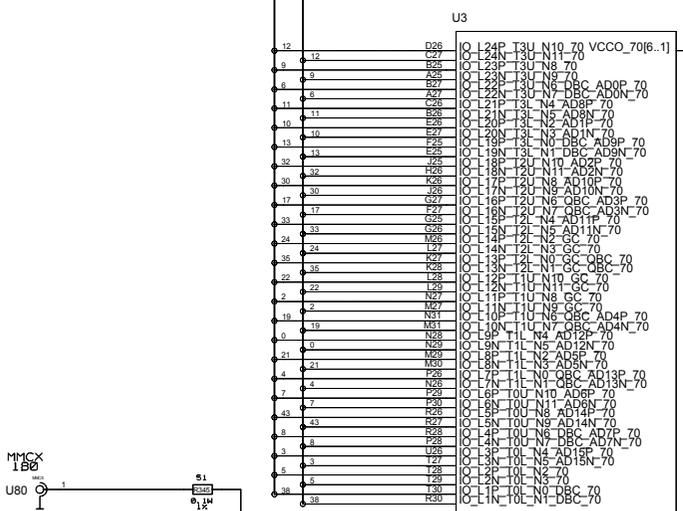
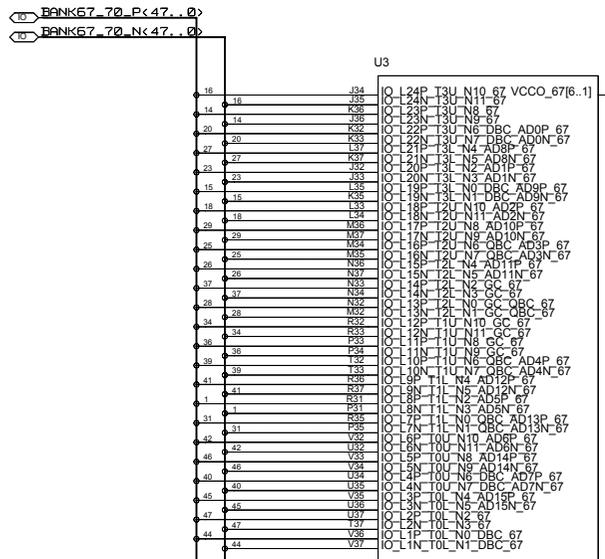
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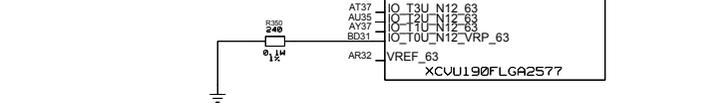
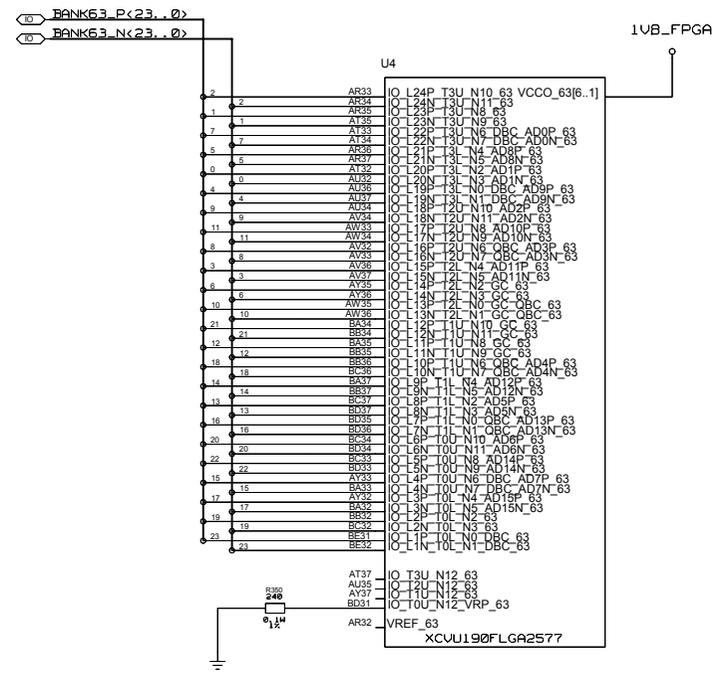
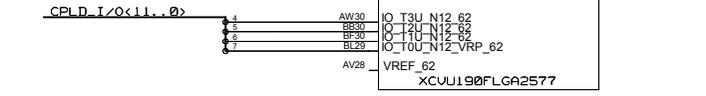
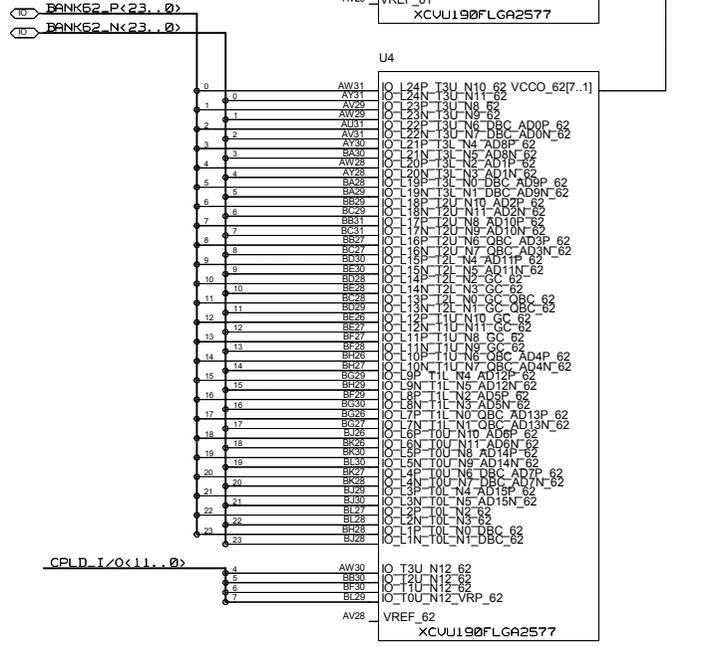
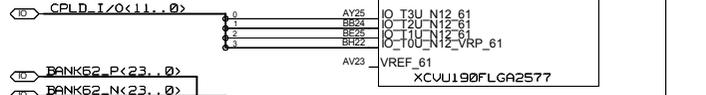
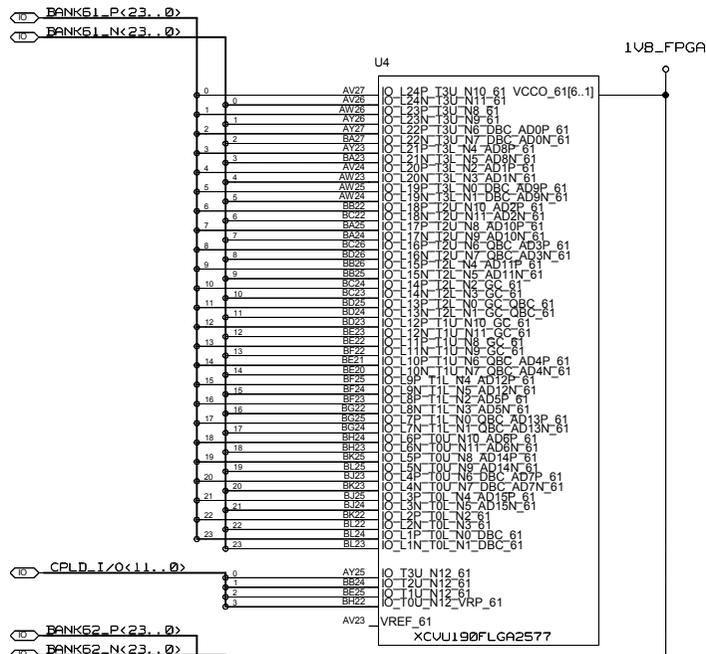
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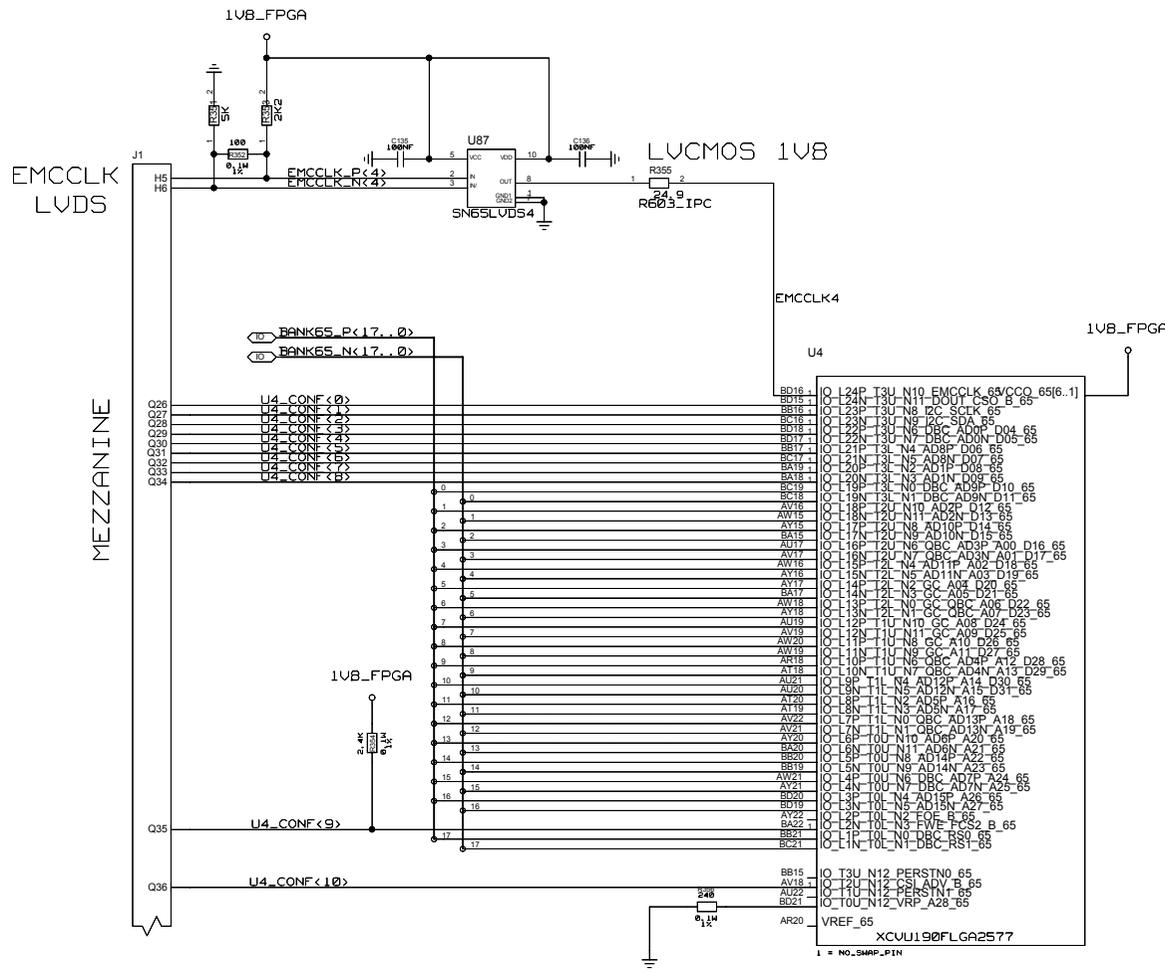
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CHECKED	S.RAVE				
DRAWN	BAUSS	25.08.2015			
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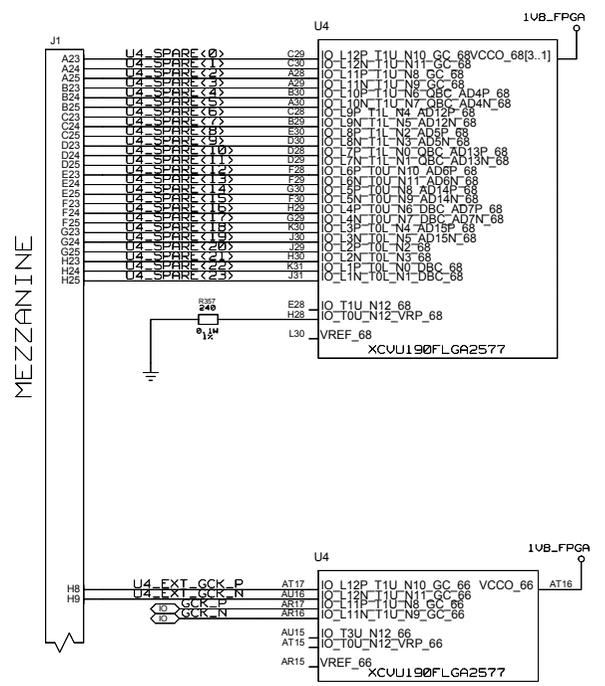
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UNIVERSITY OF MAINZ				SCALE		SHEET 2 OF 5

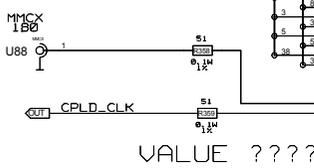
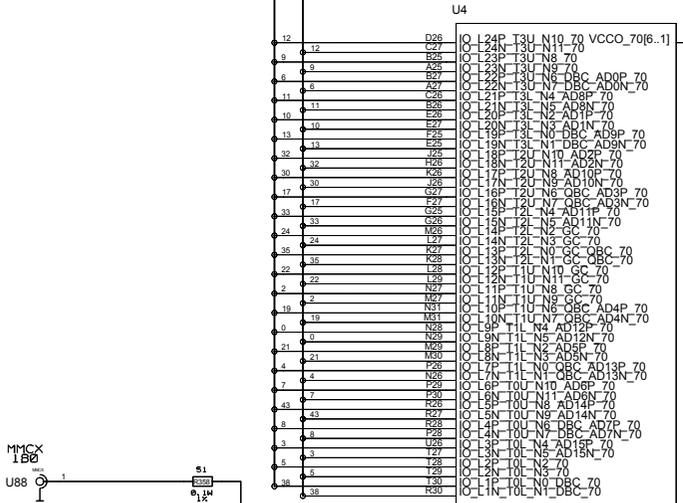
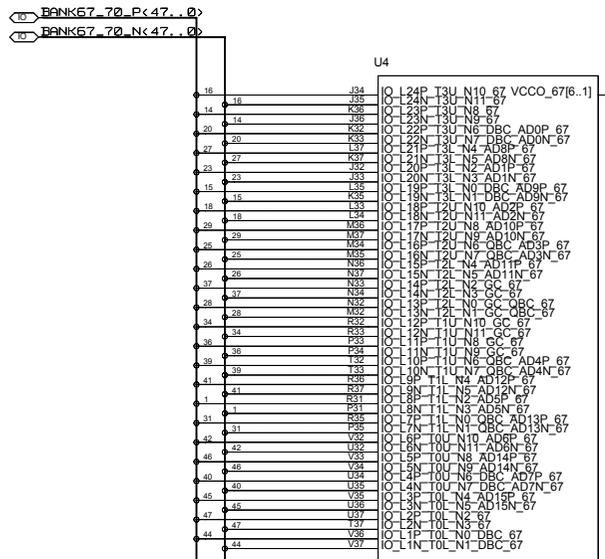
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ZONE	LTR	DESCRIPTION	DATE	APPR.



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	S.RAVE			
	BAUSS	25.08.2015		
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SCALE				SHEET 3 OF 5

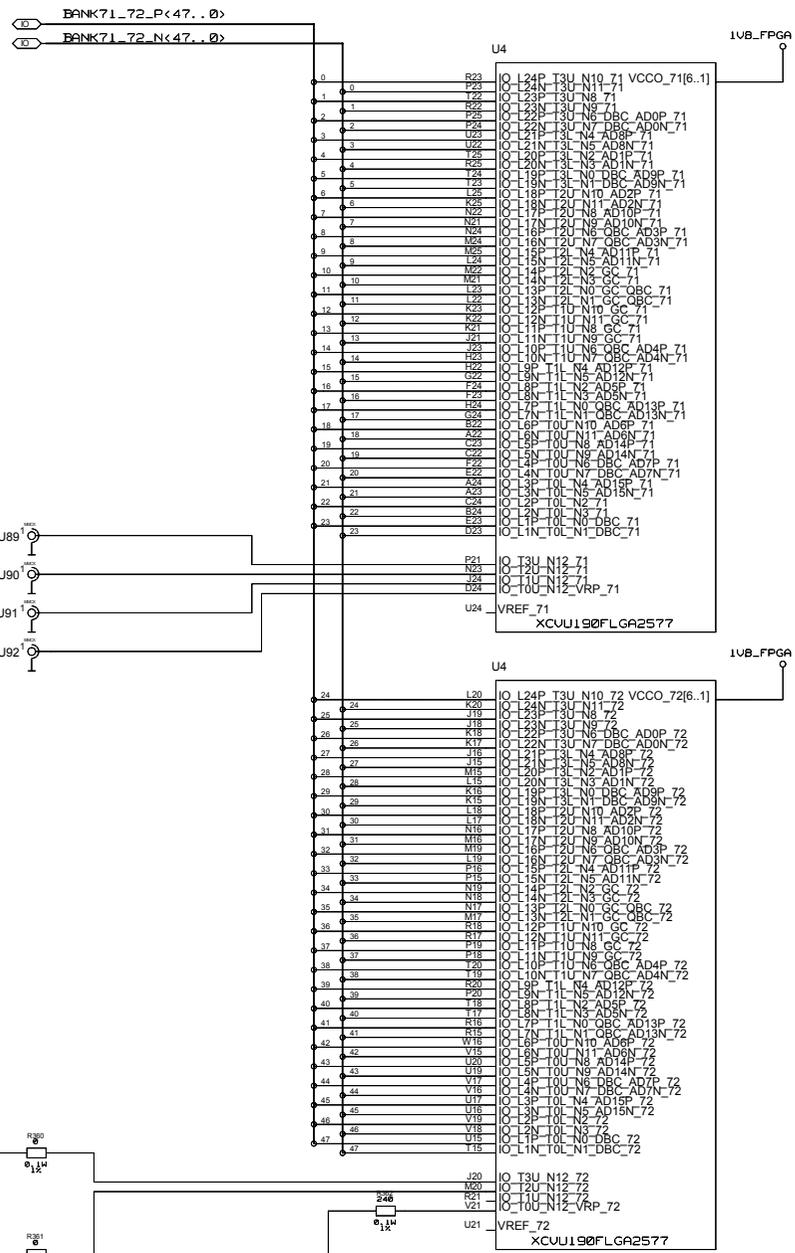
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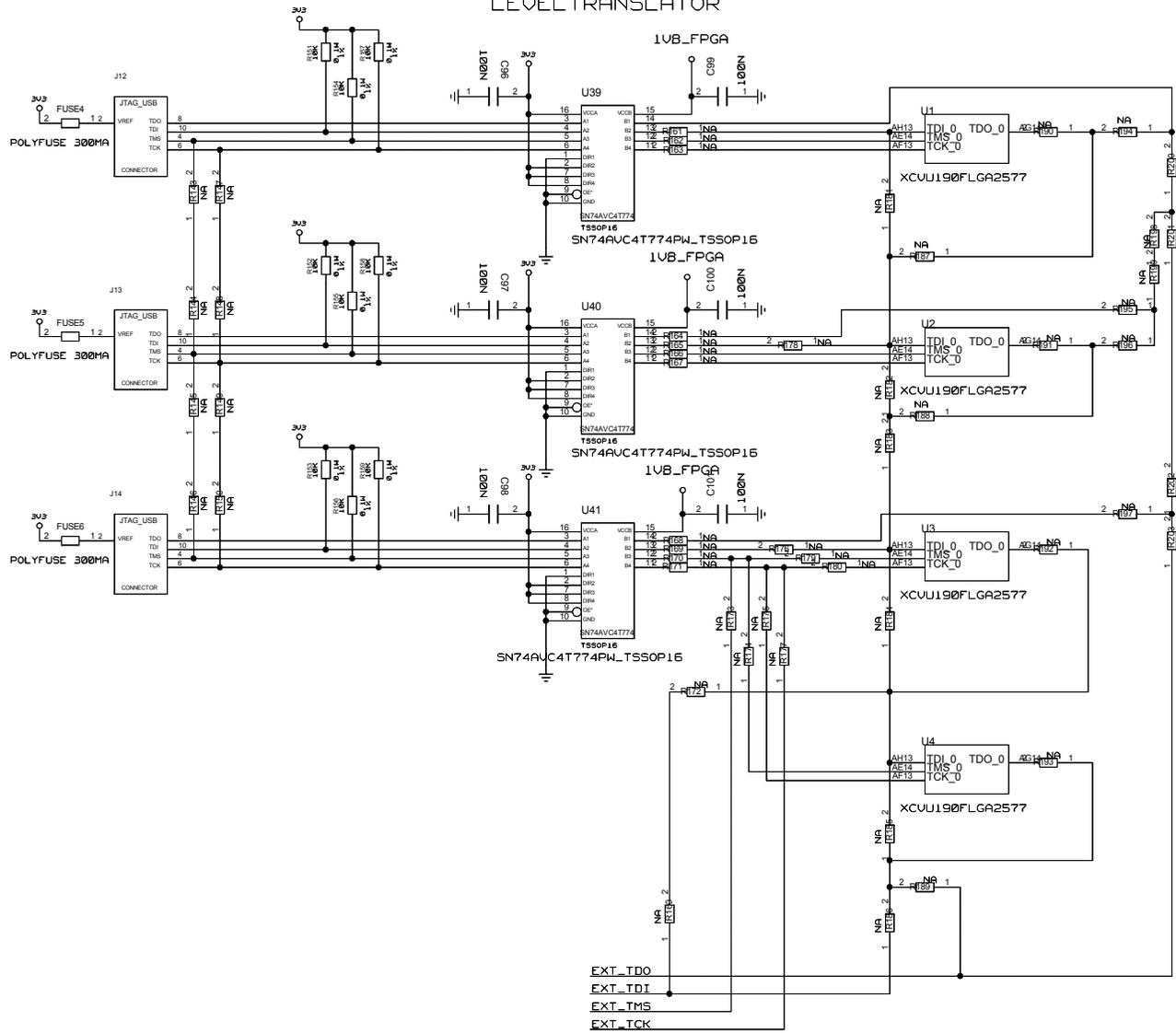
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CHECKED	NAME	DATE	SIGN	DRAWING TITLE JFEX
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	S.RAVE			
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DRAWN				
BLOCK TITLE				
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UNIVERSITY OF MAINZ		SIZE	REV.	DRAWING NO.
		C		
SCALE				SHEET 5 OF 5

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

CLOSE TOGETHER
NEAR FRONTPANEL

LEVEL TRANSLATOR



CHECKED	NAME	DATE	SIGN	DRAWING TITLE
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	U.SCHAEFER			
	S.RAVE			
	BAUSS	15.07.2015		
BLOCK TITLE				JTAG
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SCALE				SHEET OF