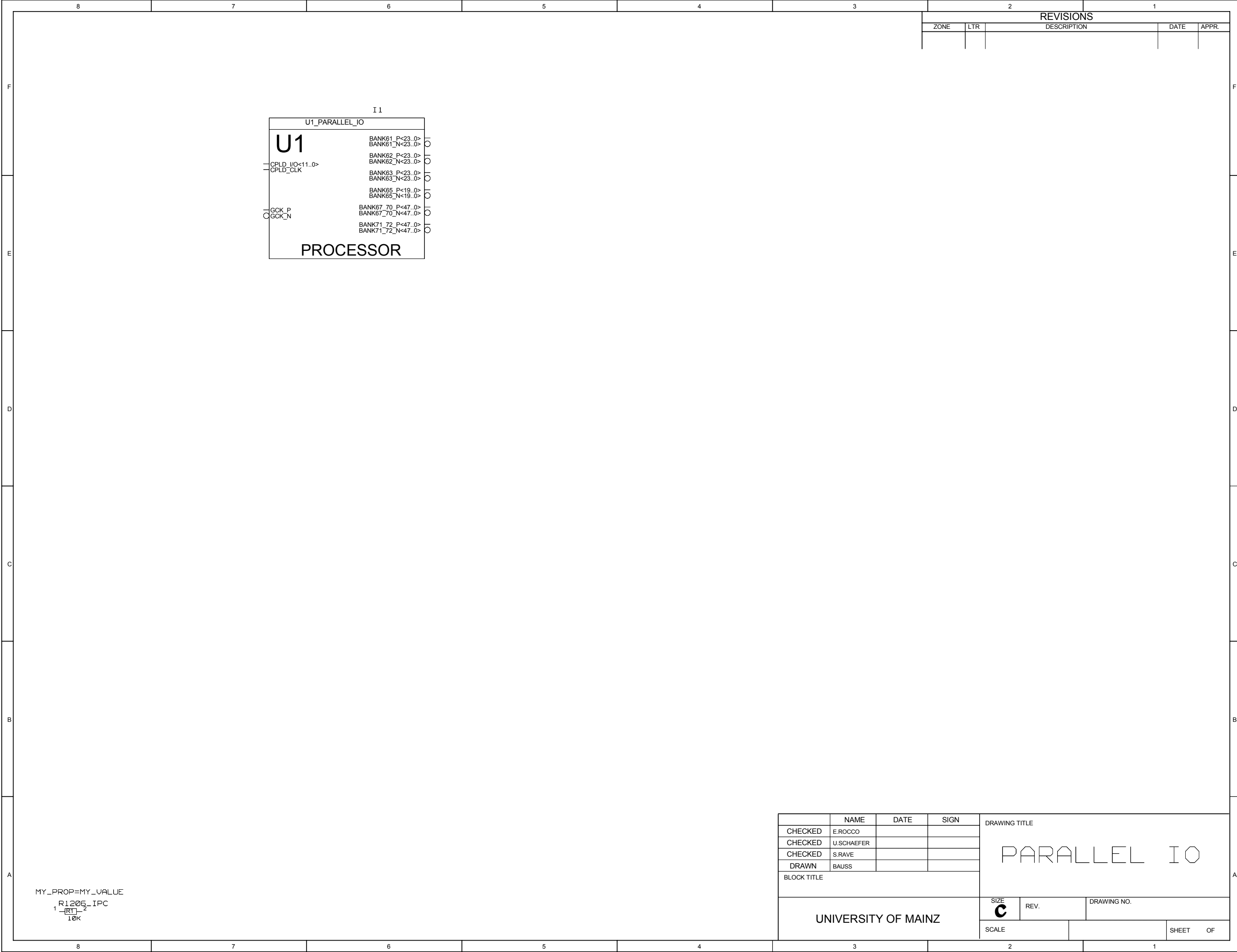
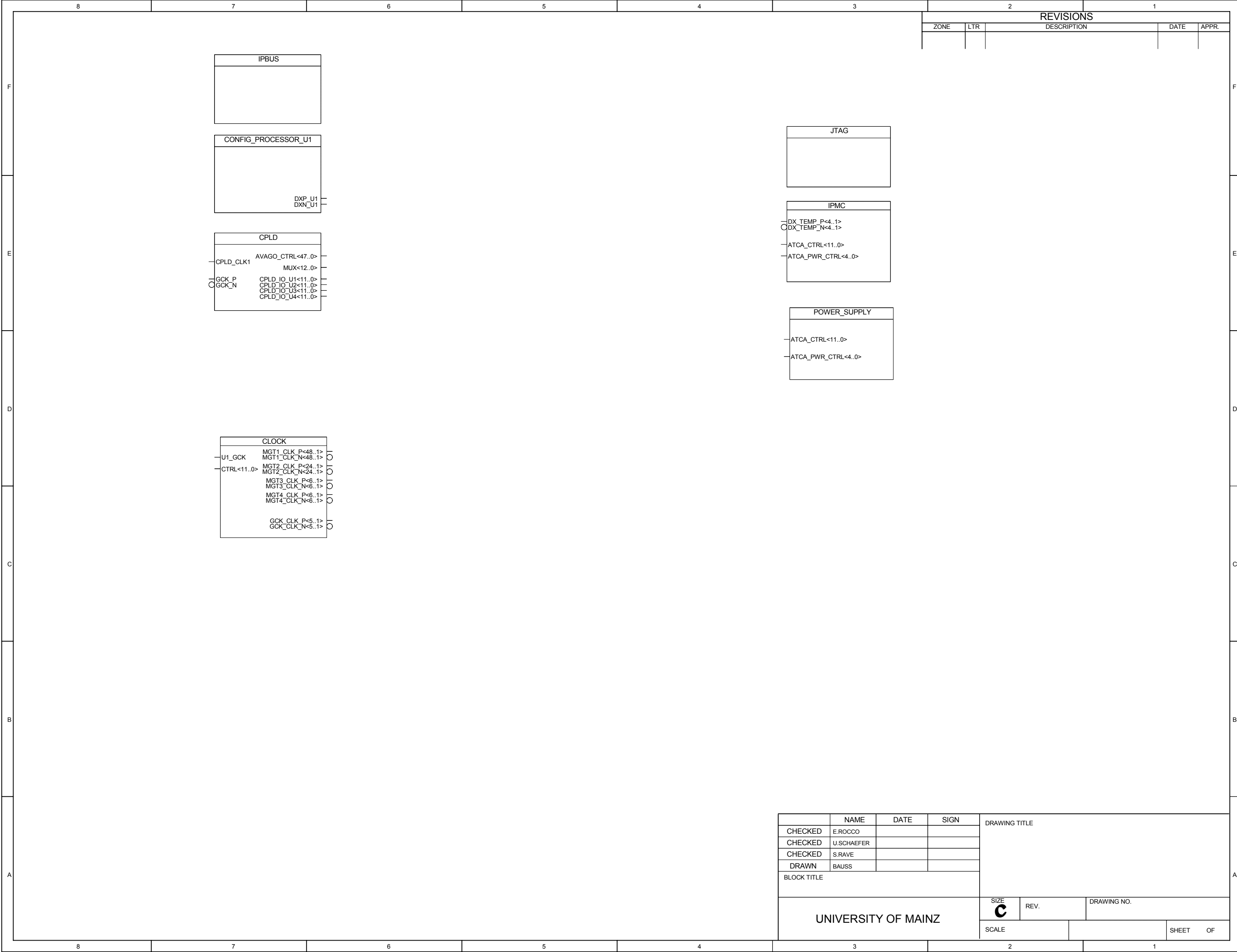


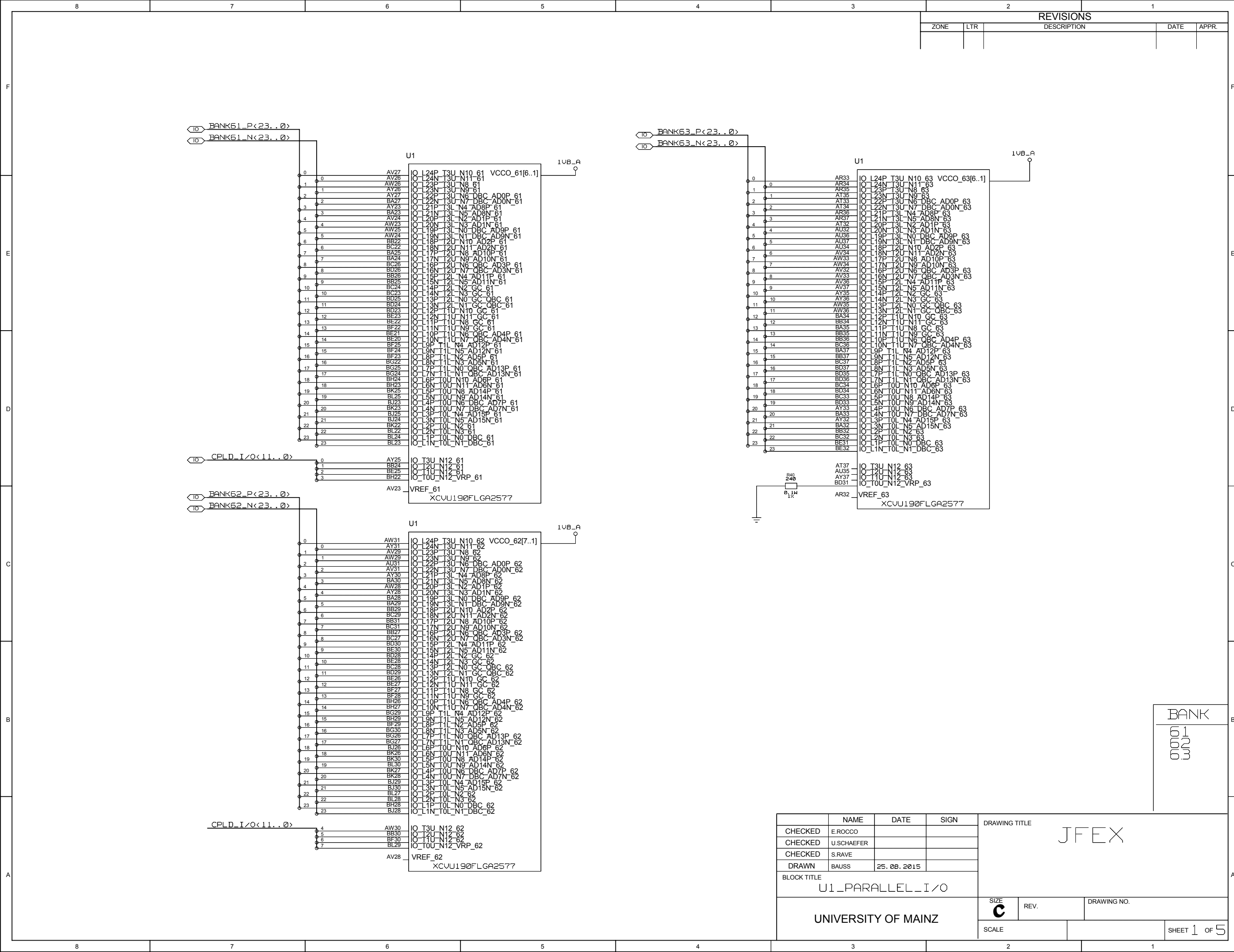






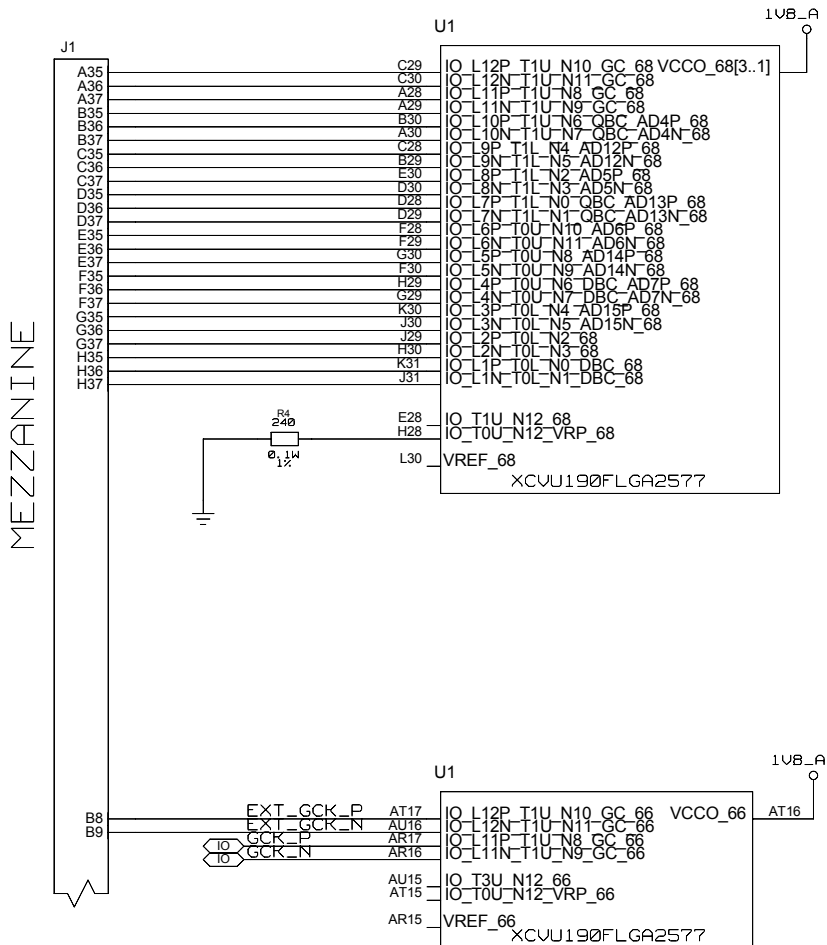
		1		2		3		4		5		6		7		8	
		DATE		DESCRIPTION		LTR		ZONE									

		DATE		SIGN		DRAWING TITLE			
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.

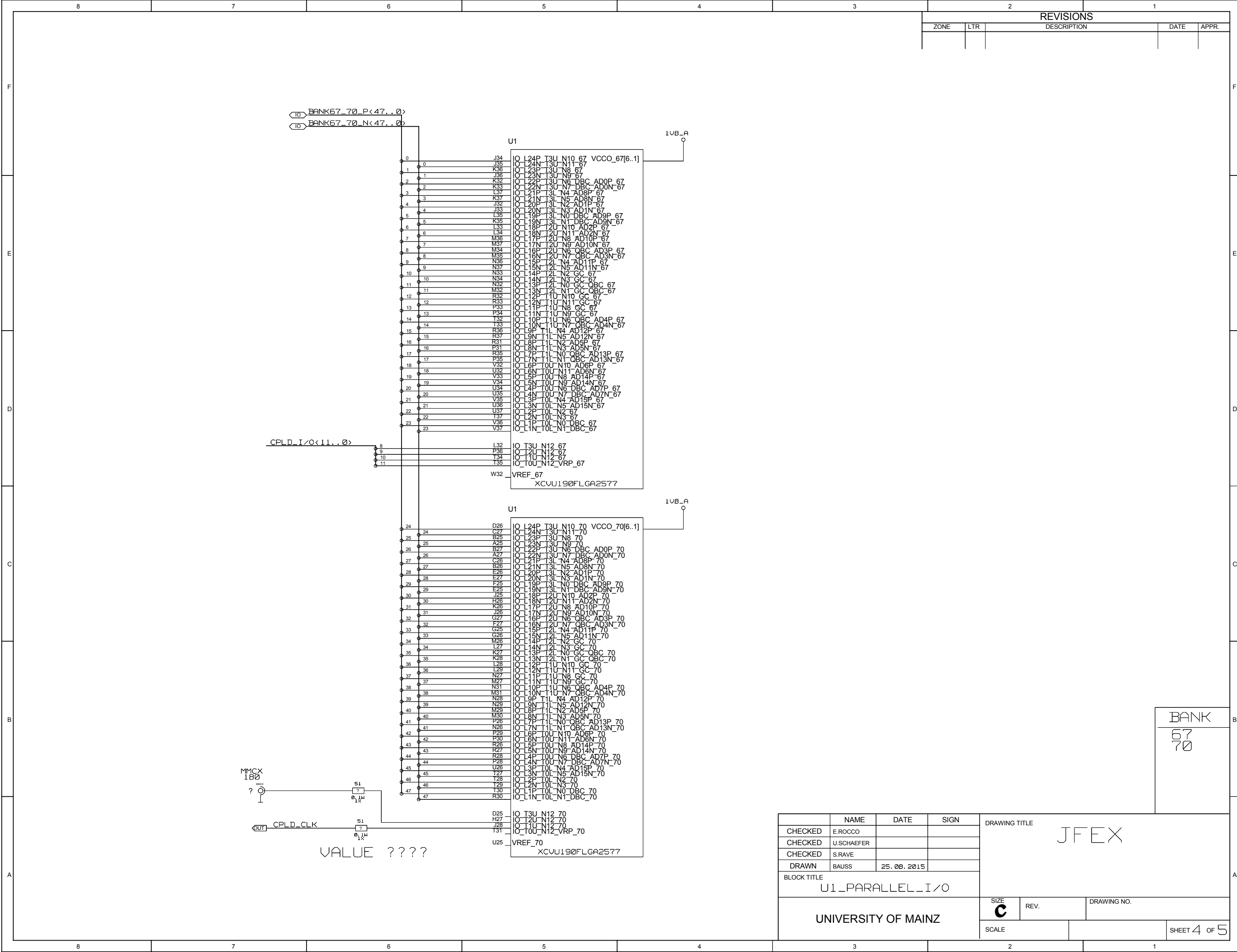
	NAME	DATE	SIGN	DRAWING TITLE JFEX				
CHECKED	E.ROCCO							
CHECKED	U.SCHAEFER							
CHECKED	S.RAVE							
DRAWN	BAUSS	25.08.2015						
BLOCK TITLE U1_PARALLEL_I/O				DRAWING NO.				
UNIVERSITY OF MAINZ								
							SIZE C	REV.
							DRAWING NO.	
SCALE						SHEET 1 OF 5		



REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

BANK
66
68

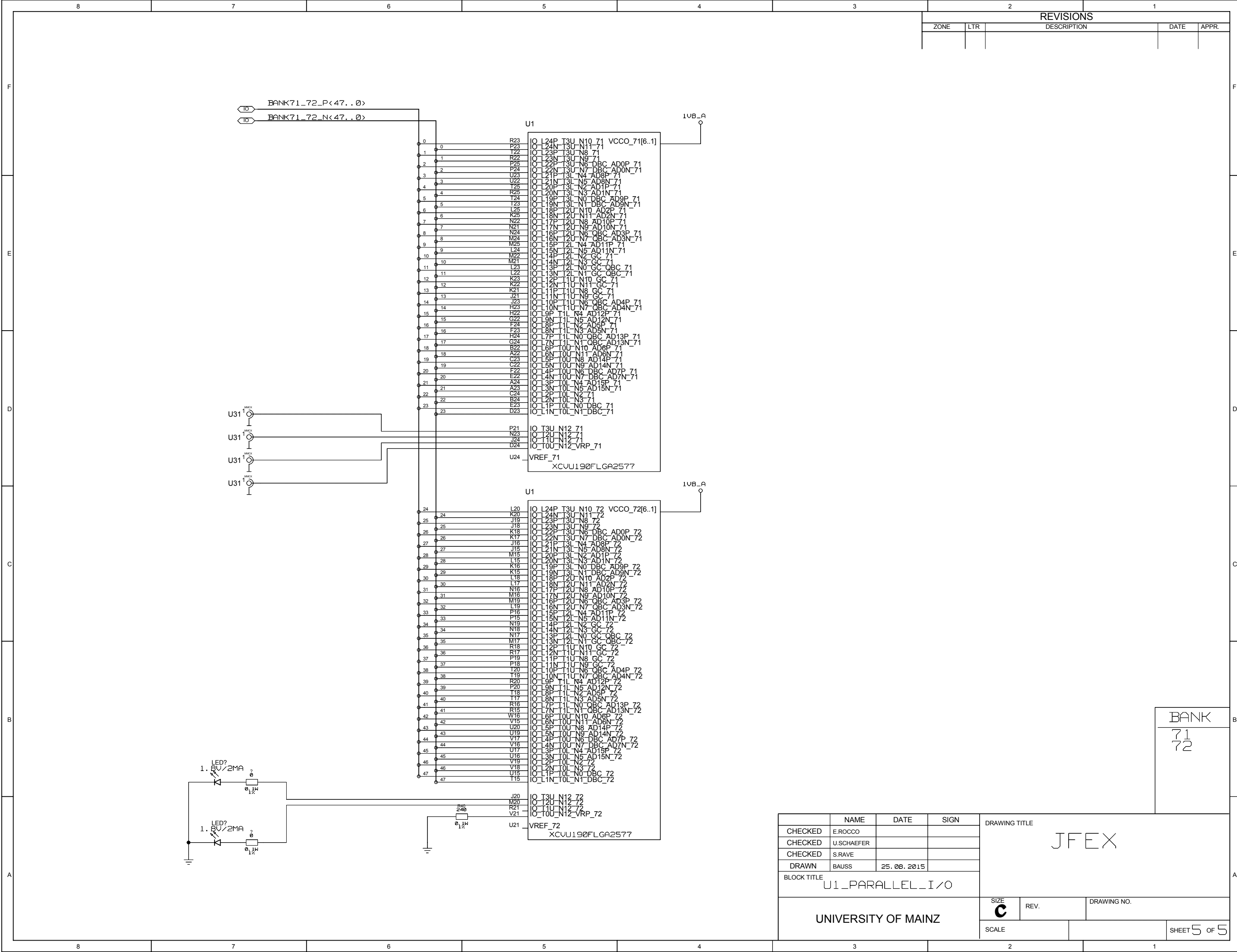
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CHECKED	E.ROCCO				
CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS	25.08.2015		DRAWING NO.	
BLOCK TITLE U1_PARALLEL_I/O				SIZE C	REV.
UNIVERSITY OF MAINZ				SCALE	DRAWING NO.
					SHEET 3 OF 5

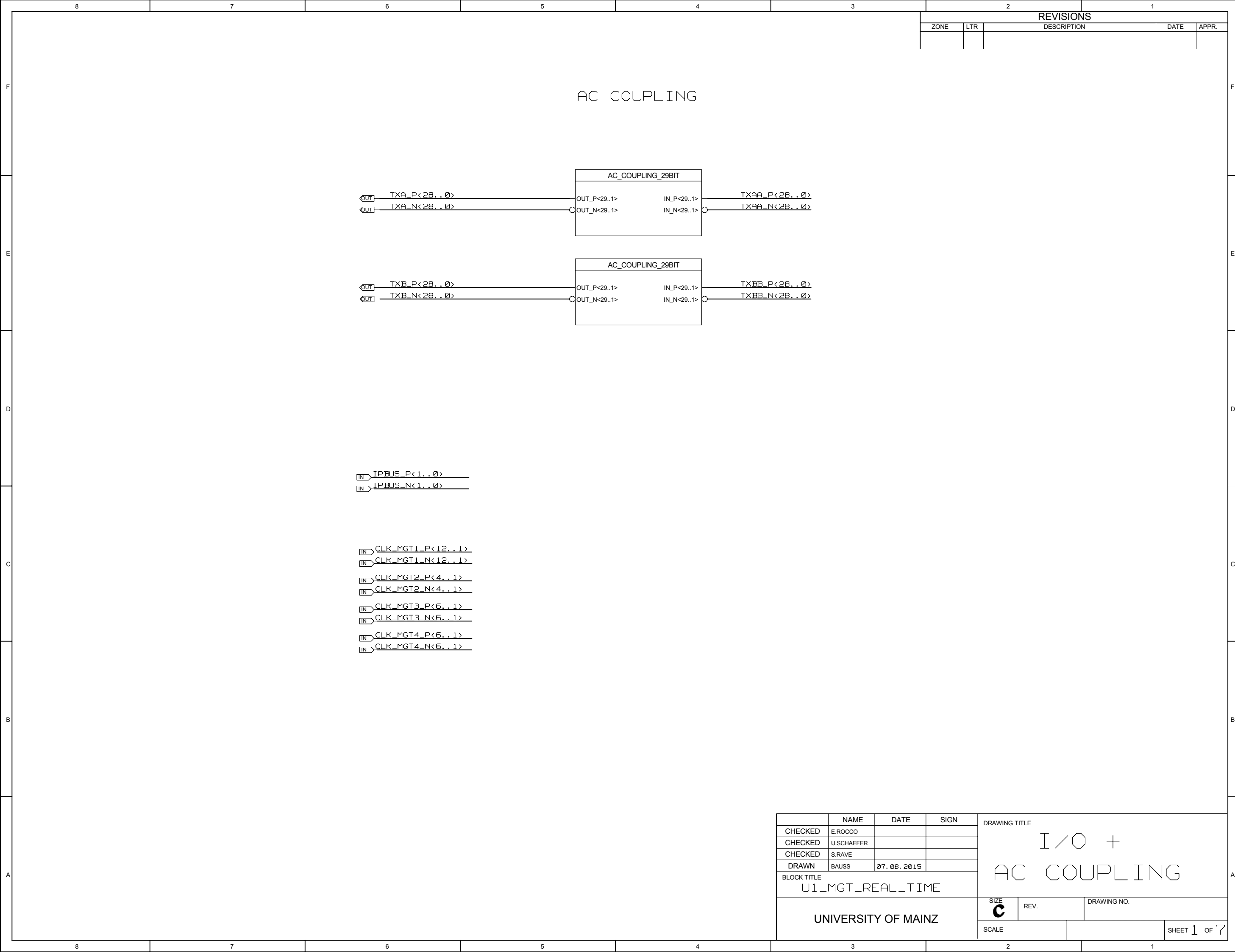


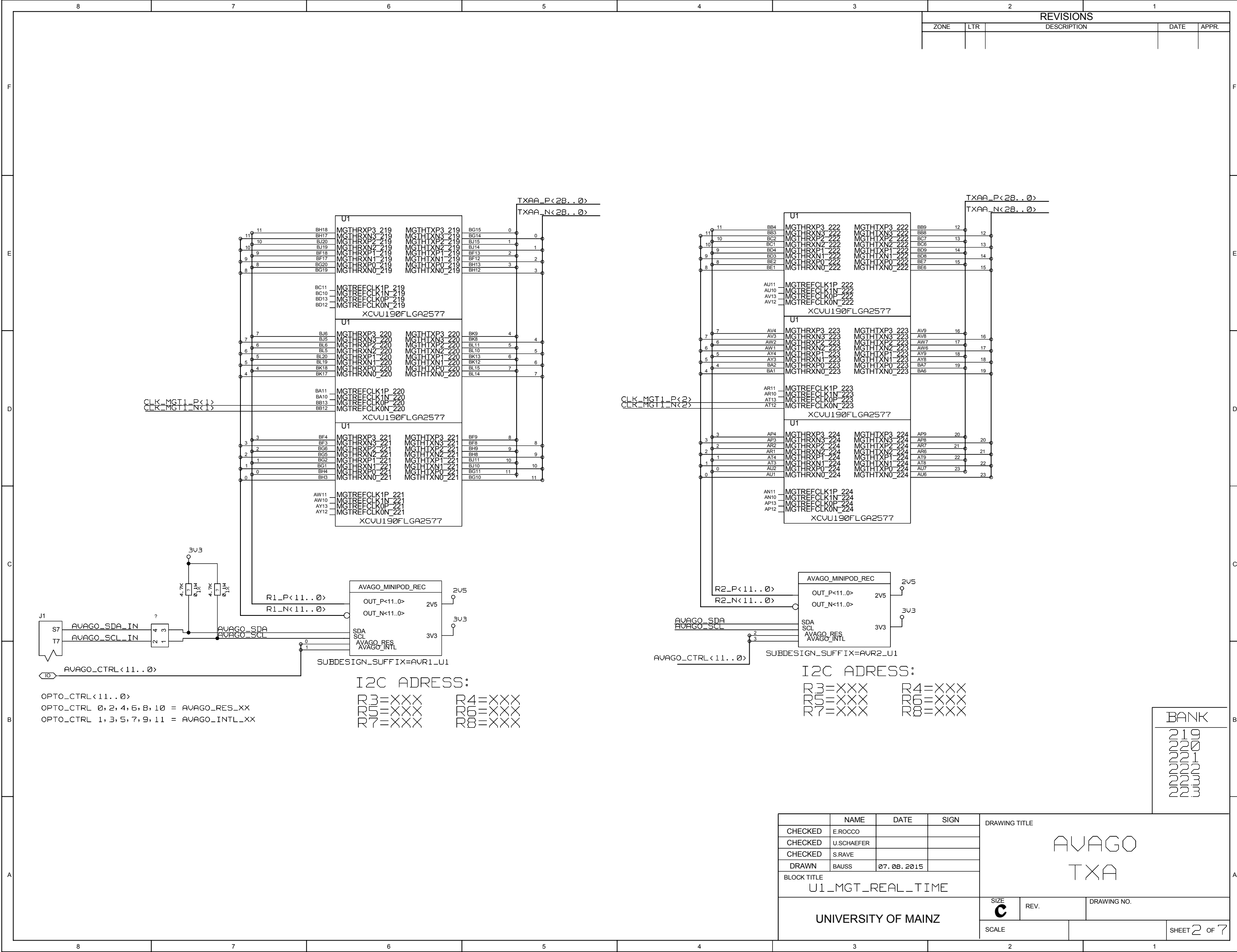
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

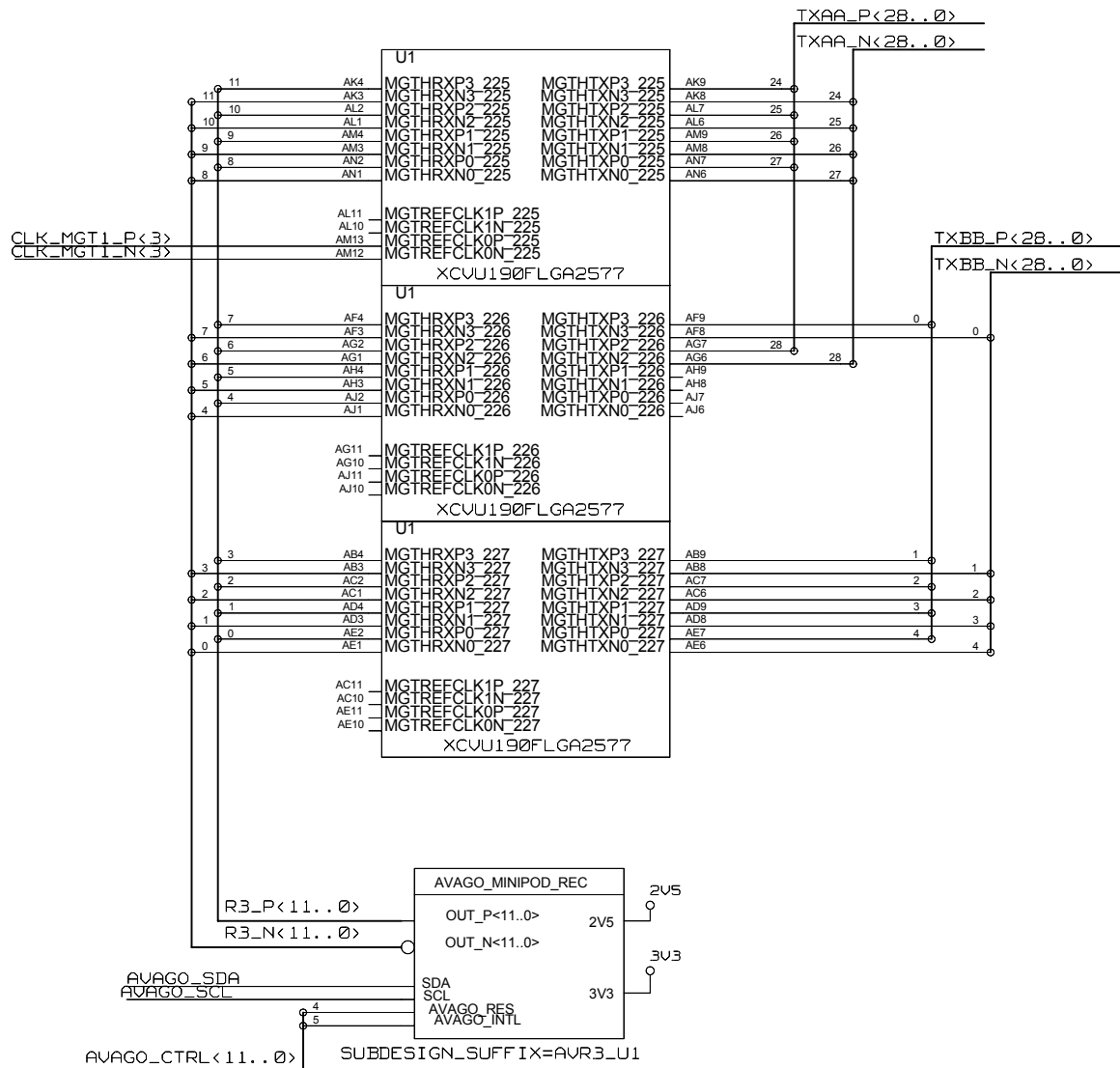
BANK
67
70

	NAME	DATE	SIGN	DRAWING TITLE JFEX	
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CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS	25.08.2015		DRAWING NO.	
BLOCK TITLE U1_PARALLEL_I/O				DRAWING NO.	
UNIVERSITY OF MAINZ				SIZE C	REV.
				SCALE	SHEET 4 of 5







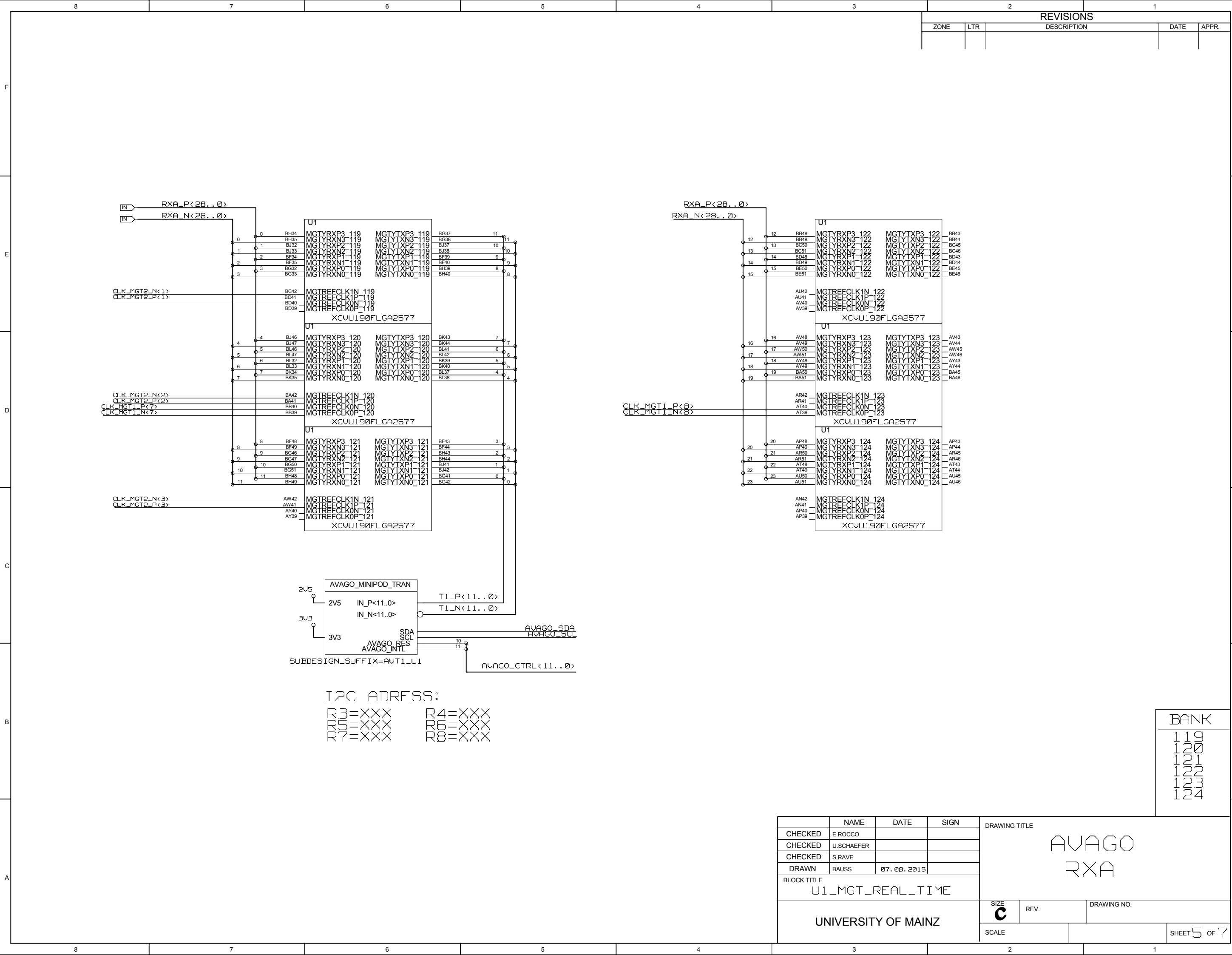


I2C ADDRESS:

R3=XXX R4=XXX
R5=XXX R6=XXX
R7=XXX R8=XXX

BANK
225
226
227

				DRAWING TITLE			
CHECKED	E.ROCCO	DATE	SIGN	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	REV.	DRAWING NO.	
				SCALE		SHEET 3 OF 7	



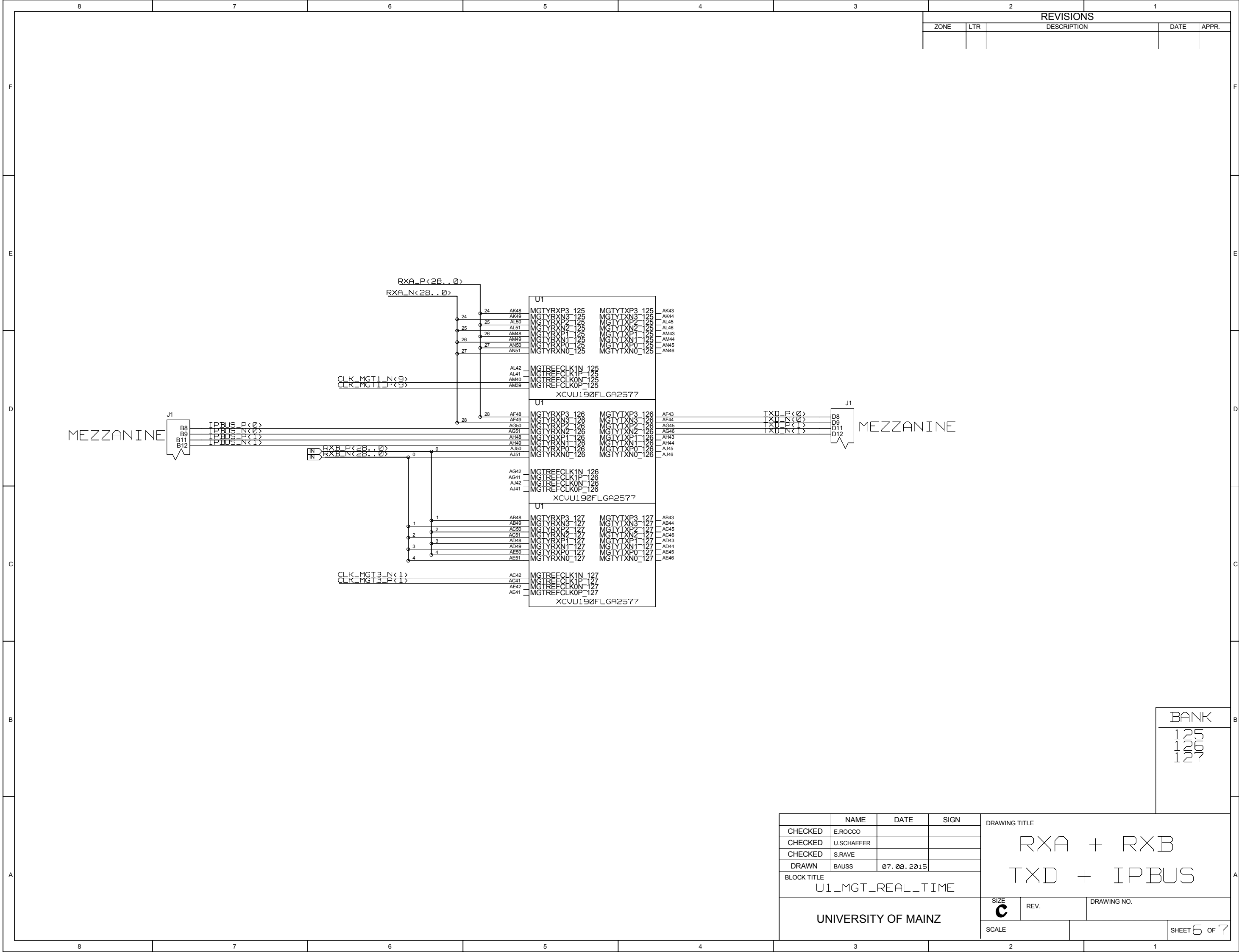
I2C ADDRESS:

R3=XXX
R5=XXX
R7=XXX

R4=XXX
R6=XXX
R8=XXX

BANK

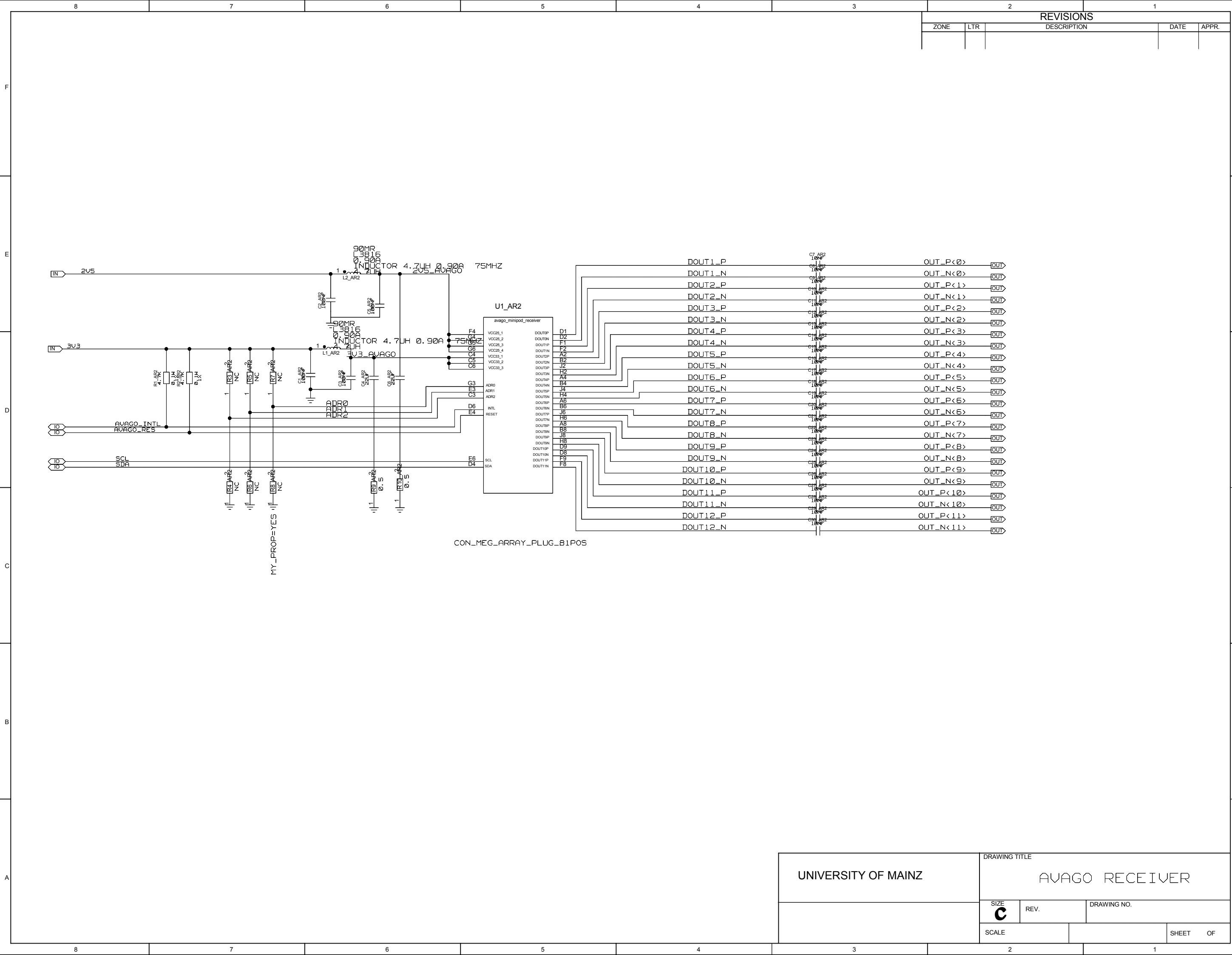
119
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123
124

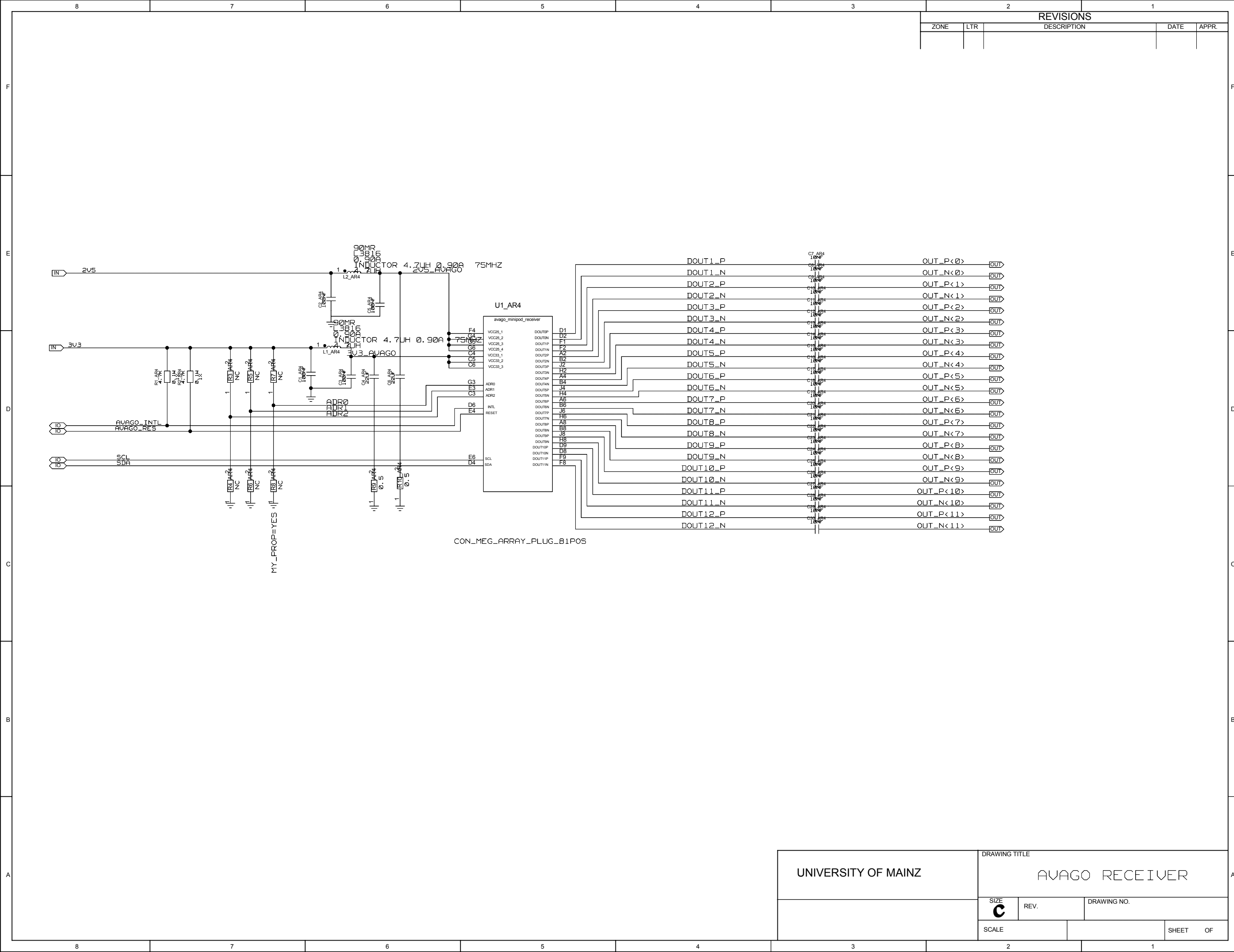


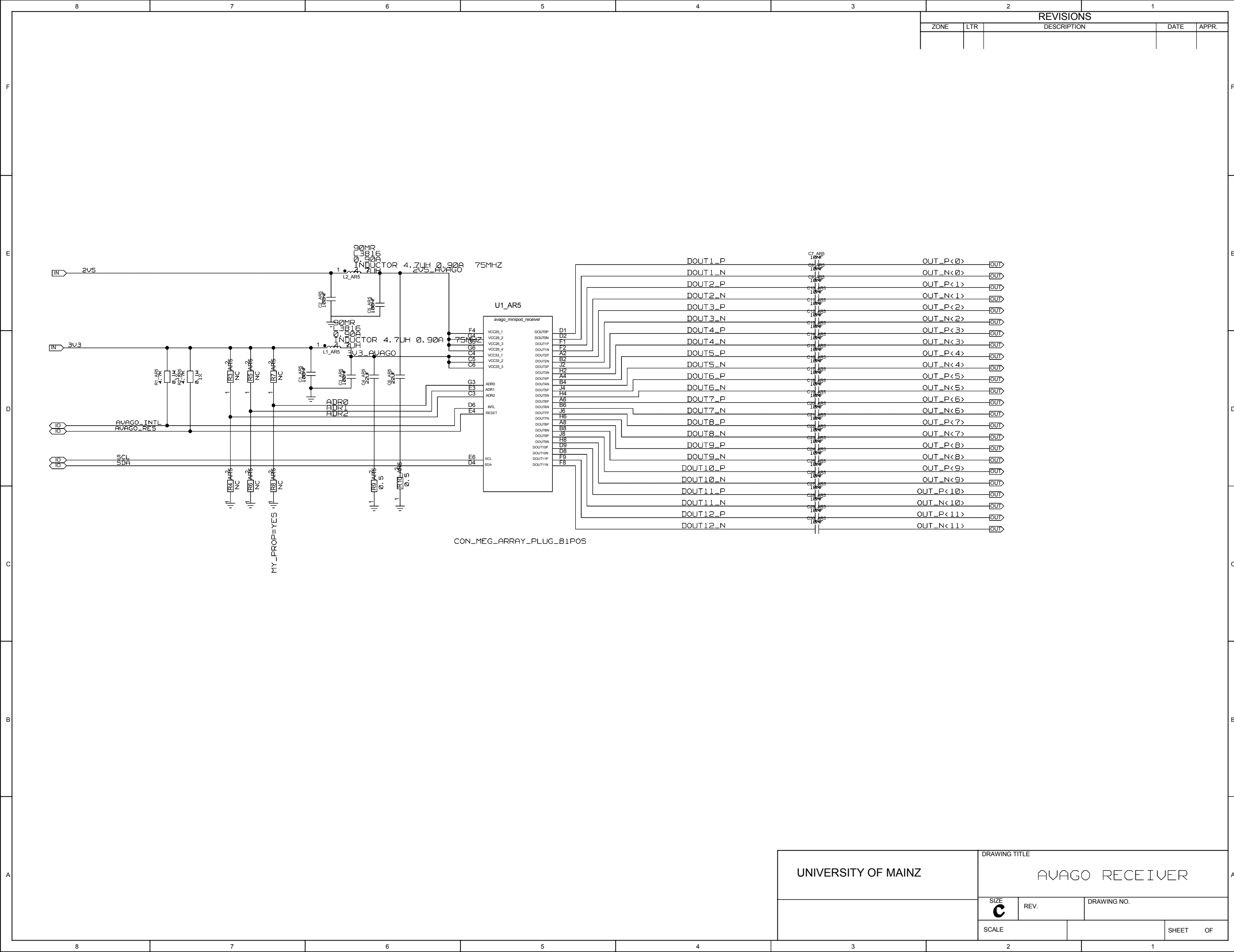
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

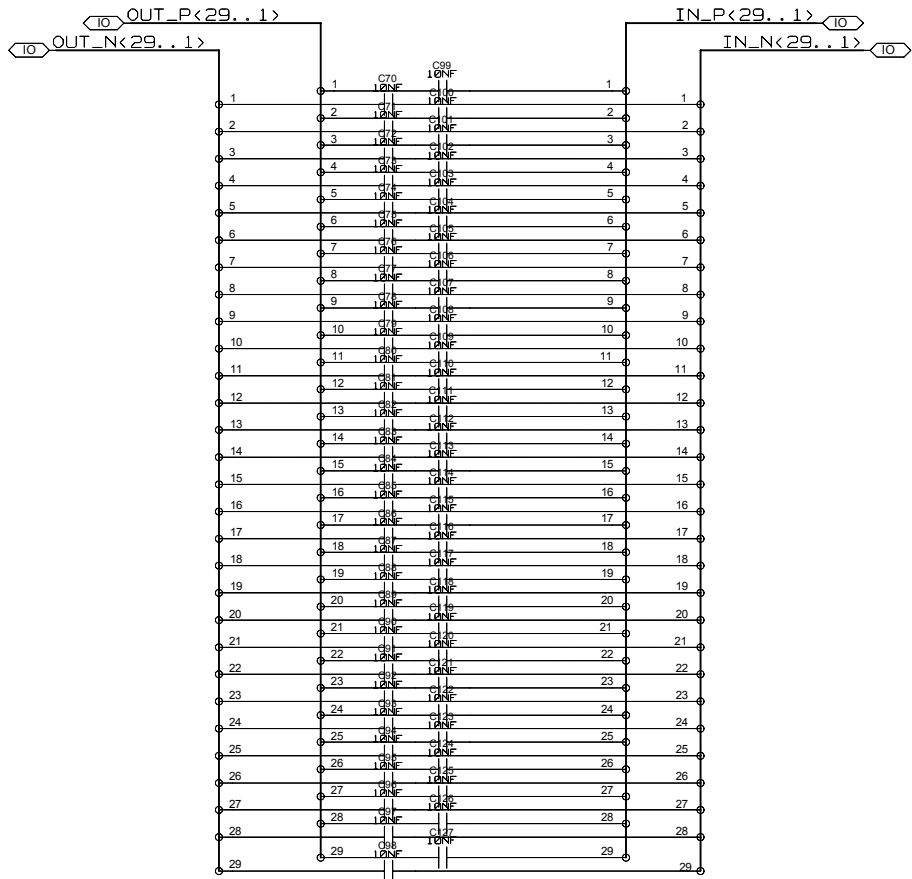
DRAWING TITLE			
RXA + RXB			
TXD + IPBUS			
BLOCK TITLE			
U1_MGT_REAL_TIME			
UNIVERSITY OF MAINZ		SIZE C	REV.
SCALE		DRAWING NO.	
		SHEET 6 OF 7	

BANK
125
126
127



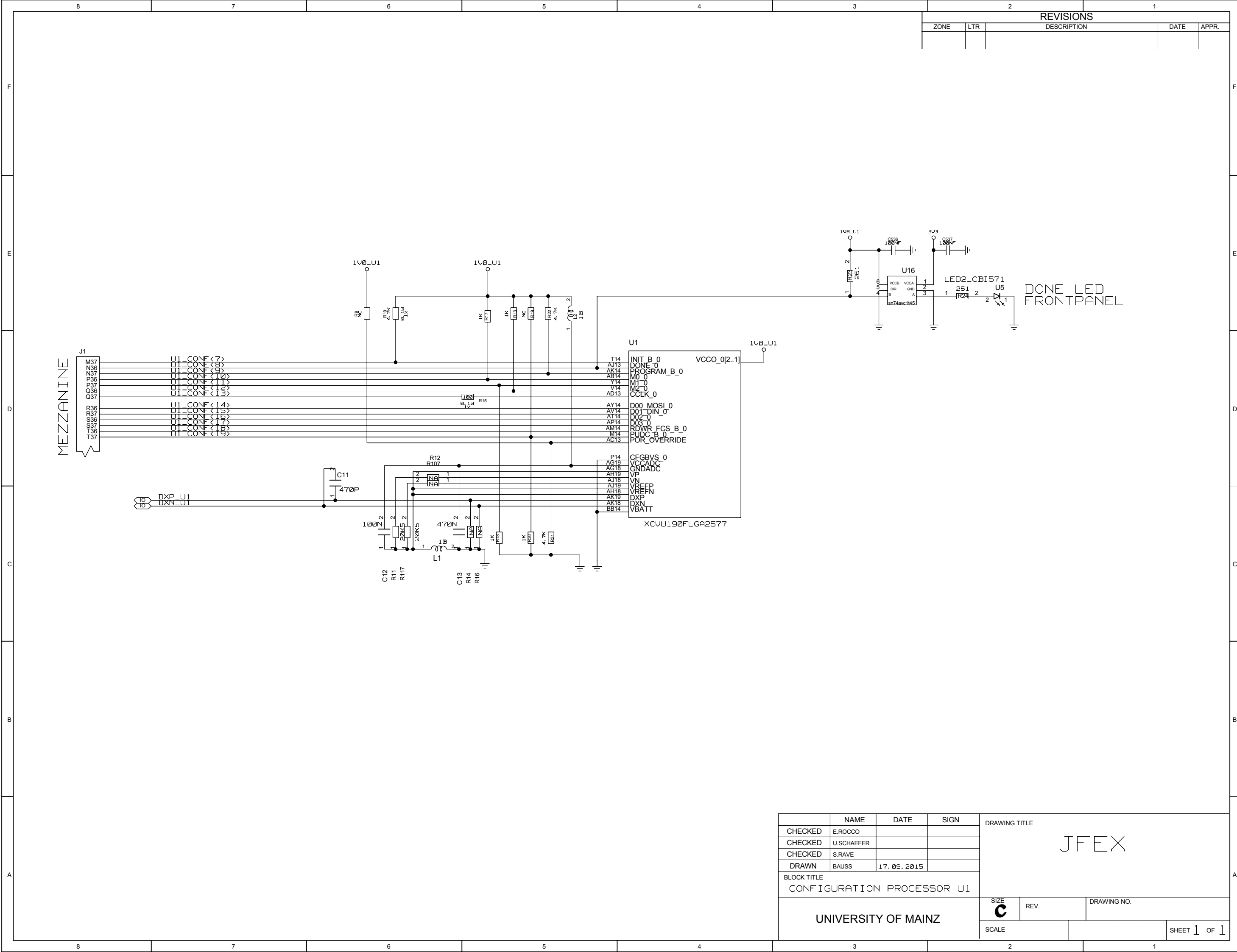




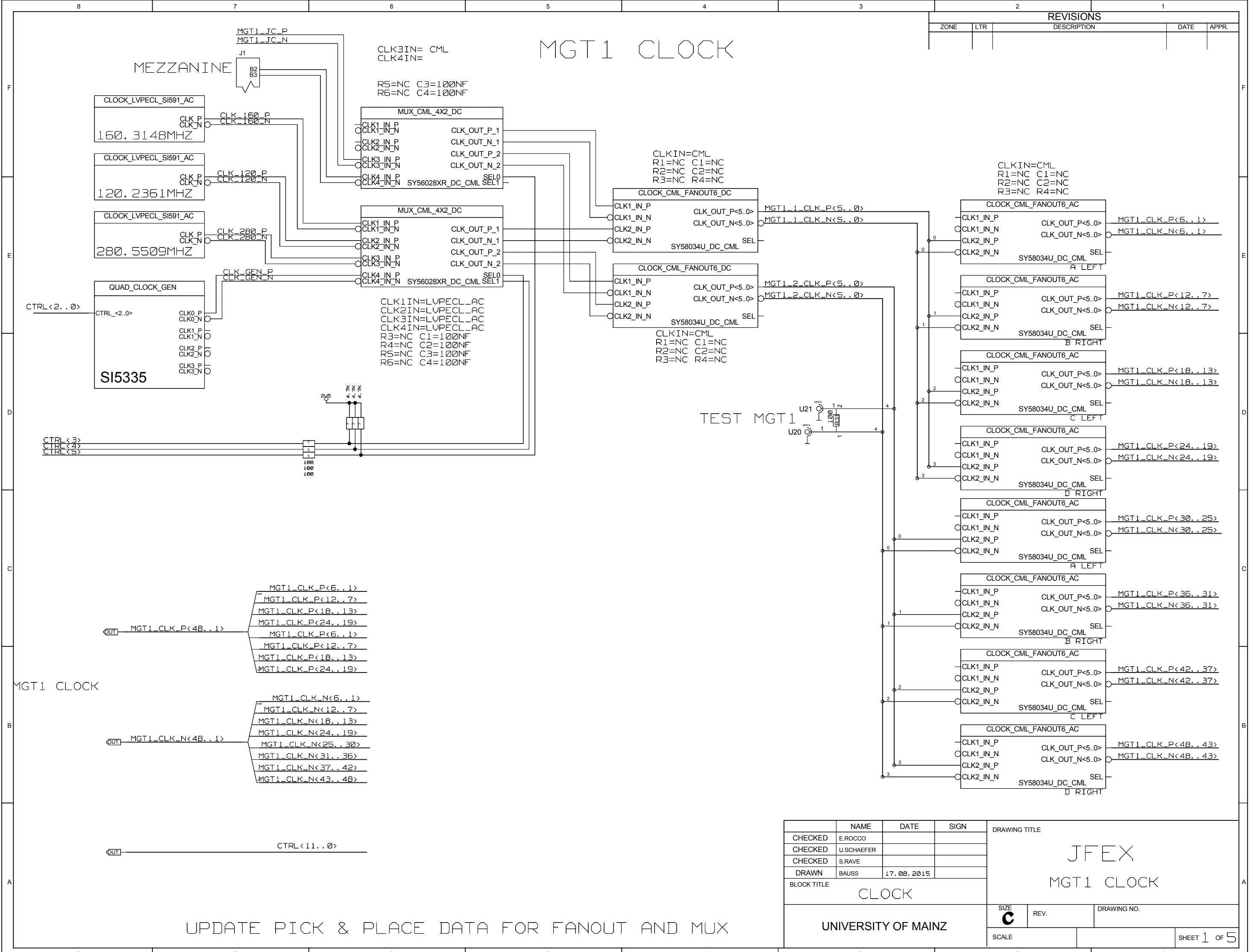


REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

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

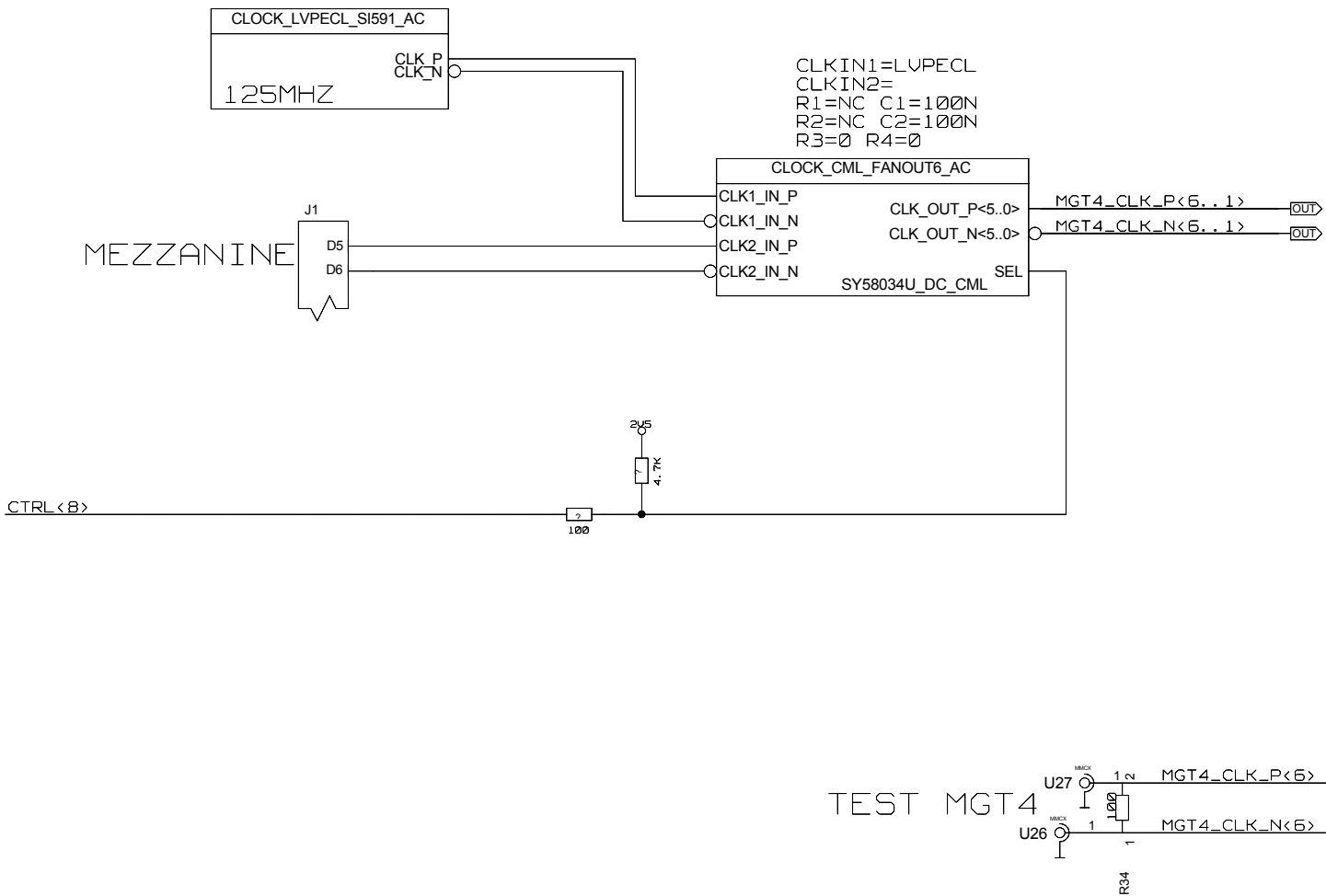


	NAME	DATE	SIGN	DRAWING TITLE JFEX		
CHECKED	E.ROCCO					
CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
DRAWN	BAUSS	17.09.2015				
BLOCK TITLE CONFIGURATION PROCESSOR U1				SIZE C	REV.	DRAWING NO.
UNIVERSITY OF MAINZ				SCALE		SHEET 1 OF 1





MGT4 CLOCK

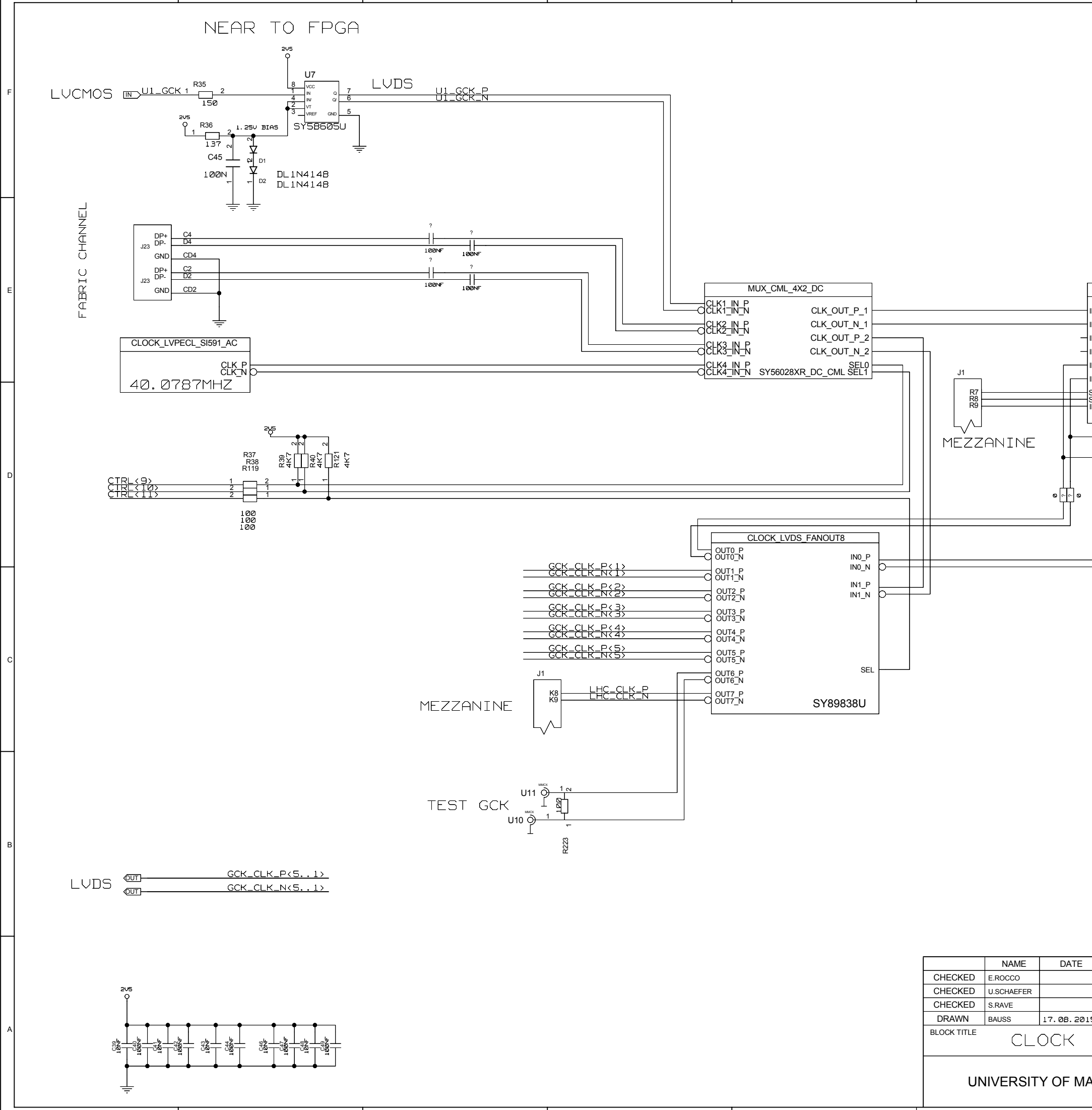


REVISIONS			
ZONE	LTR	DESCRIPTION	DATE

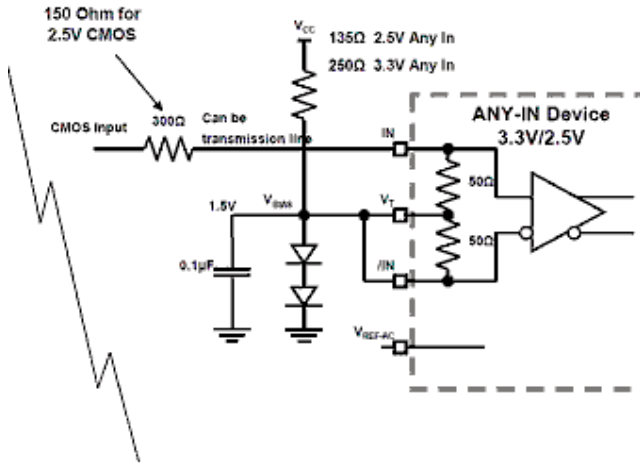
DRAWING TITLE			
JFEX			
MGT4 CLOCK			
BLOCK TITLE			
CLOCK			
UNIVERSITY OF MAINZ			
SIZE		DRAWING NO.	
C			
SCALE		SHEET 4 OF 5	

UPDATE PICK & PLACE DATA FOR FANOUT AND MUX

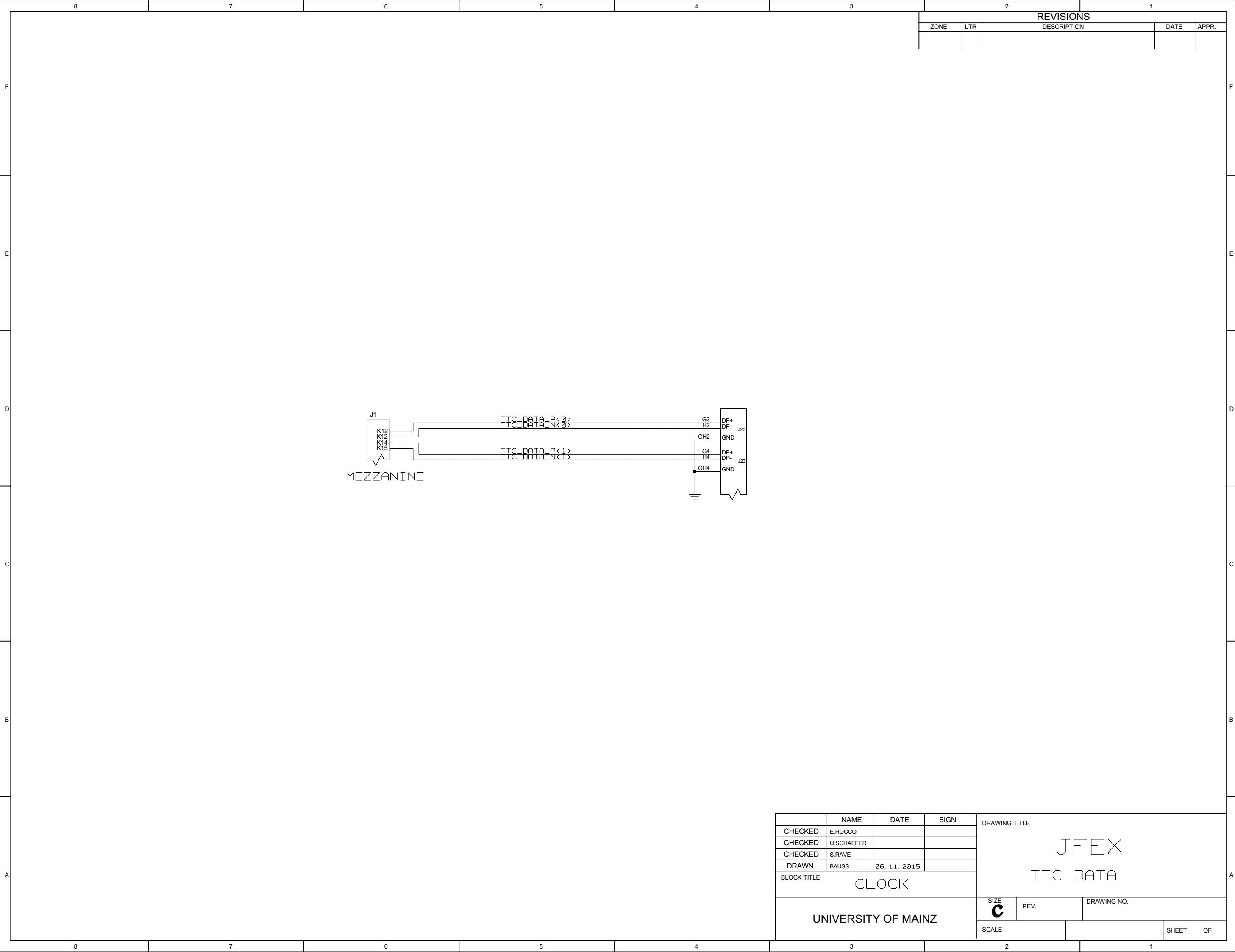
REVISIONS			
ZONE	LTR	DESCRIPTION	DATE



CMOS to Any-In



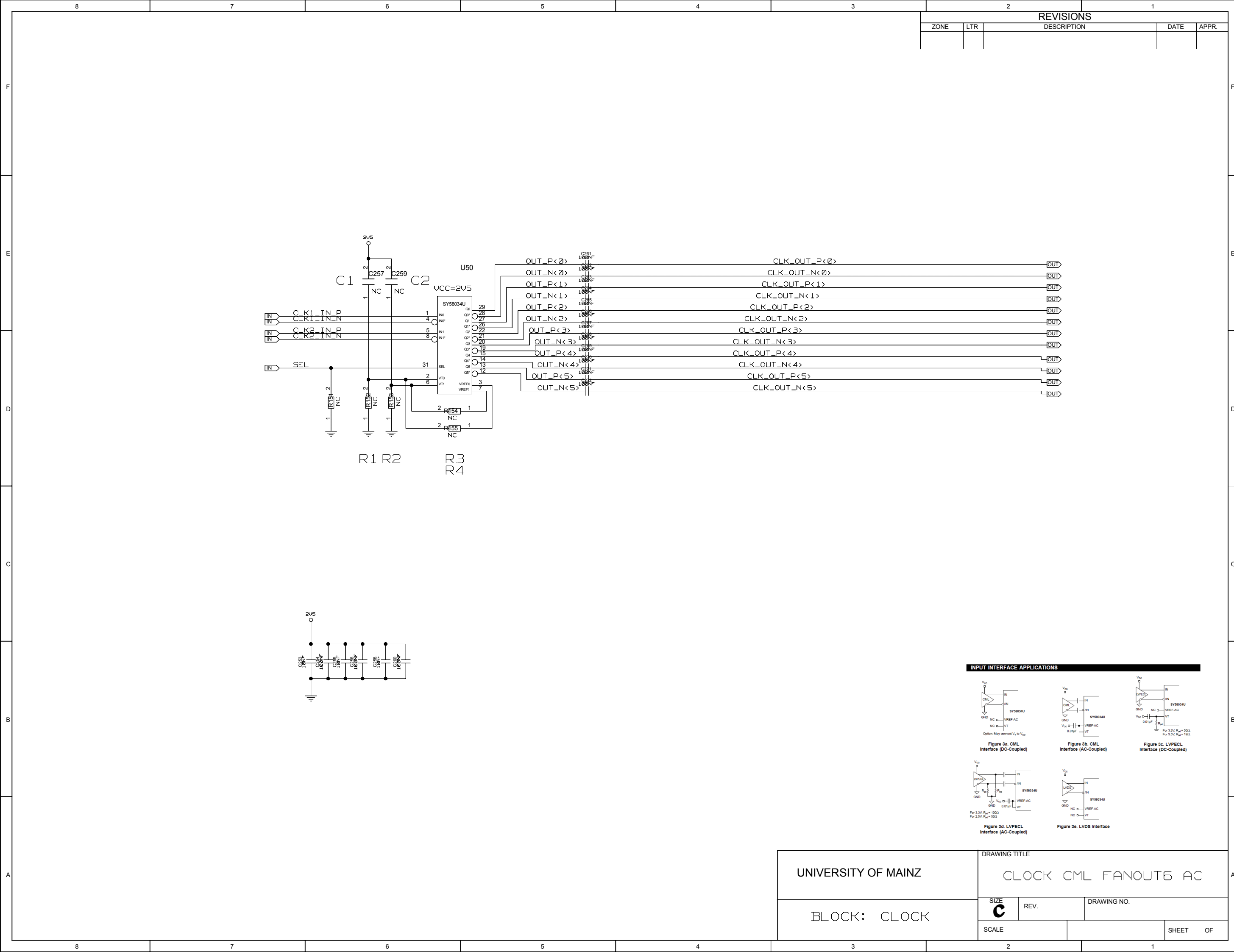
CHECKED	NAME	DATE	SIGN	DRAWING TITLE	
CHECKED	E.ROCCO			JFEX GLOBAL CLOCK	
CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS	17. 08. 2015		BLOCK TITLE CLOCK	
UNIVERSITY OF MAINZ				SIZE C	DRAWING NO.
				SCALE	SHEET 5 OF 5



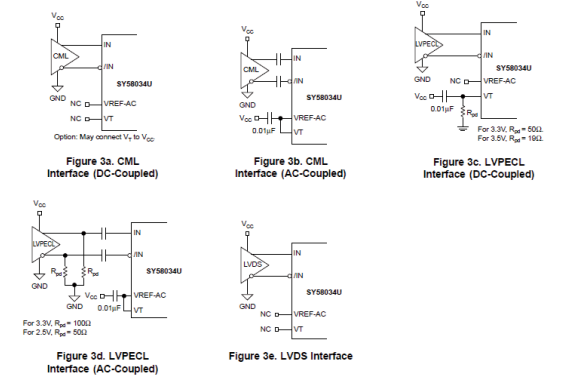
	NAME	DATE	SIGN	DRAWING TITLE			
CHECKED	E.ROCCO			JFEX TTC DATA			
CHECKED	U.SCHAEFER						
CHECKED	S.RAVE						
DRAWN	BAUSS	06. 11. 2015		BLOCK TITLE CLOCK			
UNIVERSITY OF MAINZ				SIZE C	REV.	DRAWING NO.	
				SCALE			SHEET OF

87654321

87654321

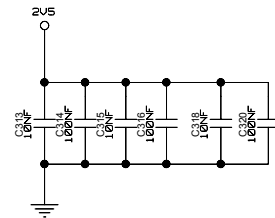
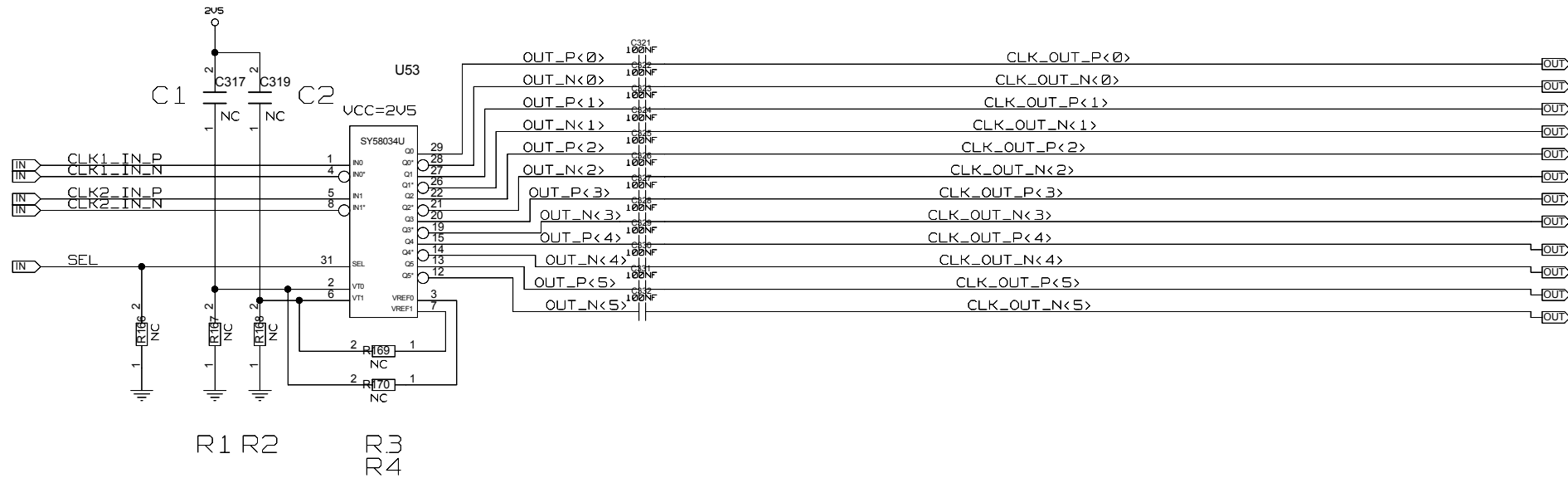


INPUT INTERFACE APPLICATIONS



UNIVERSITY OF MAINZ		DRAWING TITLE	
		CLOCK CML FANOUT6 AC	
BLOCK: CLOCK		SIZE C	DRAWING NO.
		SCALE	SHEET OF

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



INPUT INTERFACE APPLICATIONS

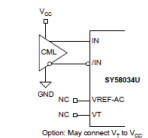


Figure 3a. CML Interface (DC-Coupled)

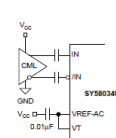


Figure 3b. CML Interface (AC-Coupled)

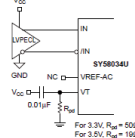


Figure 3c. LVPECL Interface (DC-Coupled)

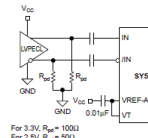


Figure 3d. LVPECL Interface (AC-Coupled)

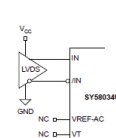


Figure 3e. LVDS Interface

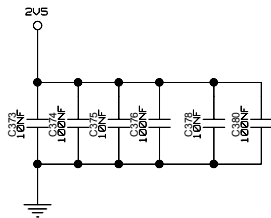
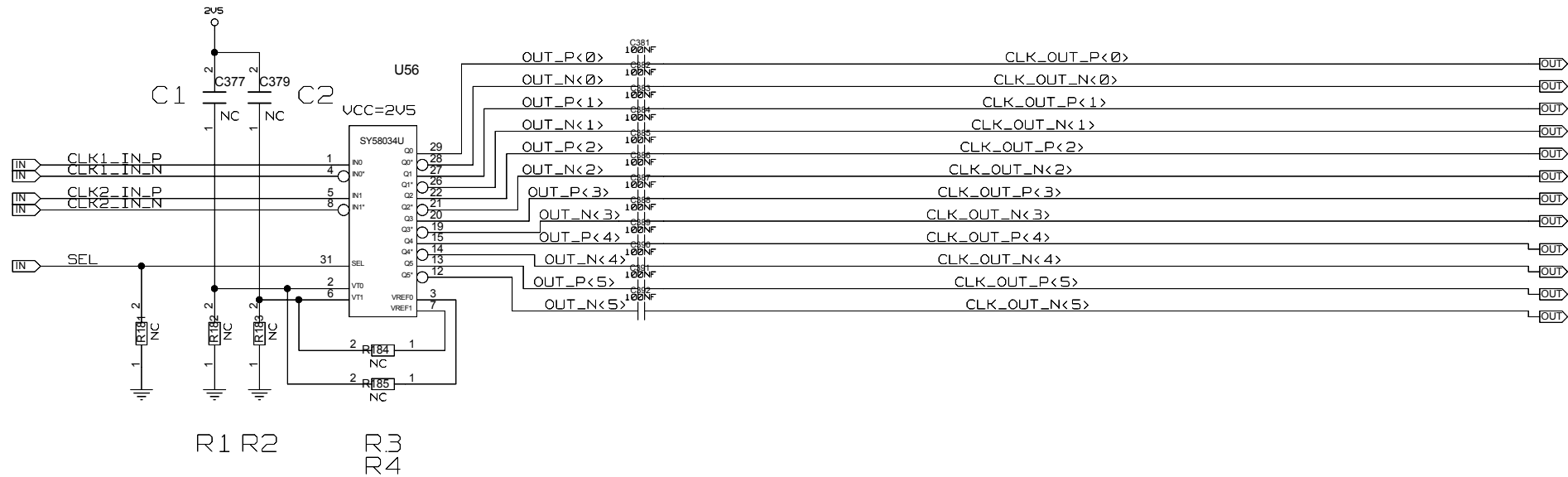
UNIVERSITY OF MAINZ

BLOCK: CLOCK

DRAWING TITLE
CLOCK CML FANOUT6 AC

SIZE	REV.	DRAWING NO.
C		
SCALE		SHEET OF

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



INPUT INTERFACE APPLICATIONS

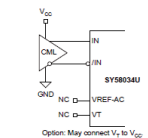


Figure 3a. CML Interface (DC-Coupled)

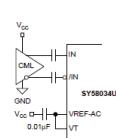


Figure 3b. CML Interface (AC-Coupled)

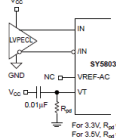


Figure 3c. LVPECL Interface (DC-Coupled)

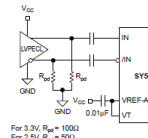


Figure 3d. LVPECL Interface (AC-Coupled)

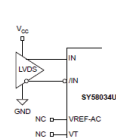


Figure 3e. LVDS Interface

UNIVERSITY OF MAINZ

BLOCK: CLOCK

DRAWING TITLE

CLOCK CML FANOUT6 AC

SIZE

C

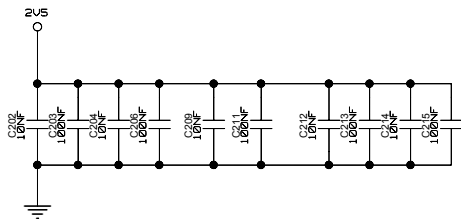
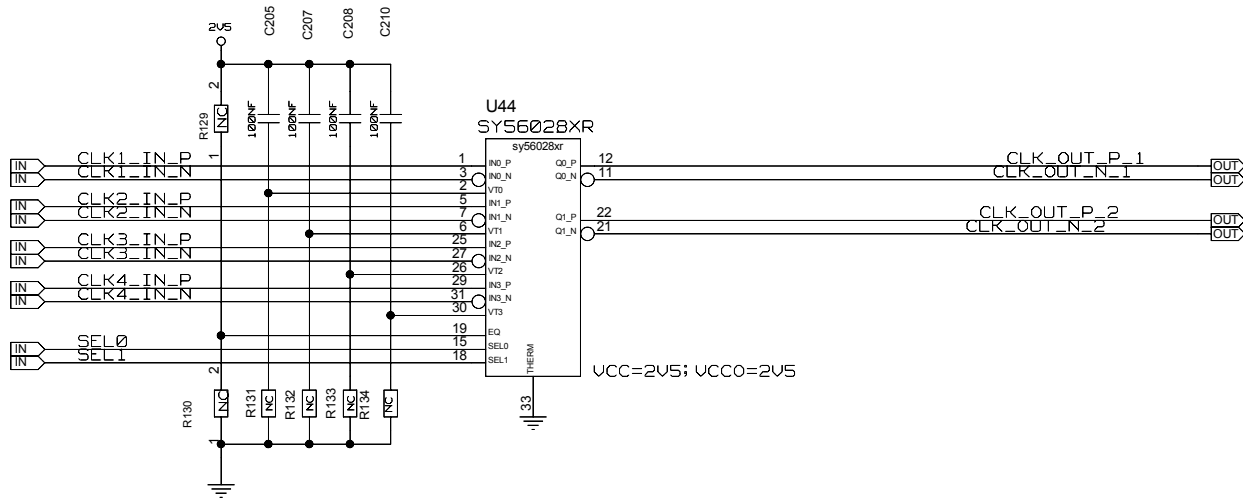
REV.

DRAWING NO.

SCALE

SHEET OF

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



Input Interface Applications

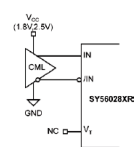


Figure 4a. CML Interface
100 Ω Differential
(DC-Coupled, 1.8V, 2.5V)

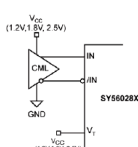


Figure 4b. CML Interface
50 Ω to Vcc
(DC-Coupled, 1.2V, 1.8V, 2.5V)

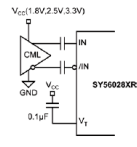


Figure 4c. CML Interface
(AC-Coupled)
*See note in Functional Description
for 1.2V CML driver with AC-Coupling

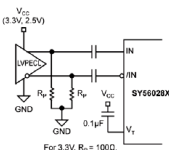


Figure 4d. LVPECL Interface
(AC-Coupled)

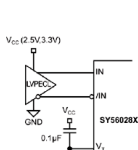


Figure 4e. LVPECL Interface
(DC-Coupled 2.5V and 3.3V)

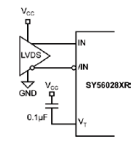


Figure 4f. LVDS Interface

UNIVERSITY OF MAINZ

BLOCK: CLOCK

DRAWING TITLE

MULTIPLEXER

SIZE

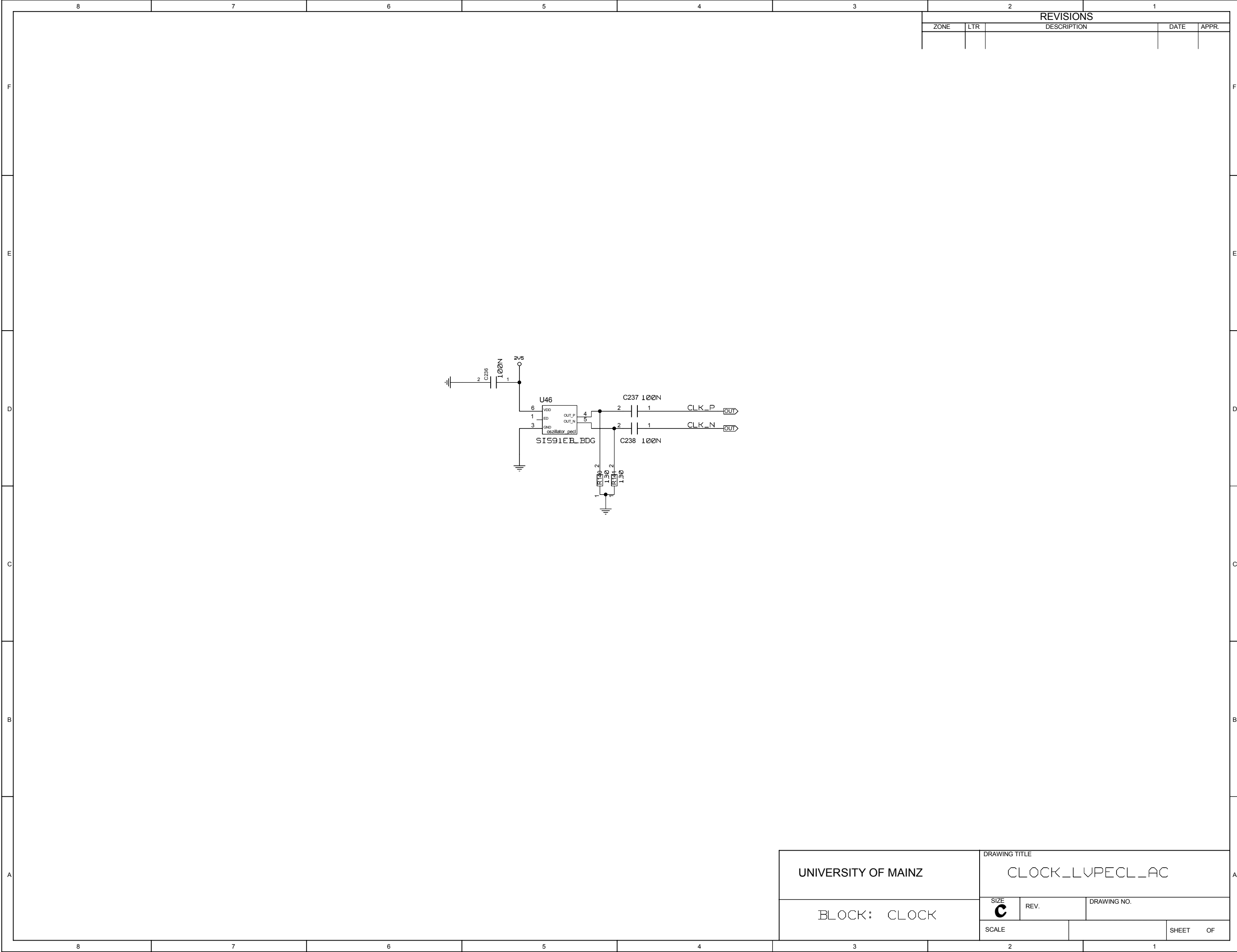
C

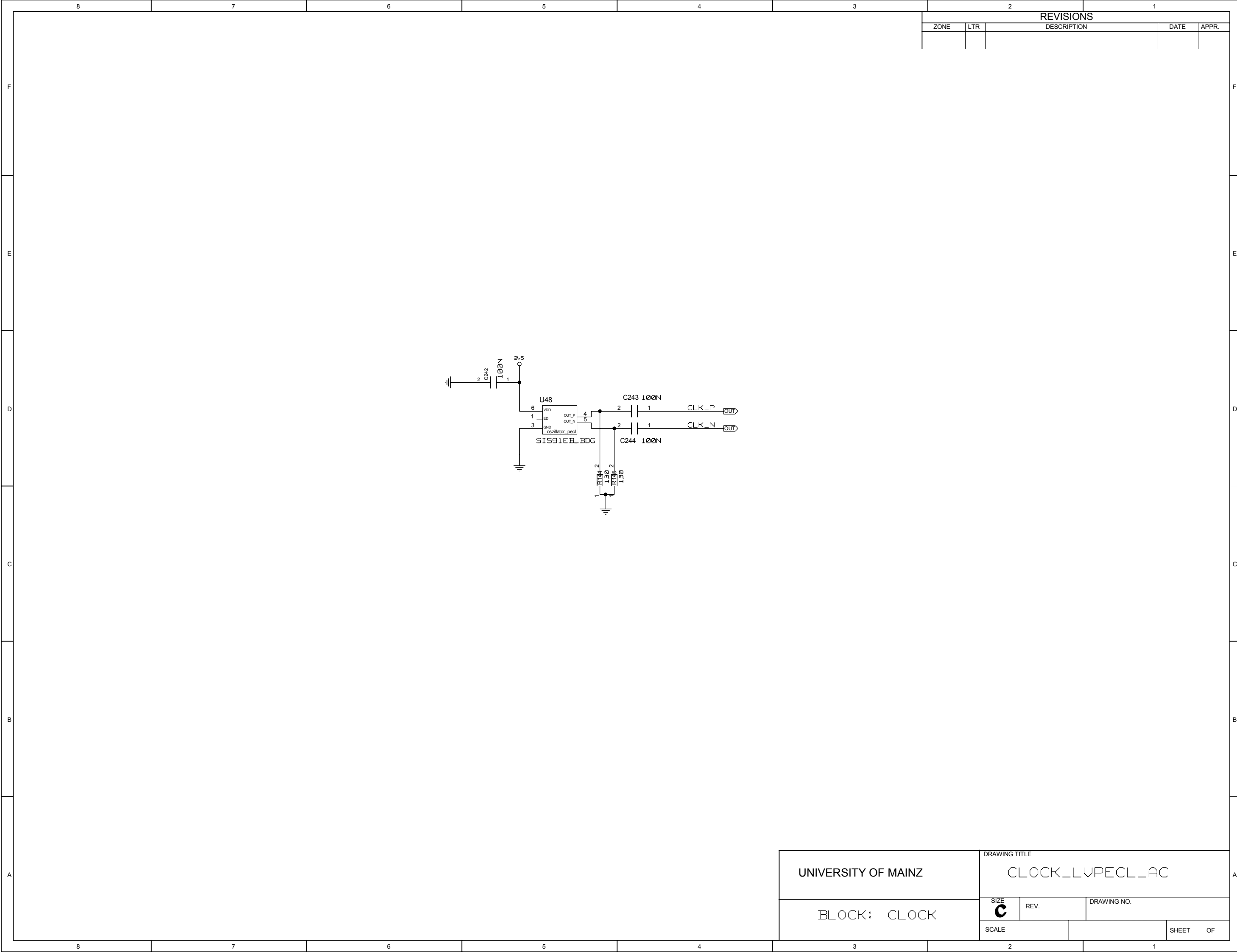
REV.

DRAWING NO.

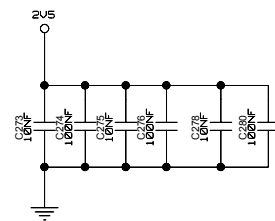
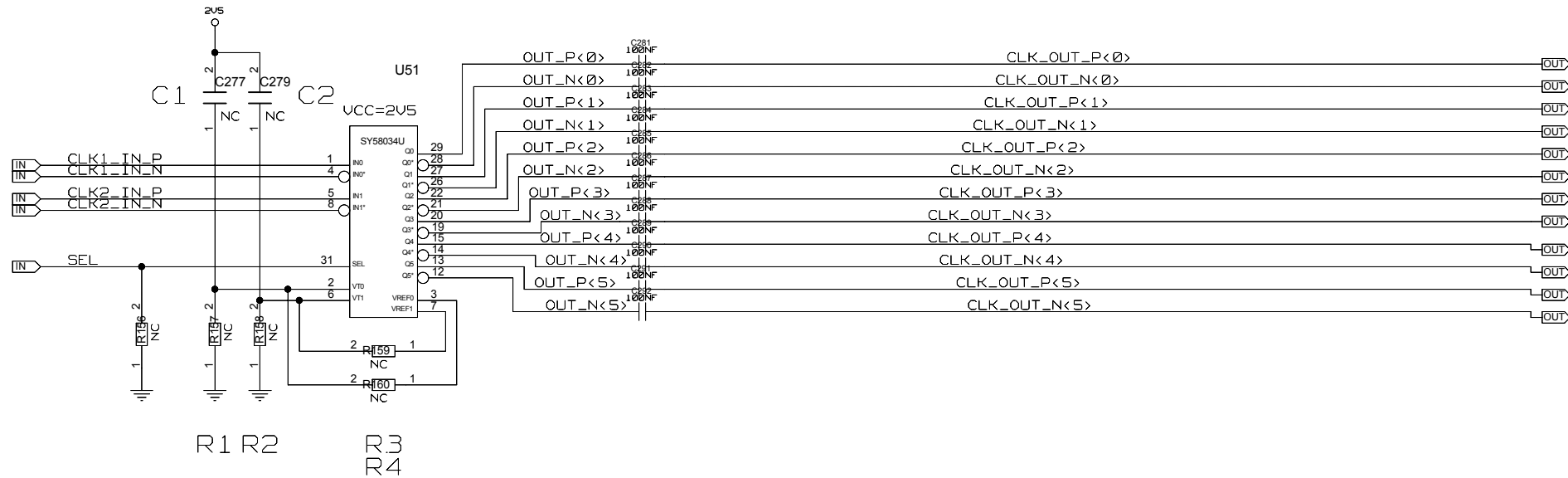
SCALE

SHEET OF





REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



INPUT INTERFACE APPLICATIONS

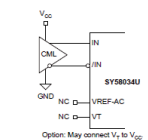


Figure 3a. CML Interface (DC-Coupled)

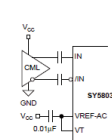


Figure 3b. CML Interface (AC-Coupled)

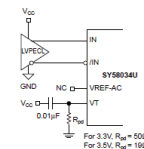


Figure 3c. LVPECL Interface (DC-Coupled)

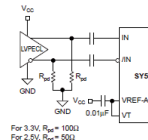


Figure 3d. LVPECL Interface (AC-Coupled)

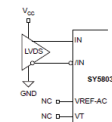


Figure 3e. LVDS Interface

UNIVERSITY OF MAINZ

BLOCK: CLOCK

DRAWING TITLE

CLOCK CML FANOUT6 AC

SIZE

C

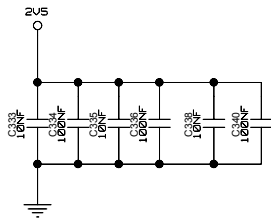
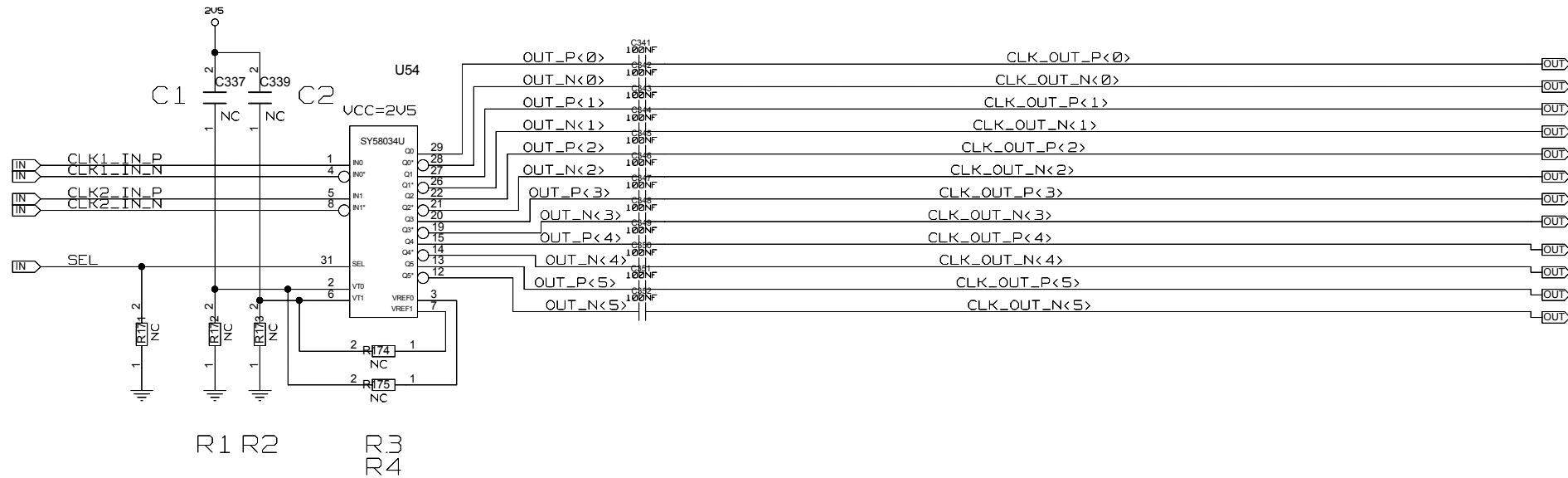
REV.

DRAWING NO.

SCALE

SHEET OF

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



INPUT INTERFACE APPLICATIONS

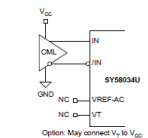


Figure 3a. CML Interface (DC-Coupled)

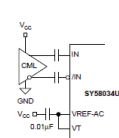


Figure 3b. CML Interface (AC-Coupled)

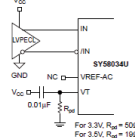


Figure 3c. LVPECL Interface (DC-Coupled)

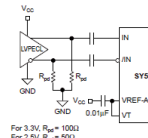


Figure 3d. LVPECL Interface (AC-Coupled)

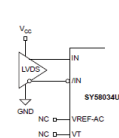


Figure 3e. LVDS Interface

UNIVERSITY OF MAINZ

BLOCK: CLOCK

DRAWING TITLE

CLOCK CML FANOUT6 AC

SIZE

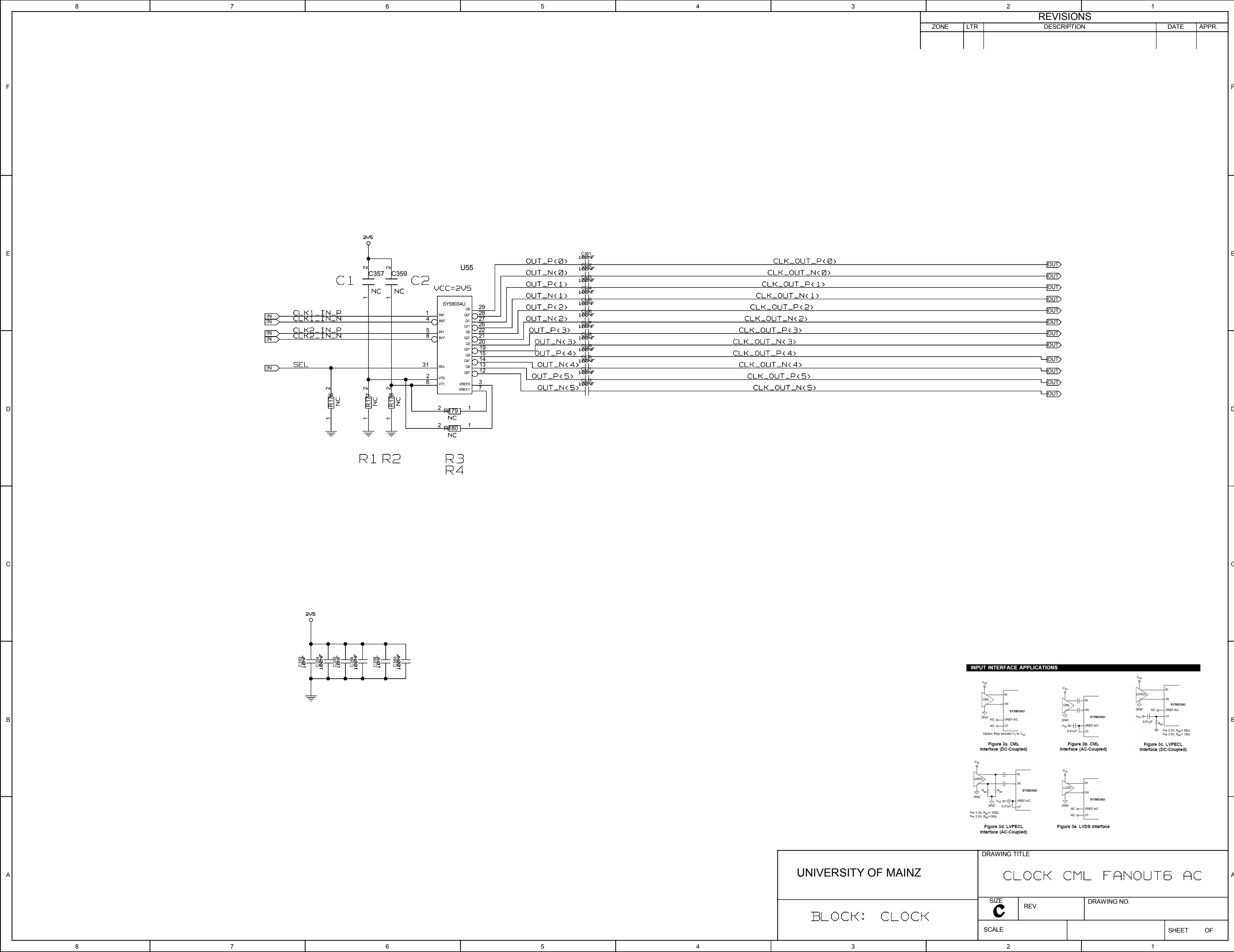
C

REV.

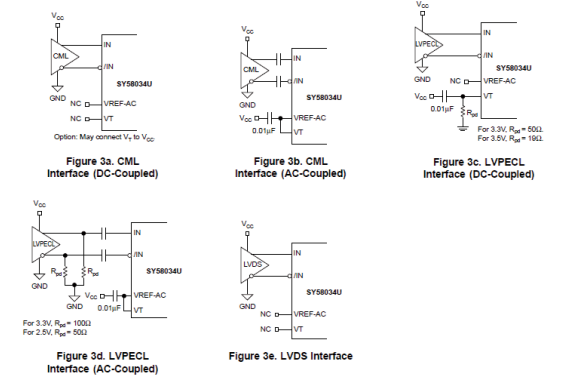
DRAWING NO.

SCALE

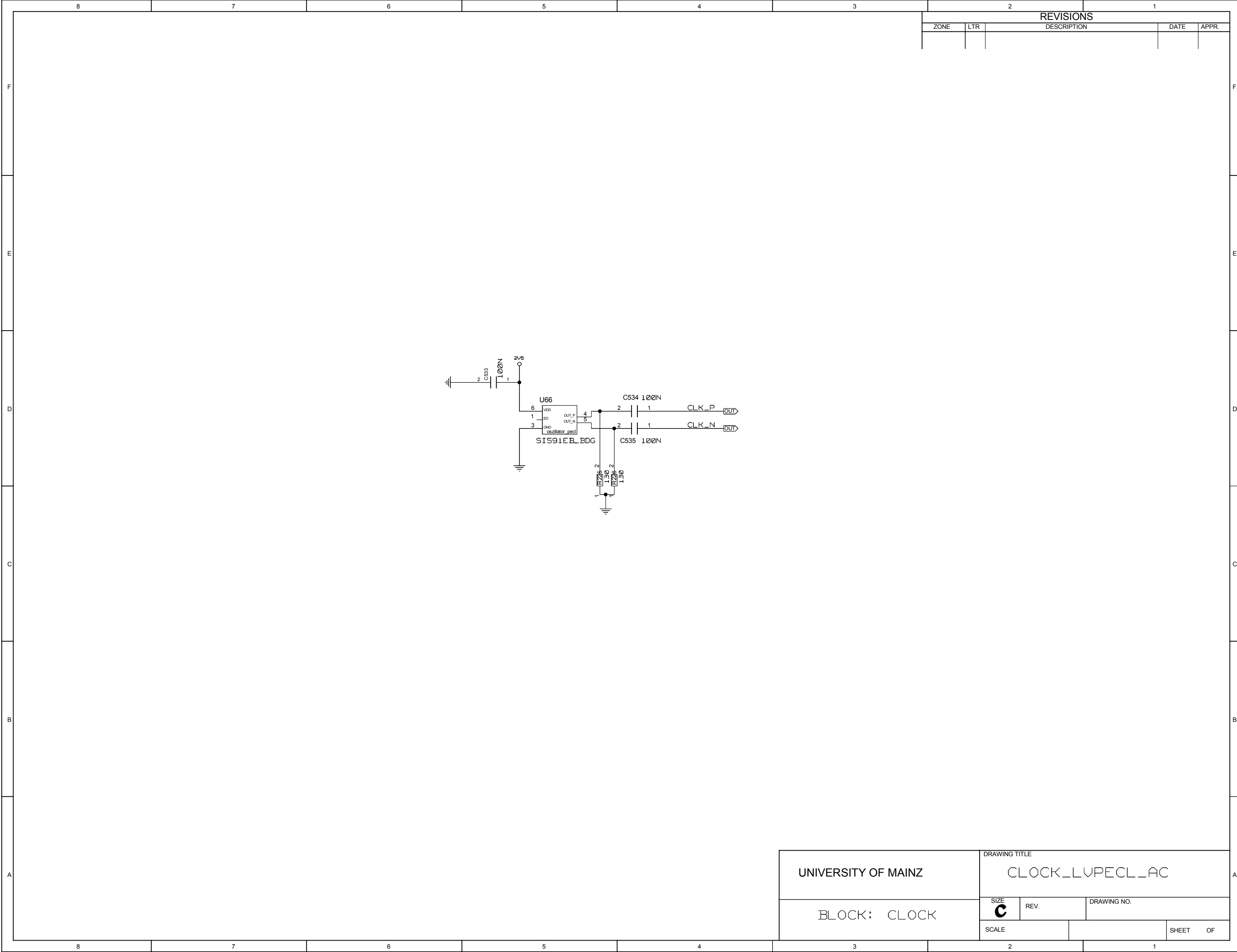
SHEET OF



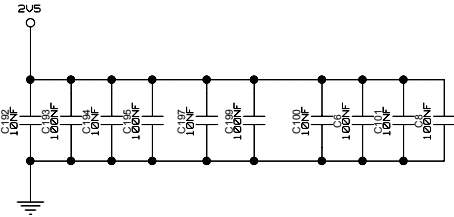
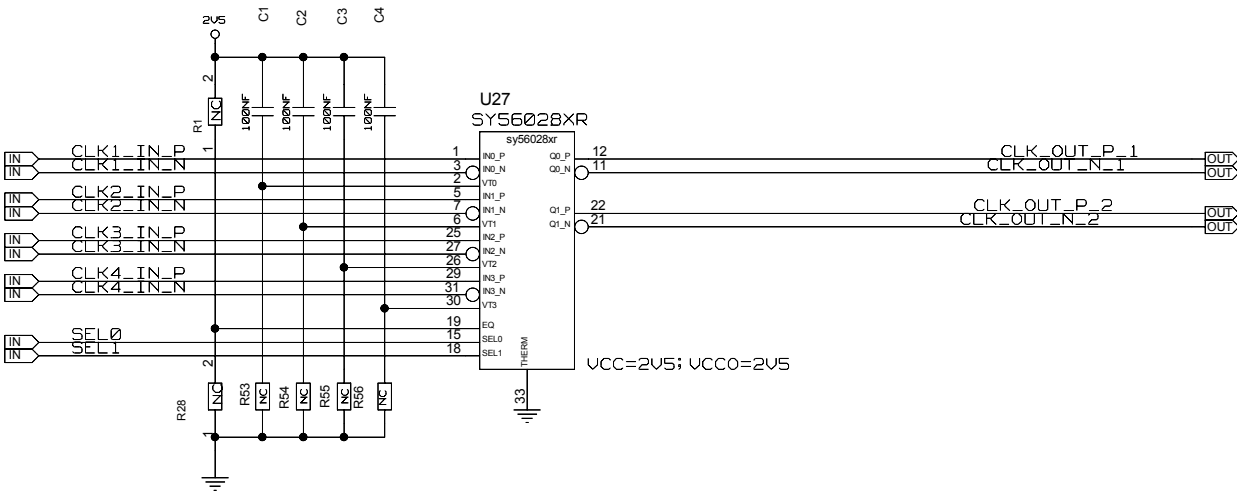
INPUT INTERFACE APPLICATIONS



UNIVERSITY OF MAINZ		DRAWING TITLE		
BLOCK: CLOCK		CLOCK CML FANOUT6 AC		
SIZE	REV.	DRAWING NO.		
SCALE			SHEET	OF



REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



Input Interface Applications

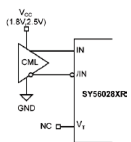


Figure 4a. CML Interface
100 Ω Differential
(DC-Coupled, 1.8V, 2.5V)

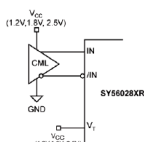


Figure 4b. CML Interface
80 Ω to V_{CC}
(DC-Coupled, 1.2V/1.8V/2.5V)

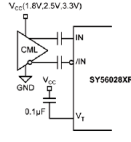


Figure 4c. CML Interface
(AC-Coupled)
*See note in Functional Description
for 1.2V CML driver with AC-Coupling

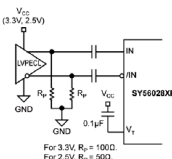


Figure 4d. LVPECL Interface
(AC-Coupled)

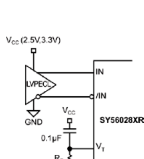


Figure 4e. LVPECL Interface
(DC-Coupled 2.5V and 3.3V)

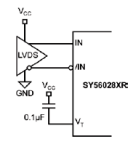
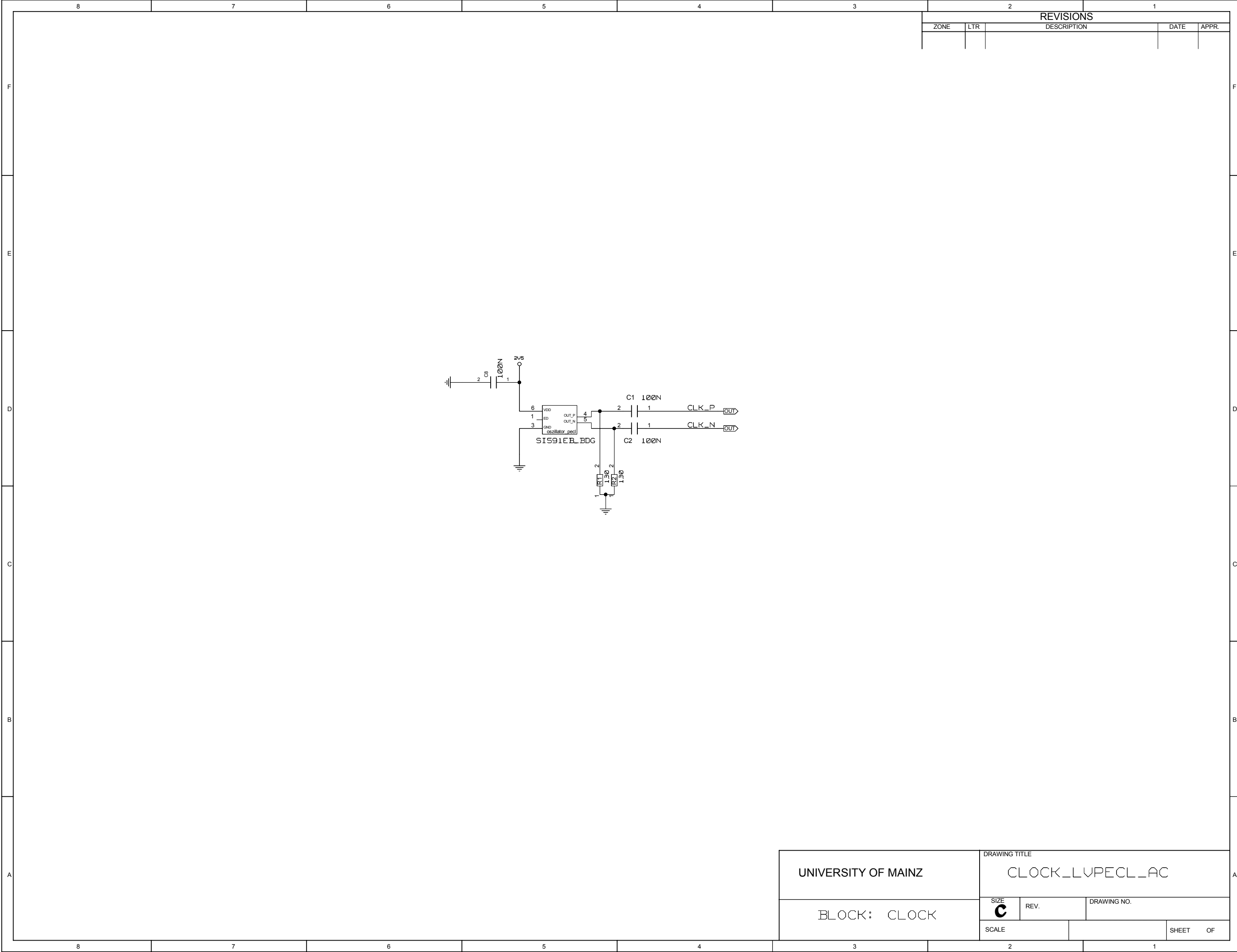
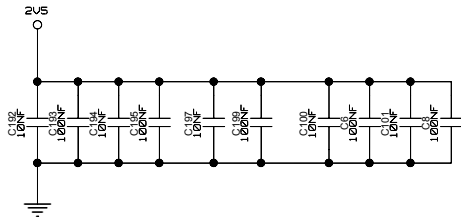
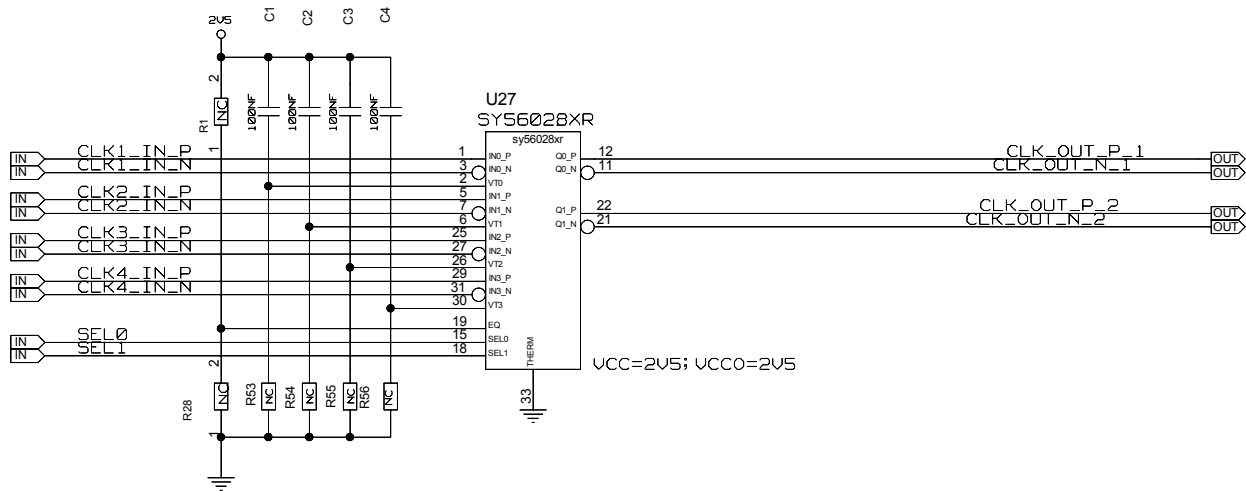


Figure 4f. LVDS Interface

UNIVERSITY OF MAINZ		DRAWING TITLE MULTIPLEXER		
BLOCK: CLOCK		SIZE C	REV.	DRAWING NO.
		SCALE		SHEET OF



REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



Input Interface Applications

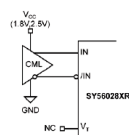


Figure 4a. CML Interface
100 Ω Differential
(DC-Coupled, 1.8V, 2.5V)

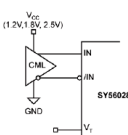


Figure 4b. CML Interface
50 Ω to VCC
(DC-Coupled, 1.2V, 1.8V, 2.5V)

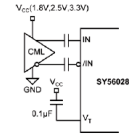


Figure 4c. CML Interface
(AC-Coupled)
*See note in Functional Description
for 1.2V CML driver with AC-Coupling

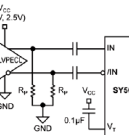


Figure 4d. LVPECL Interface
(AC-Coupled)

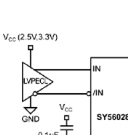


Figure 4e. LVPECL Interface
(DC-Coupled 2.5V and 3.3V)

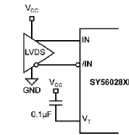
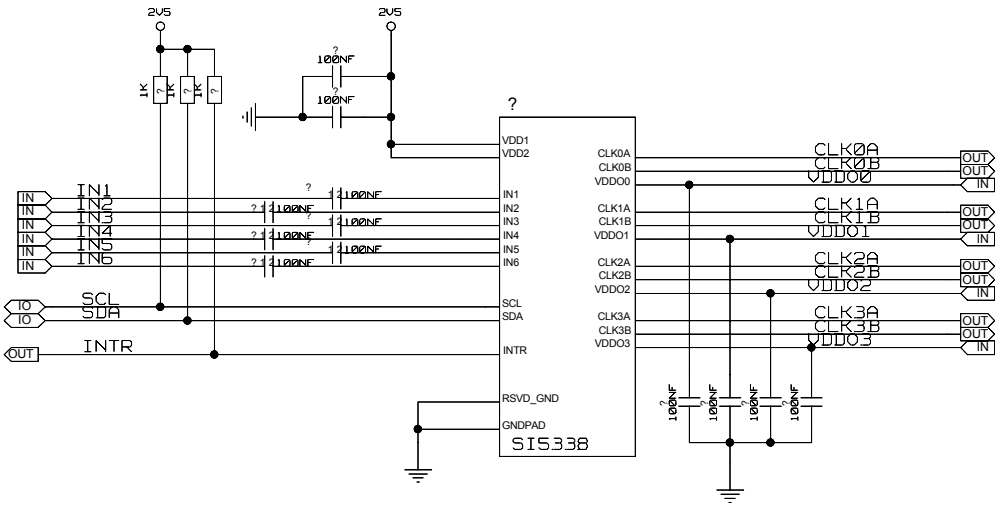


Figure 4f. LVDS Interface

UNIVERSITY OF MAINZ		DRAWING TITLE MULTIPLEXER		
BLOCK: CLOCK		SIZE C	REV.	DRAWING NO.
SCALE		SHEET		OF

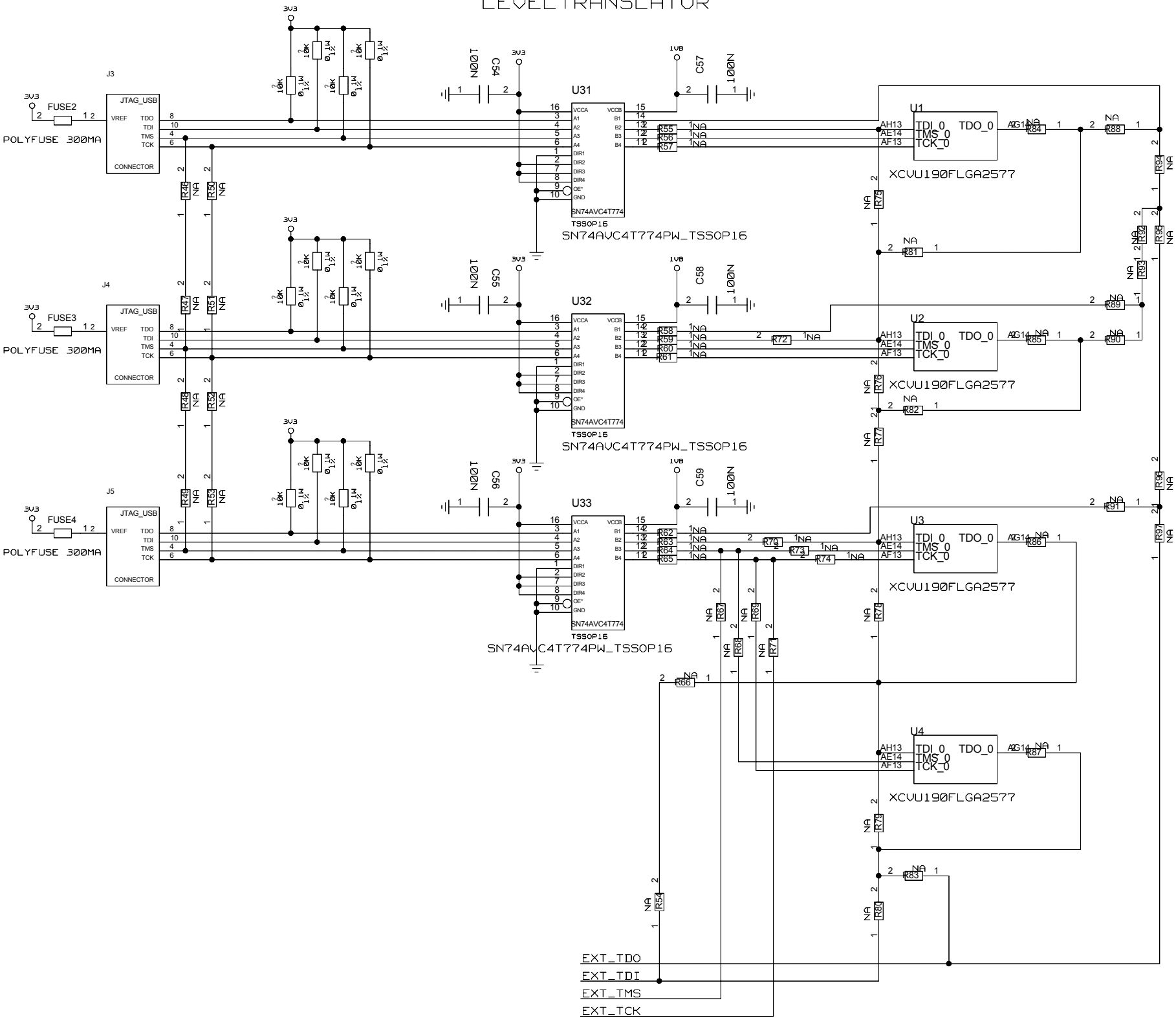


REVISIONS			
ZONE	LTR	DESCRIPTION	DATE

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

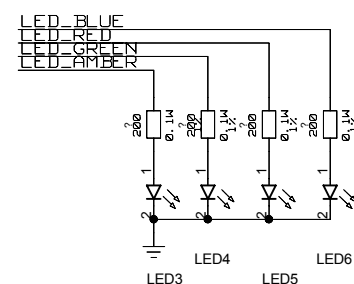
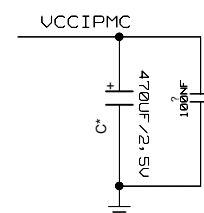
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

LEVEL TRANSLATOR



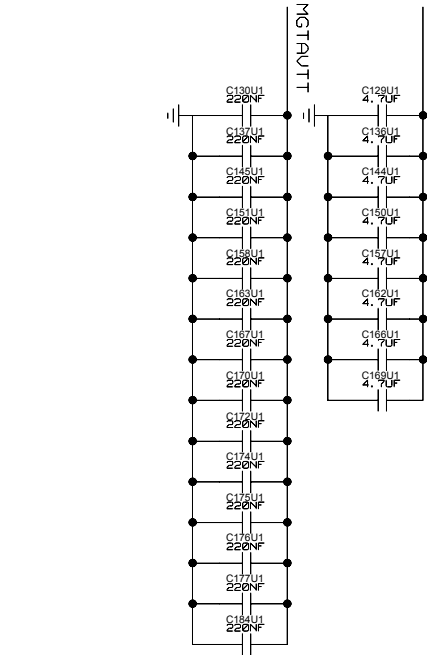
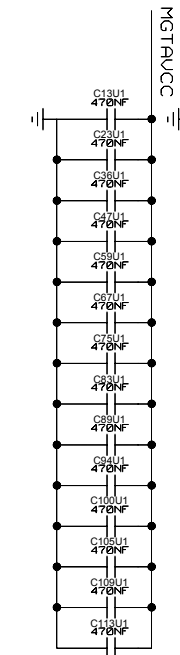
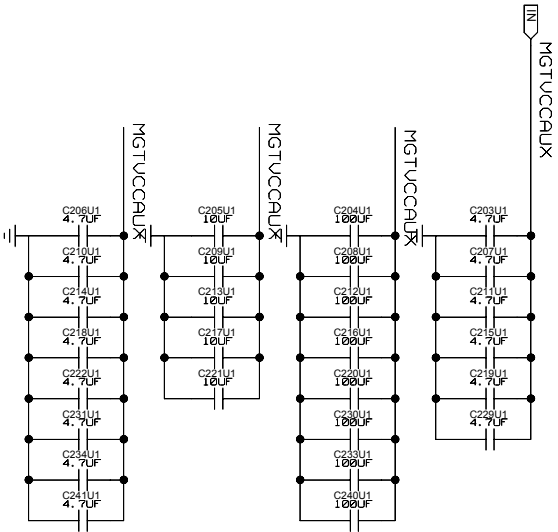
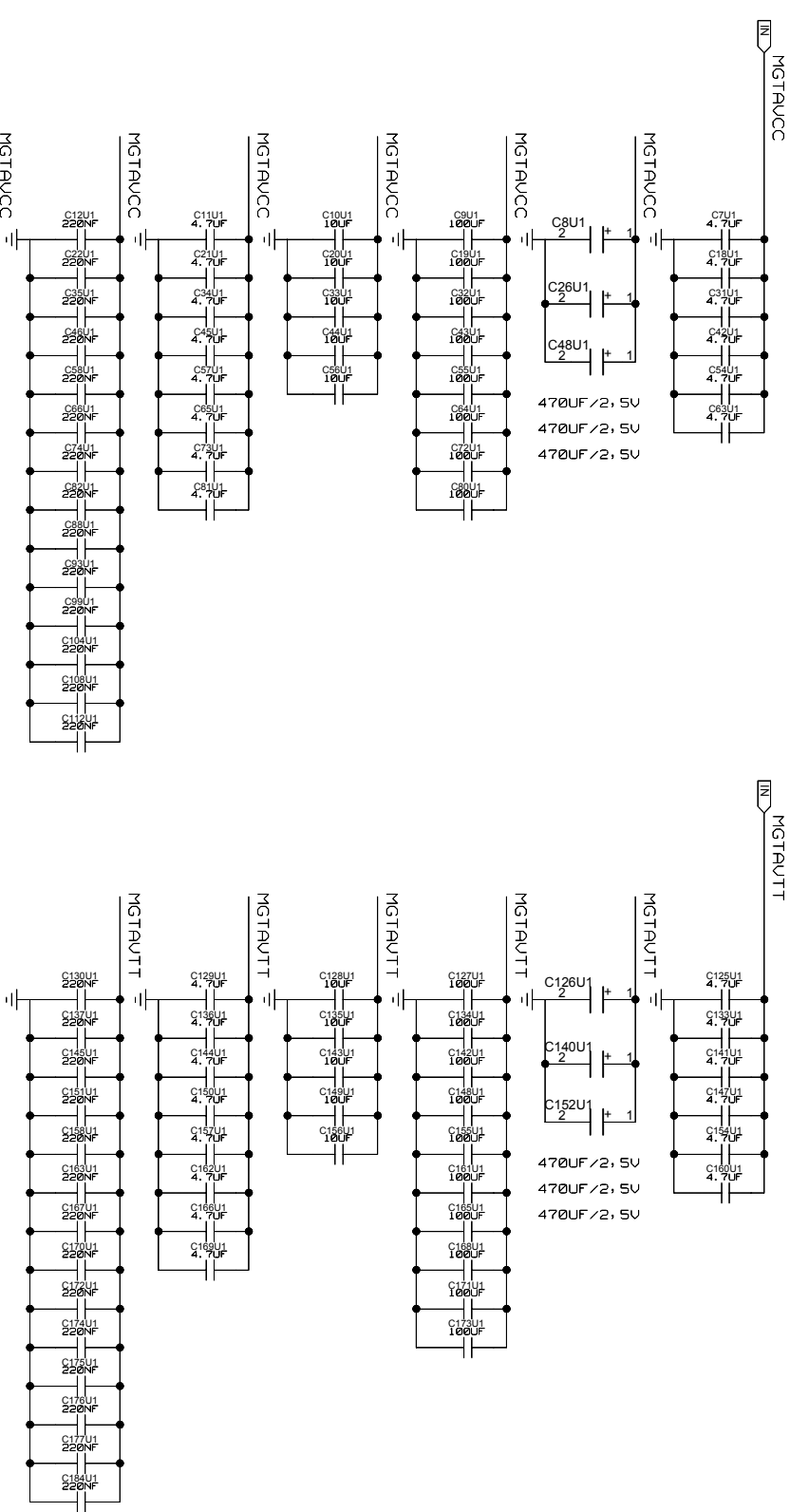
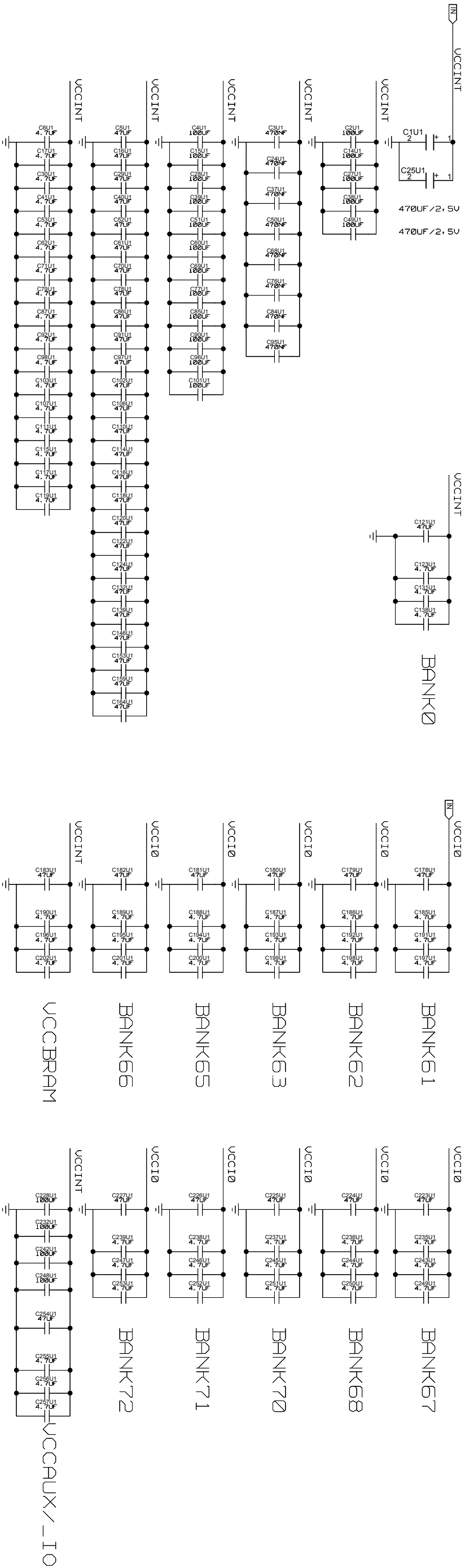
	NAME	DATE	SIGN	DRAWING TITLE		
CHECKED	E.ROCCO					
CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
DRAWN	BAUSS	15. 07. 2015				
BLOCK TITLE				JTAG CHAIN		
JTAG						
UNIVERSITY OF MAINZ				SIZE	REV.	DRAWING NO.
				C		
				SCALE		SHEET OF

		2		1	
REVISIONS					
ZONE	LTR	DESCRIPTION		DATE	APPR.



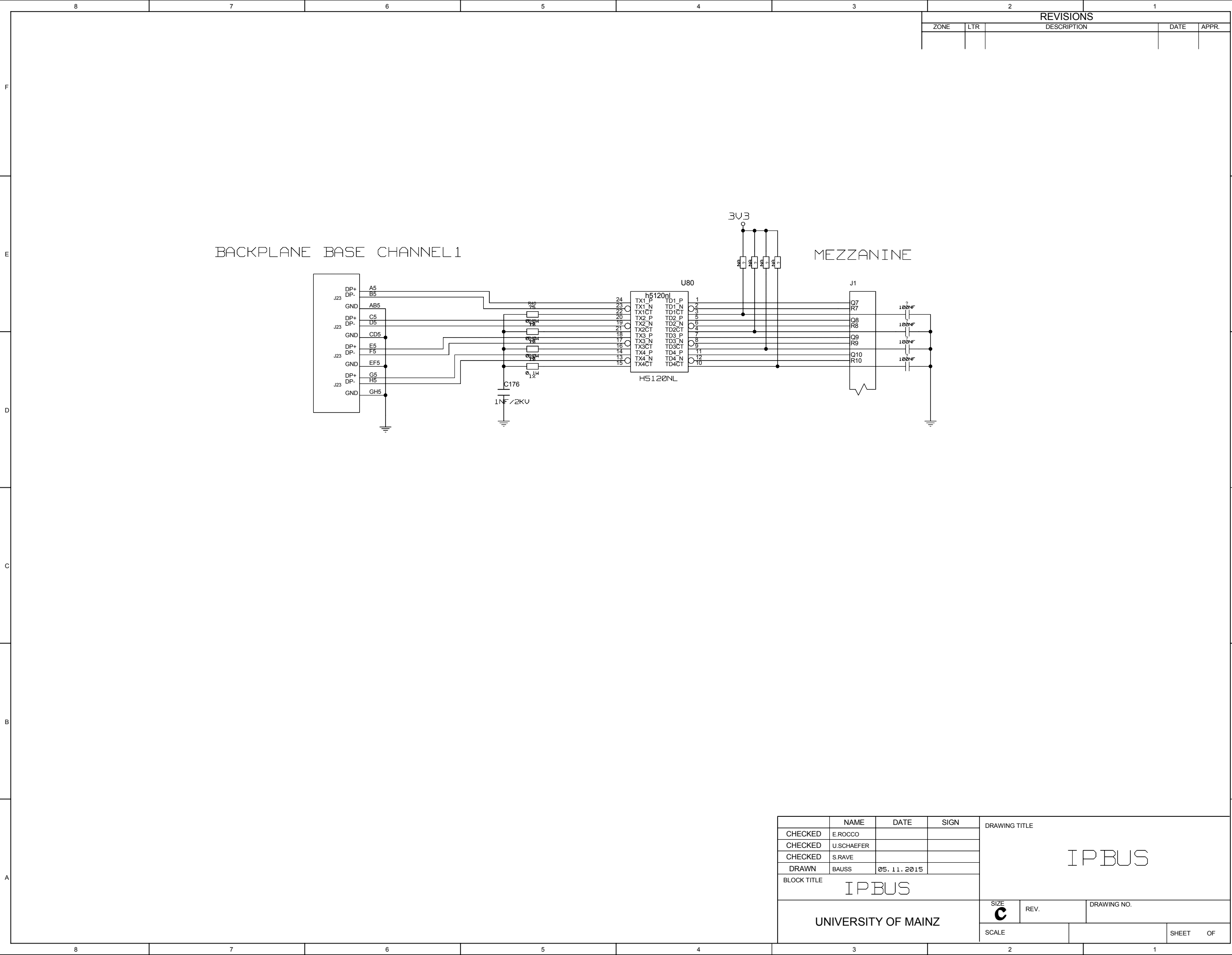
	NAME	DATE	SIGN	DRAWING TITLE IPMC CONTROL			
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CHECKED	U.SCHAEFER						
CHECKED	S.RAVE						
DRAWN	BAUSS	30.10.2015					
BLOCK TITLE IPMC							
UNIVERSITY OF MAINZ				SIZE C	REV.	DRAWING NO.	
				SCALE			SHEET OF

REVISIONS		DATE	APPR
ZONE	LTR	DESCRIPTION	



NAME	DATE	SIGN
CHECKED	E.ROCCO	
CHECKED	U.SCHAEFER	
CHECKED	S.RAVE	
DRAWN	BAUSS	

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



	NAME	DATE	SIGN	DRAWING TITLE IPBUS		
CHECKED	E.ROCCO					
CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
DRAWN	BAUSS	05. 11. 2015				
BLOCK TITLE IPBUS						
UNIVERSITY OF MAINZ				SIZE C	REV.	DRAWING NO.
				SCALE		
					SHEET	OF