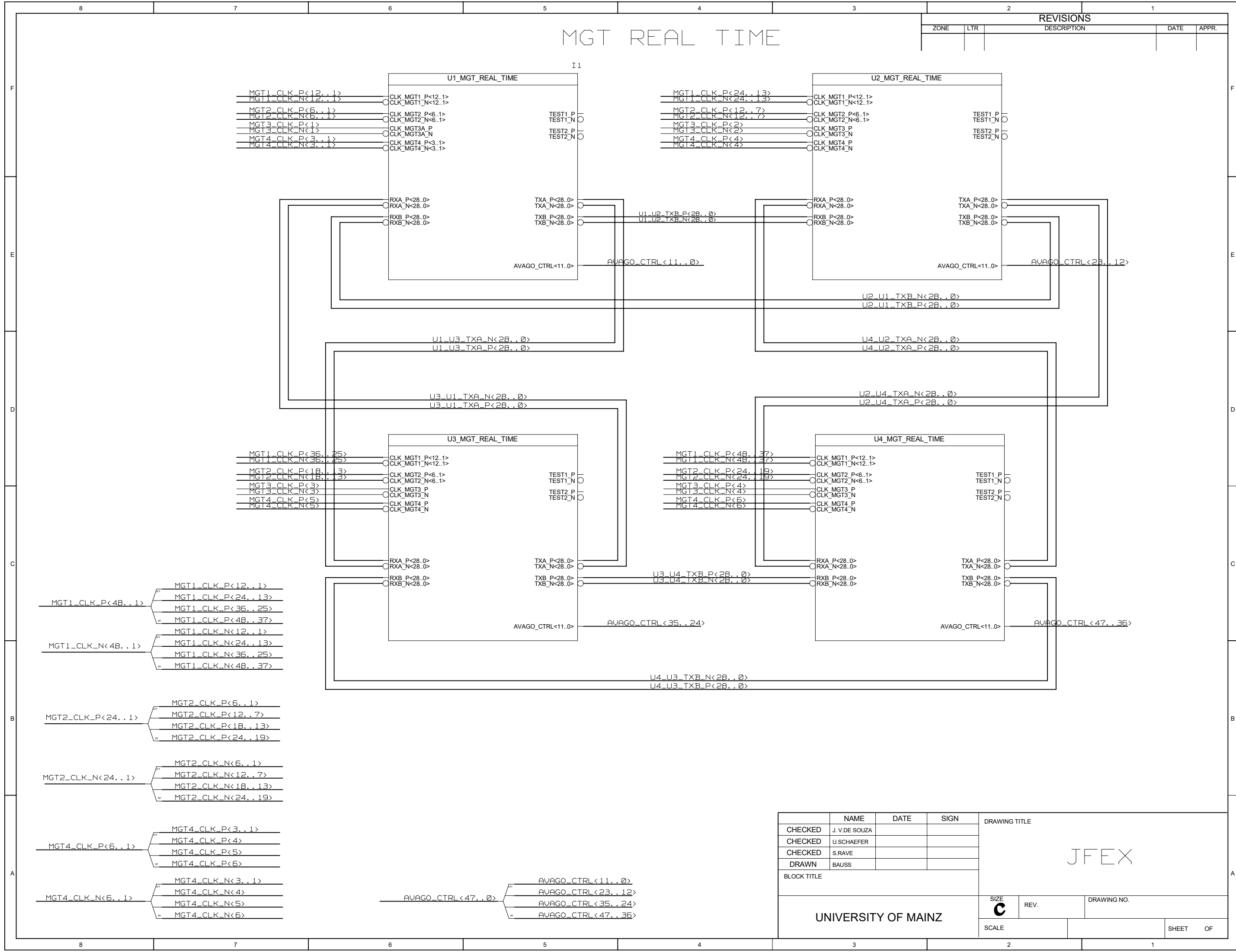
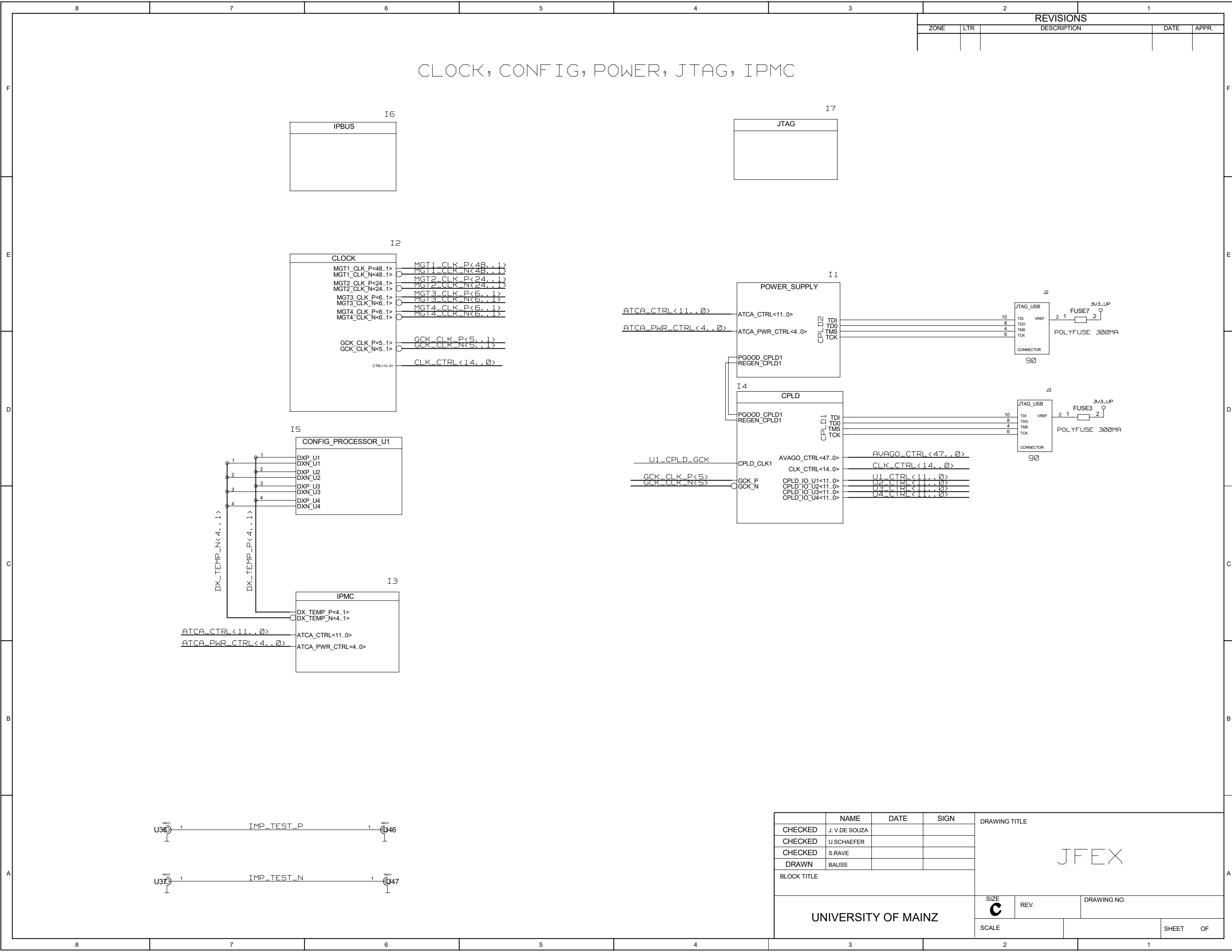
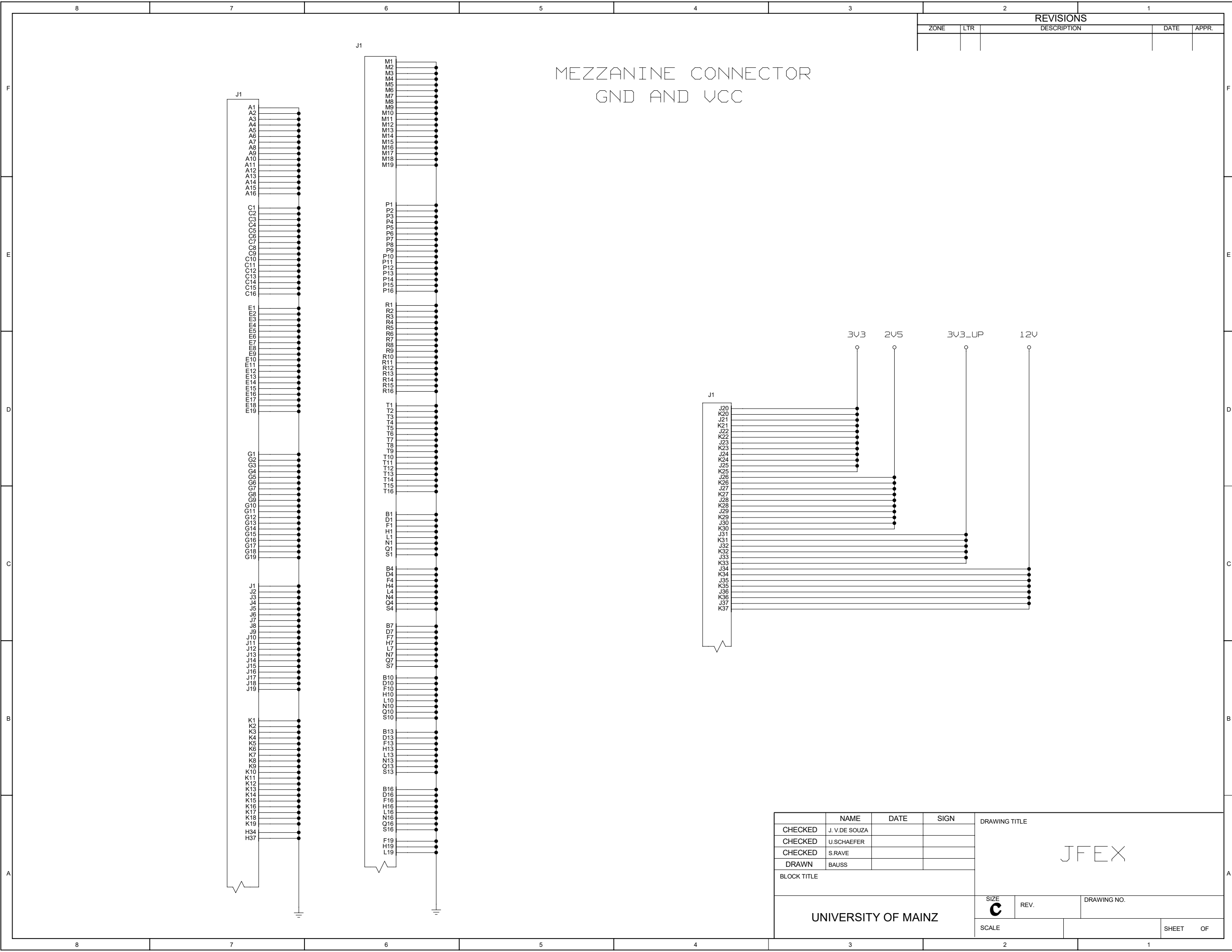


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2 PARALLEL I/O BLOCK																																																											
3 MGT REAL TIME PATH BLOCK																																																											
4 IPBUS, JTAG, POWER, CLOCK, CONGIG, IPMC BLOCK																																																											
5 MEZZANINE CONNECTOR																																																											
6 - 10 U1 PARALLEL I/O																																																											
11 CLOCK LVDS LVCMOS MODUL																																																											
12 - 16 U2 PARALLEL I/O																																																											
17 - 21 U3 PARALLEL I/O																																																											
22 - 26 U4 PARALLEL I/O																																																											
27 - 33 U1 MGT REALTIME HIGH SPEED OPTICAL LINKS																																																											
34 AC COUPLING HIGH SPEED LINKS																																																											
35 AVAGO RECEIVER																																																											
36 AVAGO TRANSMITTER																																																											
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58 ATCA POWER IN AND POWER CONTROL																																																											
59 POWERSUPPLY PMBUS CONNECTION																																																											
60 POWERSEQUENCING CPLD, VOLTAGE MONITOR, SUPERVISOR																																																											
61 POWERSUPPLY BOARDLEVEL																																																											
62 POWERSUPPLY U1																																																											
63 POWERSUPPLY U2																																																											
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79 - 81 IPMC																																																											
82 CONTROL AND CONFIG CPLD																																																											
83 - 86 U1, U2, U3, U4 CONFIG																																																											
87 IPBUS CONNECTION																																																											
88 JTAG CHAIN																																																											
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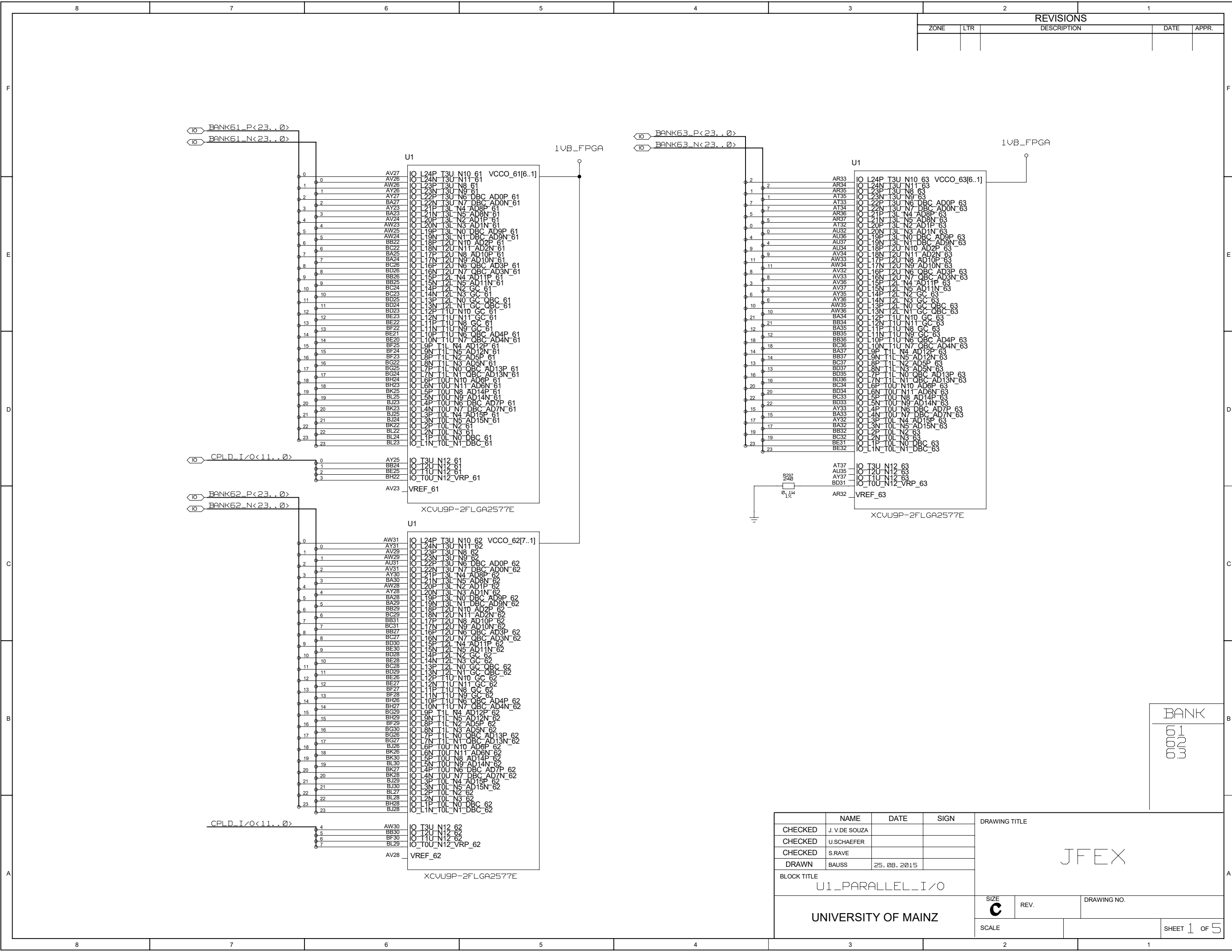


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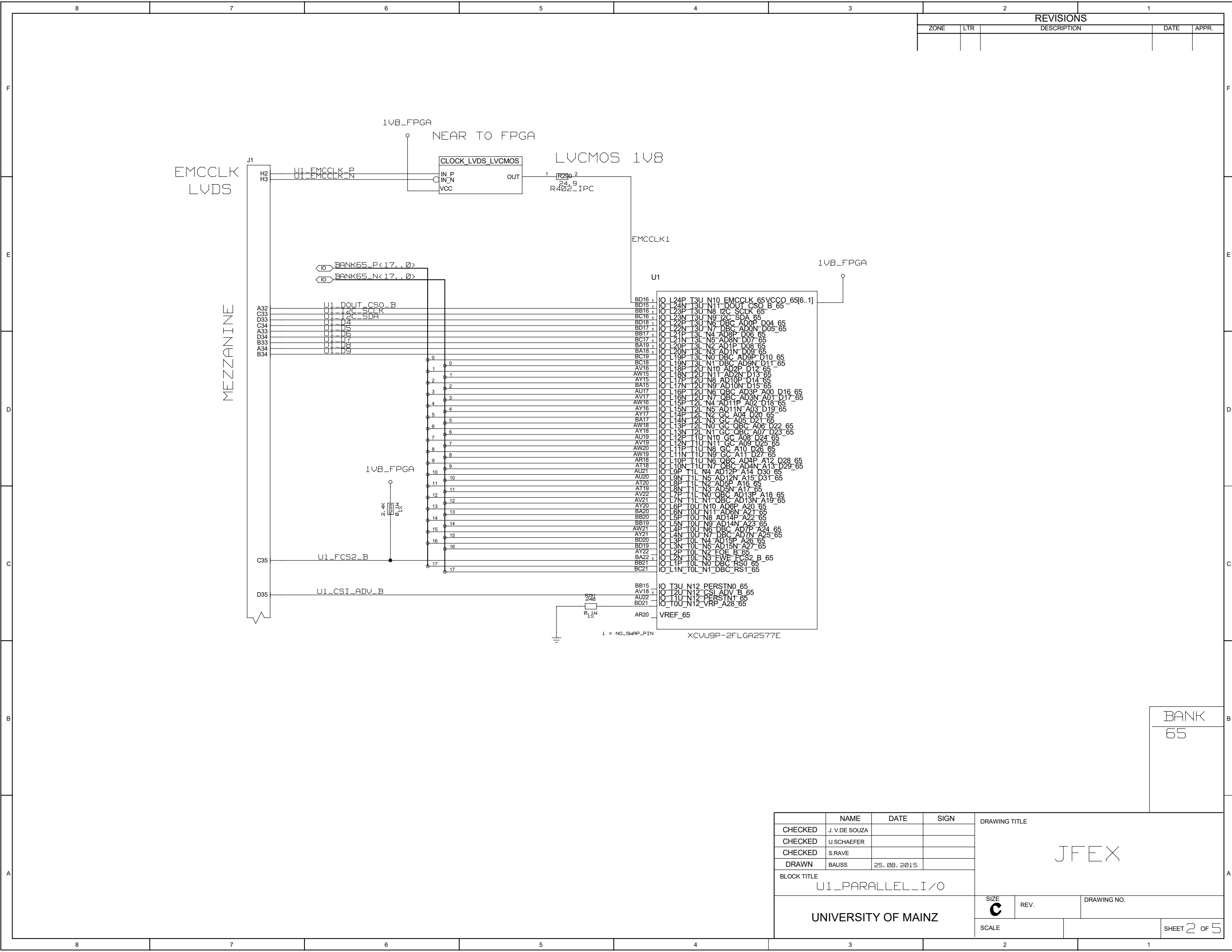
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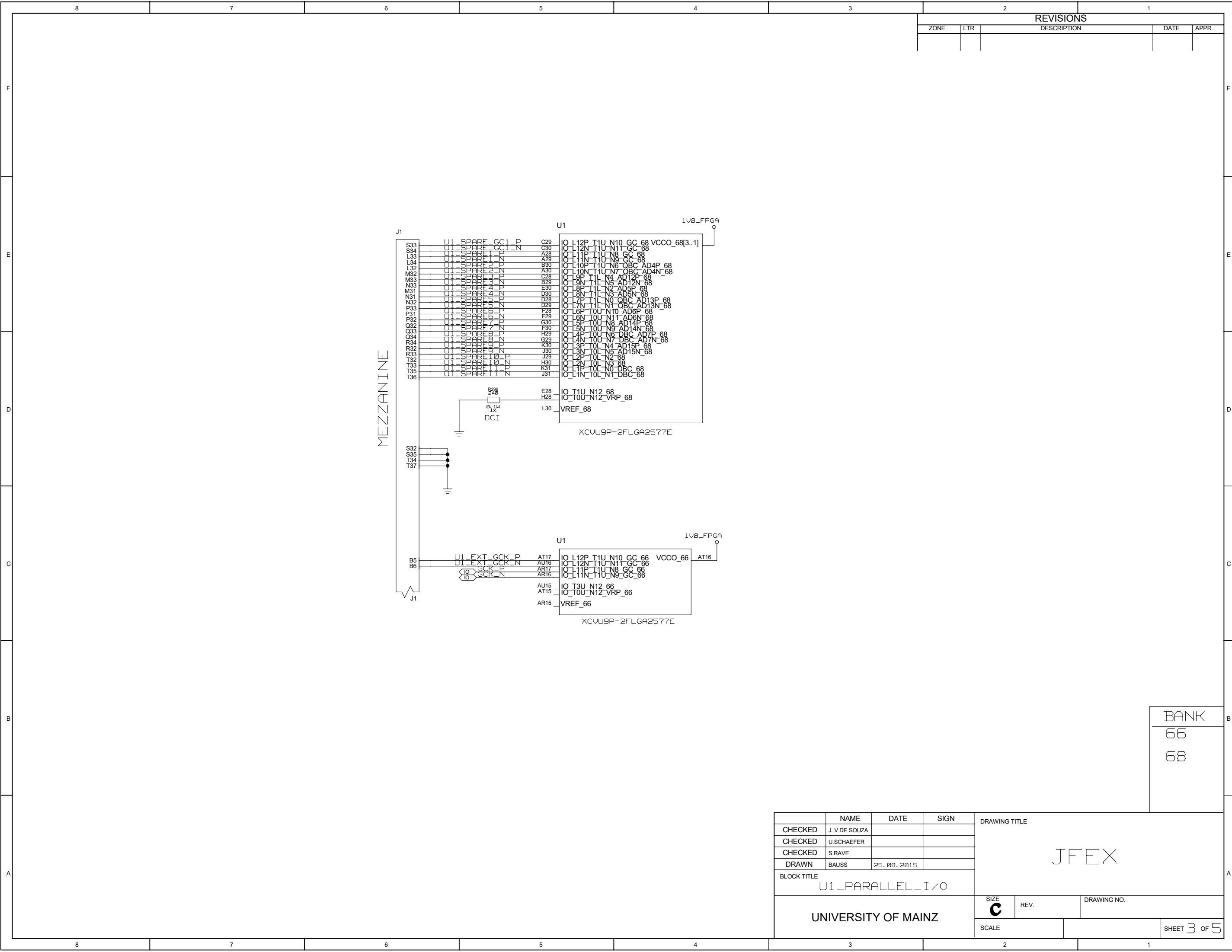
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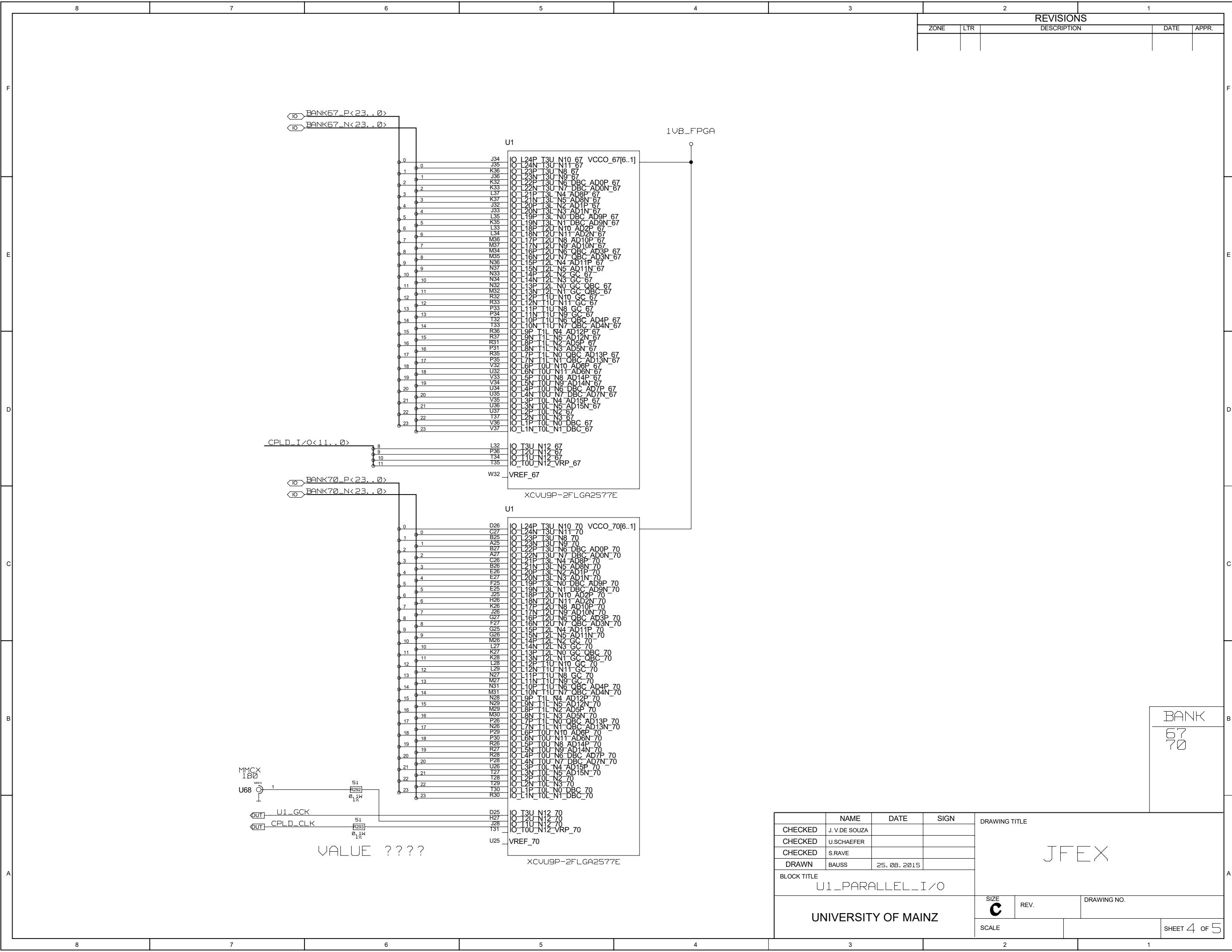
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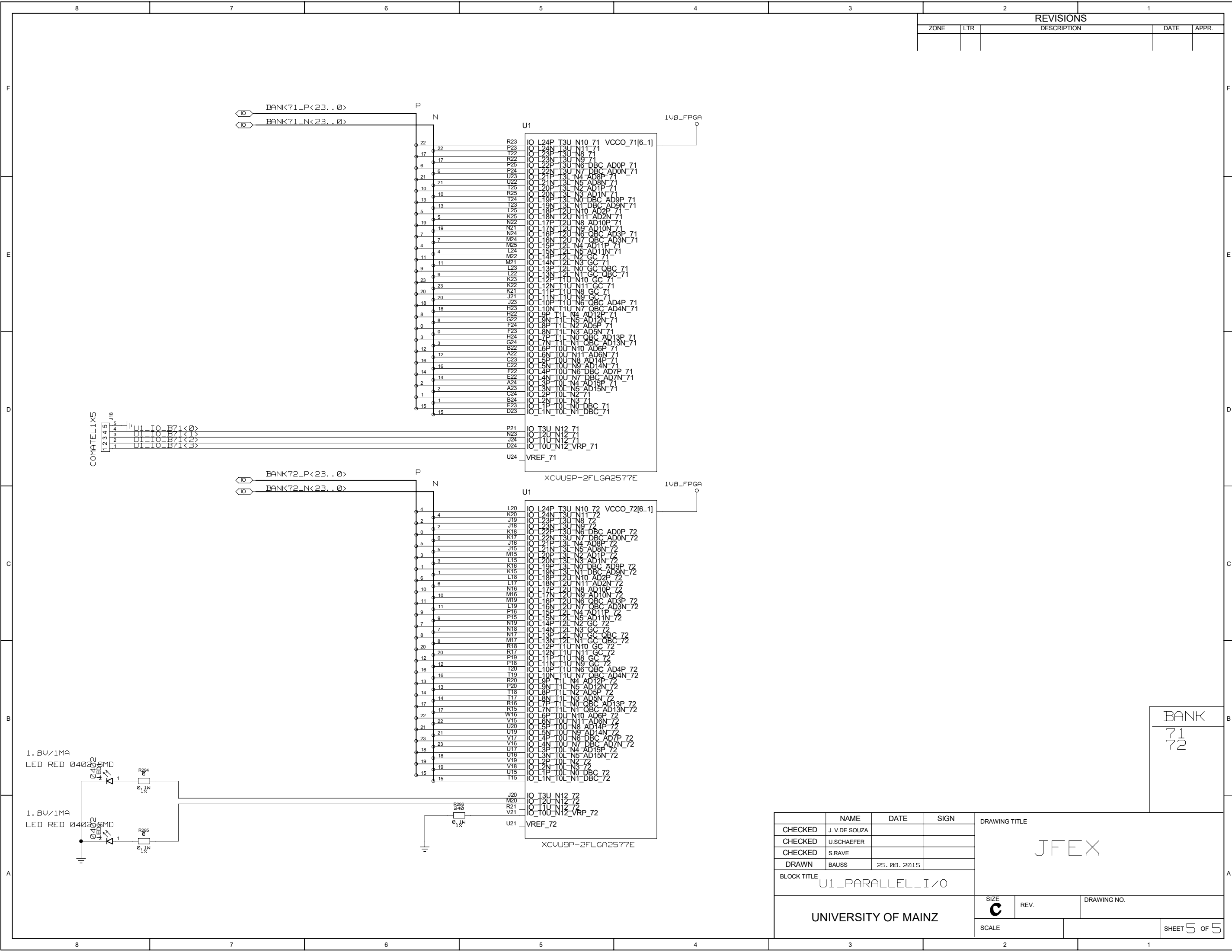
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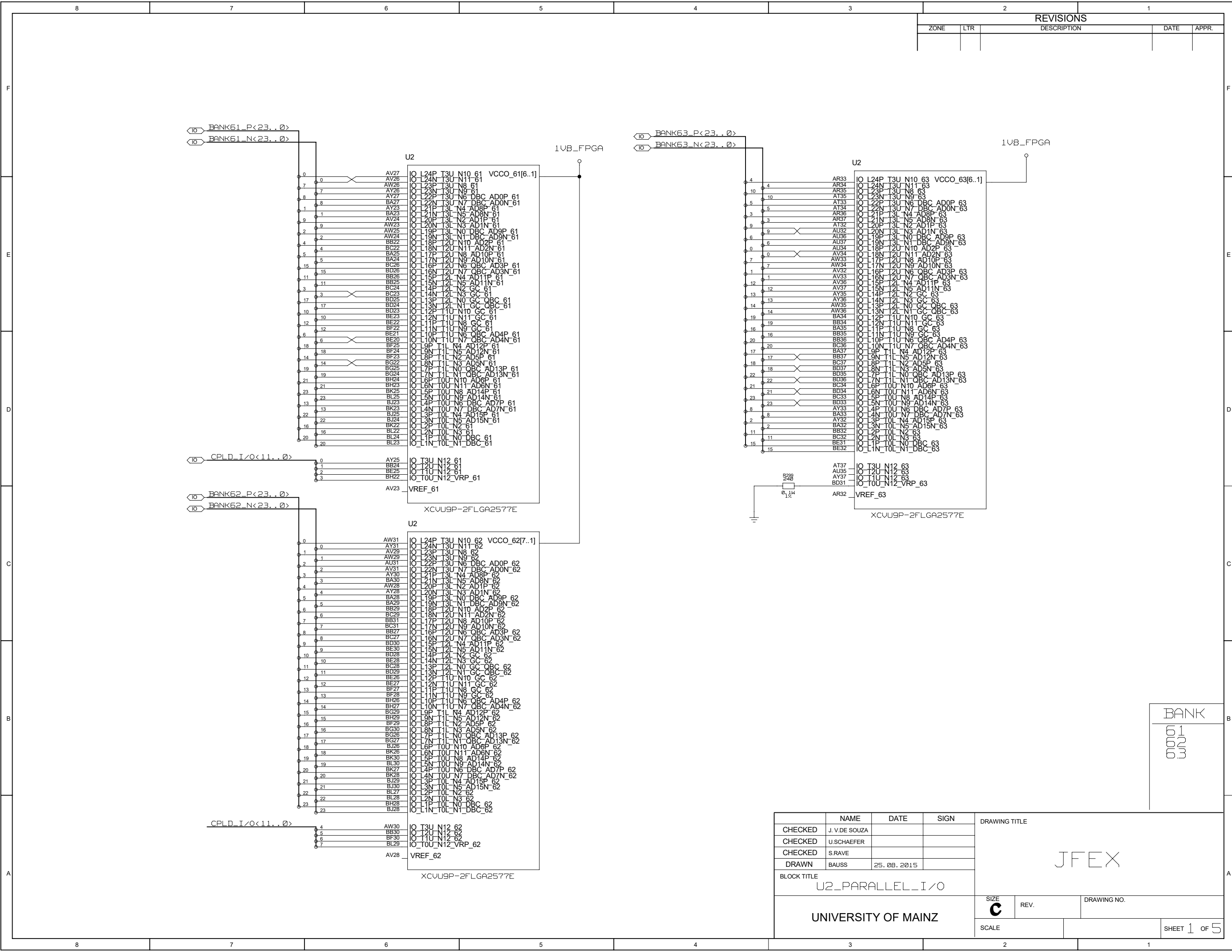
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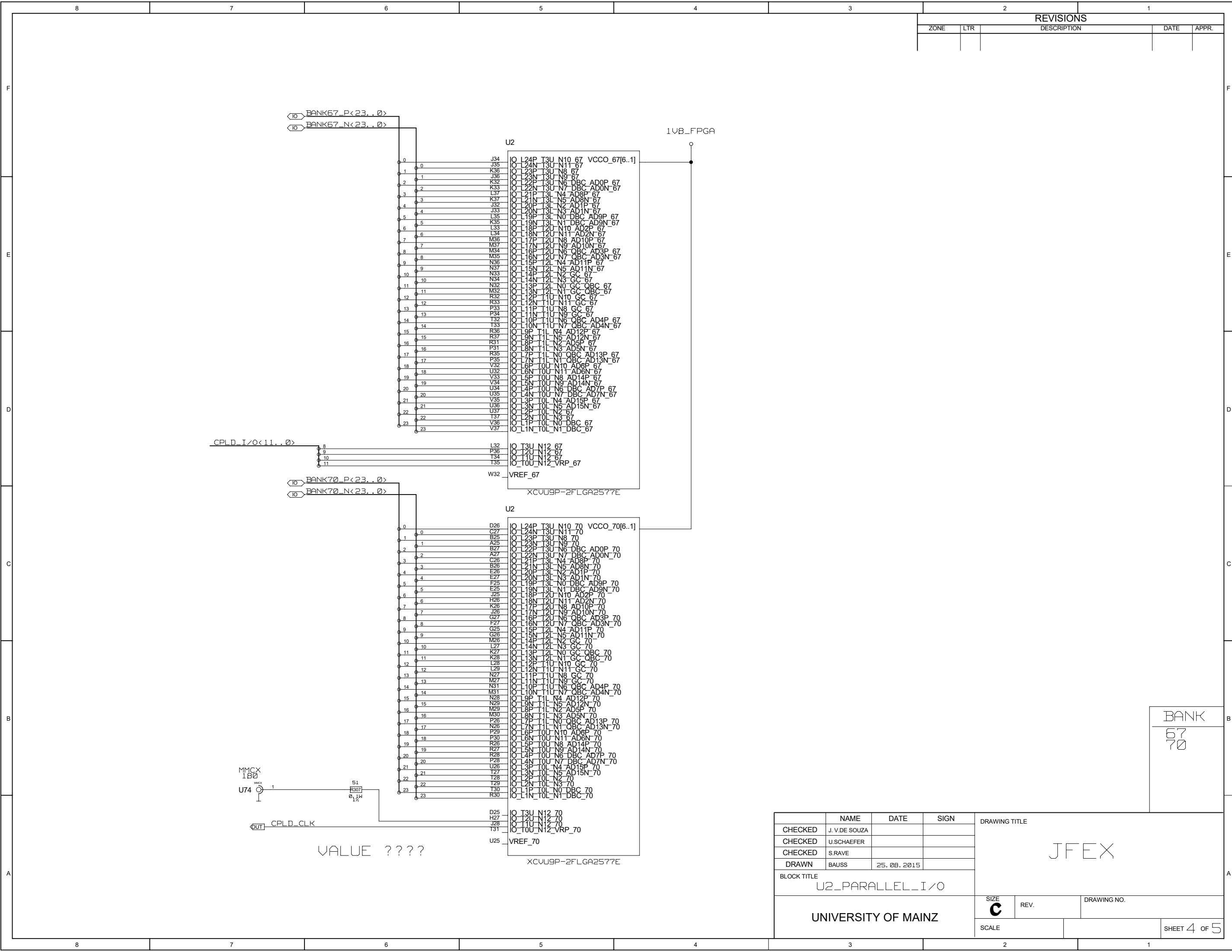
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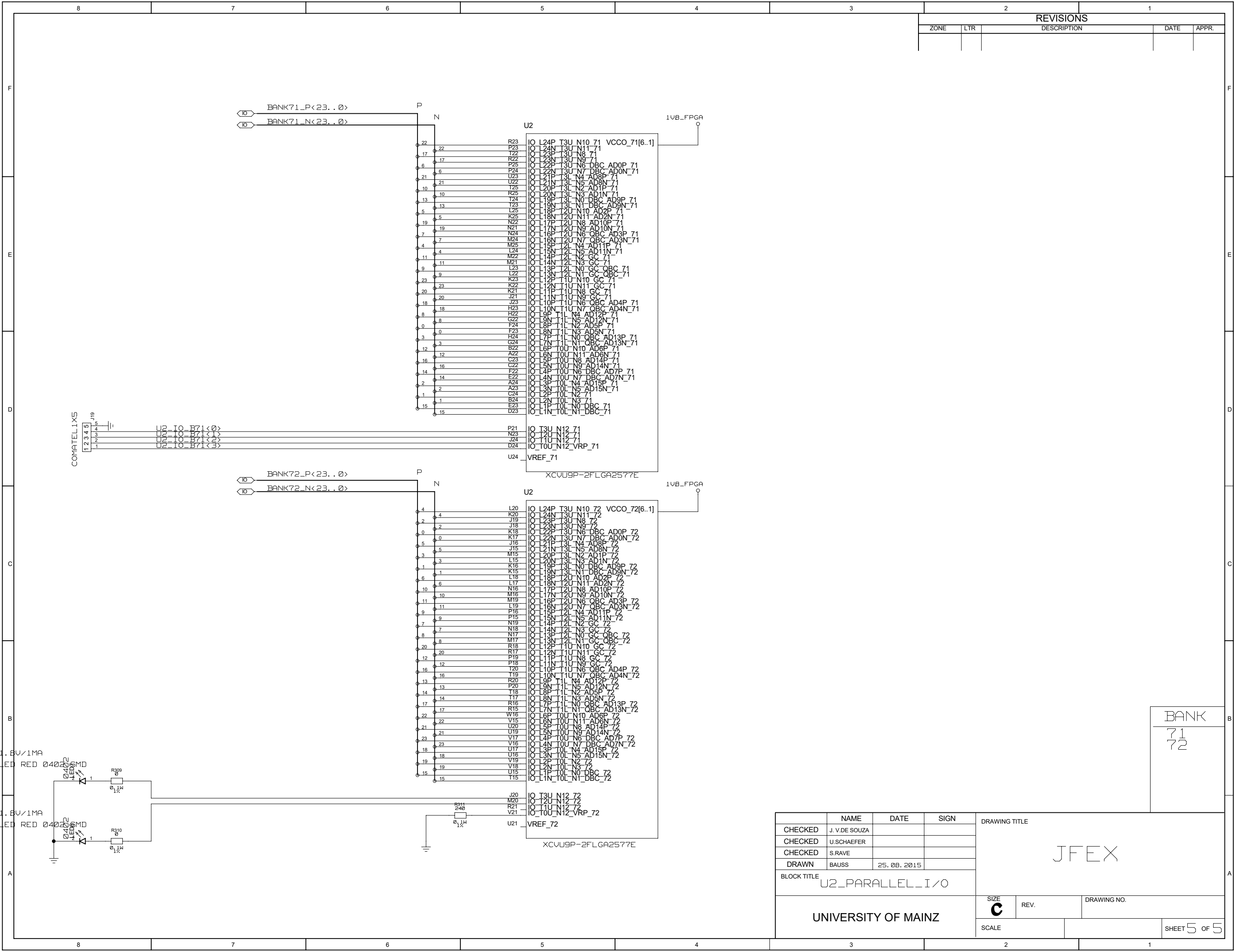
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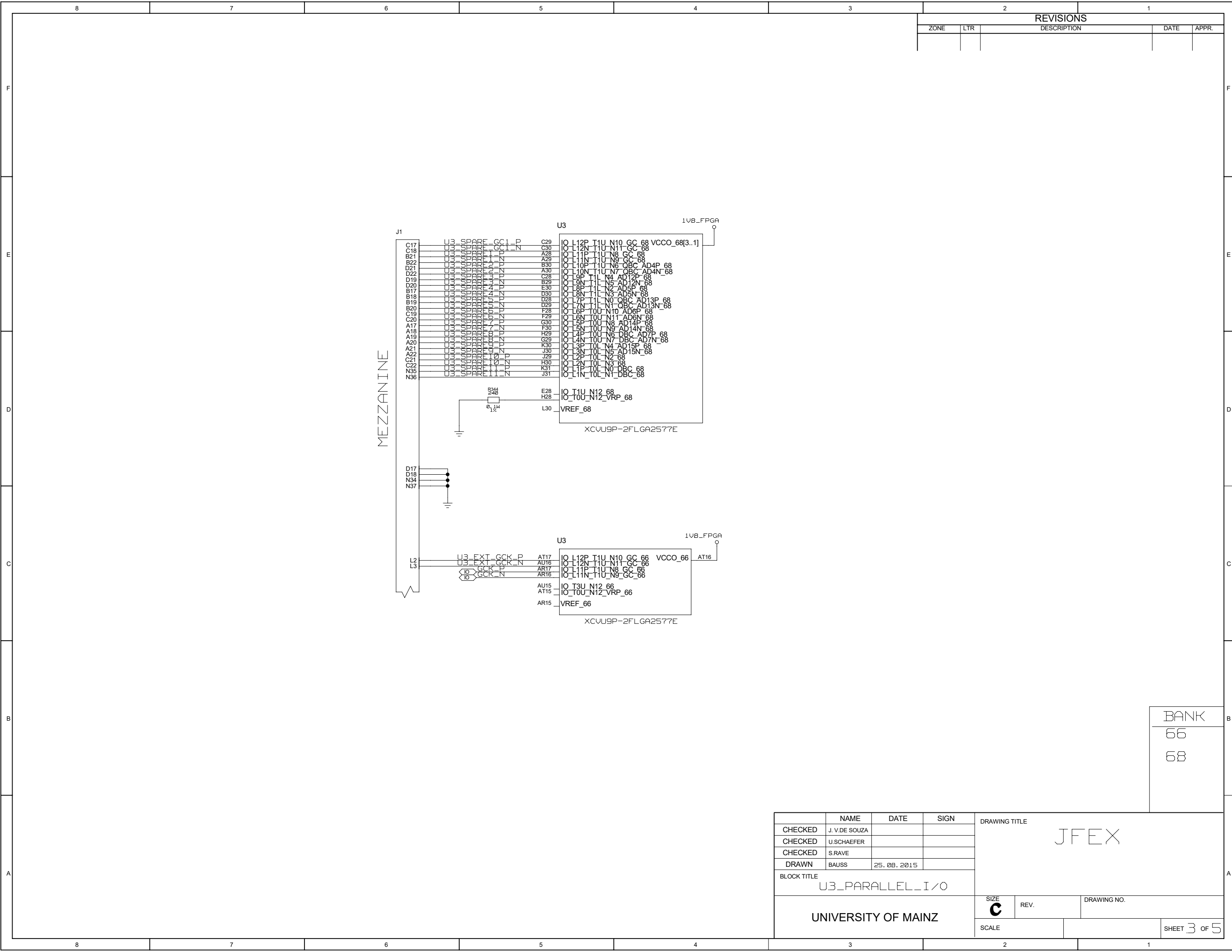


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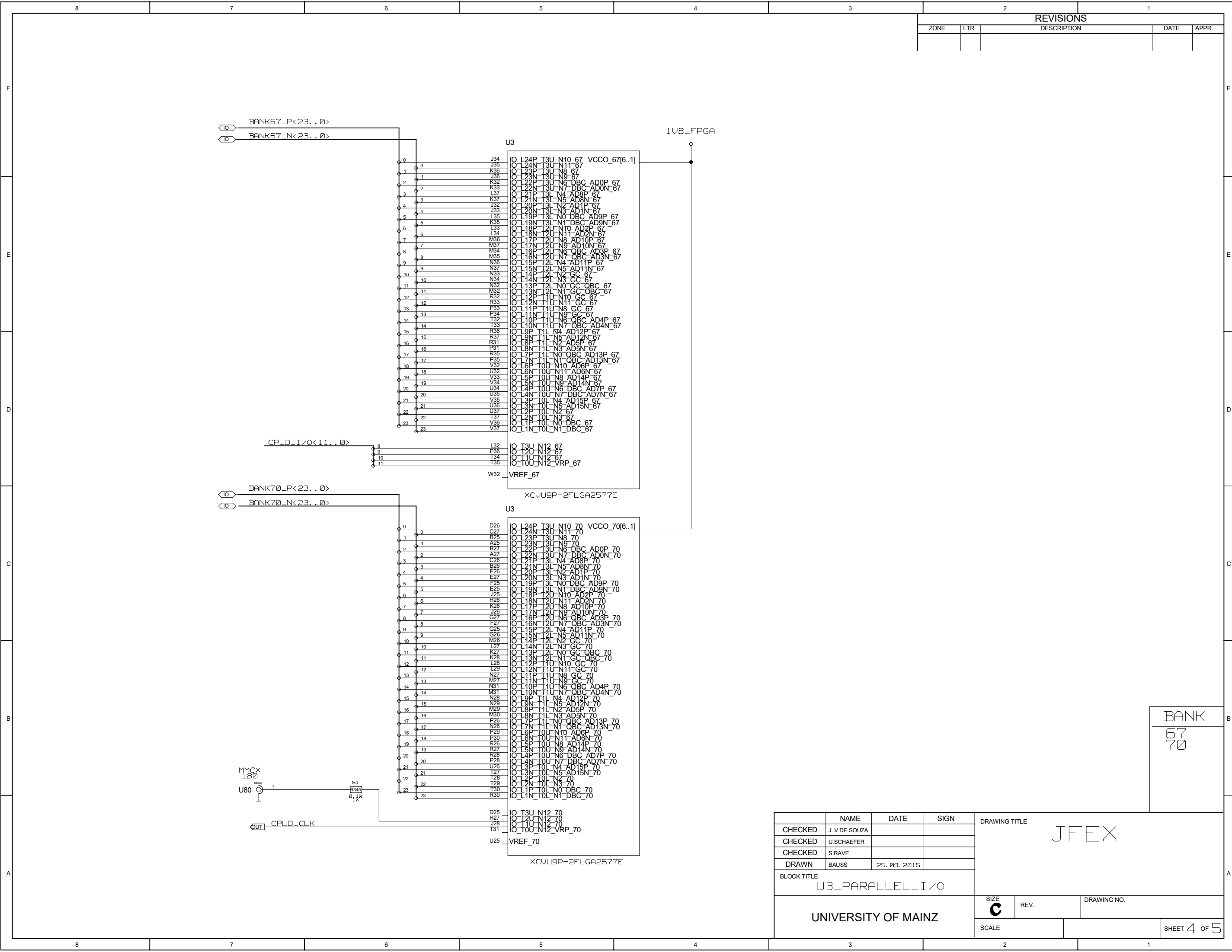
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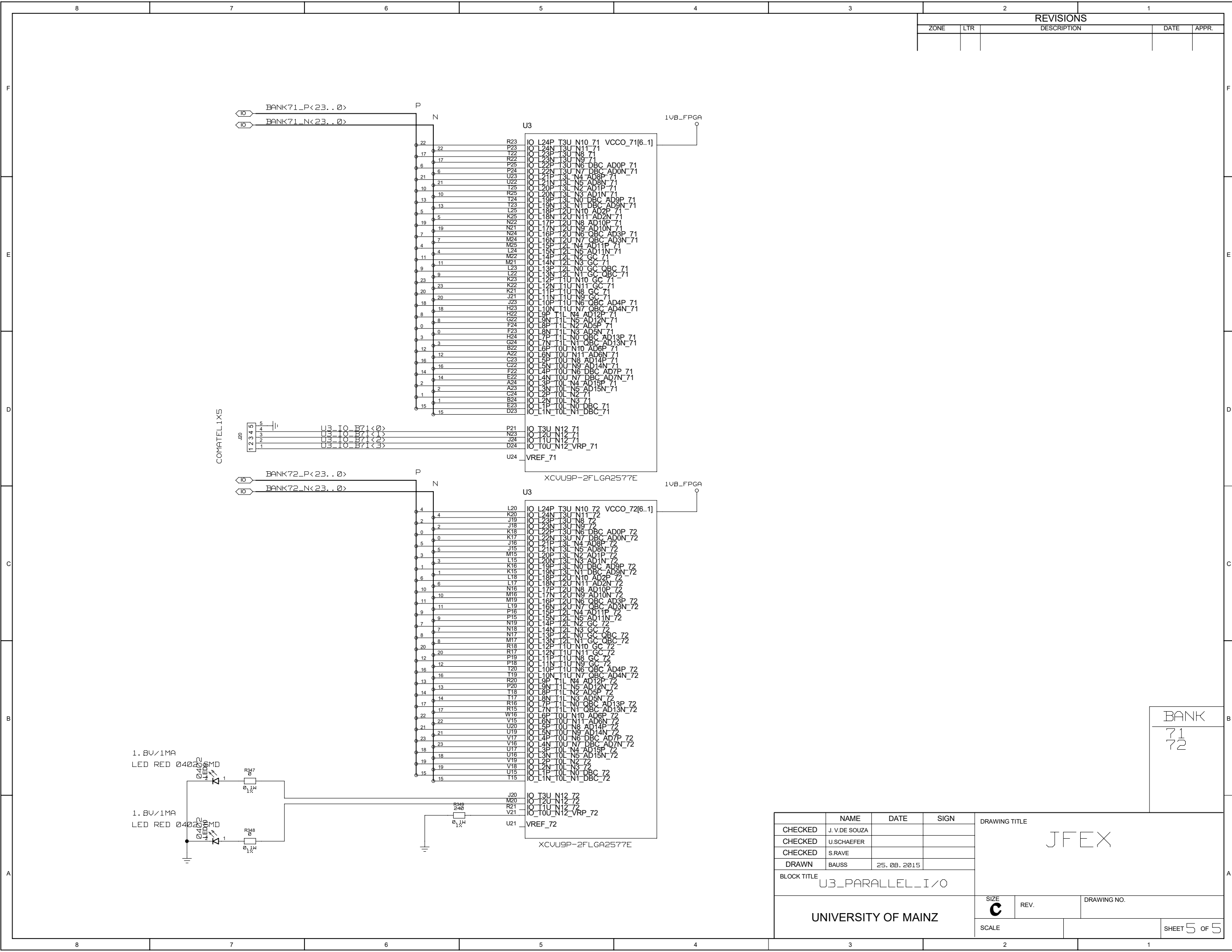




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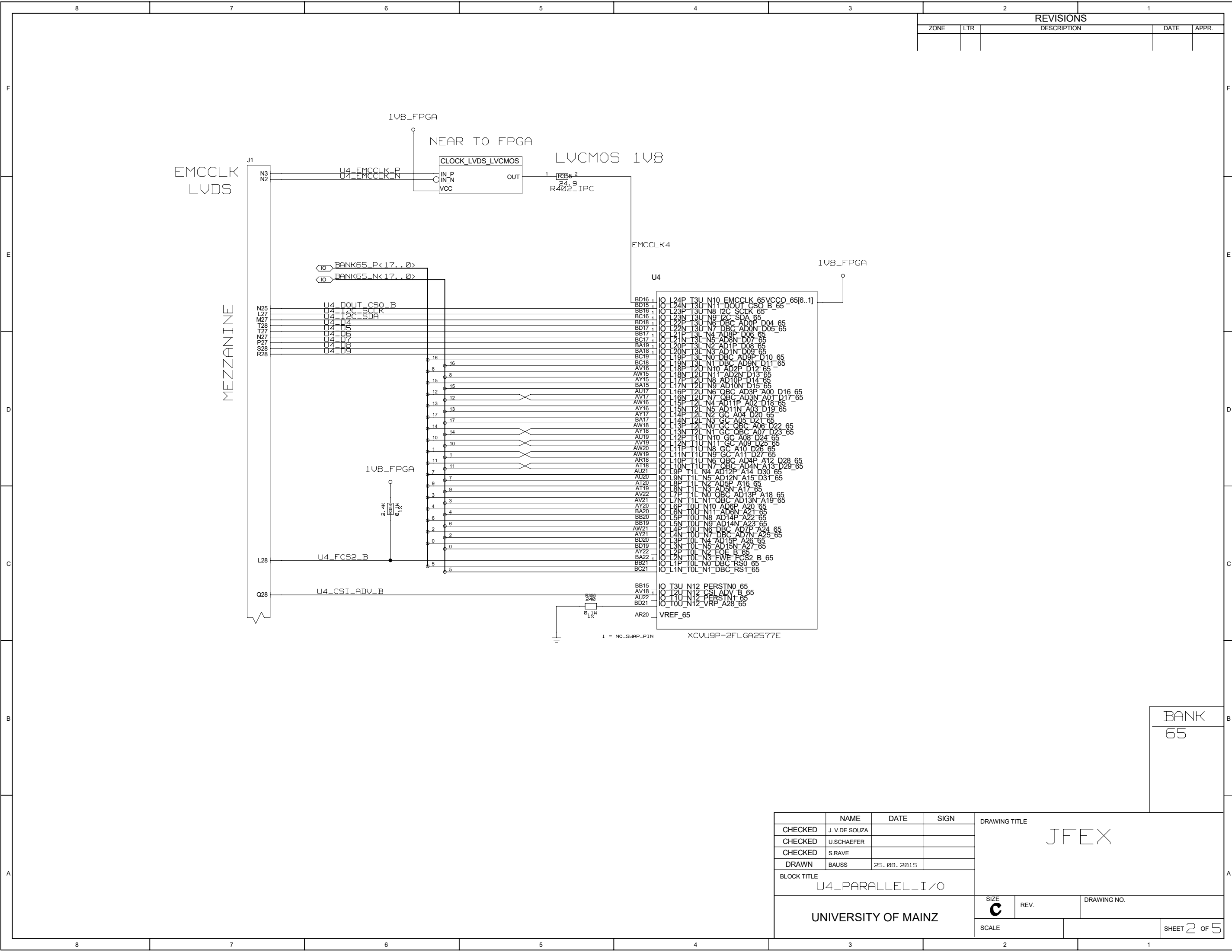




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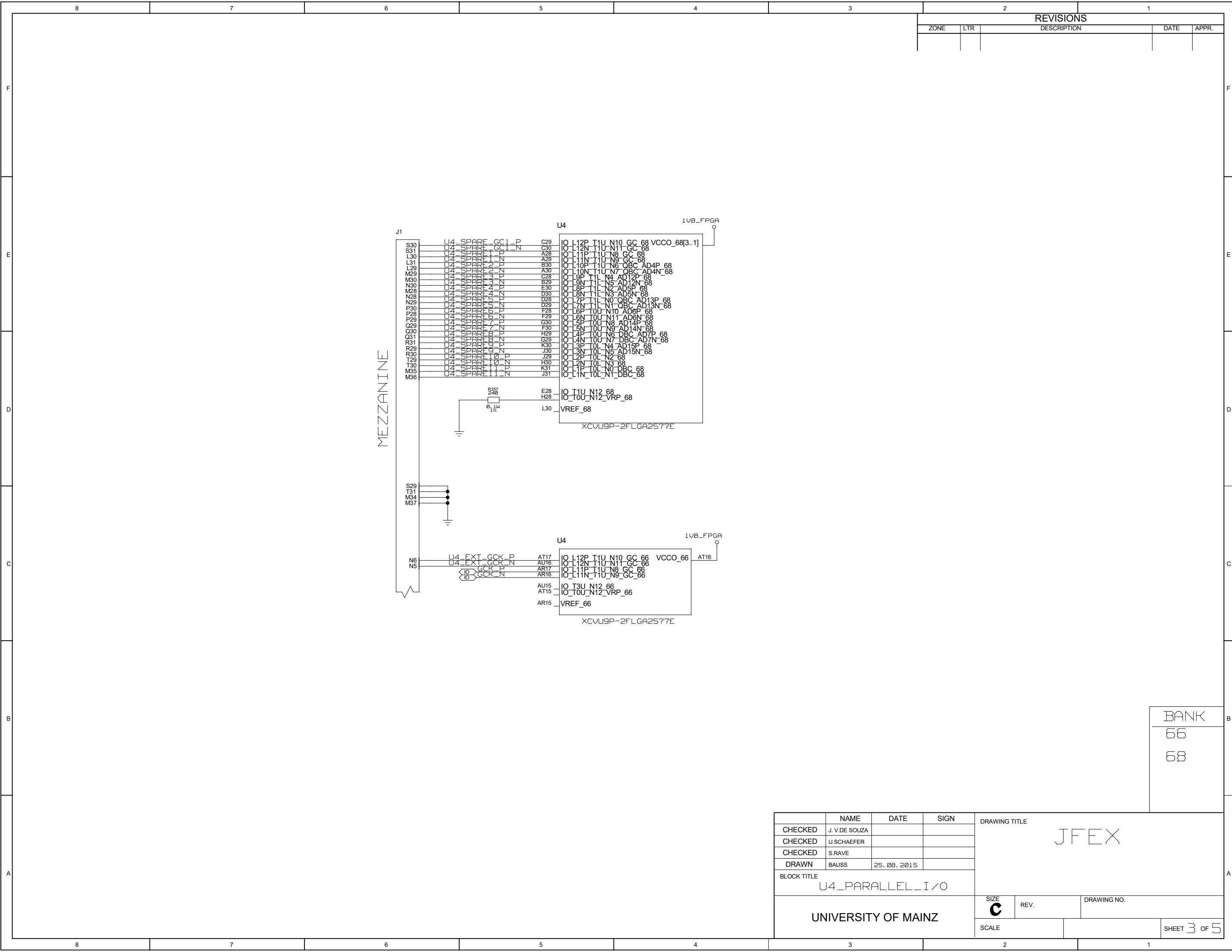
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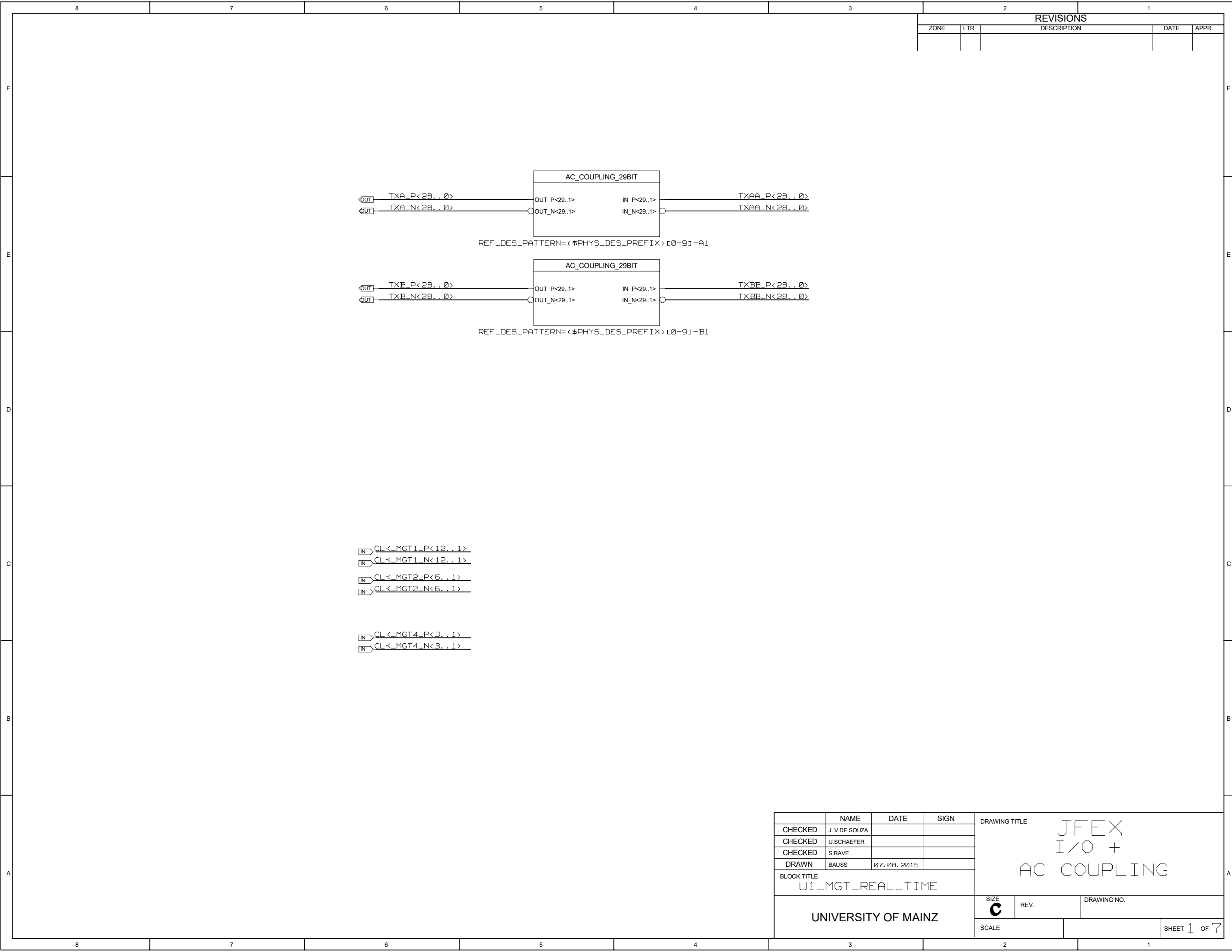
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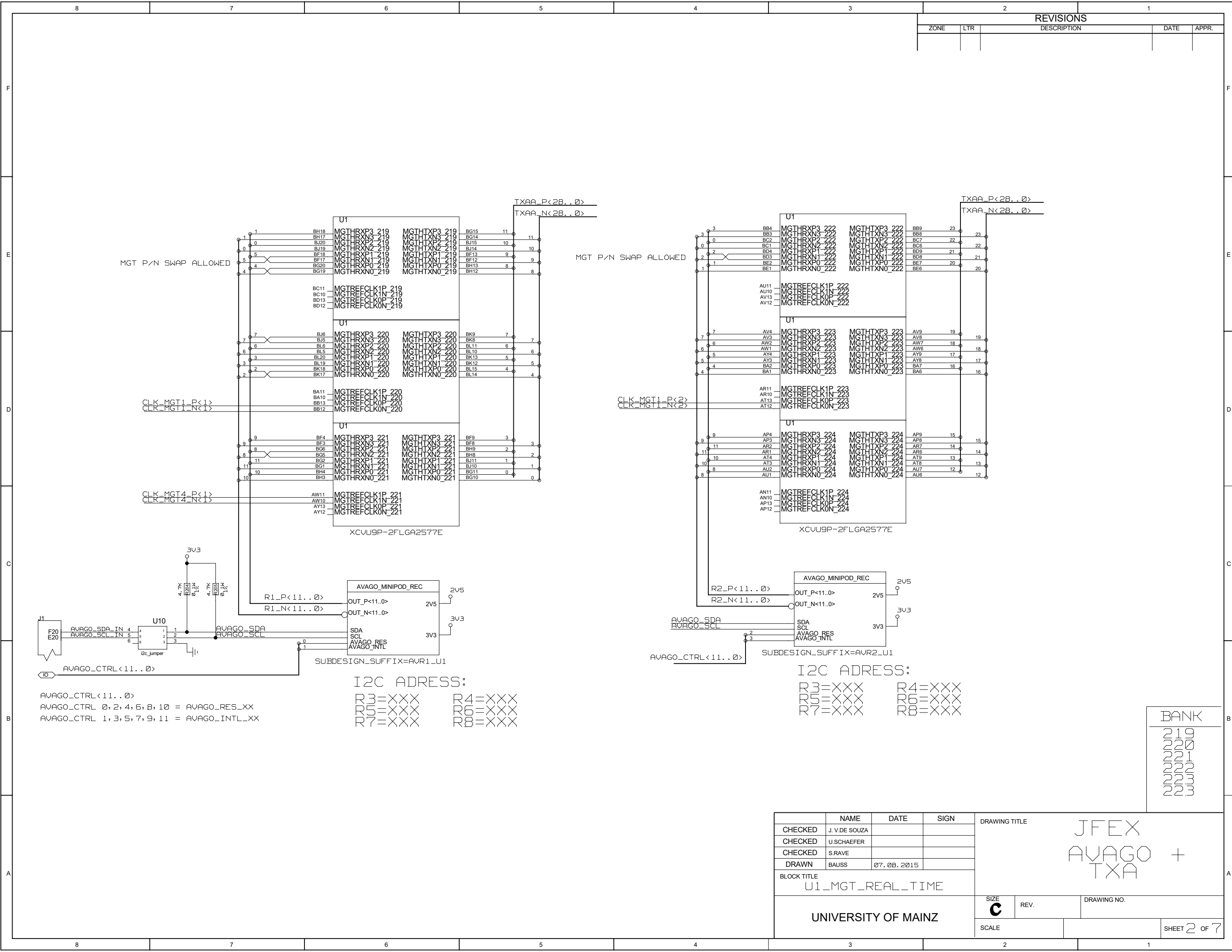
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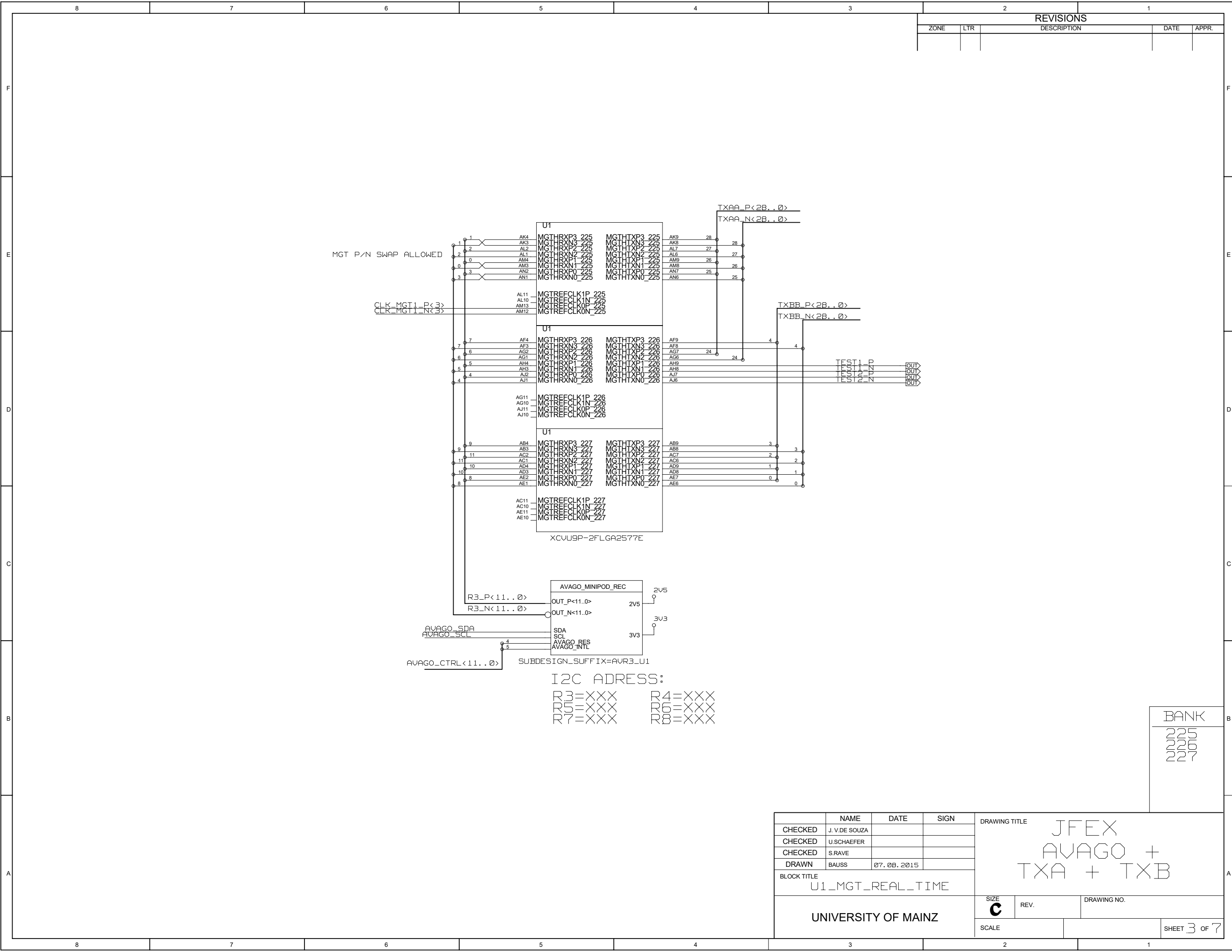


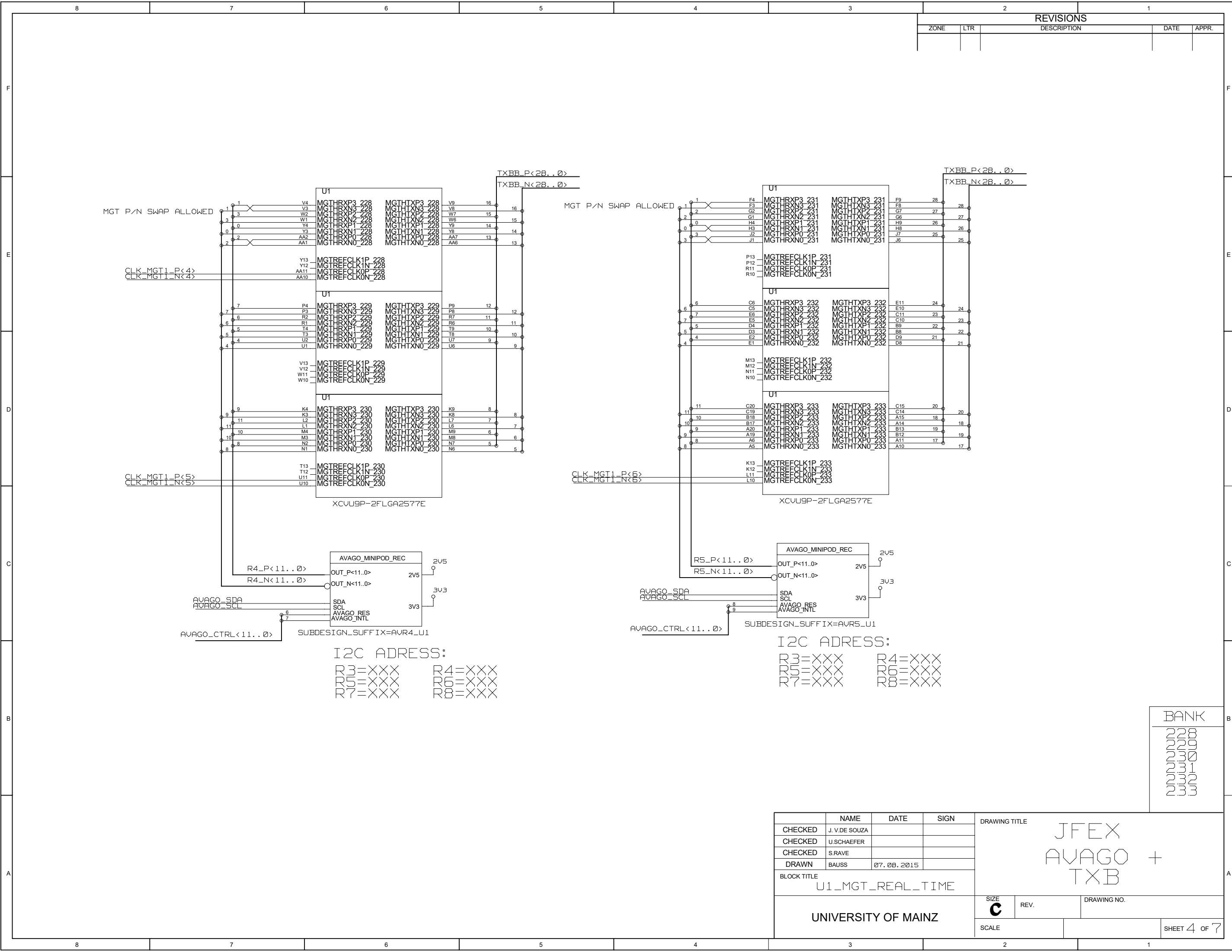


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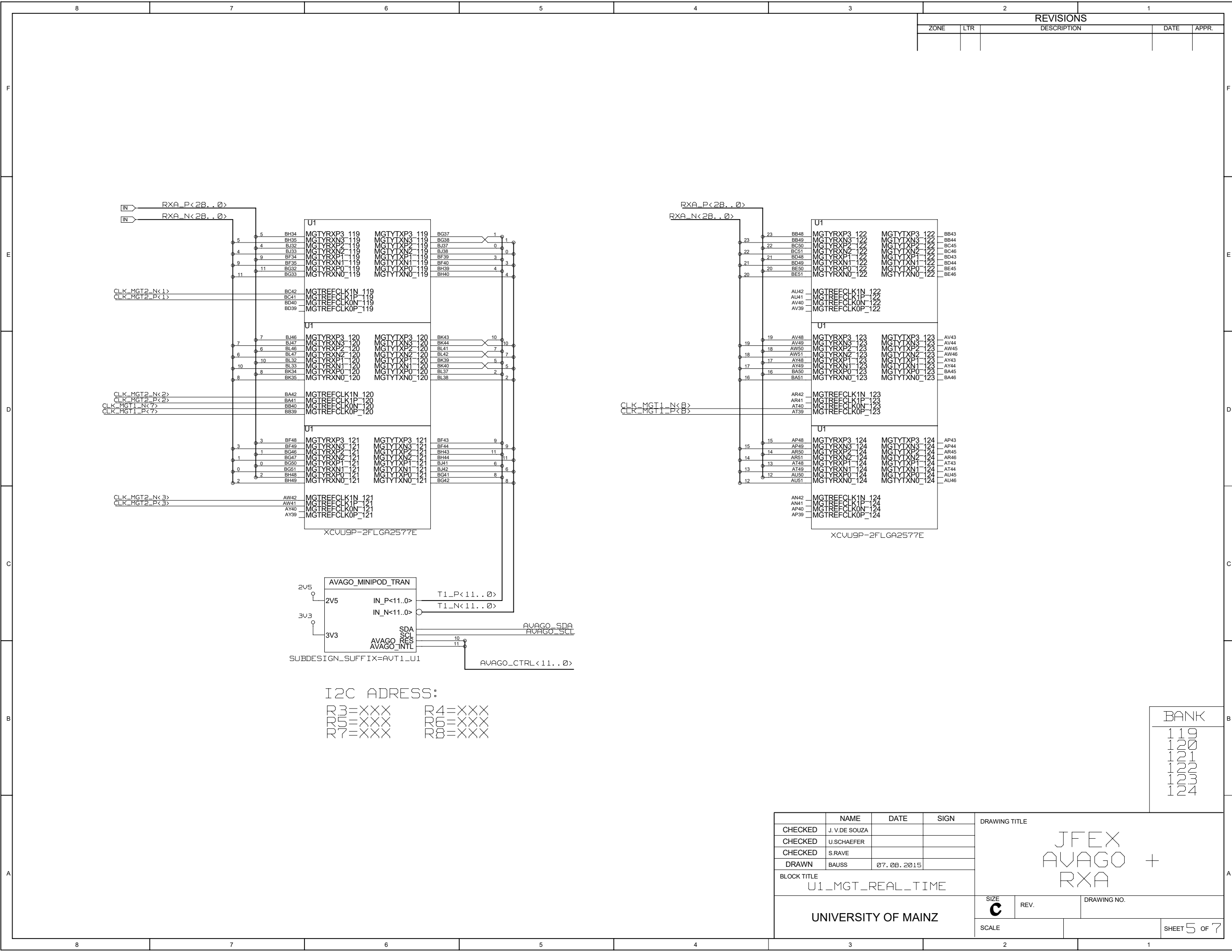
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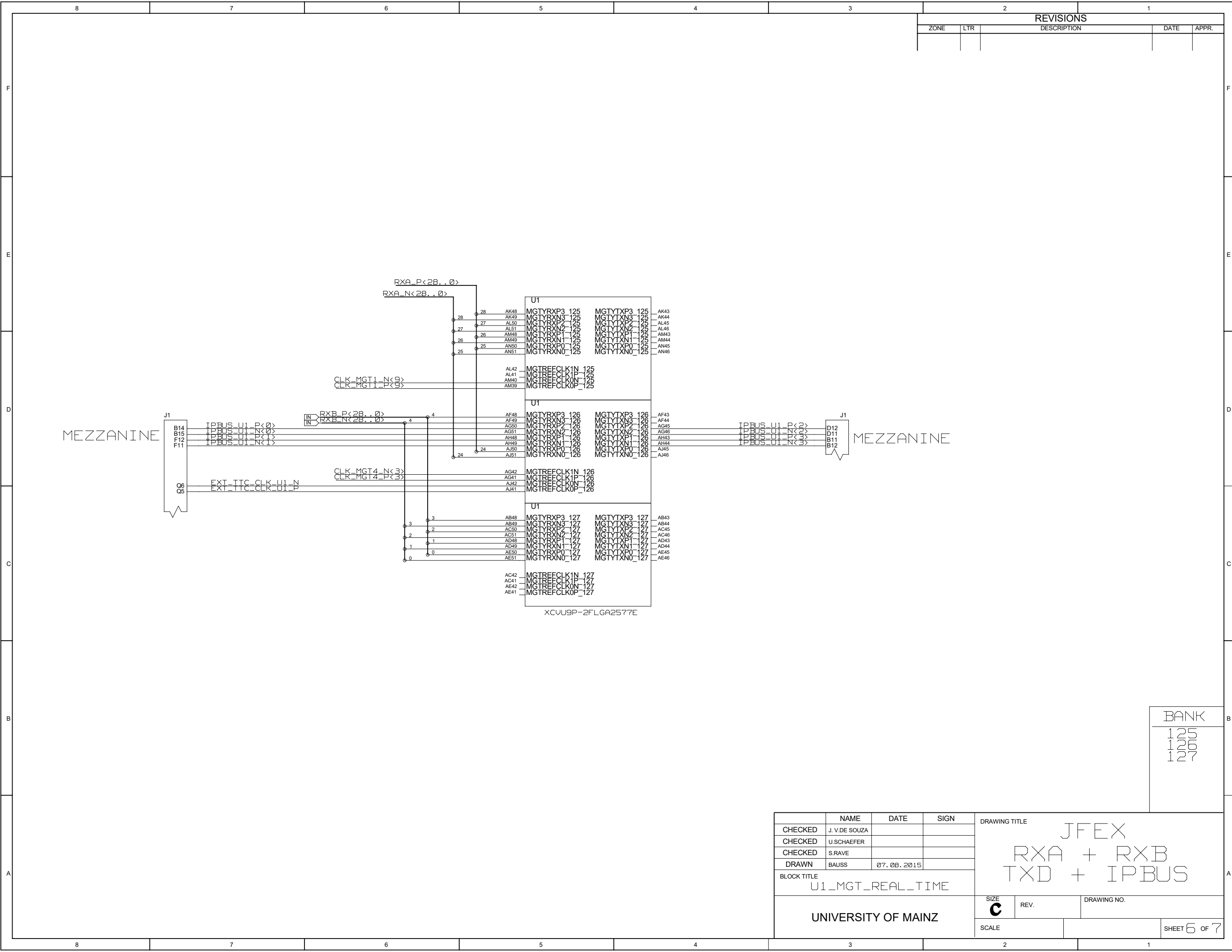
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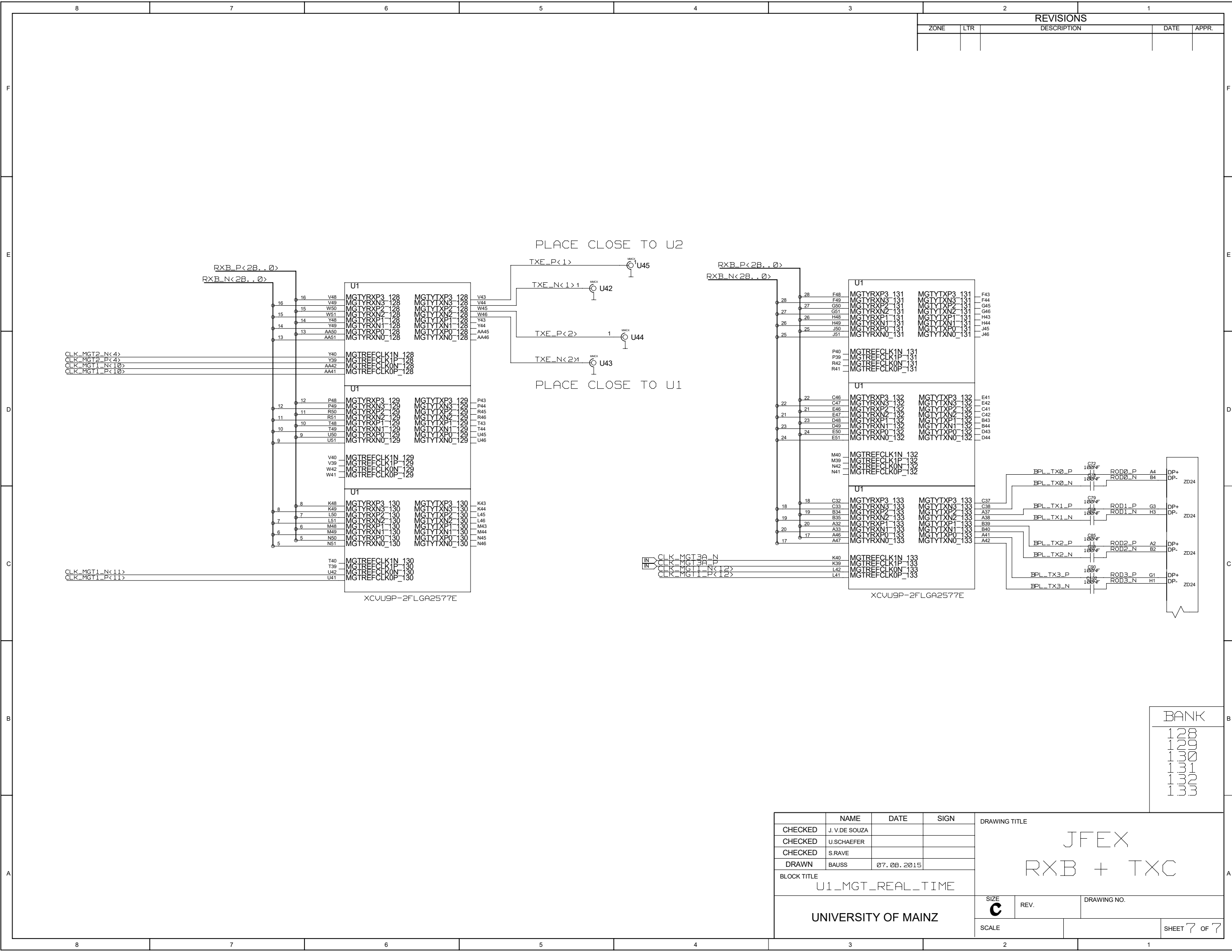
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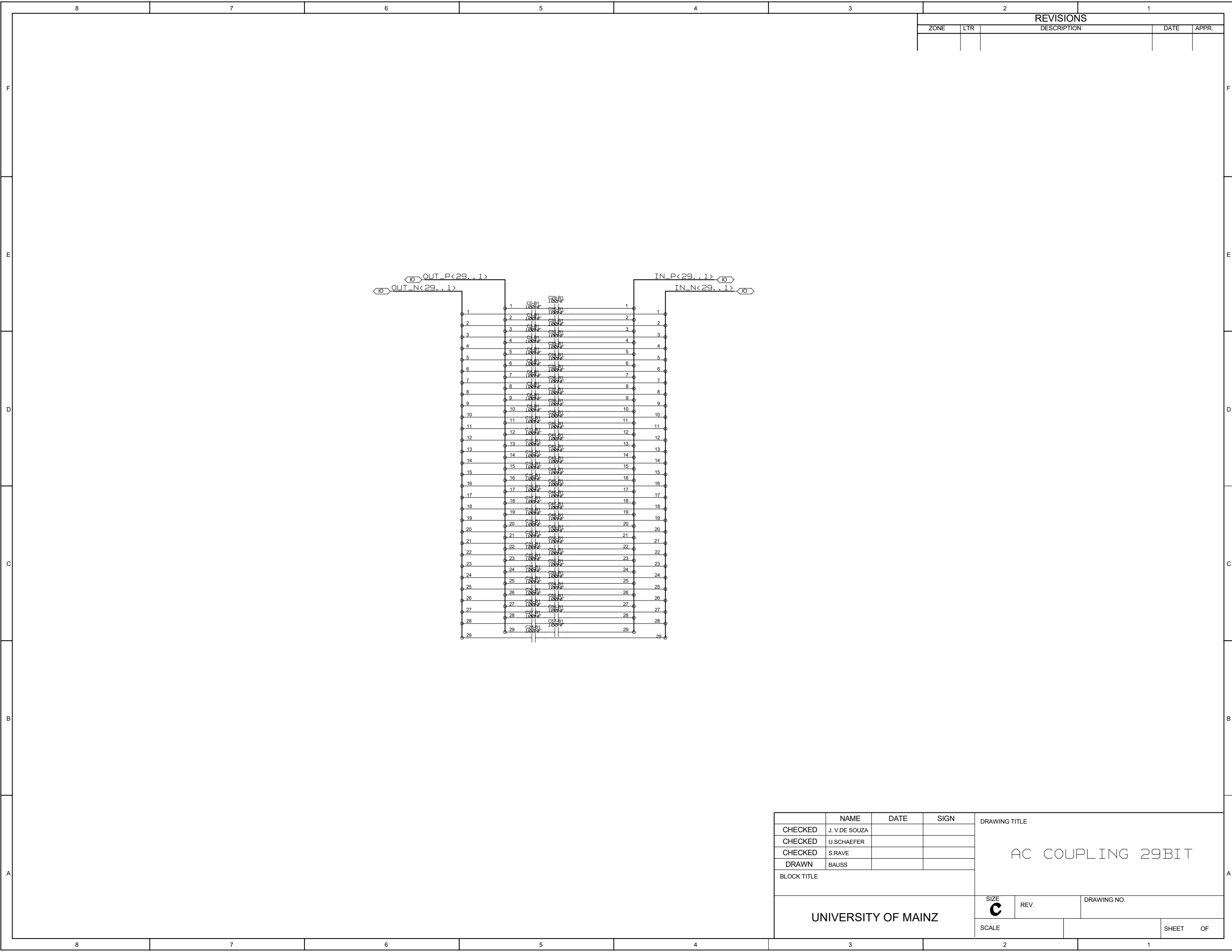
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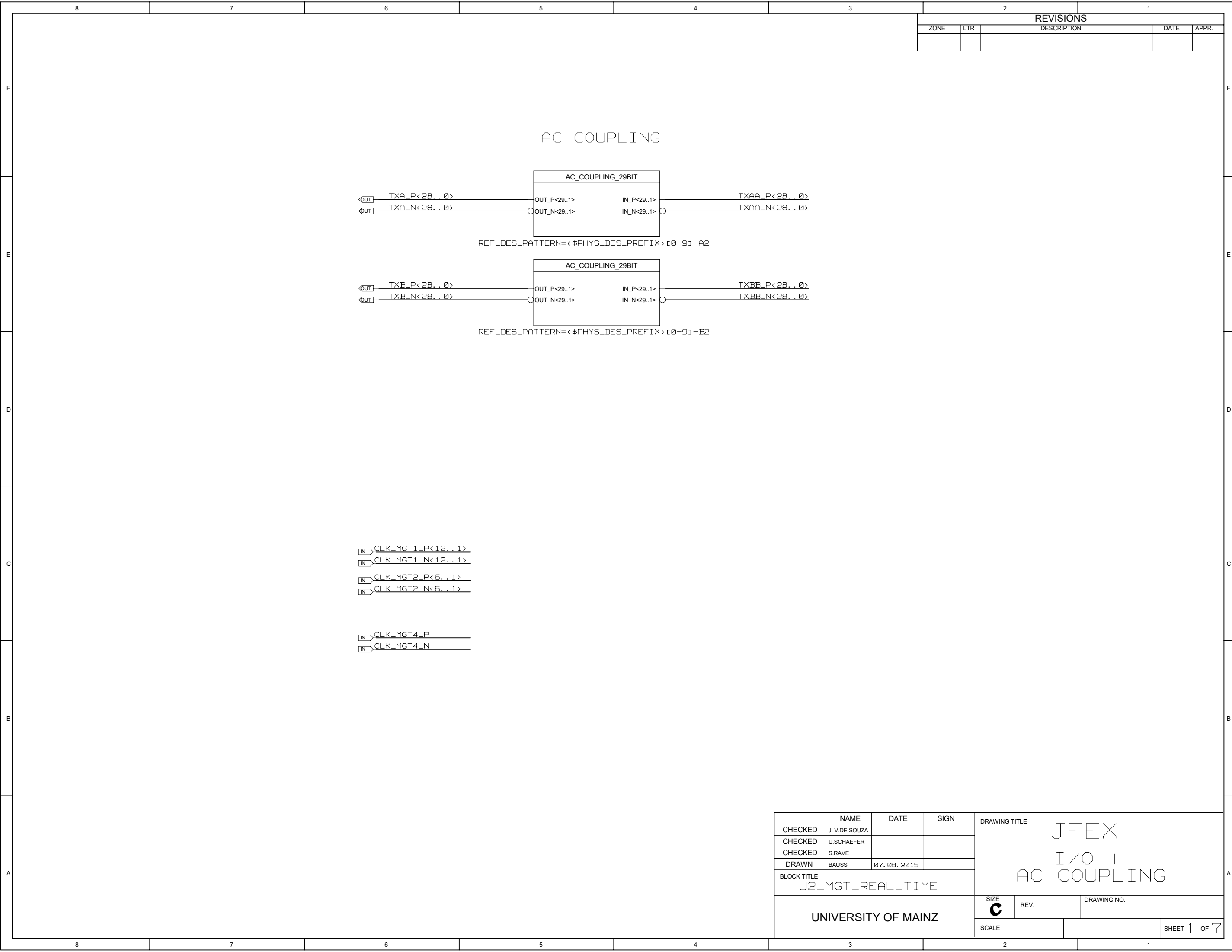


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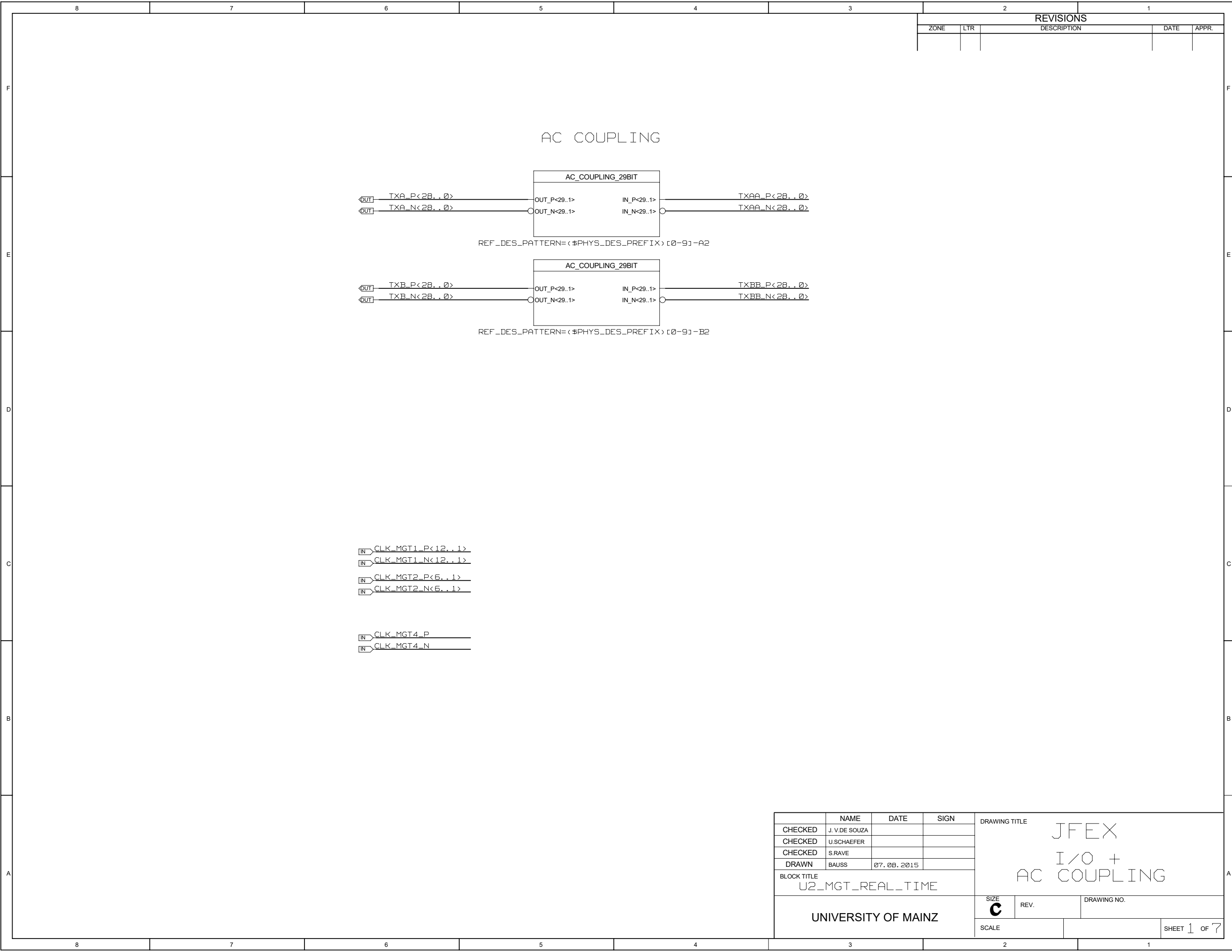
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DRAWING TITLE

JFEX

I/O +

AC COUPLING



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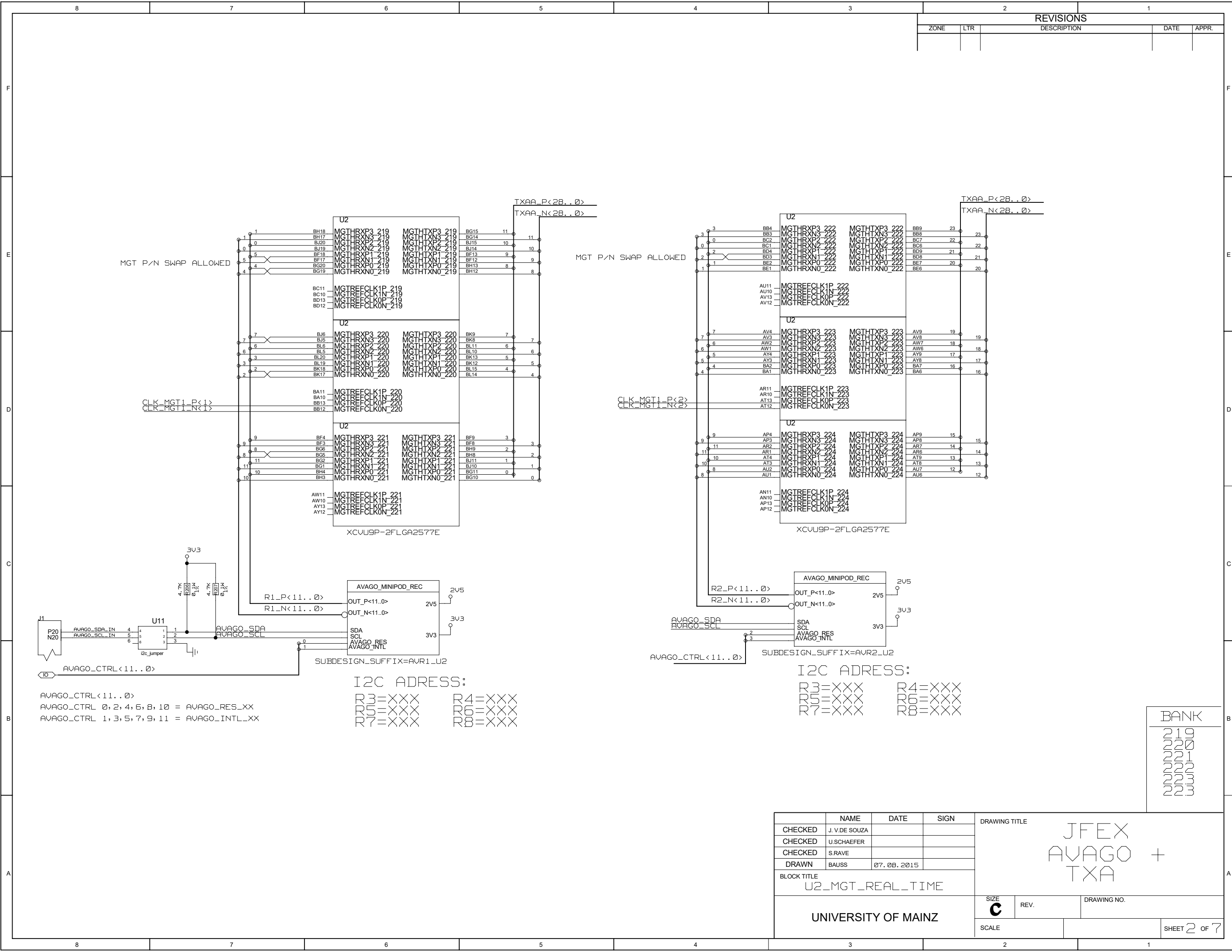
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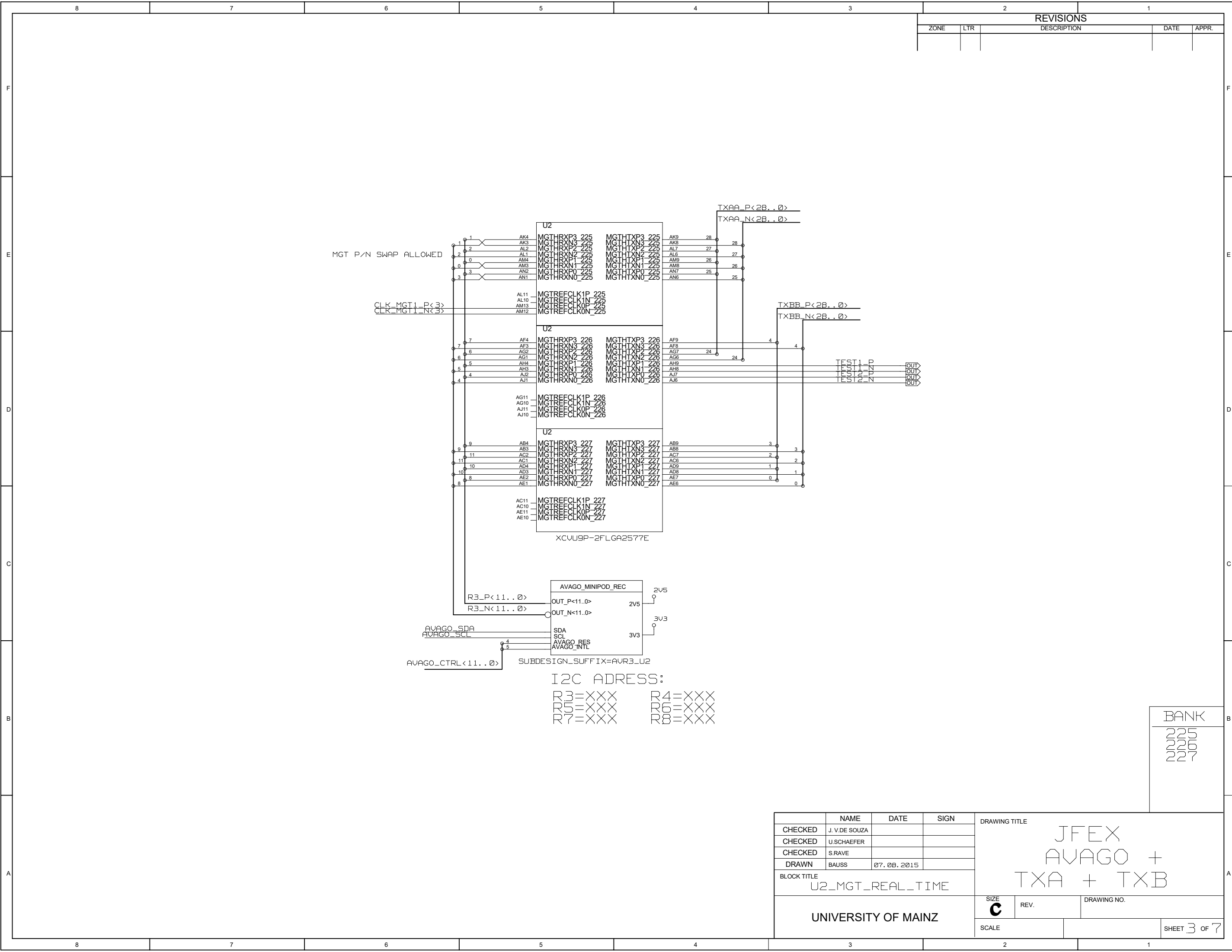
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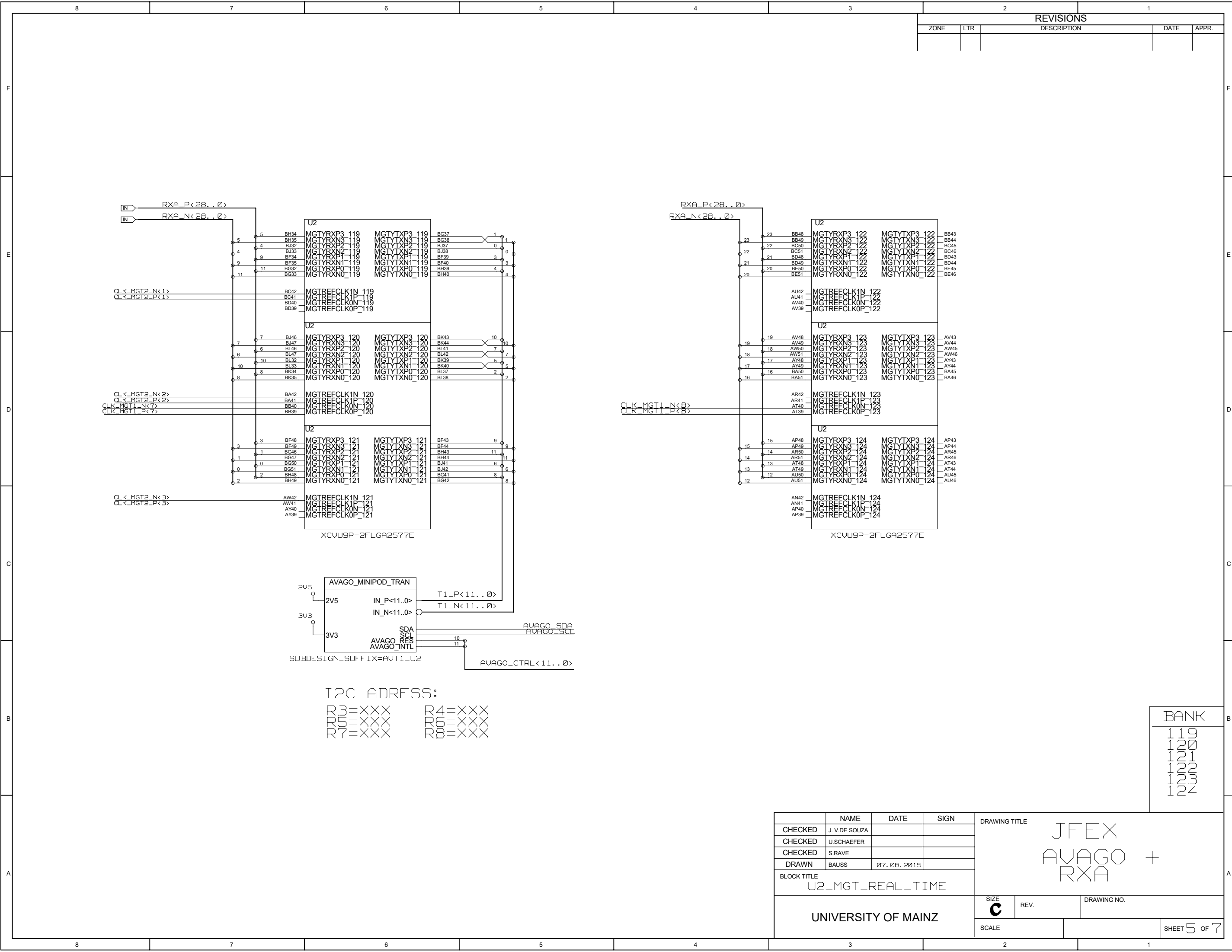
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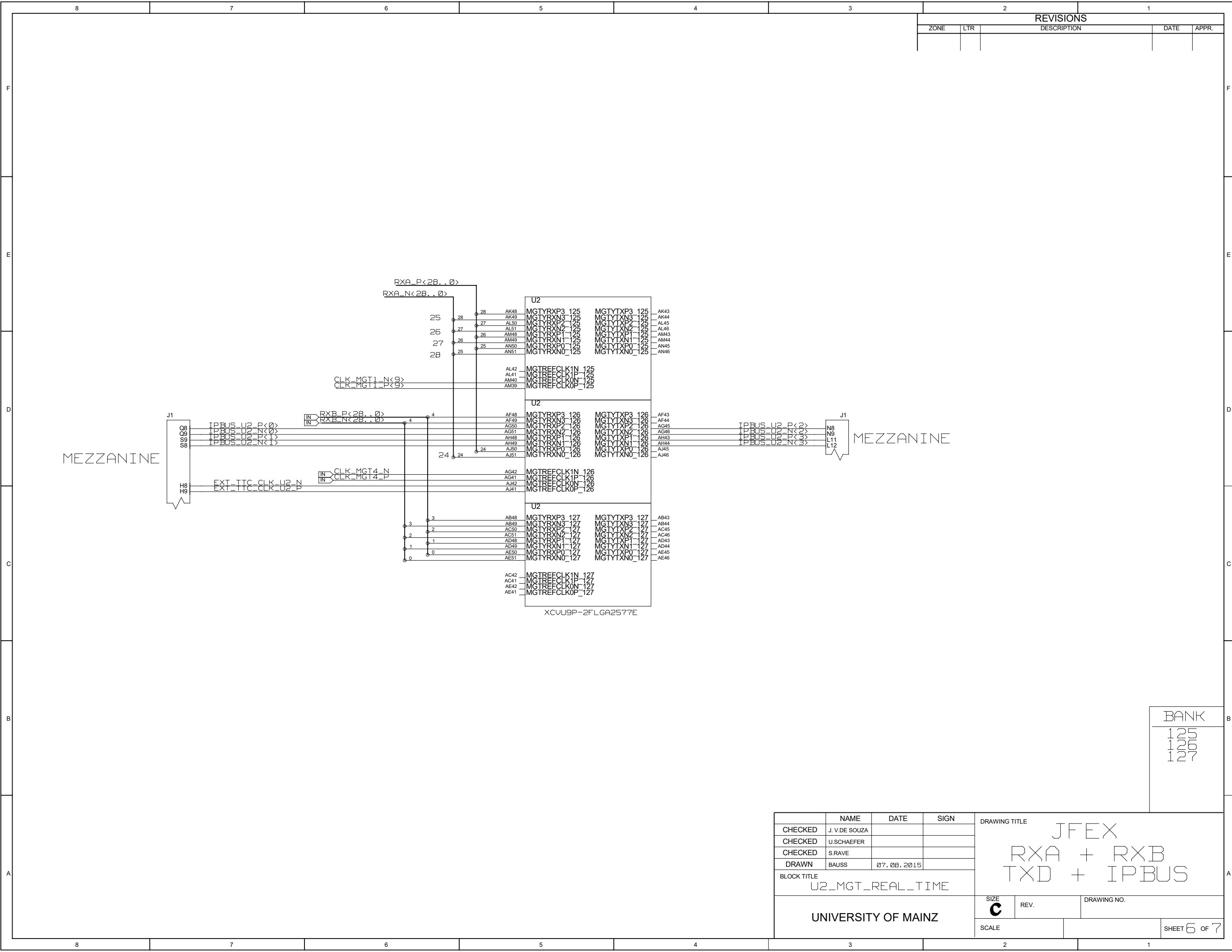
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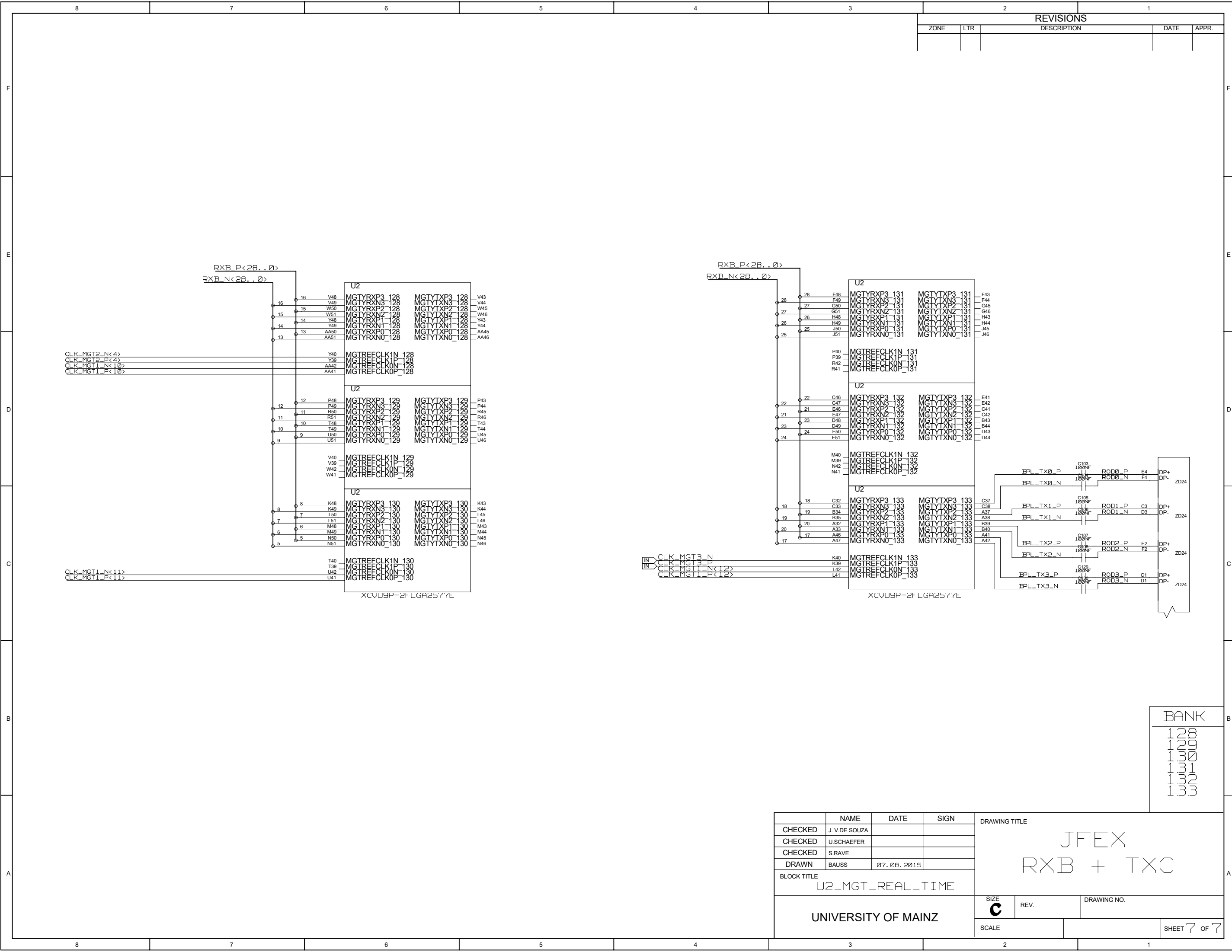
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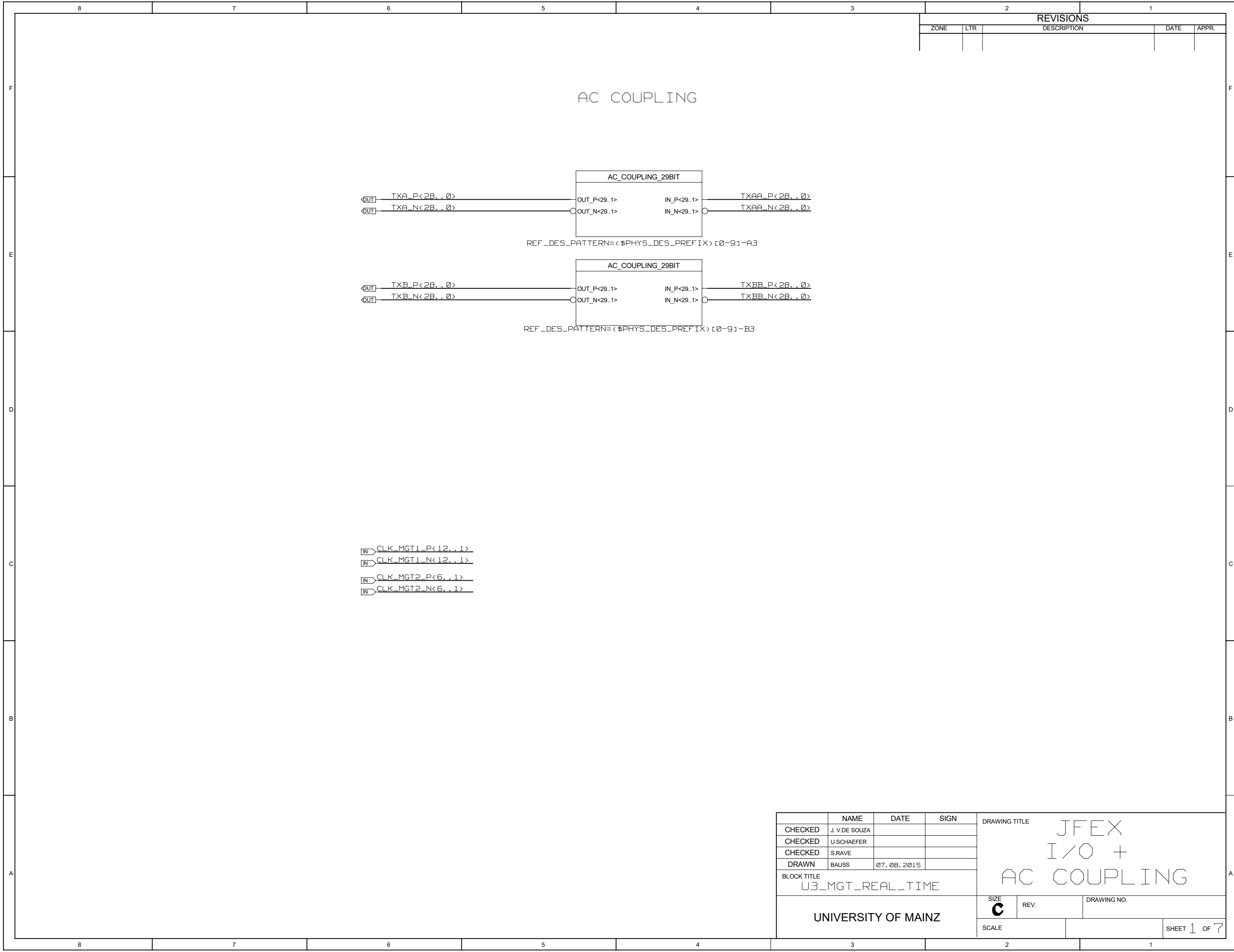
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UNIVERSITY OF MAINZ				SCALE	SHEET 7 OF 7

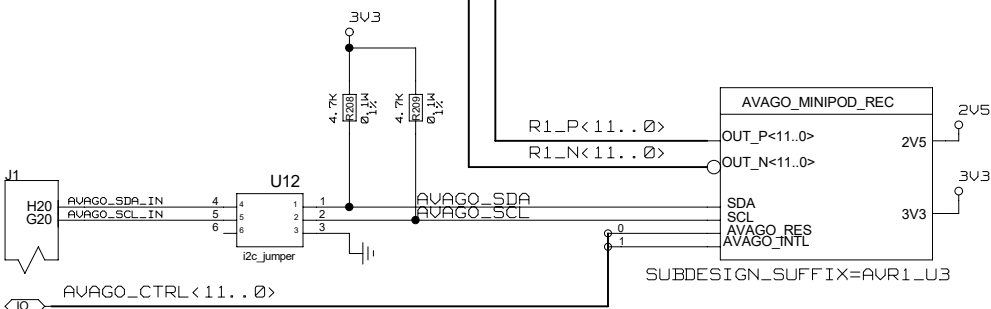


REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

MGT P/N SWAP ALLOWED

MGT P/N SWAP ALLOWED

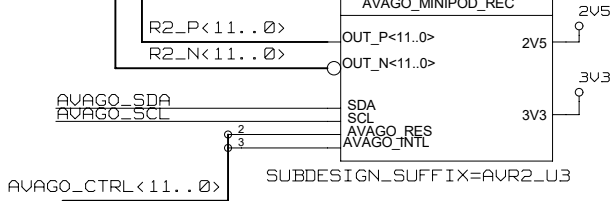
CLK_MGT1_P<2>
CLK_MGT1_N<2>



AVAGO_CTRL<11..0>
AVAGO_CTRL 0, 2, 4, 6, 8, 10 = AVAGO_RES_XX
AVAGO_CTRL 1, 3, 5, 7, 9, 11 = AVAGO_INTL_XX

I2C ADDRESS:

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

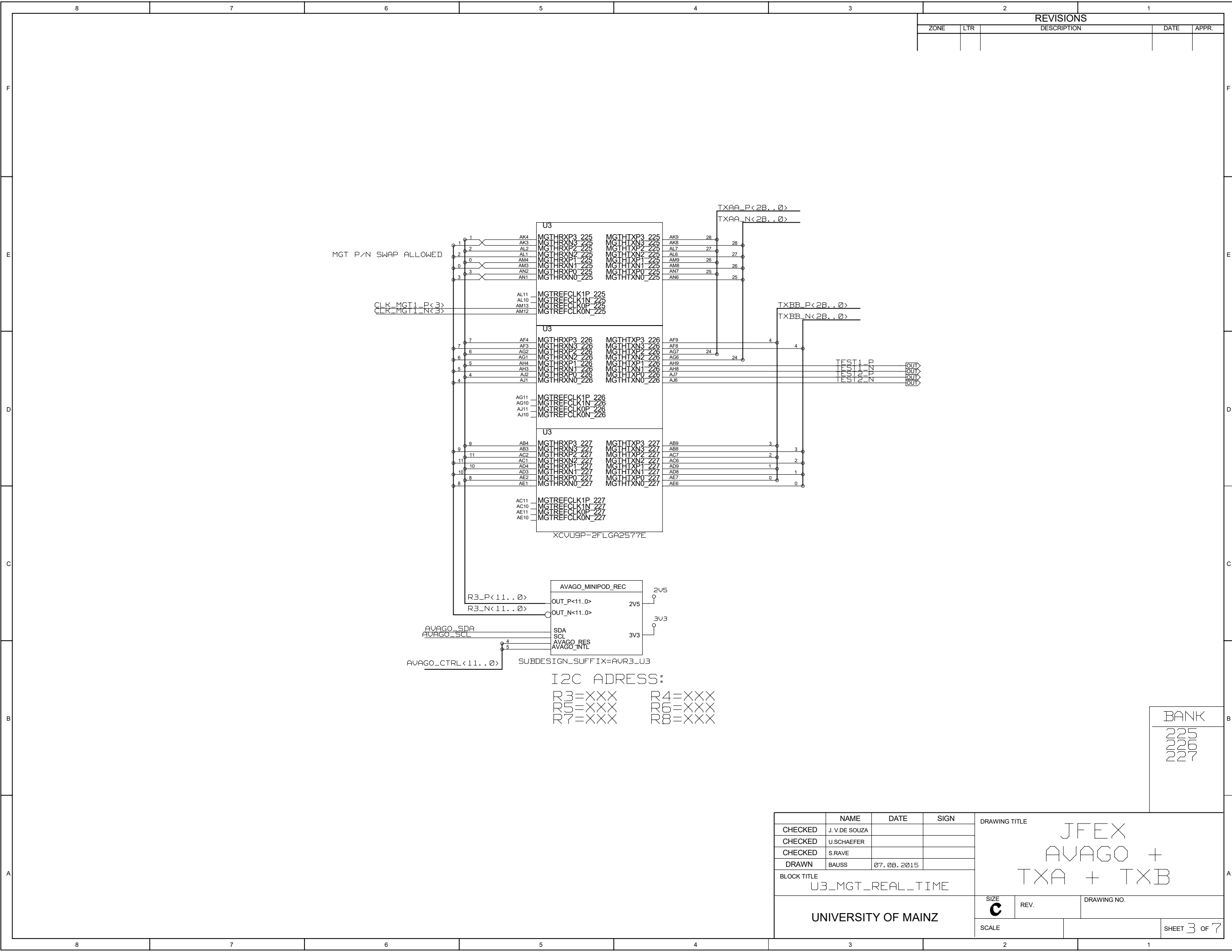


I2C ADDRESS:

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

BANK
210
220
230
240
250
260
270
280
290
300
310
320
330
340
350
360
370
380
390
400
410
420
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1000

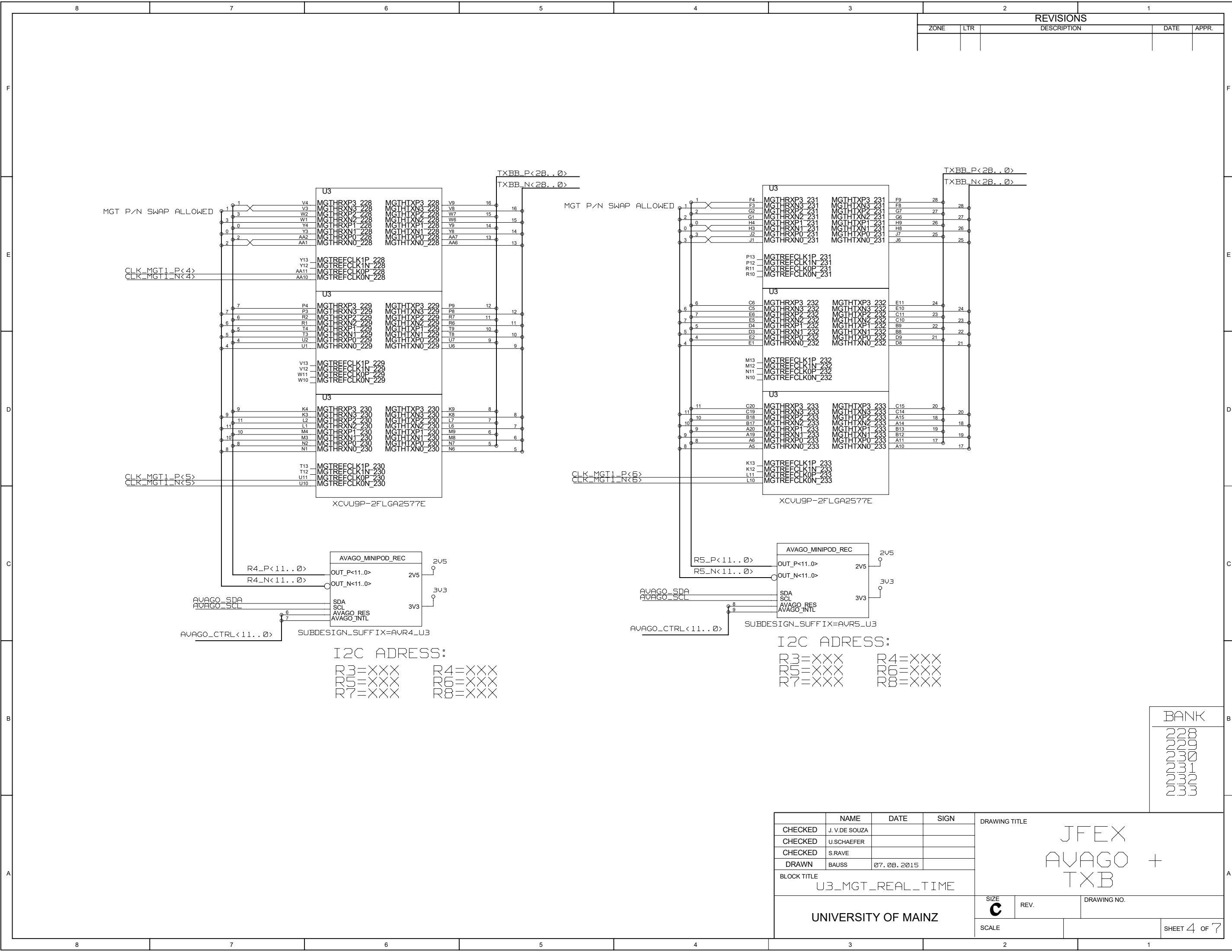
NAME	DATE	SIGN	DRAWING TITLE	
CHECKED	J. V. DE SOUZA		JFEX AVAGO + TXA	
CHECKED	U. SCHAEFER			
CHECKED	S. RAVE			
DRAWN	BAUSS	07. 08. 2015		
BLOCK TITLE			DRAWING NO.	
U3_MGT_REAL_TIME			SHEET 2 OF 7	
UNIVERSITY OF MAINZ			SCALE	



REVISIONS				
ZONE	LTR	DESCRIPTION		DATE

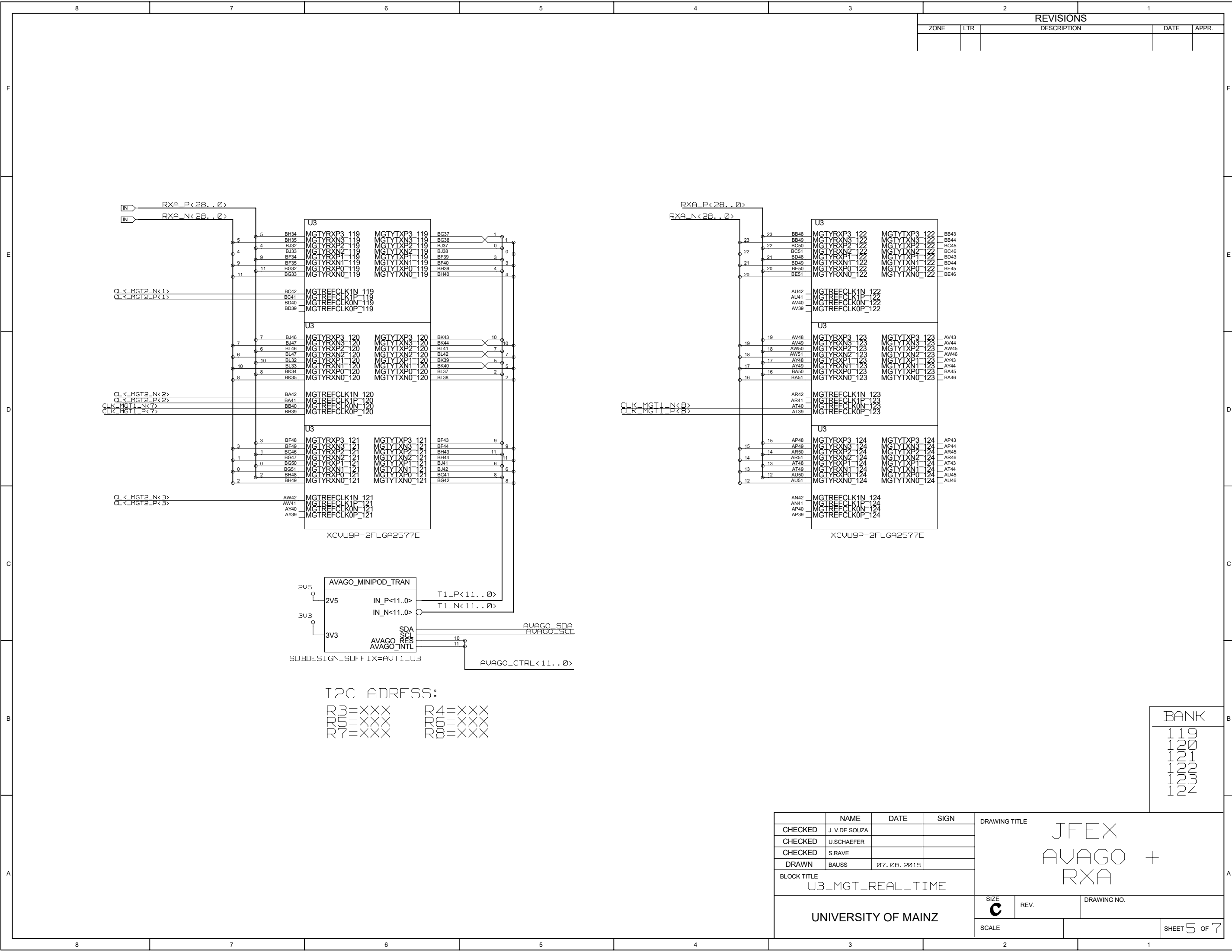
DRAWING TITLE				JFEX AVAGO + TXA + TXB	
CHECKED	J.V.DE SOUZA	DATE	SIGN		
CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS	07.08.2015			
BLOCK TITLE				DRAWING NO.	
U3_MGT_REAL_TIME					
UNIVERSITY OF MAINZ				SIZE C	REV.
				SCALE	
				SHEET 3 OF 7	

BANK
225
226
227

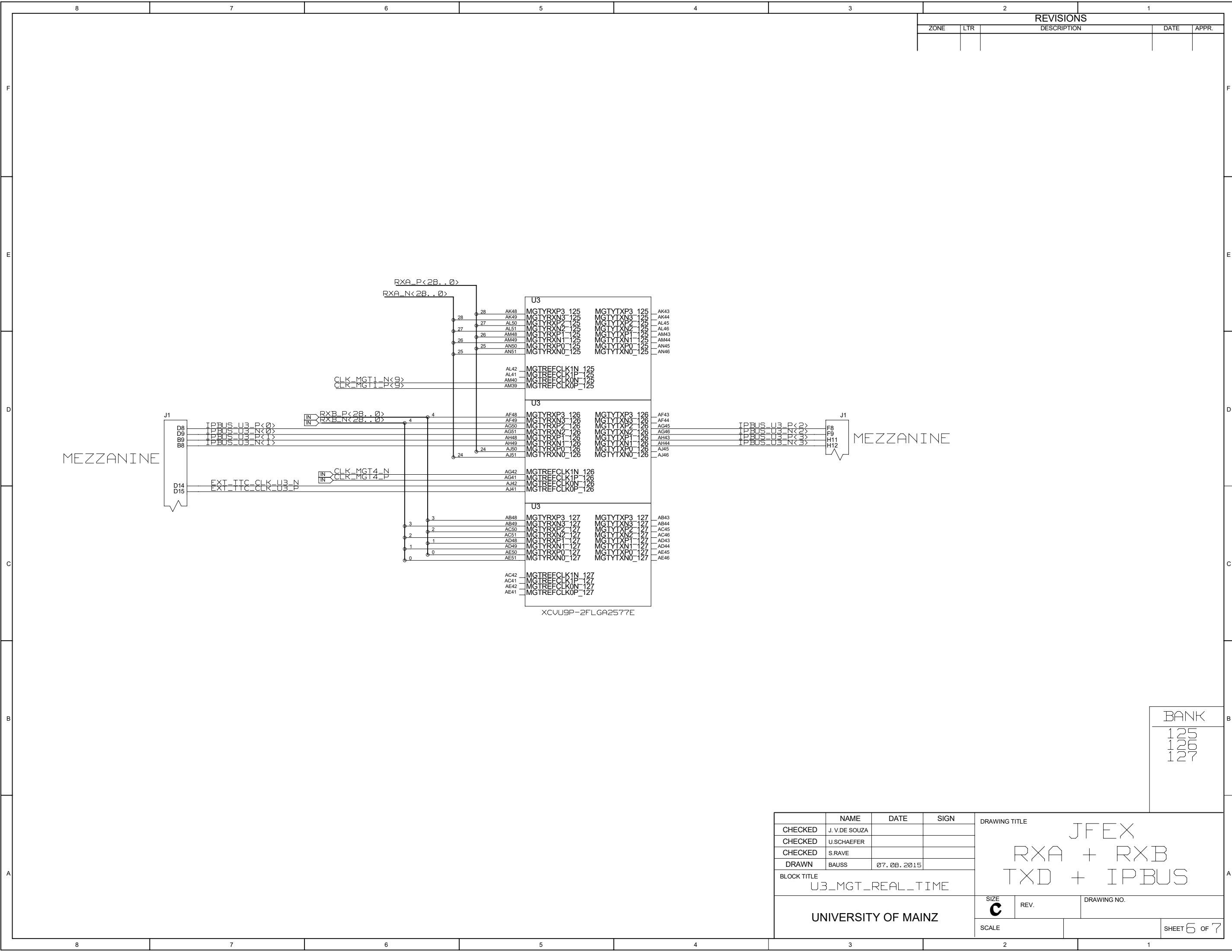


REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

	NAME	DATE	SIGN	DRAWING TITLE JFEX AVAGO + TXB			
CHECKED	J. V.DE SOUZA						
CHECKED	U.SCHAEFER						
CHECKED	S.RAVE						
DRAWN	BAUSS	07.08.2015					
BLOCK TITLE U3_MGT_REAL_TIME							
UNIVERSITY OF MAINZ				SIZE C	REV.	DRAWING NO.	
				SCALE			
				SHEET 4 OF 7			



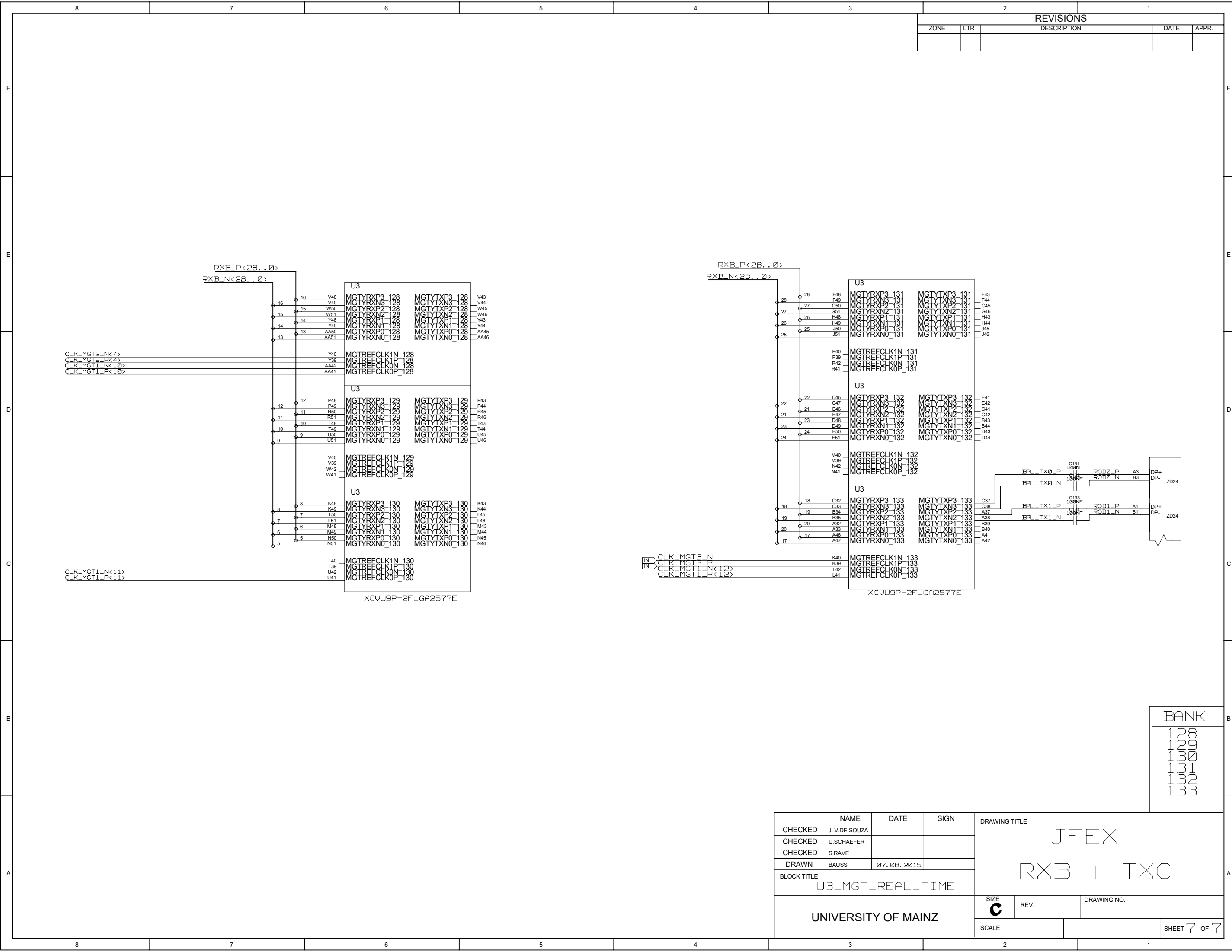
CHECKED	NAME	DATE	SIGN	DRAWING TITLE			
CHECKED	J.V.DE SOUZA			JFEX AVAGO + RXA			
CHECKED	U.SCHAEFER						
CHECKED	S.RAVE						
DRAWN	BAUSS	07.08.2015					
BLOCK TITLE				SIZE	REV.	DRAWING NO.	
U3_MGT_REAL_TIME				C			
UNIVERSITY OF MAINZ				SCALE		SHEET 5 OF 7	



REVISIONS				
ZONE	LTR	DESCRIPTION		DATE

BANK
125
126
127

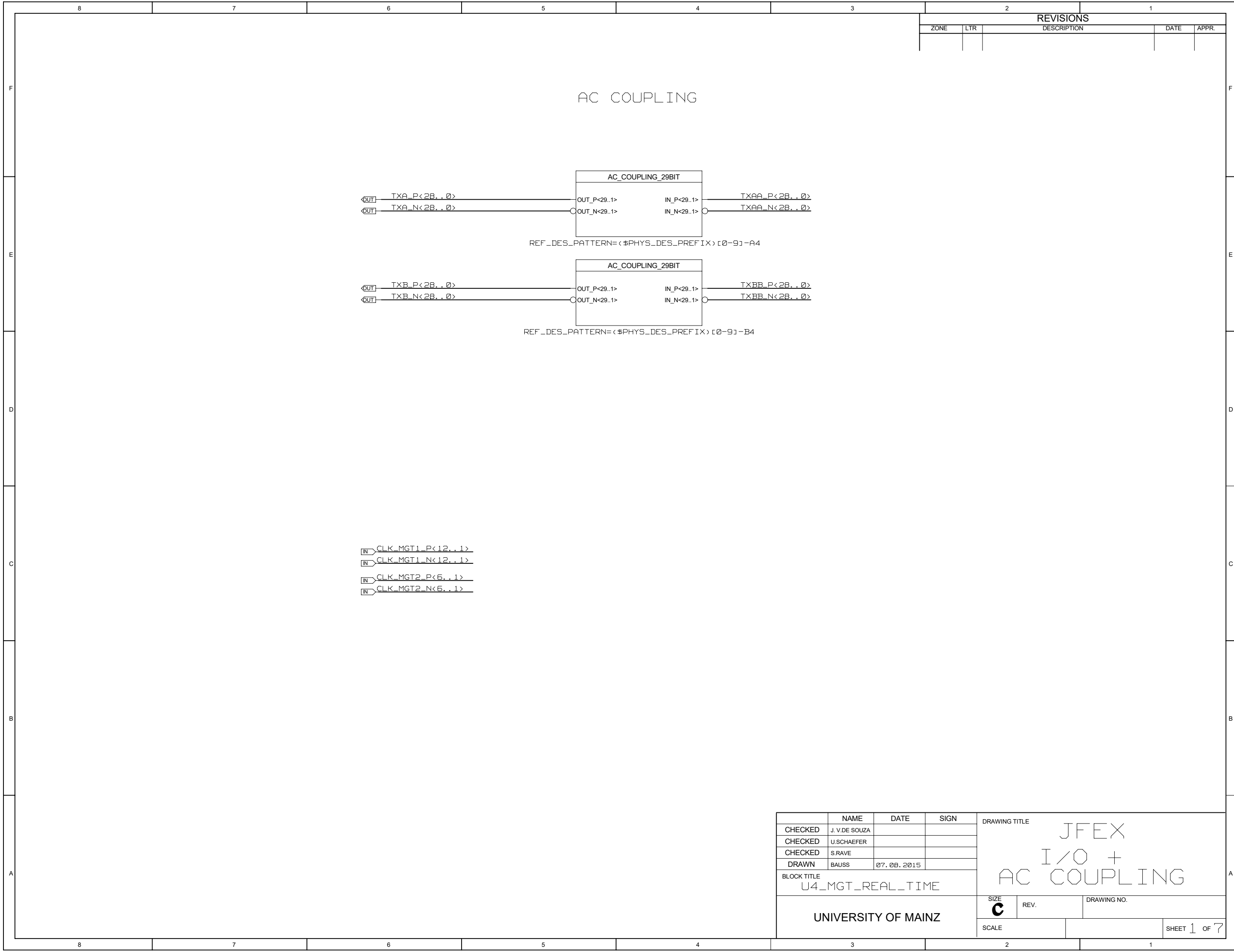
DRAWING TITLE				JFEX RXA + RXB TXD + IPBUS	
CHECKED	J. V. DE SOUZA	DATE	SIGN		
CHECKED	U. SCHAEFER				
CHECKED	S. RAVE				
DRAWN	BAUSS	07.08.2015			
BLOCK TITLE					
U3_MGT_REAL_TIME					
UNIVERSITY OF MAINZ				SIZE	DRAWING NO.
				C	REV.
SCALE				SHEET 6 OF 7	



REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

BANK
128
129
130
131
132
133
134
135
136
137
138

CHECKED	NAME	DATE	SIGN	DRAWING TITLE JFEX RXB + TXC		
	J. V. DE SOUZA					
	U. SCHAEFER					
	S. RAVE					
	DRAWN	BAUSS	07.08.2015	DRAWING NO.		
BLOCK TITLE U3_MGT_REAL_TIME				SIZE C	REV.	DRAWING NO.
UNIVERSITY OF MAINZ				SCALE	SHEET 7 OF 7	

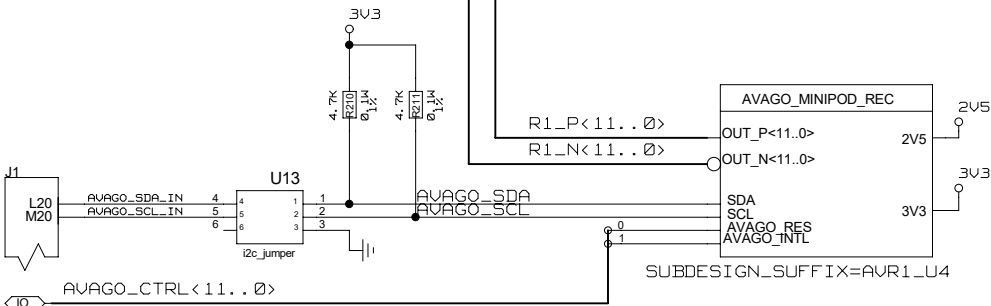


REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

MGT P/N SWAP ALLOWED

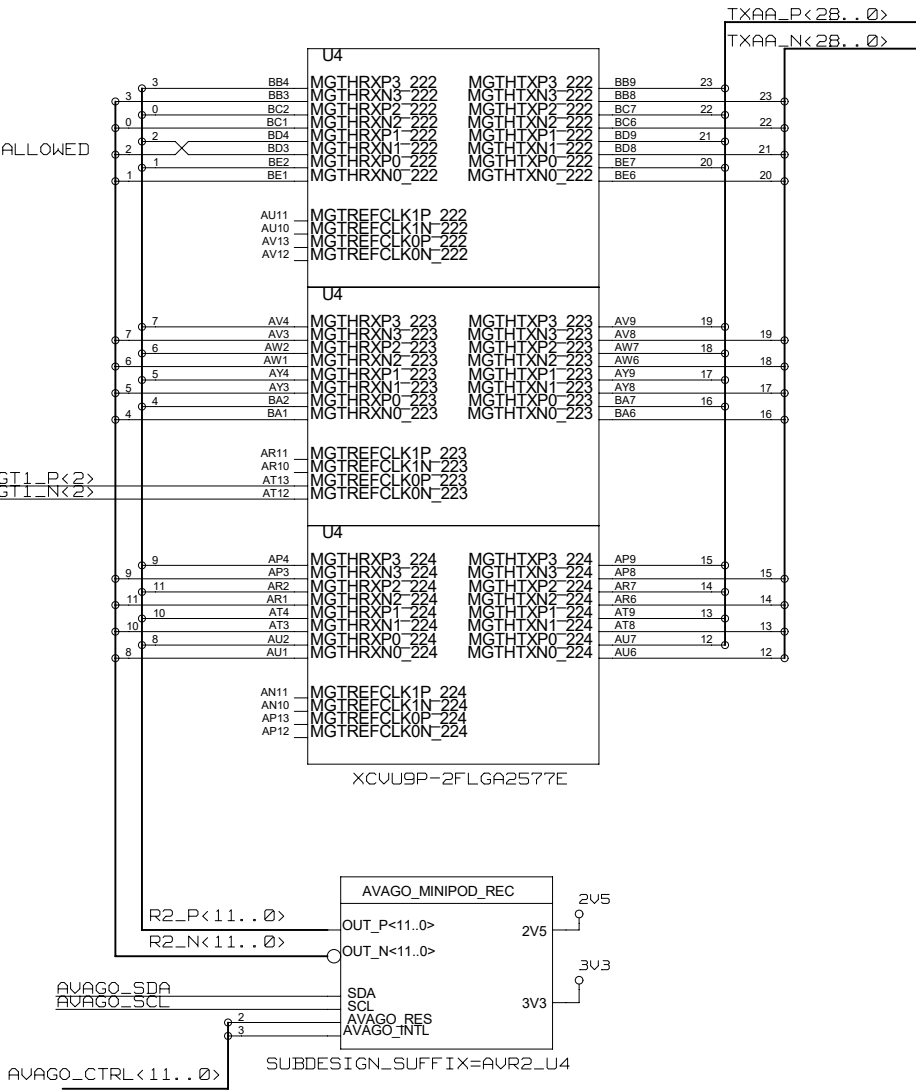
MGT P/N SWAP ALLOWED

CLK_MGT1_P<2>
CLK_MGT1_N<2>



AVAGO_CTRL<11..0>
AVAGO_CTRL 0, 2, 4, 6, 8, 10 = AVAGO_RES_XX
AVAGO_CTRL 1, 3, 5, 7, 9, 11 = AVAGO_INTL_XX

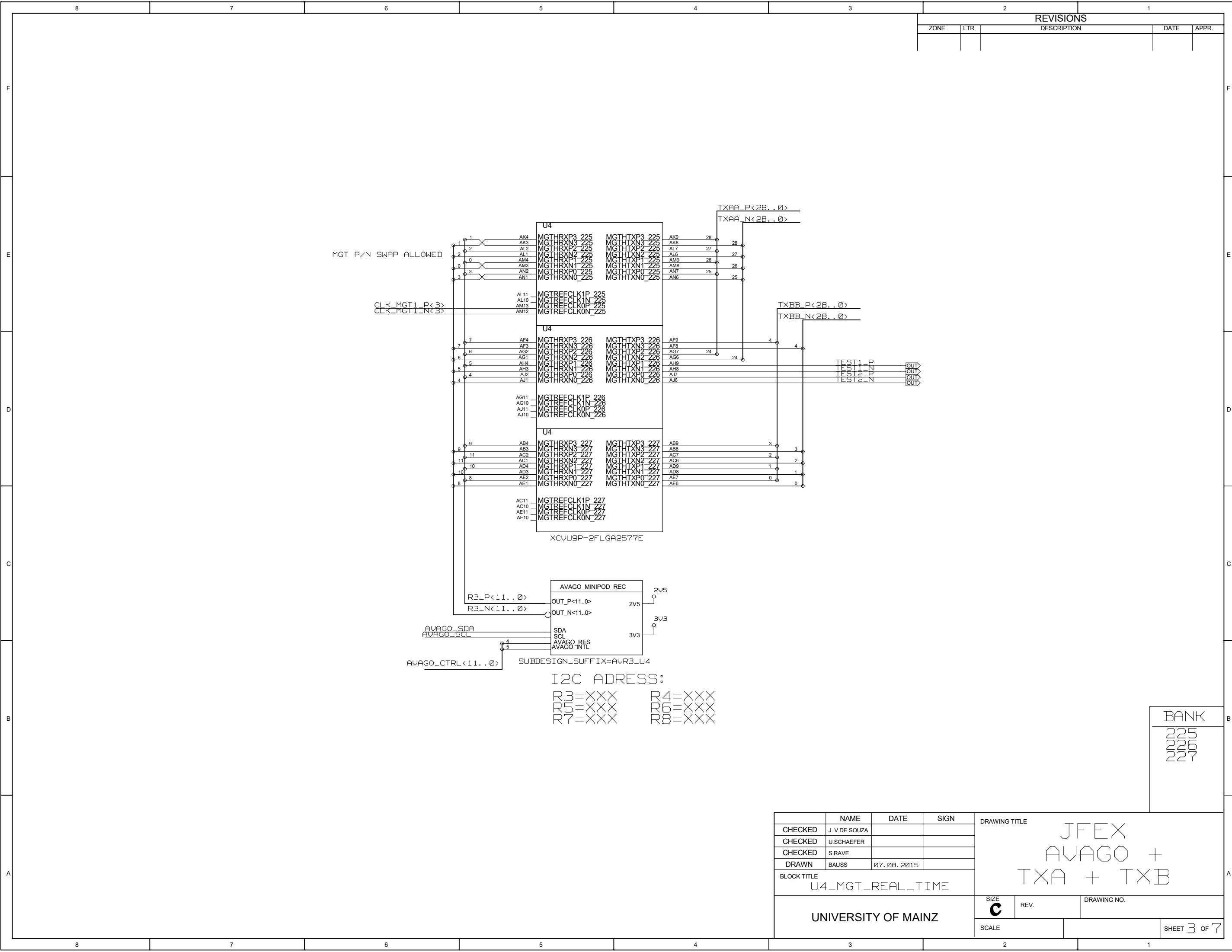
I2C ADDRESS:
R3=XXX R4=XXX
R5=XXX R6=XXX
R7=XXX R8=XXX



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

BANK
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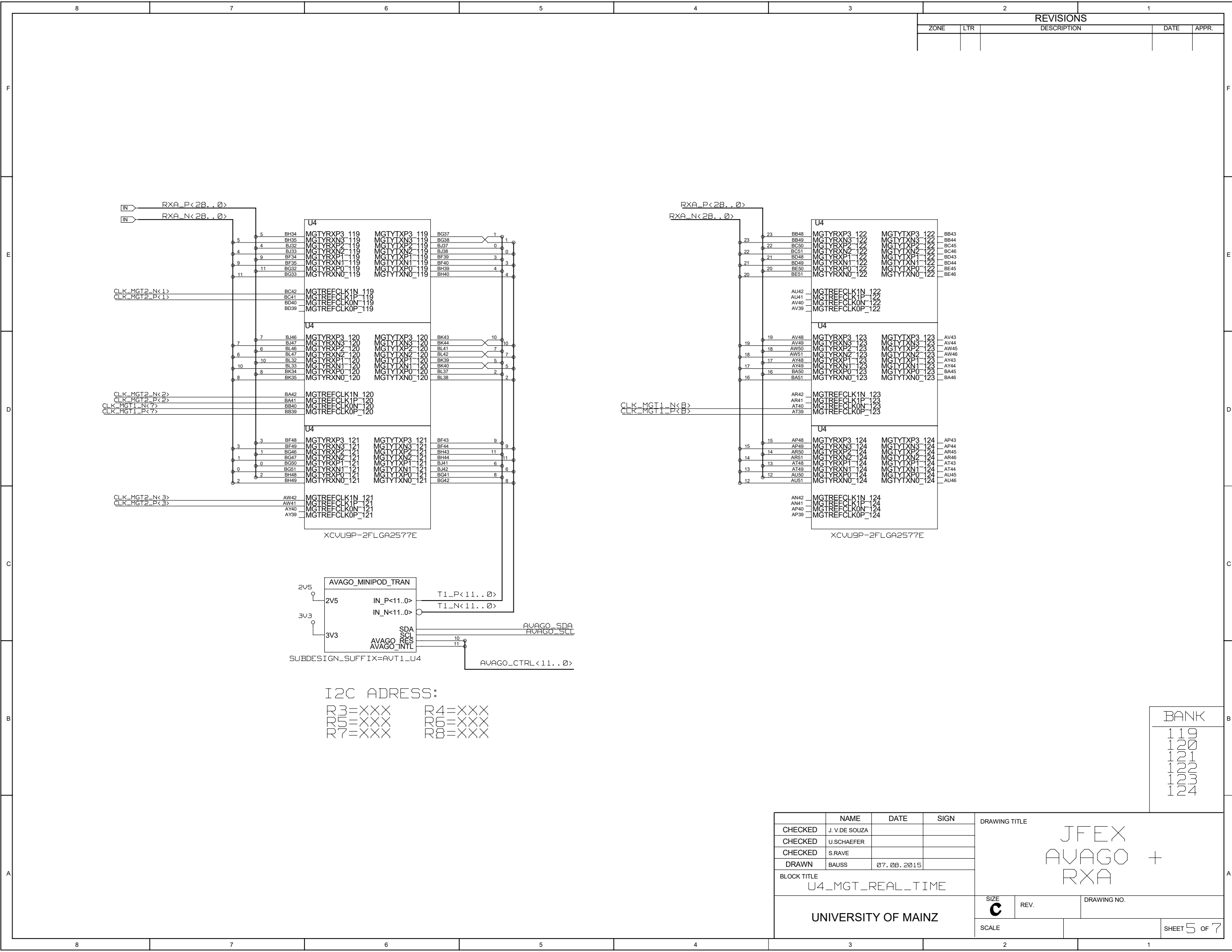
NAME	DATE	SIGN	DRAWING TITLE	
CHECKED	J. V. DE SOUZA		JFEX AVAGO + TXA	
CHECKED	U. SCHAEFER			
CHECKED	S. RAVE			
DRAWN	BAUSS	07. 08. 2015		
BLOCK TITLE			DRAWING NO.	
U4_MGT_REAL_TIME			SHEET 2 OF 7	
UNIVERSITY OF MAINZ			SCALE	



REVISIONS				
ZONE	LTR	DESCRIPTION		DATE

BANK
225
226
227

	NAME	DATE	SIGN	DRAWING TITLE JFEX AVAGO + TXA + TXB			
CHECKED	J. V.DE SOUZA						
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 3 of 7	



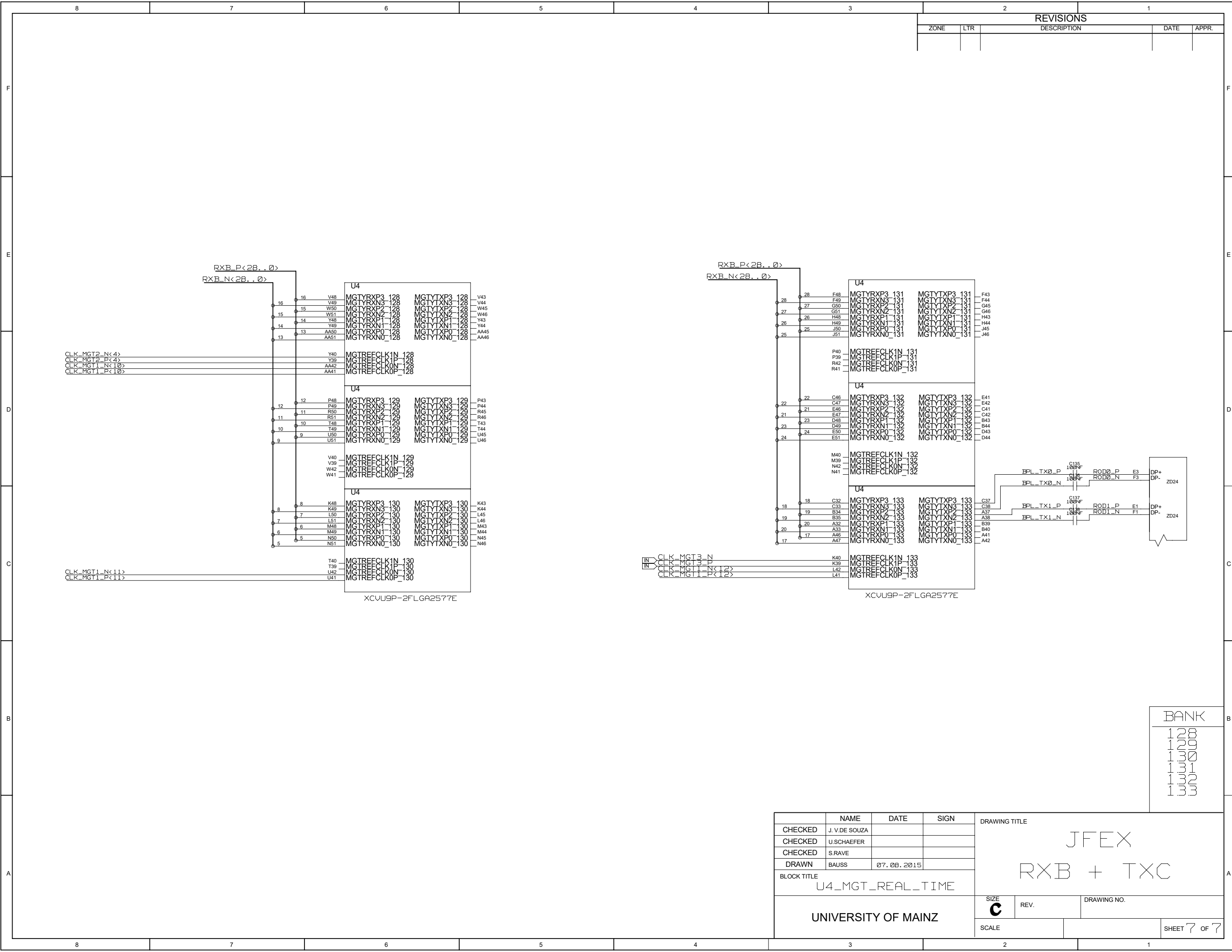
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

I2C ADRESS:

R3=XXXX R4=XXXX
R5=XXXX R6=XXXX
R7=XXXX R8=XXXX

BANK
110
120
121
122
123
124

CHECKED	NAME	DATE	SIGN	DRAWING TITLE JFEX AVAGO + RXA		
CHECKED	J.V.DE SOUZA					
CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
DRAWN	BAUSS	07.08.2015		DRAWING NO.		
BLOCK TITLE U4_MGT_REAL_TIME				SIZE C	REV.	
UNIVERSITY OF MAINZ				SCALE		SHEET 5 OF 7

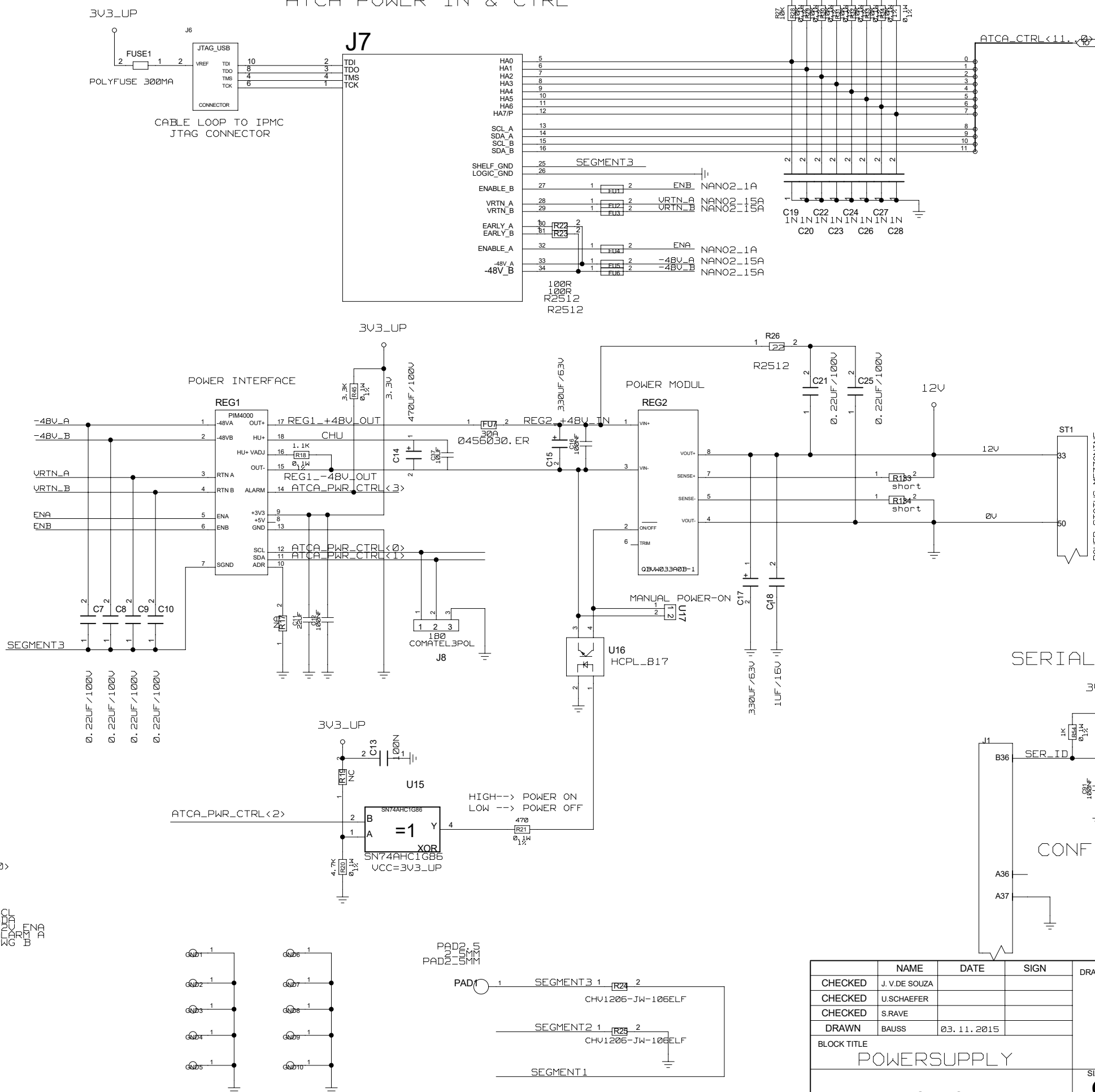


REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

DRAWING TITLE			
JFEX			
RXB + TxC			
BLOCK TITLE			
U4_MGT_REAL_TIME			
UNIVERSITY OF MAINZ			
SIZE	REV.	DRAWING NO.	
SCALE		SHEET 7 OF 7	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

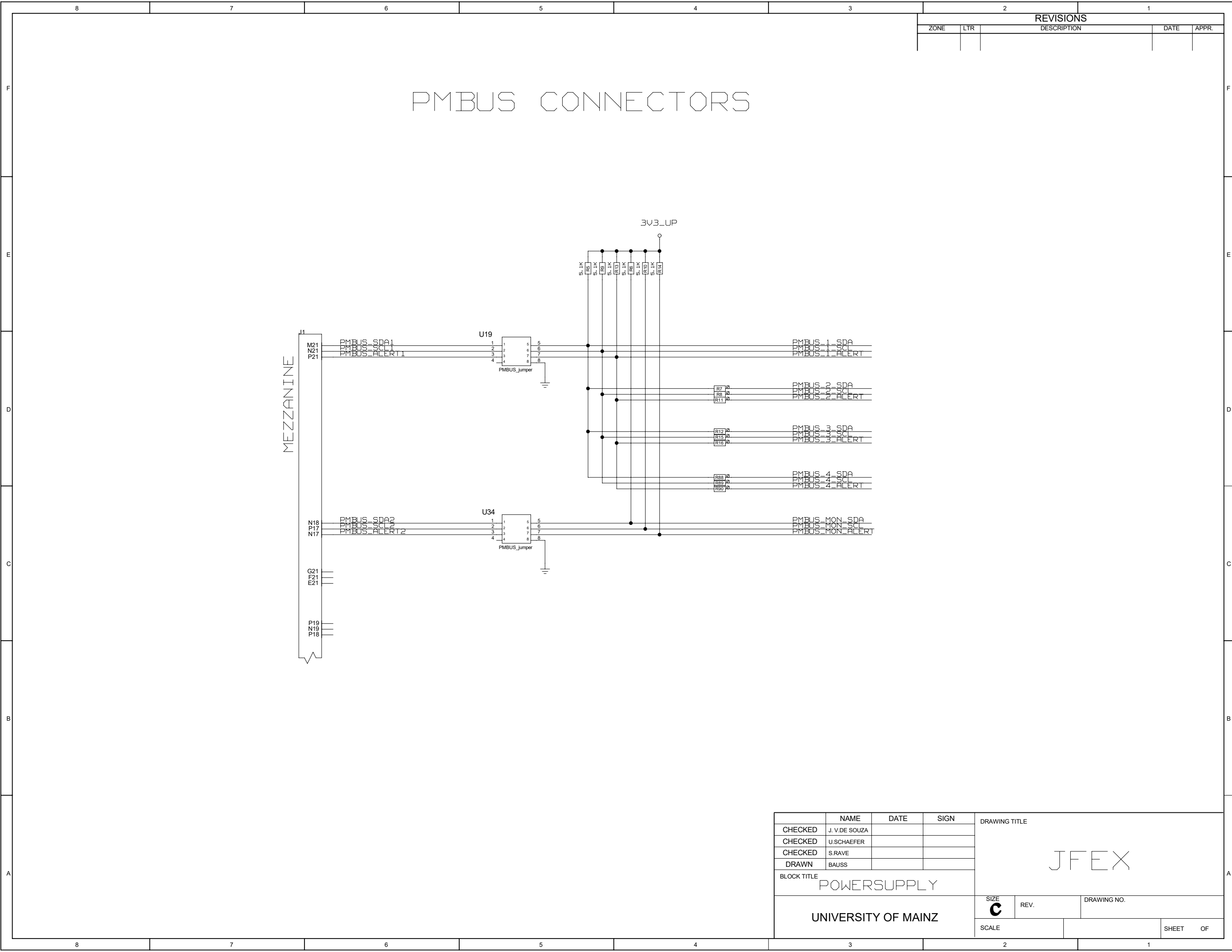
ATCA POWER IN & CTRL



SERIAL BOARD NUMBER

CONFIGURATION SELECT

CHECKED	NAME	DATE	SIGN	DRAWING TITLE	
CHECKED	J.V.DE SOUZA			JFEX	
CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS	03. 11. 2015			
BLOCK TITLE				POWERSUPPLY	
UNIVERSITY OF MAINZ				SIZE C	DRAWING NO.
				SCALE	SHEET OF



BLOCK TITLE		DRAWING TITLE	
POWER SUPPLY		JFEX	
UNIVERSITY OF MAINZ		SIZE C	REV.
SCALE		DRAWING NO.	
		SHEET	OF

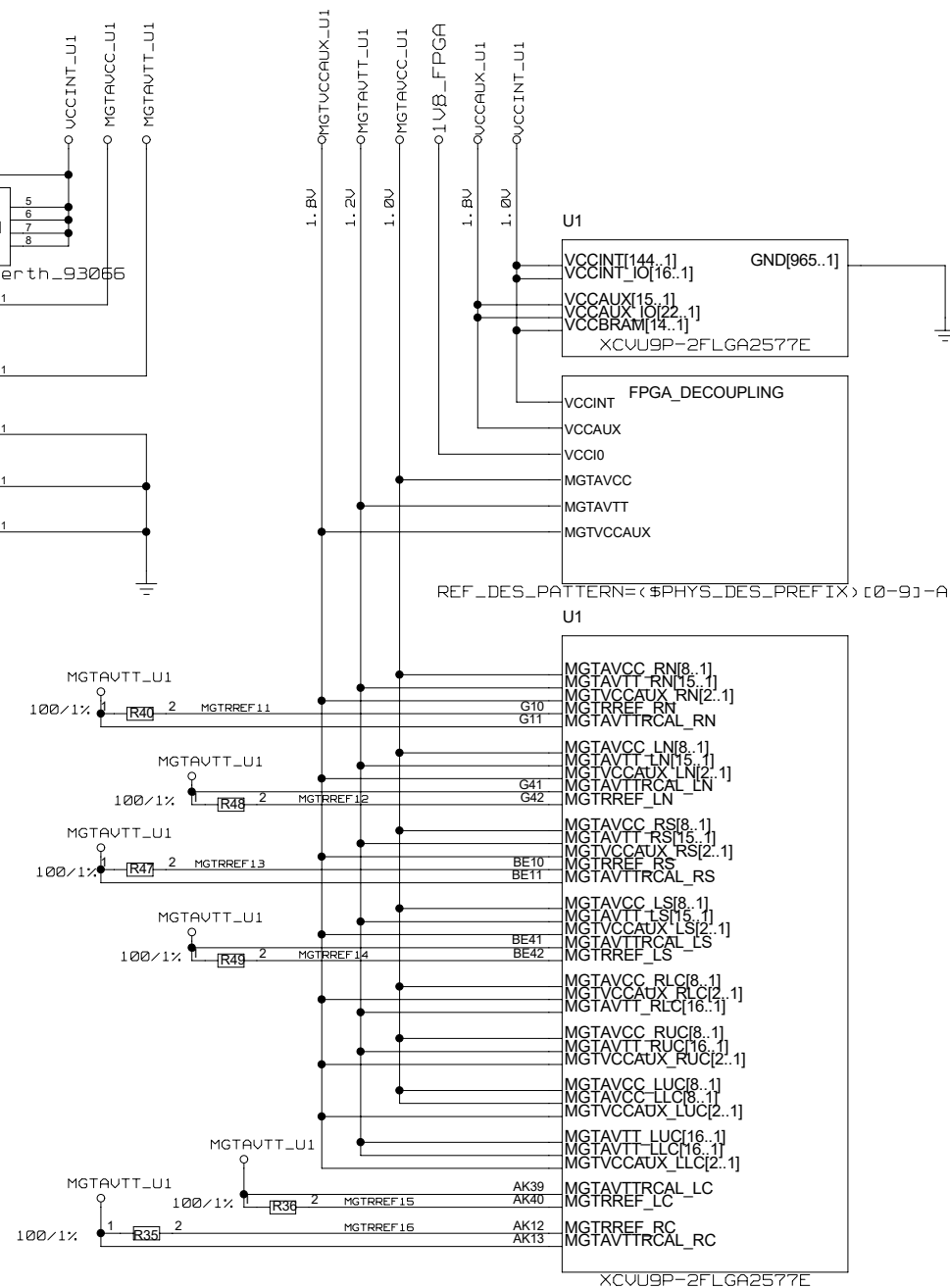
		2			1
REVISIONS					
ZONE	LTR	DESCRIPTION			DATE
					APPR.

The diagram shows the J11 connector (wuerth_93066) with the following connections:

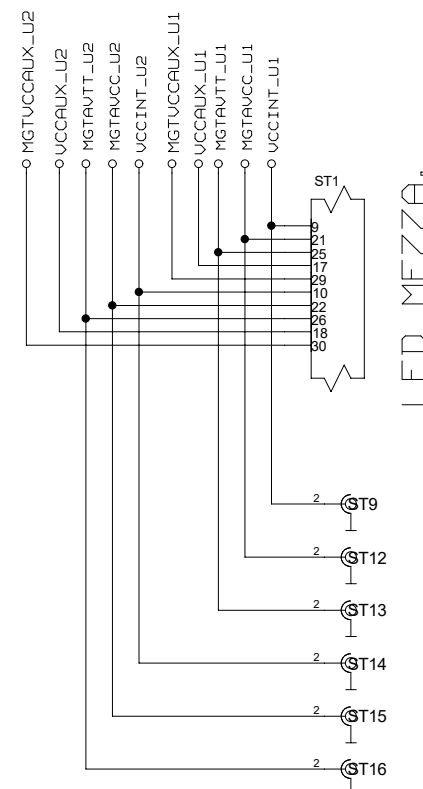
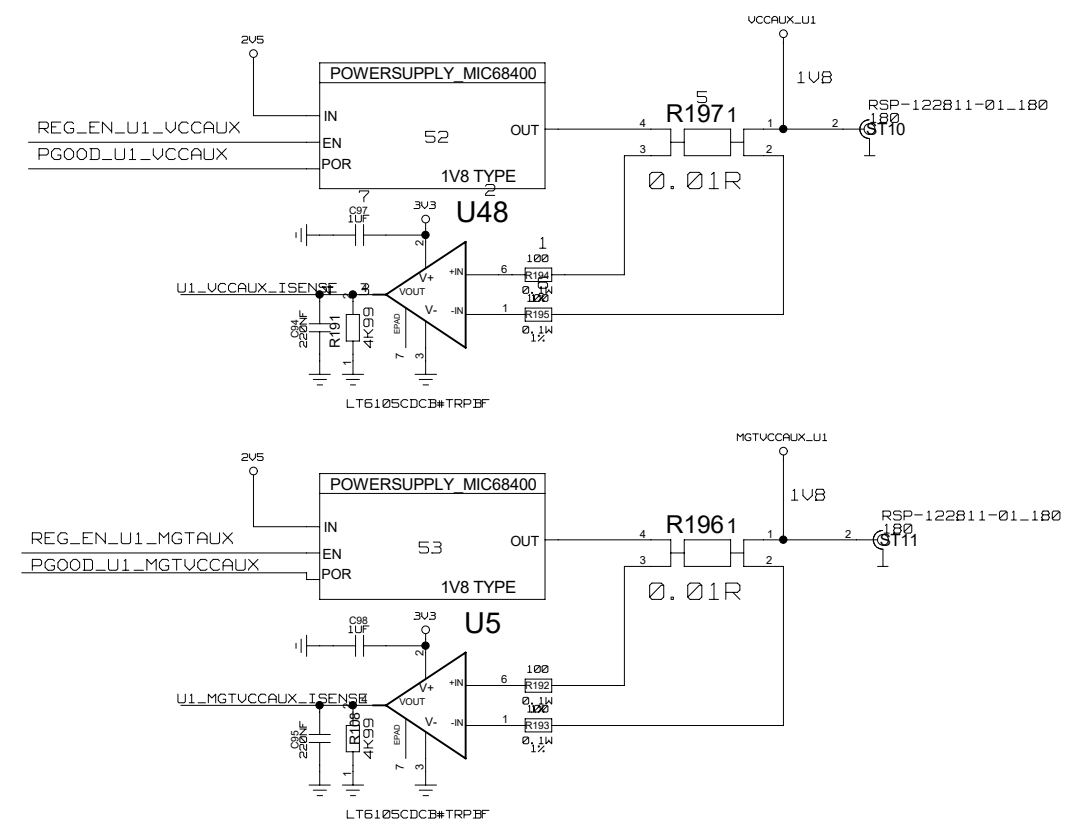
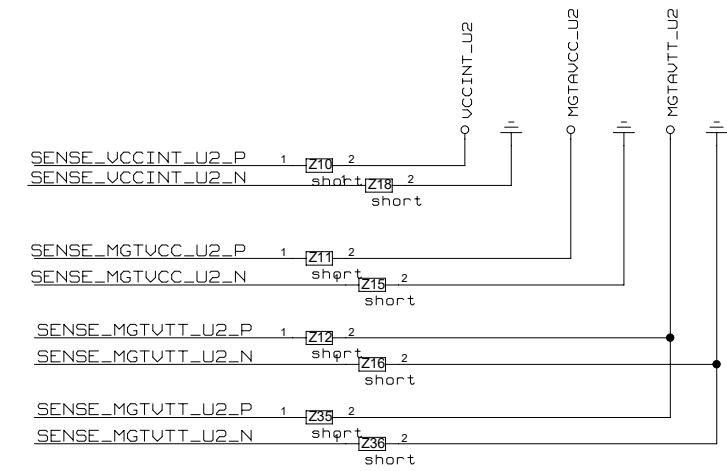
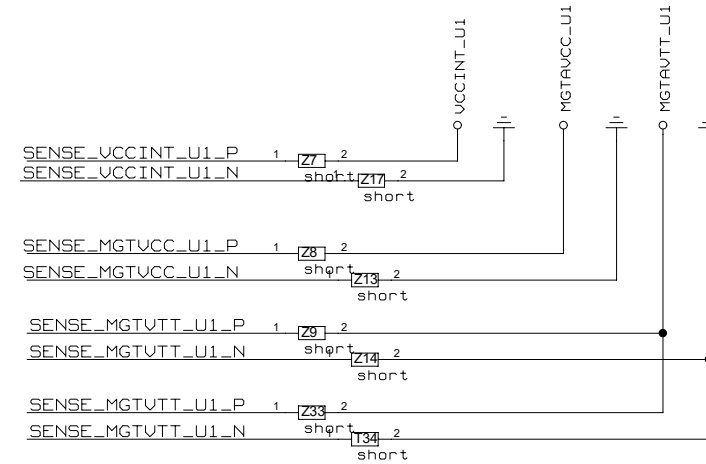
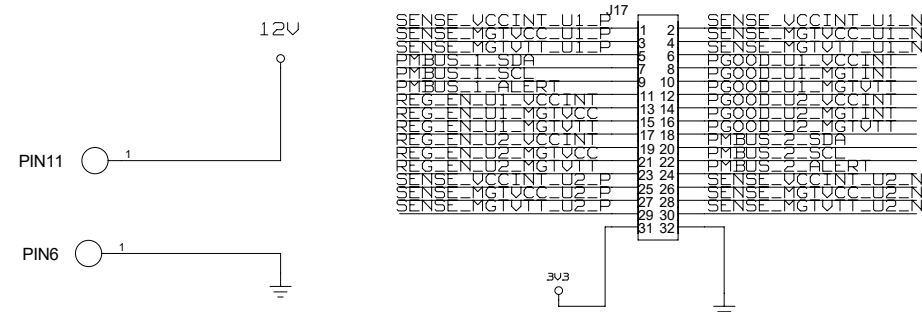
- Pin 1: Connected to PIN2
- Pin 2: Connected to UCCINT_U1
- Pin 3: Connected to MGTAVCC_U1
- Pin 4: Connected to MGTAVTT_U1
- Pin 5: Connected to UCCINT_U1
- Pin 6: Connected to MGTAVCC_U1
- Pin 7: Connected to MGTAVTT_U1
- Pin 8: Connected to MGTAVTT_U1

Additional connections shown in the diagram include:

- PIN3, PIN4, PIN5, and PIN1 connected to a common ground rail.
- UCCINT_U1, MGTAVCC_U1, and MGTAVTT_U1 connected to a common power rail.



POWERPANEL

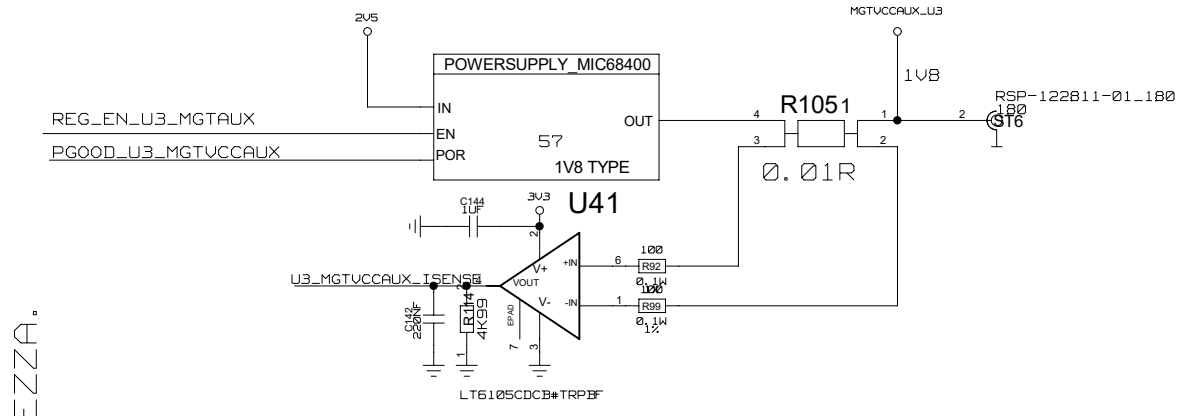
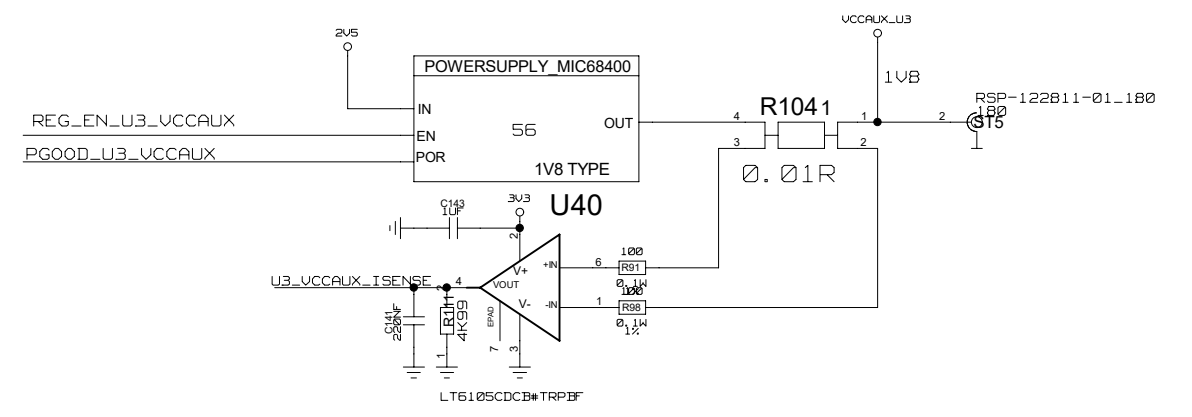
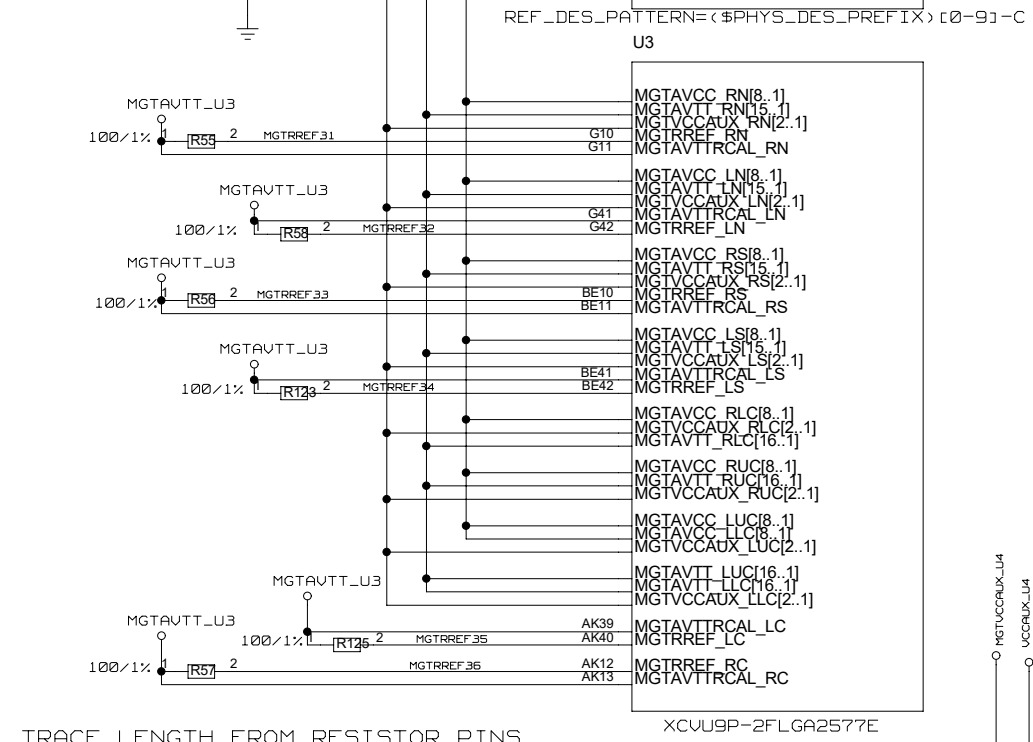
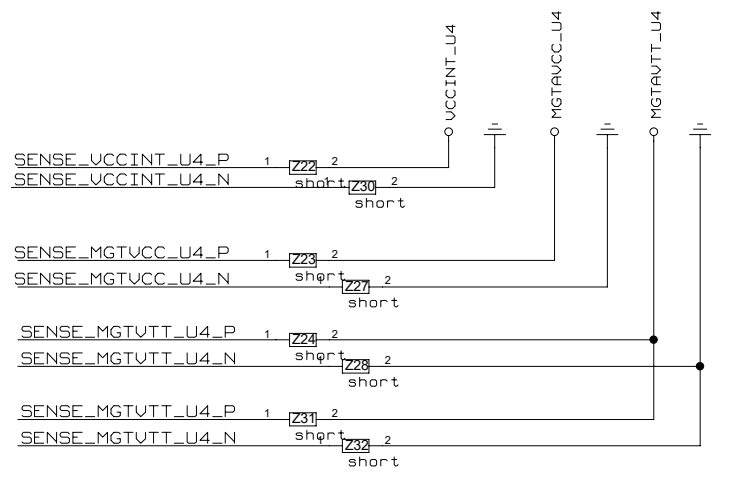
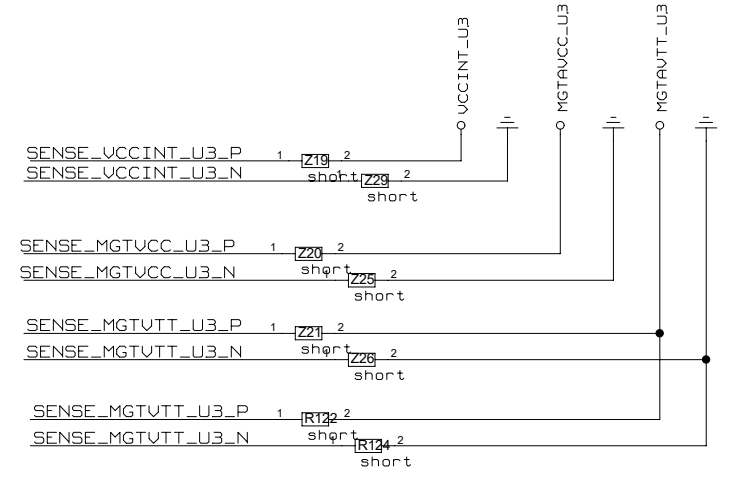
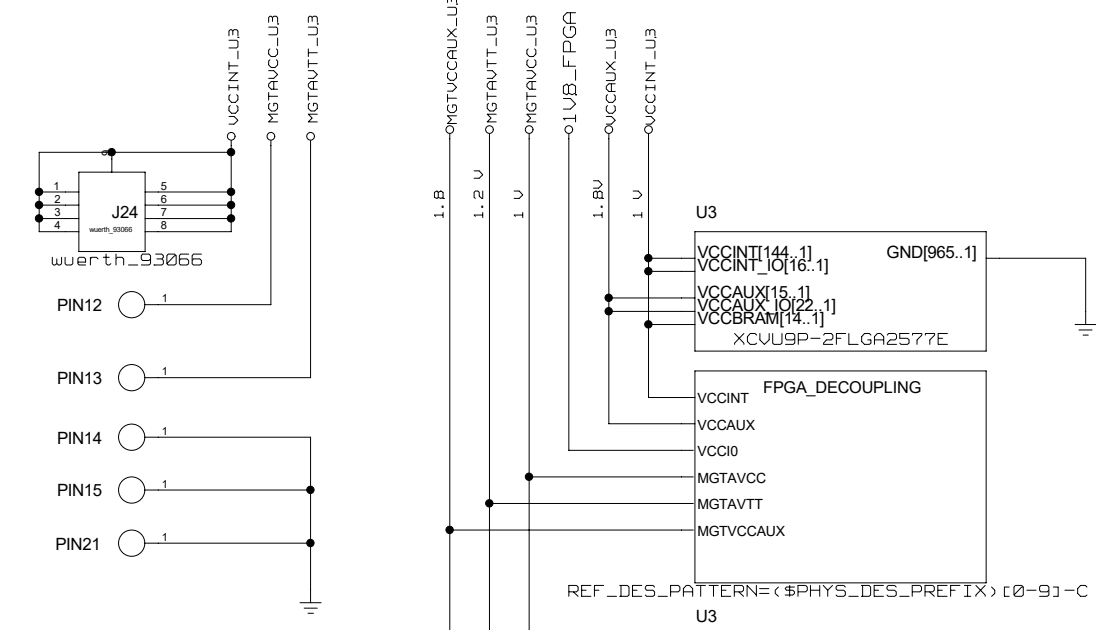


	NAME	DATE	SIGN	DRAWING TITLE JFEX					
CHECKED	J. V.DE SOUZA								
CHECKED	U.SCHAEFER								
CHECKED	S.RAVE								
DRAWN	BAUSS								
BLOCK TITLE POWERSUPPLY									
UNIVERSITY OF MAINZ				SIZE C	REV.	DRAWING NO.			
				SCALE				SHEET	OF

POWERSUPPLIES U3 + DECOUPLING U3

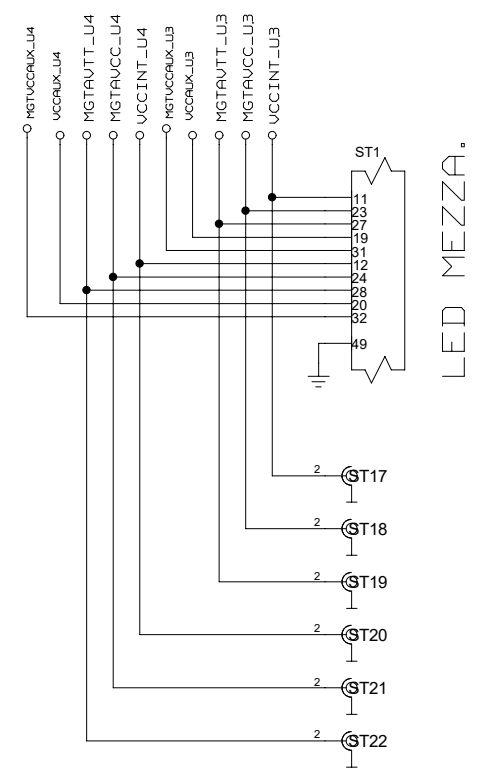
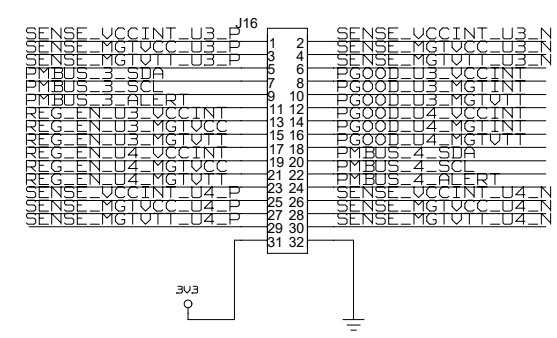
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

POWERCONNECTORS



TRACE LENGTH FROM RESISTOR PINS
TO PIN SAME LENGTH
UG578 SHEET 324

POWERPANEL

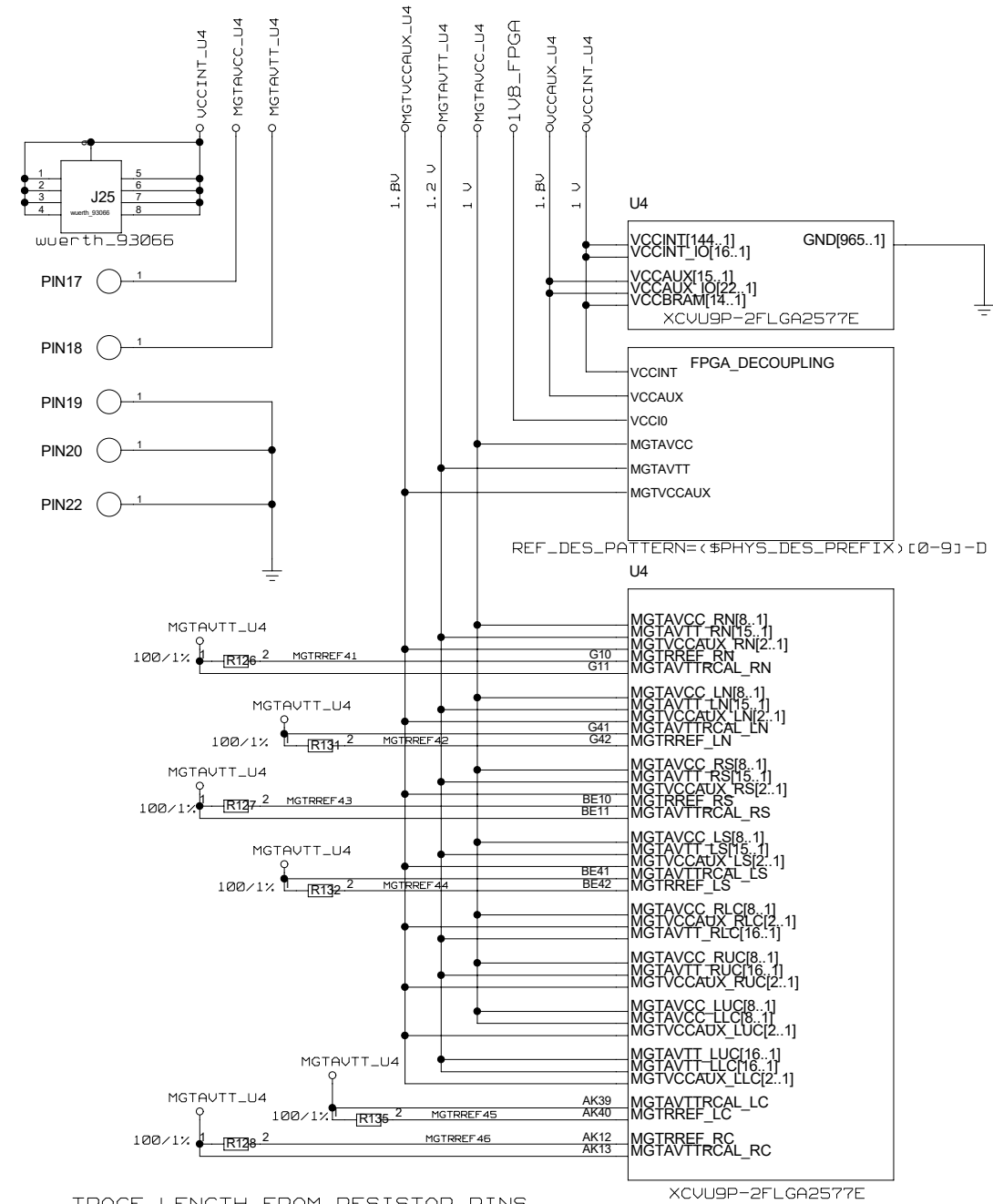


NAME	DATE	SIGN	DRAWING TITLE	
CHECKED	J. V. DE SOUZA		JFEX	
CHECKED	U. SCHAEFER			
CHECKED	S. RAVE			
DRAWN	BAUSS			
BLOCK TITLE			POWERSUPPLY	
UNIVERSITY OF MAINZ			SIZE	DRAWING NO.
			SCALE	SHEET OF

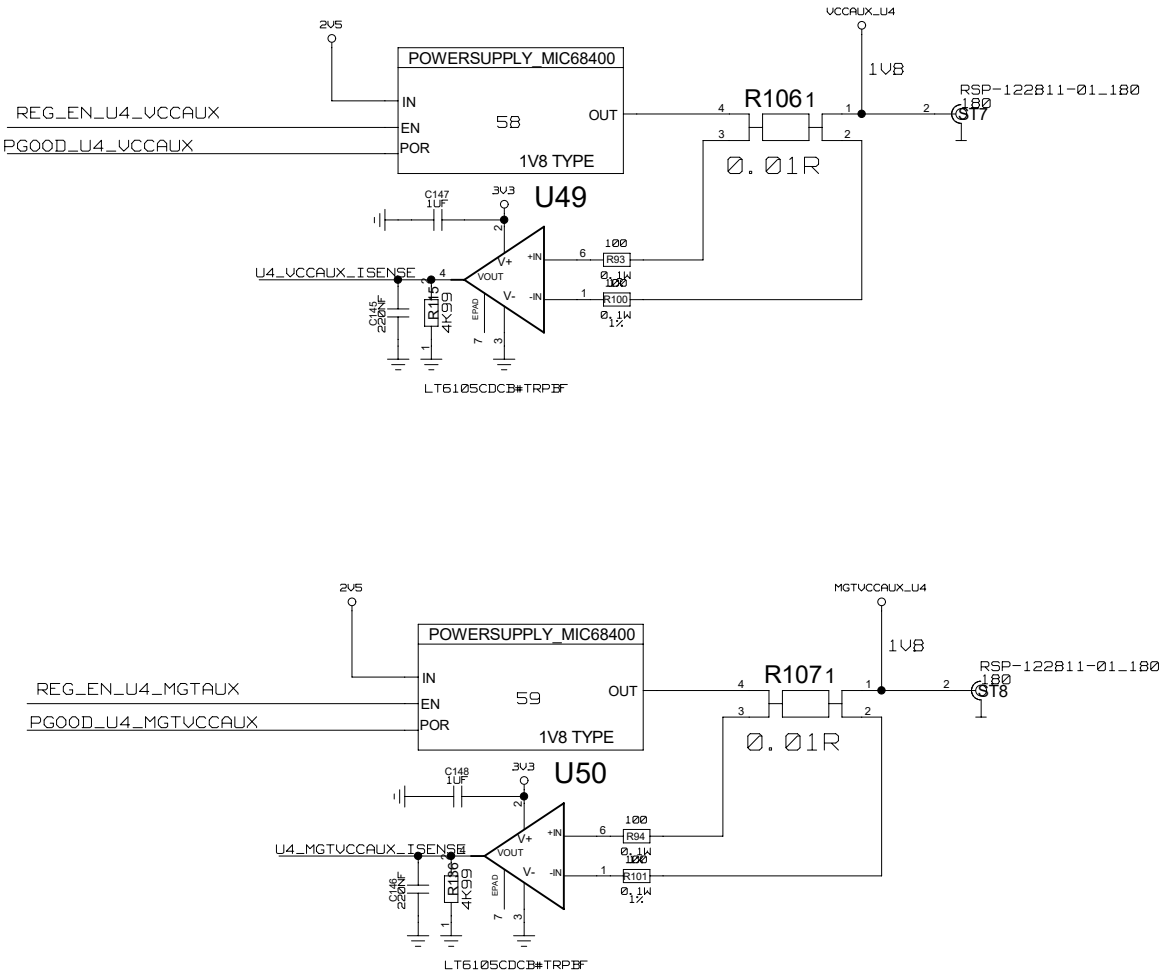
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

POWERSUPPLIES U4 + DECOUPLING U4

POWERCONNECTORS



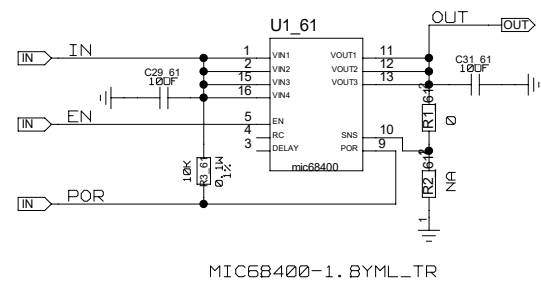
TRACE LENGTH FROM RESISTOR PINS
TO PIN SAME LENGTH
UG578 SHEET 324



	NAME	DATE	SIGN	DRAWING TITLE 		
--	------	------	------	---	--	--

[illegible]

POWERSUPPLY_MIC68400



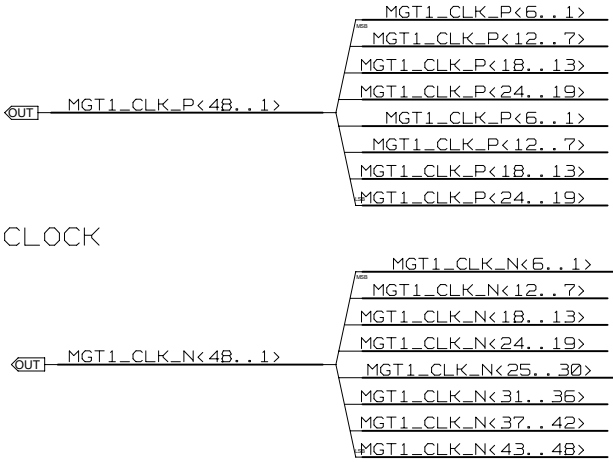
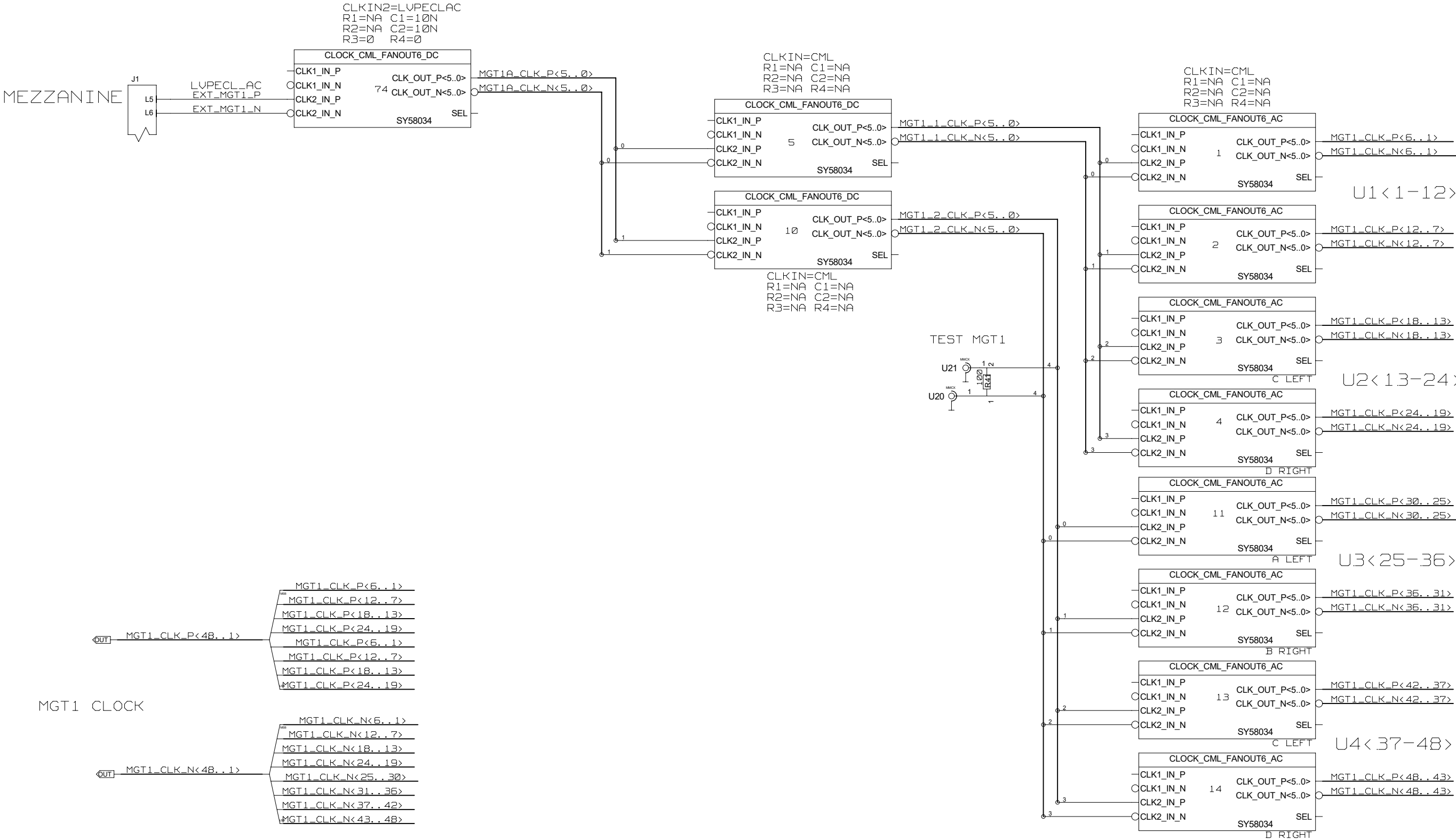
	NAME	DATE	SIGN	DRAWING TITLE		
CHECKED	J. V.DE SOUZA					
CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
DRAWN	BAUSS					
BLOCK TITLE				POWERSUPPLY_MIC68400		
UNIVERSITY OF MAINZ				SIZE	REV.	DRAWING NO.
				C		
				SCALE		SHEET OF

8		7		6		5		4		3		2		1	
												REVISIONS			
ZONE		LTR	DESCRIPTION									DATE		APPR.	
F														F	
E														E	
D														D	
C														C	
B														B	
A														A	
8		7		6		5		4		3		2		1	

	NAME	DATE	SIGN	DRAWING TITLE		
CHECKED	J. V.DE SOUZA					
CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
DRAWN	BAUSS					
BLOCK TITLE						
UNIVERSITY OF MAINZ				SIZE	REV.	DRAWING NO.
				C		
SCALE						SHEET OF

MGT1 CLOCK

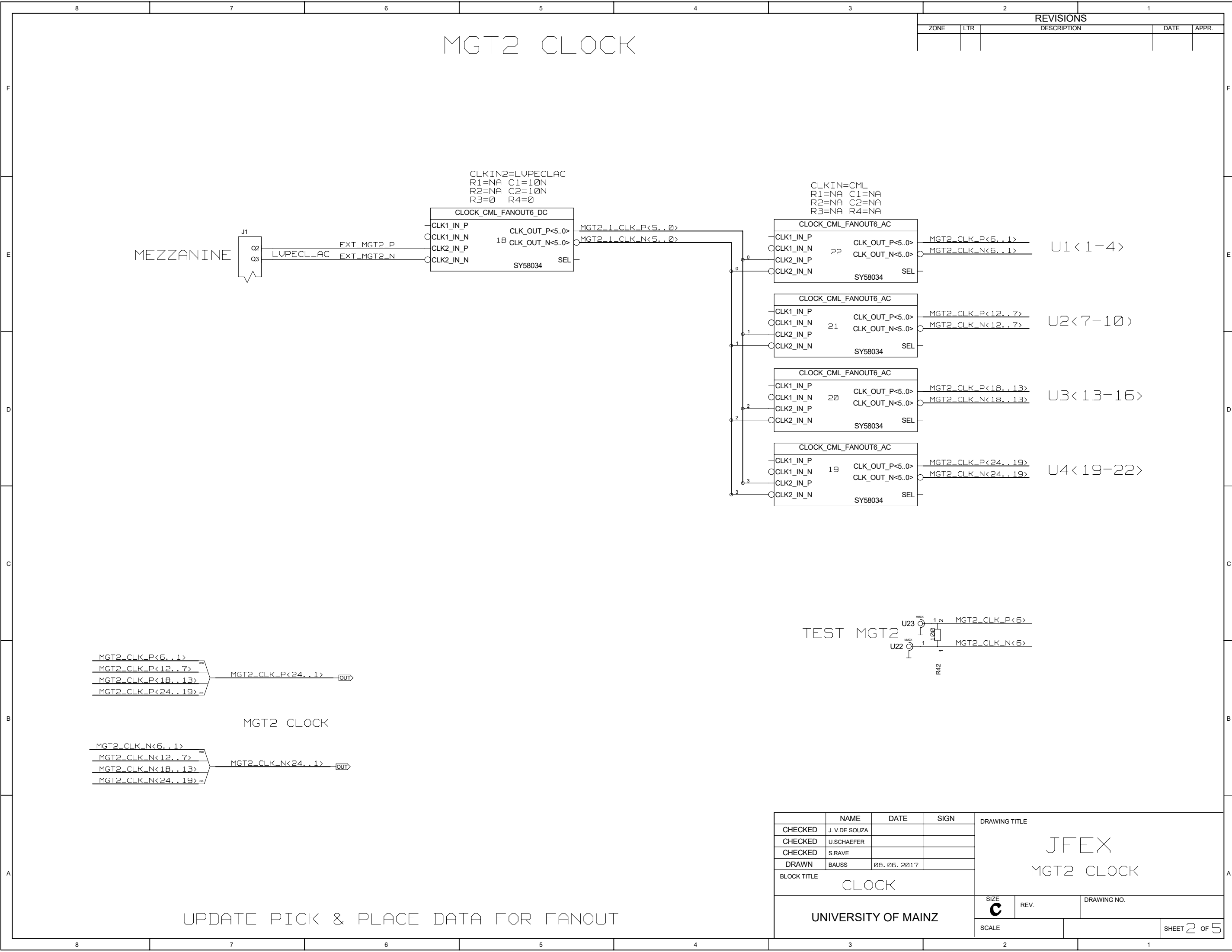
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

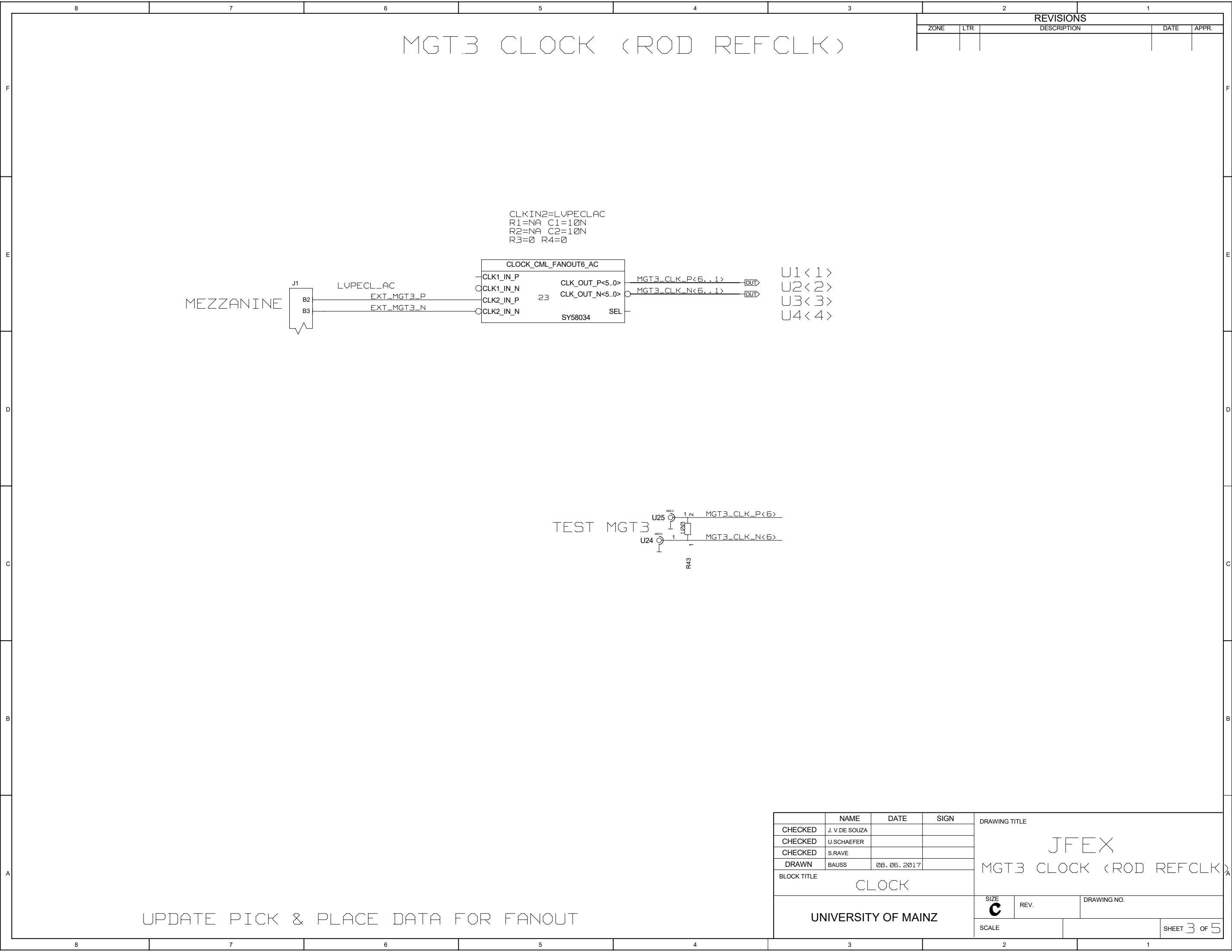


IN CTRL<14..0>

UPDATE PICK & PLACE DATA FOR FANOUT

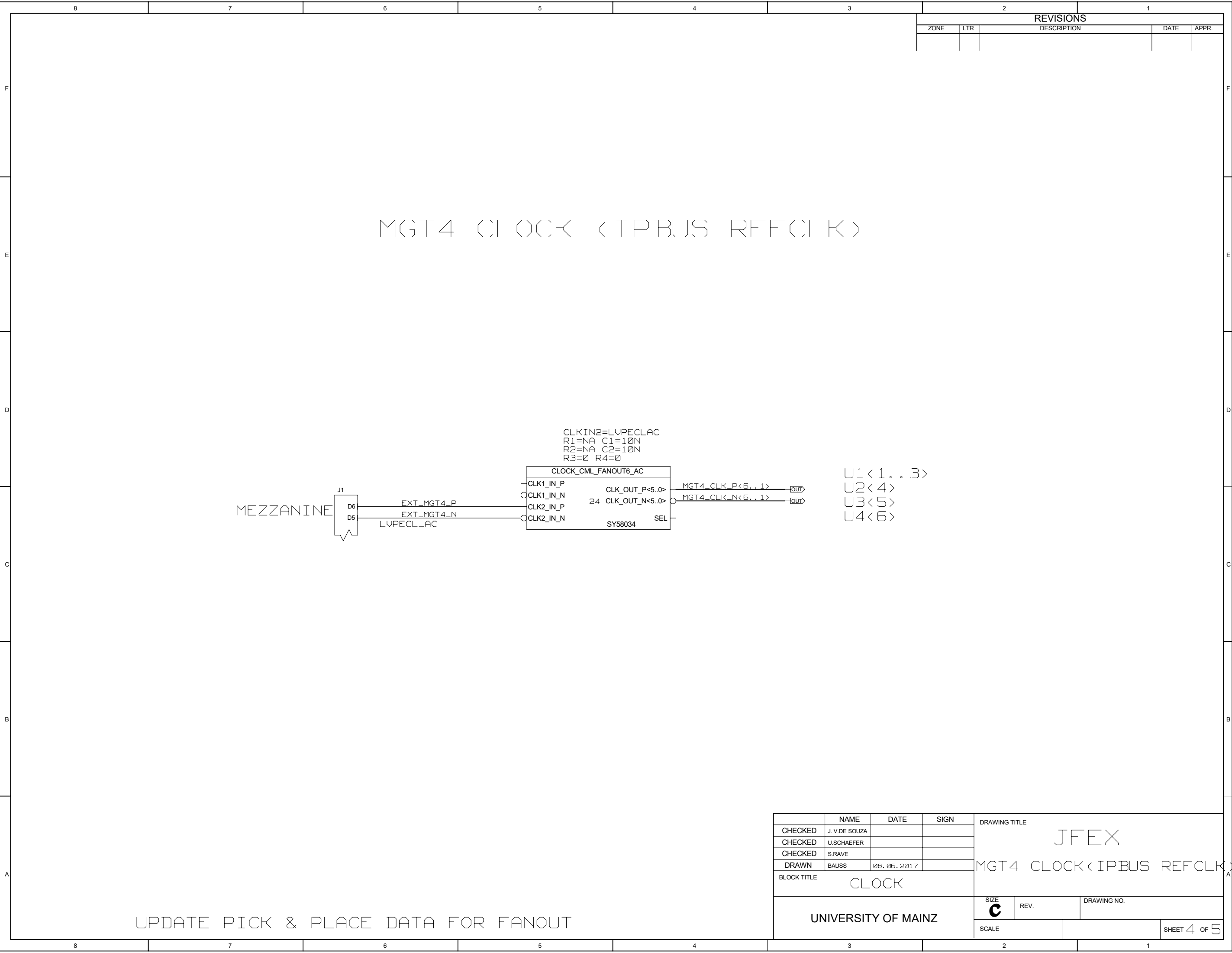
NAME	DATE	SIGN	DRAWING TITLE		
CHECKED J. V. DE SOUZA			JFEX MGT1 CLOCK		
CHECKED U. SCHAEFER					
CHECKED S. RAVE					
DRAWN BAUSS	08.05.2017				
BLOCK TITLE			CLOCK		
UNIVERSITY OF MAINZ			SIZE	REV.	DRAWING NO.
			SCALE		
					SHEET 1 OF 5

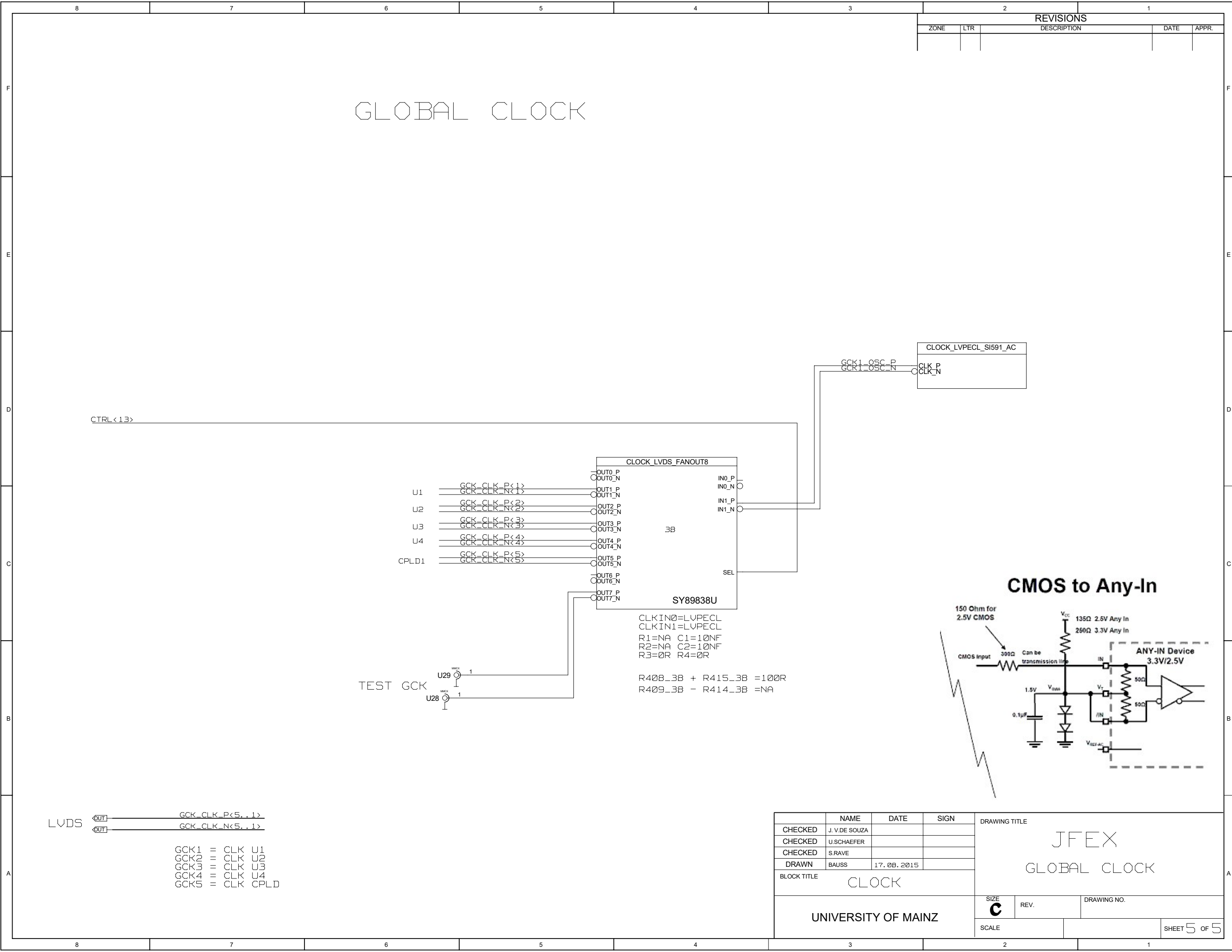


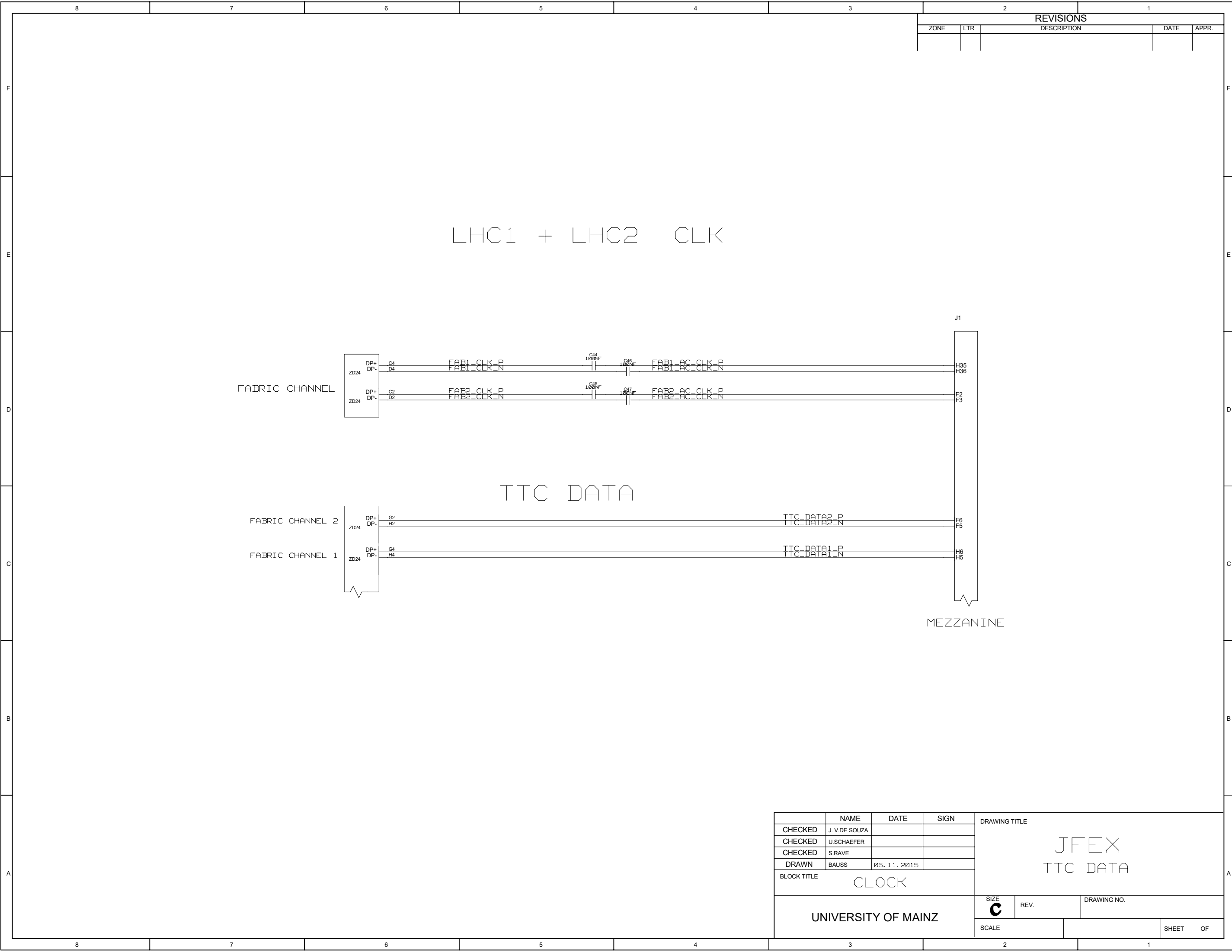


REVISIONS				
ZONE	LTR	DESCRIPTION		DATE

		NAME	DATE	SIGN	DRAWING TITLE		
CHECKED		J.V.DE SOUZA			JFEX MGT3 CLOCK (ROD REFCLK)		
CHECKED		U.SCHAEFER					
CHECKED		S.RAVE					
DRAWN		BAUSS	08.06.2017				
BLOCK TITLE					CLOCK		
UNIVERSITY OF MAINZ					SIZE	REV.	DRAWING NO.
					C		
					SCALE		SHEET 3 OF 5







	NAME	DATE	SIGN
CHECKED	J. V.DE SOUZA		
CHECKED	U.SCHAEFER		
CHECKED	S.RAVE		
DRAWN	BAUSS	06. 11. 2015	

BLOCK TITLE

CLOCK

UNIVERSITY OF MAINZ

SIZE

C

SCALE

REV.

DRAWING NO.

SHEET

OF

DRAWING TITLE

JFEX

TTC DATA

8

7

6

5

4

3

2

1

A

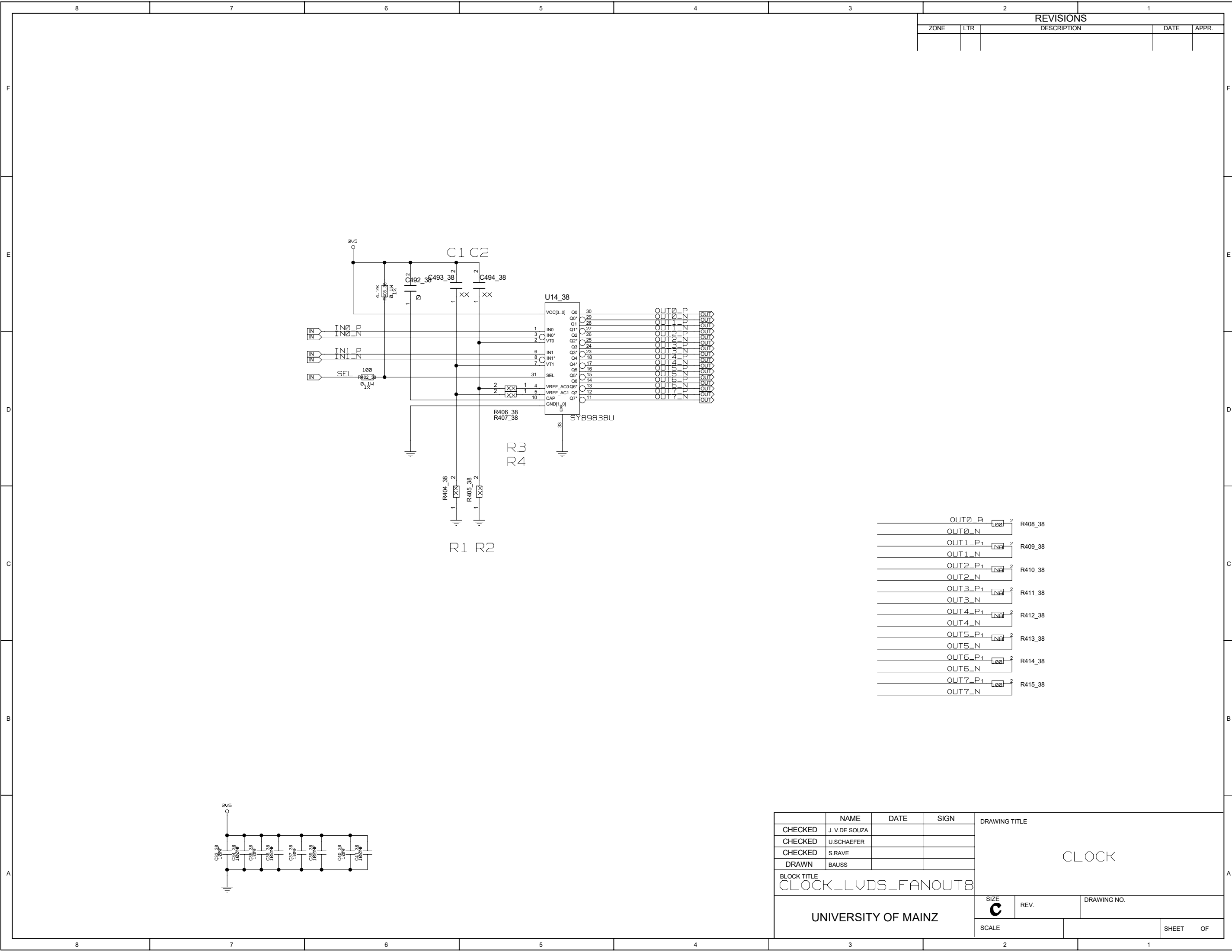
B

C

D

E

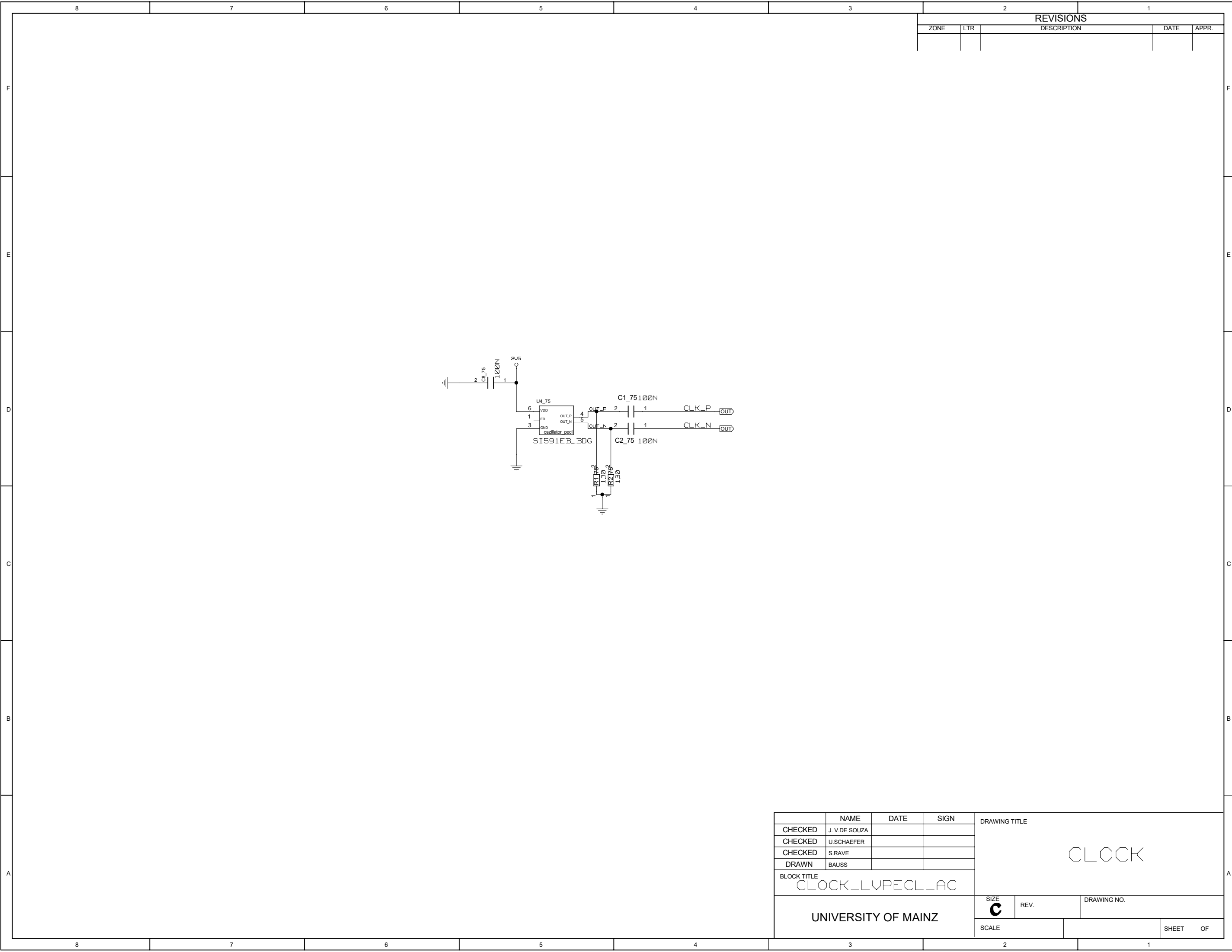
F



REVISIONS				
ZONE	LTR	DESCRIPTION		DATE

OUT0_P	2	R408_38
OUT0_N	2	
OUT1_P1	2	R409_38
OUT1_N	2	
OUT2_P1	2	R410_38
OUT2_N	2	
OUT3_P1	2	R411_38
OUT3_N	2	
OUT4_P1	2	R412_38
OUT4_N	2	
OUT5_P1	2	R413_38
OUT5_N	2	
OUT6_P1	2	R414_38
OUT6_N	2	
OUT7_P1	2	R415_38
OUT7_N	2	

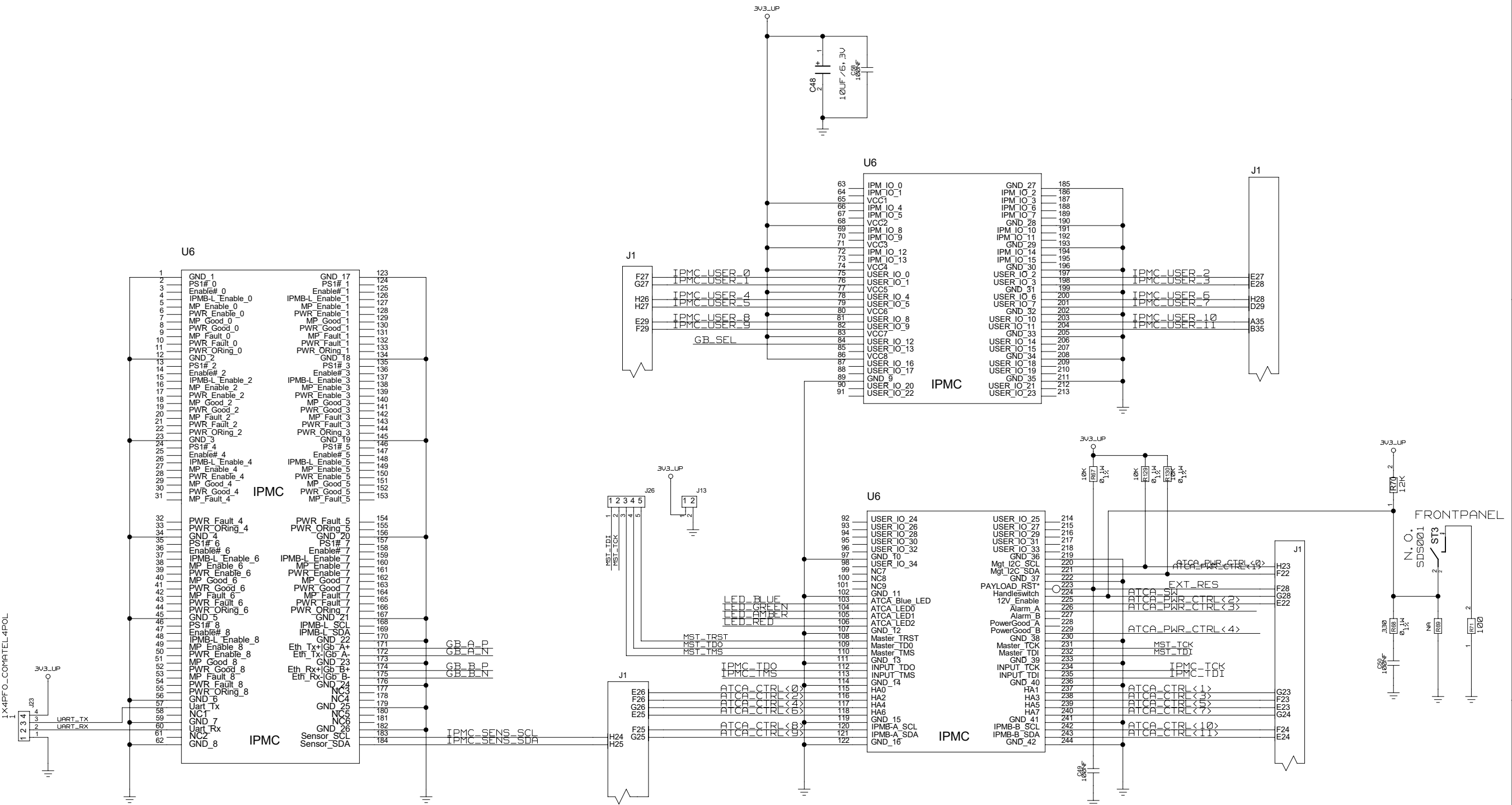
NAME	DATE	SIGN	DRAWING TITLE		
CHECKED J. V.DE SOUZA			CLOCK		
CHECKED U.SCHAEFER					
CHECKED S.RAVE					
DRAWN BAUSS					
BLOCK TITLE			DRAWING NO.		
CLOCK_LVDS_FANOUT8			SIZE	REV.	
UNIVERSITY OF MAINZ			C		
			SCALE		
			SHEET		OF



	NAME	DATE	SIGN	DRAWING TITLE		
CHECKED	J. V.DE SOUZA			CLOCK		
CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
DRAWN	BAUSS					
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				SCALE		SHEET OF

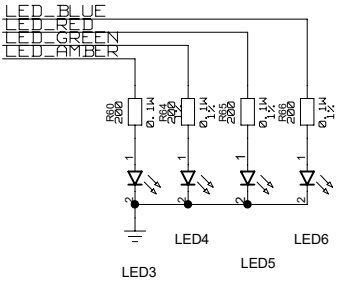
IPMC CONNECTOR MOLEX_87782-3003

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



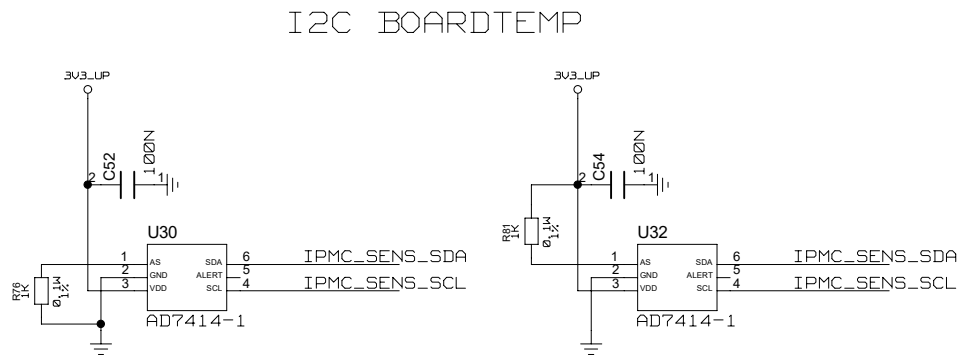
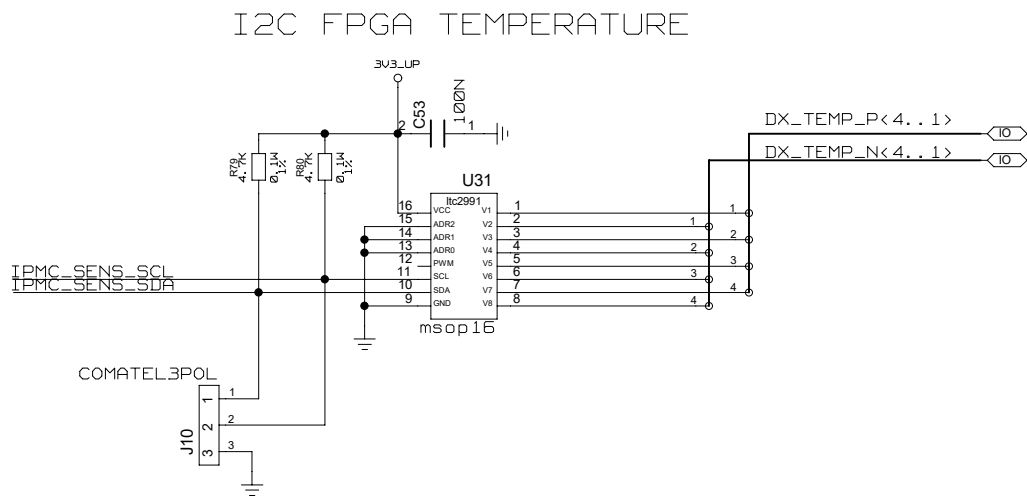
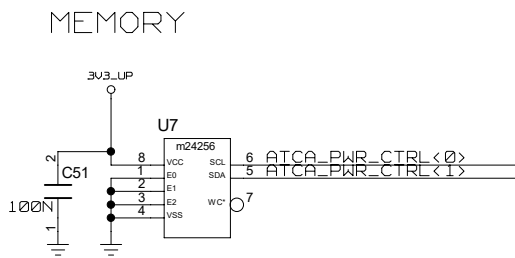
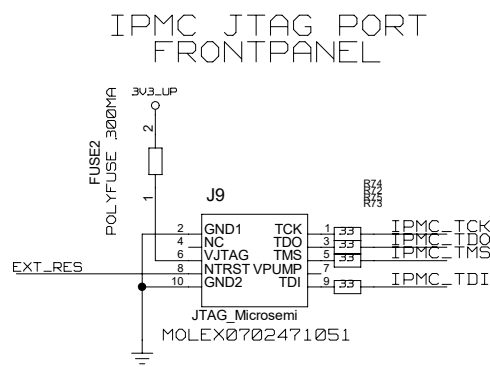
ATCA_HA<0..7> BACKPLANE + MEZZANINE
ATCA_A/B_SCL/SDA BACKPLANE + MEZZANINE

ATCA_CTRL<11..0>
ATCA_PWR_CTRL<4..0>



NAME	DATE	SIGN	DRAWING TITLE	
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CHECKED U. SCHAEFER				
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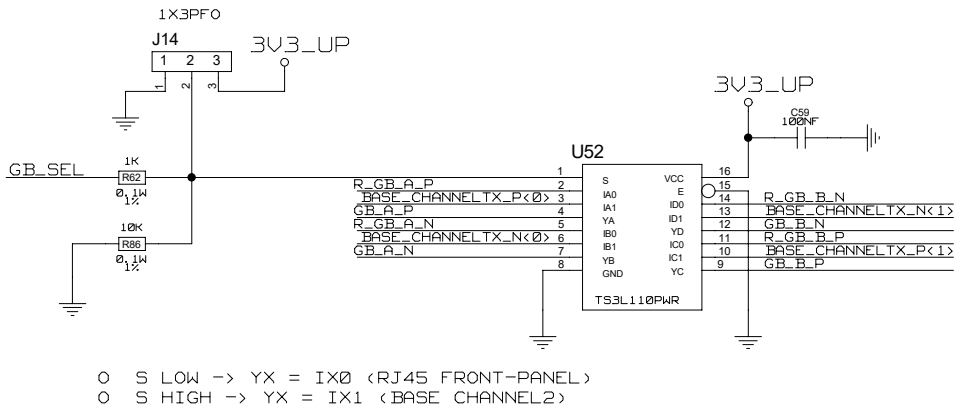
IPMC CONTROL



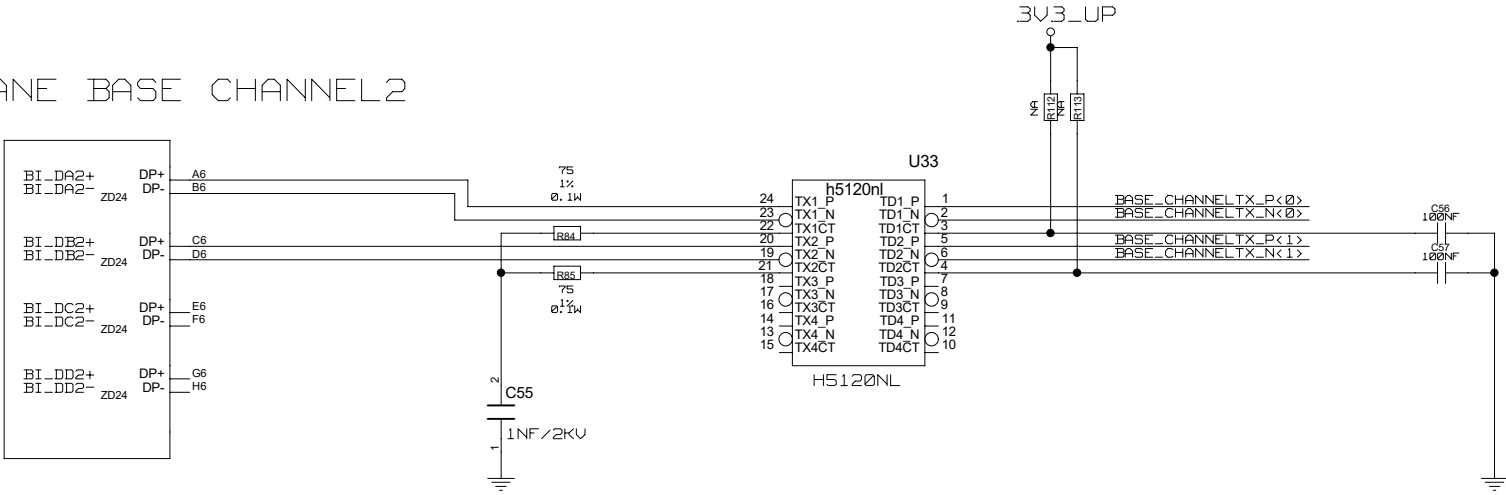
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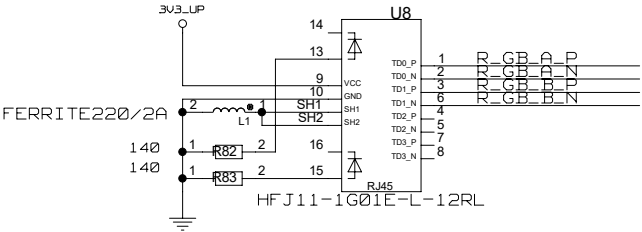
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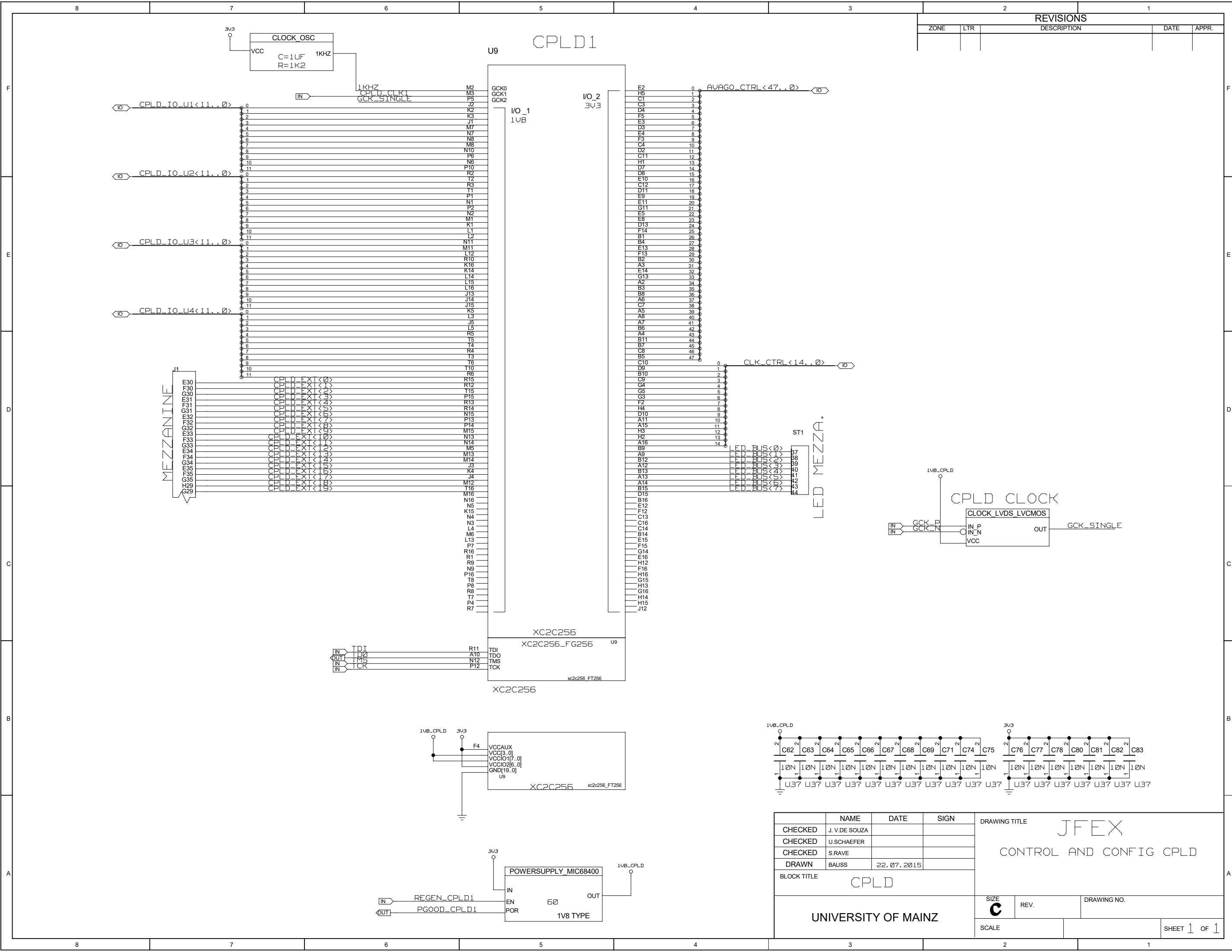
BACKPLANE BASE CHANNEL2



RJ45 FRONT PANEL

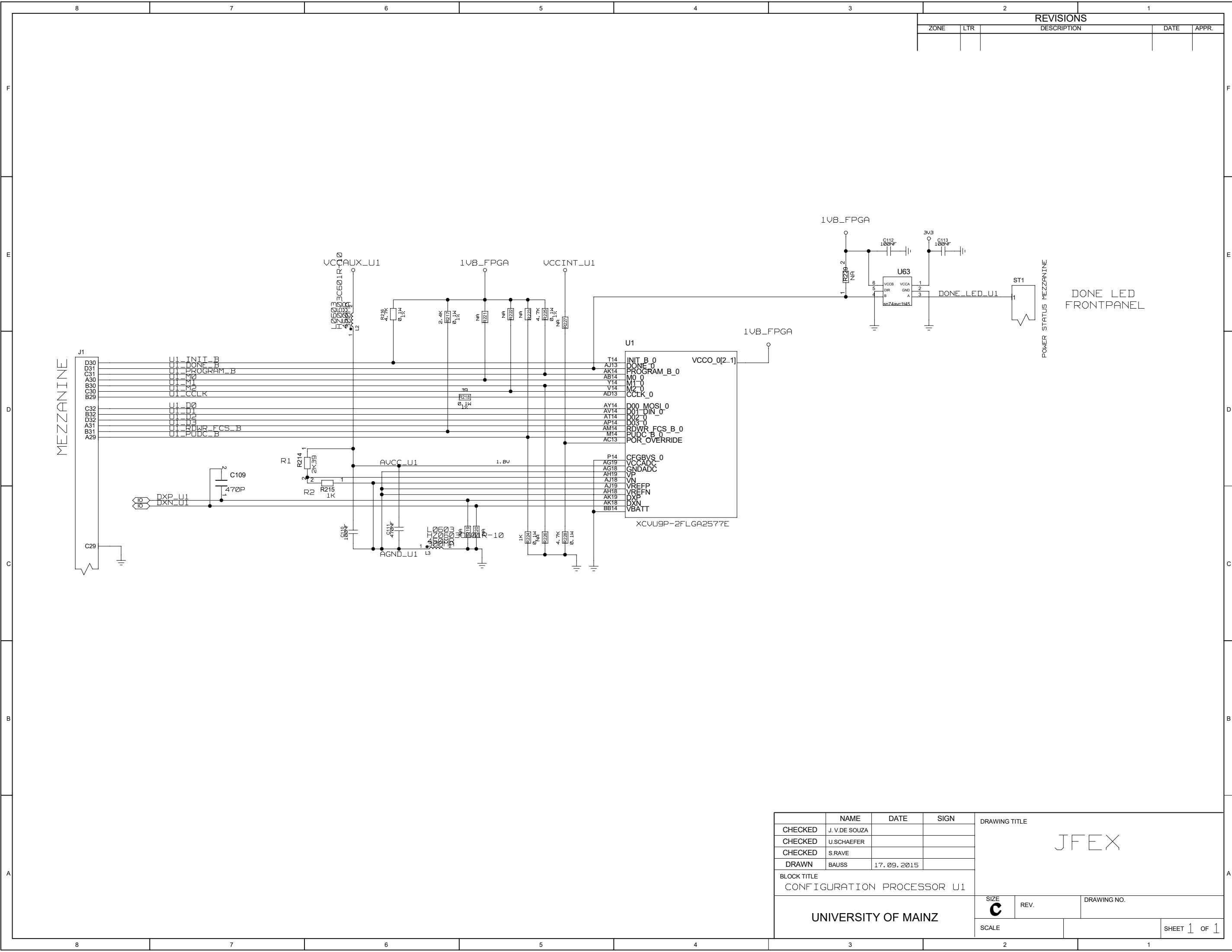


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CHECKED	J.V.DE SOUZA			JFEX		
CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
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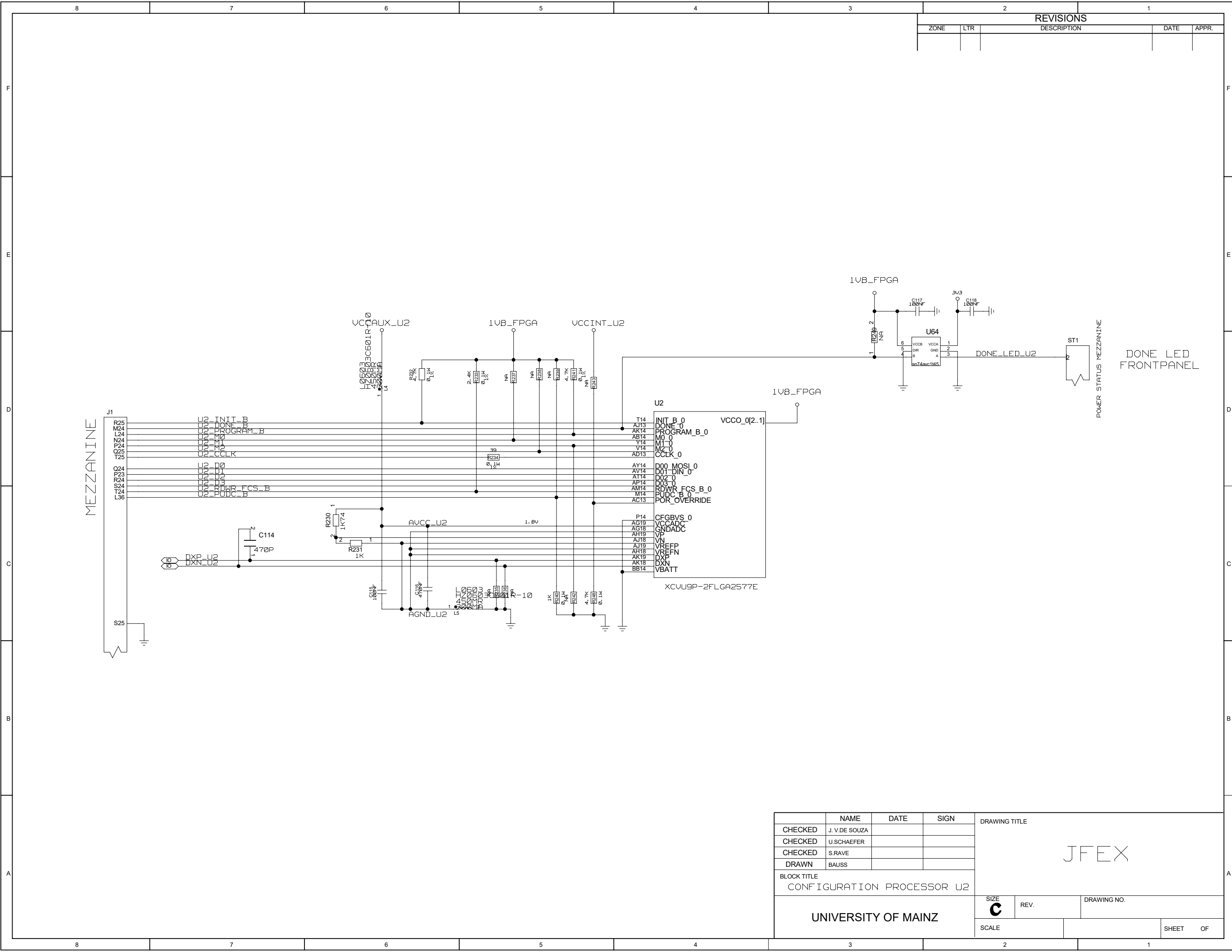
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ZONE	LTR	DESCRIPTION	DATE	APPR.

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CHECKED	U. SCHAEFER							CONTROL AND CONFIG CPLD	
CHECKED	S. RAVE								
DRAWN	BAUSS	22.07.2015							
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UNIVERSITY OF MAINZ				SIZE		REV.		DRAWING NO.	
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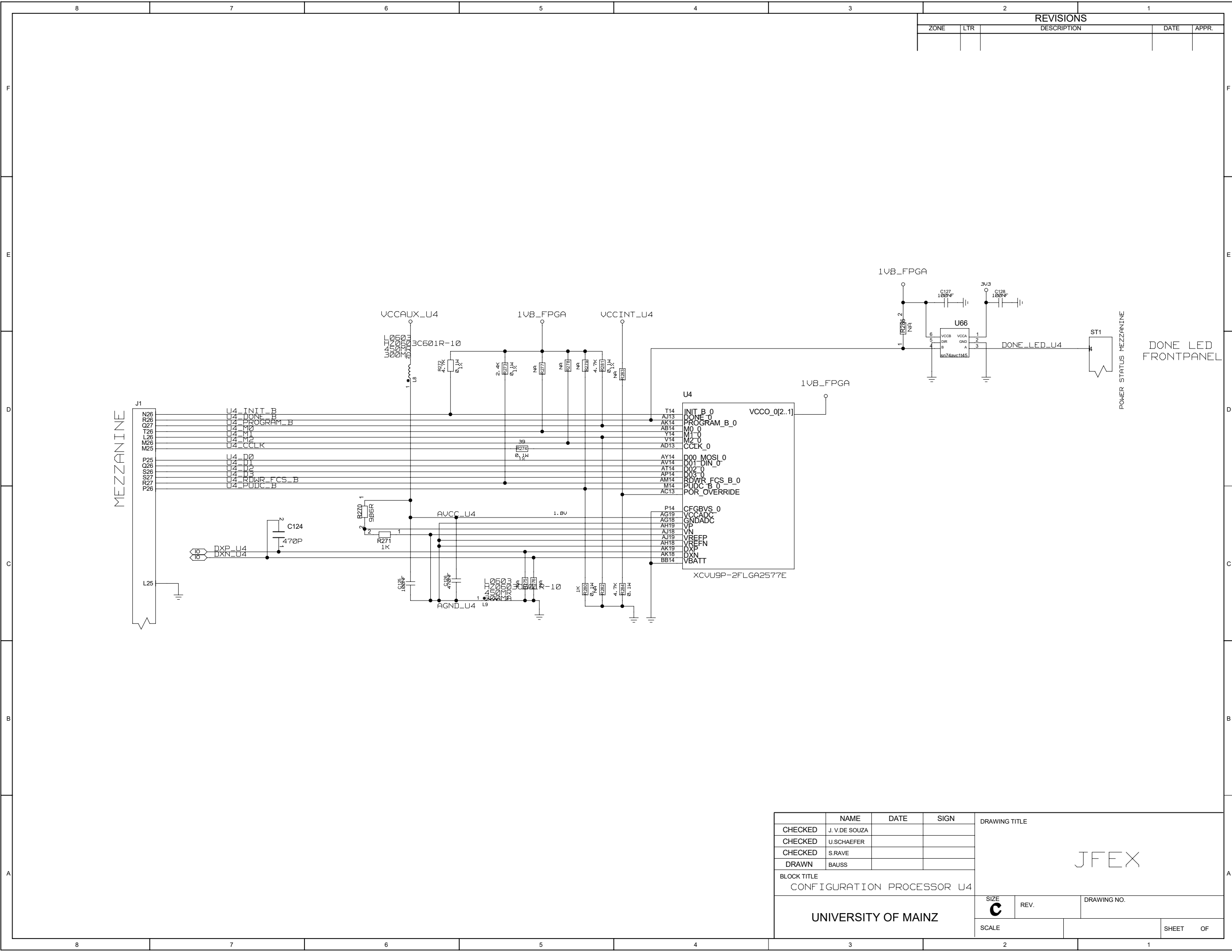
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ZONE	LTR	DESCRIPTION	DATE	APPR.

DRAWING TITLE			
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CHECKED	U. SCHAEFER		
CHECKED	S. RAVE		
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UNIVERSITY OF MAINZ			
SIZE	REV.	DRAWING NO.	
C			
SCALE		SHEET 1 OF 1	



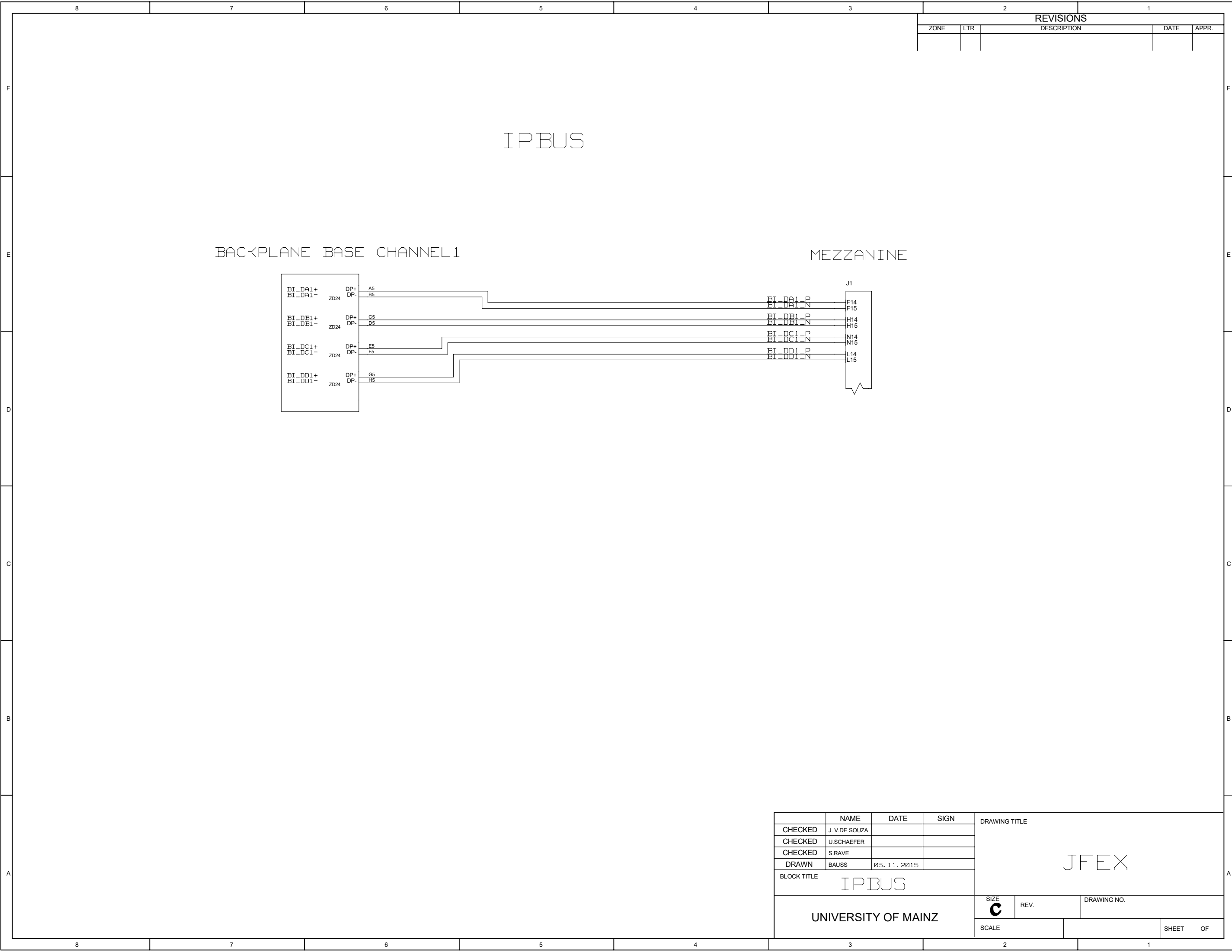
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ZONE	LTR	DESCRIPTION	DATE	APPR.

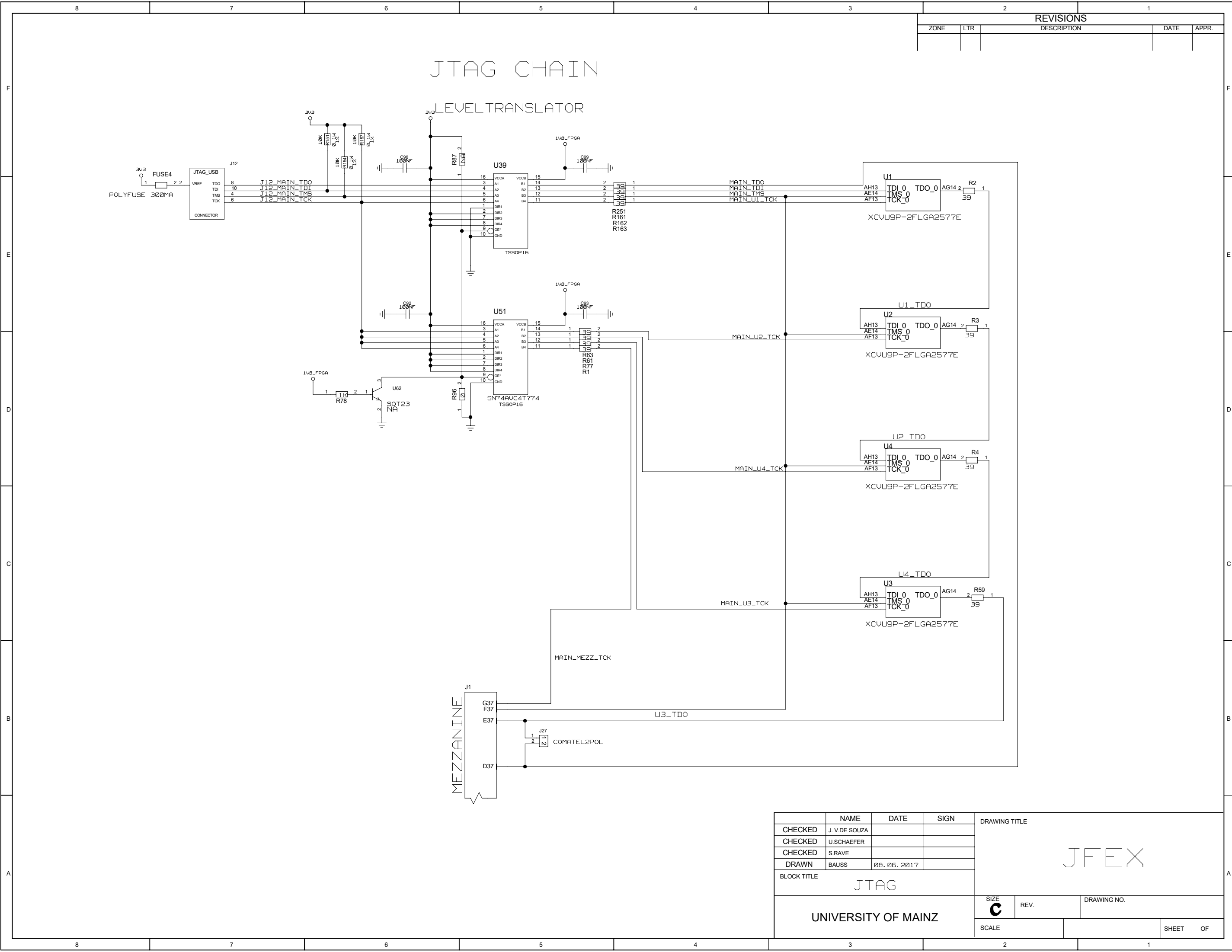
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	S. RAVE					
	DRAWN	BAUSS				
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UNIVERSITY OF MAINZ				SIZE	REV.	DRAWING NO.
				SCALE		
				SHEET		OF



REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

				DRAWING TITLE	
CHECKED	J. V. DE SOUZA			JFEX	
CHECKED	U. SCHAEFER				
CHECKED	S. RAVE				
DRAWN	BAUSS				
BLOCK TITLE				SIZE	DRAWING NO.
CONFIGURATION PROCESSOR U4				C	
UNIVERSITY OF MAINZ				SCALE	
				REV.	
				SHEET	OF





REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

DRAWING TITLE				JFEX	
CHECKED	J. V. DE SOUZA	DATE	SIGN		
CHECKED	U. SCHAEFER				
CHECKED	S. RAVE				
DRAWN	BAUSS	08.05.2017		DRAWING NO.	
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JTAG				C	
UNIVERSITY OF MAINZ				SCALE	SHEET OF