

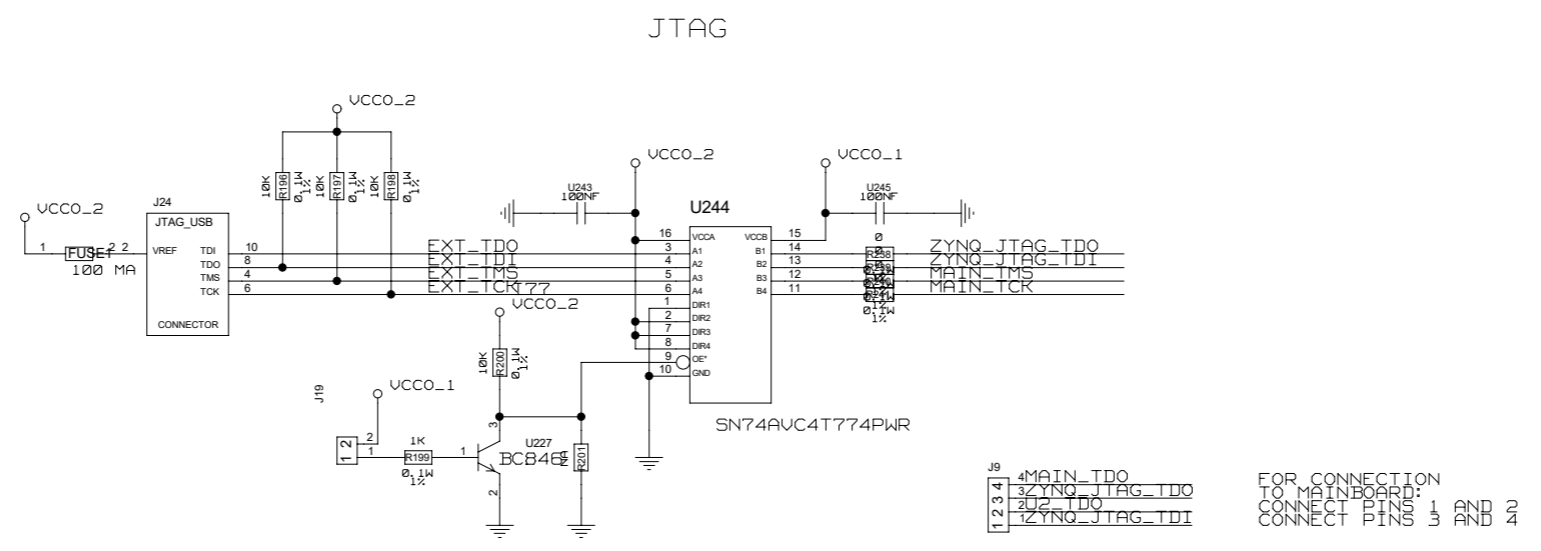
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

INDEX PAGE(S) FUNCTION

- JTAG - PAGE 2
- ULTRAZED CONNECTION - PAGE 3
- PHY VSC8221 - PAGE 4
- JITTER CLEANER SI5345 - PAGE 5
- CLOCK DISTRIBUTION - PAGE 6
- CLOCK DISTRIBUTION - PAGE 7
- FPGA CONFIGURATION (1) - PAGE 8
- IPMC LEVEL TRANSLATOR - PAGE 9
- PS MIO - UART, SD CARD, MUX AND SATA - PAGE 10
- POWER - PAGE 11
- JFEX/TOPO CONNECTION (1) - PAGE 12
- JFEX/TOPO CONNECTION (2) - PAGE 13

CHECKED	C. KAHRA			DRAWING TITLE JFEX AND TOPO PHASE-I CONTROL MEZZANINE	
CHECKED	U.SCHAEFER				
CHECKED	B.BAUSS				
DRAWN	JULIO VIEIRA				
BLOCK TITLE					
JOHANNES GUTENBERG UNIVERSITY MAINZ				SIZE C	
				REV.	
SCALE 3.0				DRAWING NO.	
				SHEET 1	OF 13

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

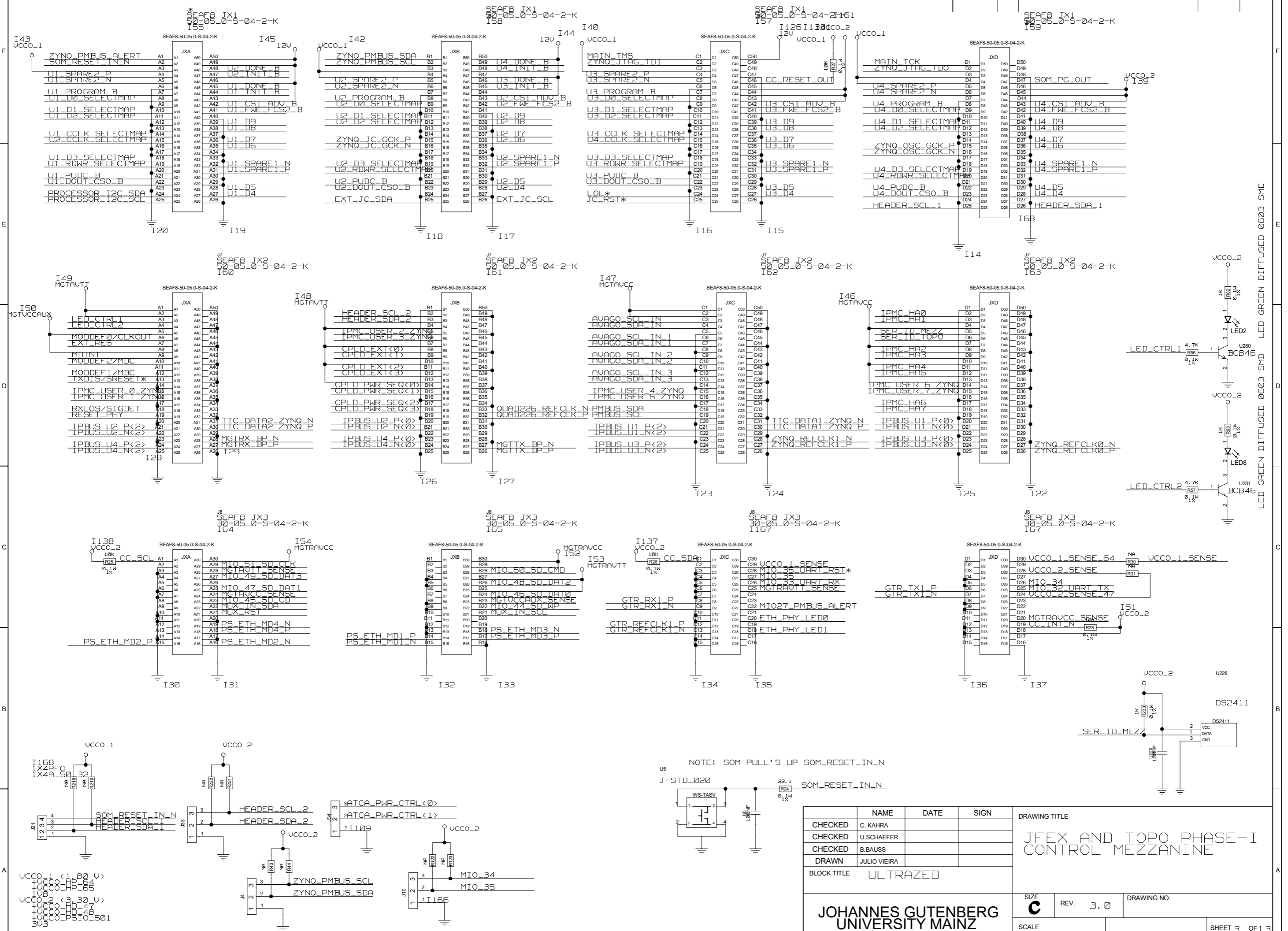


J9
 4 MAIN_TDO
 3 ZYNQ_JTAG_TDO
 2 TDO
 1 ZYNQ_JTAG_TDI
 FOR CONNECTION TO MAINBOARD:
 CONNECT PINS 1 AND 2
 CONNECT PINS 3 AND 4

UCCO_1 (1.80 V)
 +UCCO_HP-84
 +UCCO_HP-85
 +V8
 UCCO_2 (3.30 V)
 +UCCO_HP-47
 +UCCO_HP-48
 +UCCO_P5T0_501
 +V3

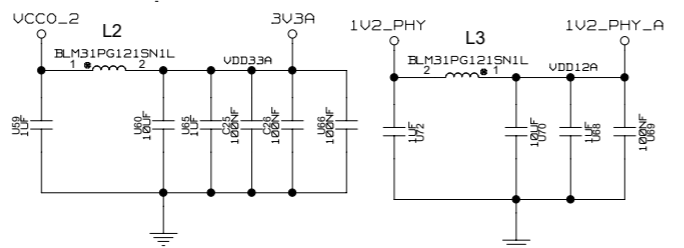
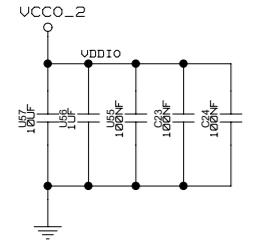
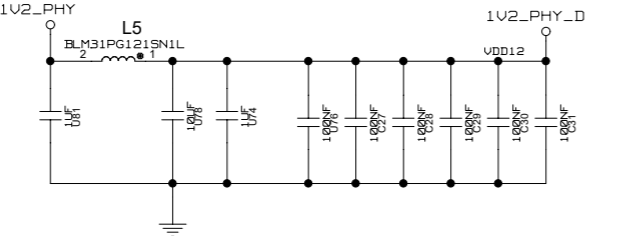
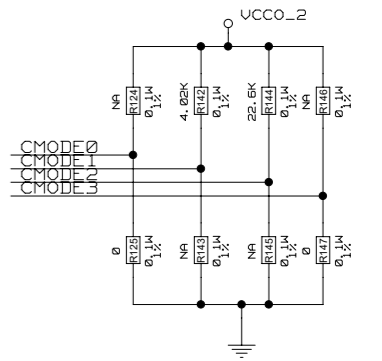
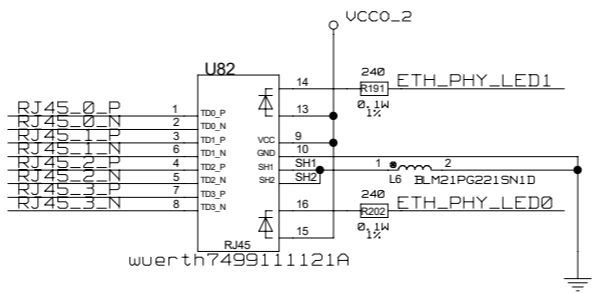
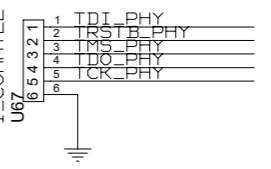
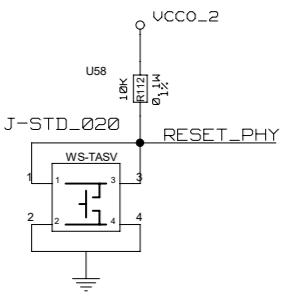
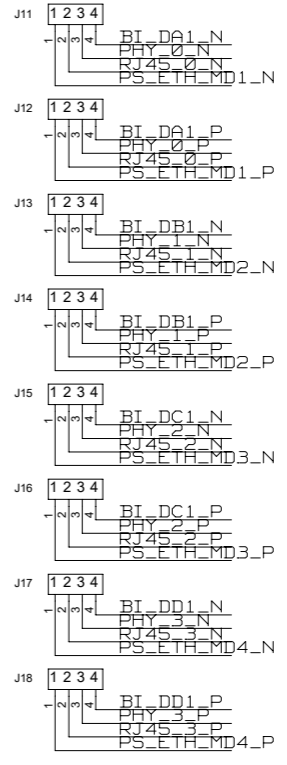
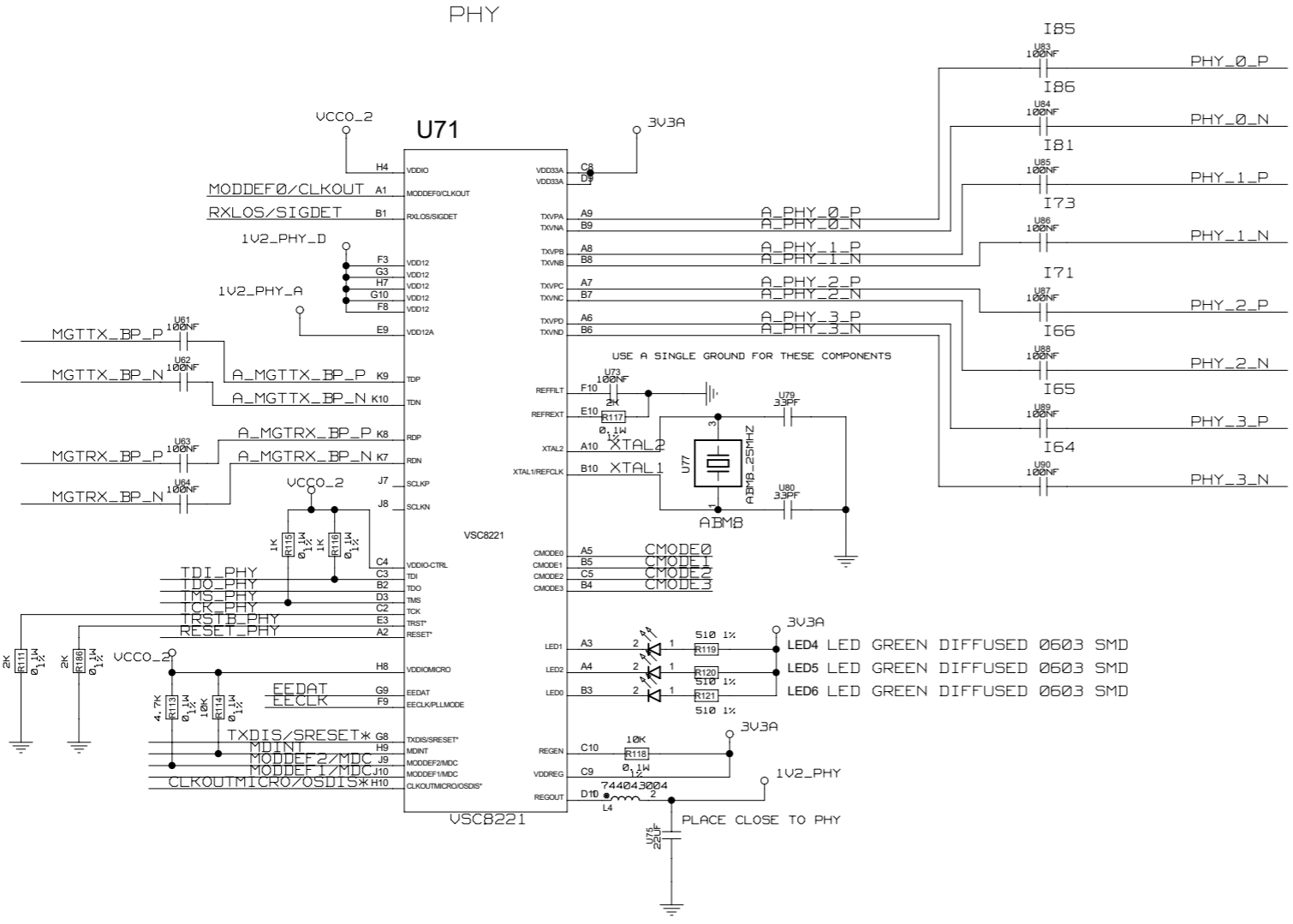
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CHECKED	C. KAHRA			JFEX AND TOPO PHASE-I CONTROL MEZZANINE	
CHECKED	U.SCHAEFER				
CHECKED	B.BAUSS				
DRAWN	JULIO VIEIRA				
BLOCK TITLE				JTAG	
JOHANNES GUTENBERG UNIVERSITY MAINZ				SIZE	DRAWING NO.
				C	REV. 3.0
SCALE				SHEET 2 OF 13	

REVISIONS			
ZONE	LTR	DESCRIPTION	DATE



NAME	DATE	SIGN	DRAWING TITLE
CHECKED	C. KAHRA		JFEX AND TOPO PHASE-I CONTROL MEZZANINE
CHECKED	U.SCHAEFER		
CHECKED	B.BAUSS		
DRAWN	JULIO VIEIRA		
BLOCK TITLE			
ULTRAZED			
JOHANNES GUTENBERG UNIVERSITY MAINZ			
SIZE	REV. 3.0	DRAWING NO.	
SCALE			
			SHEET 3 OF 13

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



VCC0_1 (< 1.80 V)
+VCC0_HP_004
+VCC0_HP_005
1V8
VCC0_2 (< 3.30 V)
+VCC0_HP_47
+VCC0_HP_48
+VCC0_HP510_501
3V3

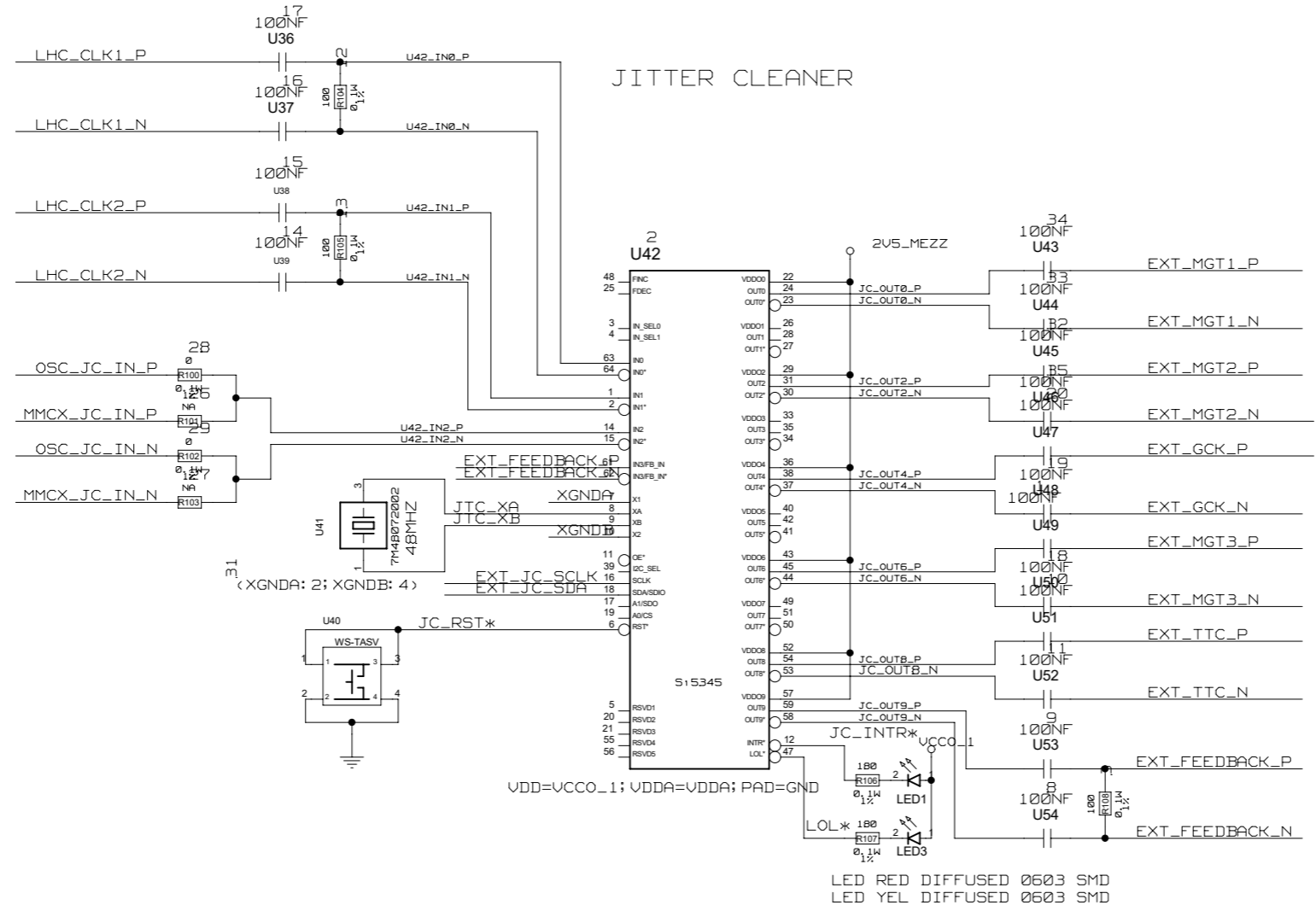
CHECKED	NAME	DATE	SIGN
CHECKED	C. KAHRA		
CHECKED	U.SCHAEFER		
CHECKED	B.BAUSS		
DRAWN	JULIO VIEIRA		

BLOCK TITLE: PHY - IPBUS

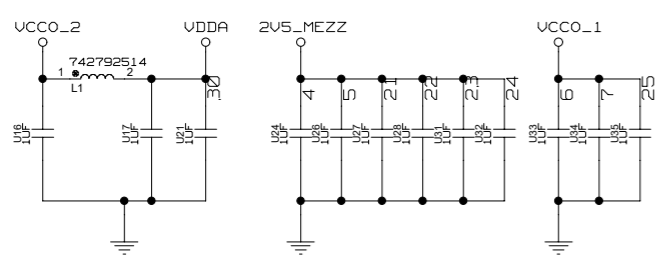
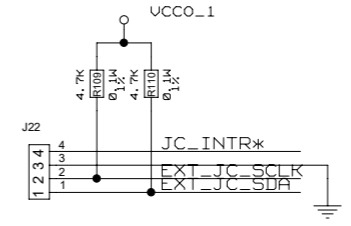
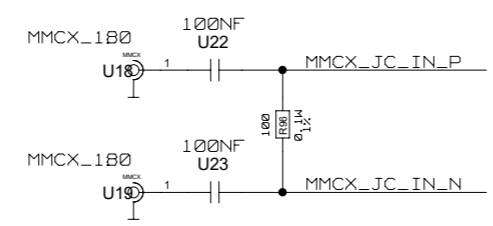
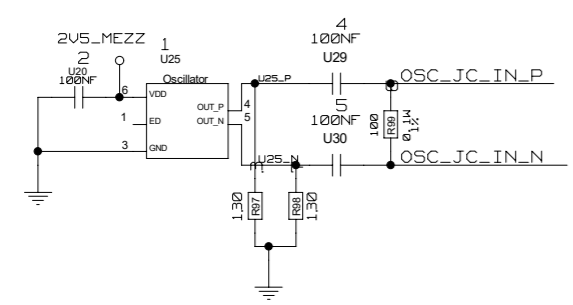
JOHANNES GUTENBERG
UNIVERSITY MAINZ

DRAWING TITLE		DRAWING NO.	
JFEX AND TOPO PHASE-I CONTROL MEZZANINE			
SIZE	REV. 3.0	DRAWING NO.	
SCALE		SHEET 4 OF 13	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



LED RED DIFFUSED 0503 SMD
LED YEL DIFFUSED 0503 SMD

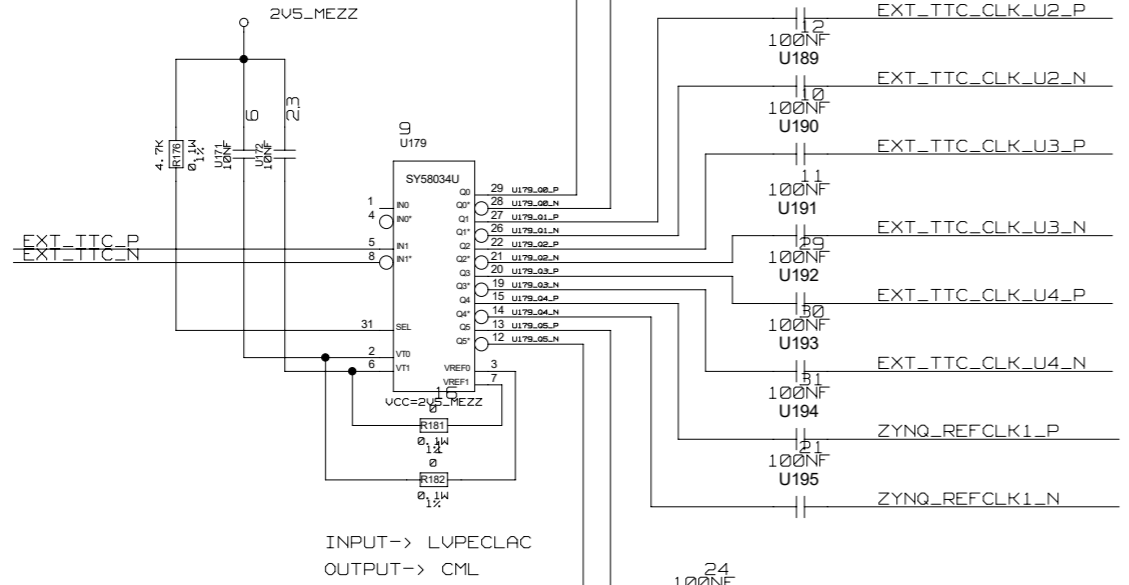


UCCO_1 (< 1.80 V)
+UCCO_HP_04
+UCCO_HP_05
1V8
UCCO_2 (< 3.30 V)
+UCCO_HP_47
+UCCO_HP_48
+UCCO_HP510_501
3V3

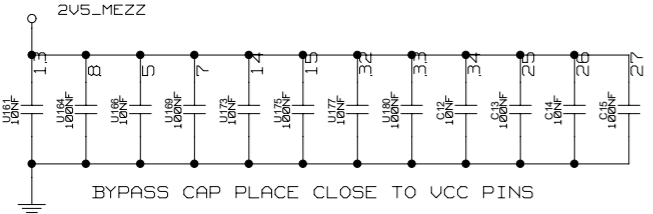
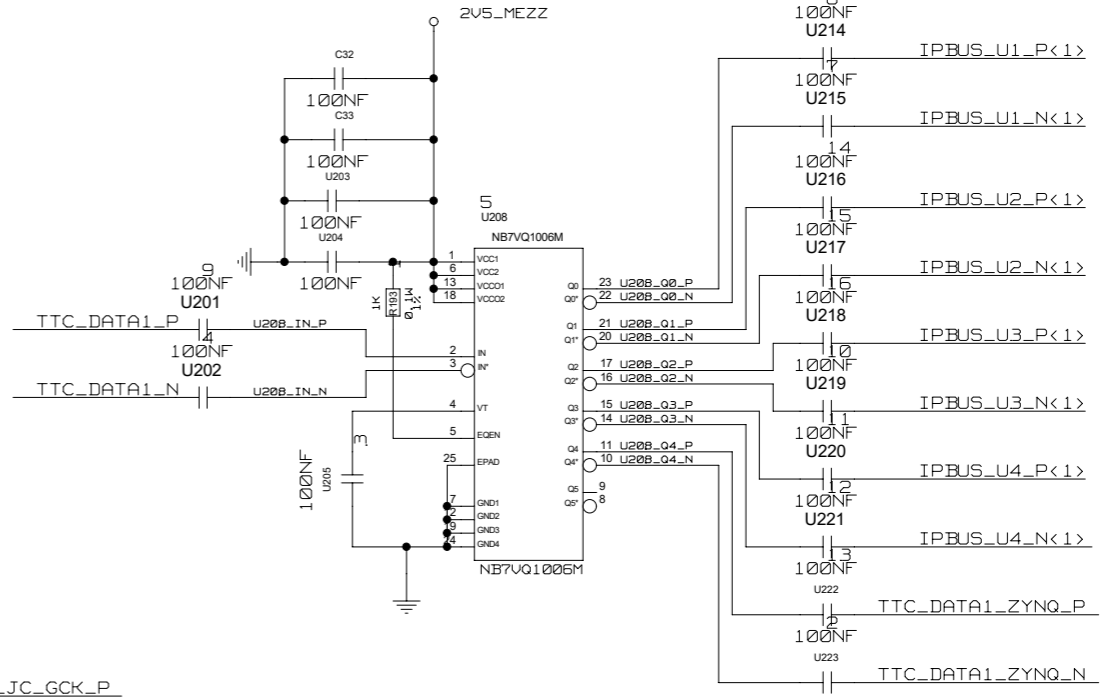
NAME	DATE	SIGN	DRAWING TITLE	
CHECKED	C. KAHRA		JFEX AND TOPO PHASE-I CONTROL MEZZANINE	
CHECKED	U.SCHAEFER			
CHECKED	B.BAUSS			
DRAWN	JULIO VIEIRA			
BLOCK TITLE			JITTER CLEANER	
JOHANNES GUTENBERG UNIVERSITY MAINZ		SIZE C	REV. 3.0	DRAWING NO.
SCALE				SHEET 5 OF 13

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

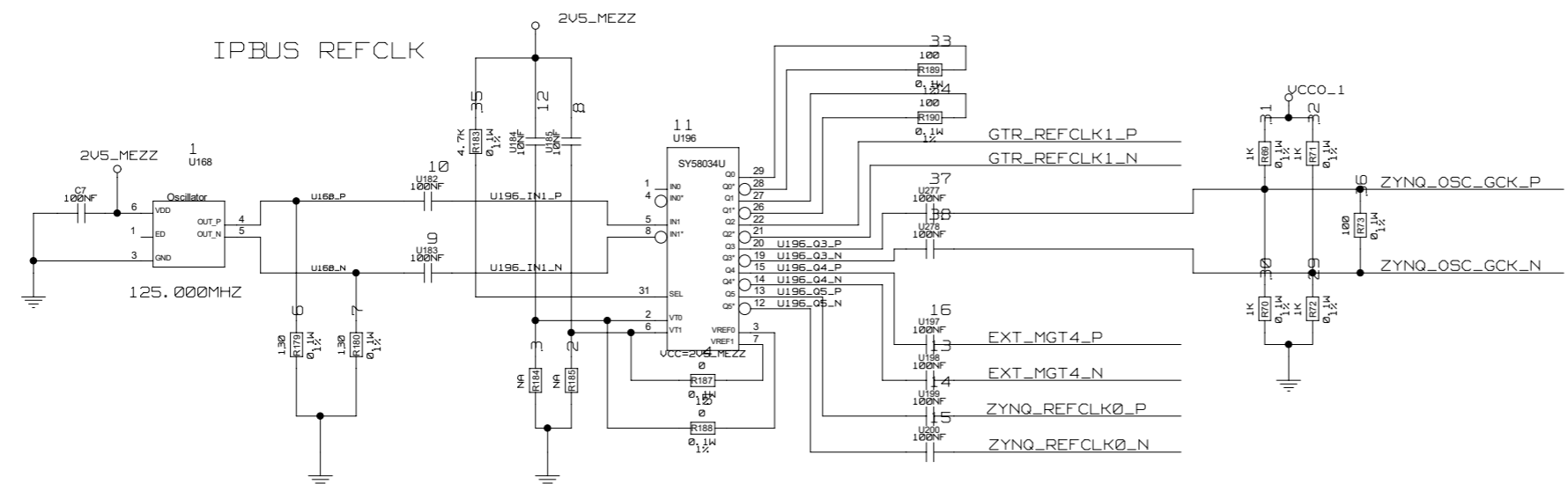
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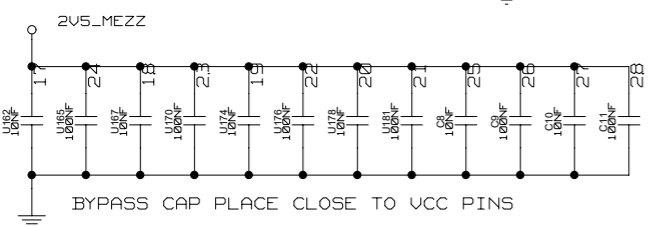
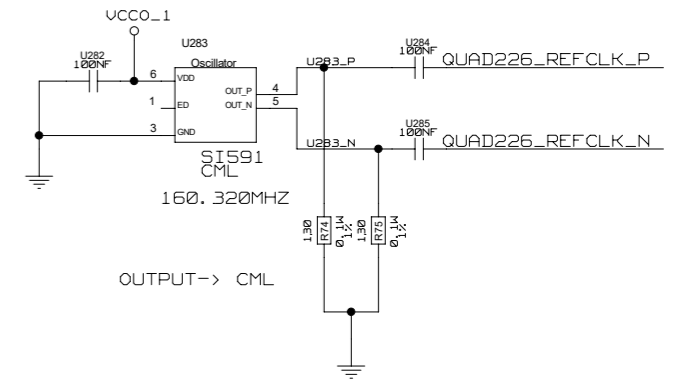
TTC DATA FANOUT



IPBUS REFCLK



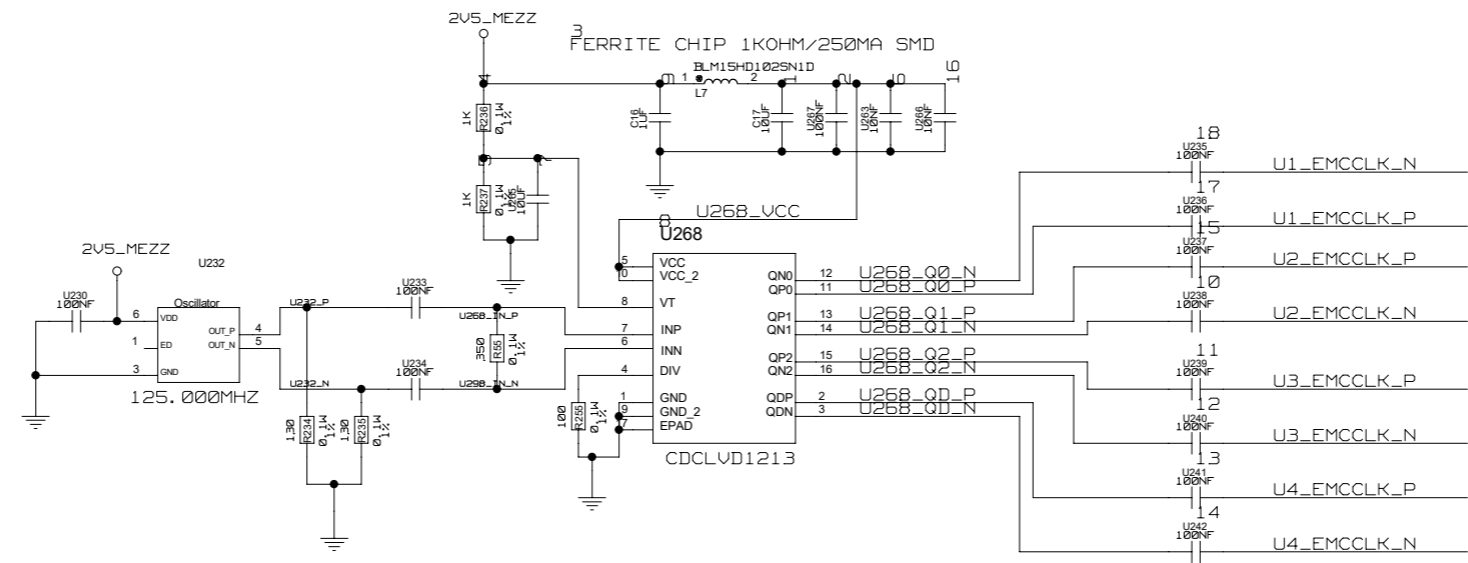
SPARE MGT REFCLK



NAME	DATE	SIGN	DRAWING TITLE									
CHECKED C. KAHRA			JFEX AND TOPO PHASE-I CONTROL MEZZANINE									
CHECKED U.SCHAEFER												
CHECKED B.BAUSS												
DRAWN JULIO VIEIRA												
BLOCK TITLE			CLOCK DISTRIBUTION									
JOHANNES GUTENBERG UNIVERSITY MAINZ			<table border="1"> <tr> <td>SIZE</td> <td>REV.</td> <td>DRAWING NO.</td> </tr> <tr> <td>C</td> <td>3.0</td> <td></td> </tr> <tr> <td>SCALE</td> <td></td> <td>SHEET 6 OF 13</td> </tr> </table>	SIZE	REV.	DRAWING NO.	C	3.0		SCALE		SHEET 6 OF 13
SIZE	REV.	DRAWING NO.										
C	3.0											
SCALE		SHEET 6 OF 13										

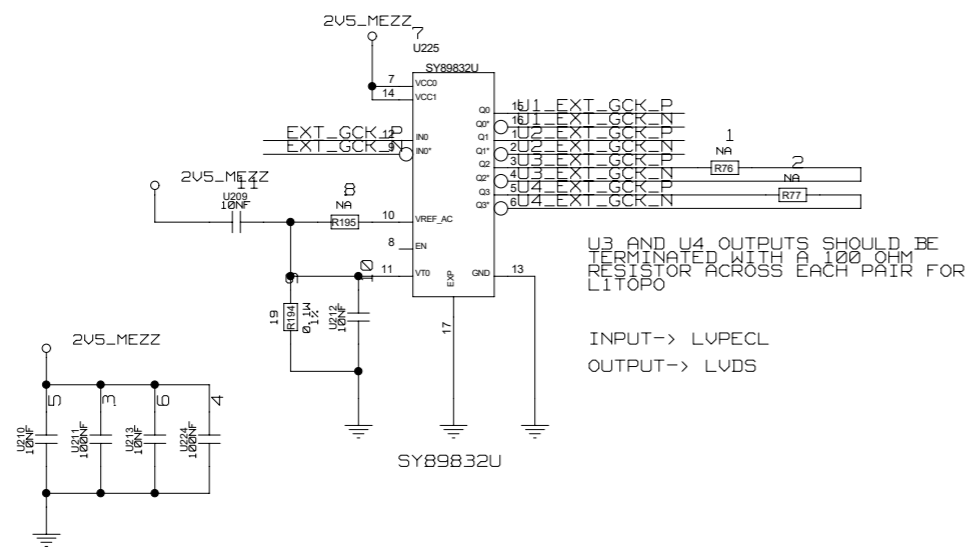
REVISIONS			
ZONE	LTR	DESCRIPTION	DATE

EXTERNAL MASTER CONFIGURATION CLOCK



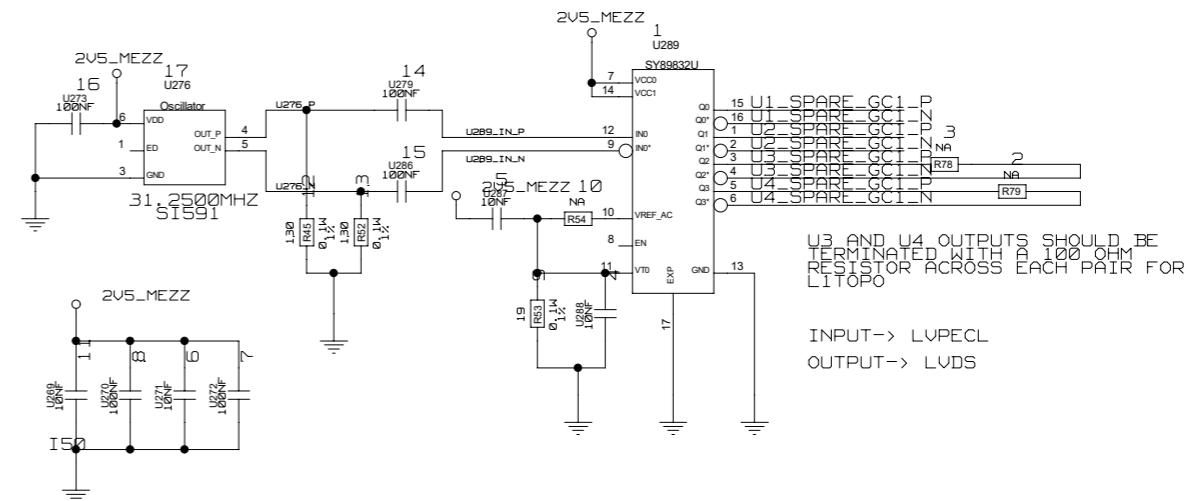
INPUT-> LUPECLAC
OUTPUT-> LVDS

CLEANED GLOBAL CLOCK



INPUT-> LUPECL
OUTPUT-> LVDS

SPARE CLOCK TO PROCESSORS

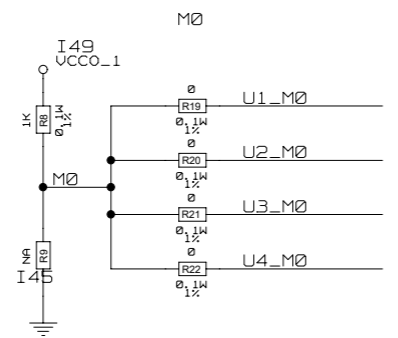
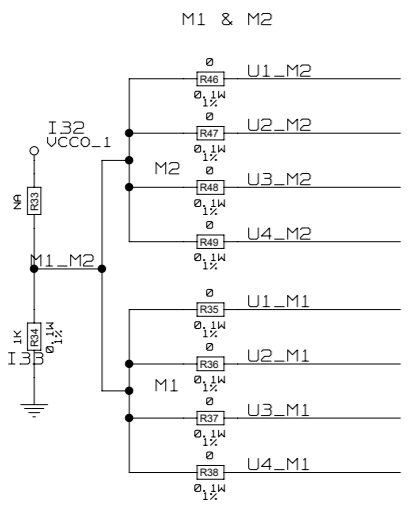


INPUT-> LUPECL
OUTPUT-> LVDS

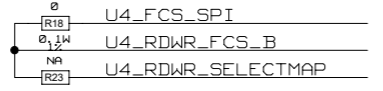
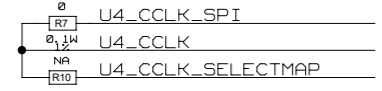
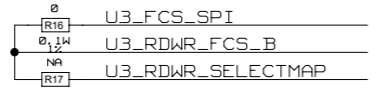
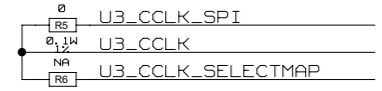
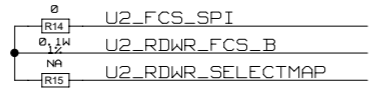
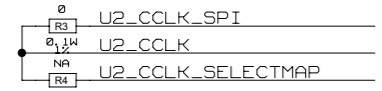
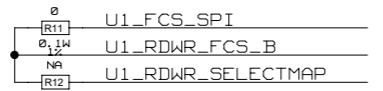
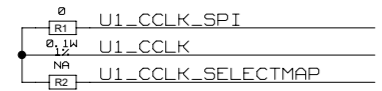
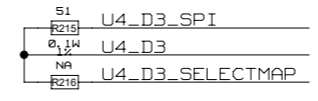
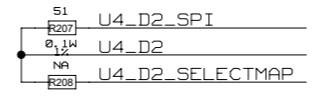
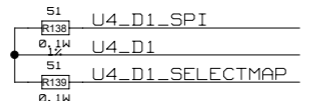
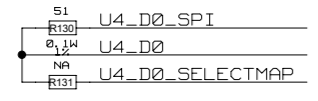
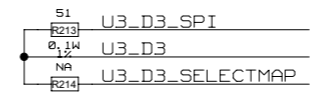
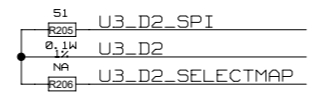
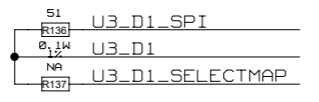
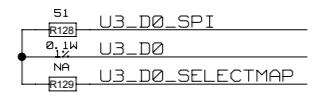
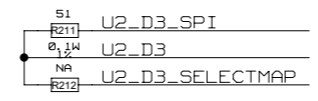
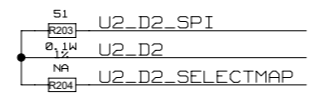
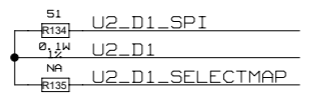
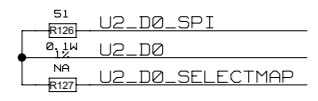
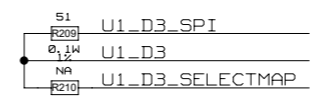
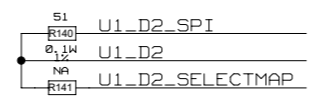
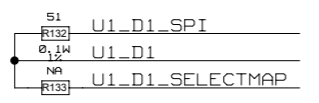
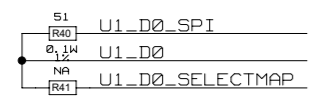
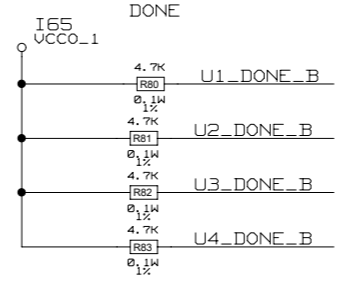
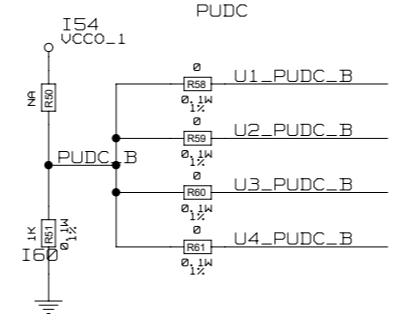
VCCO_1 (< 1.80 V)
+VCCO_HP_64
+VCCO_HP_65
+V8
VCCO_2 (< 3.30 V)
+VCCO_HP_47
+VCCO_HP_48
+VCCO_PSIO_501
3V3

NAME	DATE	SIGN	DRAWING TITLE	
CHECKED	C. KAHRA		JFEX AND TOPO PHASE-I CONTROL MEZZANINE	
CHECKED	U.SCHAEFER			
CHECKED	B.BAUSS			
DRAWN	JULIO VIEIRA		BLOCK TITLE	
CLOCK DISTRIBUTION			SIZE	DRAWING NO.
JOHANNES GUTENBERG UNIVERSITY MAINZ			REV. 3.0	
			SCALE	SHEET 7 OF 13

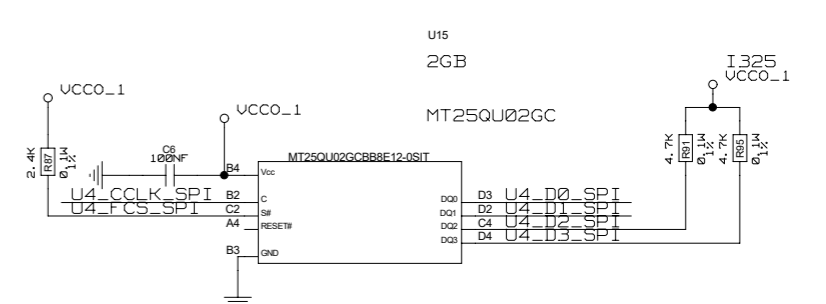
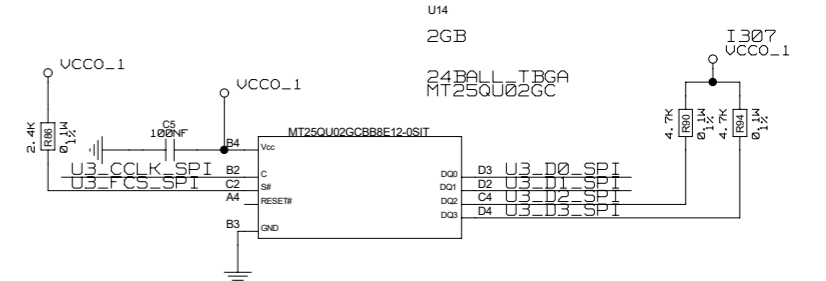
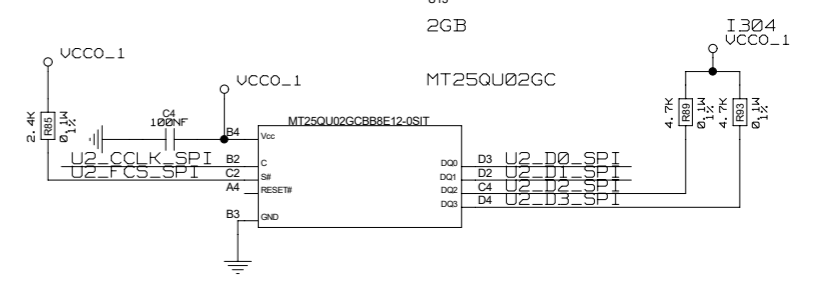
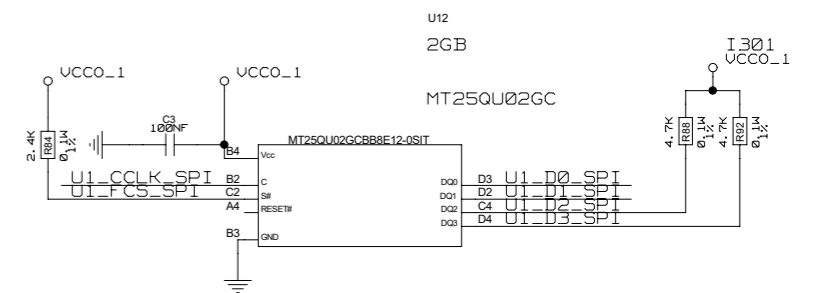
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



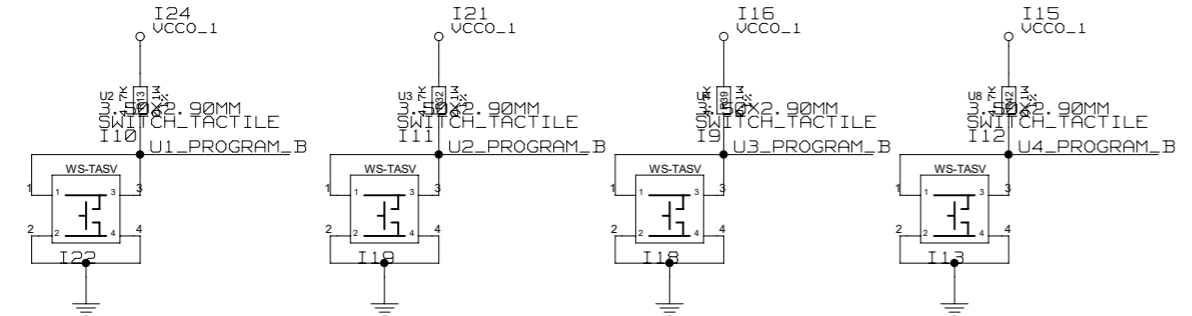
MASTER SPI SLAVE SELECTMAP
M0 -> 1 M0 -> 0
M1 -> 0 M1 -> 1
M2 -> 0 M2 -> 1



SPI MEMORIES



UCCO_1 (1.80 V)
+UCCO_HP_04
+UCCO_HP_05
U15
UCCO_2 (3.30 V)
+UCCO_HP_47
+UCCO_HP_48
+UCCO_PSTIO_501
3V3



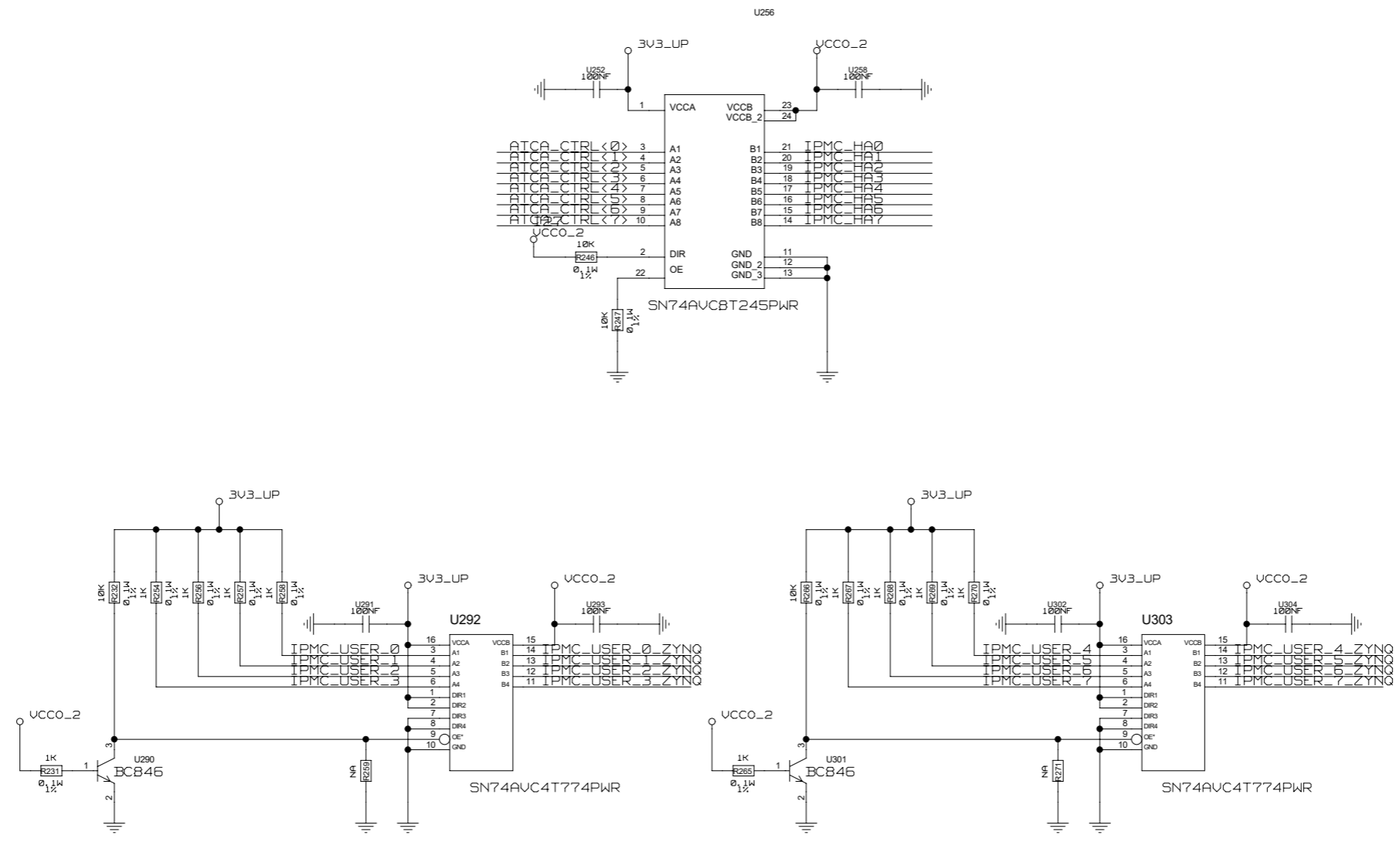
NET U3_0
IN I1_B
DONE
PROGRAM_B
M0
M1
M2
CCLK
D0
D1
D2
RDWR_FCS_B
PUDC_B
NET JFEX
U1_CCLK_CONF
U1_D0_CONF
U1_D1_CONF
U1_D2_CONF
U1_D3_CONF
U2_CCLK_CONF
U2_D0_CONF
U2_D1_CONF
U2_D2_CONF
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U3_CCLK_CONF
U3_D0_CONF
U3_D1_CONF
U3_D2_CONF
U3_D3_CONF
U4_CCLK_CONF
U4_D0_CONF
U4_D1_CONF
U4_D2_CONF
U4_D3_CONF

CHECKED	NAME	DATE	SIGN
CHECKED	C. KAHRA		
CHECKED	U.SCHAEFER		
CHECKED	B.BAUSS		
DRAWN	JULIO VIEIRA		
BLOCK TITLE: FPGA CONF			
JOHANNES GUTENBERG UNIVERSITY MAINZ			

DRAWING TITLE		
JFEX AND TOPO PHASE-I CONTROL MEZZANINE		
SIZE	REV. 3.0	DRAWING NO.
SCALE		SHEET 8 OF 13

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

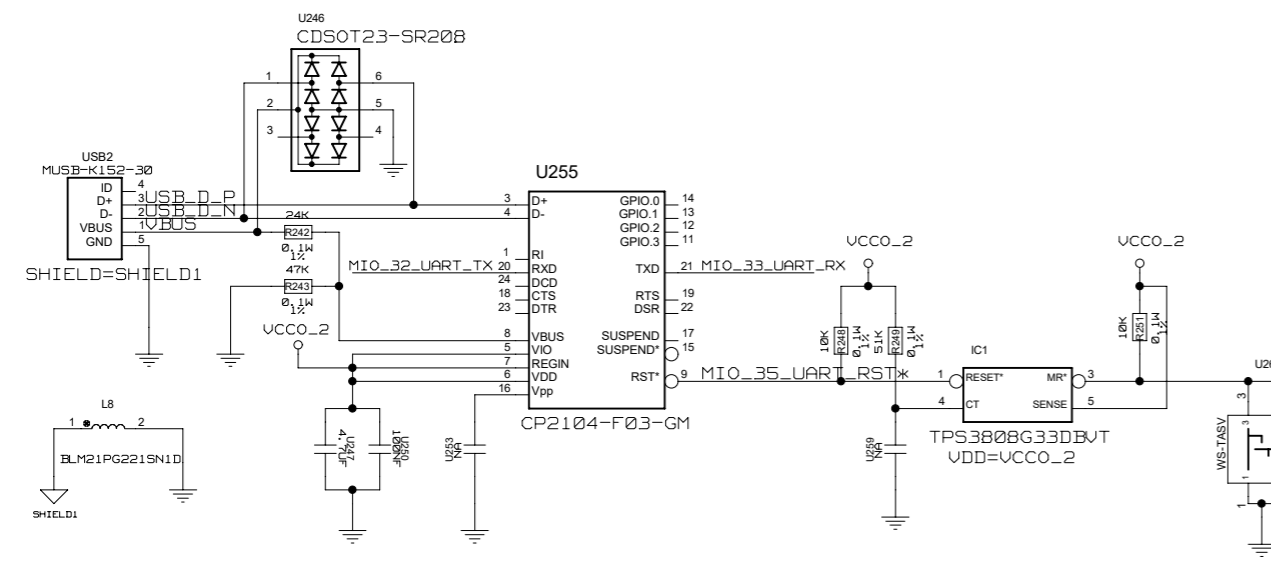
IPMC - LEVEL TRANSLATOR



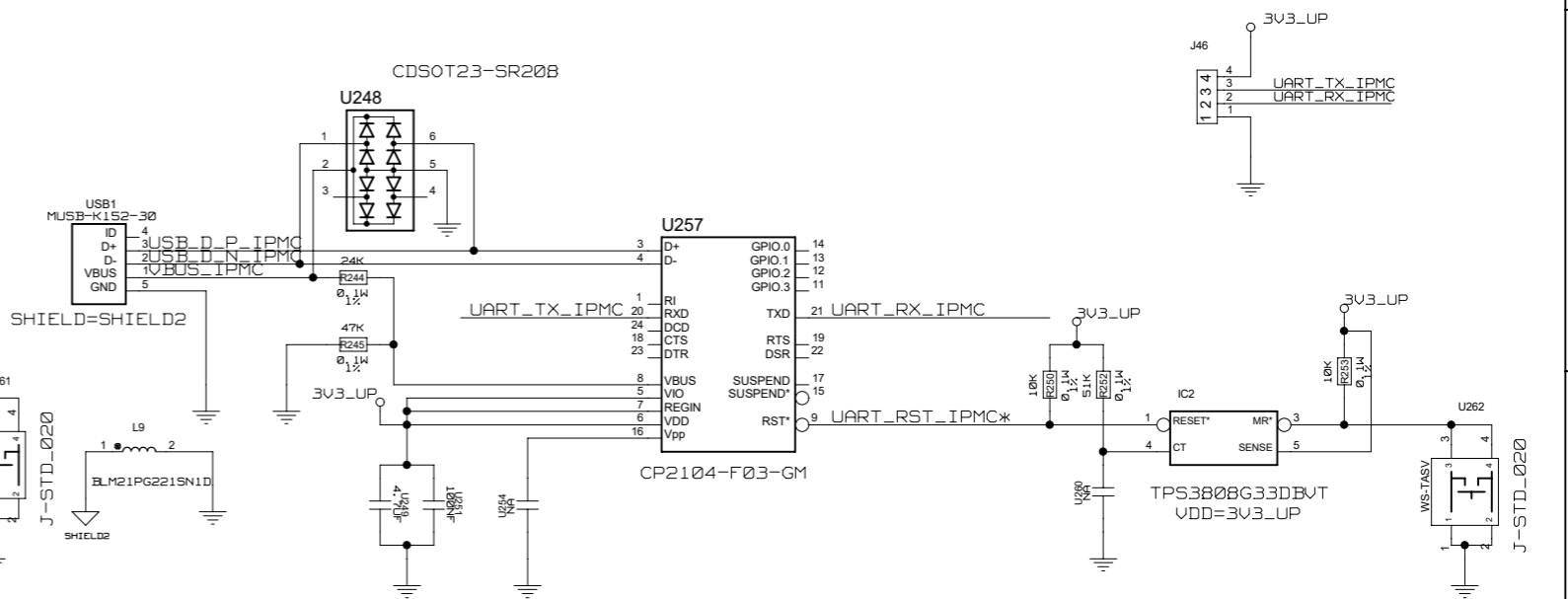
NAME	DATE	SIGN	DRAWING TITLE JFEX AND TOPO PHASE-I CONTROL MEZZANINE
CHECKED C. KAHRA			
CHECKED U.SCHAEFER			
CHECKED B.BAUSS			
DRAWN JULIO VIEIRA			
BLOCK TITLE IPMC LEVEL TRANS			
JOHANNES GUTENBERG UNIVERSITY MAINZ			SIZE C
			REV. 3.0
DRAWING NO.			
SCALE			SHEET 9 OF 13

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

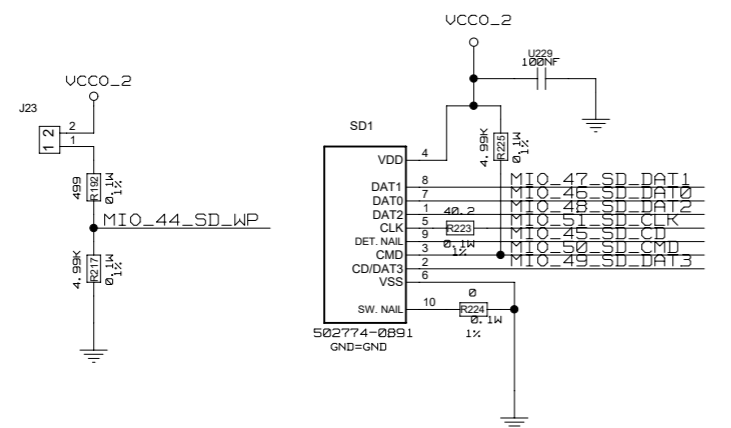
USB UART



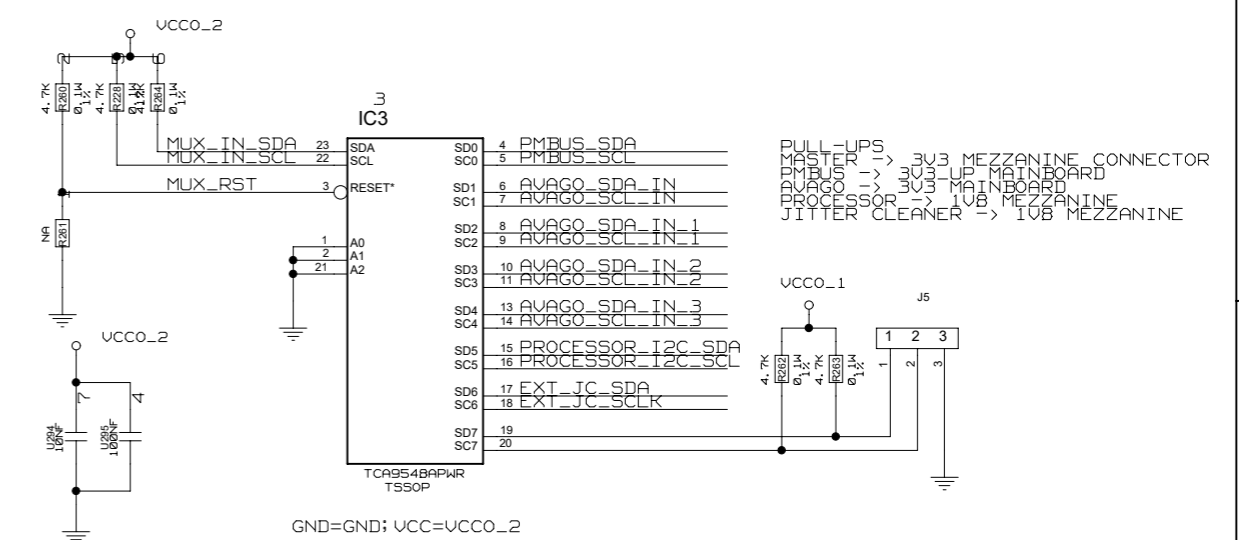
IPMC UART



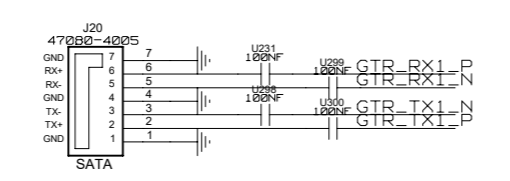
MICRO SD CARD



I2C - MUX



SATA INTERFACE

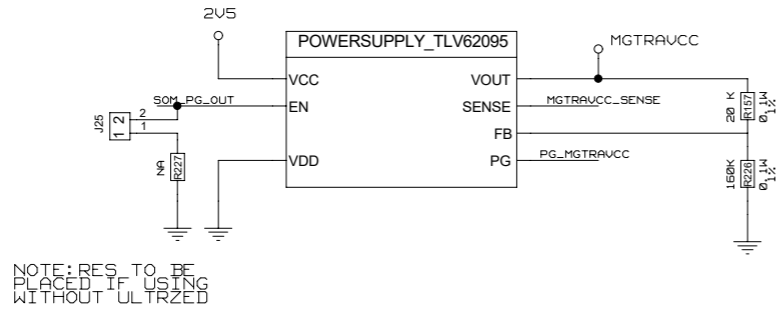


NAME	DATE	SIGN	DRAWING TITLE	
CHECKED	C. KAHRA		JFEX AND TOPO PHASE-I CONTROL MEZZANINE	
CHECKED	U.SCHAEFER			
CHECKED	B.BAUSS			
DRAWN	JULIO VIEIRA			
BLOCK TITLE			UART, I2C MUX MICRO SD CARD	
JOHANNES GUTENBERG UNIVERSITY MAINZ			SIZE	DRAWING NO.
			REV. 3.0	
SCALE			SHEET 10 OF 13	

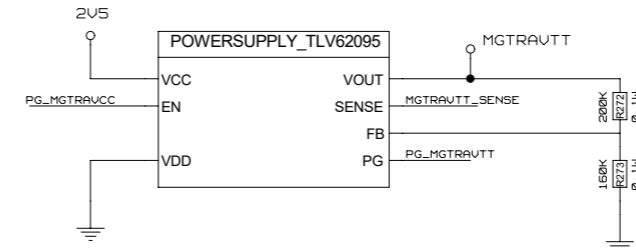
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REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

MGTRAVCC - 0.85V

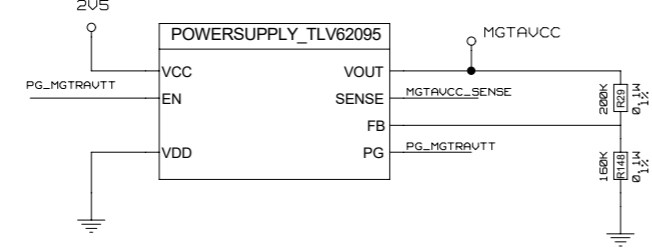


MGTRAVTT - 1.8V

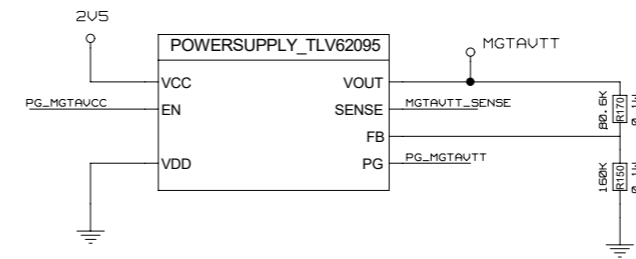


POWER SEQUENCING:
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 U02 (1.8V)
 U03 (0.9V)
 U04 (1.2V)
 U05 (1.8V)
 U06 (3.3V)
 U07 (2.5V)
 U08 (1.8V)
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 U99 (1.8V)
 U100 (1.8V)

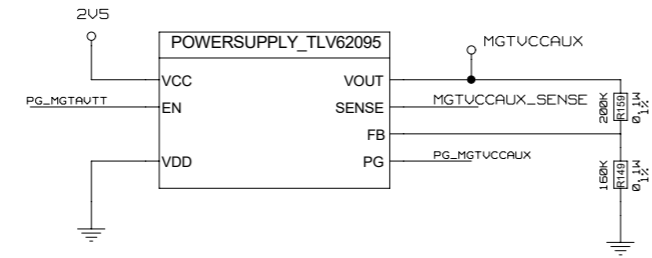
MGTAVCC - 0.9V



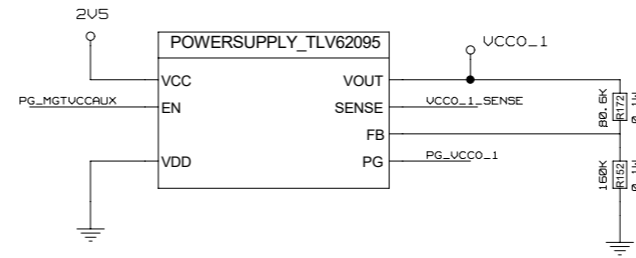
MGTAVTT - 1.2V



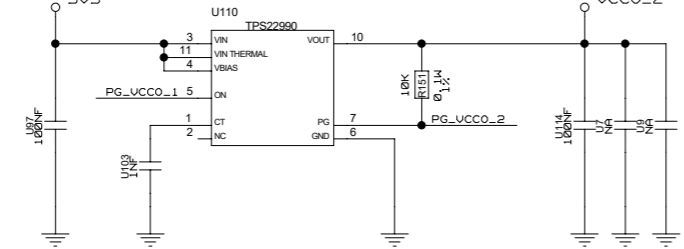
MGTUCCAUX - 1.8V



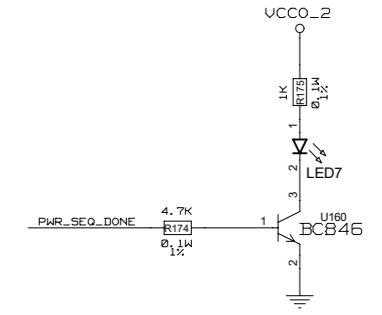
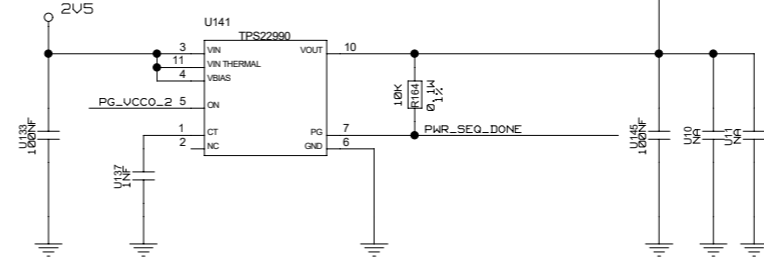
UCCO_1 - 1.8V



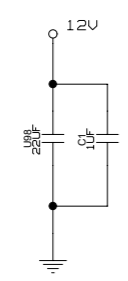
UCCO_2 - 3.3V



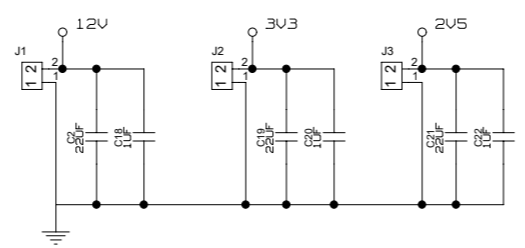
2V5 - 2.5V



SOM VIN - 12V



EXTERNAL POWER (WITHOUT JFEX/TOPO)
 MANUAL POWER UP (WITHOUT JFEX/TOPO)



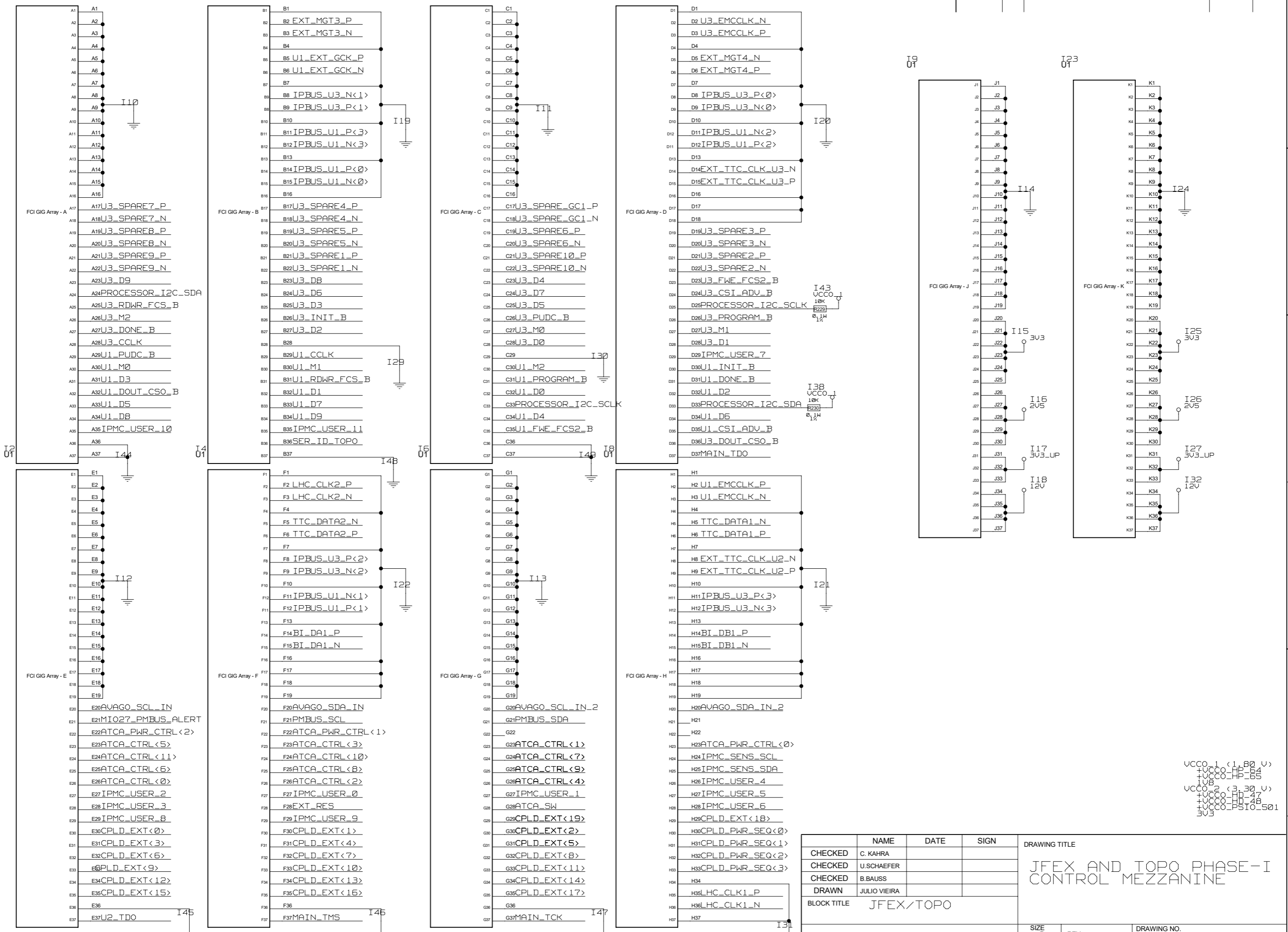
NAME	DATE	SIGN
CHECKED C. KAHRA		
CHECKED U. SCHAEFER		
CHECKED B. BAUSS		
DRAWN JULIO VIEIRA		

BLOCK TITLE: POWER

JOHANNES GUTENBERG UNIVERSITY MAINZ

DRAWING TITLE		
JFEX AND TOPO PHASE-I CONTROL MEZZANINE		
SIZE	REV. 3.0	DRAWING NO.
SCALE		SHEET 11 OF 13

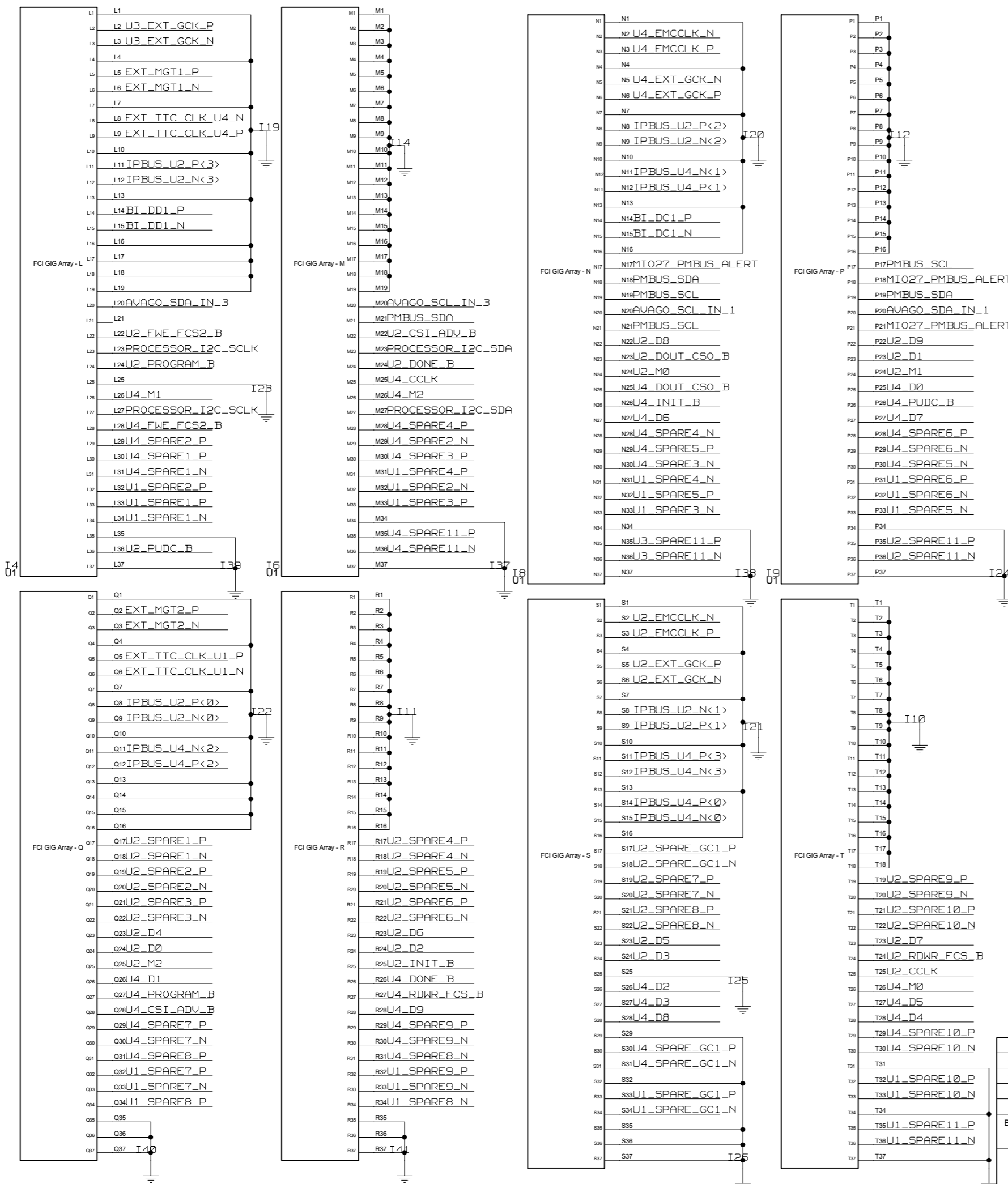
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



UCC0_1 (1.80 V)
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+UCC0_HP_55
1U8
UCC0_2 (3.30 V)
+UCC0_HP_47
+UCC0_HP_48
+UCC0_PSIO_501
3V3

NAME	DATE	SIGN	DRAWING TITLE
CHECKED C. KAHRA			JFEX AND TOPO PHASE-I CONTROL MEZZANINE
CHECKED U. SCHAEFER			
CHECKED B. BAUSS			
DRAWN JULIO VIEIRA			
BLOCK TITLE JFEX/TOPO			
JOHANNES GUTENBERG UNIVERSITY MAINZ		SIZE C	REV. 3.0
		SCALE	DRAWING NO.
			SHEET 12 OF 13

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



VCC0_1 (<1.80 V>
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 +VCC0_HP_55
 I18
 VCC0_2 (<3.30 V>
 +VCC0_HP_47
 +VCC0_HP_48
 +VCC0_PSIO_501
 3U3

NAME	DATE	SIGN
CHECKED C. KAHRA		
CHECKED U. SCHAEFER		
CHECKED B. BAUSS		
DRAWN JULIO VIEIRA		

BLOCK TITLE JFEX/TOPO
JOHANNES GUTENBERG UNIVERSITY MAINZ

DRAWING TITLE		
JFEX AND TOPO PHASE-I CONTROL MEZZANINE		
SIZE	REV. 3.0	DRAWING NO.
C		
SCALE		SHEET 13 OF 13