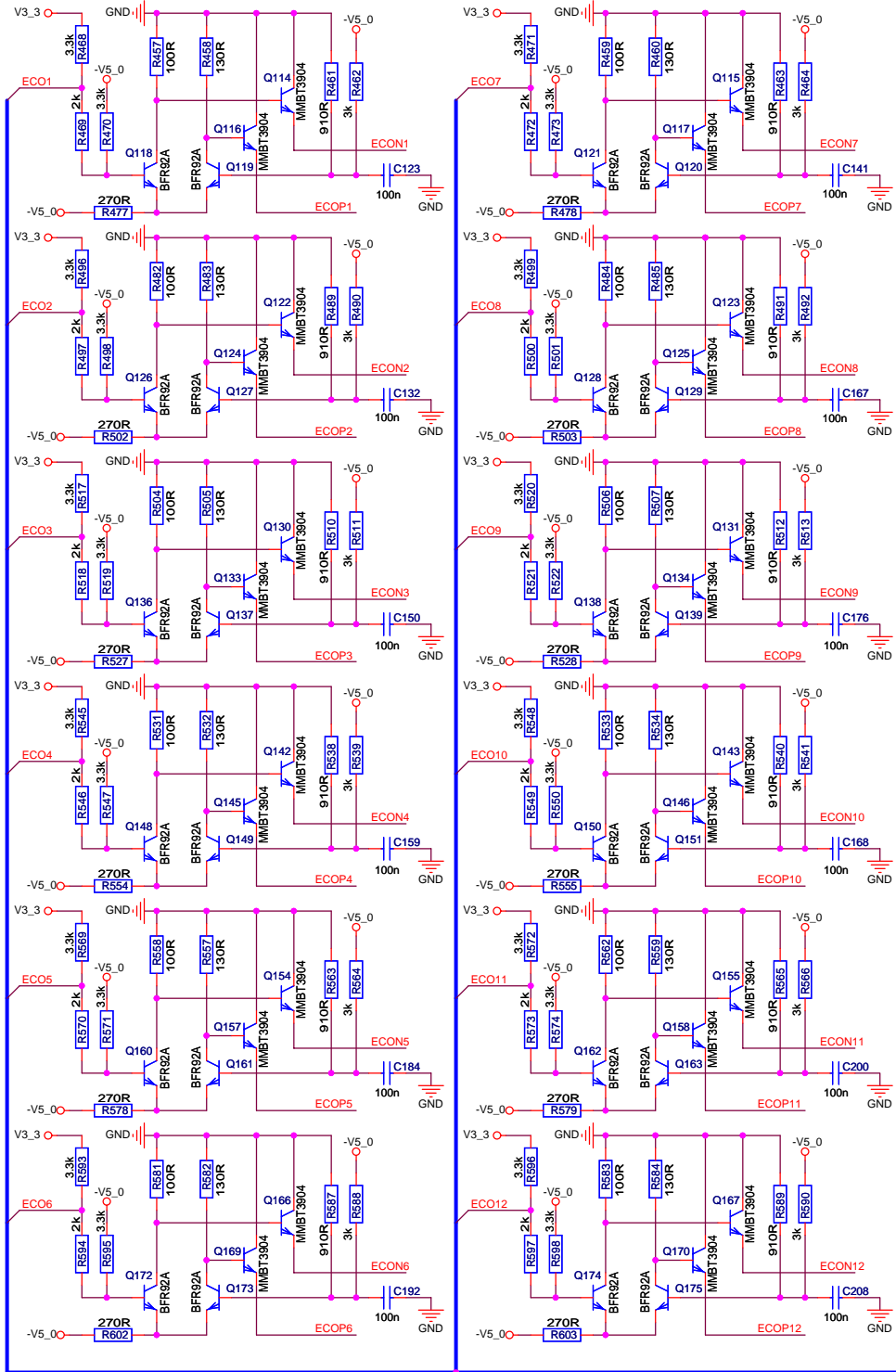
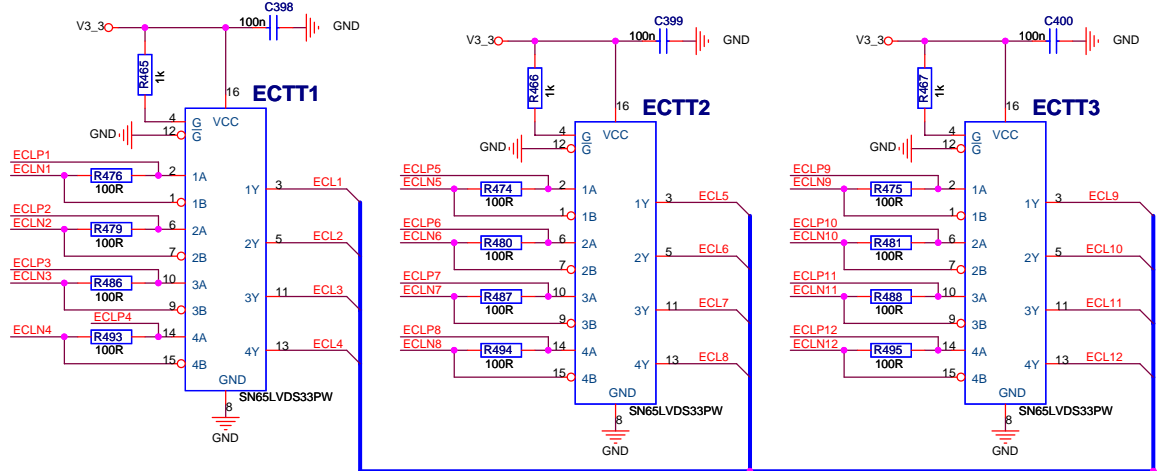


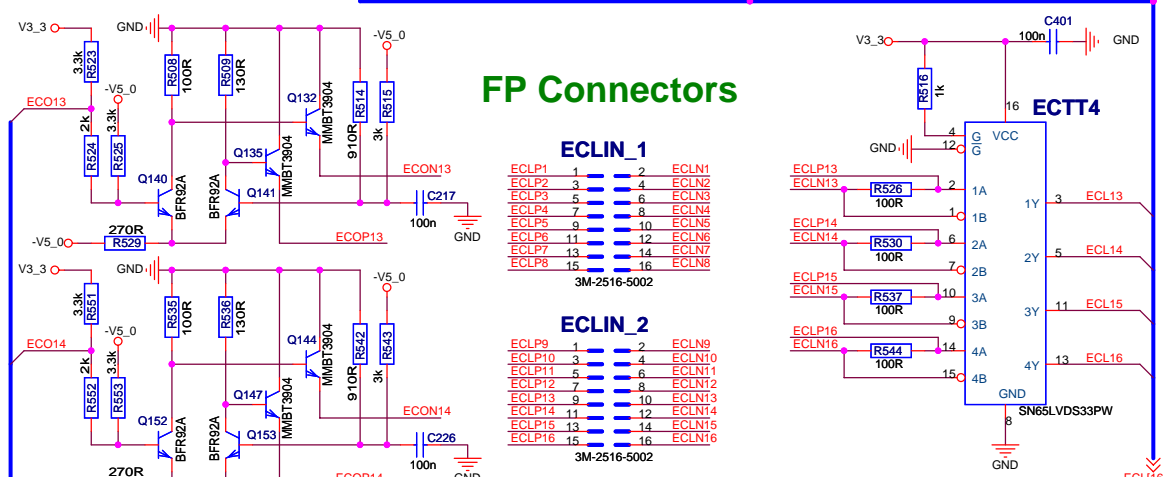
# TTL-ECL converter



# ECL-TTL converter



# FP Connectors



## ECLIN\_1

ECLP1	1	2	ECLN1
ECLP2	3	4	ECLN2
ECLP3	5	6	ECLN3
ECLP4	7	8	ECLN4
ECLP5	9	10	ECLN5
ECLP6	11	12	ECLN6
ECLP7	13	14	ECLN7
ECLP8	15	16	ECLN8

## ECLIN\_2

ECLP9	1	2	ECLN9
ECLP10	3	4	ECLN10
ECLP11	5	6	ECLN11
ECLP12	7	8	ECLN12
ECLP13	9	10	ECLN13
ECLP14	11	12	ECLN14
ECLP15	13	14	ECLN15
ECLP16	15	16	ECLN16

## ECLOUT\_1

ECOP1	1	2	ECON1
ECOP2	3	4	ECON2
ECOP3	5	6	ECON3
ECOP4	7	8	ECON4
ECOP5	9	10	ECON5
ECOP6	11	12	ECON6
ECOP7	13	14	ECON7
ECOP8	15	16	ECON8

## ECLOUT\_2

ECOP9	1	2	ECON9
ECOP10	3	4	ECON10
ECOP11	5	6	ECON11
ECOP12	7	8	ECON12
ECOP13	9	10	ECON13
ECOP14	11	12	ECON14
ECOP15	13	14	ECON15
ECOP16	15	16	ECON16

ECOP1	R628	560R	R629	ECON1
ECOP2	R630	560R	R631	ECON2
ECOP3	R632	560R	R633	ECON3
ECOP4	R634	560R	R635	ECON4
ECOP5	R636	560R	R637	ECON5
ECOP6	R638	560R	R639	ECON6
ECOP7	R640	560R	R641	ECON7
ECOP8	R642	560R	R643	ECON8
ECOP9	R644	560R	R645	ECON9
ECOP10	R646	560R	R647	ECON10
ECOP11	R648	560R	R649	ECON11
ECOP12	R650	560R	R651	ECON12
ECOP13	R652	560R	R653	ECON13
ECOP14	R654	560R	R655	ECON14
ECOP15	R656	560R	R657	ECON15
ECOP16	R658	560R	R659	ECON16

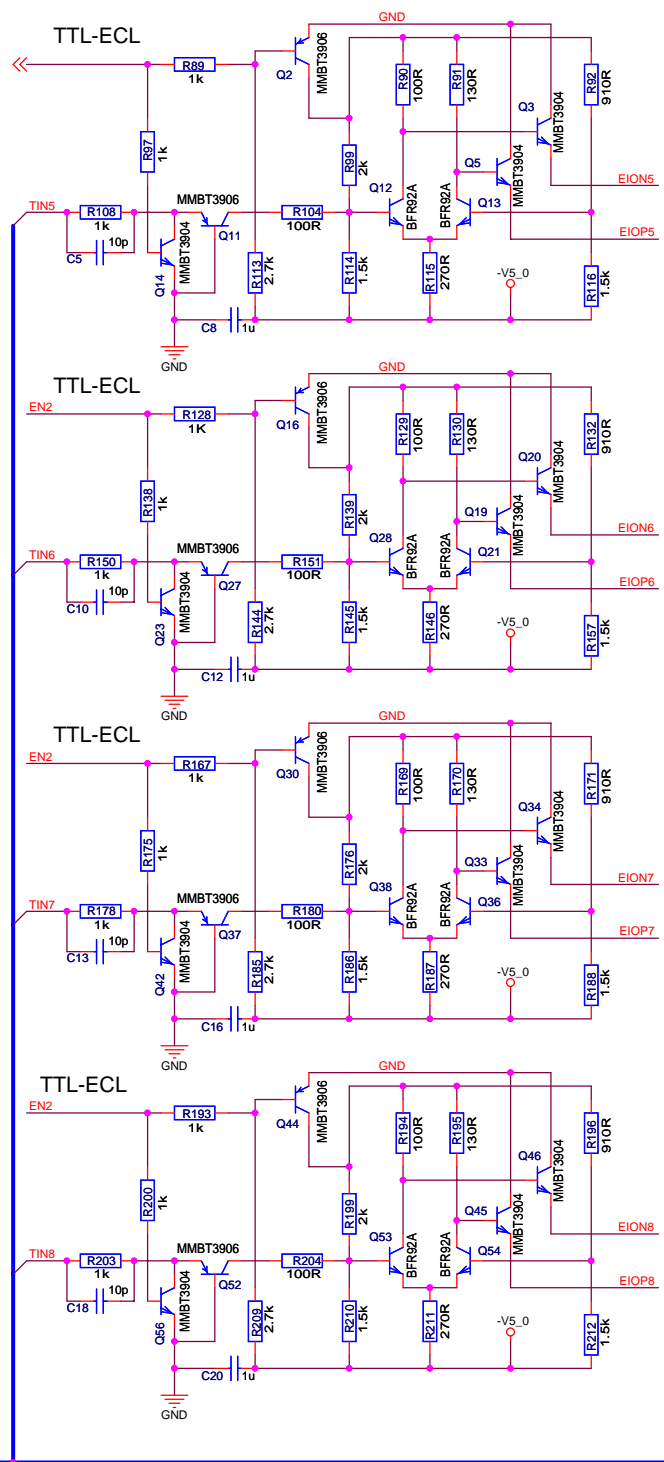
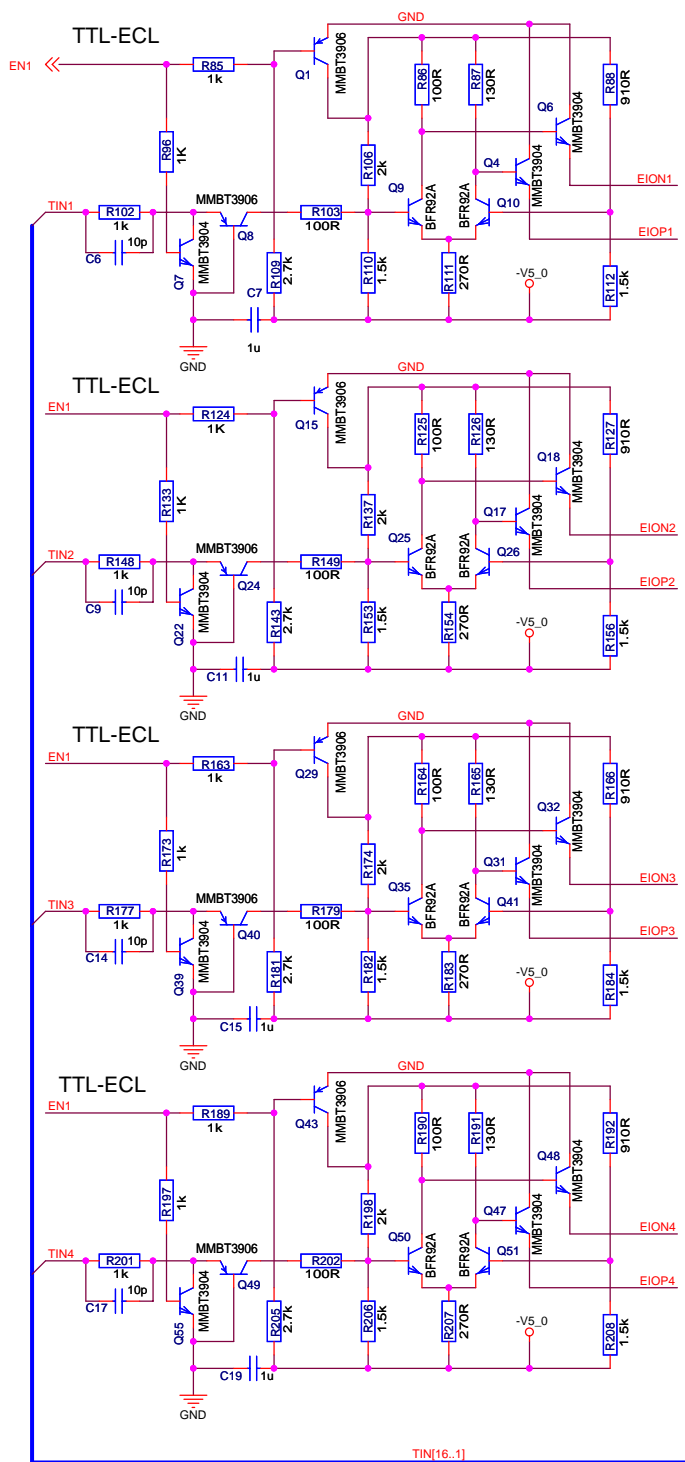
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 D-64291 Darmstadt  
 GERMANY  
 www.gsi.de

**VULOM3\_01\_FRONT1**

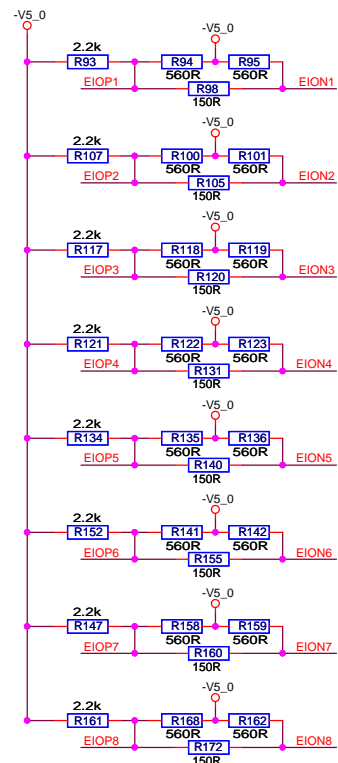
Design: K:\GSI\JOB\VULOM3\VULOM3\_01\FRONT1.DSN  
 Modified: Wednesday, January 03, 2007  
 Designer: J. Hoffmann

Size: A3  
 Page: 1 / 10  
 Layouter: S. Voltz

# ECL I/O Channel 1 to 8



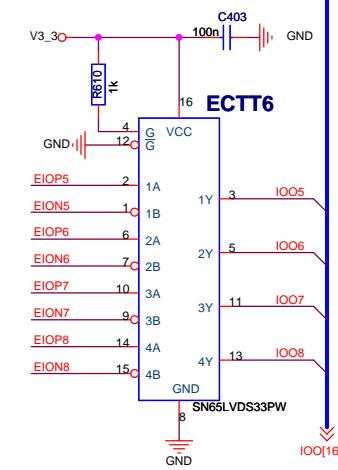
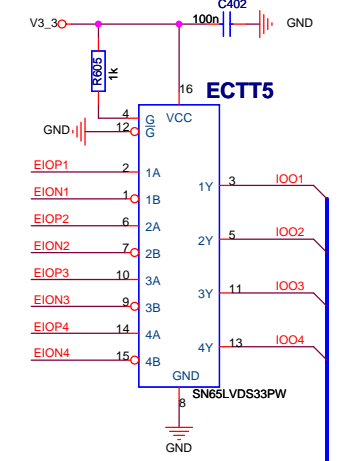
# TERMINATOR



# ECLIO\_1

EIOP1	1	EION1
EIOP2	2	EION2
EIOP3	3	EION3
EIOP4	4	EION4
EIOP5	5	EION5
EIOP6	6	EION6
EIOP7	7	EION7
EIOP8	8	EION8

3M-2516-5002

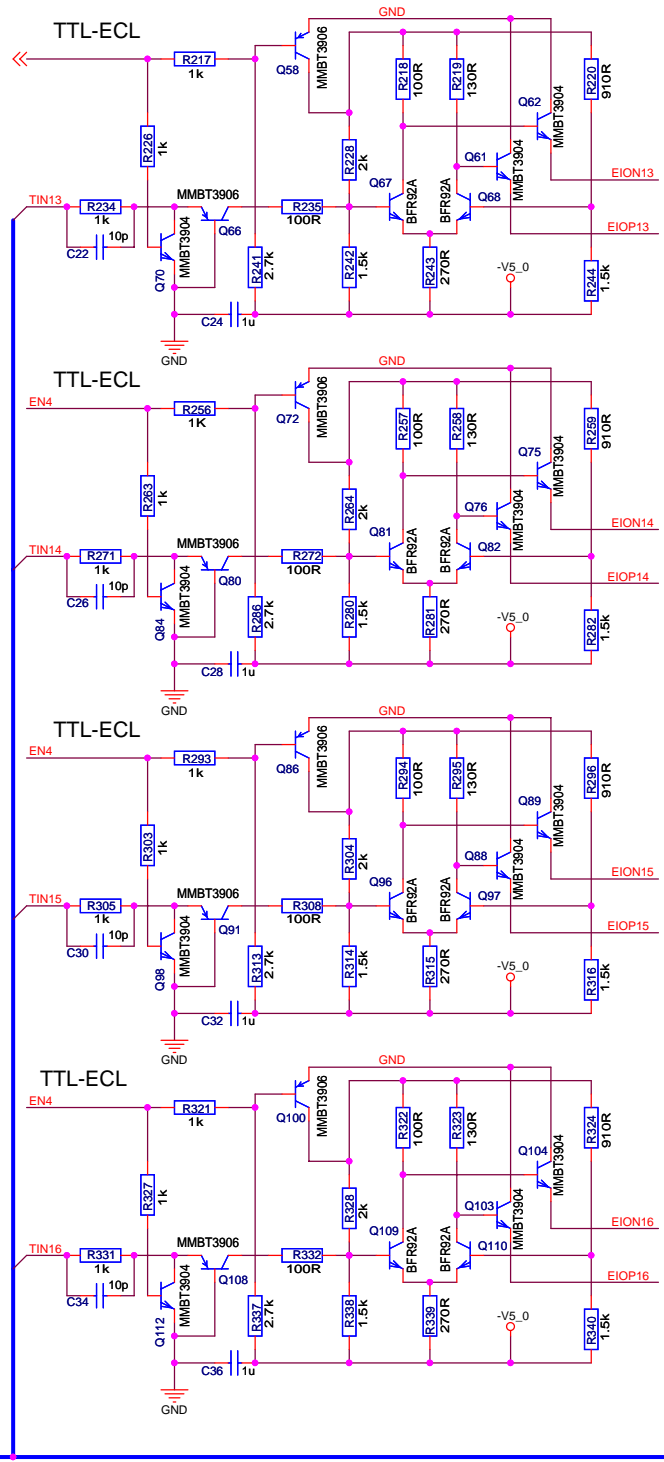
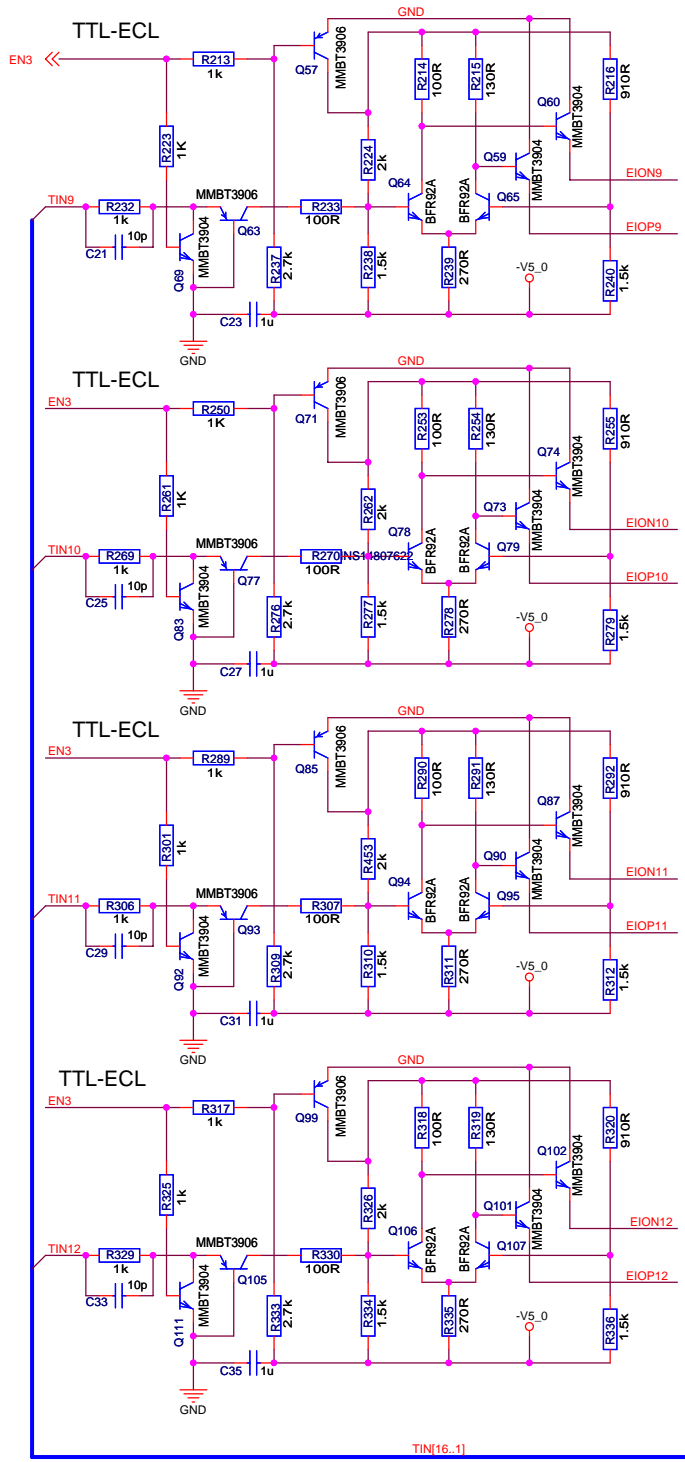


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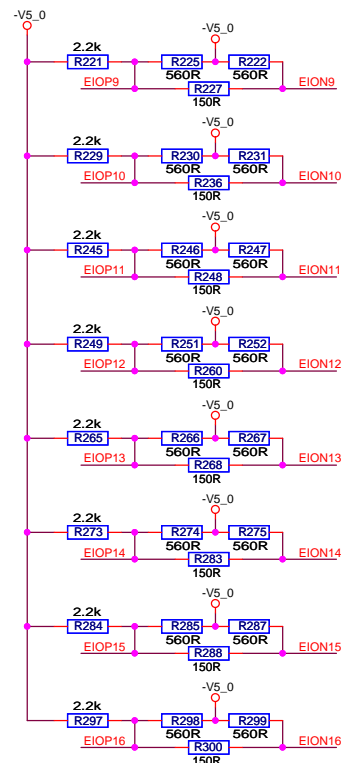
VULOM3\_02\_FRONT2

Design: K:\GSI\JOB\VULOM3\VULOM3\FRONT2.DSN	Size: A3	Page: 2 / 10
Modified: Wednesday, January 03, 2007	Layouter: S. Voltz	

# ECL I/O Channel 9 to 16



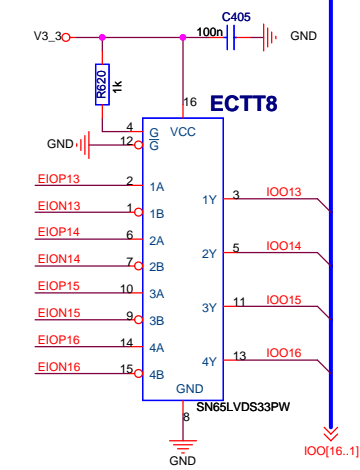
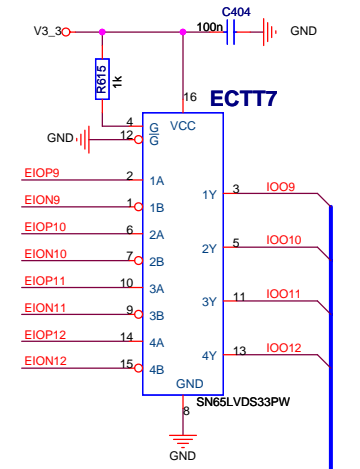
## TERMINATOR



## ECLIO\_2

EIOP9	1	2	EION9
EIOP10	3	4	EION10
EIOP11	5	6	EION11
EIOP12	7	8	EION12
EIOP13	9	10	EION13
EIOP14	11	12	EION14
EIOP15	13	14	EION15
EIOP16	15	16	EION16

3M-2516-5002



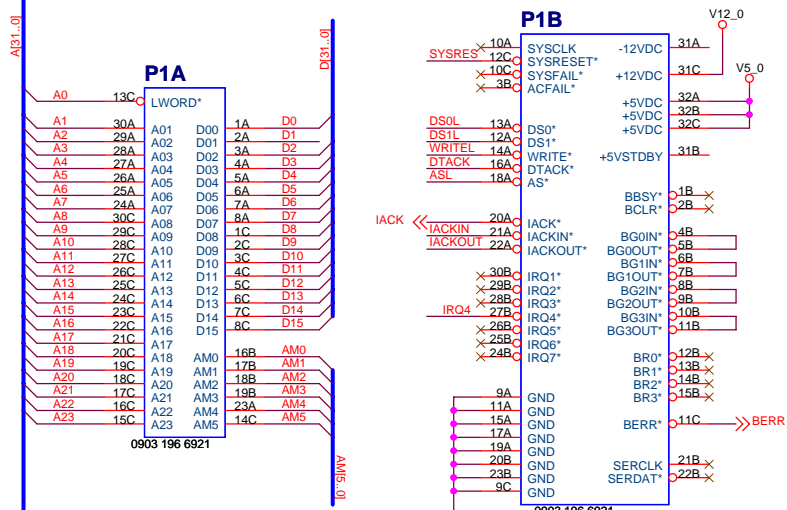
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VULOM3\_03\_FRONT3

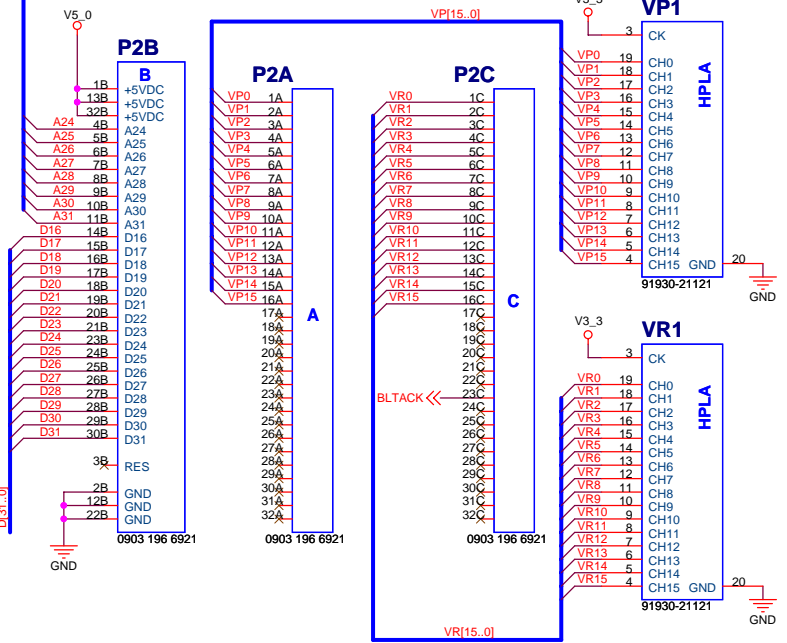
Design: K:\GSI\JOB\VULOM3\VULOM3_03\FRONT3.DSN	Size: A3	Page: 3 / 10
Modified: Wednesday, January 03, 2007	Designer: J. Hoffmann	Layouter: S. Voltz

# VME CONNECTOR

## P1 connector



## P2 Connector

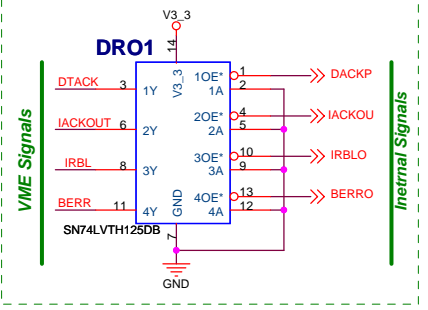


### Pullups

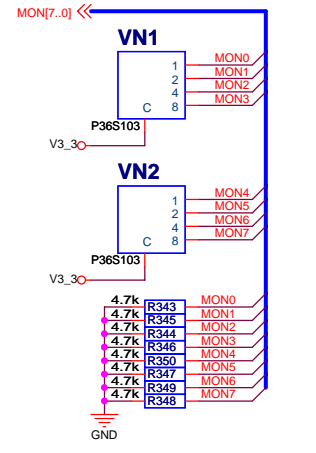
OAVI	R365	4.7k
QAVI	R368	4.7k
ODVI	R372	4.7k
ODIV	R373	4.7k

BLTACK Do Not Assembly

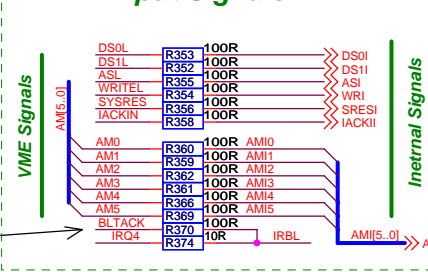
## OC Driver



## VME Address Offset

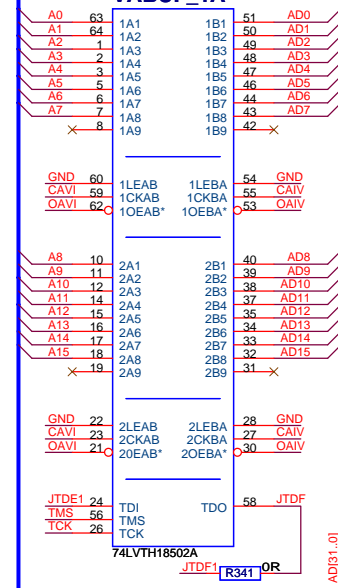


## Input Signals

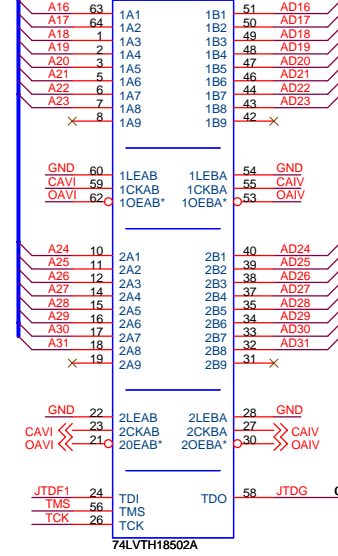


# VME BUFFER

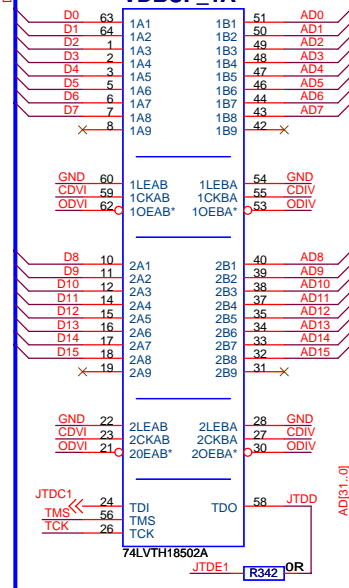
## Address Buffer/Register VABUF\_1A



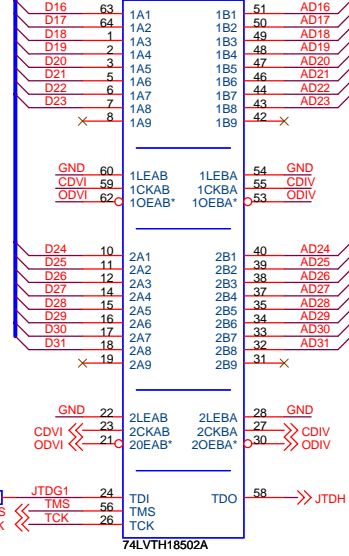
## VABUF\_2A



## Data Buffer/Register VDBUF\_1A



## VDBUF\_2A



### Pullups

DACKP	R363	4.7k
IRBLO	R364	4.7k
BERR0	R367	4.7k
IACKOU	R371	4.7k

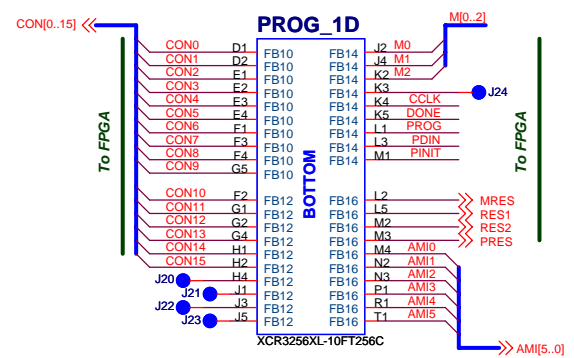
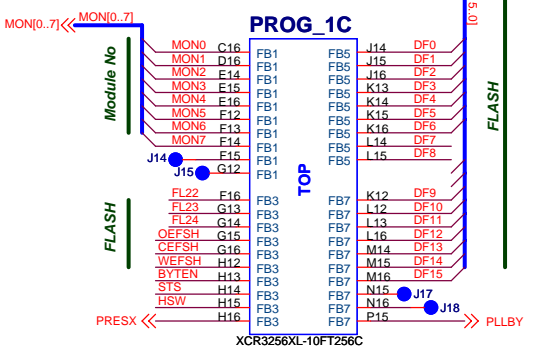
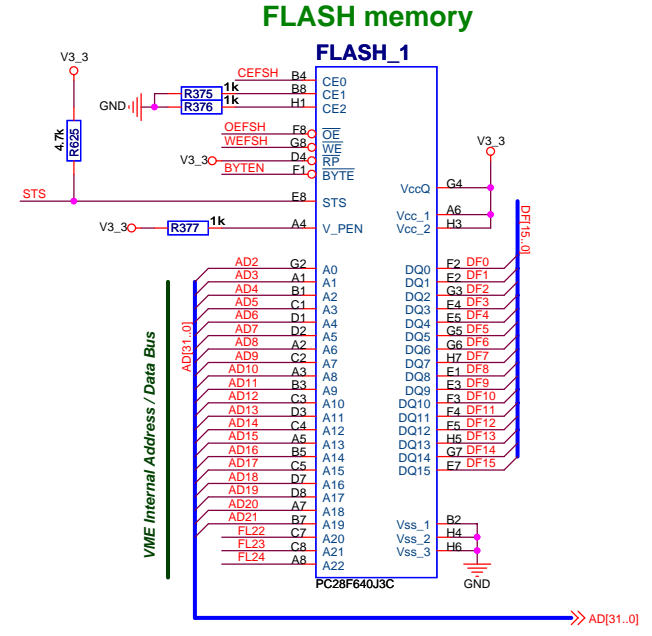
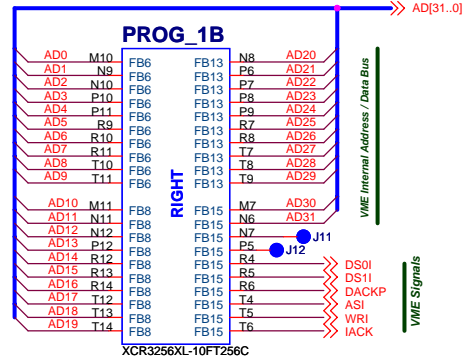
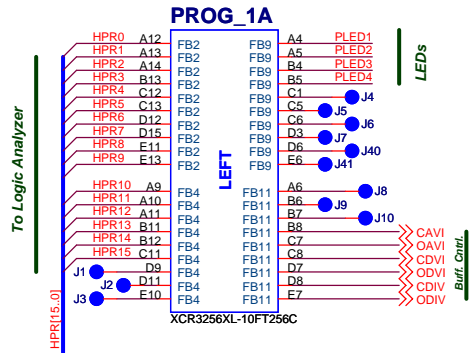


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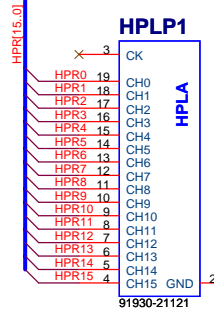
### VULOM3\_04\_VME Buffer

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Modified: Wednesday, January 03, 2007  
Designer: J. Hoffmann

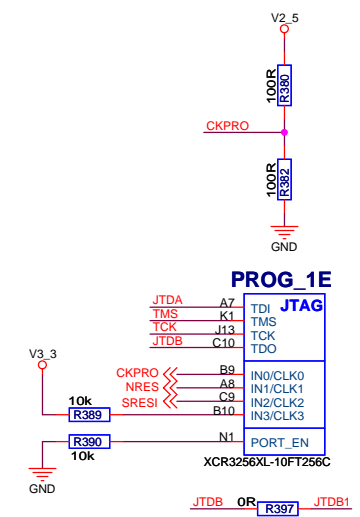
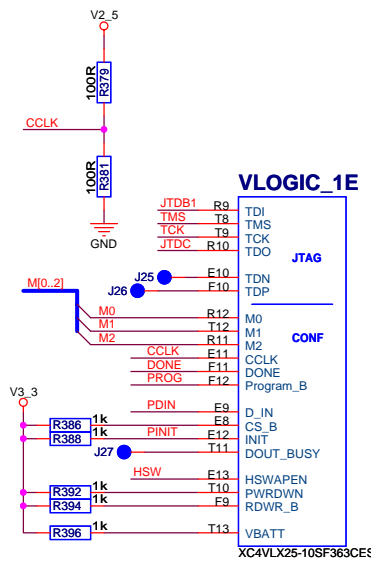
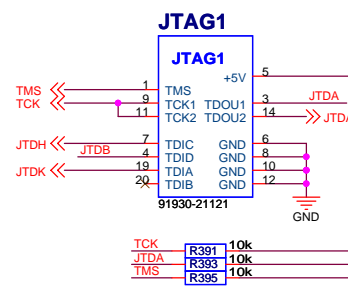
Size: A3  
Page: 4 / 10  
Layover: S. Voltz



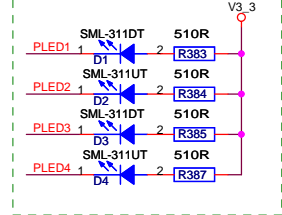
### Logic Analyzer Connector



### JTAG Connector



### On Board LEDs

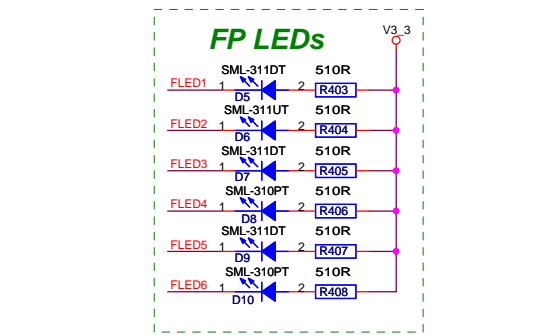
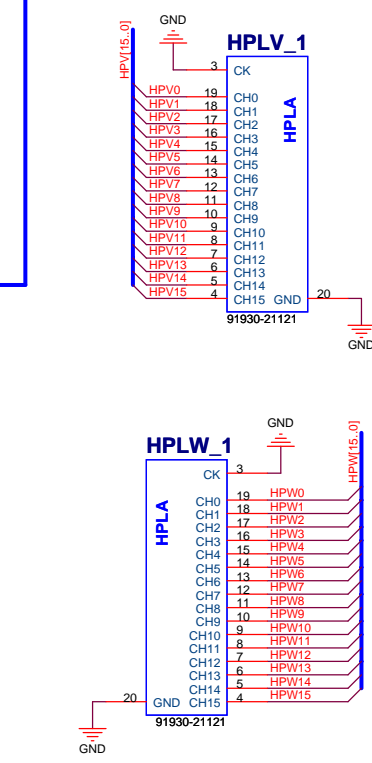
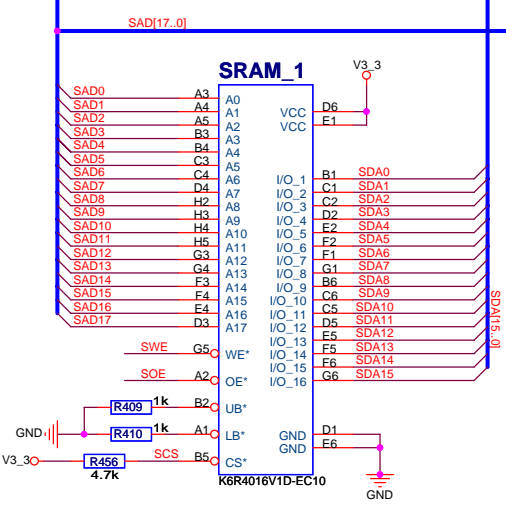
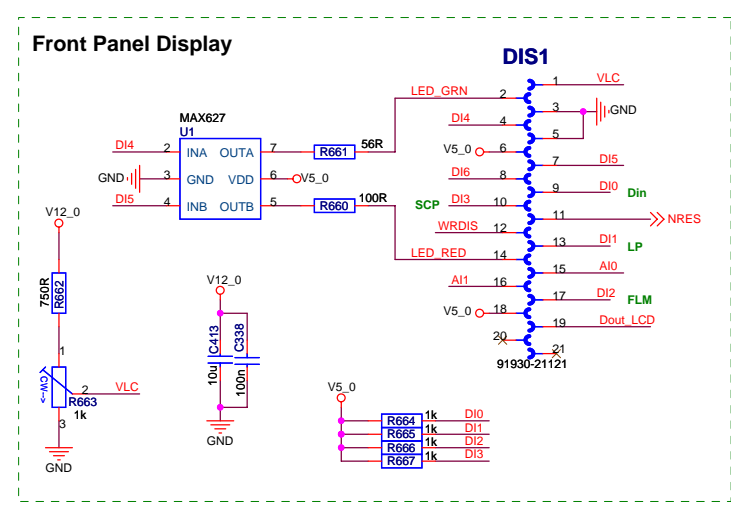
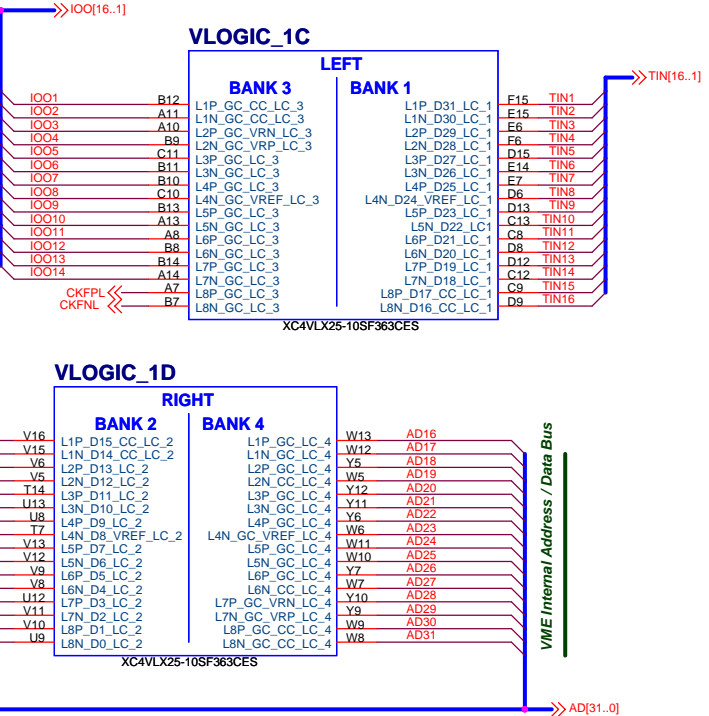
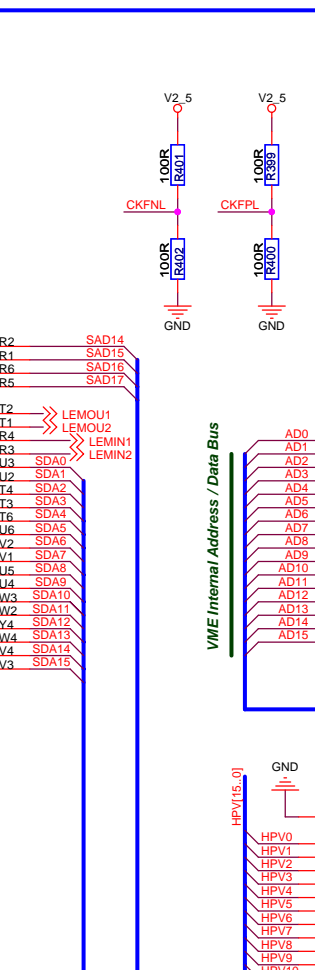
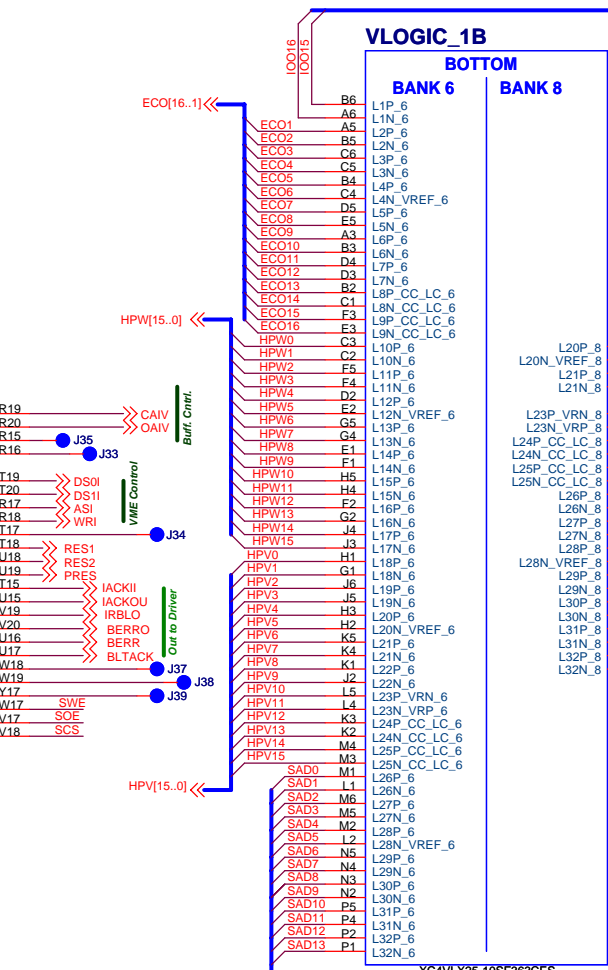
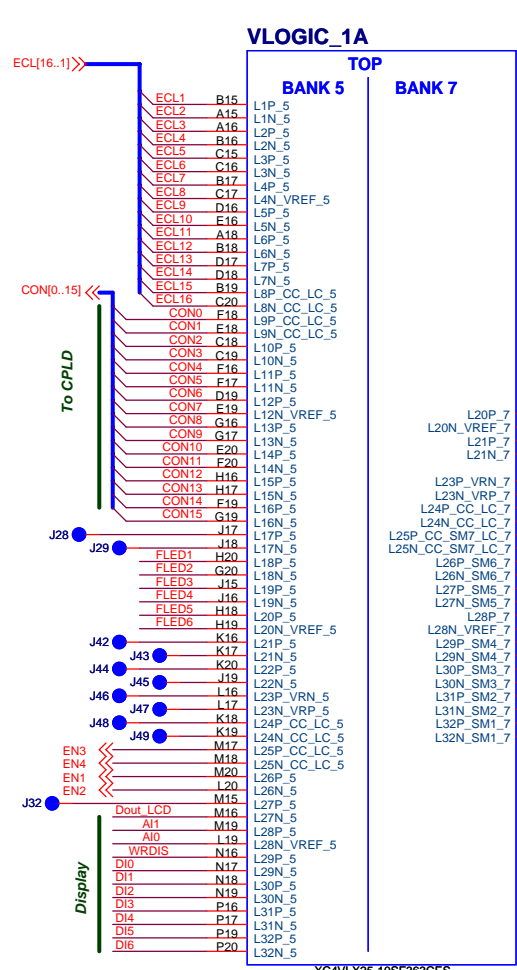




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**VULOM3\_05\_VME**

Design: K:\GSI\JOB\VULOM3\VULOM3_05_VME.DSN	Size: A3	Page: 5 / 10
Modified: Wednesday, January 03, 2007	Designer: J. Hoffmann	Layouther: S. Voltz

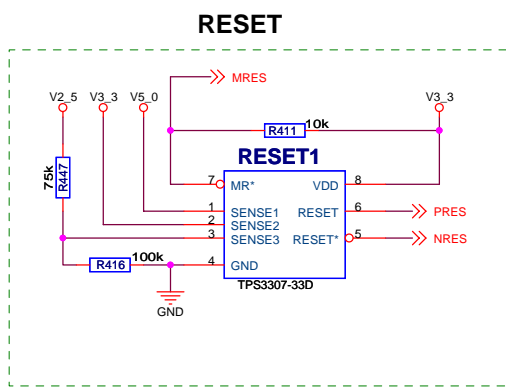
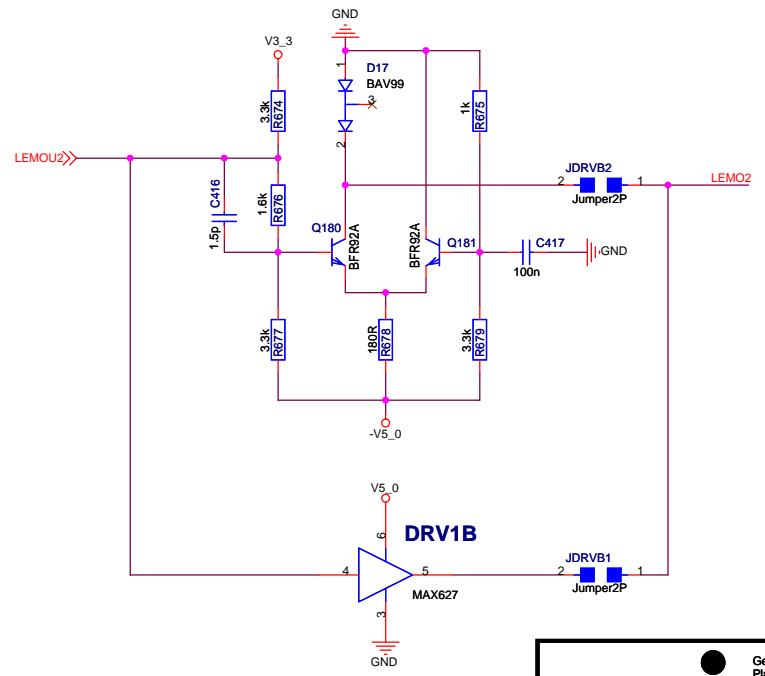
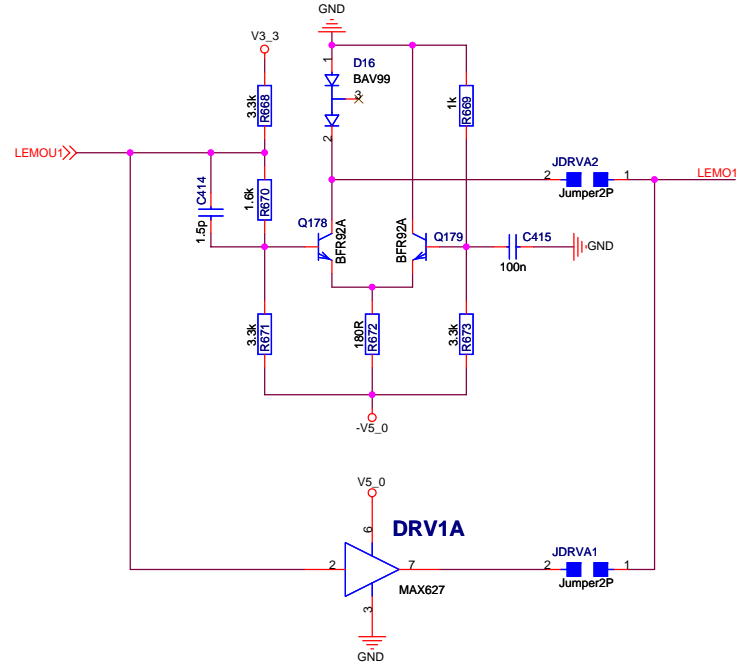
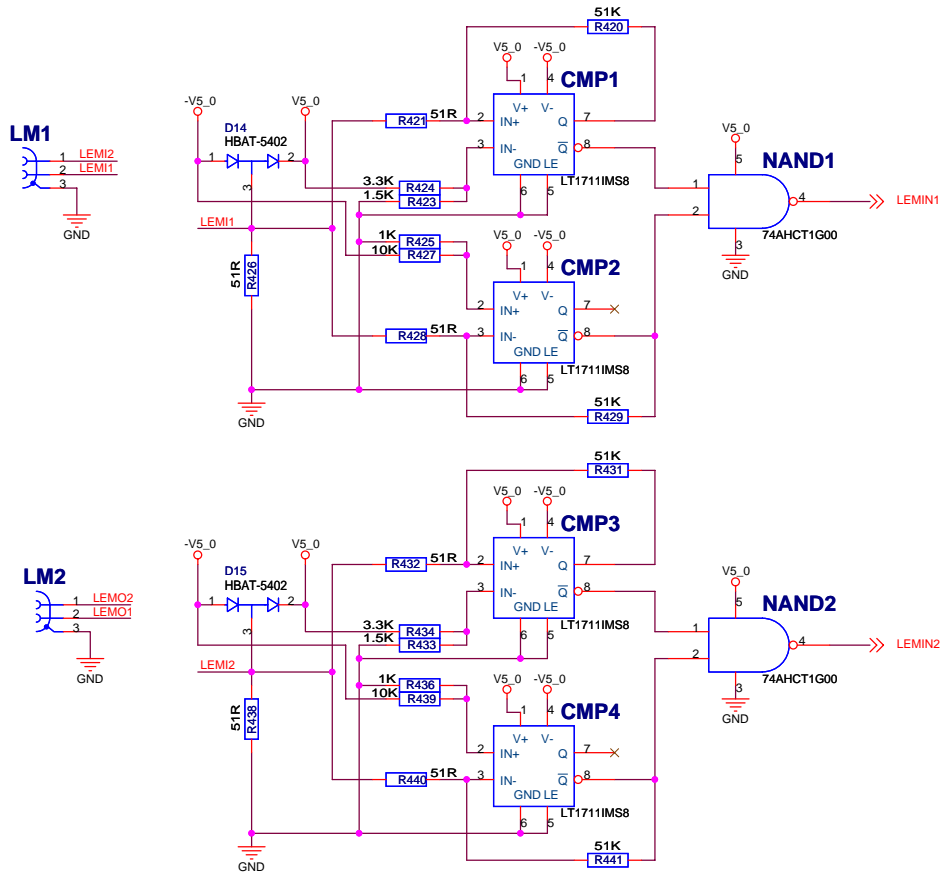


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**VULOM3\_06\_FPGA**

Design: K:\GSI\JOB\VULOM3\VULOM3\_06\_FPGA.DSN  
Modified: Wednesday, January 03, 2007  
Designer: J. Hoffmann

Size: A3  
Page: 6 / 10  
Layover: S. Voltz

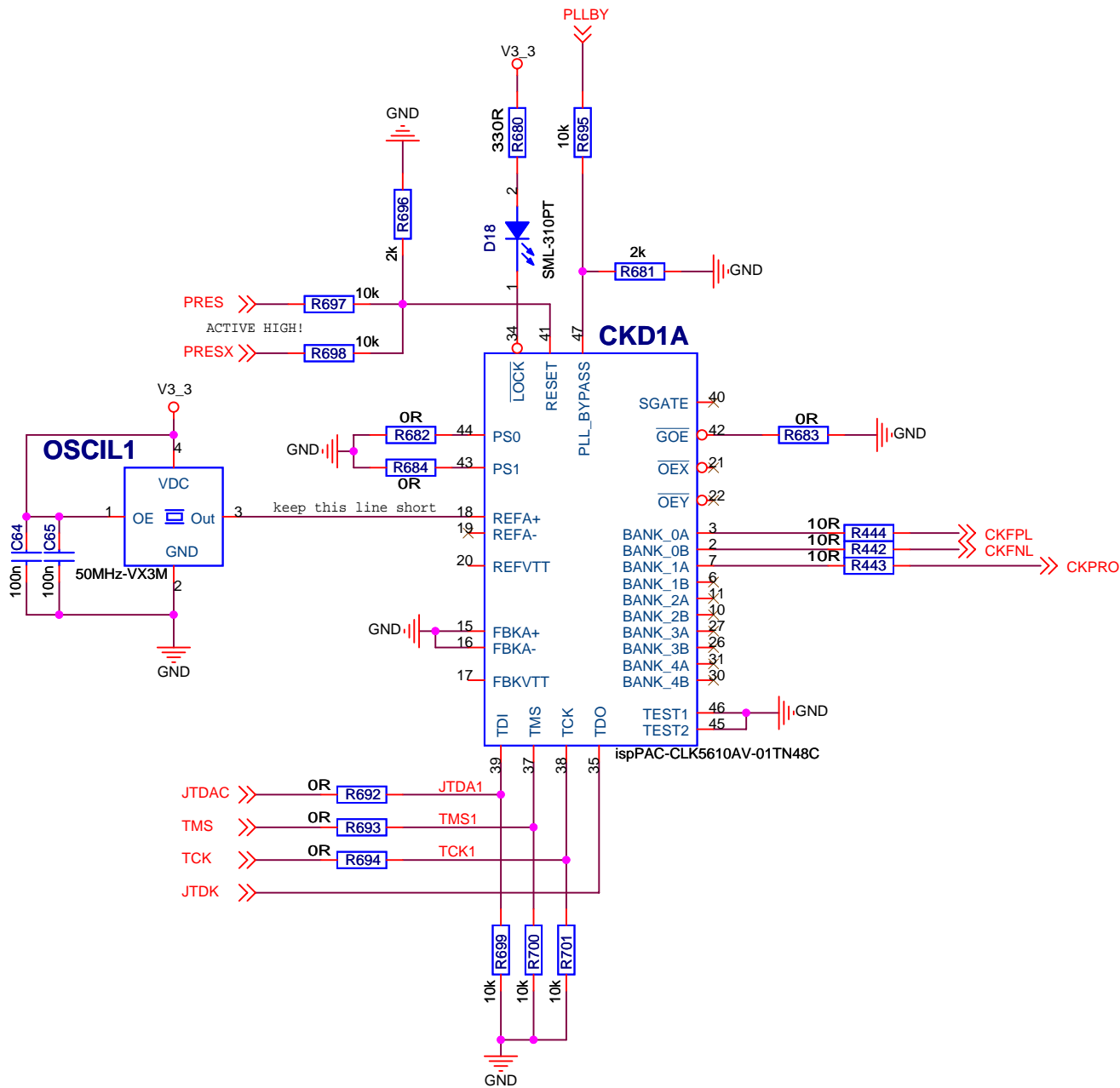


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**VULOM3\_7\_LEMO, Reset**

Design: K:\GSI\JOB\VULOM3\VULOM3\VULOM3.DSN	Size: A3	Page: 7 / 10
Modified: Wednesday, January 03, 2007	Designer: J. Hoffmann      Layouter: S. Voltz	

# Clock Generation

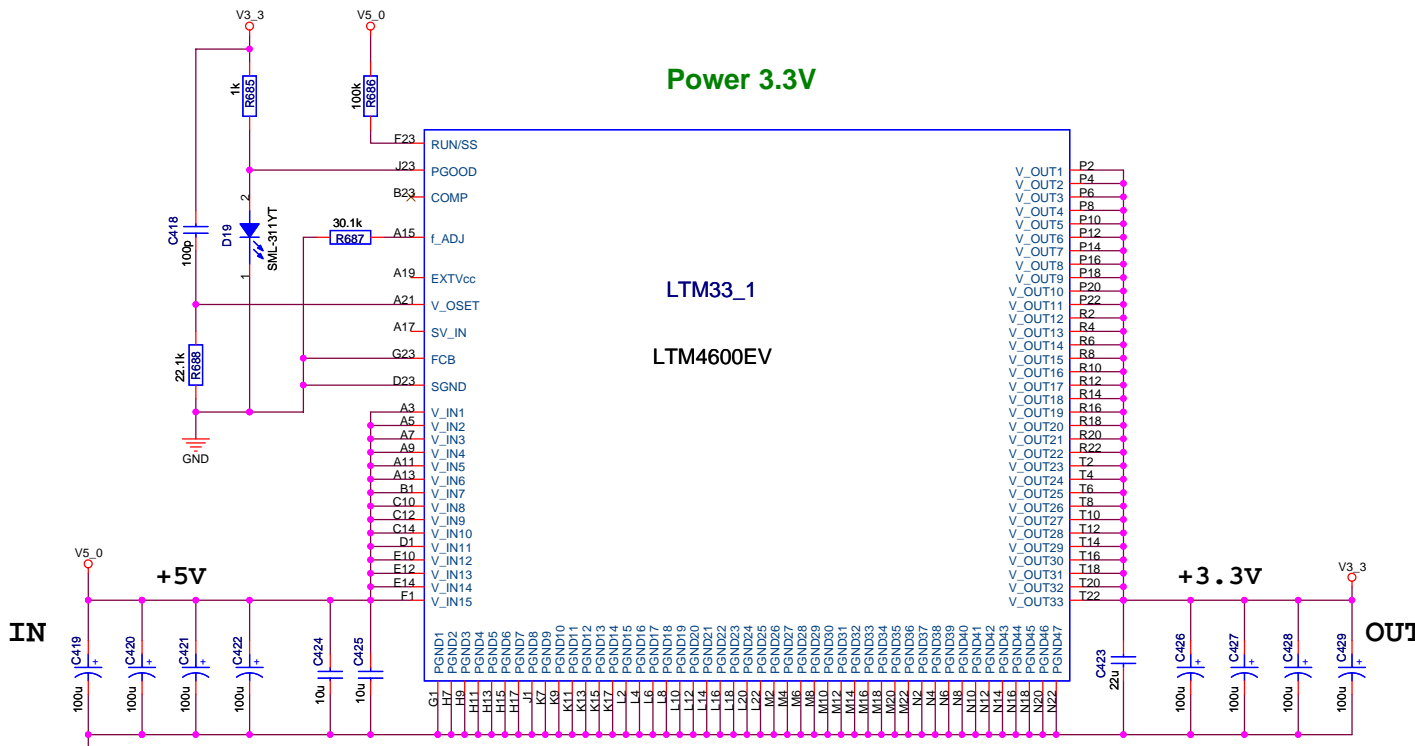


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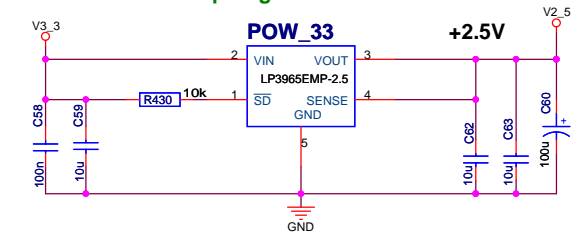
**VULOM3\_08\_CLOCK**

Design: K:\GSIJOB\VULOM\VULOM3\VULOM3.DSN	Page: 8 / 10
Modified: Wednesday, January 03, 2007	Size: A4
Designer: J. Hoffmann	Layouter: S. Voltz

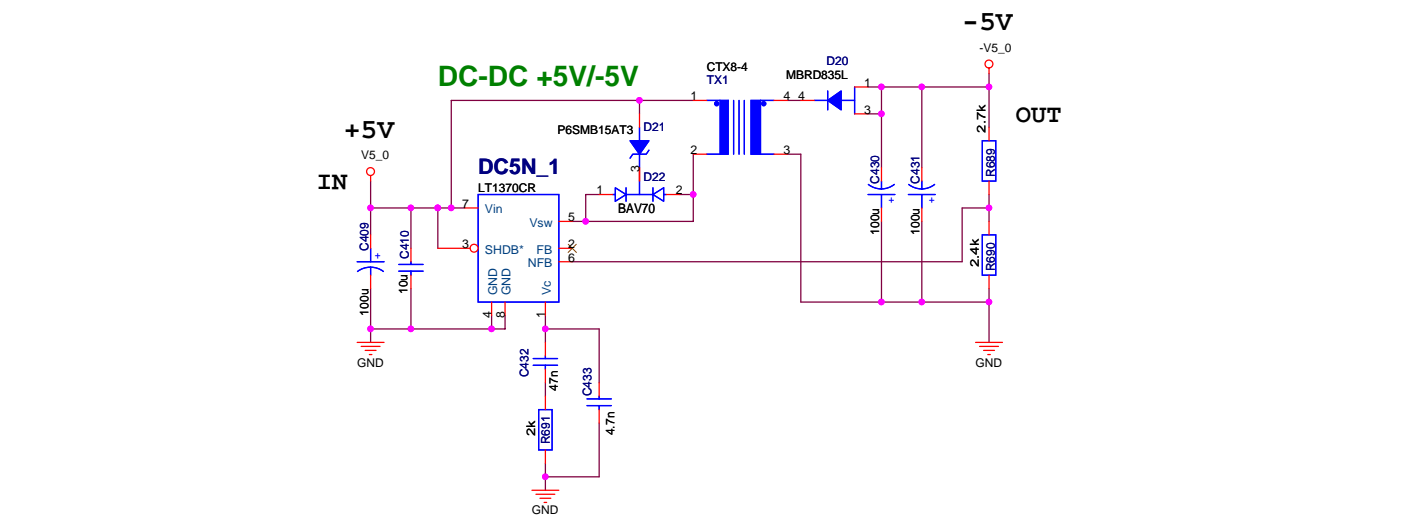
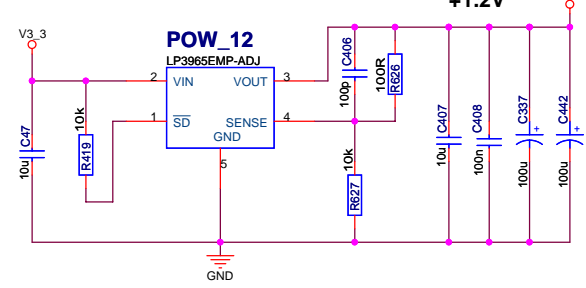




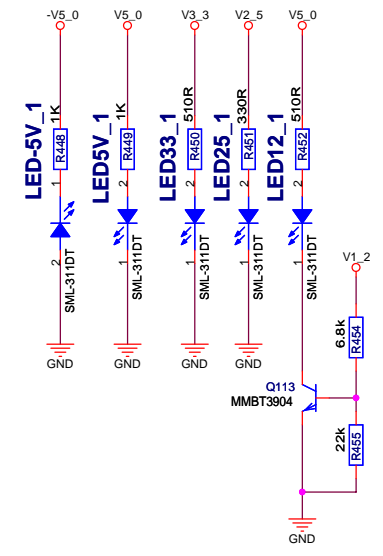
**Low Drop Regulator 2.5V**



**Low Drop Regulator 1.2V**



**Power Supply Leds**

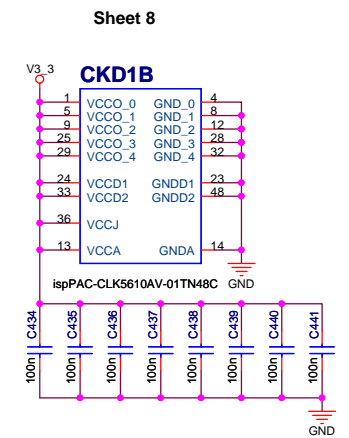
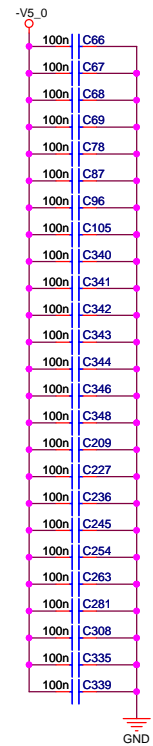
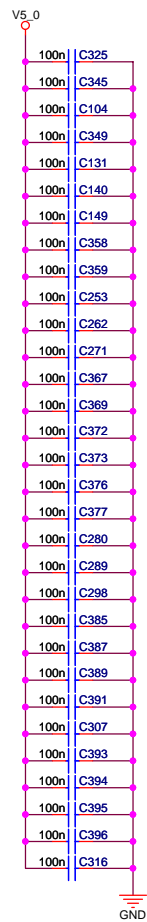
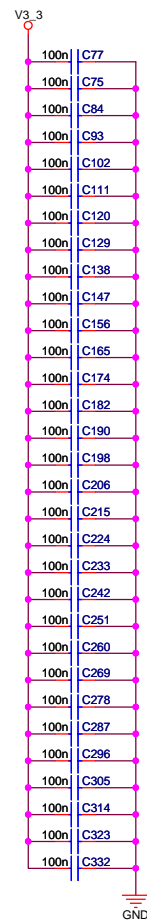
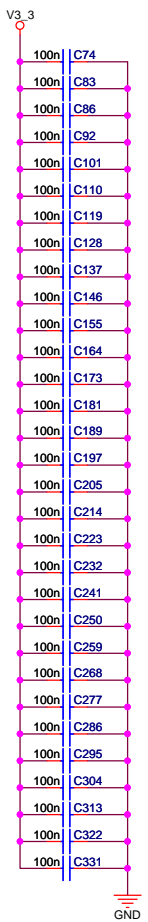
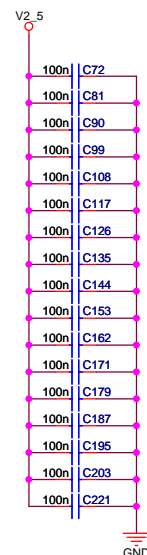
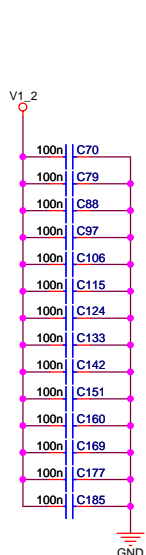
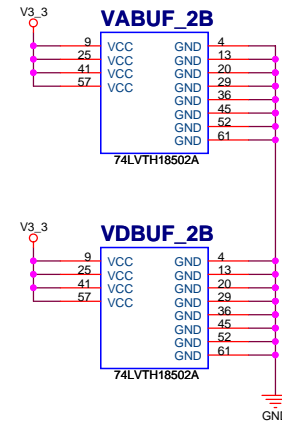
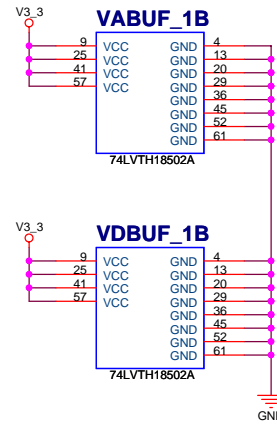
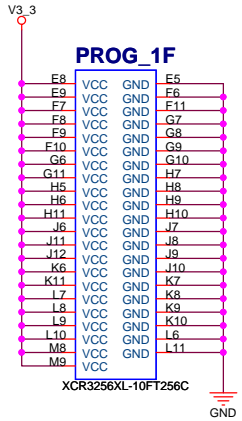
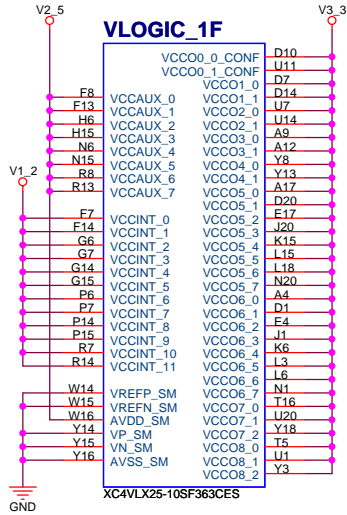


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**VULOM3\_09\_Support**

Design: K:\GSI\JOB\VULOM3\VULOM3\_09.DSN  
Modified: Wednesday, January 03, 2007  
Designer: J. Hoffmann

Size: A3  
Page: 9 / 10  
Layouter: S. Voltz




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### VULOM3\_10\_Power

Design: K:\GSI\JOB\VULOM3\VULOM3_10_Power.DSN	Size: A3	Page: 10 / 10
Modified: Wednesday, January 03, 2007	Designer: J. Hoffmann	Layouter: S. Voltz