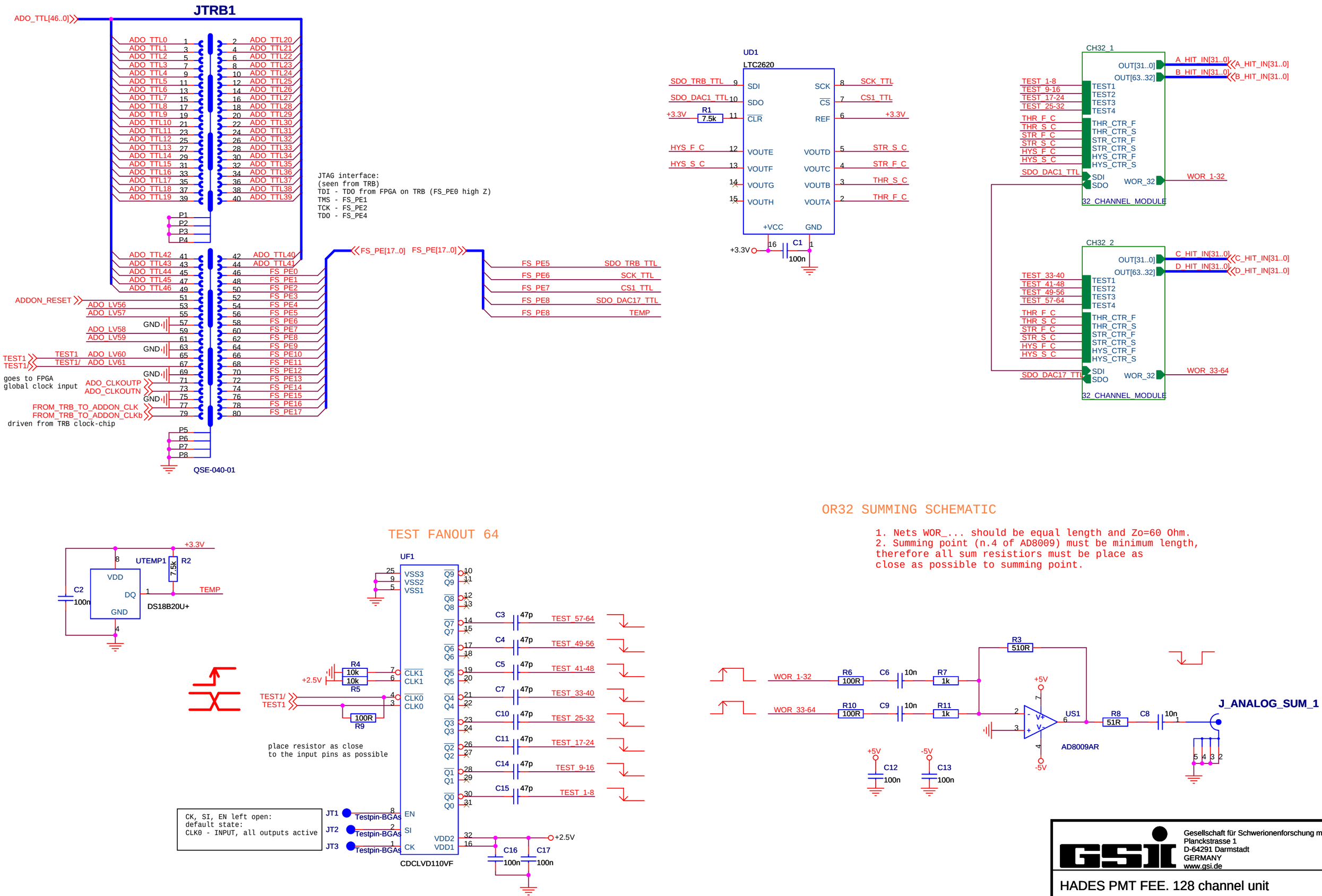

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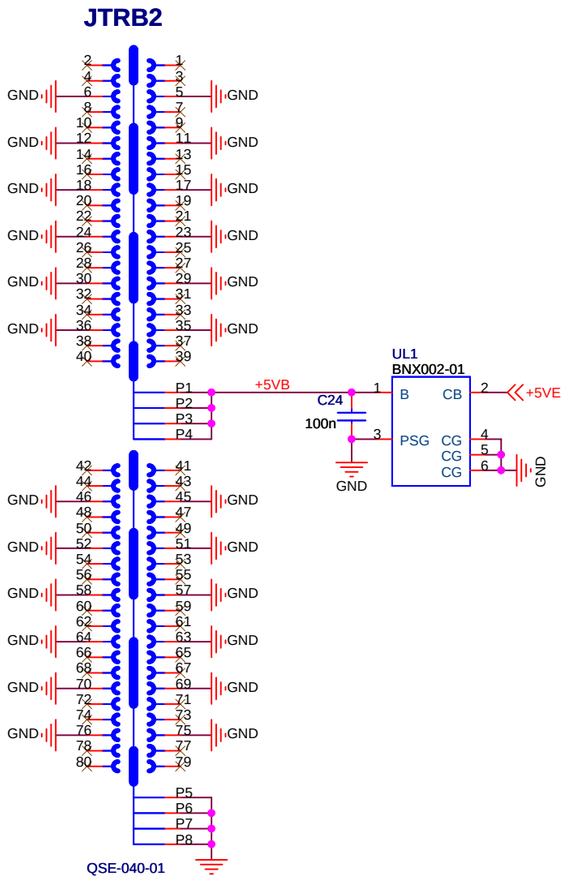
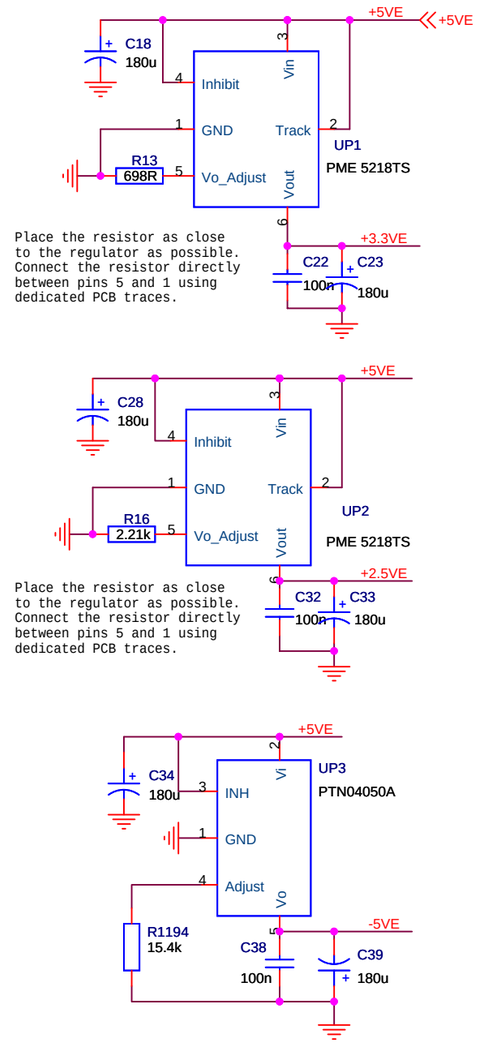
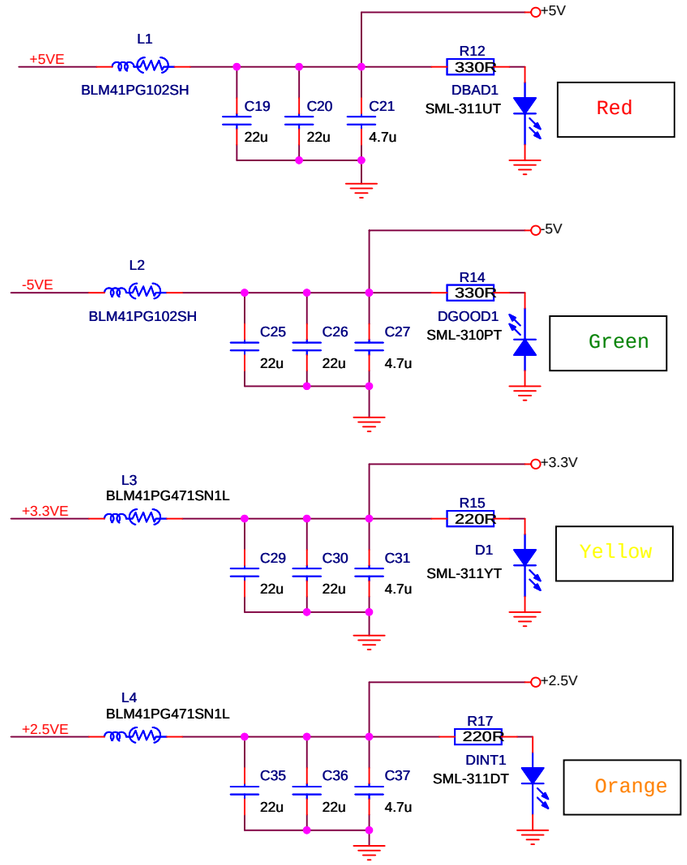
HADES PMT FEE. 128 channel unit

Design: K:\GSIJOB\HADESTRB\HADESTRB-TOF-ADDON1\HADES_TOF_64_8.DSN	
Modified: Monday, October 29, 2007	Size: A3 Page: 1 / 21
Designer: E.Usenko	Layouter: E.Usenko







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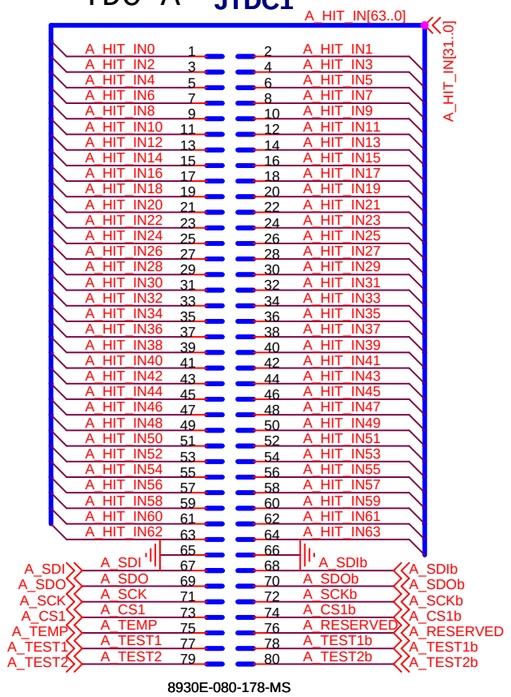
HADES PMT FEE. DC-DC Power Supply.

Design: K:\GSIJOB\HADESTRB\HADESTRB-TOF-ADDON1\HADES_TOF_64_8.DSN
Modified: Monday, October 29, 2007 Size: A3 Page: 2 / 21
Designer: E.Usenko Layouter: E.Usenko

TDC A — JTDC1



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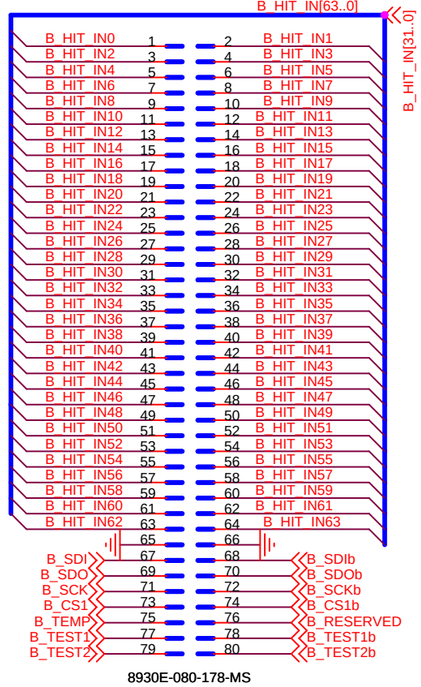

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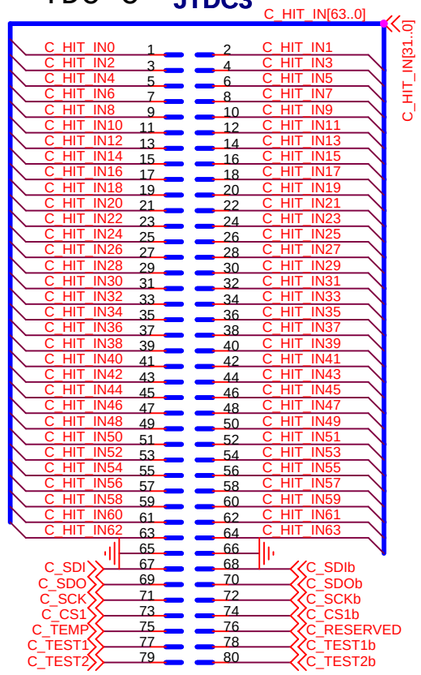
TDC C — JTDC3



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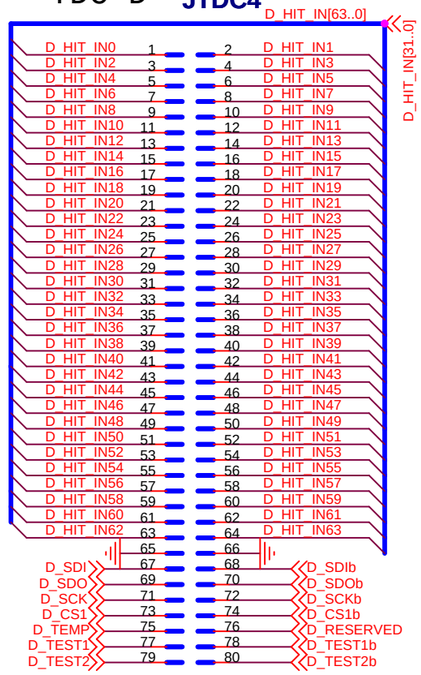

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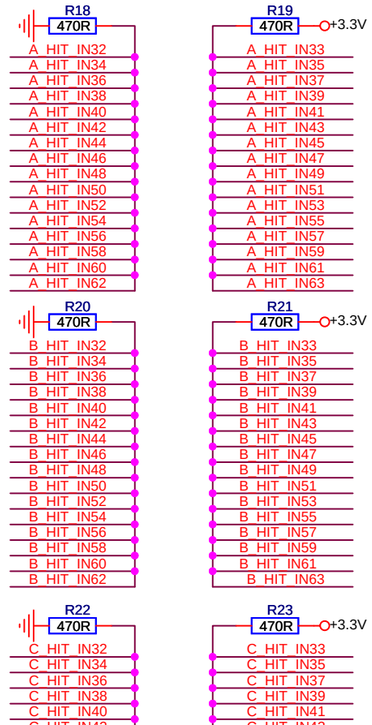

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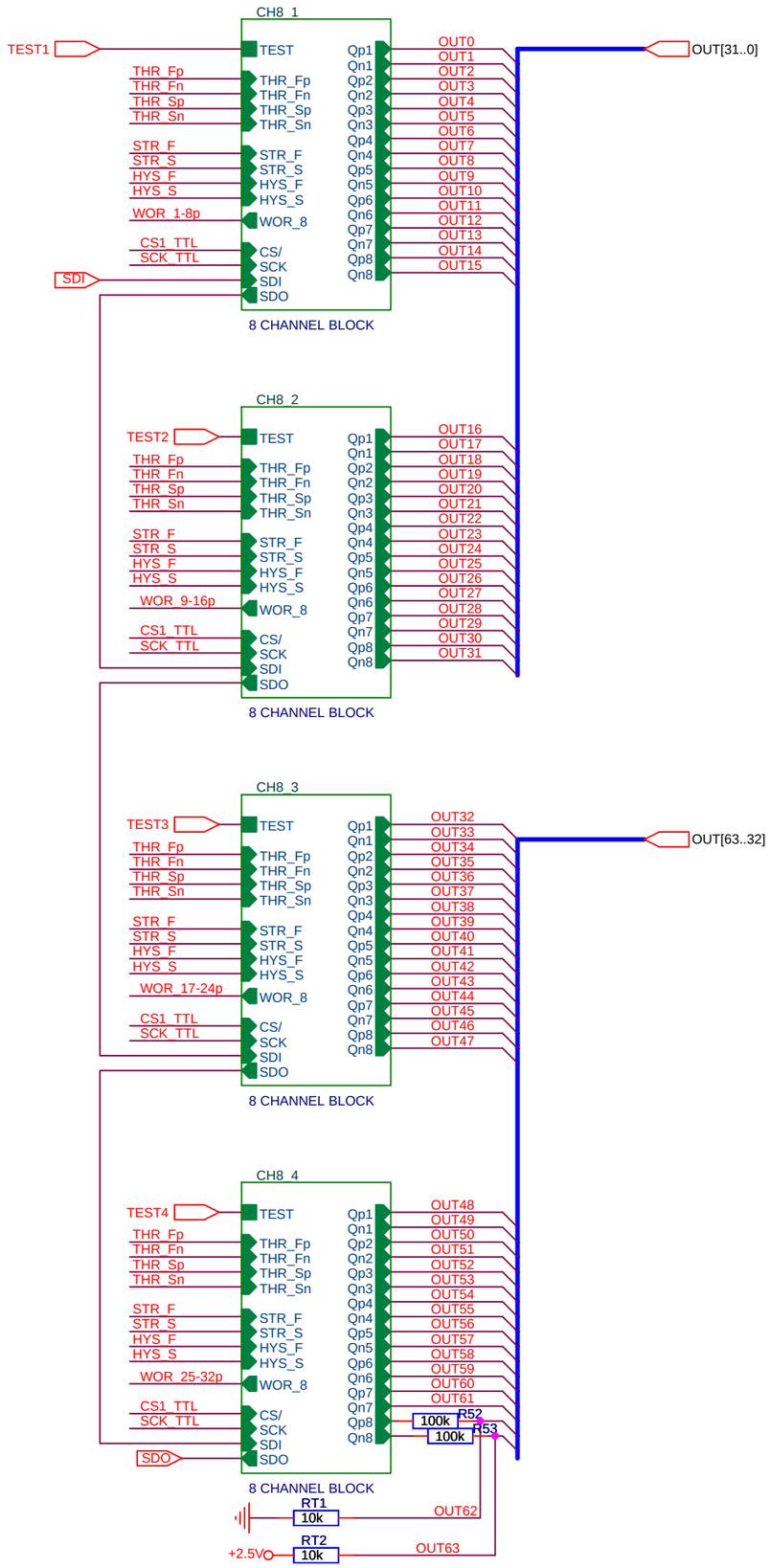
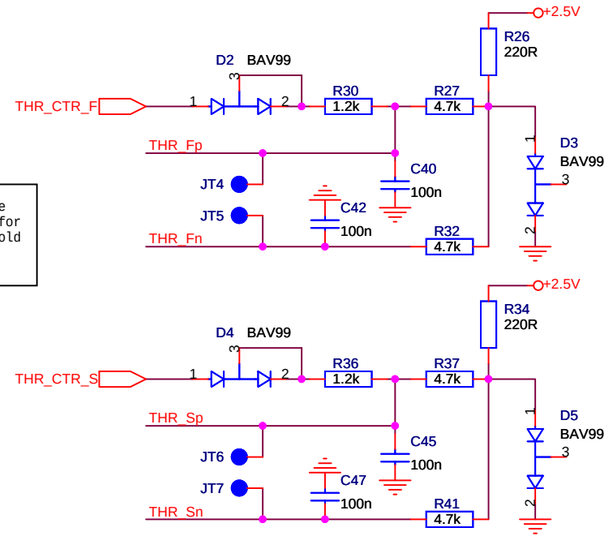
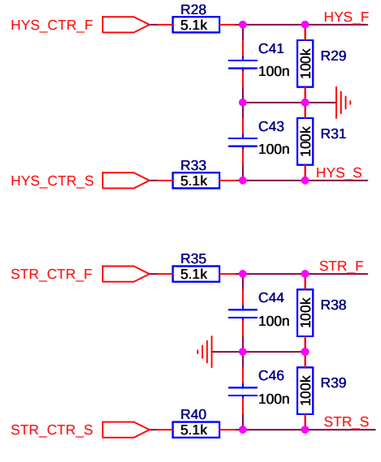
OUTPUT_CONNECTORS

Design: K:\GSIJOB\HADESTRB\HADESTRB-TOF-ADDON1\HADES_TOF_64_8.DSN	
Modified: Monday, September 24, 2007	Size: A3 Page: 3 / 21
Designer: <Designer>	Layouter: <Layouter>



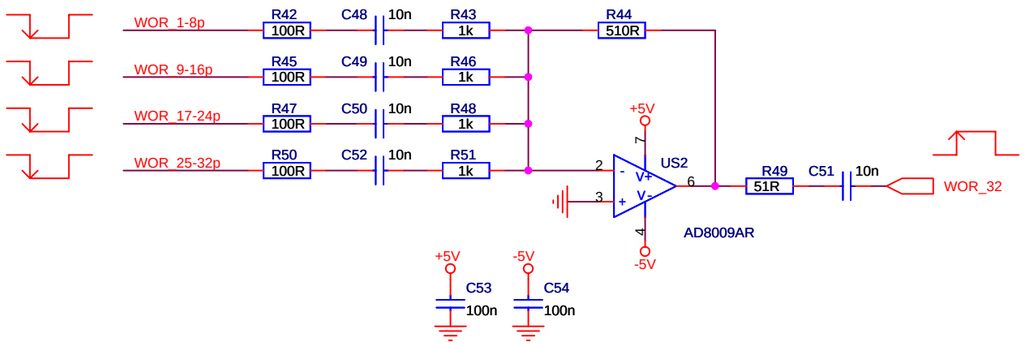
THR_CTR is control voltage with range +1.2V...+2.5V for given differential threshold vontages THR_Fp & THR_Fn.





OR 32 SUMMING SCHEMATIC

1. Nets WOR_... should be equal length and Zo=60 Ohm.
2. Summing point (n.4 of AD8009) must be minimum length, therefore all sum resistiors must be place as close as possible to summing point.



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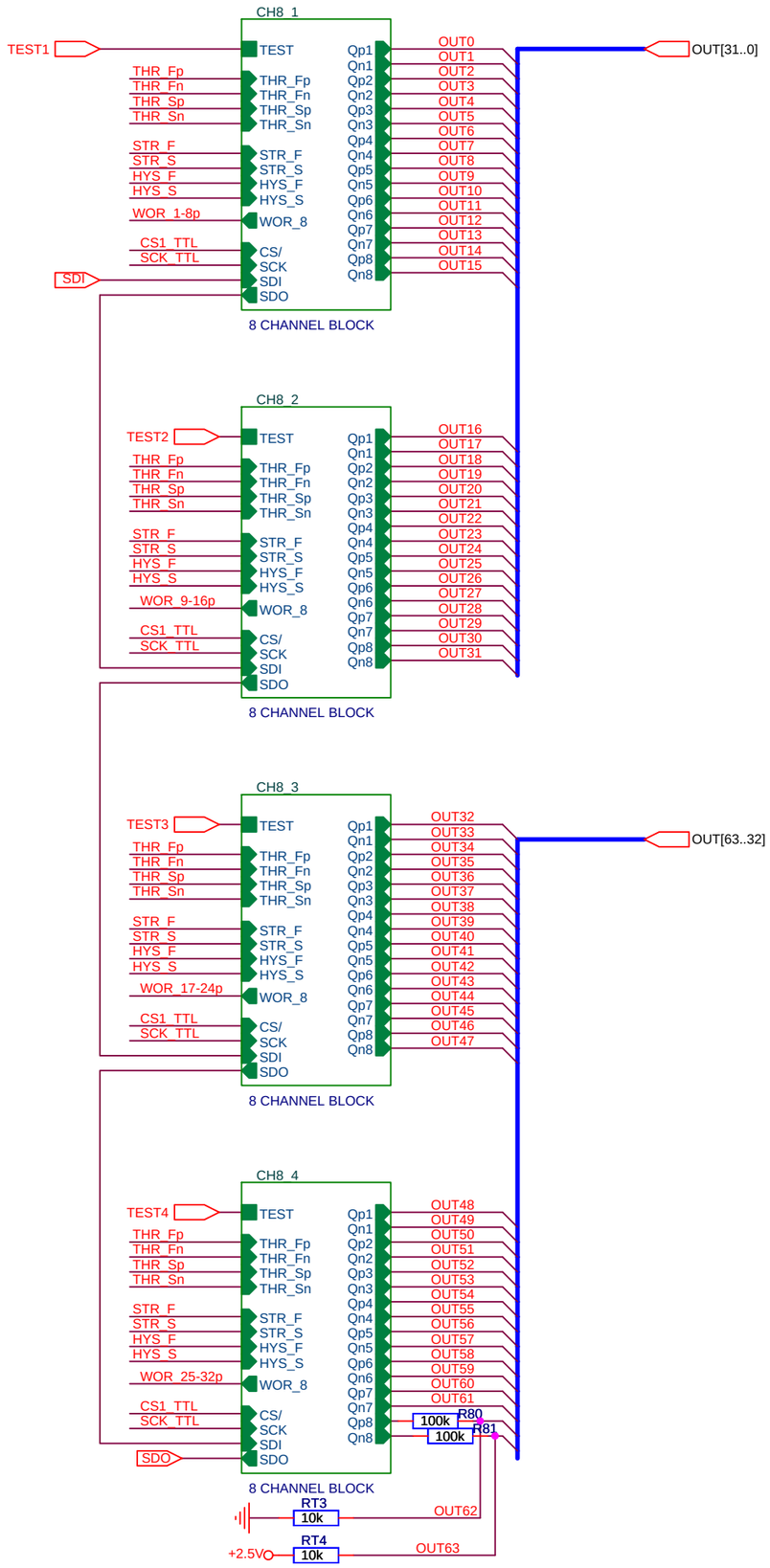
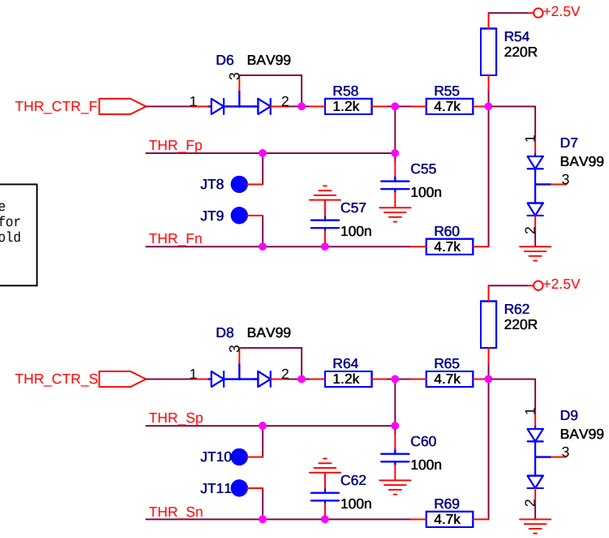
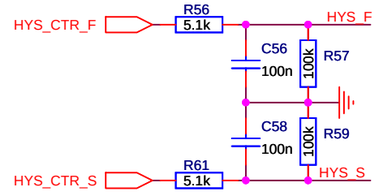
HADES PMT FEE - CH32

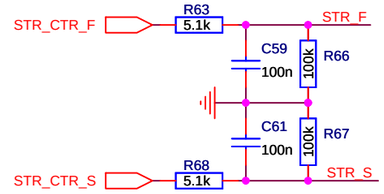
Design: K:\GSIJOB\HADESTRB\HADESTRB-TOF-ADDON1\HADES_TOF_64_8.DSN	
Modified: Monday, October 29, 2007	Size: A3 Page: 4 / 21
Designer: E.Usenko	Layouter: E.Usenko



THR_CTR is control voltage with range +1.2V...+2.5V for given differential threshold vontages THR_Fp & THR_Fn.







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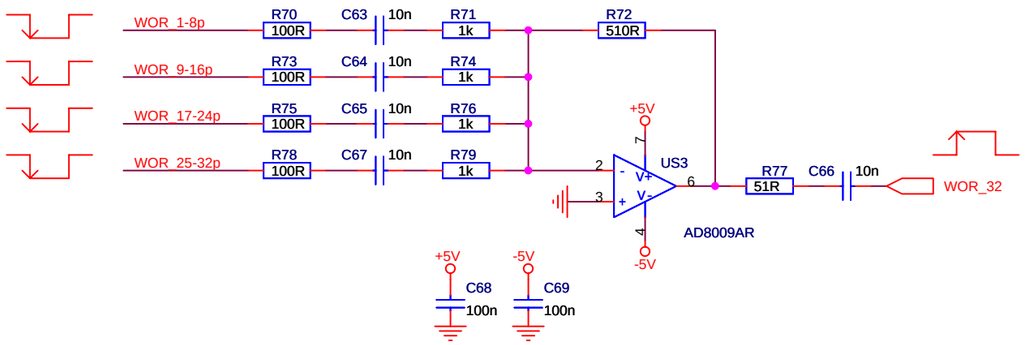

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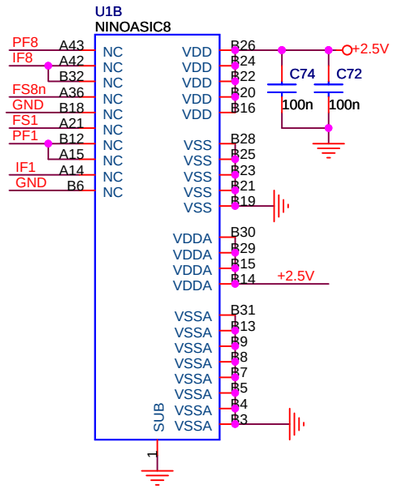
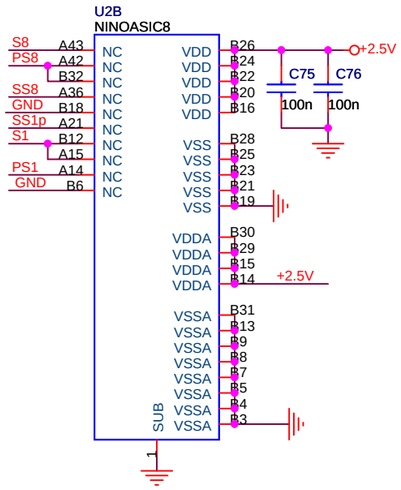
HADES PMT FEE - CH32

Design: K:\GSIJOB\HADESTRB\HADESTRB-TOF-ADDON1\HADES_TOF_64_8.DSN	
Modified: Monday, October 29, 2007	Size: A3 Page: 5 / 21
Designer: E.Usenko	Layouter: E.Usenko





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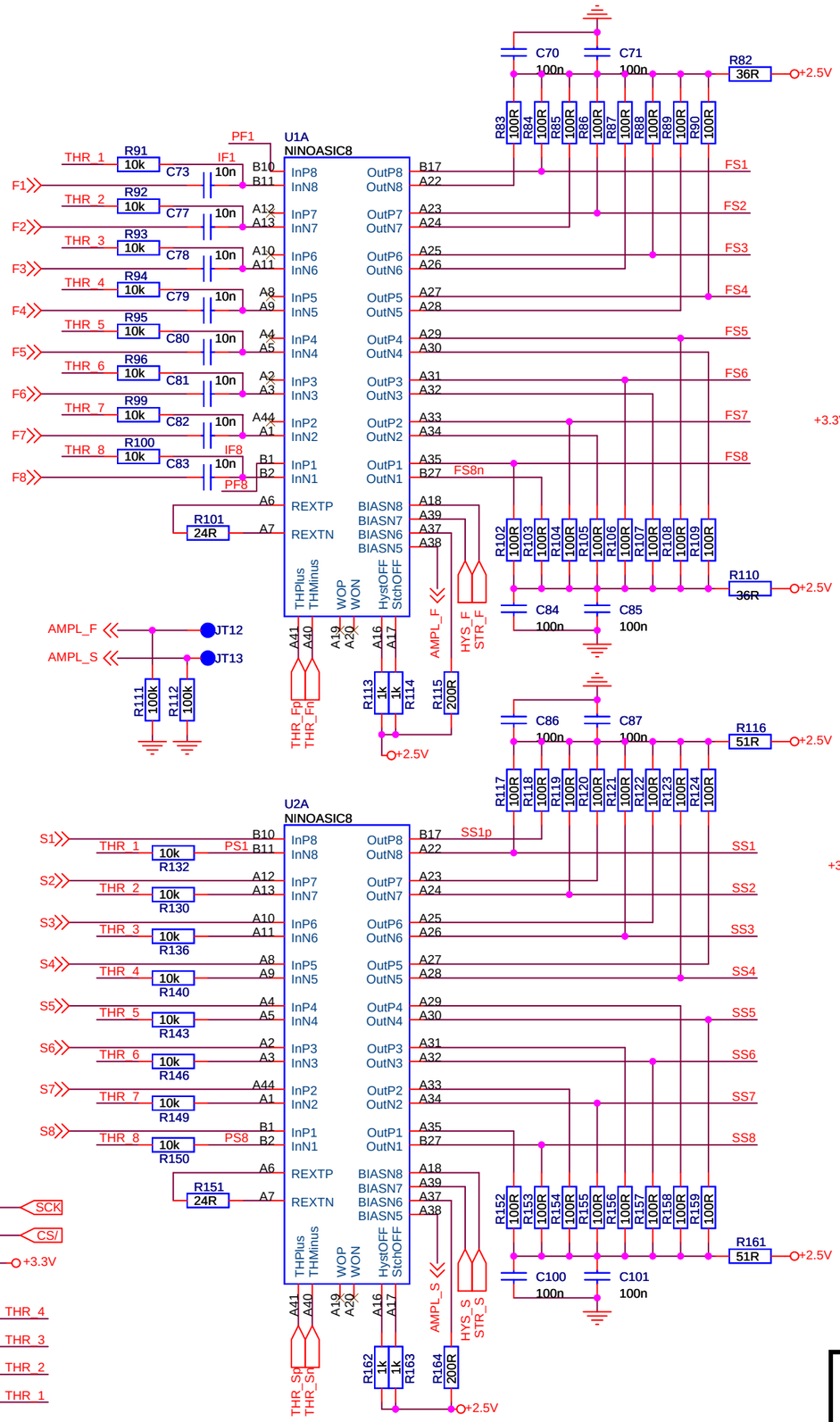

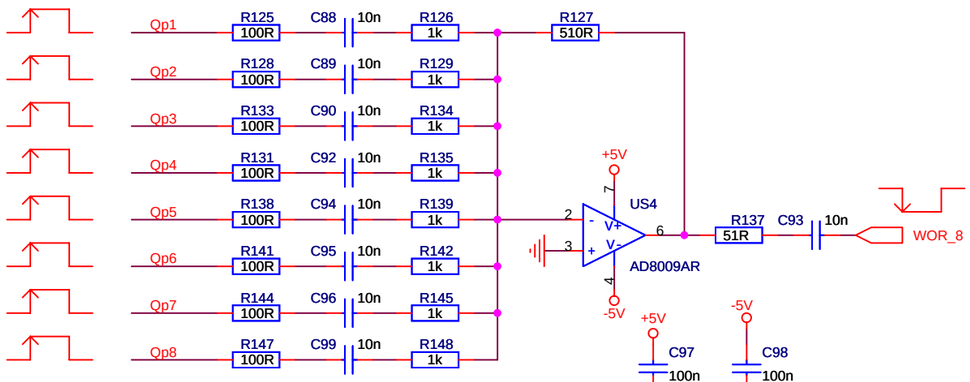

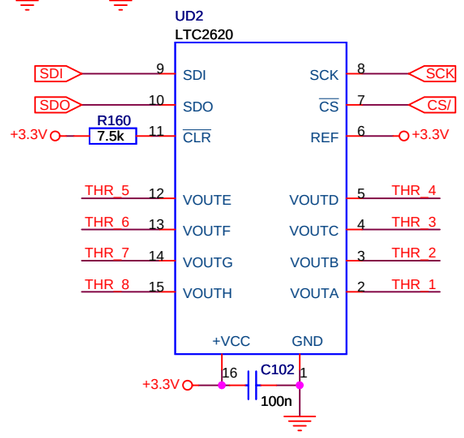

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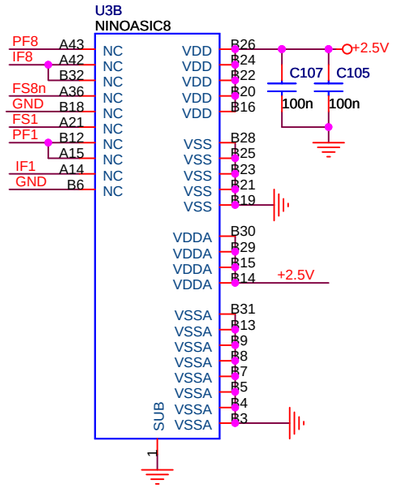
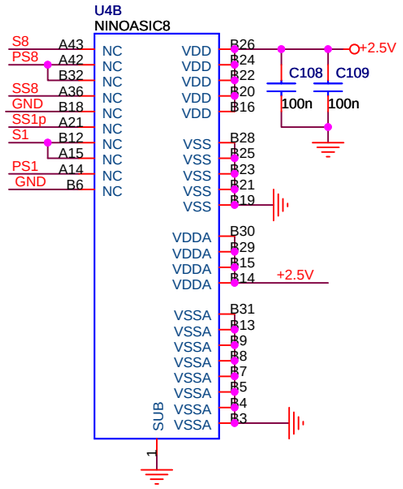
CH8

Design: K:\GSIJOB\HADESTRB\HADESTRB-TOF-ADDON1\HADES_TOF_64_8.DSN	
Modified: Monday, October 29, 2007	Size: A3 Page: 6 / 21
Designer: E.Usenko	Layouter: E.Usenko





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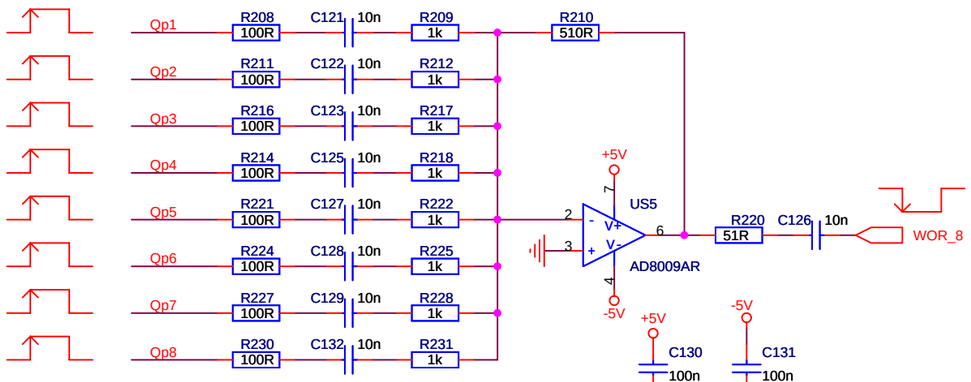

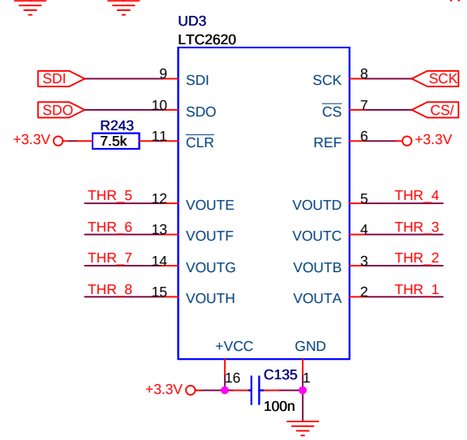

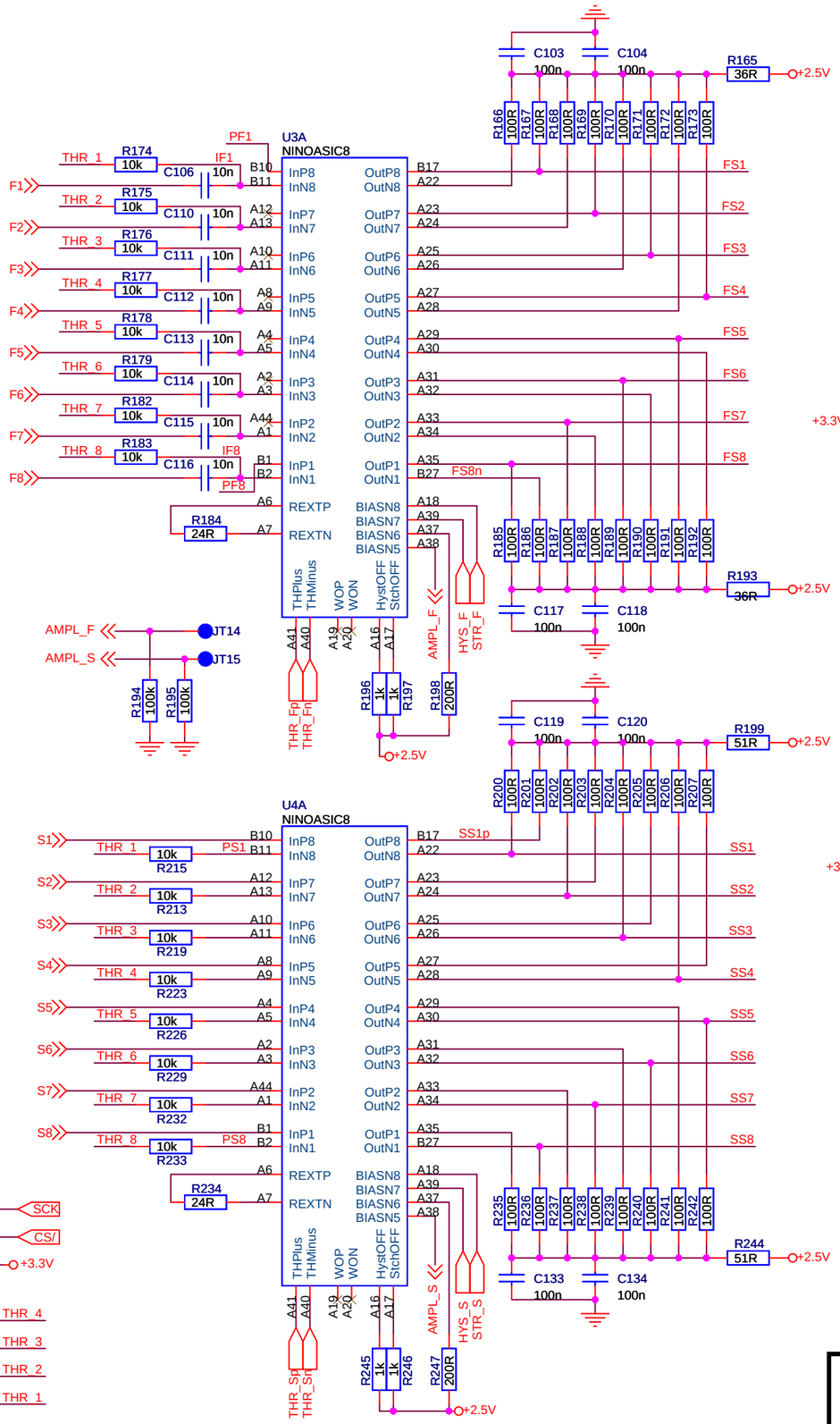

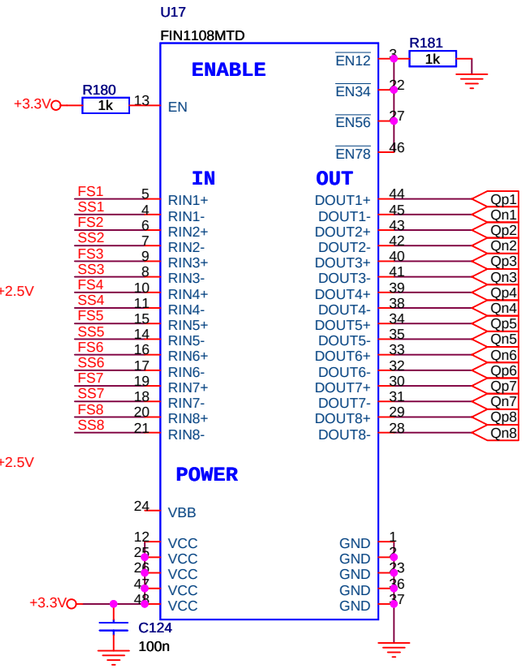

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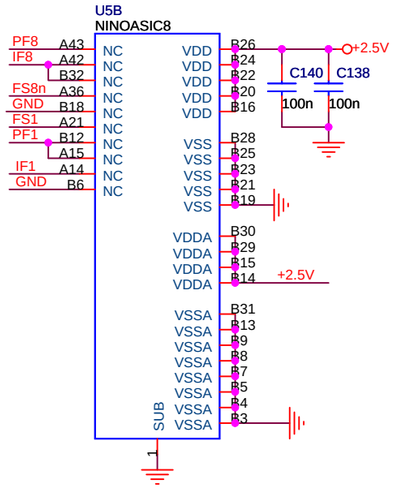
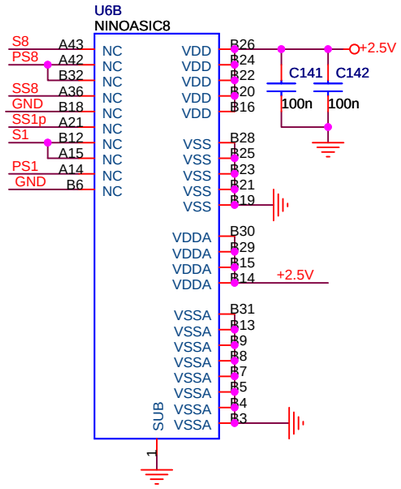
Design: K:\GSIJOB\HADESTRB\HADESTRB-TOF-ADDON1\HADES_TOF_64_8.DSN	
Modified: Monday, October 29, 2007	Size: A3 Page: 7 / 21
Designer: E.Usenko	Layouter: E.Usenko





OR 32 SUMMING SCHEMATIC

1. Nets WOR_... should be equal length and Zo=60 Ohm.
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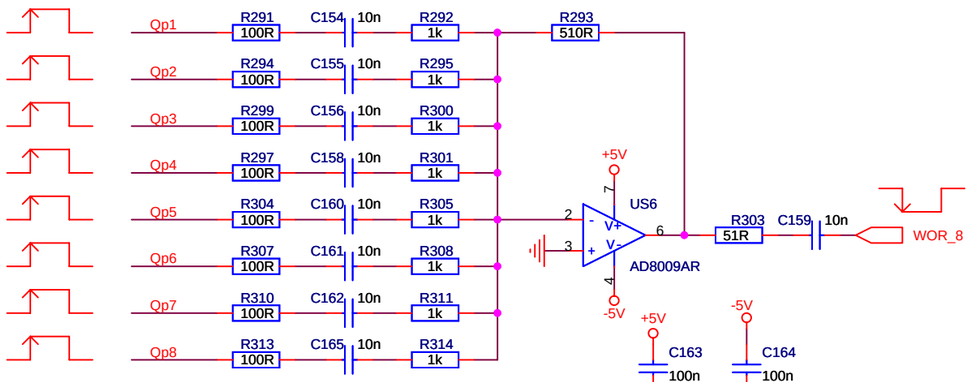

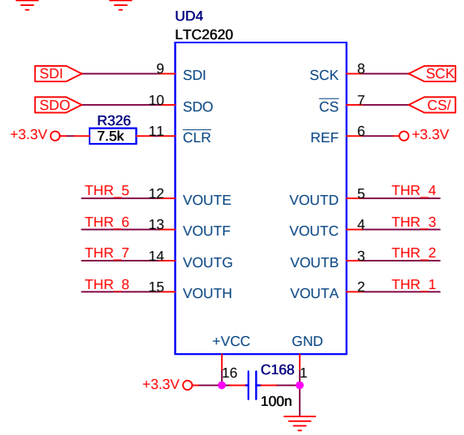

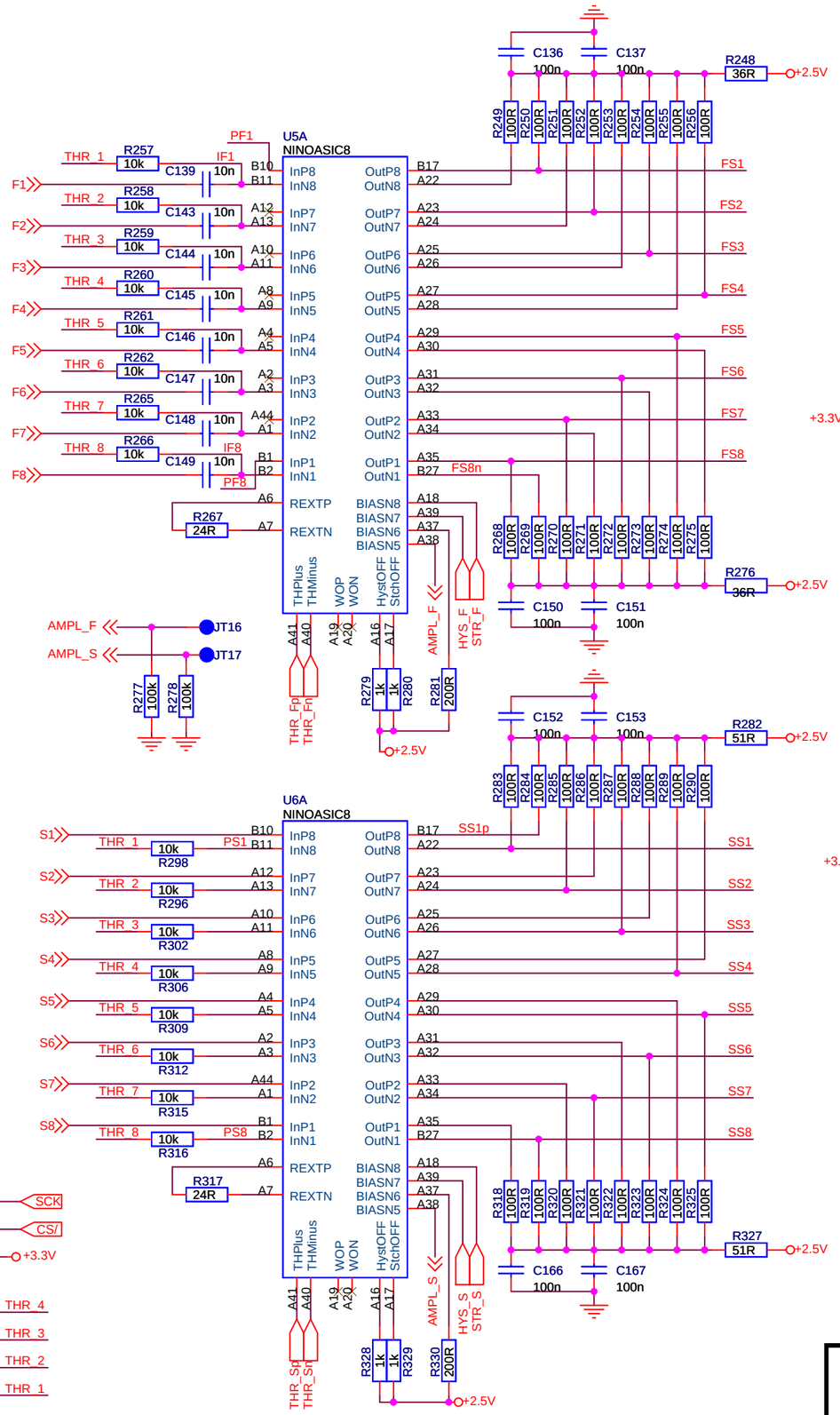

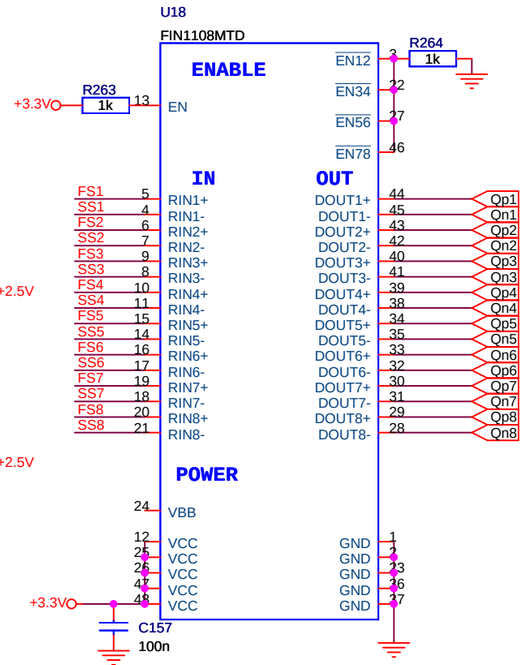

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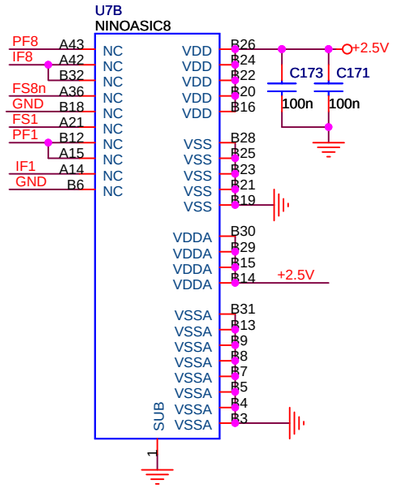
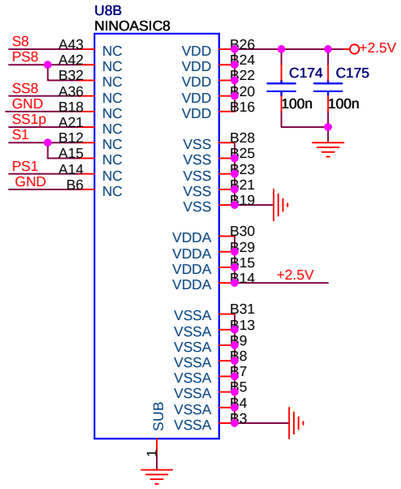
Design: K:\GSIJOB\HADESTRB\HADESTRB-TOF-ADDON1\HADES_TOF_64_8.DSN	
Modified: Monday, October 29, 2007	Size: A3 Page: 8 / 21
Designer: E.Usenko	Layouter: E.Usenko





OR 32 SUMMING SCHEMATIC

1. Nets WOR_... should be equal length and Zo=60 Ohm.
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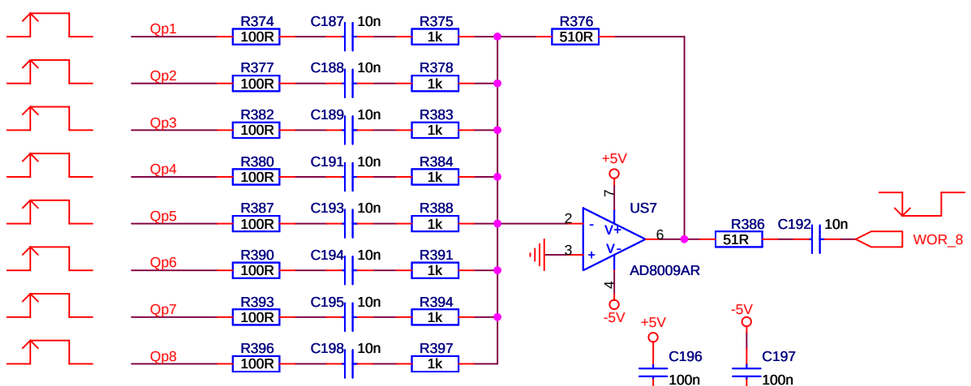

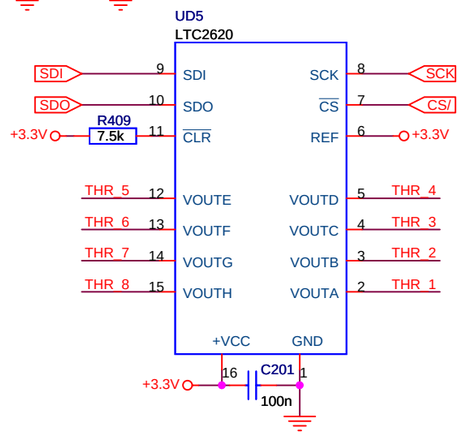

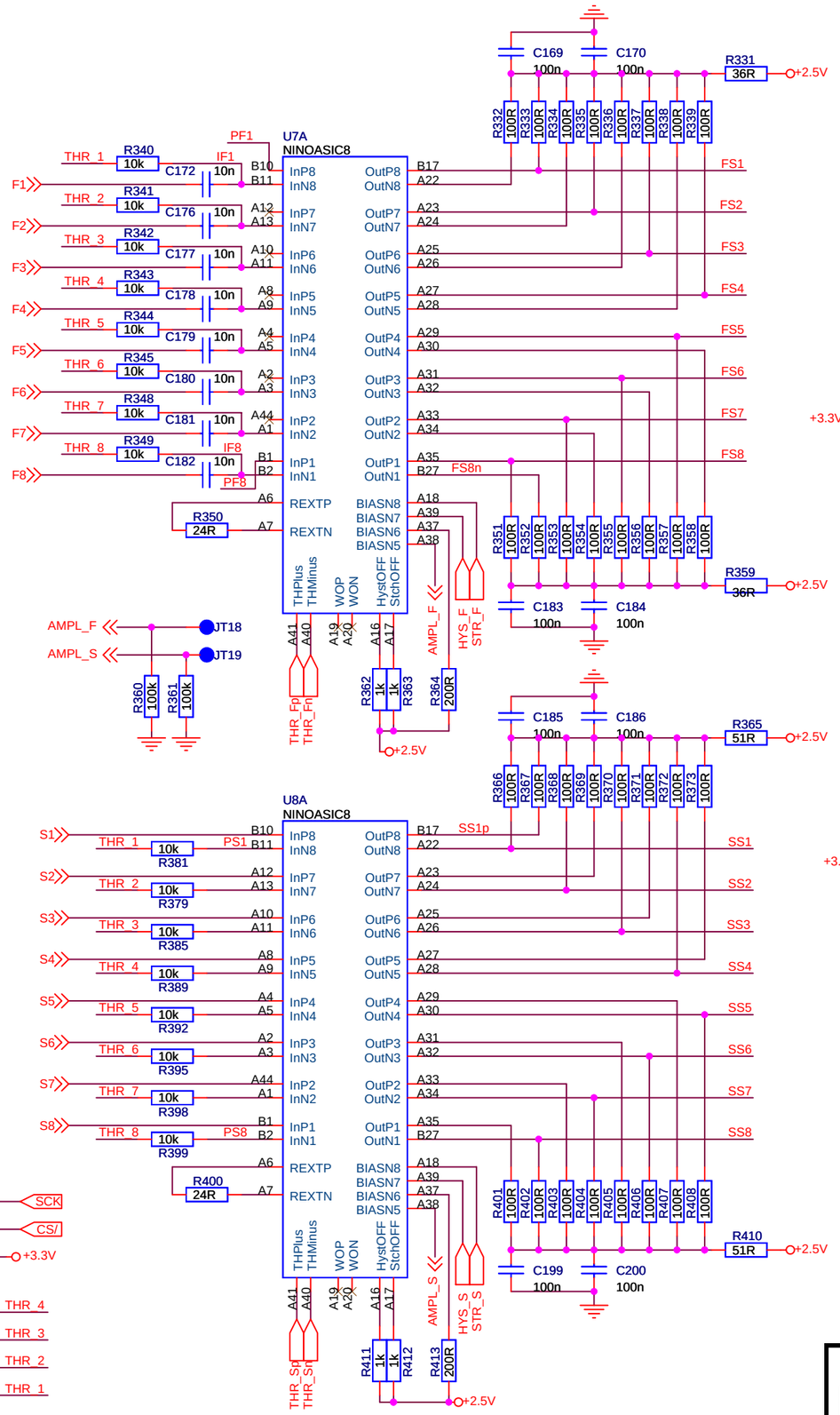

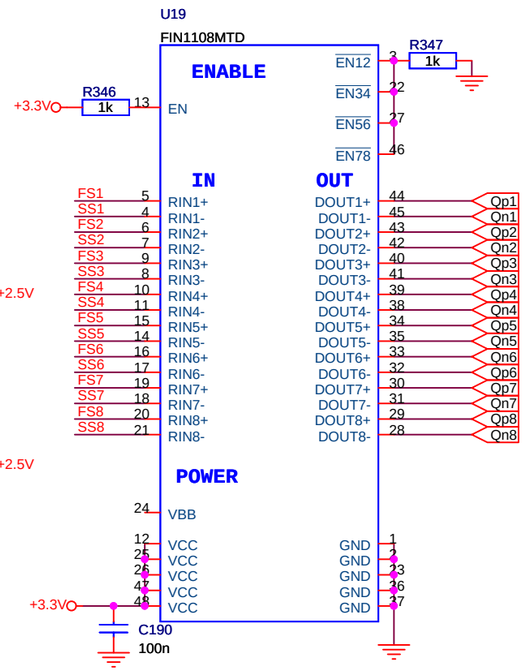

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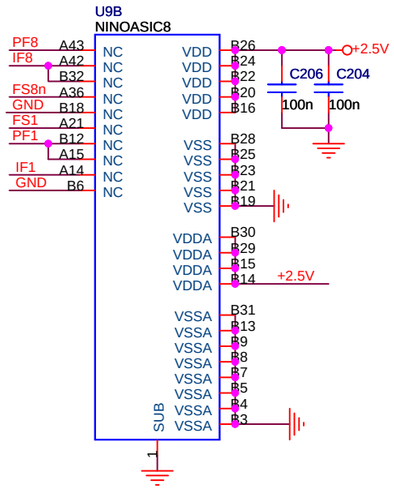
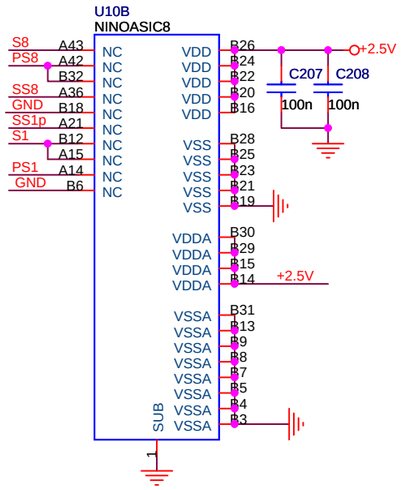
CH8

Design: K:\GSIJOB\HADESTRB\HADESTRB-TOF-ADDON1\HADES_TOF_64_8.DSN	
Modified: Monday, October 29, 2007	Size: A3 Page: 9 / 21
Designer: E.Usenko	Layouter: E.Usenko





OR 32 SUMMING SCHEMATIC

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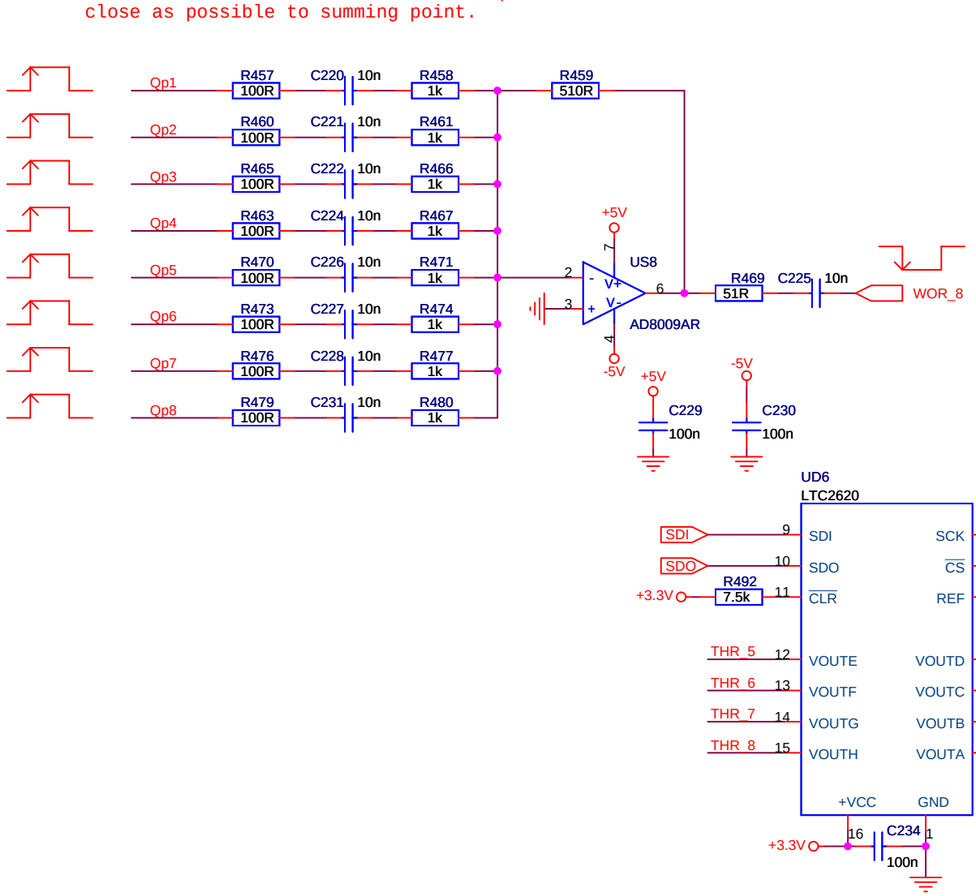

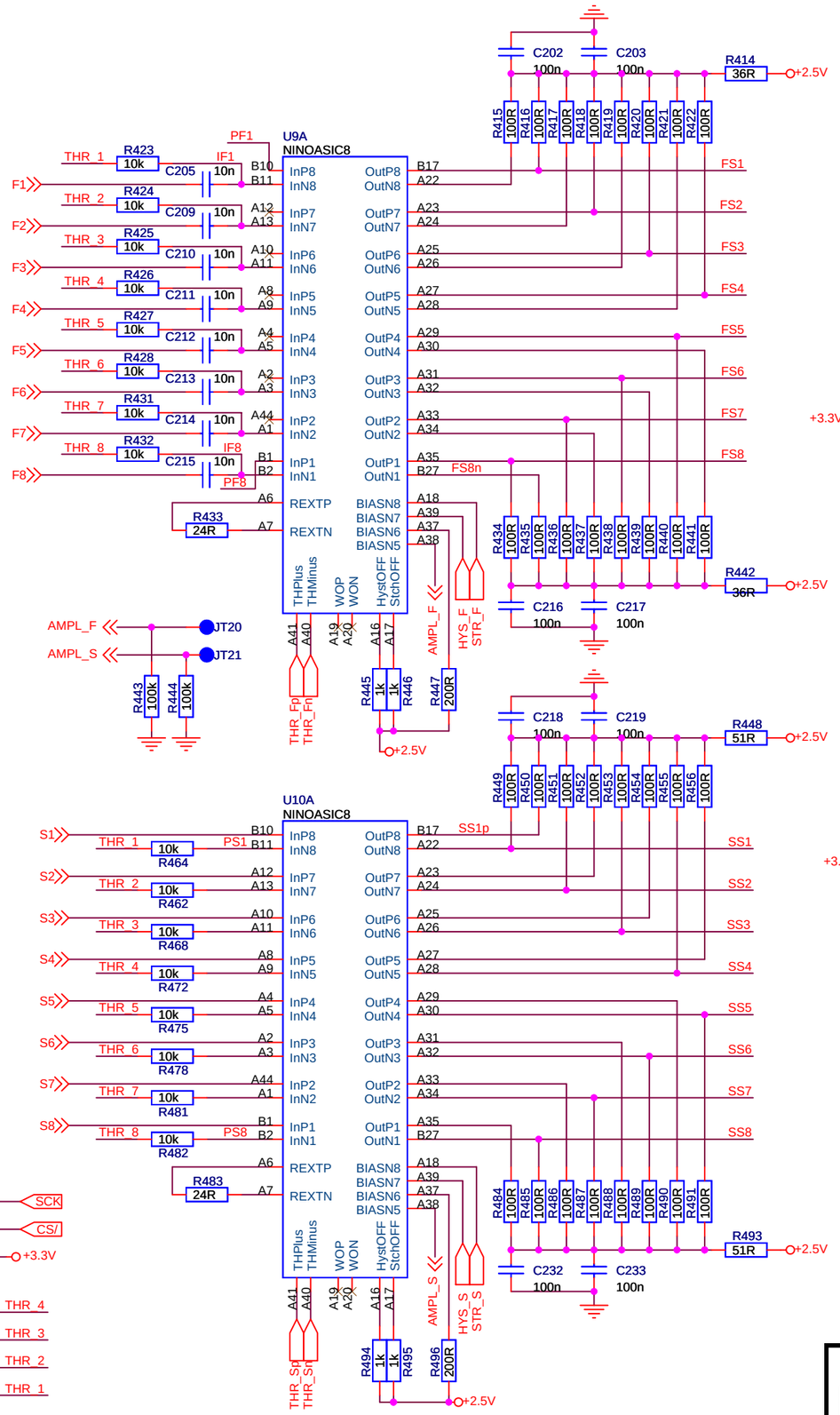

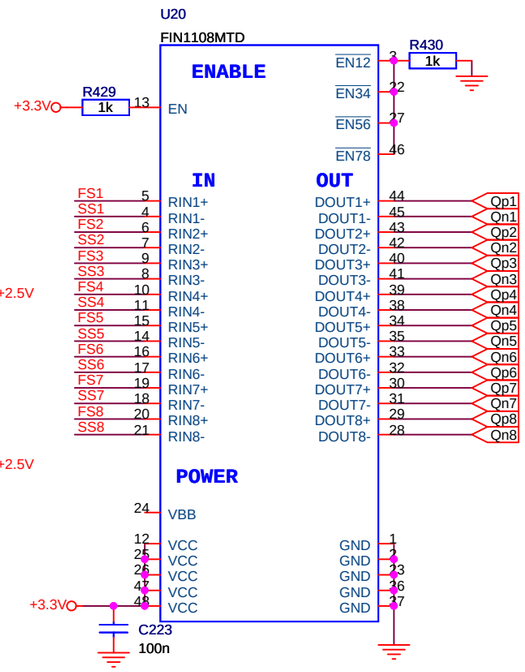

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Design: K:\GSIJOB\HADESTRB\HADESTRB-TOF-ADDON1\HADES_TOF_64_8.DSN	
Modified: Monday, October 29, 2007	Size: A3 Page: 10/ 21
Designer: E.Usenko	Layouter: E.Usenko

U11B
NINOASIC8

U12B
NINOASIC8

U11A
NINOASIC8

U12A
NINOASIC8

U21
FIN1108MTD

UD7
LTC2620

US9
AD8009AR

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Modified: Monday, October 29, 2007	Size: A3 Page: 11/ 21
Designer: E.Usenko	Layouter: E.Usenko

U13B
NINOASIC8

U14B
NINOASIC8

OR 32 SUMMING SCHEMATIC

1. Nets WOR_... should be equal length and Zo=60 Ohm.
2. Summing point (n.4 of AD8009) must be minimum length, therefore all sum resistiors must be place as close as possible to summing point.

U13A
NINOASIC8

U14A
NINOASIC8

U22
FIN1108MTD

UD8
LTC2620

US10
AD8009AR

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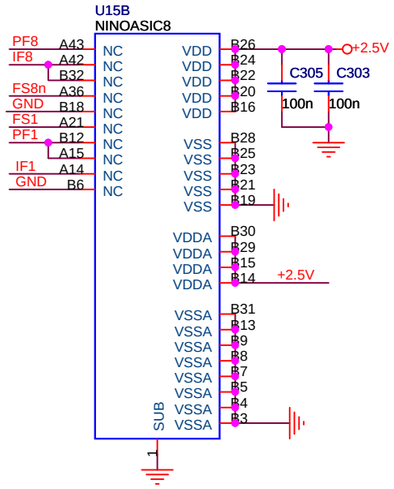
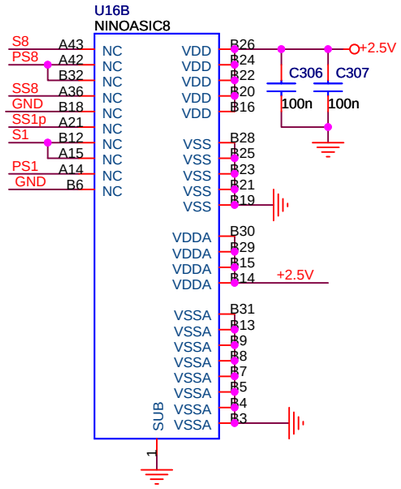
Modified: Monday, October 29, 2007	Size: A3 Page: 12/ 21
Designer: E.Usenko	Layouter: E.Usenko





OR 32 SUMMING SCHEMATIC

1. Nets WOR_... should be equal length and Zo=60 Ohm.
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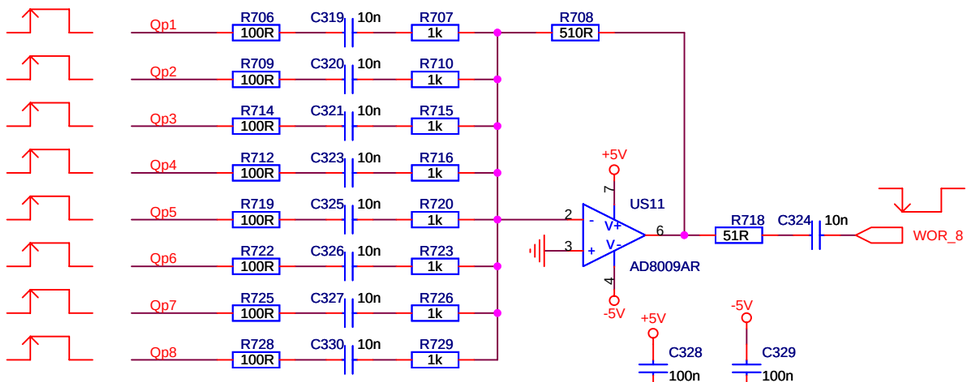

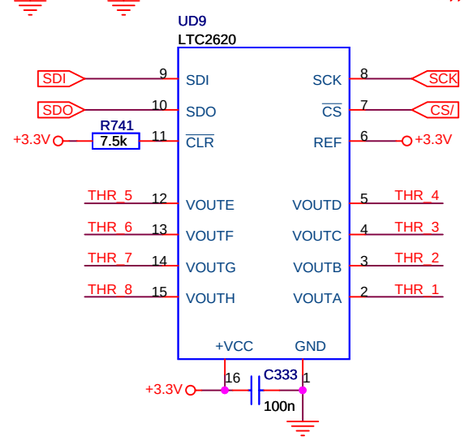

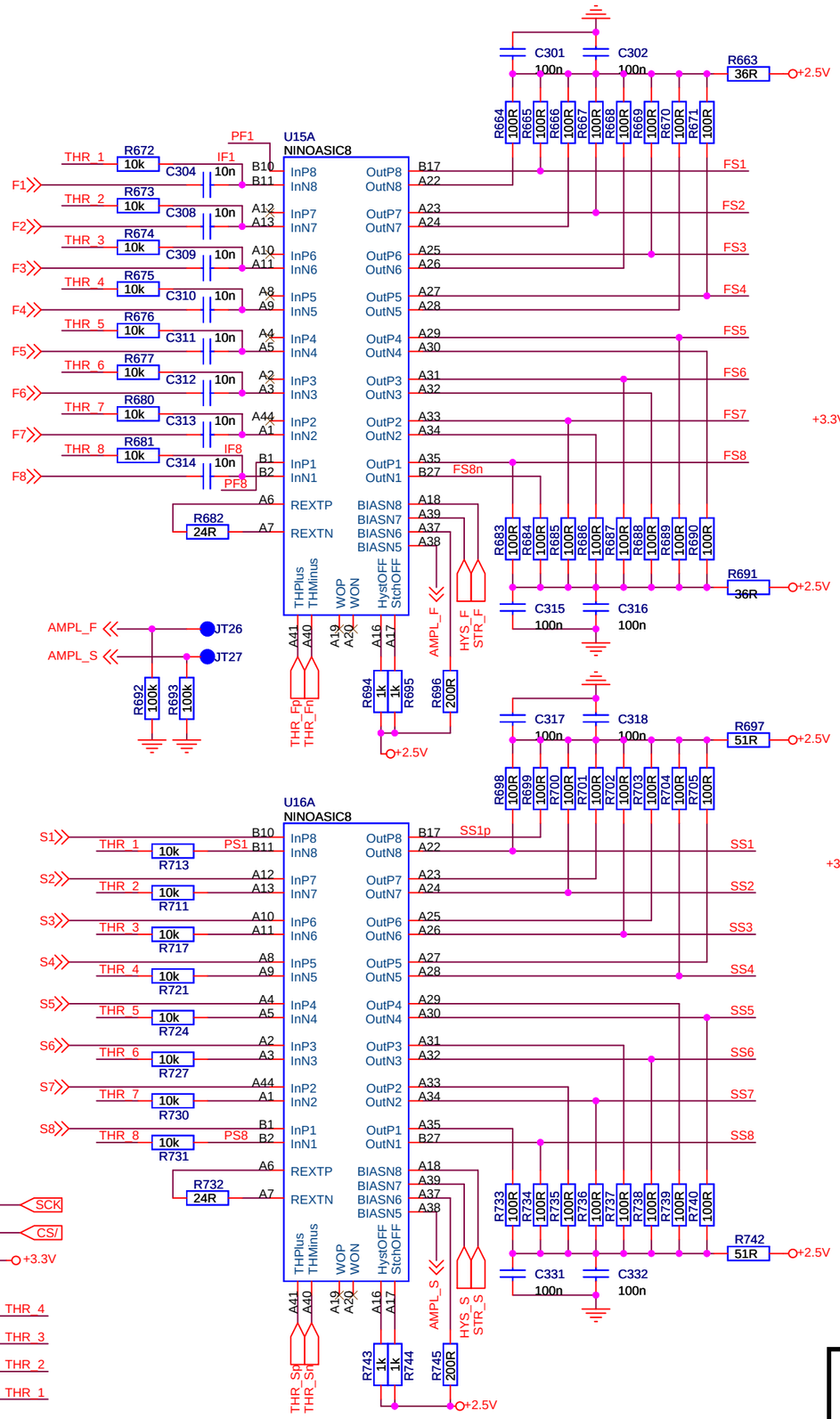

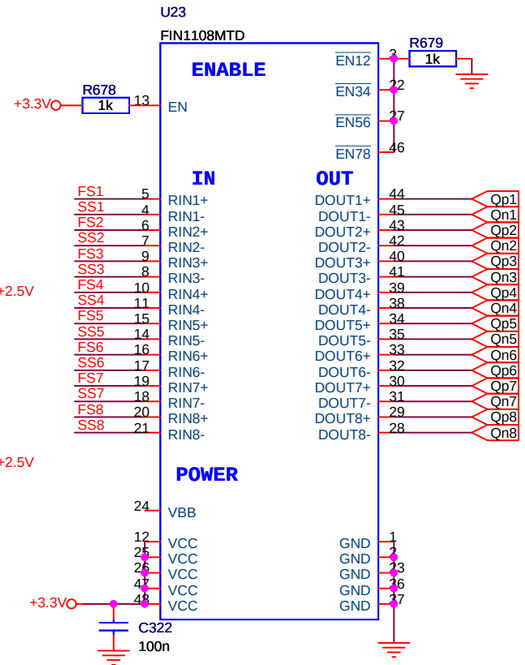

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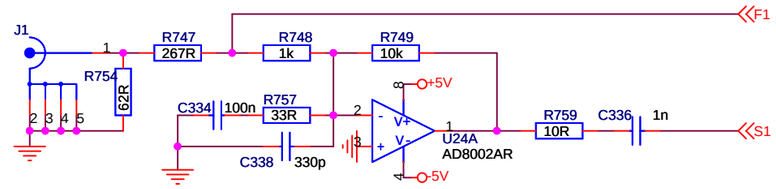
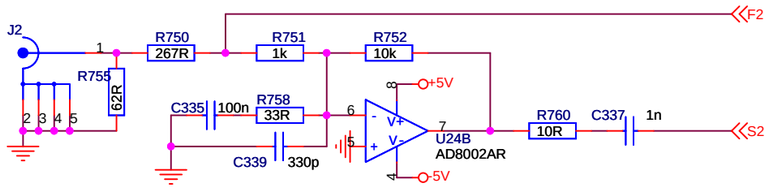
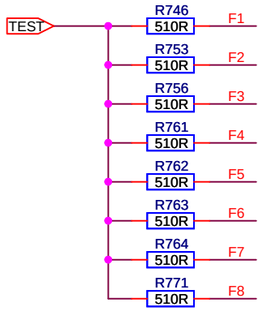
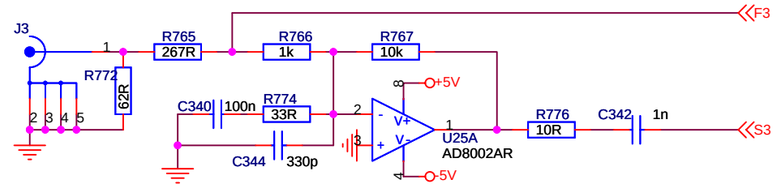
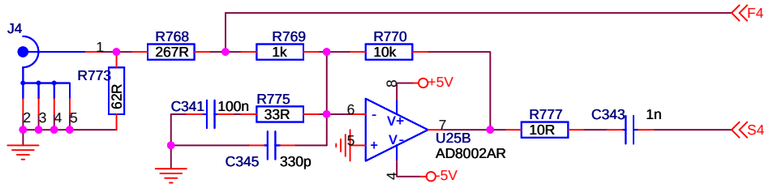
Modified: Monday, October 29, 2007	Size: A3 Page: 13/ 21
Designer: E.Usenko	Layouter: E.Usenko

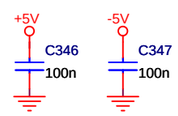


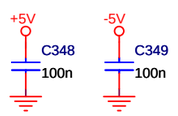


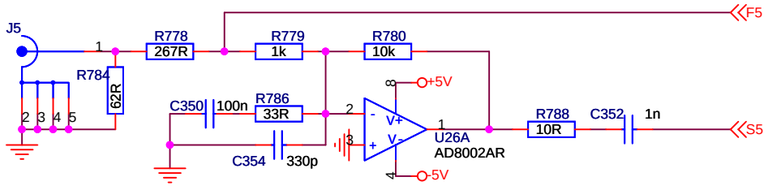


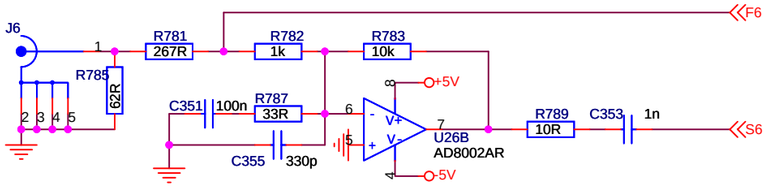


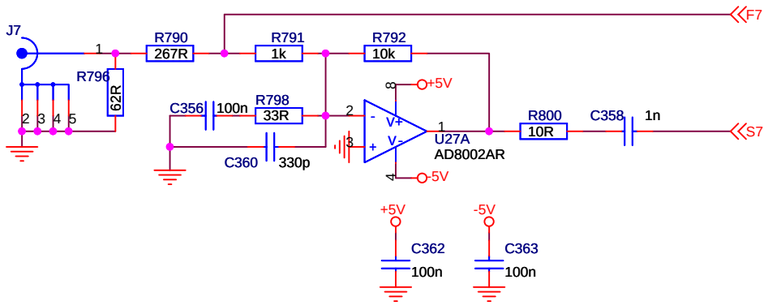


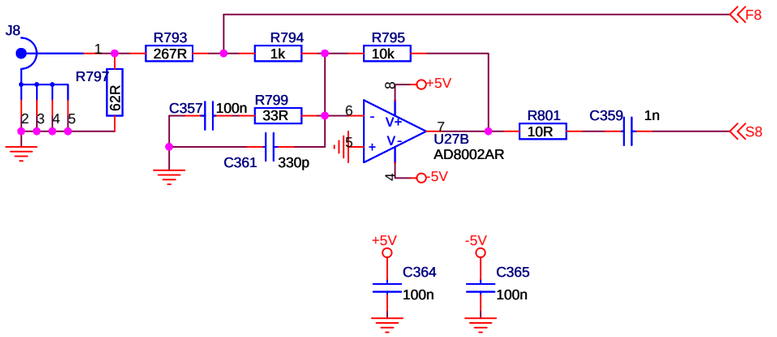












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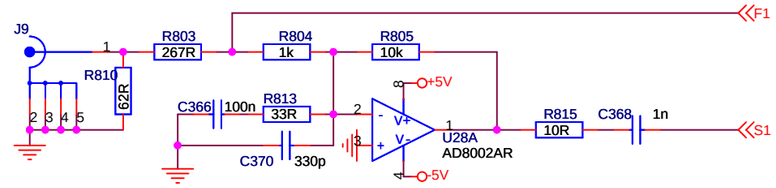
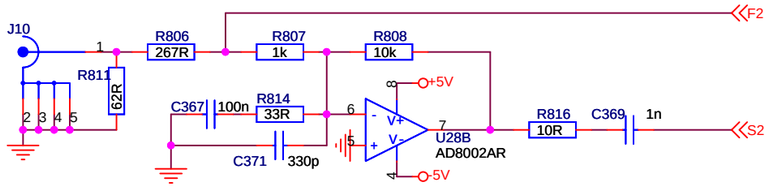
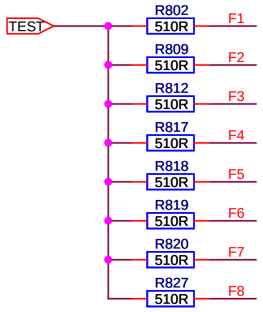
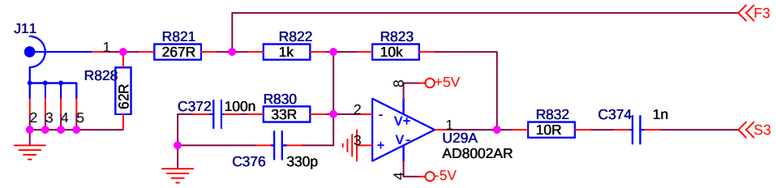
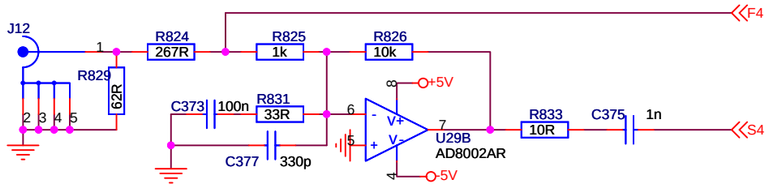
Modified: Friday, September 21, 2007	Size: A3 Page: 14/ 21
Designer: <Designer>	Layouter: <Layouter>

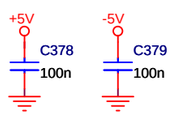


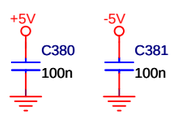


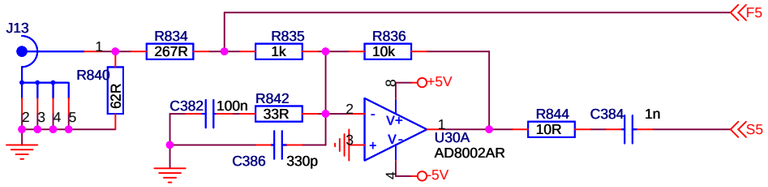


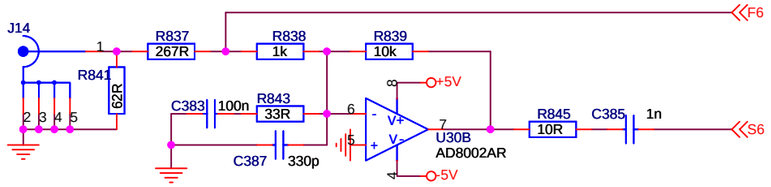


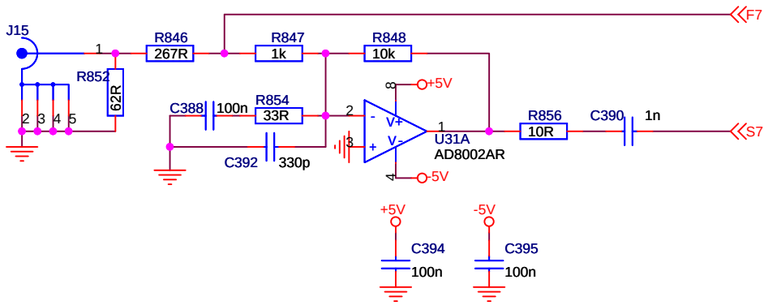


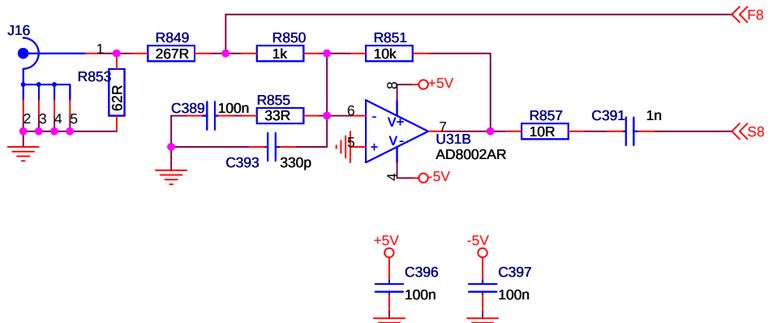












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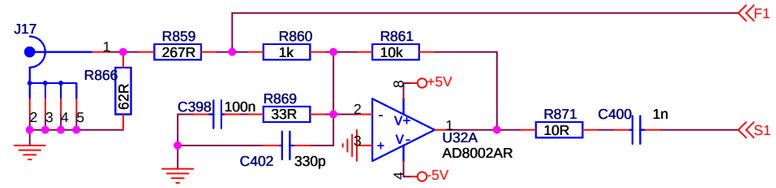
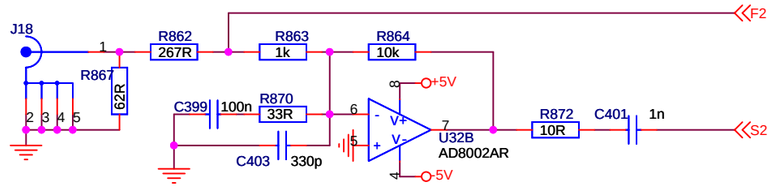
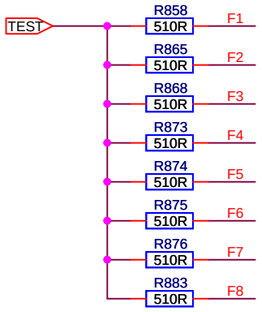
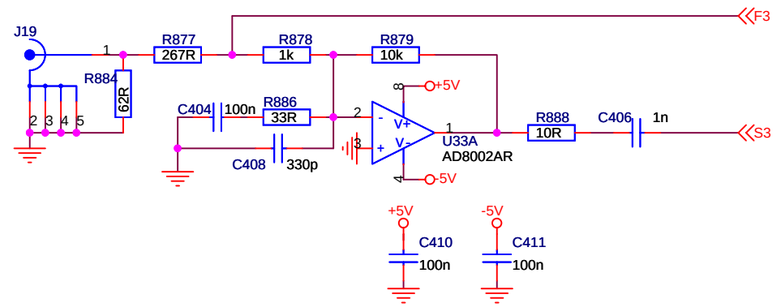
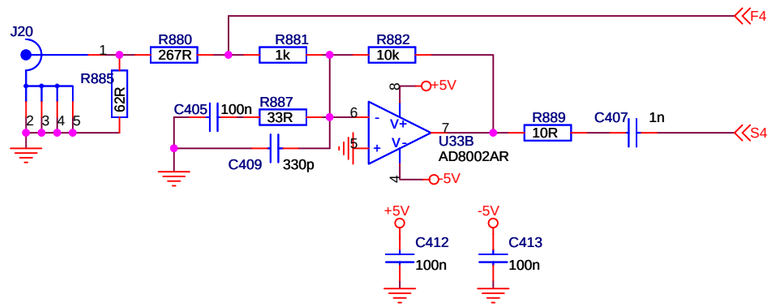
Designer: <Designer>	Layouter: <Layouter>

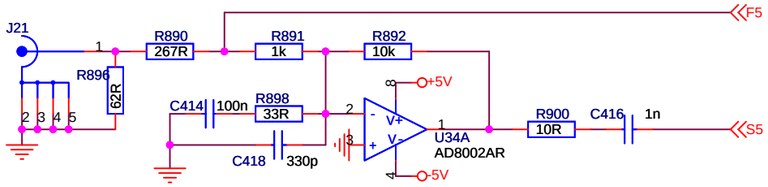


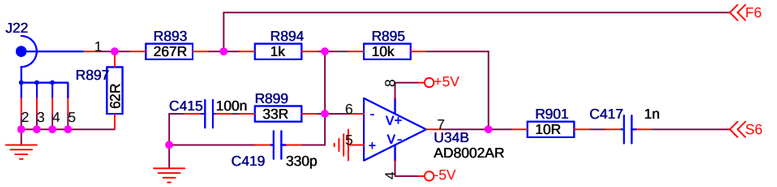


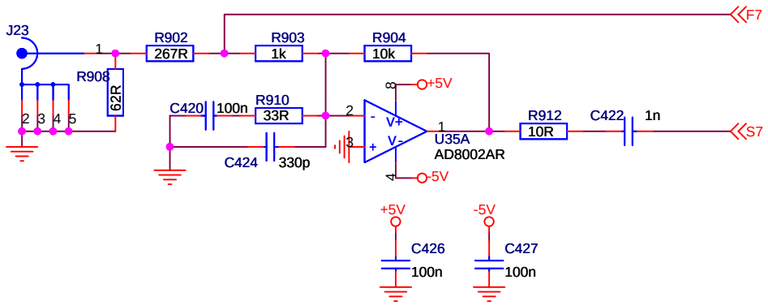


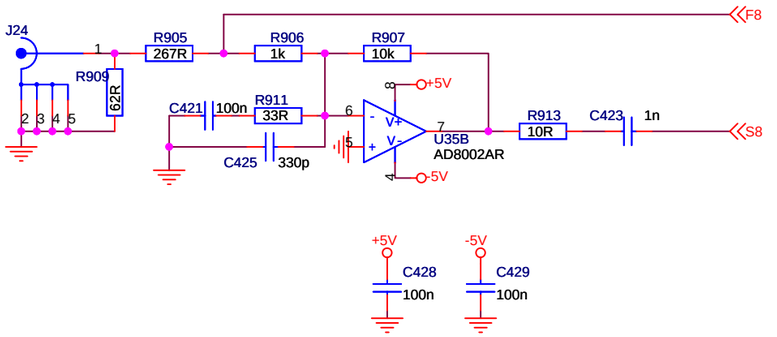












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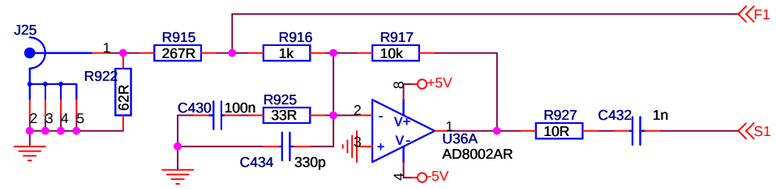

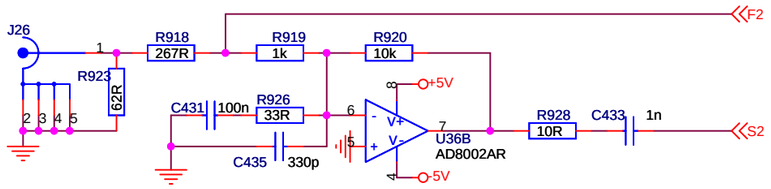

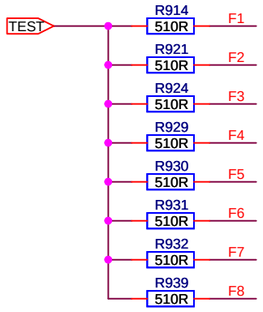

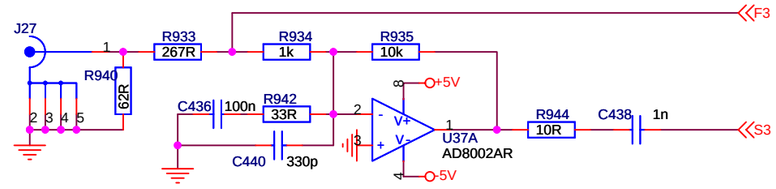

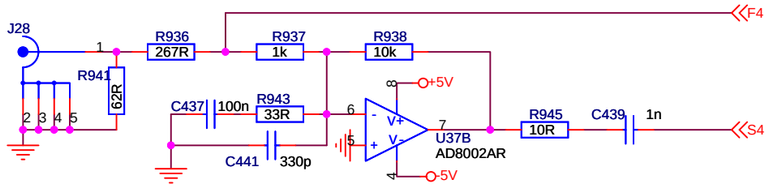

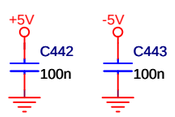

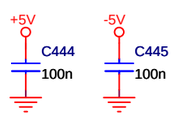

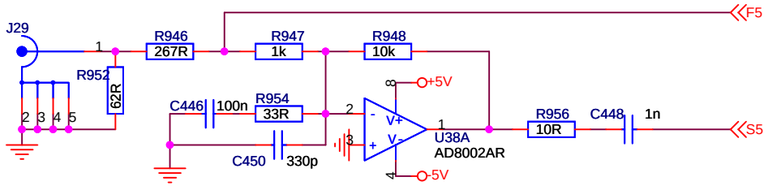

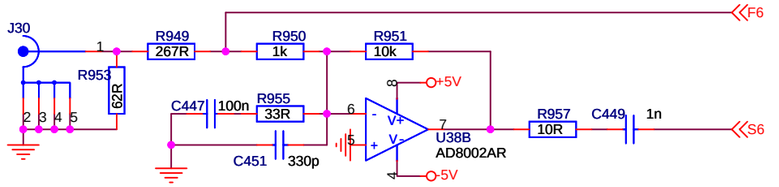

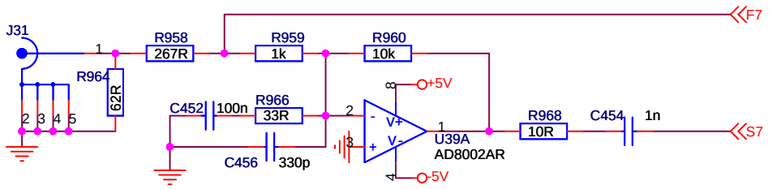

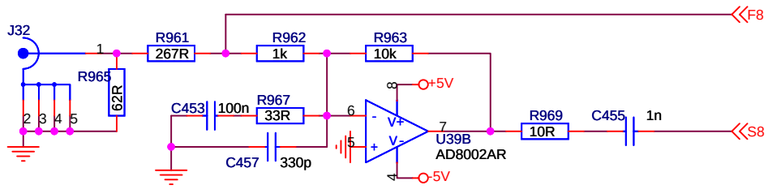

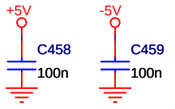

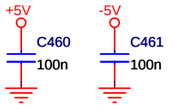

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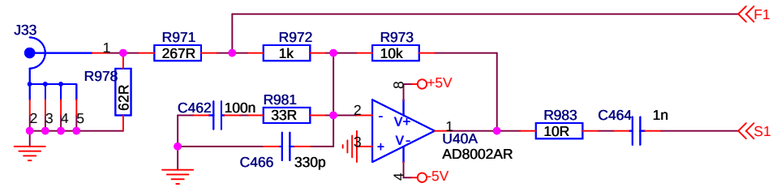
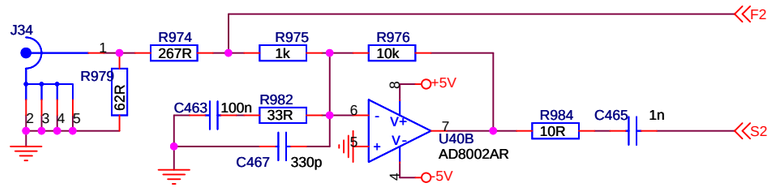
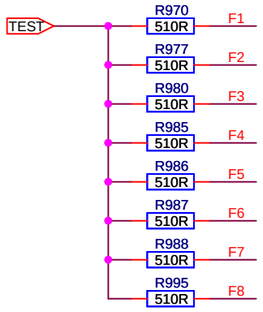
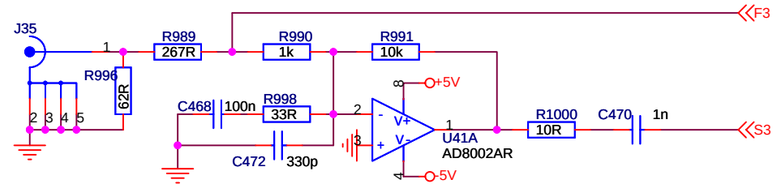
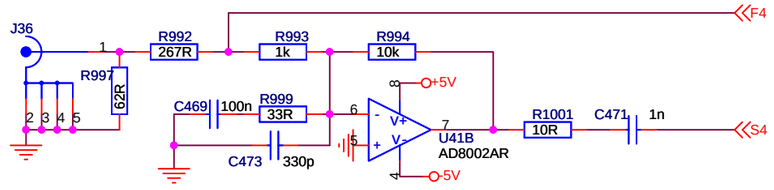
Designer: <Designer>	Layouter: <Layouter>

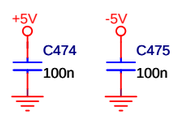


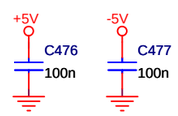


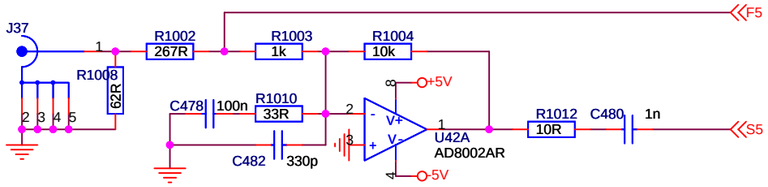


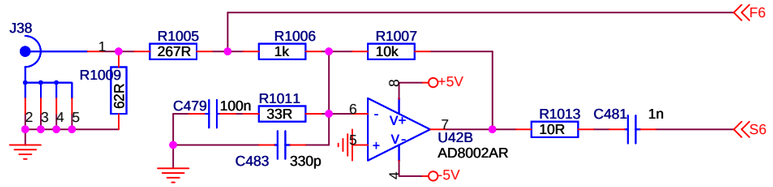


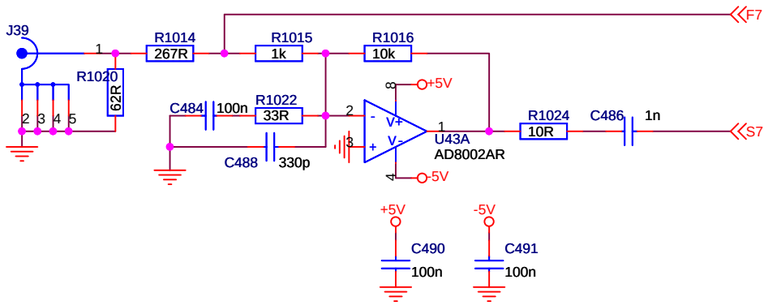


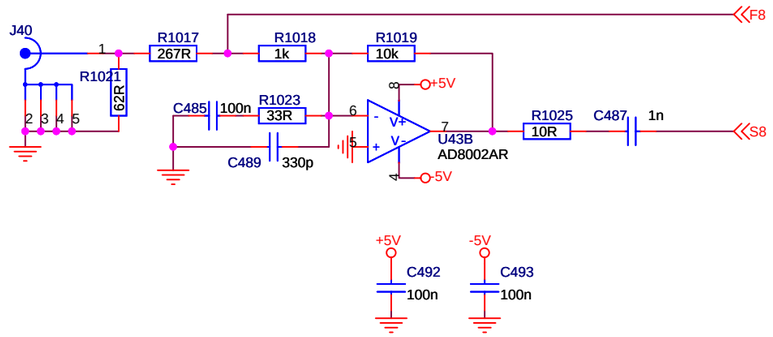












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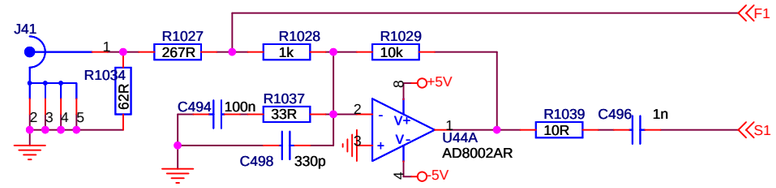
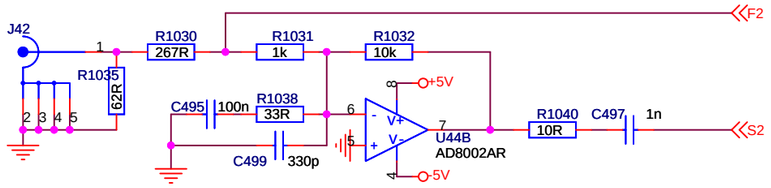
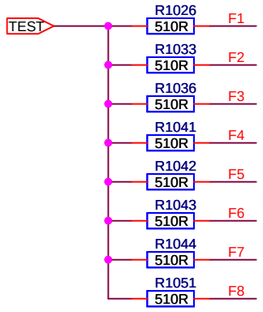
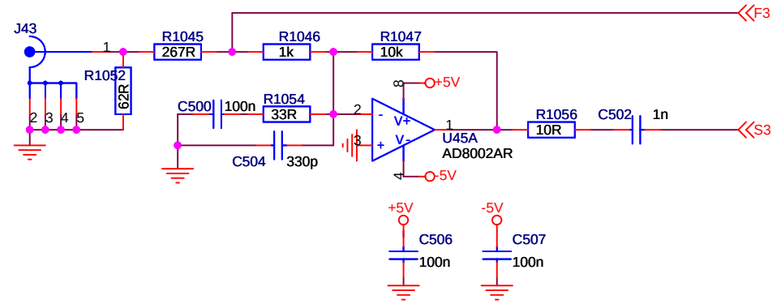
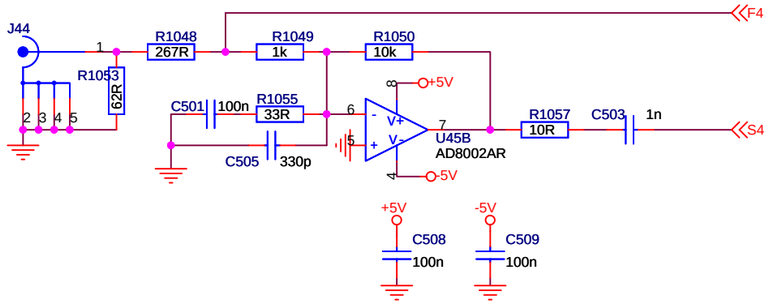
Designer: <Designer>	Layouter: <Layouter>

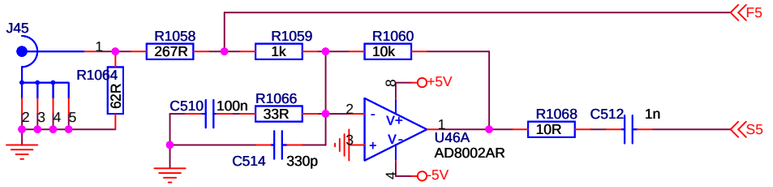


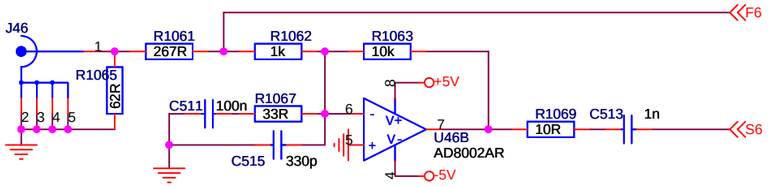


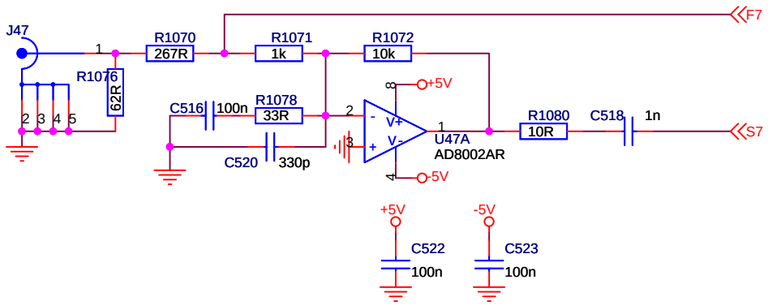


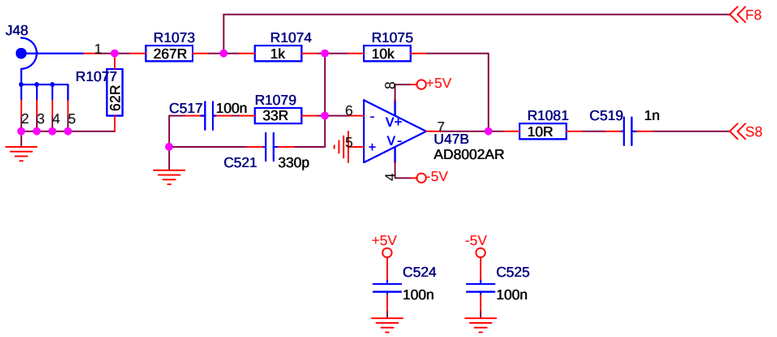












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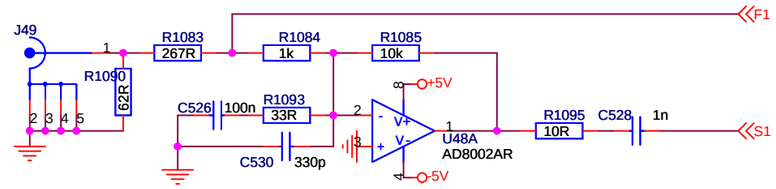
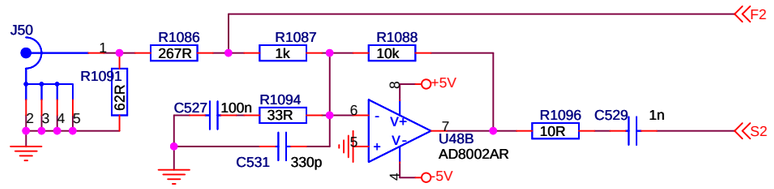
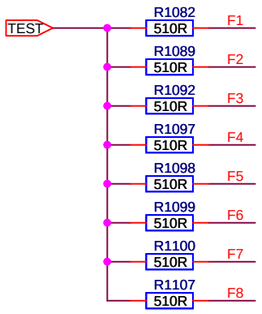
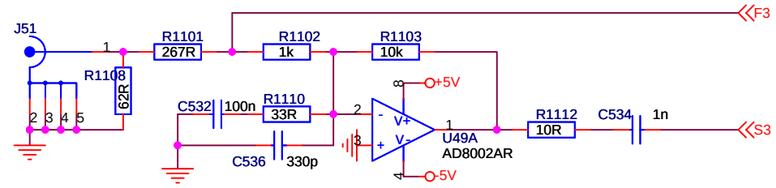
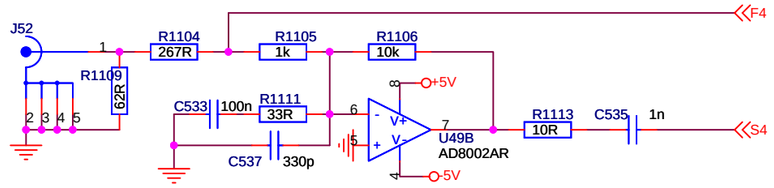
Designer: <Designer>	Layouter: <Layouter>

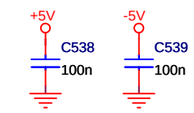


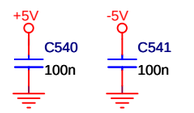


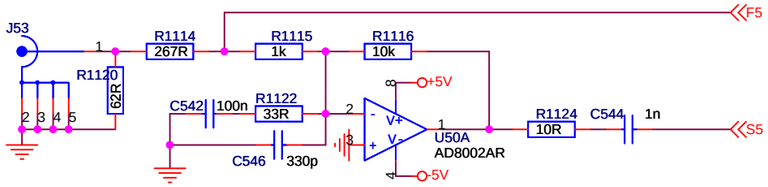


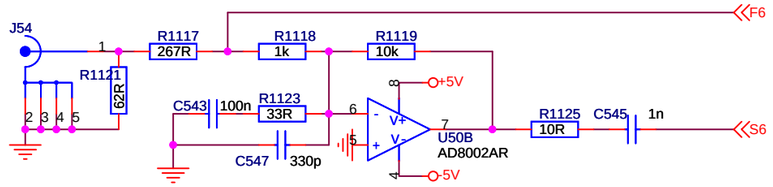


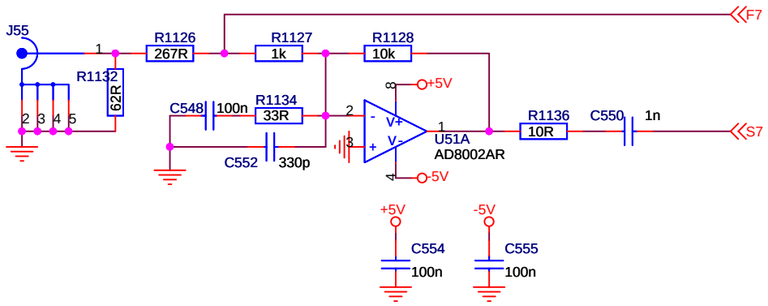


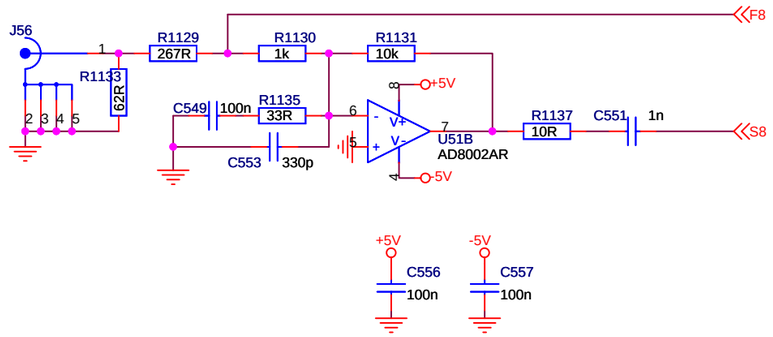












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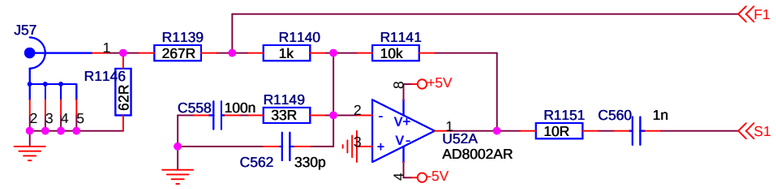
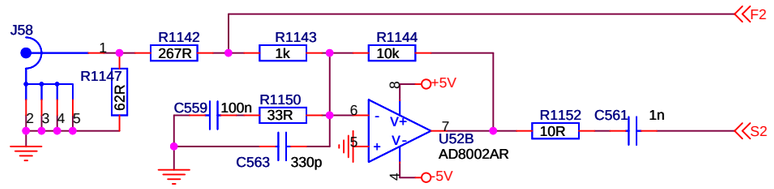
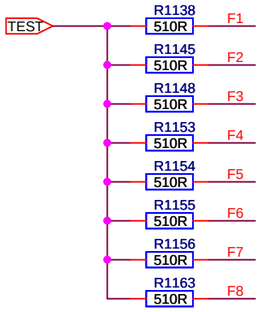
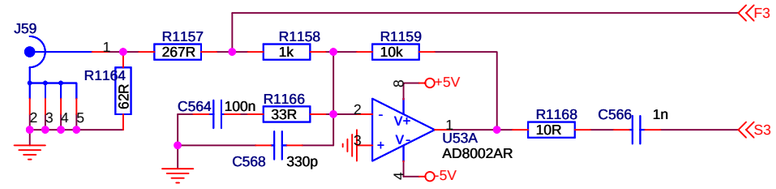
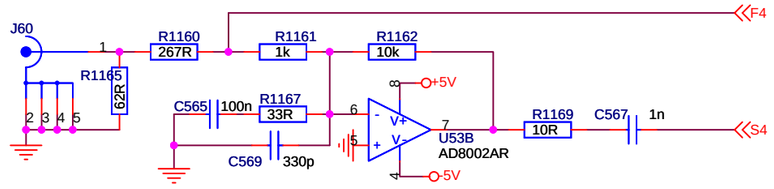
Designer: <Designer>	Layouter: <Layouter>

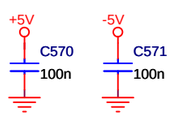


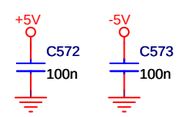


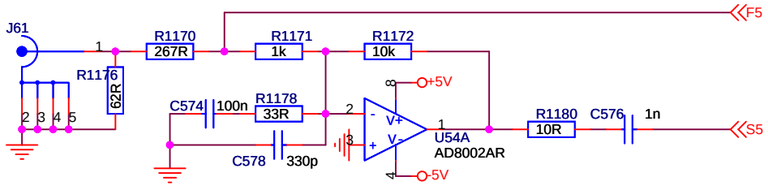


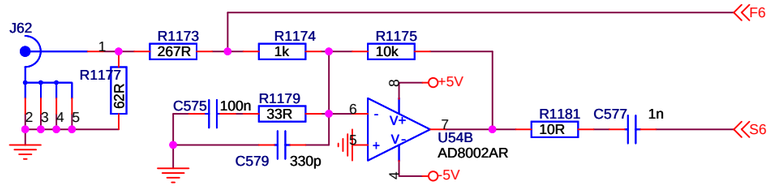


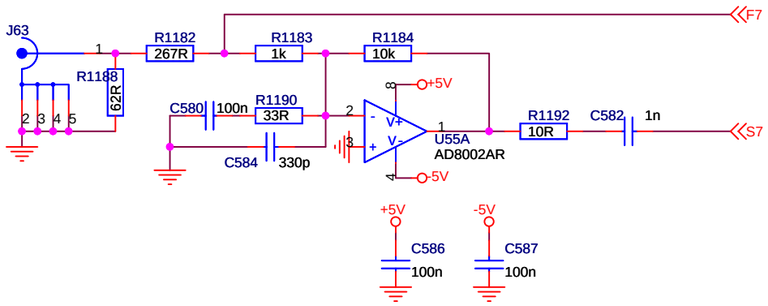


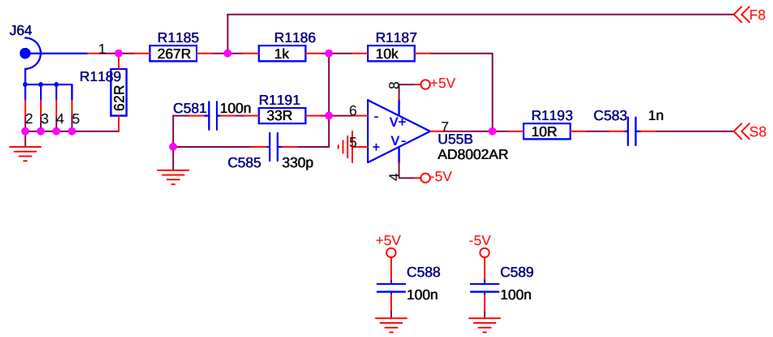












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