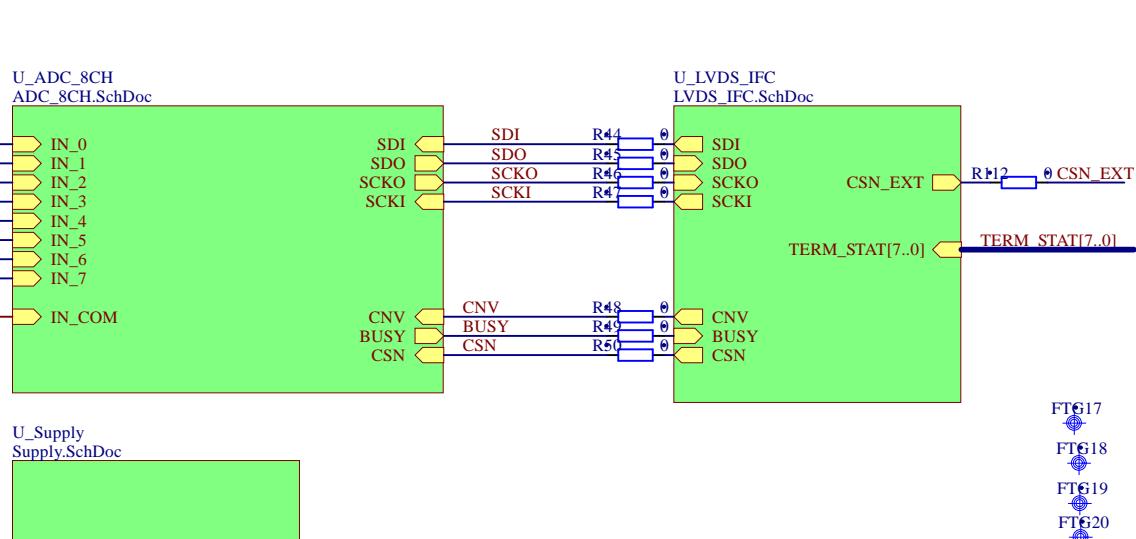
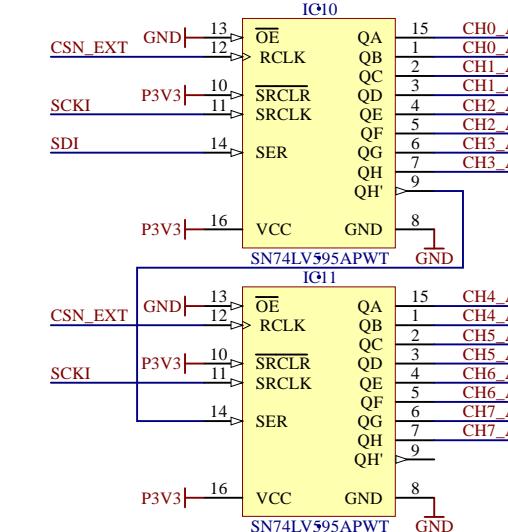
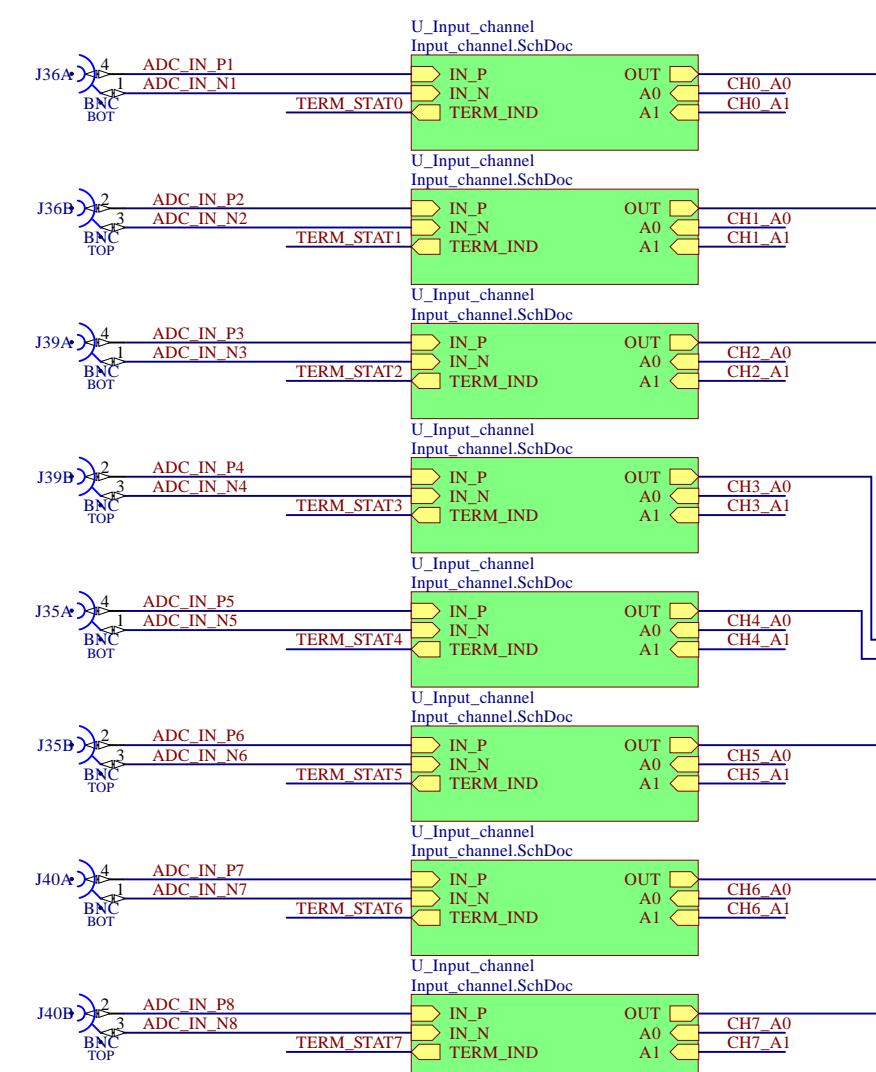
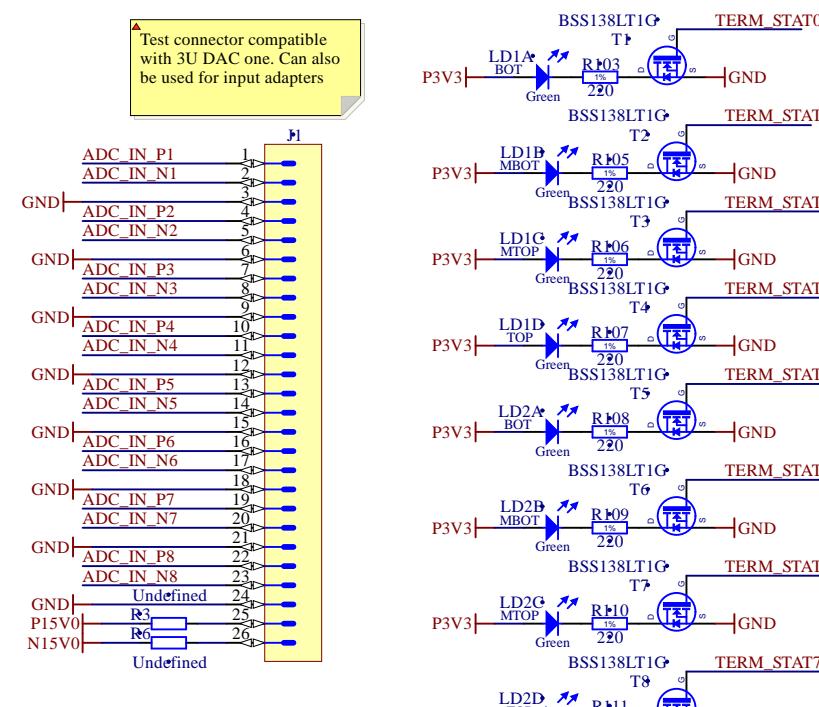
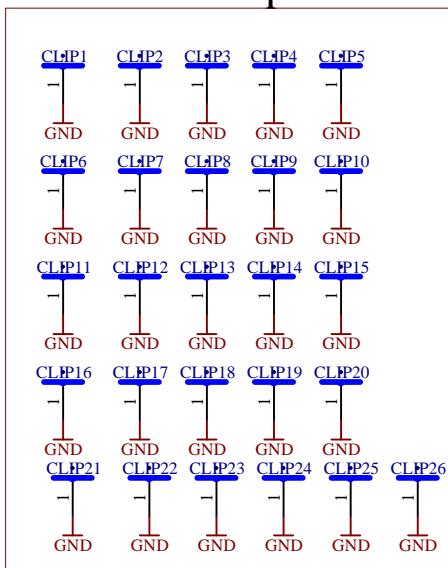


shield clips



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Project/Equipment 3U ADC

Document

3U ADC - top
8 channel ADC

Warsaw University of Technology ISE
Nowowiejska 15/19

FTG17
FTG18
FTG19
FTG20

ARTIQ

| | | |
|------------------------|---------------|---------------------|
| Designer G.K. | Drawn by G.K. | XX/XX/XXXX |
| Check by | - | |
| Last Mod. | - | 14.05.2017 |
| File PCB_3U_ADC.schdoc | Print Date | 14.05.2017 12:36:45 |
| Sheet 1 of 5 | Size A3 | Rev - |

A

B

C

D

E

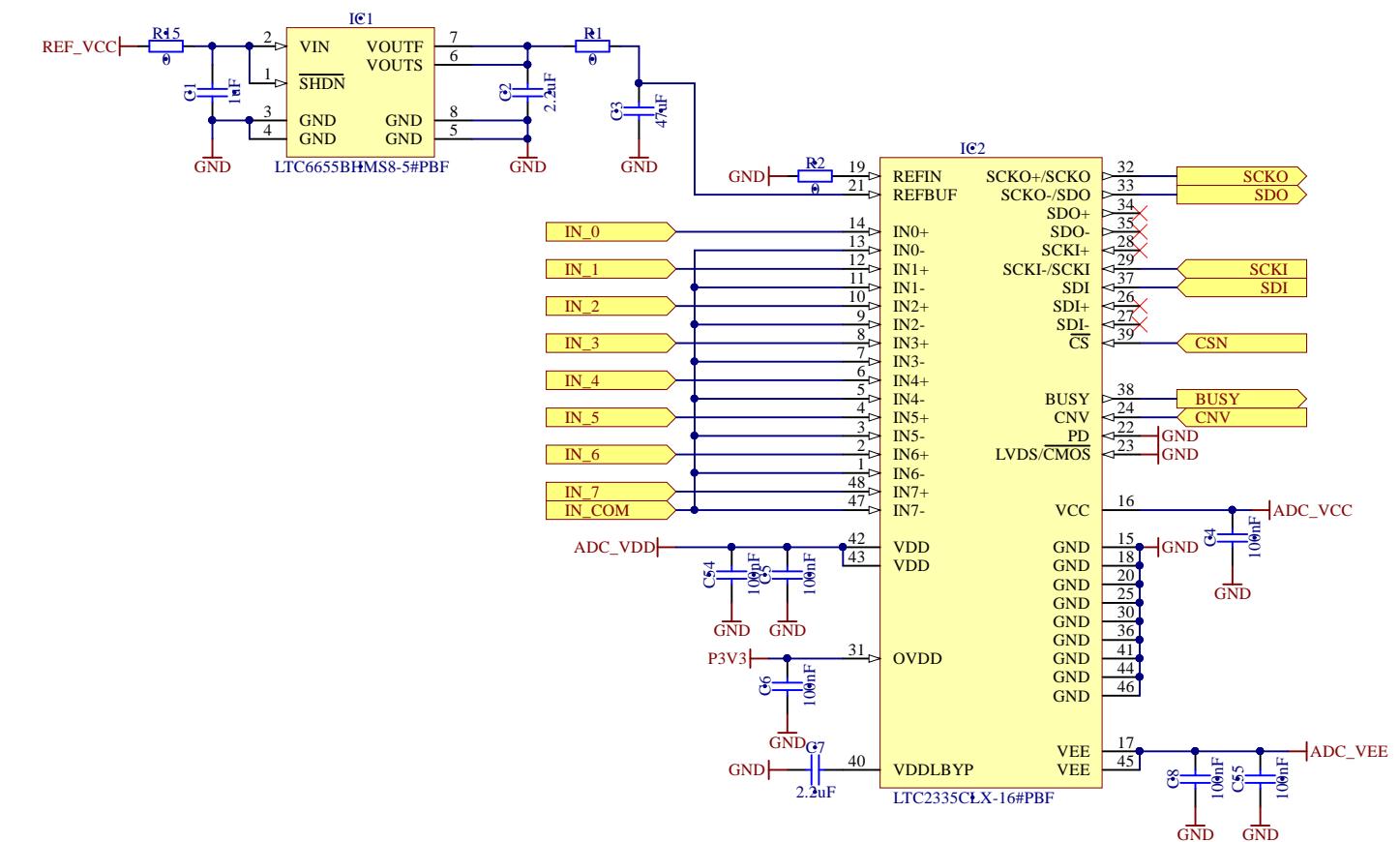
A

B

C

D

E



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Project/Equipment 3U ADC

Document

**ADC + reference**

| | | |
|---------------------|--------------------------------|---------------|
| Designer G.K. | Drawn by G.K. | XX/XX/XXXX |
| Check by - | - | - |
| Last Mod. - | 14.05.2017 | |
| File ADC_8CH.SchDoc | Print Date 14.05.2017 12:36:46 | Sheet 2 of 5 |
| | | Size A3 Rev - |

A

1

B

1

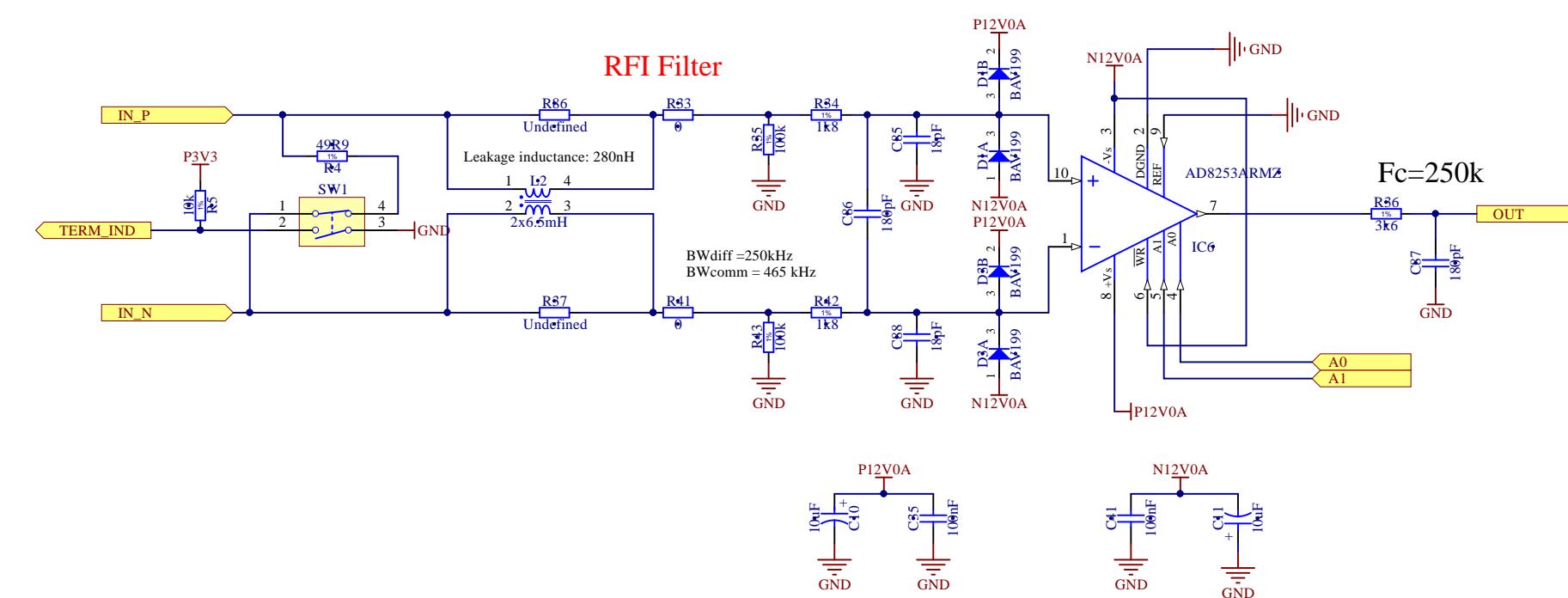
C

1

D

1

1



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ANSWER The answer is 1000. The area of the rectangle is 1000 square centimeters.



Input channel
DPGA

| | | |
|------------|----------------------|--------------|
| Designer | G.K. | |
| Drawn by | G.K. | XX/XX/XXXX |
| Check by | - | |
| Last Mod. | - | 14.05.2017 |
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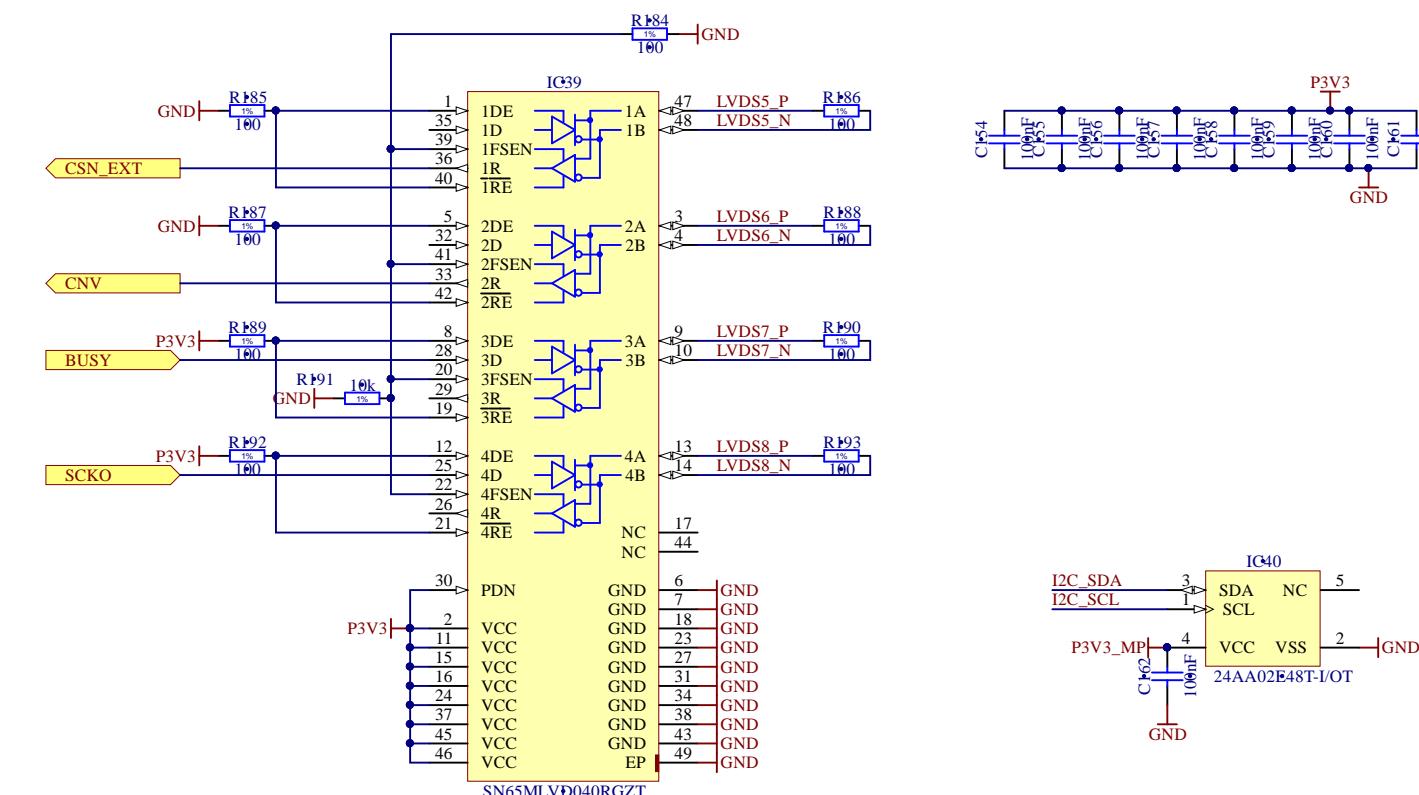
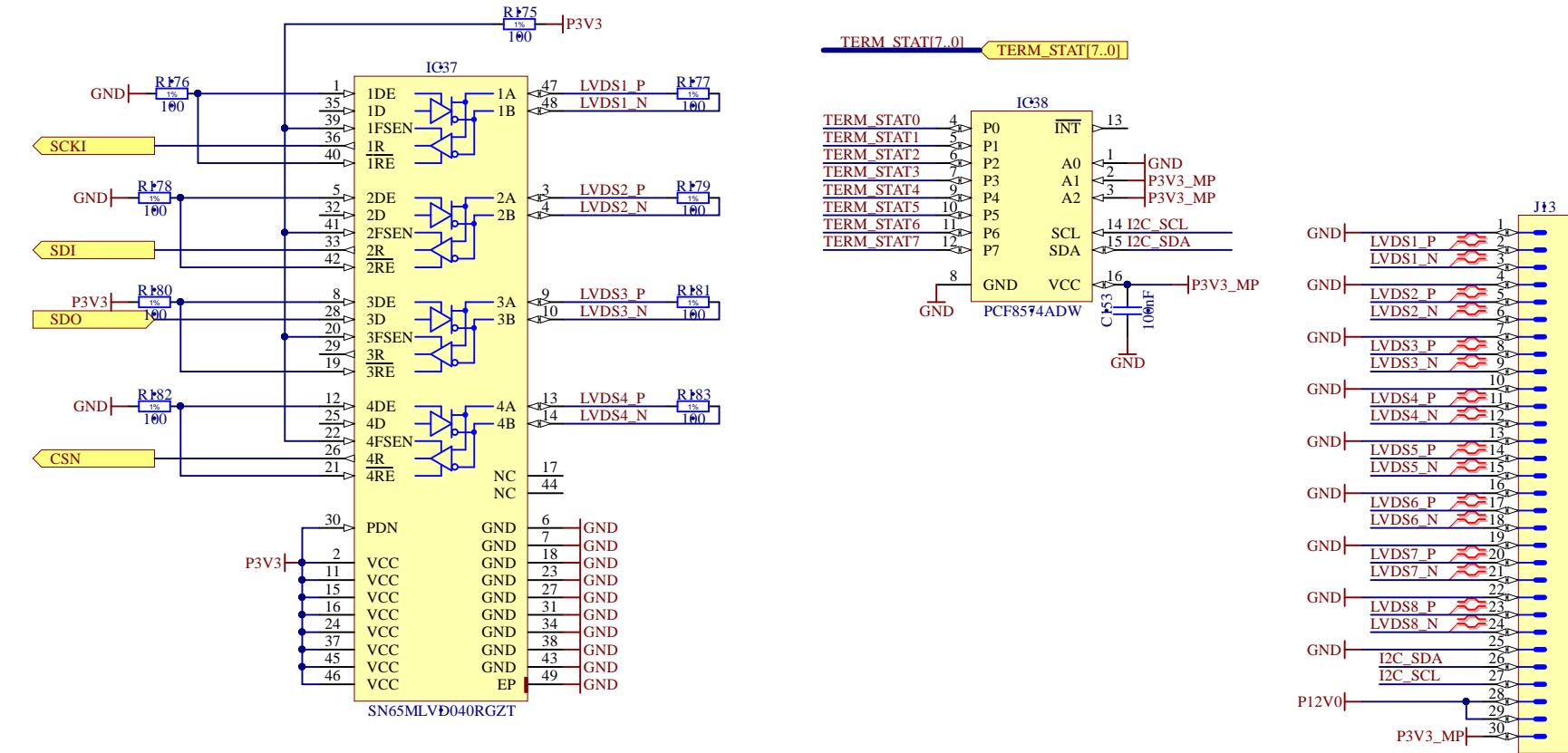
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Print Date 14.05.2017

Sheet 3 of 3

This module connects to Kasli or to VHDCI Metlino breakout board
 All signals are LVDS, in case of Metlino VCC is 1.8V
 I2C is 3.3V LVCMOS
 P3V3_MP can handle up to 20mA
 P12V0 current is up to 500mA

please make a list of IC names and functions in corner of schematic for easier reading



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Project/Equipment 3U ADC

Document

**LVDS Interface
I2C logic**

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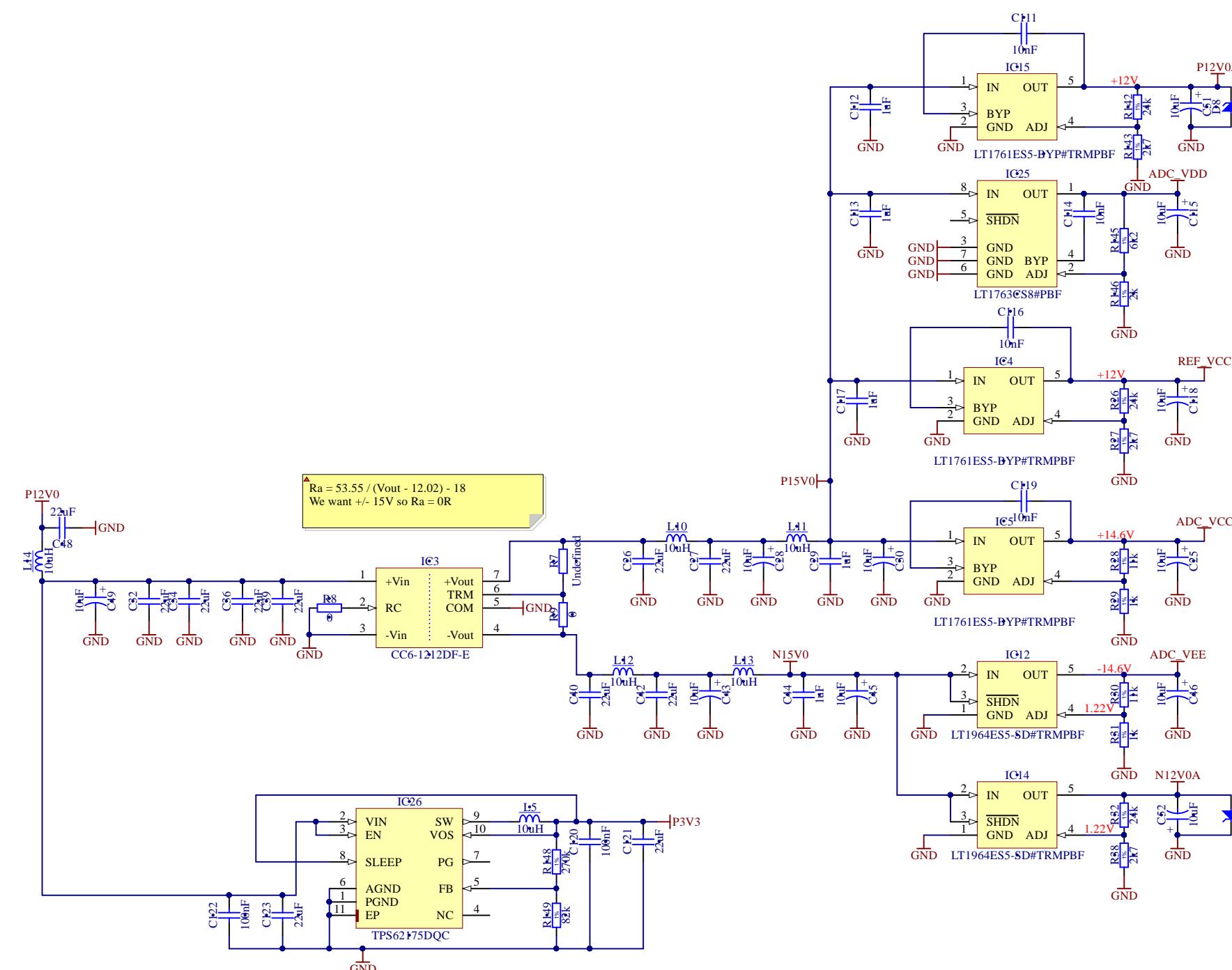
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| File LVDS_IFC.SchDoc | | |
| Print Date 14.05.2017 12:36:46 | | |
| Sheet 4 of 5 | | |

Size A3 Rev -

ARTIQ

A

A



SMB912A

ADC_VDD
Power losses
 $P_l = (15V-5V) * 14.5mA = 145mW$
 $Th_{jc}=35K/W$
 $T_c=35*0.145=5K$

Power budget:
AD8253ARMZ 8*4mA=32mA
LTC2335
Ivcc 4.3mA 0-38V
Ivee -5mA -16.5 - 0
Ivdd 14.5mA 5V
Iovdd 4.2mA 1.7 - 5.5V

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Project/Equipment 3U ADC

Document

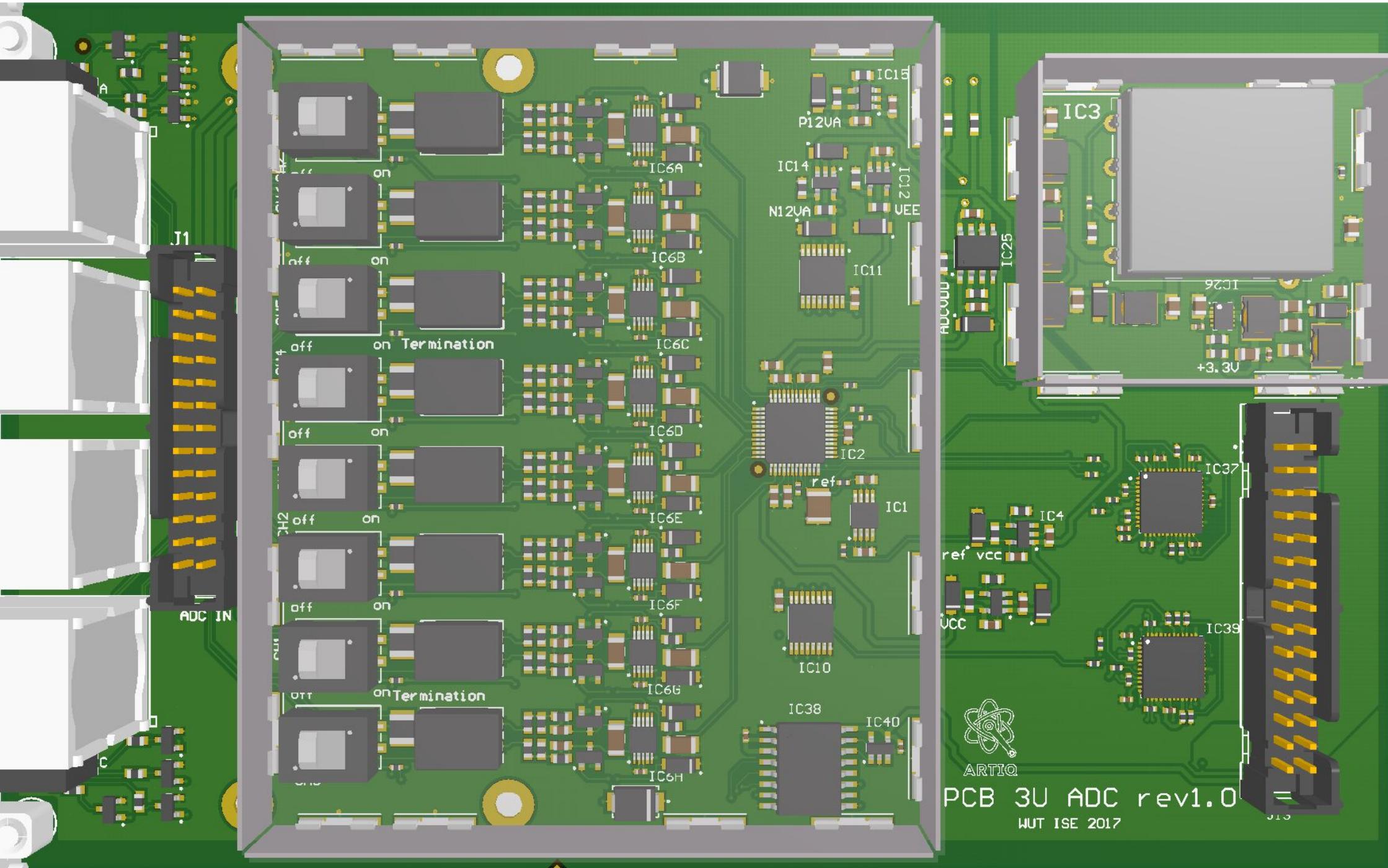


Power Supply converters + LDOs

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| Designer G.K. | Drawn by G.K. | XX/XX/XXXX |
| Check by | - | |
| Last Mod. | - | 14.05.2017 |
| File Supply.SchDoc | Print Date | 14.05.2017 12:36:46 |
| | Sheet | 5 of 5 |

Size A3 Rev -

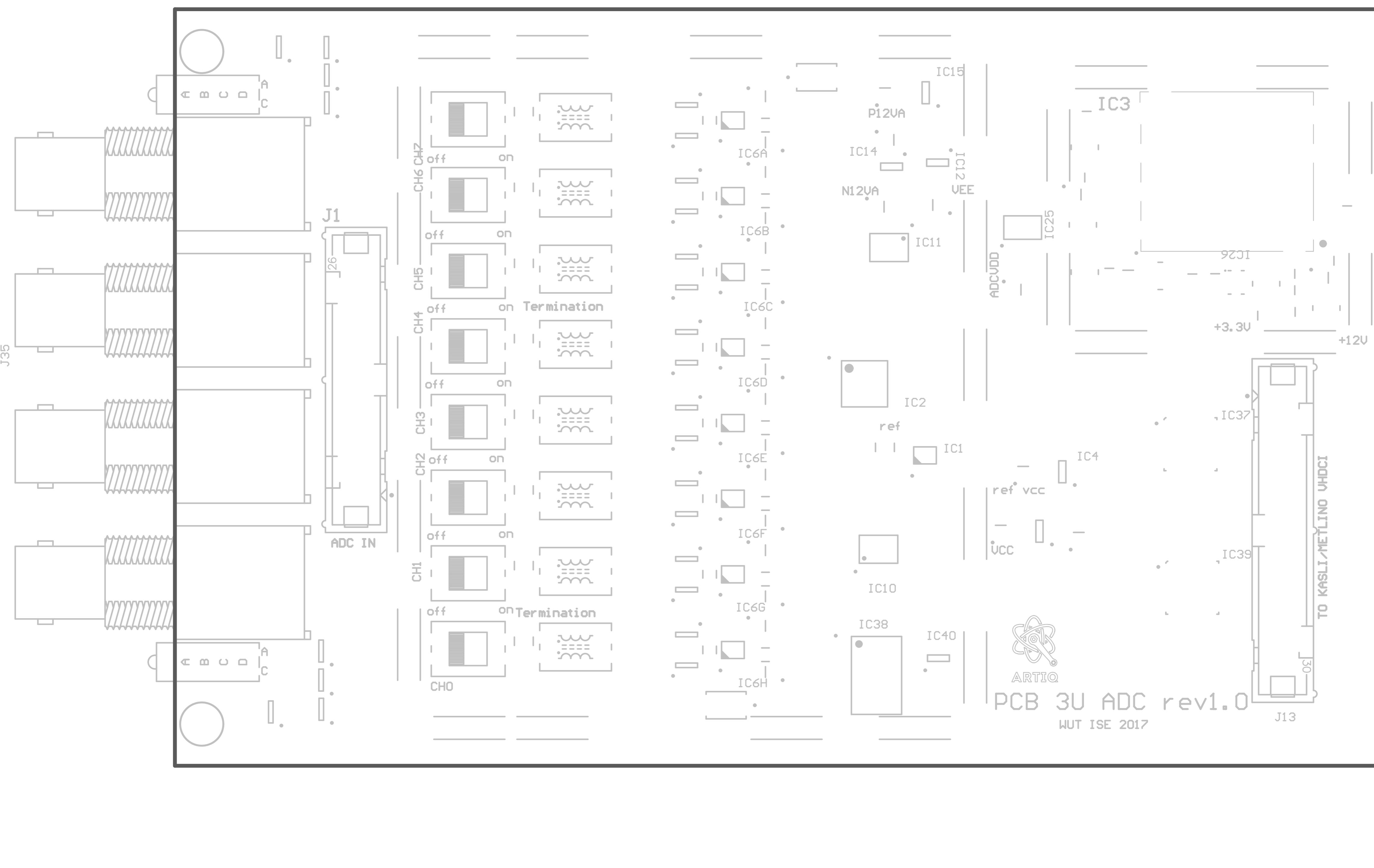


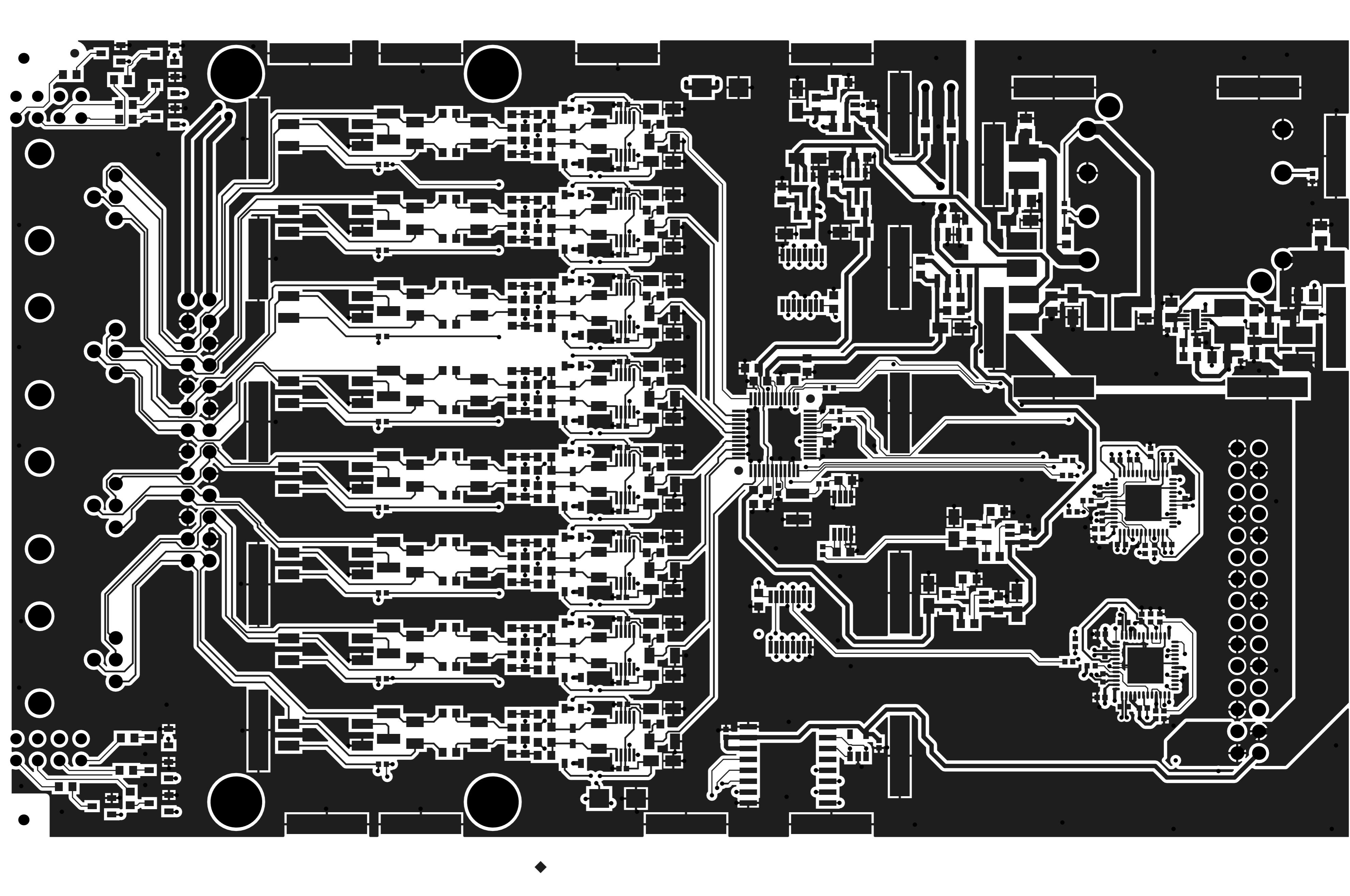


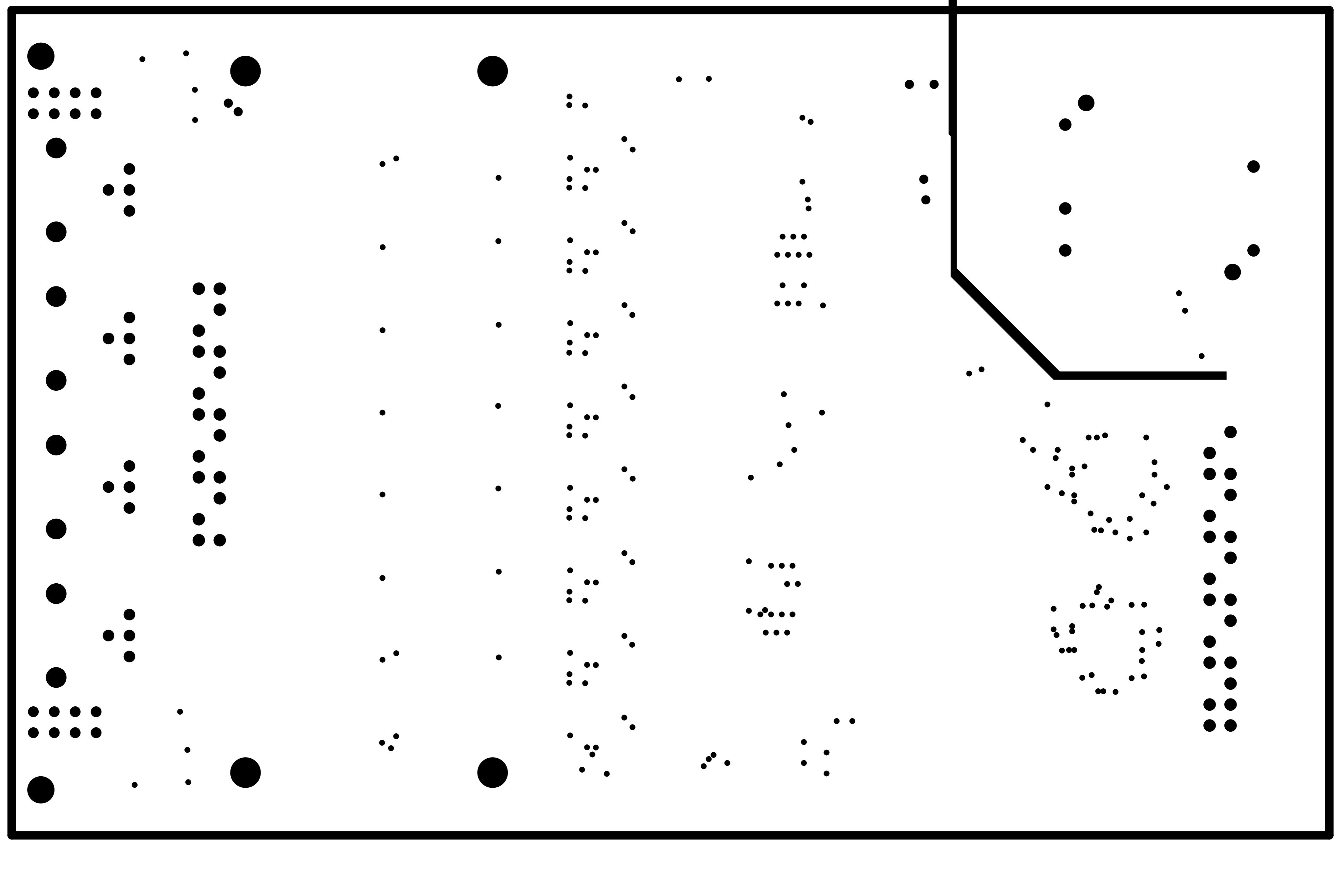
ARTIQ

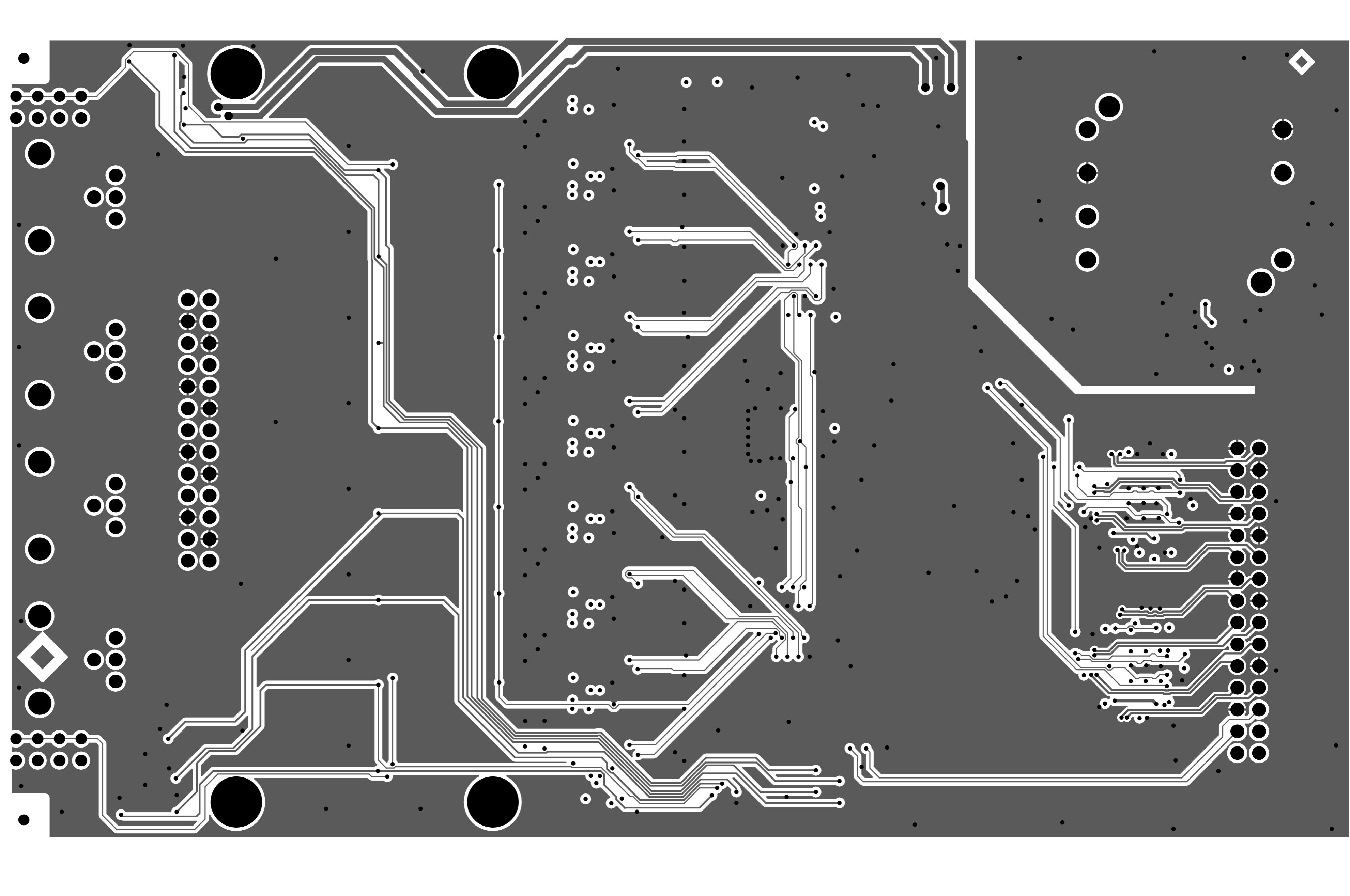
PCB 3U ADC rev1.0

WUT ISE 2017











PCB 3U ADC Rev1.0

Multilayer PCB