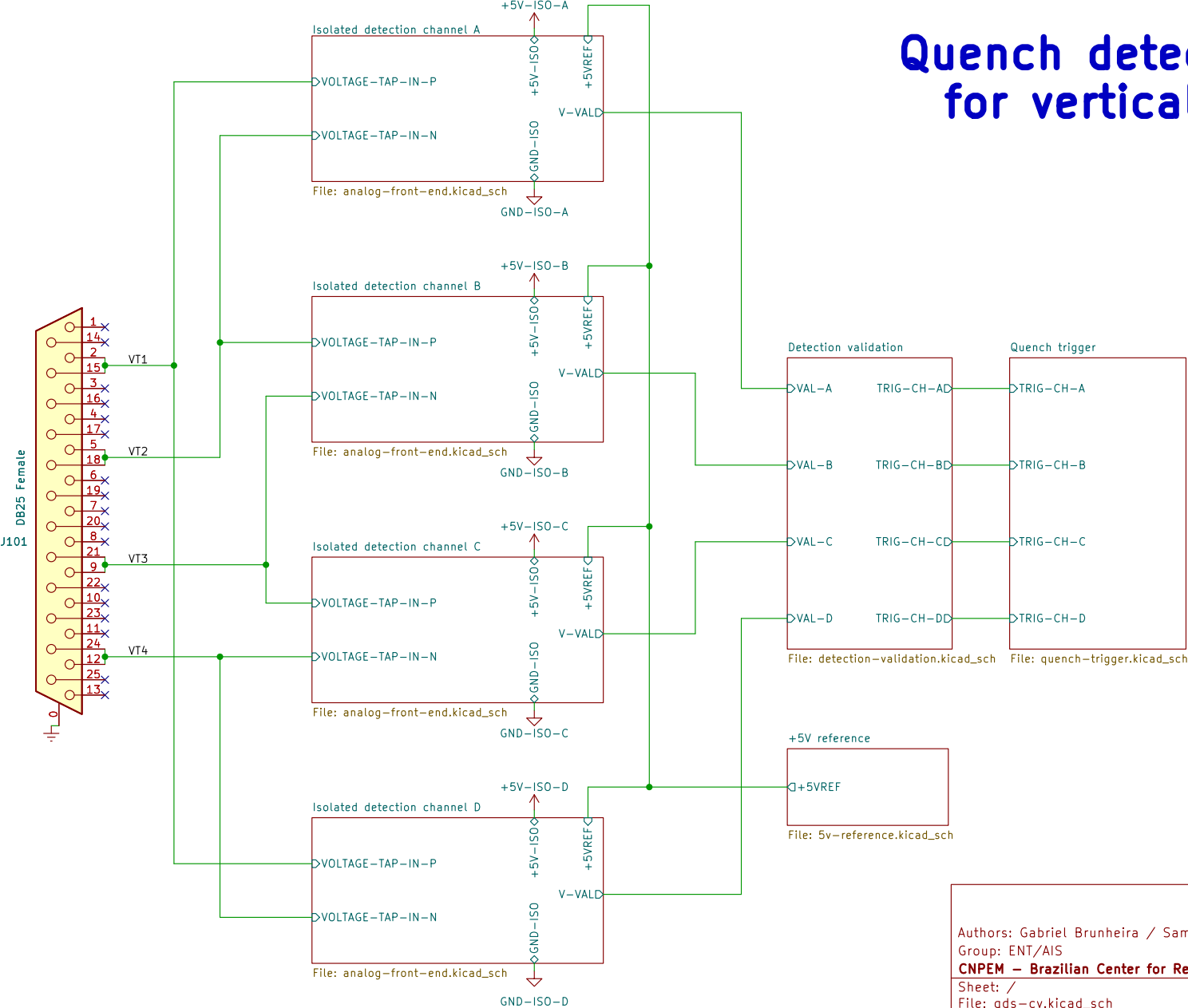


# Quench detection system for vertical cryostat



Authors: Gabriel Brunheira / Samuel Fraga

Group: ENT/AIS

**CNPEN - Brazilian Center for Research in Energy and Materials**

Sheet: /

File: qds-cv.kicad\_sch

**Title: Quench Detection for Vertical Cryostat**

Size: A4

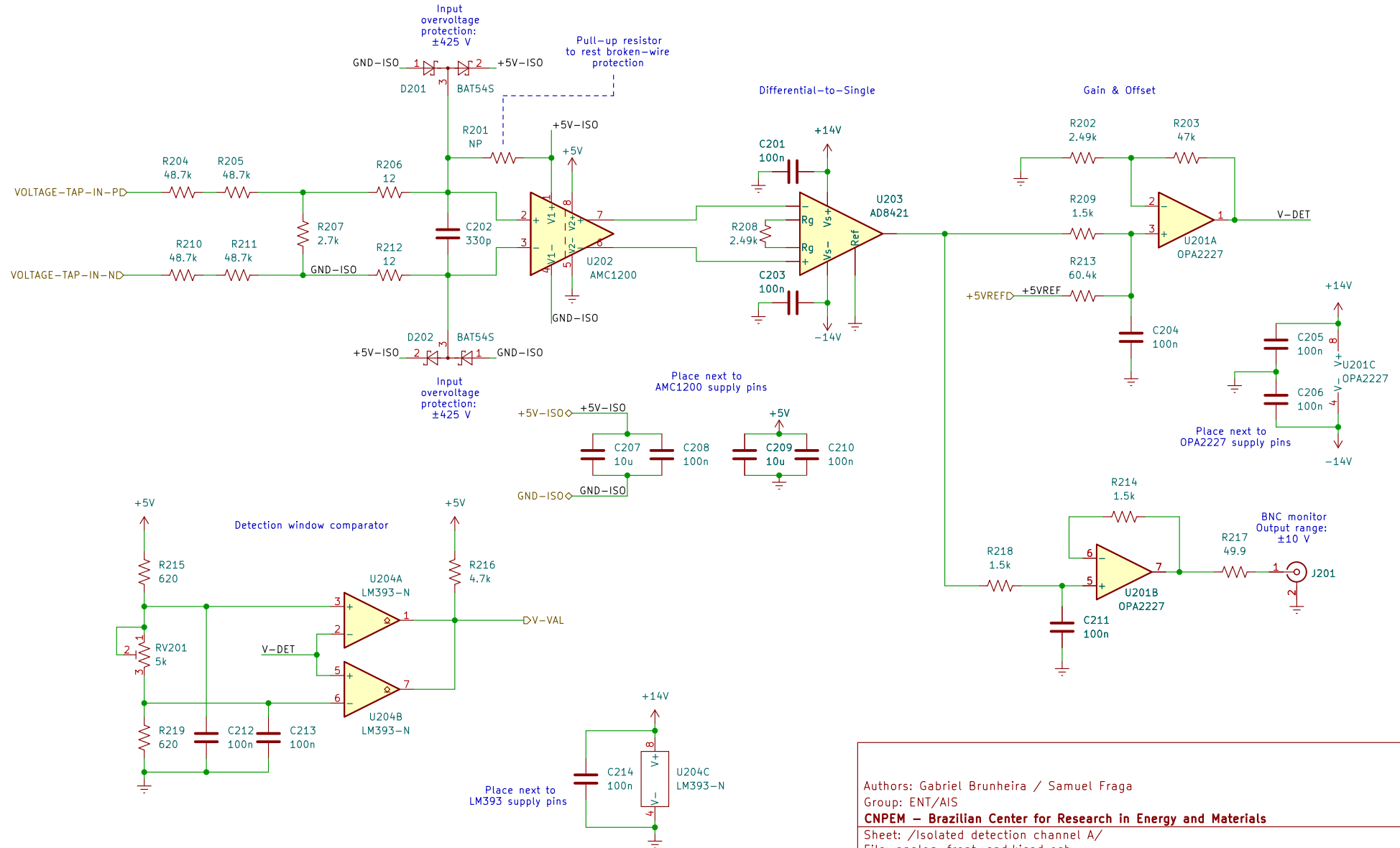
Date:

Rev: v1.0.0

KiCad E.D.A. kicad (6.0.11)

Id: 1/9

# Isolated detection channel



Authors: Gabriel Brunheira / Samuel Fraga

Group: ENT/AIS

**CNPEN – Brazilian Center for Research in Energy and Materials**

Sheet: /Isolated detection channel A/

File: analog-front-end.kicad\_sch

**Title: Isolation Detection Channel**

Size: A4

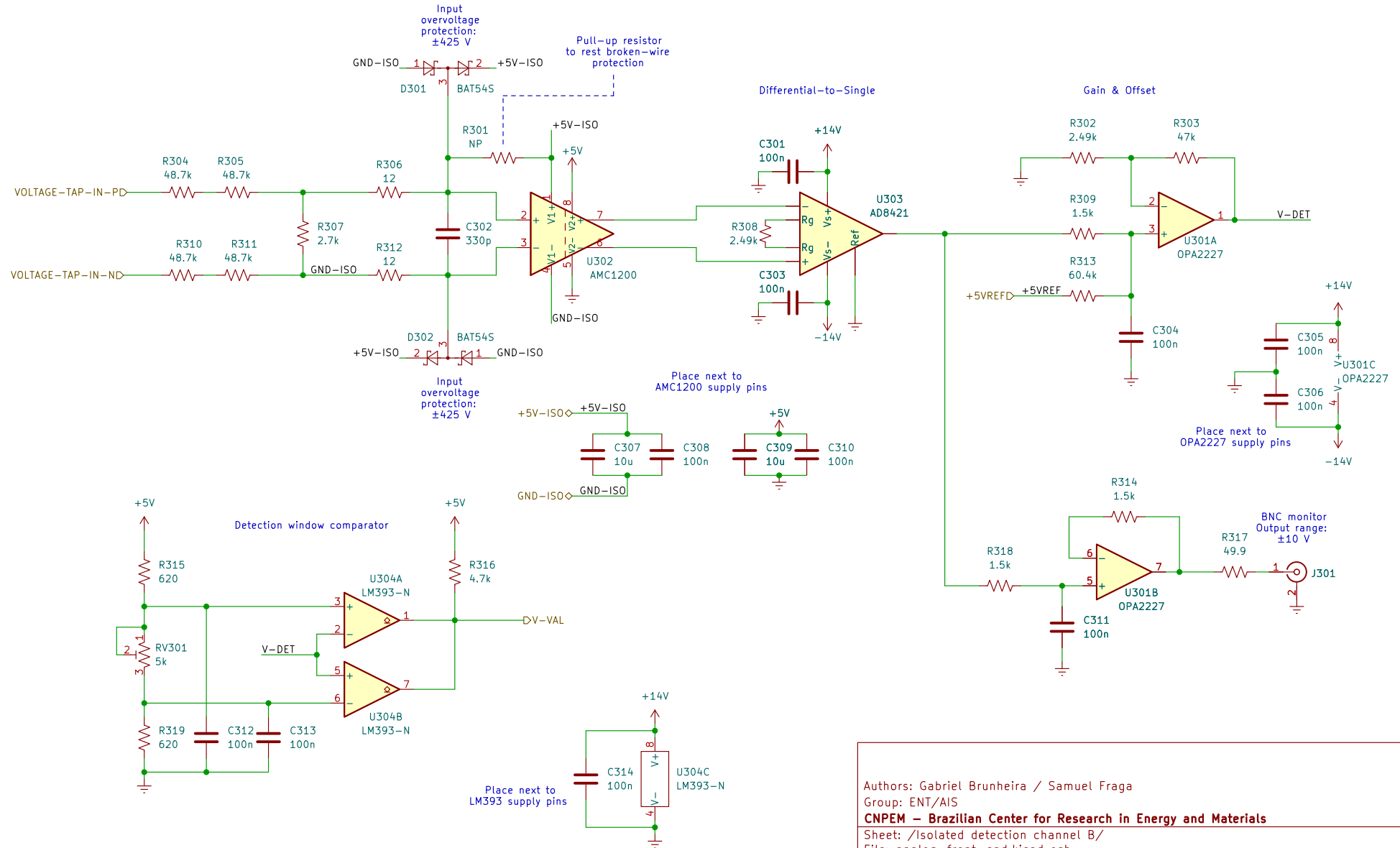
Date:

KiCad E.D.A. kicad (6.0.11)

**Rev: v1.0.0**

Id: 2/9

# Isolated detection channel



Authors: Gabriel Brunheira / Samuel Fraga

Group: ENT/AIS

CNPEM – Brazilian Center for Research in Energy and Materials

Sheet: /Isolated detection channel B/

File: analog-front-end.kicad\_sch

**Title: Isolation Detection Channel**

Size: A4

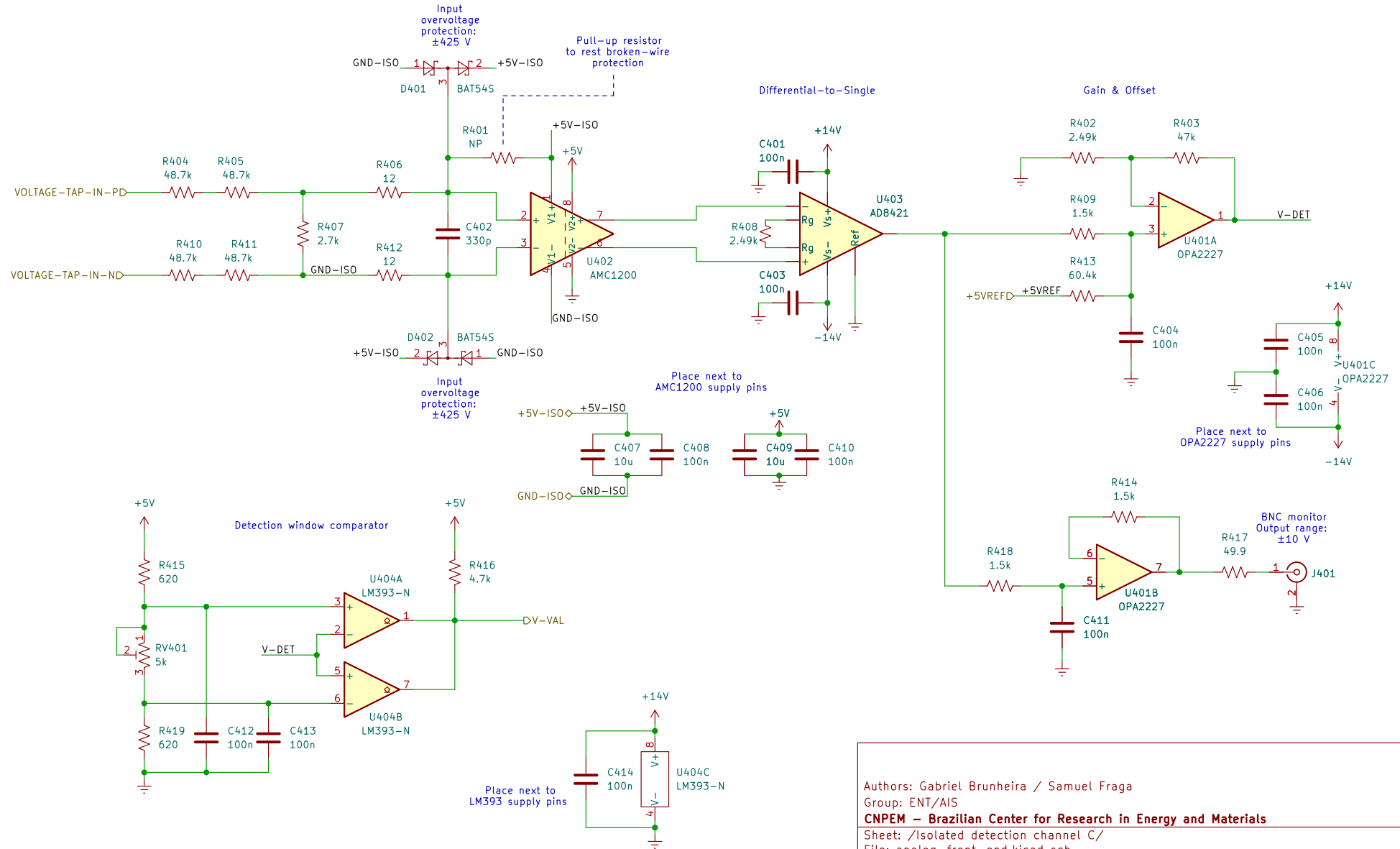
Date:

KiCad E.D.A. kicad (6.0.11)

Rev: v1.0.0

Id: 3/9

# Isolated detection channel



Authors: Gabriel Brunheira / Samuel Fraga

Group: ENT/AIS

CNPEN - Brazilian Center for Research in Energy and Materials

Sheet: /Isolated detection channel C/

File: analog-front-end.kicad\_sch

**Title: Isolation Detection Channel**

Size: A4

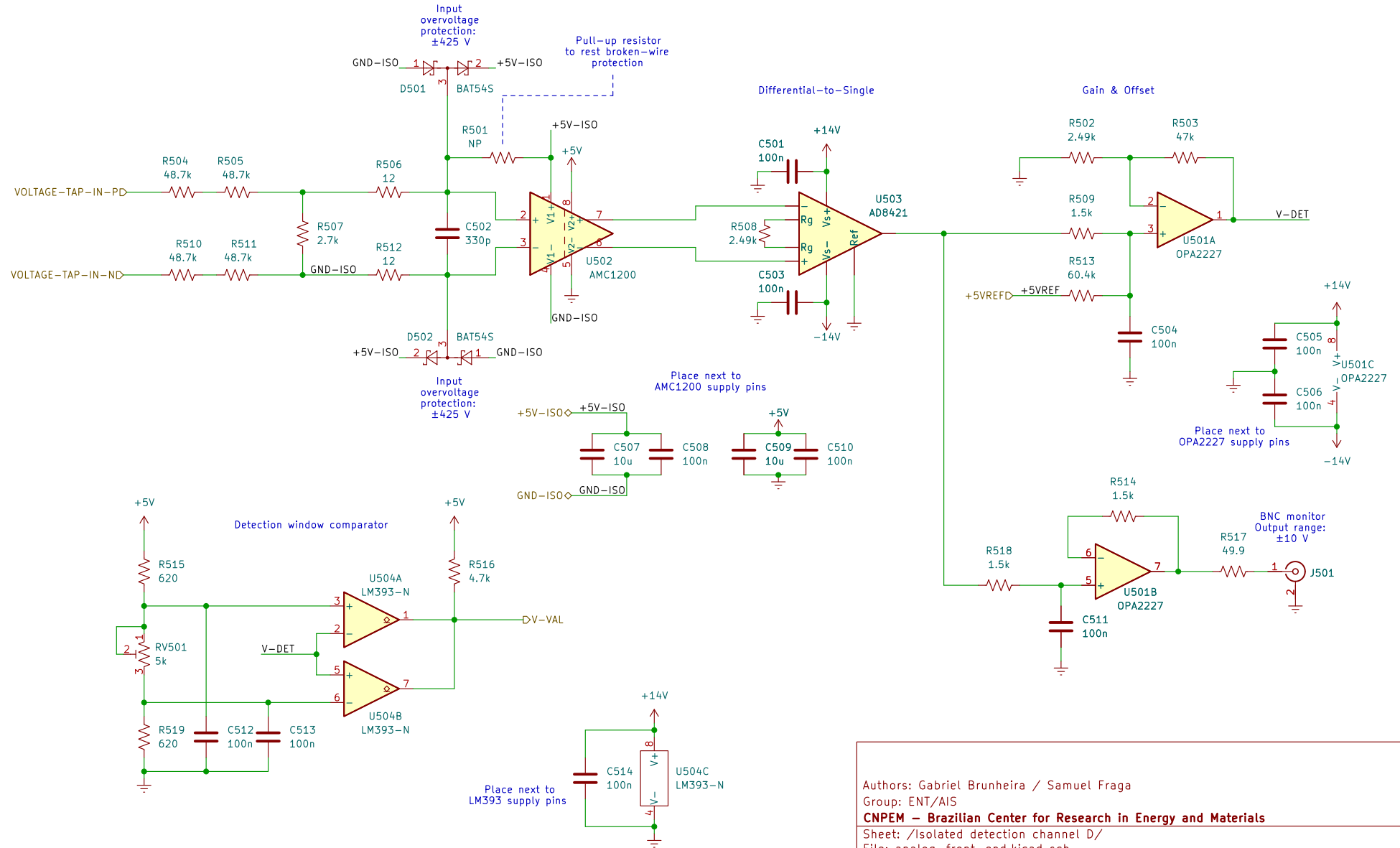
Date:

KiCad E.D.A. kicad (6.0.11)

Rev: v1.0.0

Id: 4/9

# Isolated detection channel



Authors: Gabriel Brunheira / Samuel Fraga

Group: ENT/AIS

CNPEN - Brazilian Center for Research in Energy and Materials

Sheet: /Isolated detection channel D/

File: analog-front-end.kicad\_sch

**Title: Isolation Detection Channel**

Size: A4

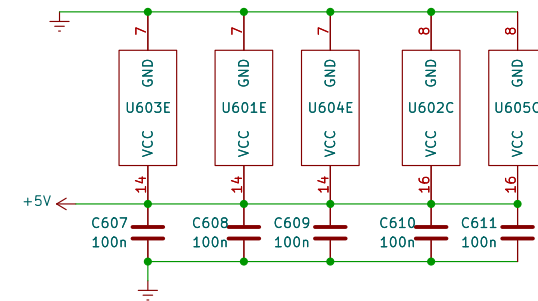
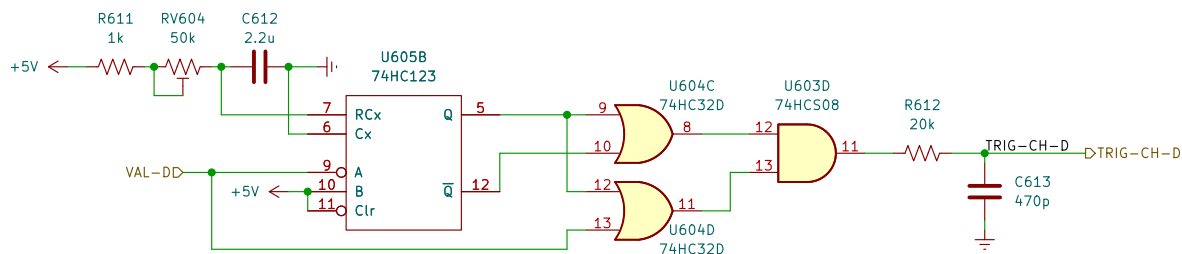
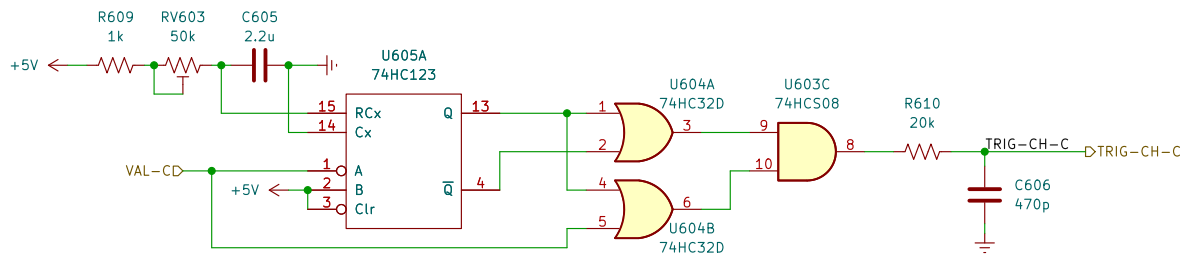
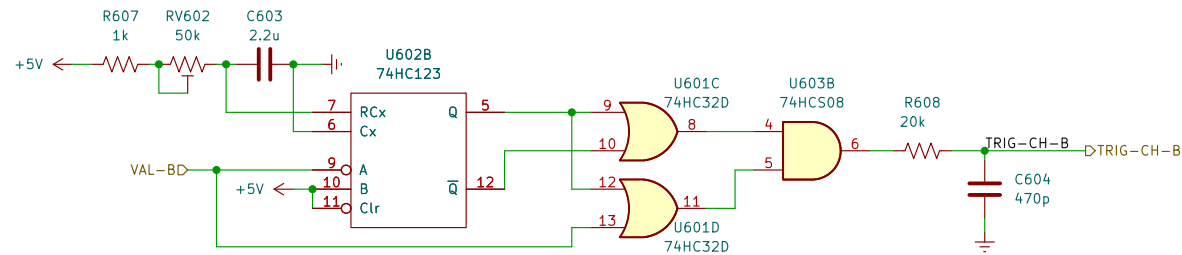
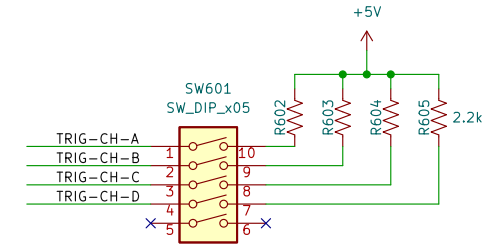
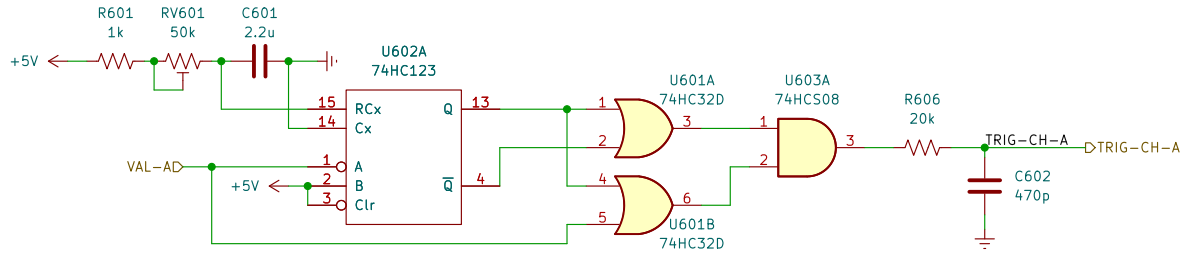
Date:

Rev: v1.0.0

KiCad E.D.A. kicad (6.0.11)

Id: 5/9

# Detection validation



Authors: Gabriel Brunheira / Samuel Fraga

Group: ENT/AIS

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Sheet: /Detection validation/

File: detection-validation.kicad\_sch

**Title: Detection Validation Circuits**

Size: A4

Date:

KiCad E.D.A. kicad (6.0.11)

Rev: v1.0.0

Id: 6/9

# Triggers aggregation, indication and actuation

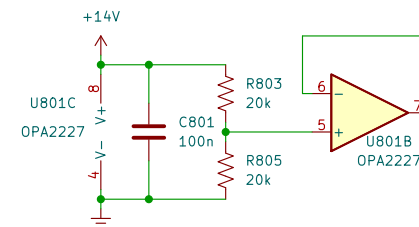
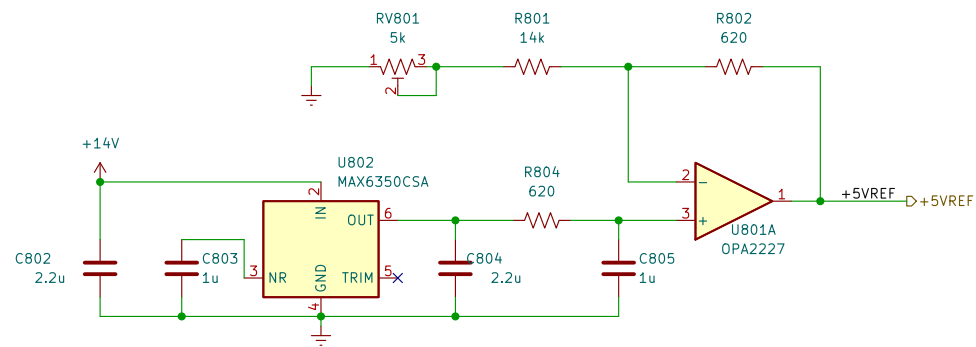
Authors: Gabriel Brunheira / Samuel Fraga  
 Group: ENT/AIS  
 CNPEM – Brazilian Center for Research in Energy and Materials  
 Sheet: /Quench trigger/  
 File: quench-trigger.kicad\_sch

**Title: Triggers Aggregation, Indication and Actuation**

Size: A4	Date:	Rev: v1.0.0
KiCad E.D.A. kicad (6.0.11)		Id: 7/9

Id: 7/9

# +5V reference circuit



Authors: Gabriel Brunheira / Samuel Fraga

Group: ENT/AIS

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Sheet: /+5V reference/

File: 5v-reference.kicad\_sch

**Title:**

Size: A4

Date:

KiCad E.D.A. kicad (6.0.11)

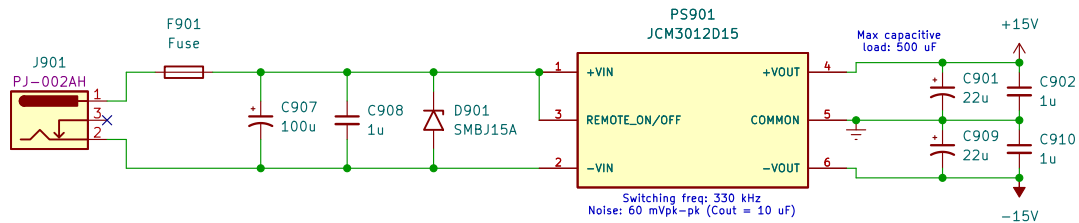
**Rev: v1.0.0**

Id: 8/9

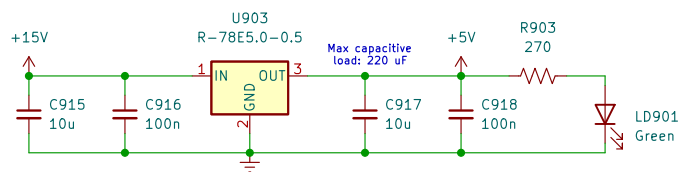


# Power supplies

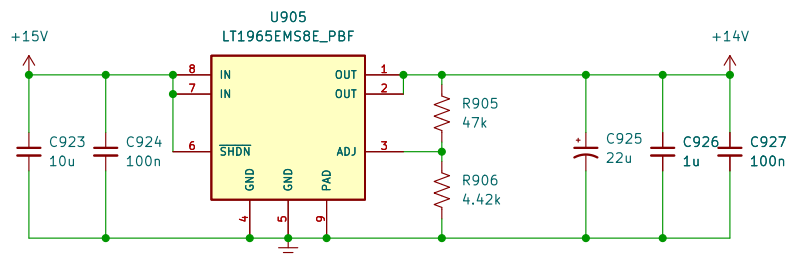
## ±15V main isolated DC-DC converter



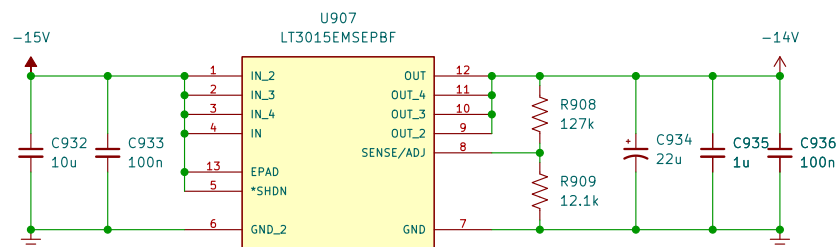
## +5V DC-DC converter



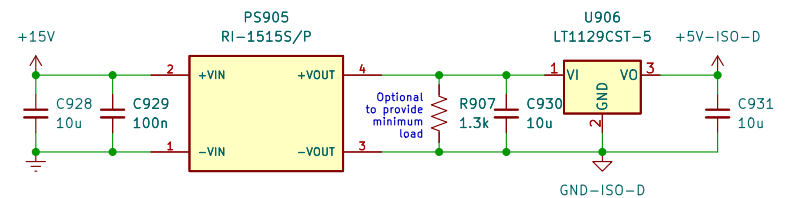
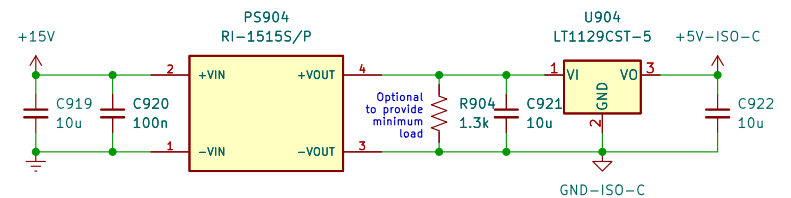
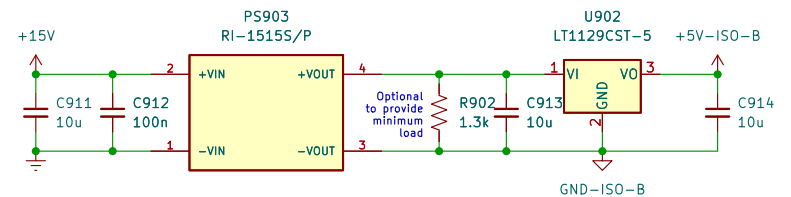
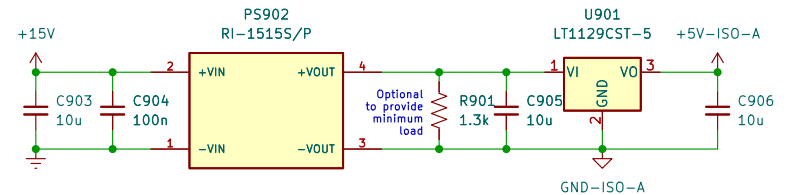
## +14V linear regulator



## -14V linear regulator



## Isolated power supplies



Authors: Gabriel Brunheira / Samuel Fraga

Group: ENT/AIS

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Sheet: /Power supplies/

File: power-supplies.kicad\_sch

**Title: Power Supplies**

Size: A4

Date:

KiCad E.D.A. kicad (6.0.11)

**Rev: v1.0.0**

Id: 9/9