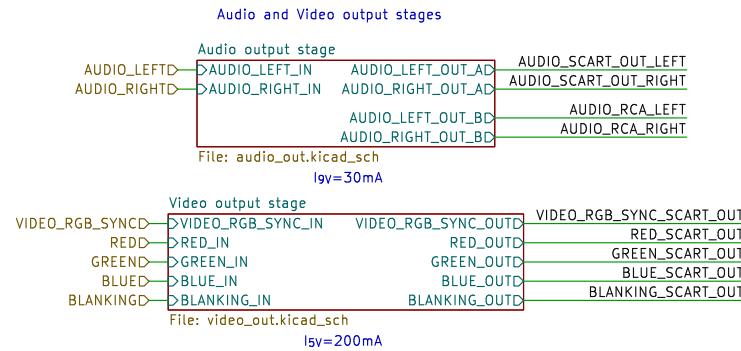


1 2 3 4 5 6

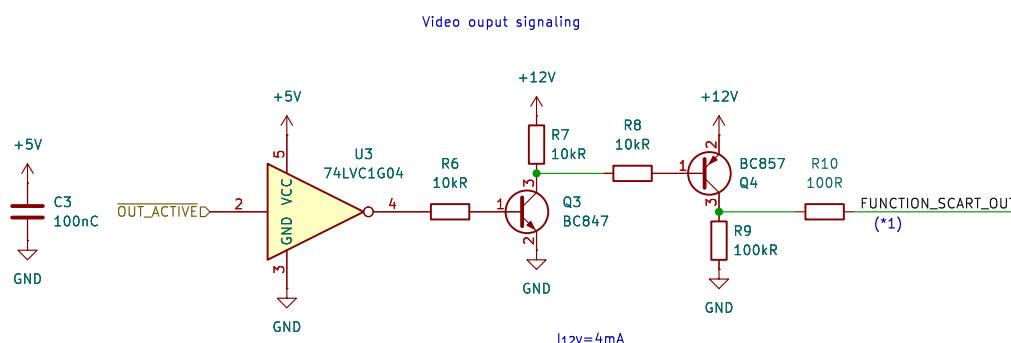
A

A



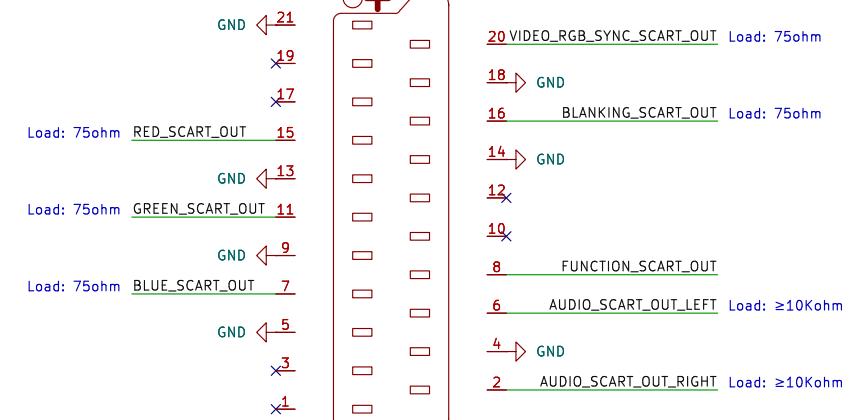
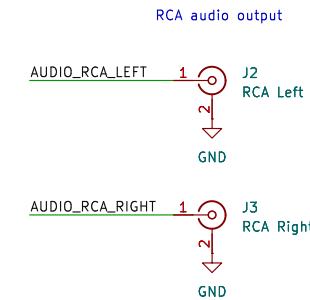
B

B



C

C



(*1) FUNCTION pin has the following signaling:
Level 0: 0 V to +2 V (SCART off)
Level 1A: +4.5 V to +7 V (SCART on, 16:9)
Level 1B: +9.5 V to +12 V (SCART on)

The circuit doesn't distinguish between levels 1A and 1B as these are frequently not respected in consumer products. This way it is simpler to default to 4:3 format (12V) when the video output is active and if needed manually adjust the TV to 16:9.

Sheet: /SCART output/
File: SCART_output.kicad_sch

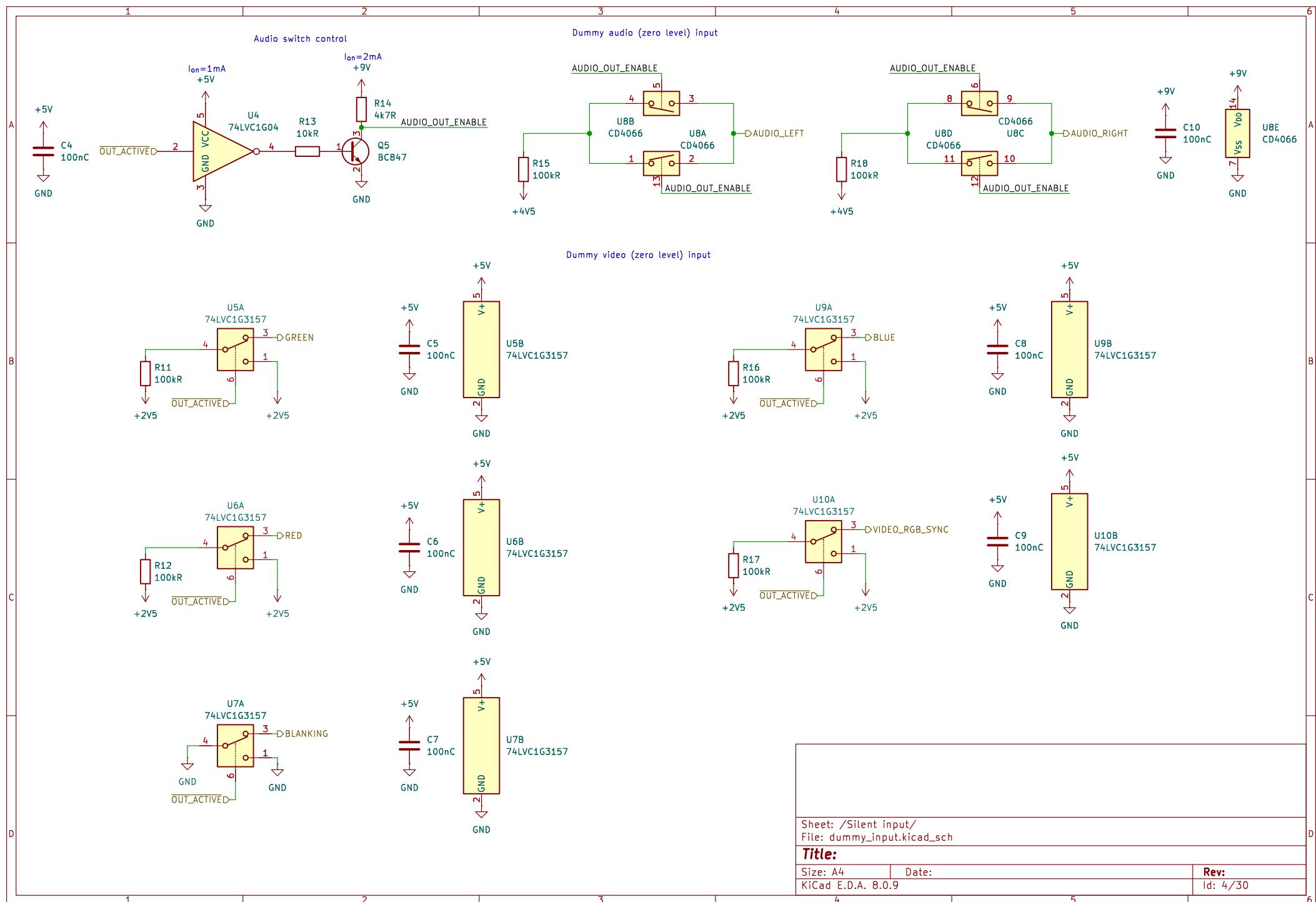
Title:

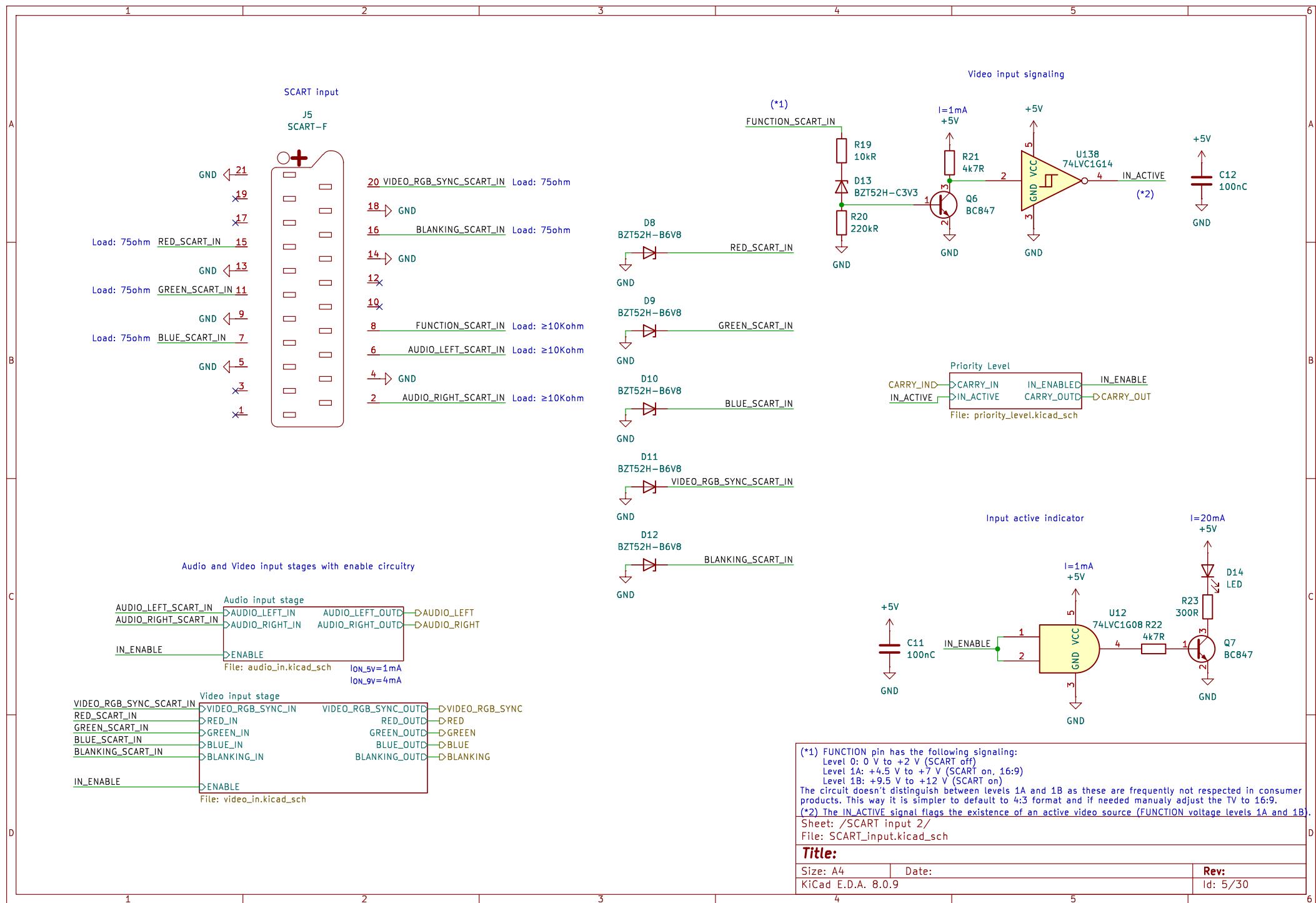
Size: A4 Date:

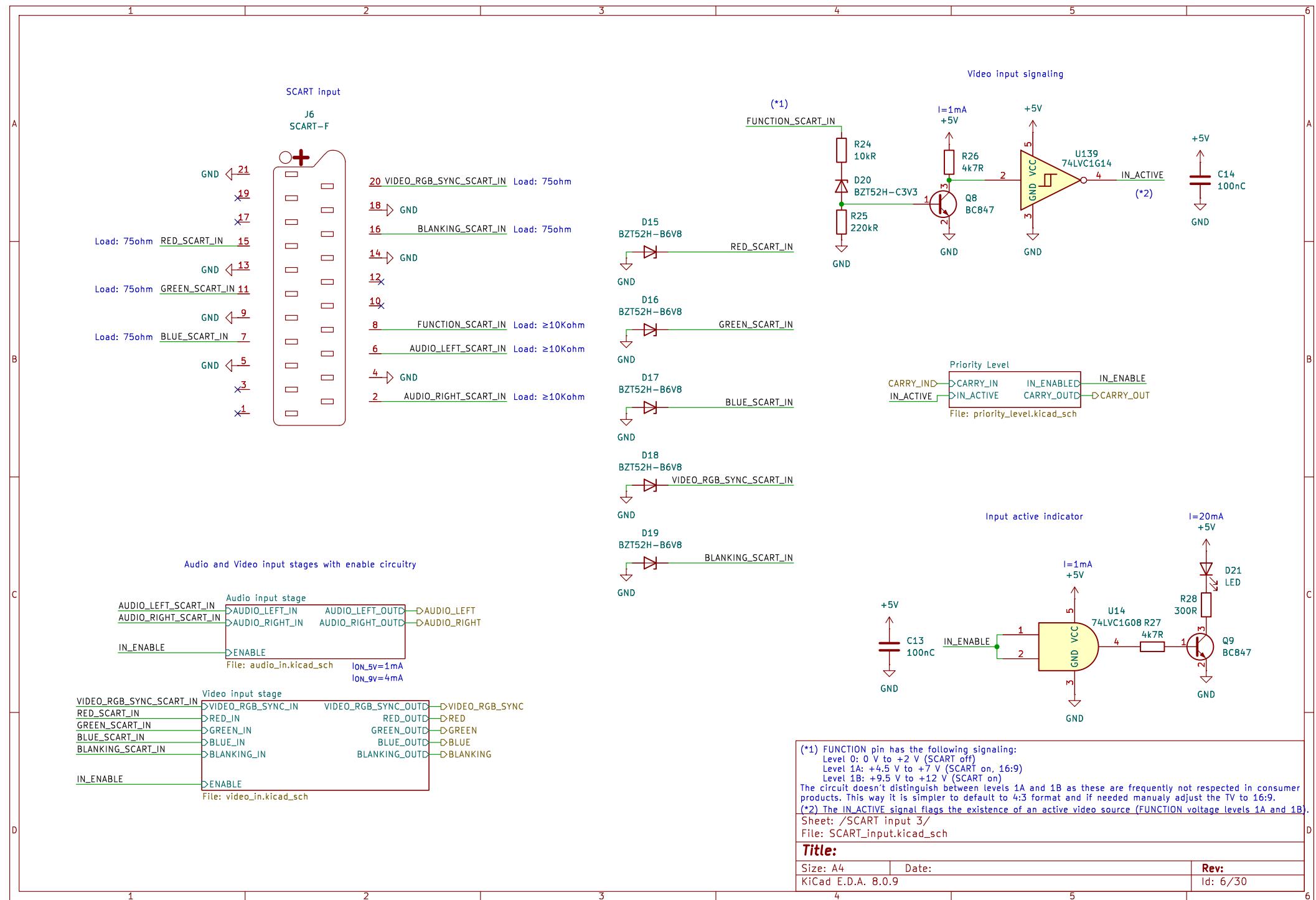
KiCad E.D.A. 8.0.9

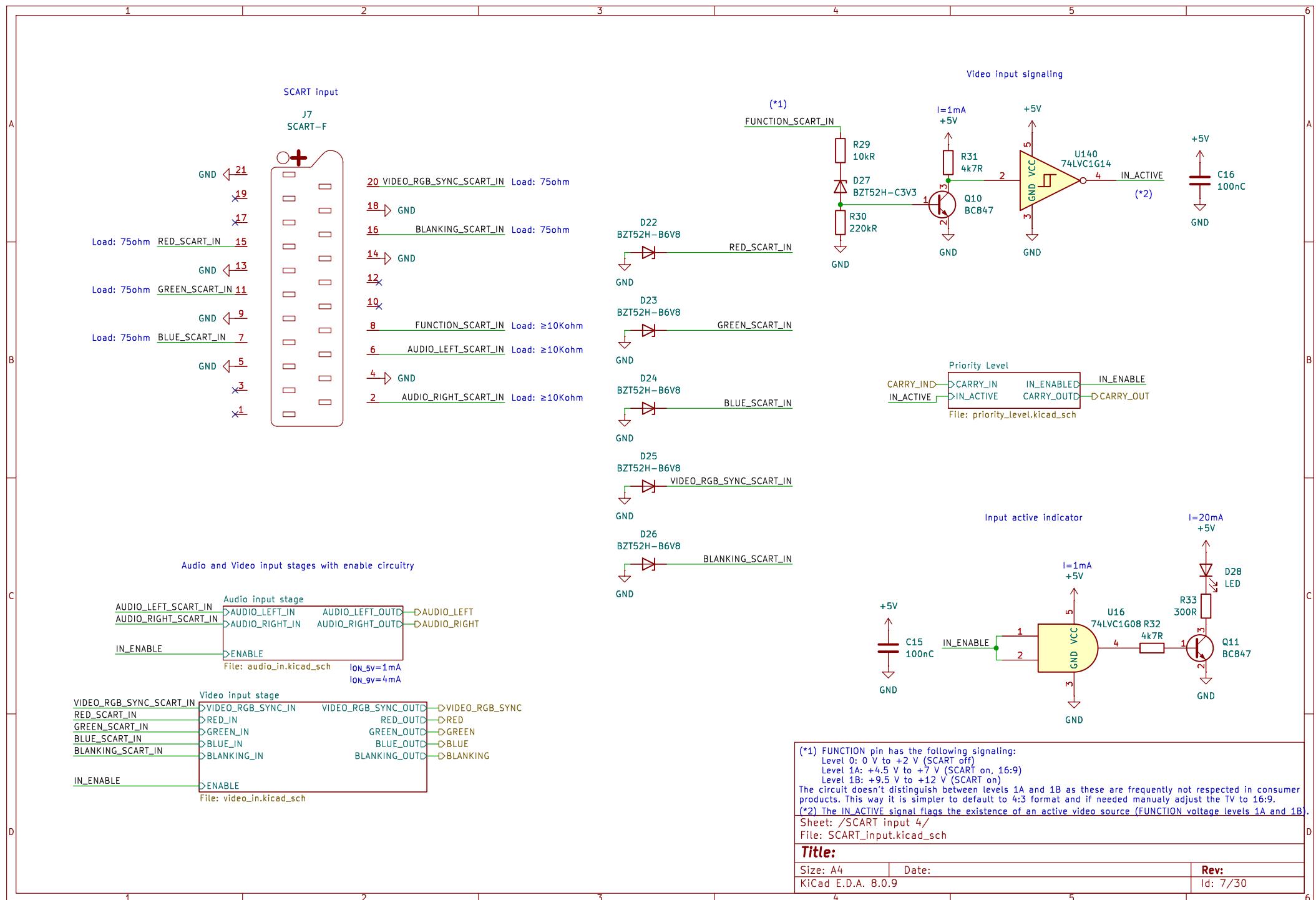
Rev: Id: 3/30

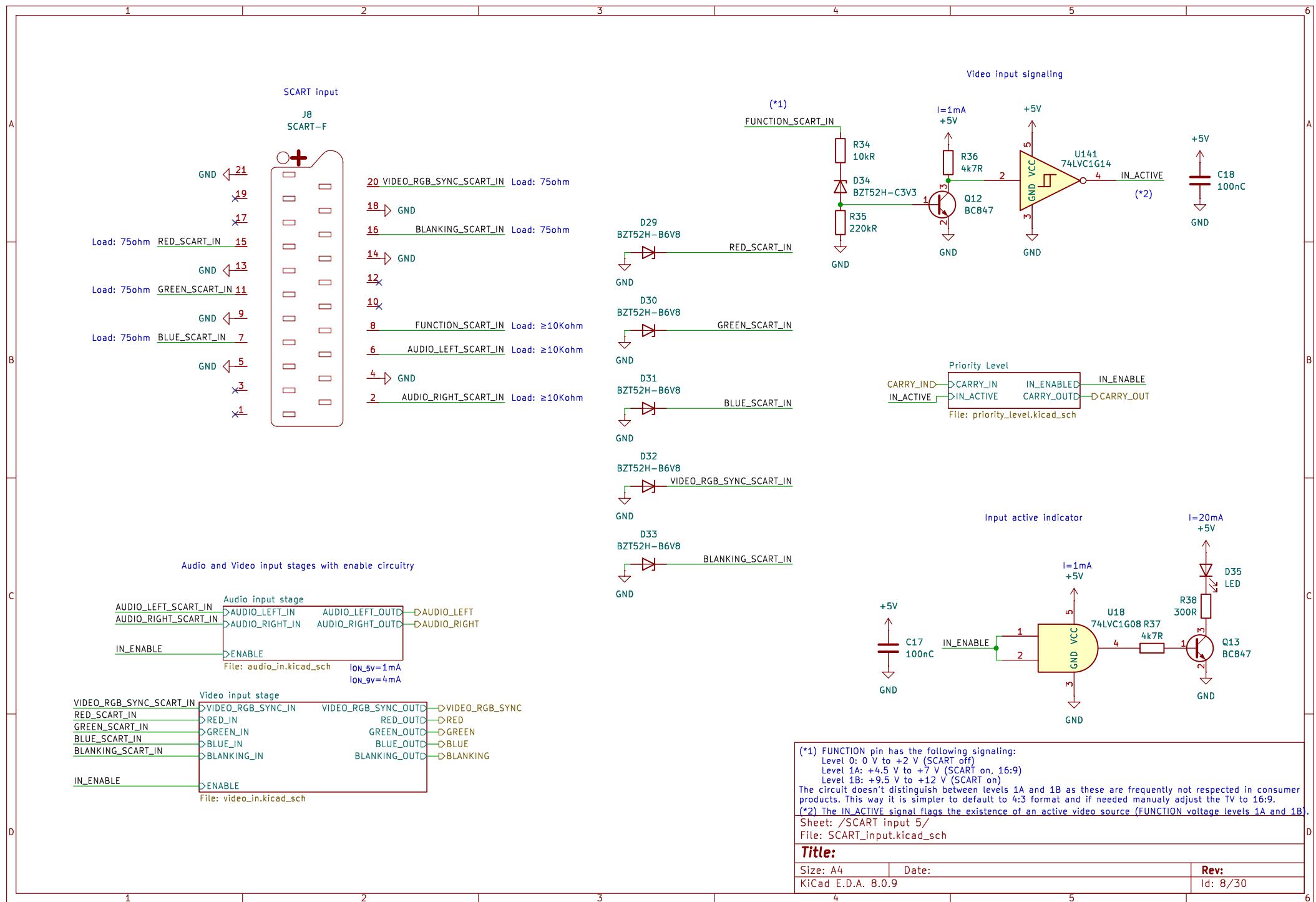
1 2 3 4 5 6

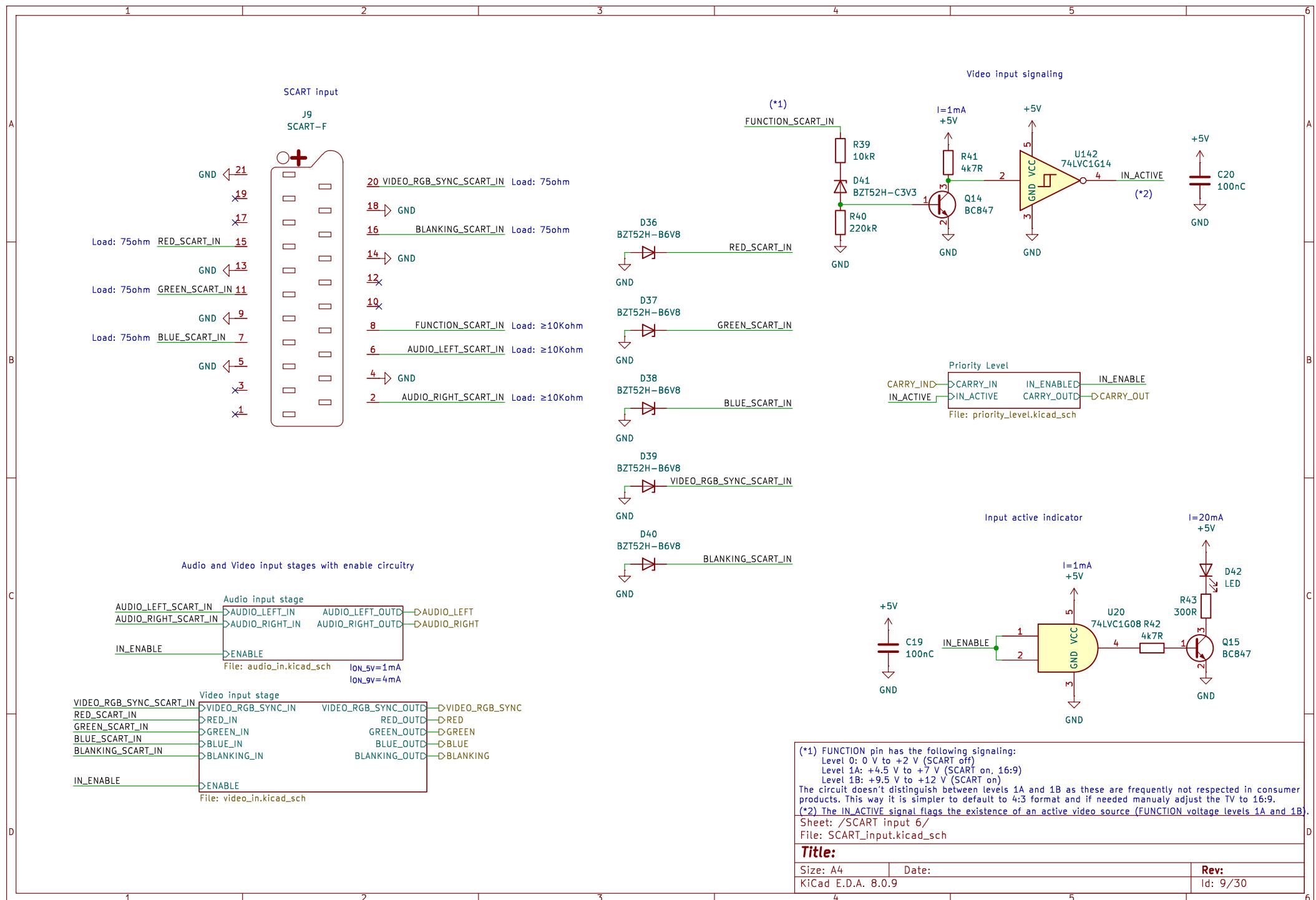












1 2 3 4 5 6

A

A

B

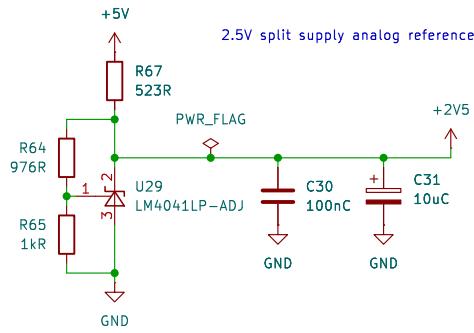
B

C

C

D

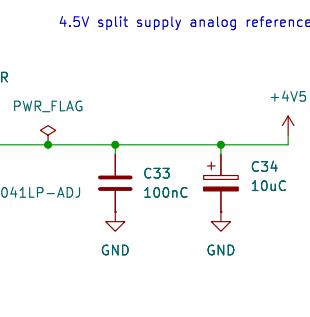
D



+2.5V

R68
1kR

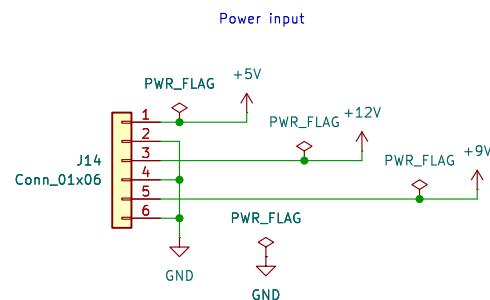
GND



+4.5V

R73
1kR

GND



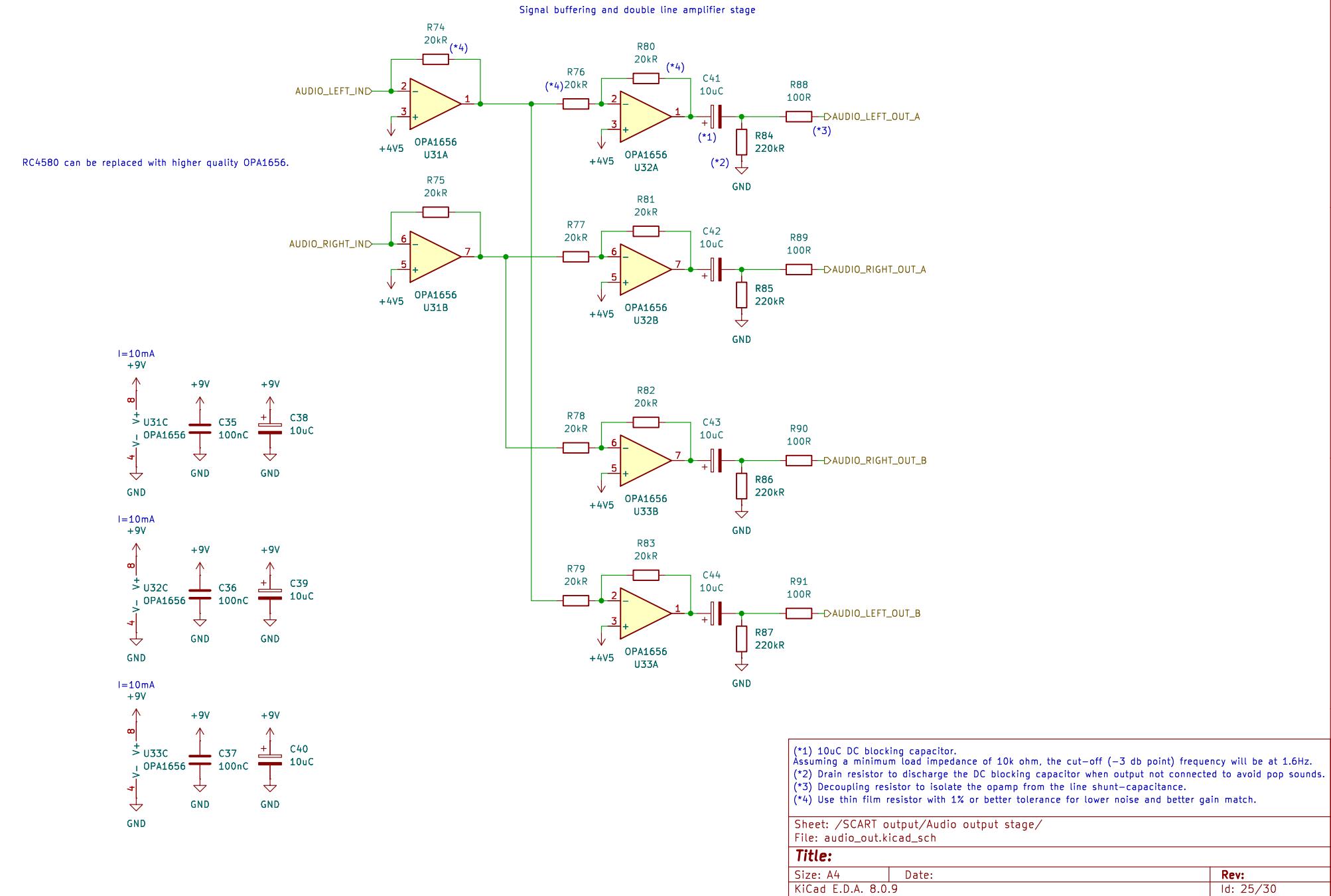
Sheet: /Power/
File: power.kicad_sch

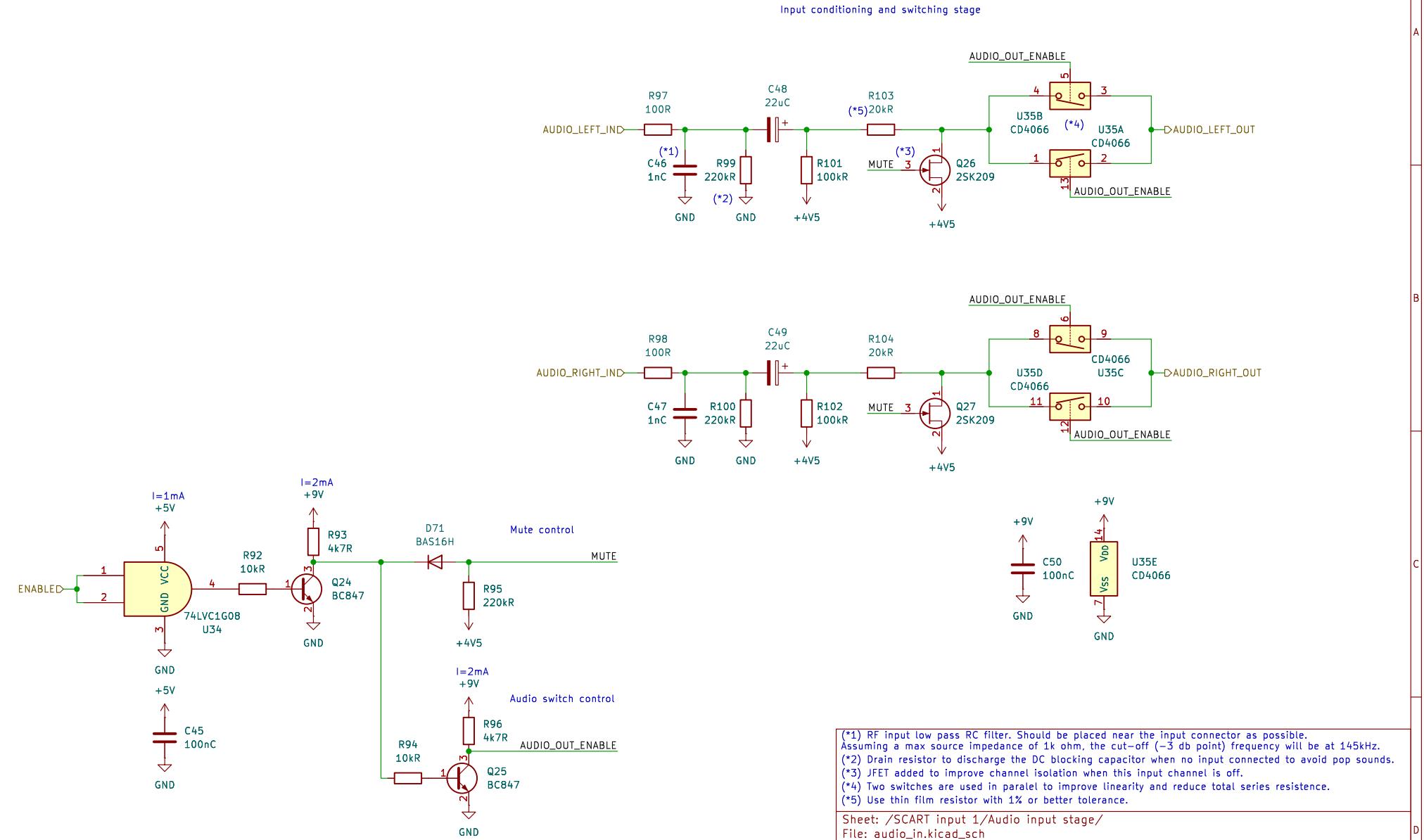
Title:

Size: A4 | Date:
KiCad E.D.A. 8.0.9

Rev:
Id: 14/30

1 2 3 4 5 6





1 2 3 4 5 6

1 2 3 4 5 6

1 2 3 4 5 6

A

A

B

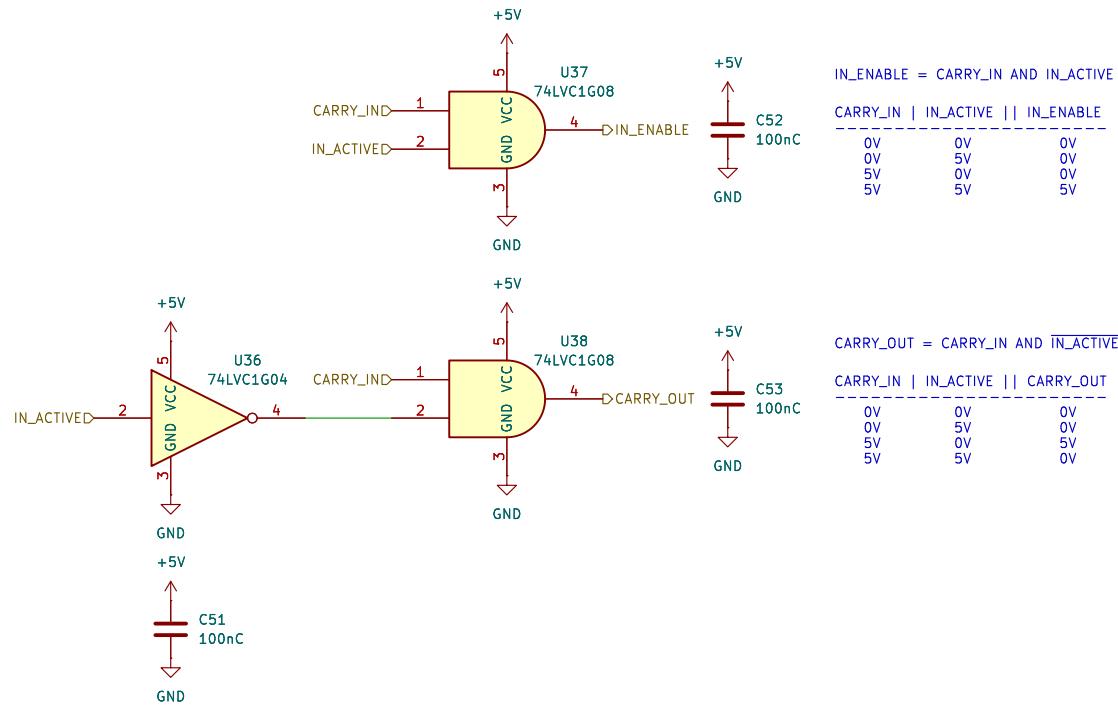
B

C

C

D

D



Sheet: /SCART input 1/Priority Level/
File: priority_level.kicad_sch

Title:

Size: A4 | Date:
KiCad E.D.A. 8.0.9

Rev:
Id: 28/30

1 2 3 4 5 6

1 2 3 4 5 6

A

A

B

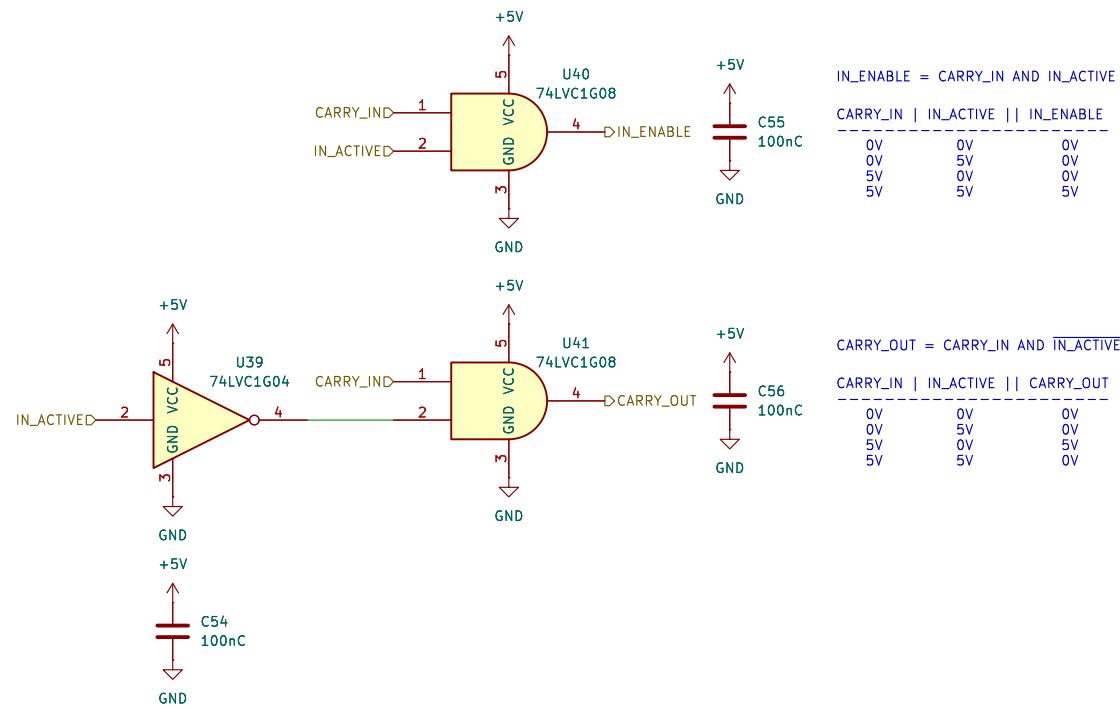
B

C

C

D

D



Sheet: /SCART input 2/Priority Level/
File: priority_level.kicad_sch

Title:

Size: A4 Date:
KiCad E.D.A. 8.0.9

Rev:
Id: 29/30

1 2 3 4 5 6

1 2 3 4 5 6

A

A

B

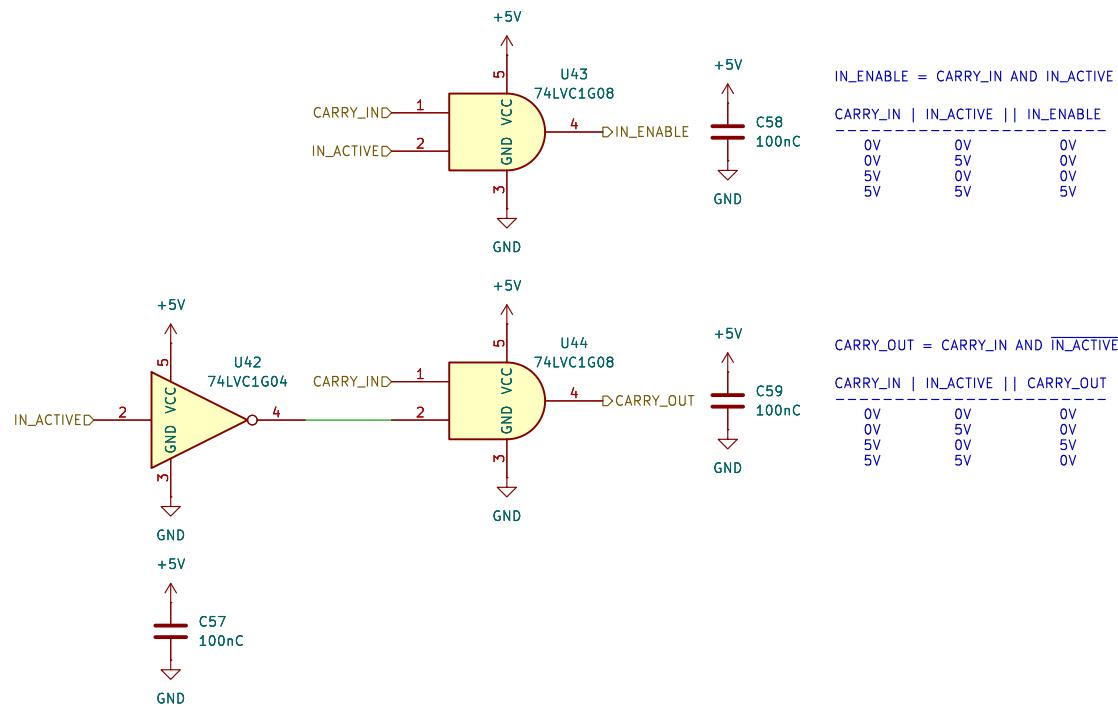
B

C

C

D

D



Sheet: /SCART input 3/Priority Level/
File: priority_level.kicad_sch

Title:

Size: A4 | Date:

KiCad E.D.A. 8.0.9

Rev:
Id: 30/30

1 2 3 4 5 6

A

A

B

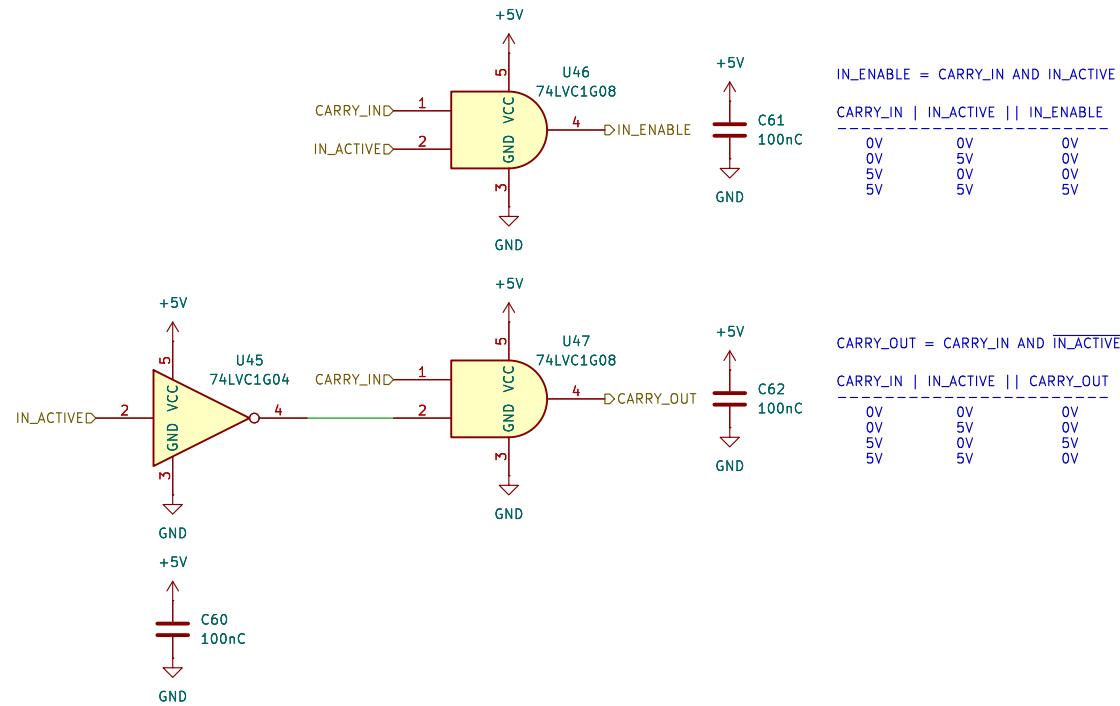
B

C

C

D

D



Sheet: /SCART input 4/Priority Level/
File: priority_level.kicad_sch

Title:

Size: A4 | Date:
KiCad E.D.A. 8.0.9

Rev:
Id: 31/30

1 2 3 4 5 6

A

A

B

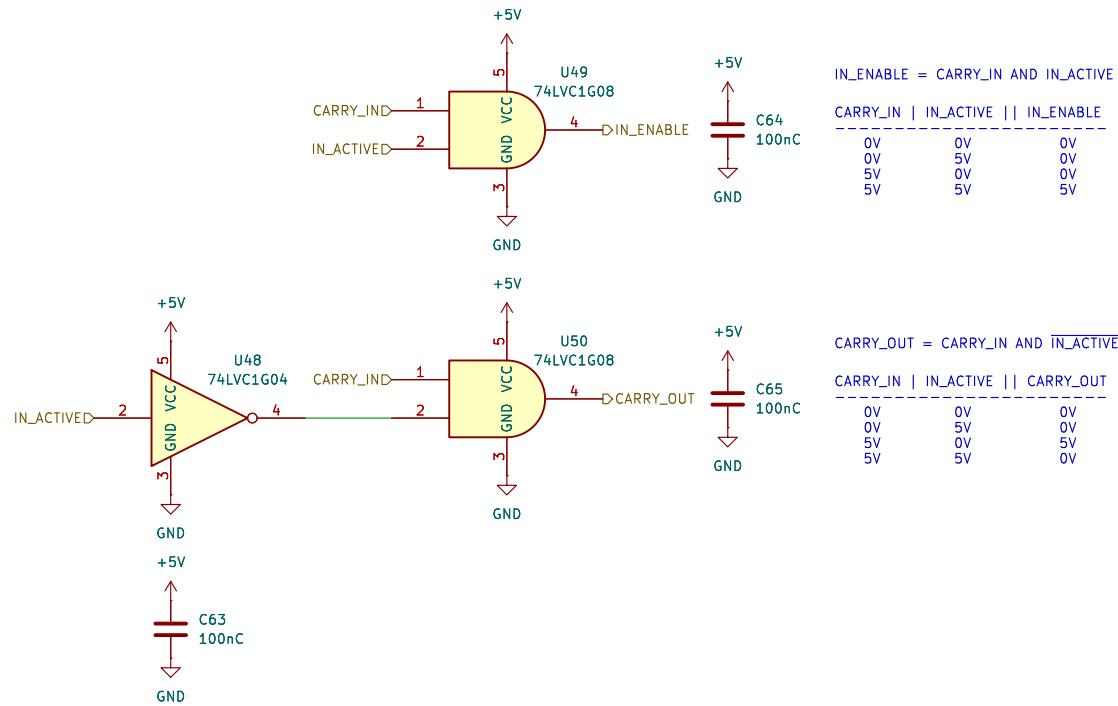
B

C

C

D

D



Sheet: /SCART input 5/Priority Level/
File: priority_level.kicad_sch

Title:

Size: A4 Date:

KiCad E.D.A. 8.0.9

Rev:
Id: 32/30

1 2 3 4 5 6

1 2 3 4 5 6

A

A

B

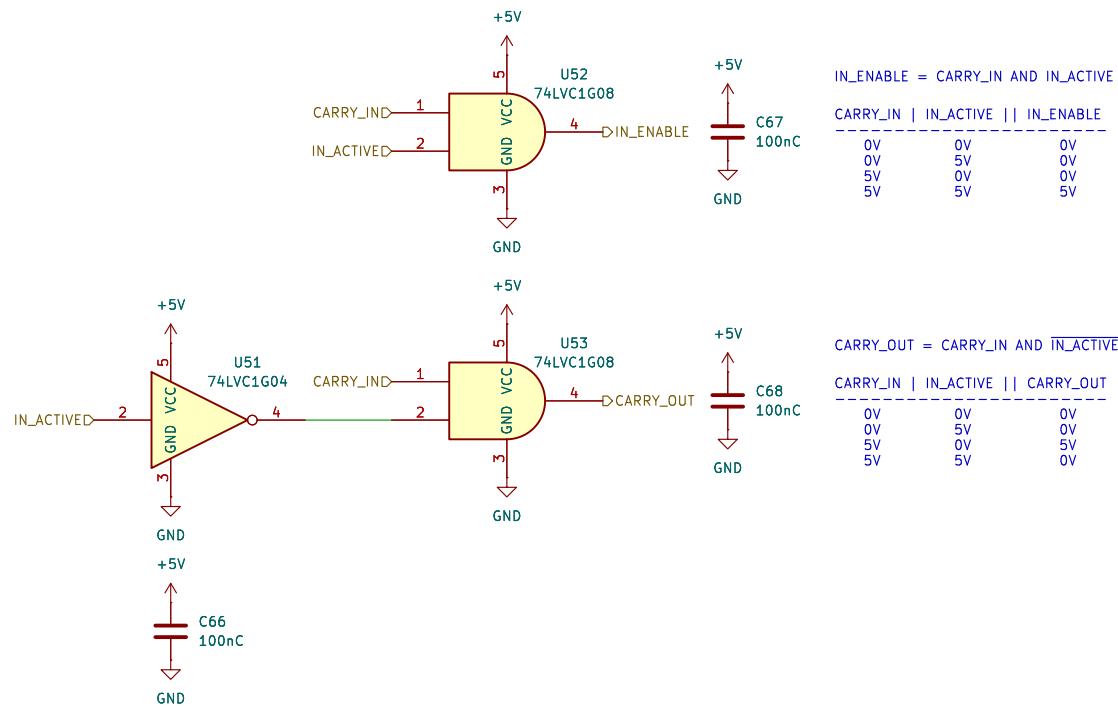
B

C

C

D

D



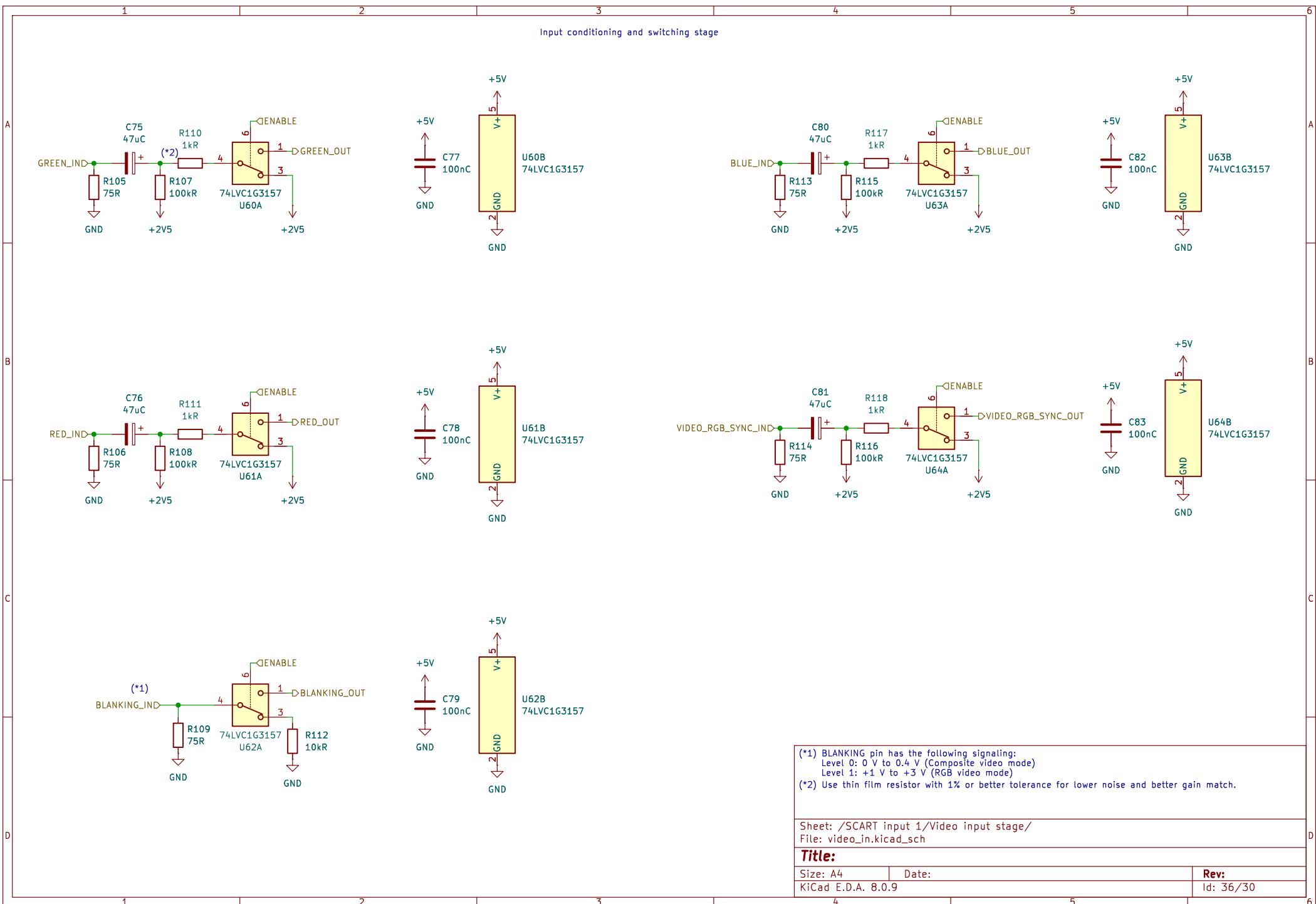
Sheet: /SCART input 6/Priority Level/
File: priority_level.kicad_sch

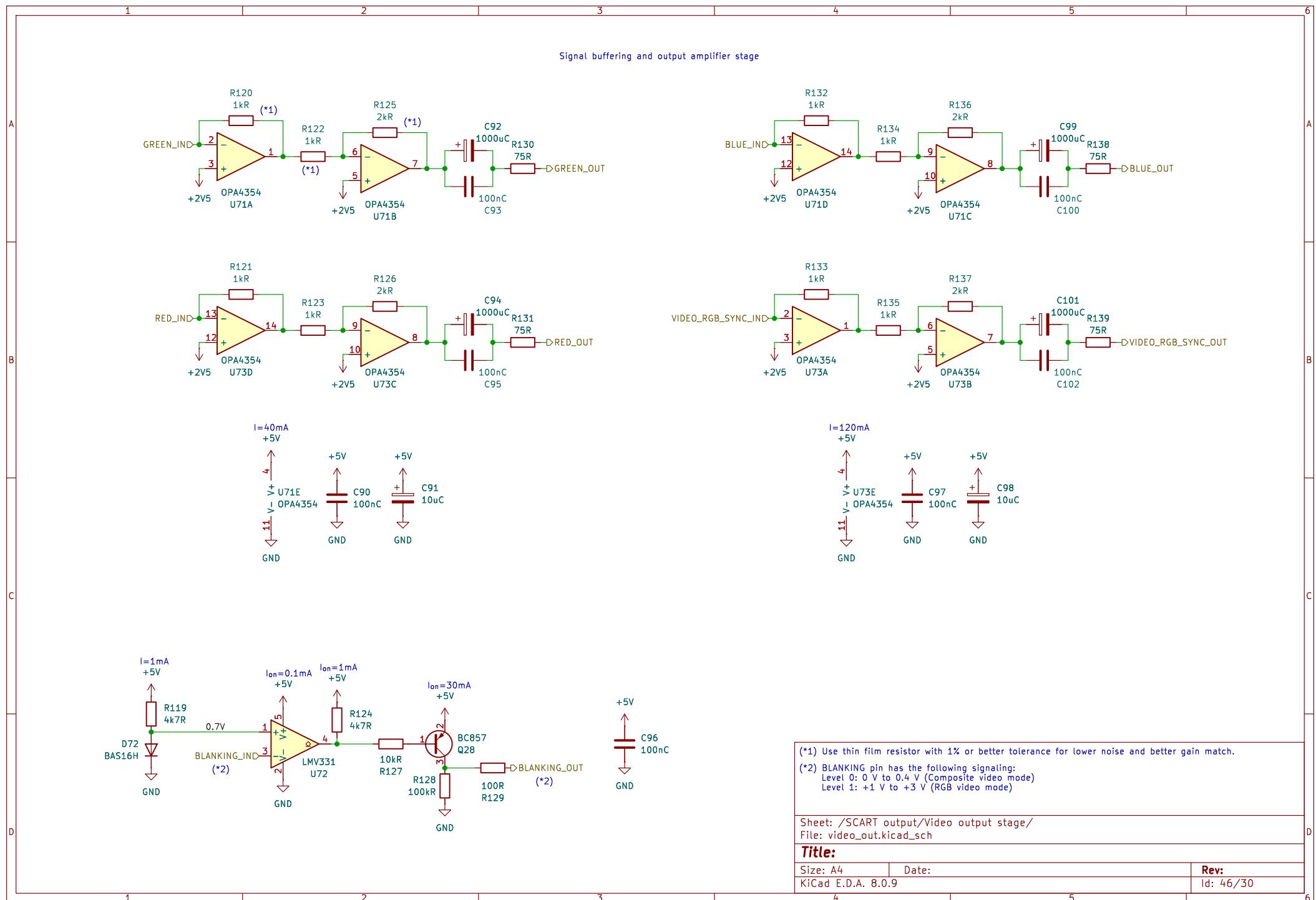
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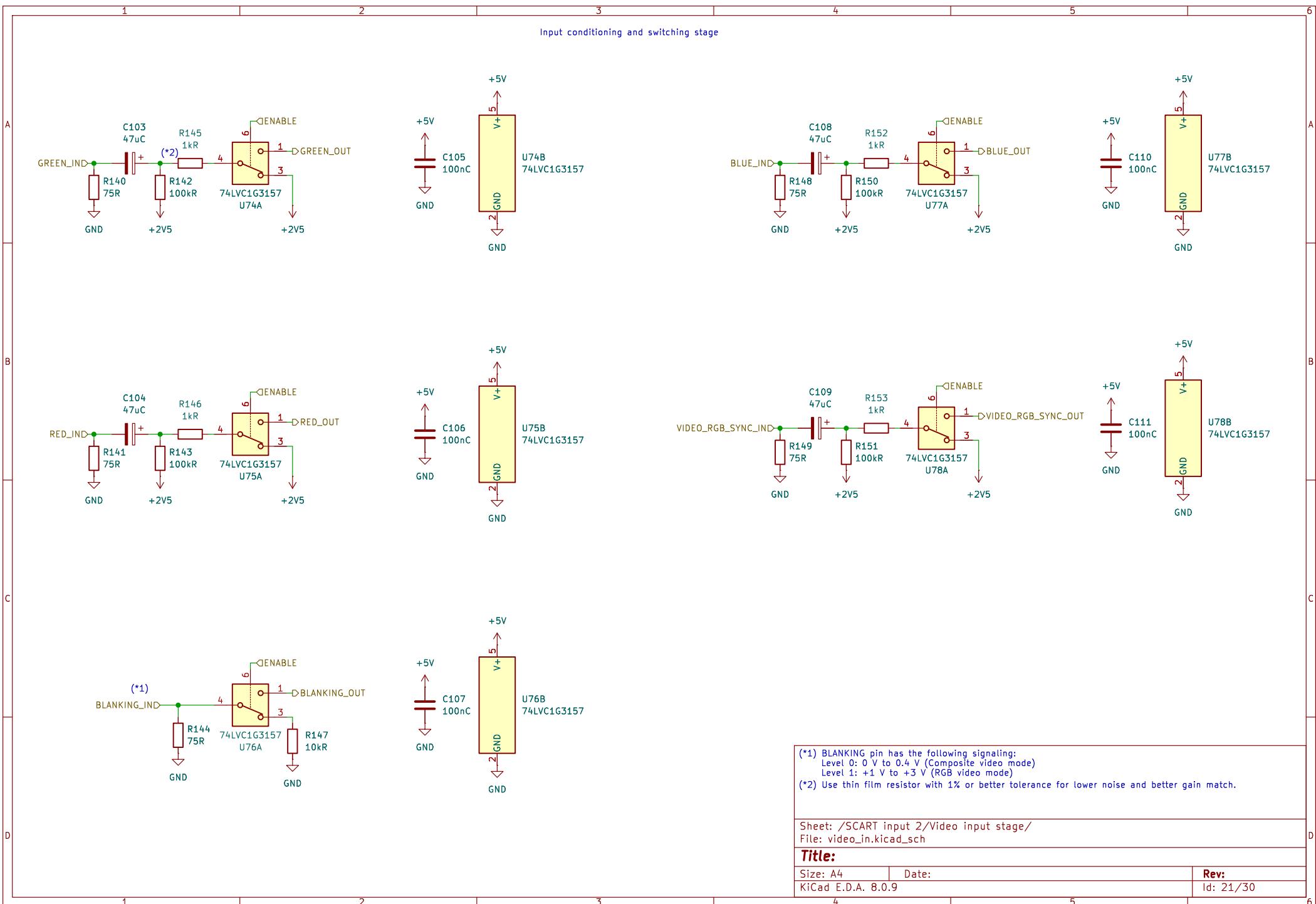
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KiCad E.D.A. 8.0.9

Rev:
Id: 33/30

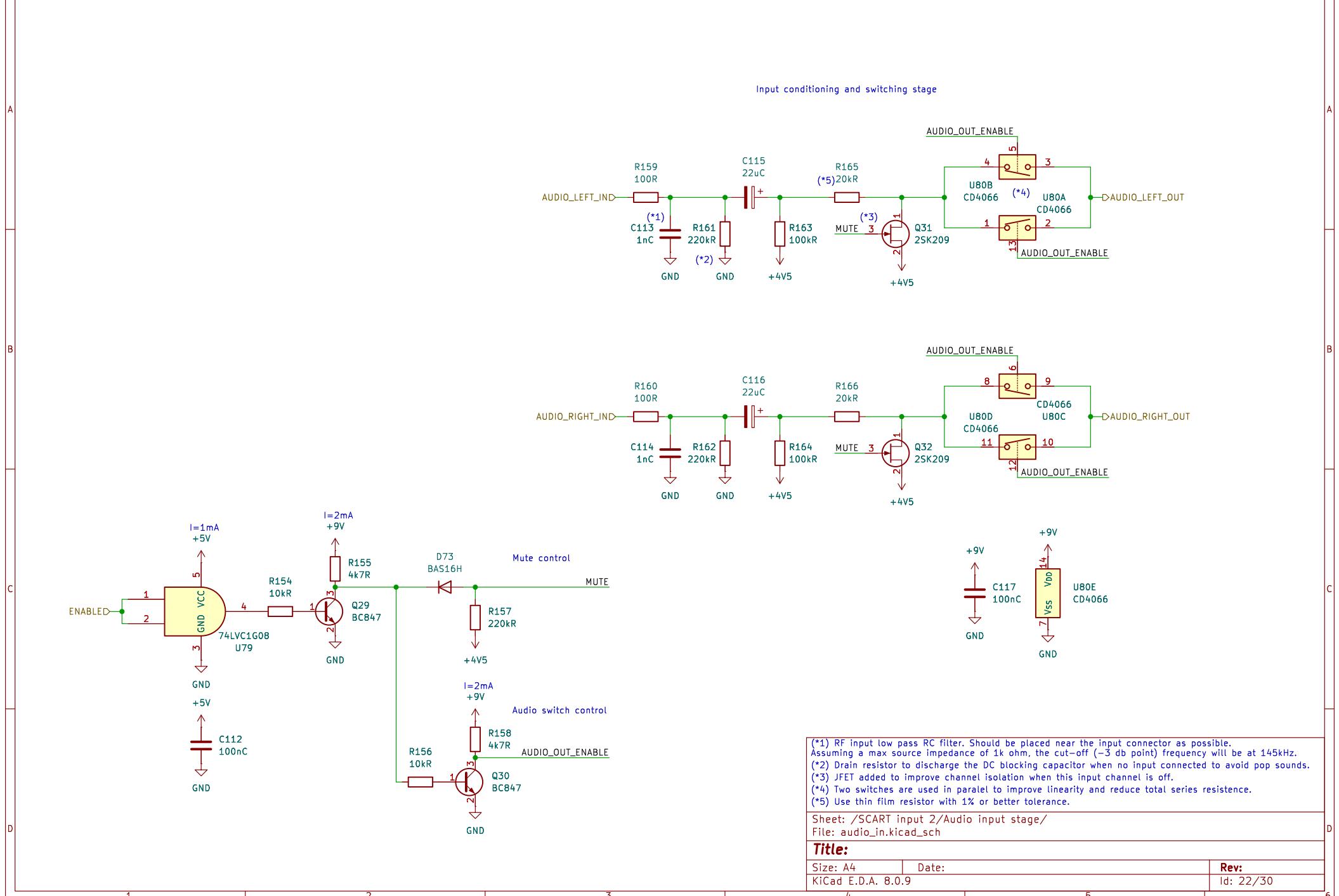
1 2 3 4 5 6



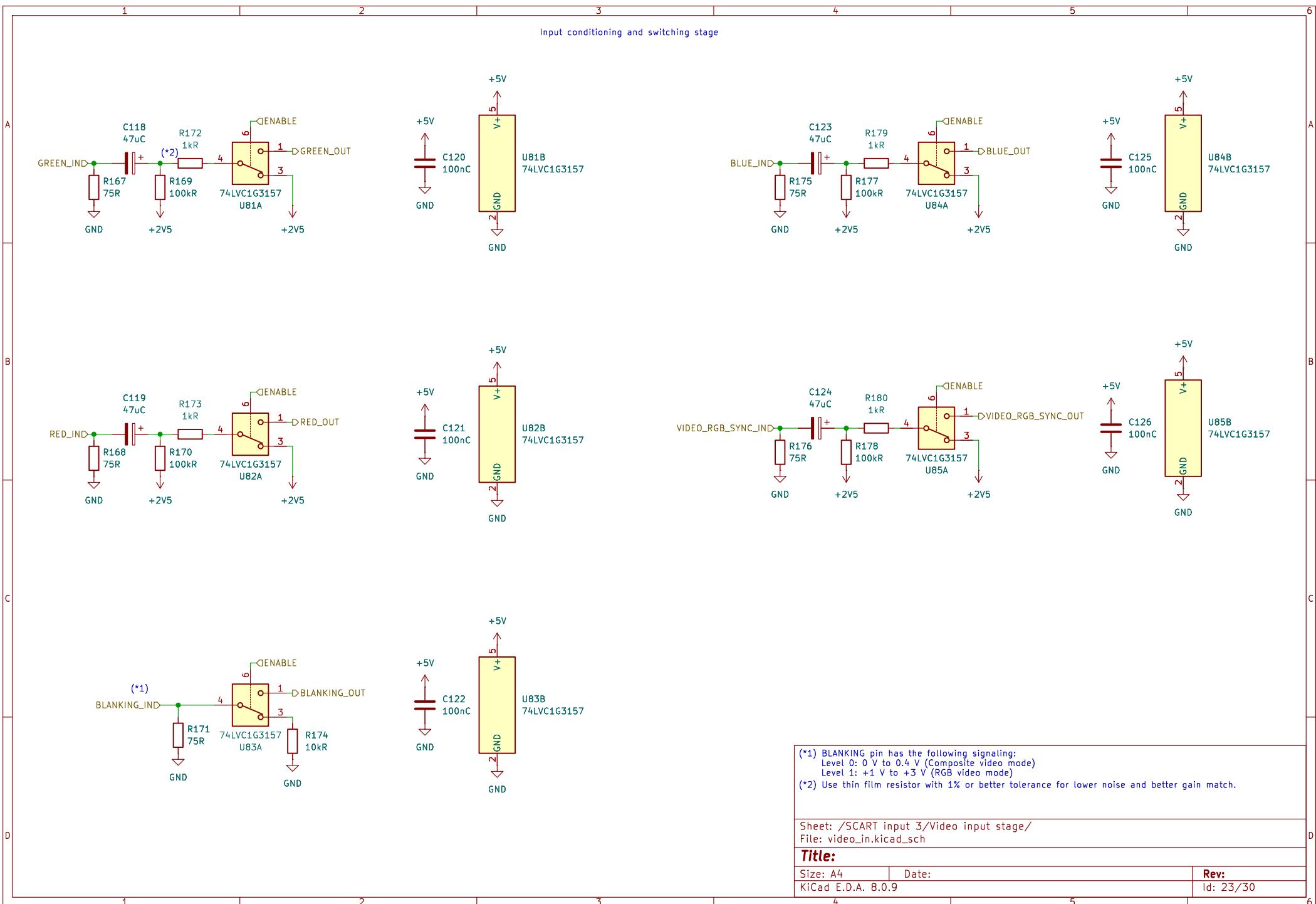


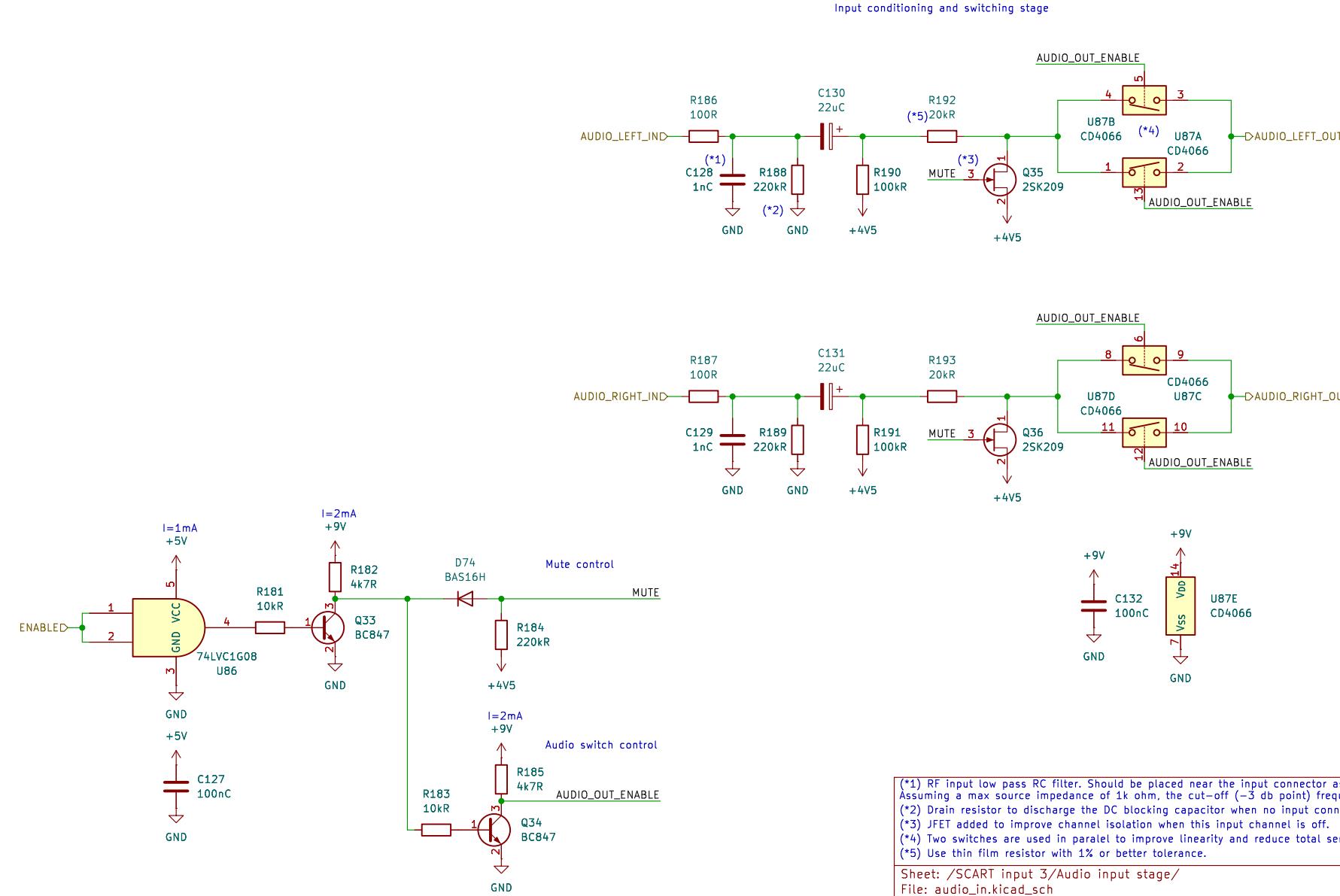


1 2 3 4 5 6



1 2 3 4 5 6





(*1) RF input low pass RC filter. Should be placed near the input connector as possible.
 Assuming a max source impedance of 1k ohm, the cut-off (-3 db point) frequency will be at 145kHz.
 (*2) Drain resistor to discharge the DC blocking capacitor when no input connected to avoid pop sounds.
 (*3) JFET added to improve channel isolation when this input channel is off.
 (*4) Two switches are used in parallel to improve linearity and reduce total series resistance.
 (*5) Use thin film resistor with 1% or better tolerance.

Sheet: /SCART input 3/ Audio input stage/

File: audio_in.kicad_sch

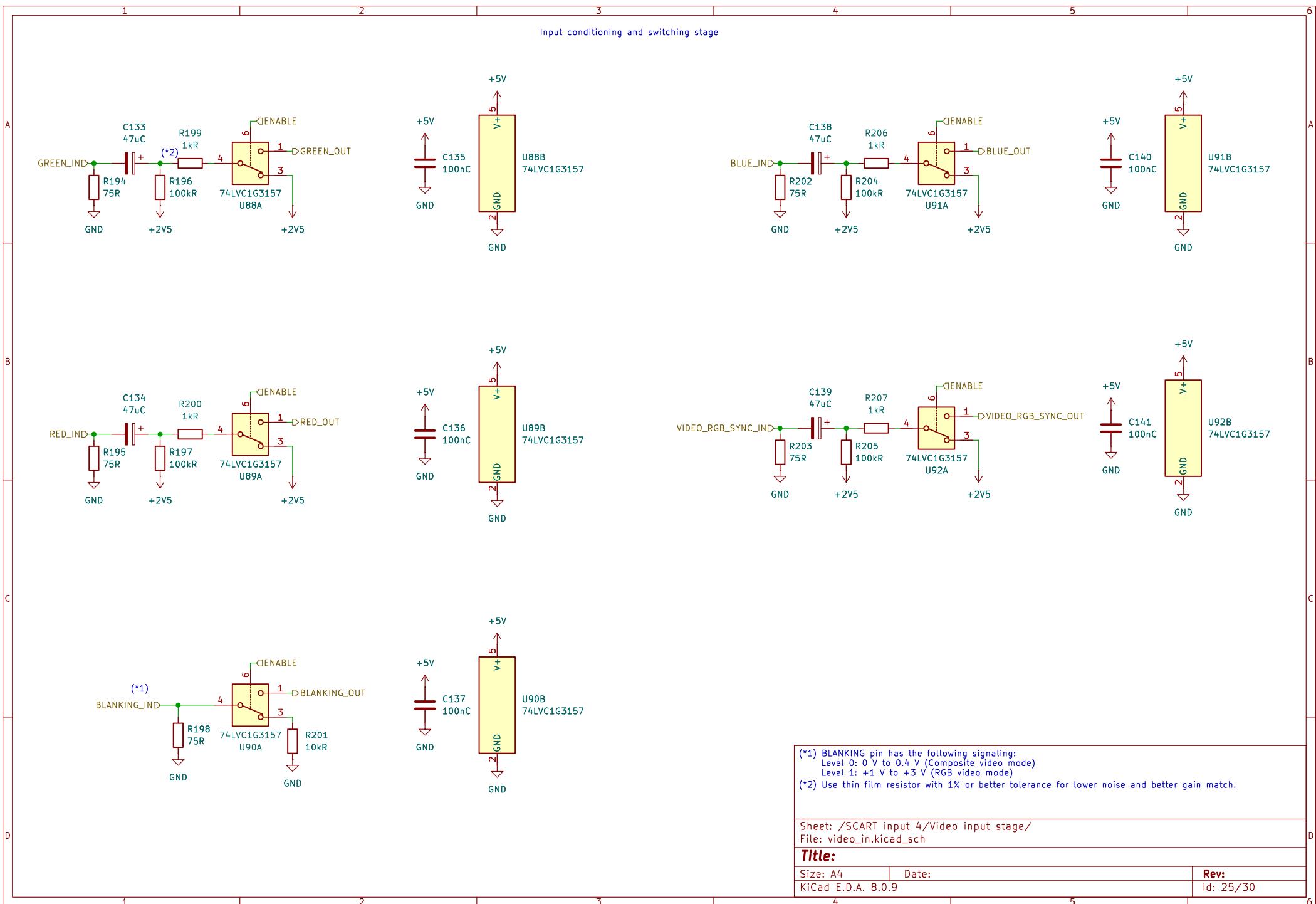
Title:

Size: A4 Date:

KiCad E.D.A. 8.0.9

Rev:

Id: 24/30

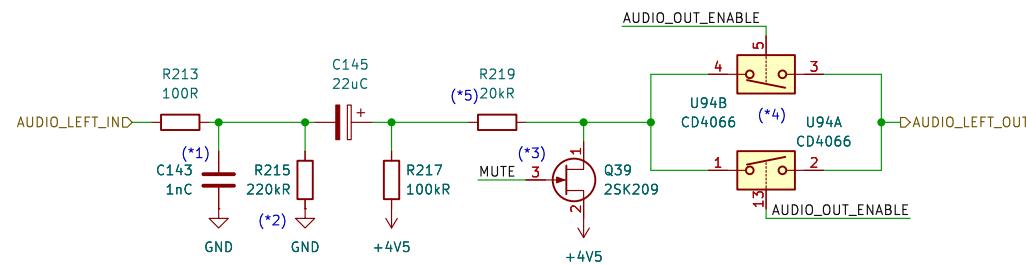


A

A

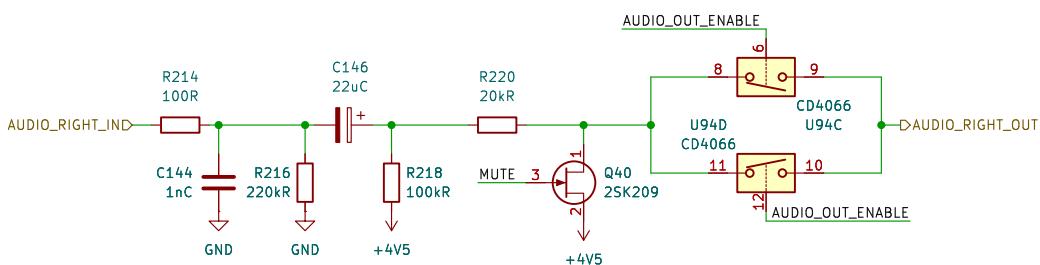
1 2 3 4 5 6

Input conditioning and switching stage



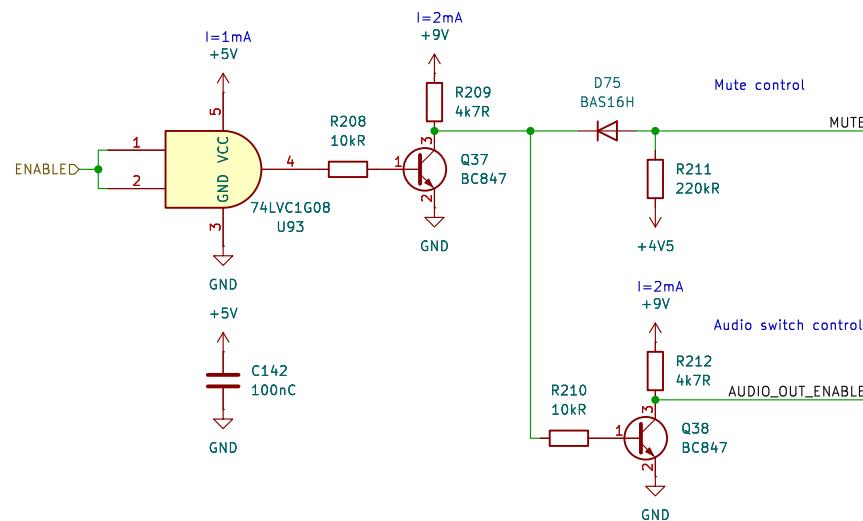
B

B



C

C



D

D

(*1) RF input low pass RC filter. Should be placed near the input connector as possible.
 Assuming a max source impedance of 1k ohm, the cut-off (-3 db point) frequency will be at 145kHz.
 (*2) Drain resistor to discharge the DC blocking capacitor when no input connected to avoid pop sounds.
 (*3) JFET added to improve channel isolation when this input channel is off.
 (*4) Two switches are used in parallel to improve linearity and reduce total series resistance.
 (*5) Use thin film resistor with 1% or better tolerance.

Sheet: /SCART input 4/

File: audio_in.kicad_sch

Title:

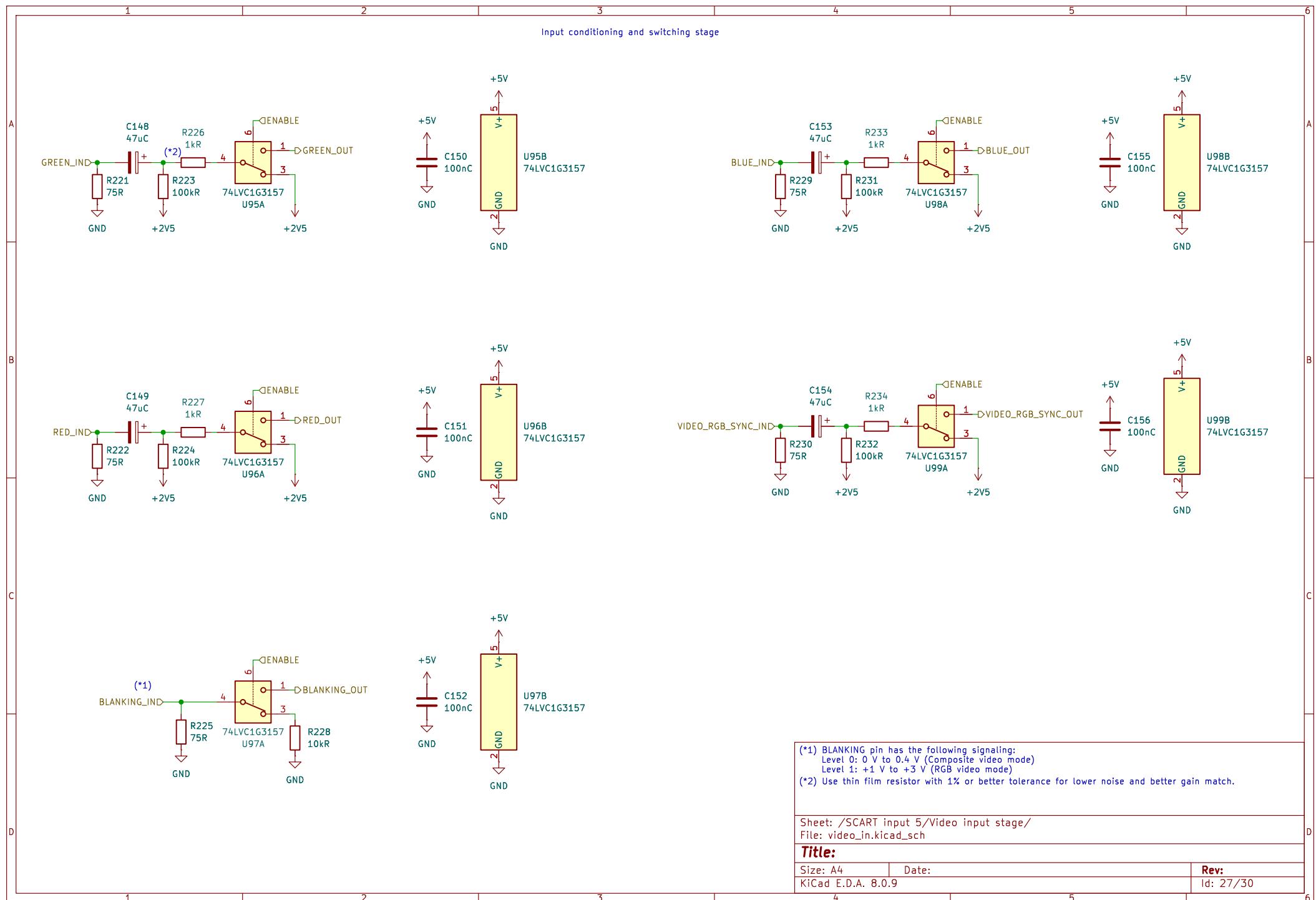
Size: A4 Date:

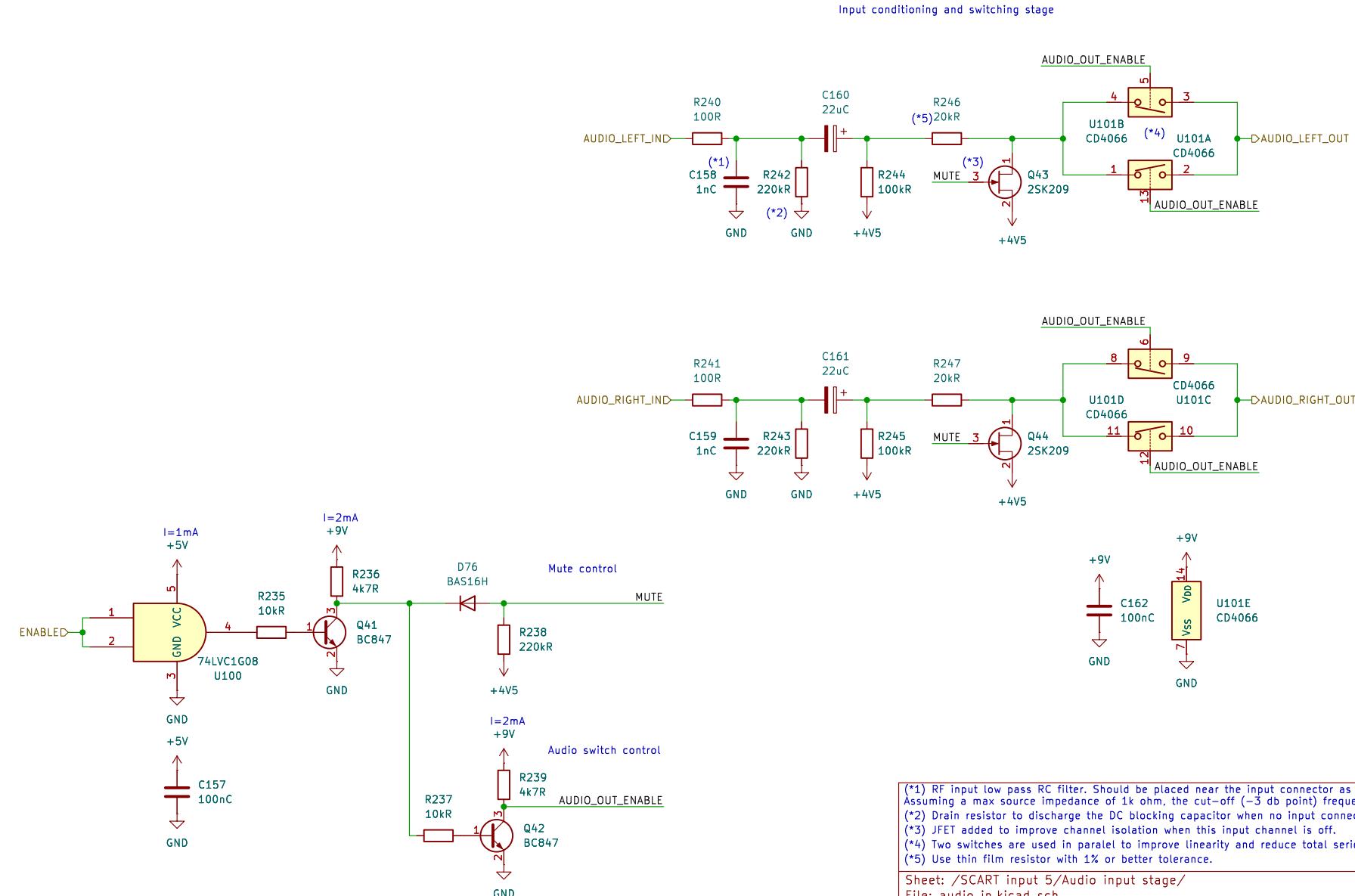
KiCad E.D.A. 8.0.9

Rev:

Id: 26/30

1 2 3 4 5 6





(*1) RF input low pass RC filter. Should be placed near the input connector as possible.
 Assuming a max source impedance of 1k ohm, the cut-off (-3 db point) frequency will be at 145kHz.
 (*2) Drain resistor to discharge the DC blocking capacitor when no input connected to avoid pop sounds.
 (*3) JFET added to improve channel isolation when this input channel is off.
 (*4) Two switches are used in parallel to improve linearity and reduce total series resistance.
 (*5) Use thin film resistor with 1% or better tolerance.

Sheet: /SCART input 5/ Audio input stage/

File: audio_in.kicad_sch

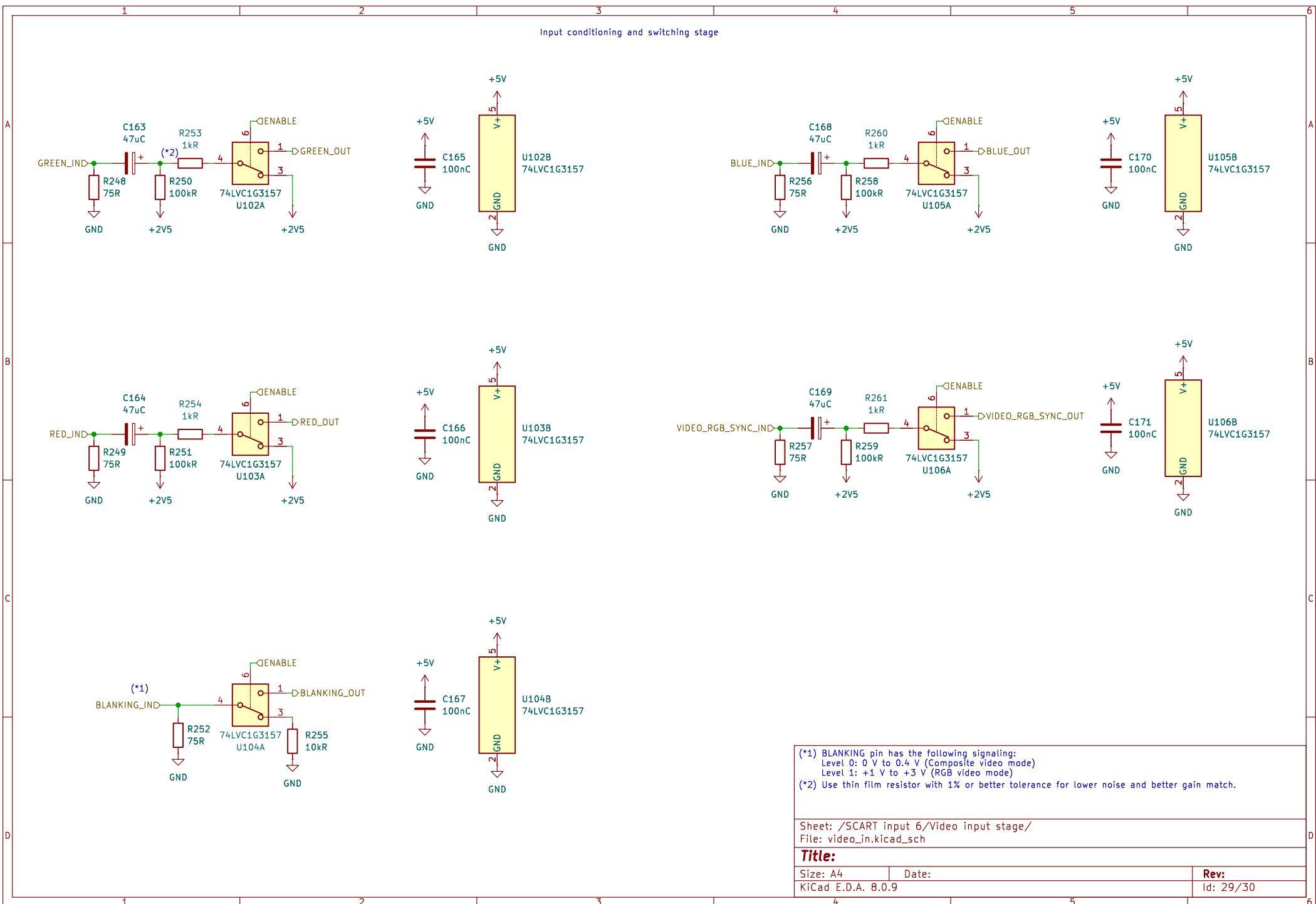
Title:

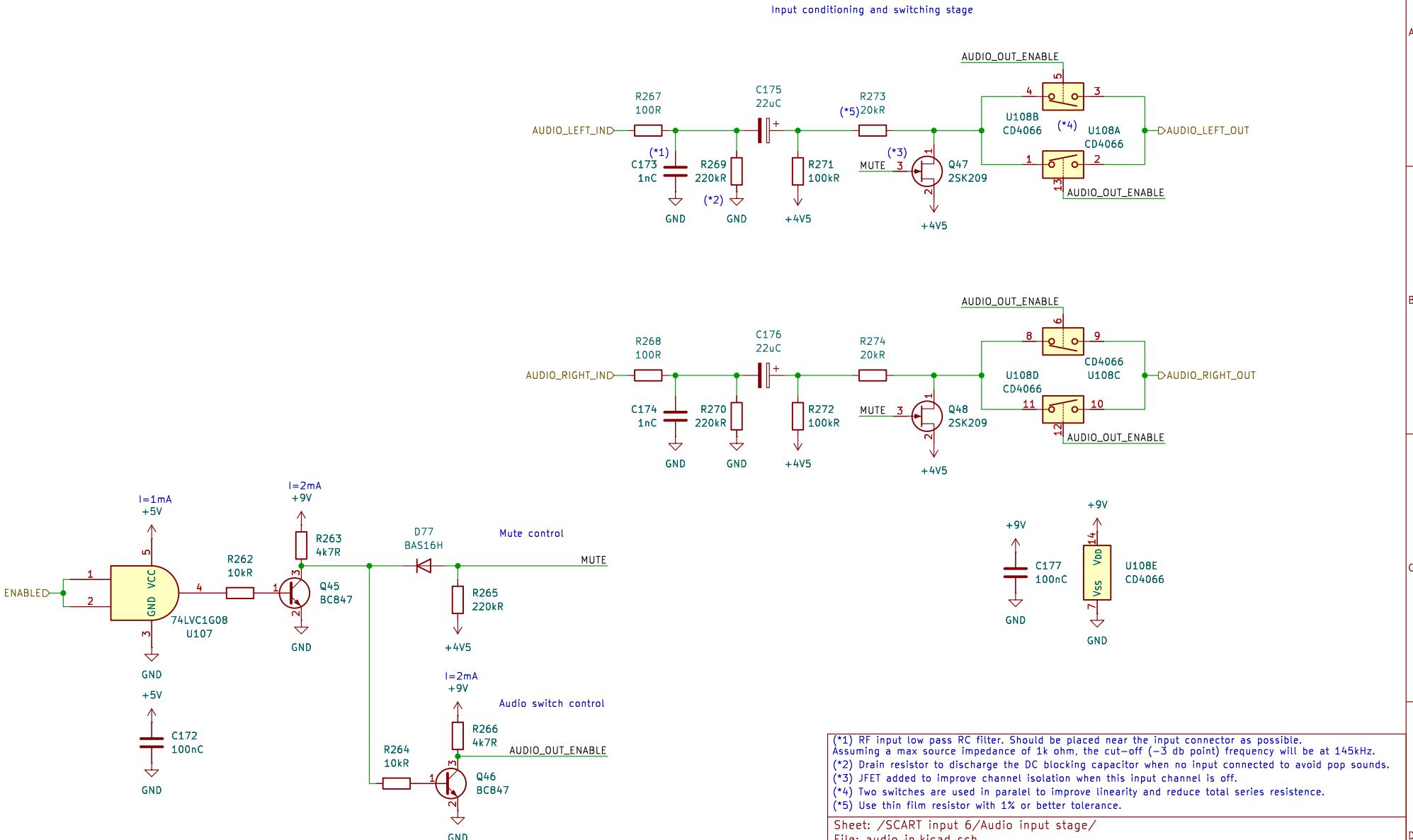
Size: A4 Date:

KiCad E.D.A. 8.0.9

Rev:

Id: 28/30





(*1) RF input low pass RC filter. Should be placed near the input connector as possible.
Assuming a max source impedance of 1k ohm, the cut-off (-3 db point) frequency will be at 145kHz.
(*2) Drain resistor to discharge the DC blocking capacitor when no input connected to avoid pop sounds.
(*3) JFET added to improve channel isolation when this input channel is off.
(*4) Two switches are used in parallel to improve linearity and reduce total series resistance.
(*5) Use thin film resistor with 1% or better tolerance.

Sheet: /SCART input 6/ Audio input stage/
File: audio_in.kicad_sch

Title:

Size: A4 Date:

KiCad E.D.A. 8.0.9

Rev:

Id: 30/30