

1 2 3 4 5 6

Sheet: LT8619C

File: LT8619C.sch

Sheet: CH554G

File: CH554G.sch

Sheet: MCU

File: MCU.sch

A

A

B

B

C

C

D

D

Sheet: POWER

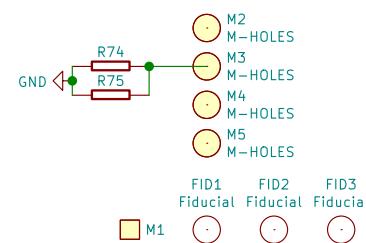
File: POWER.sch

Sheet: HDMI

File: HDMI.sch

Sheet: SCREEN

File: SCREEN.sch



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Sheet: /
File: MKS IPS50.sch

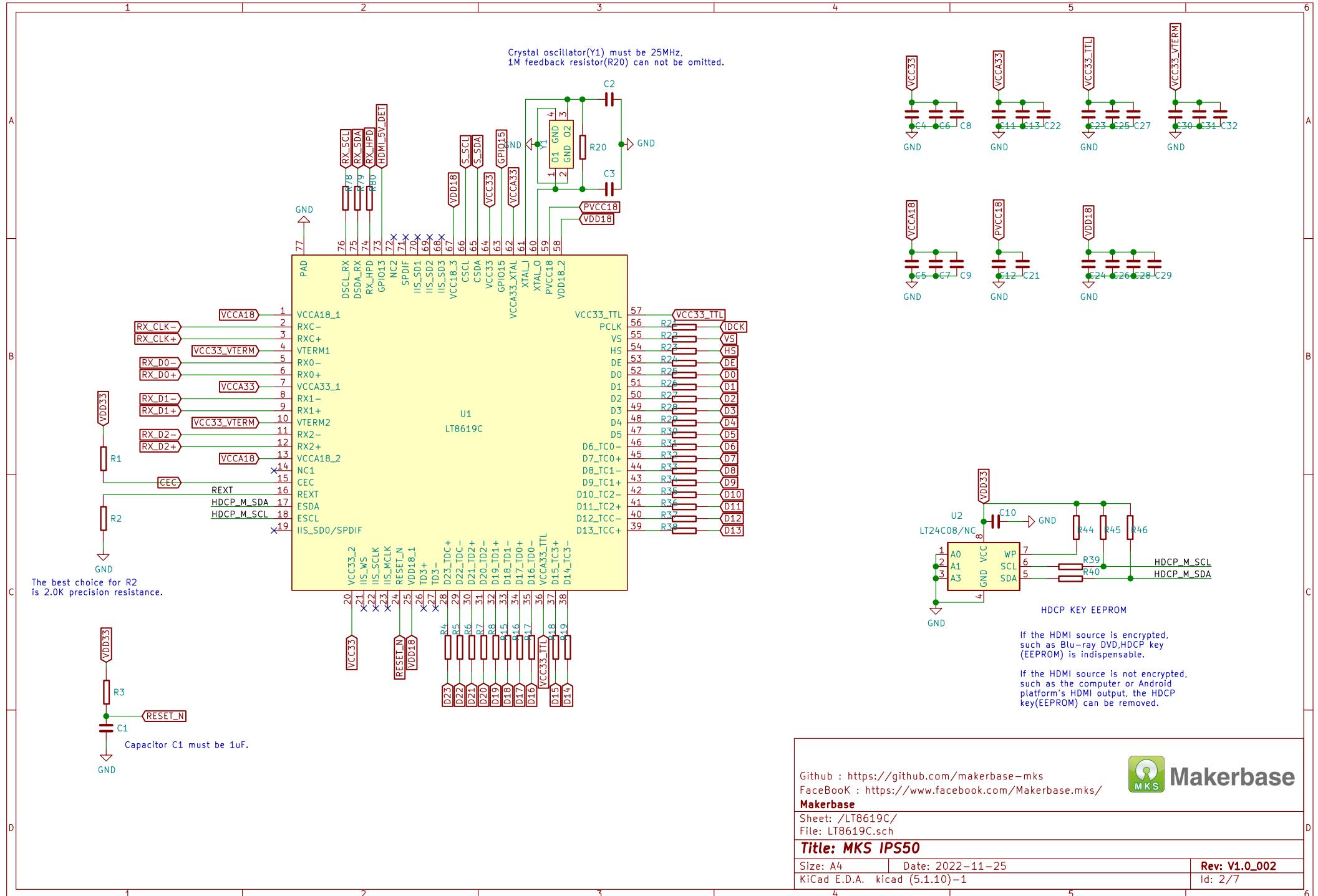
Title: MKS IPS50

Size: A4 Date: 2022-11-25
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Rev: V1.0_002

Id: 1/7

1 2 3 4 5 6



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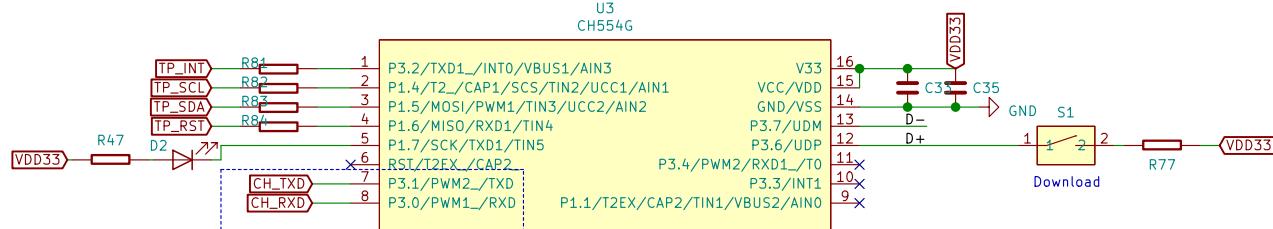
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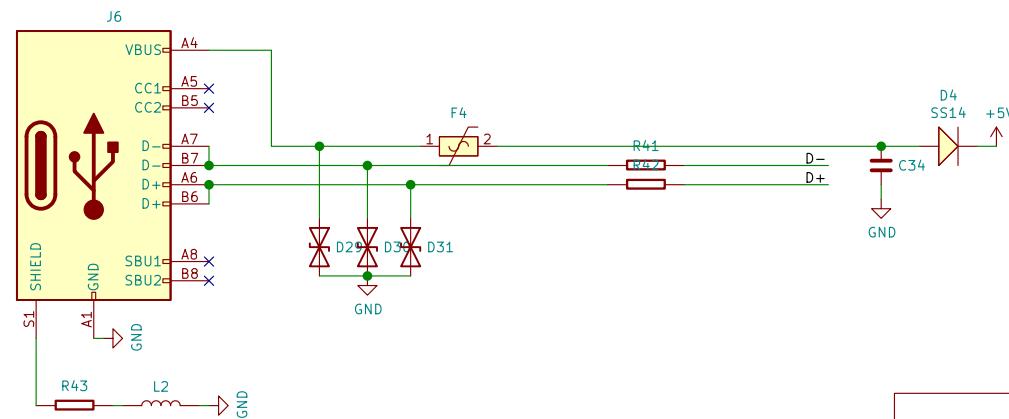
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Debug



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Sheet: /CH554G/
 File: CH554G.sch

Title: MKS IPS50

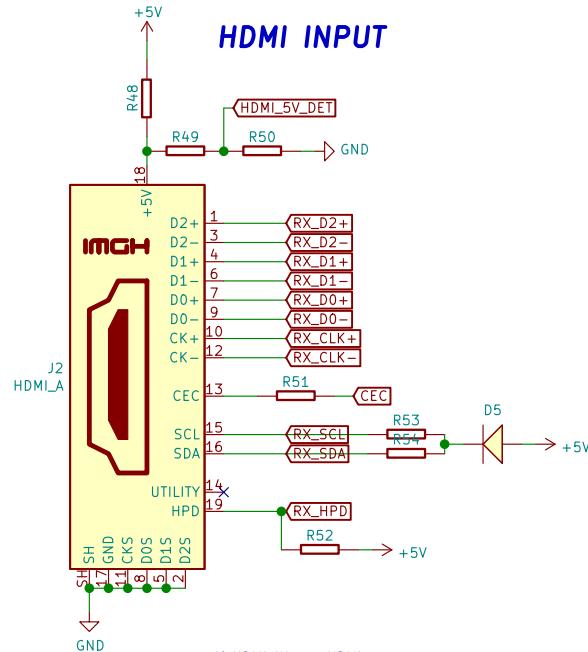
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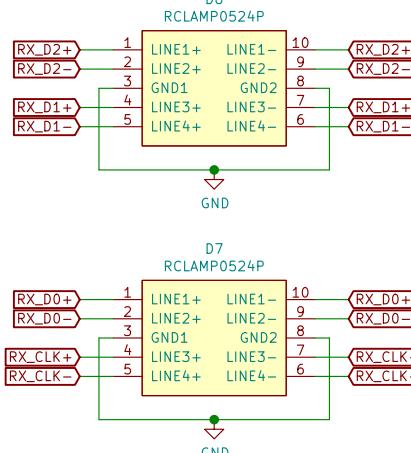
A

A



If HDMI IN are HDMI sources connected by HDMI wires (such as Blu-ray DVD, computer HDMI output). RX_HPD must be between 4 and 5 V. If it is lower, HDMI source may be can recognize HPD, but the risk is high.

So RX_HPD must be connected with pull-up resistor to 5V.

ESD

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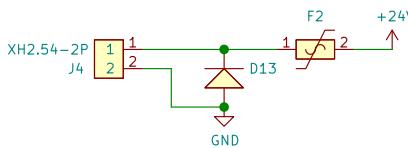
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1 2 3 4 5 6

POWER INPUT DC12~24V

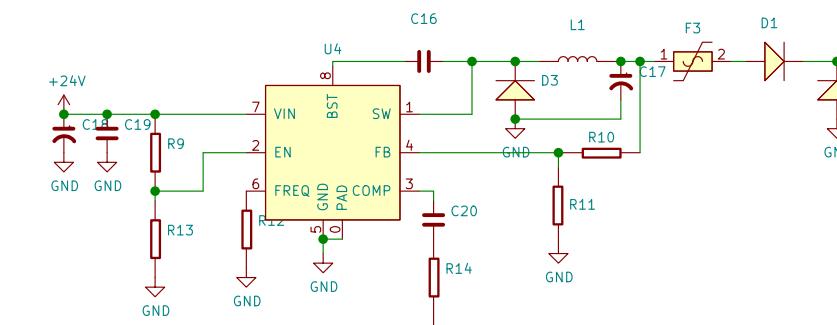
A



B

DC12~24V To DC5V

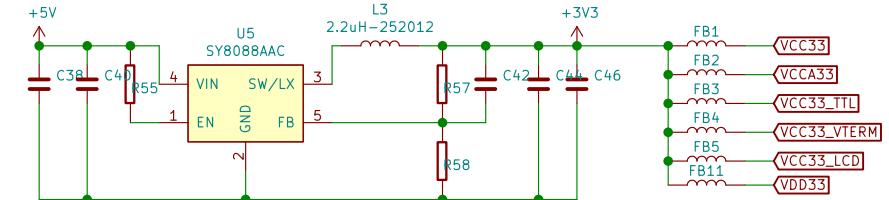
C



D

DC5V To DC3V3

A

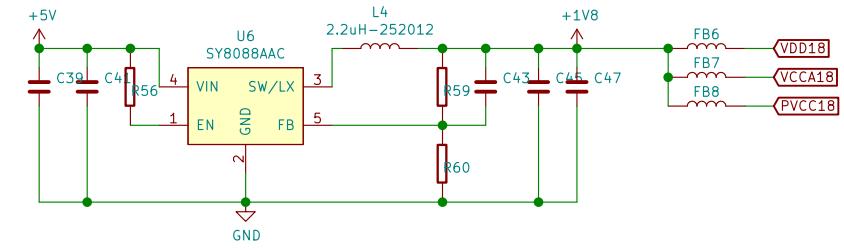


$$V_{out} = (R_{up}/R_{gnd} + 1) * 0.6 = (680K/150K + 1) * 0.6 = 5.5333 * 0.6 = 3.32V$$

B

DC5V To DC1V8

The 3.3V and 1.8V power input of LT8619C must be separated by magnetic beads.
magnetic beads are indispensable.



$$V_{out} = (R_{up}/(R_{gnd1}/R_{gnd2} + 1) * 0.6 = (150K/75K + 1) * 0.6 = 3 * 0.6 = 1.8V$$

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File: POWER.sch

Title: MKS IPS50

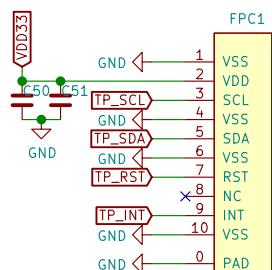
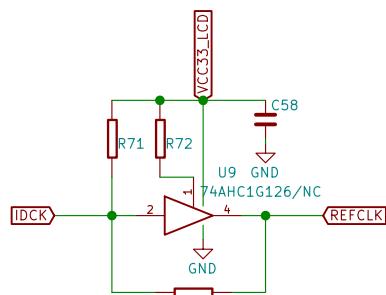
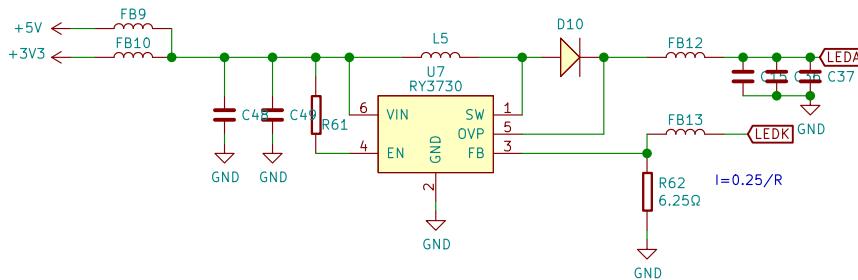
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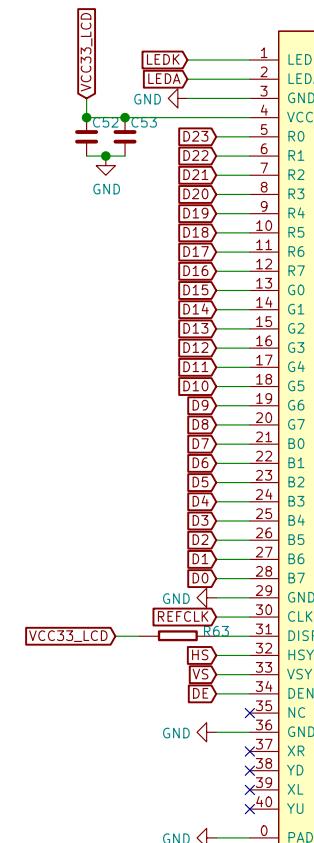
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Touch



LCD

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Id: 6/7

A

A

B

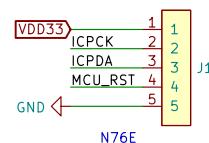
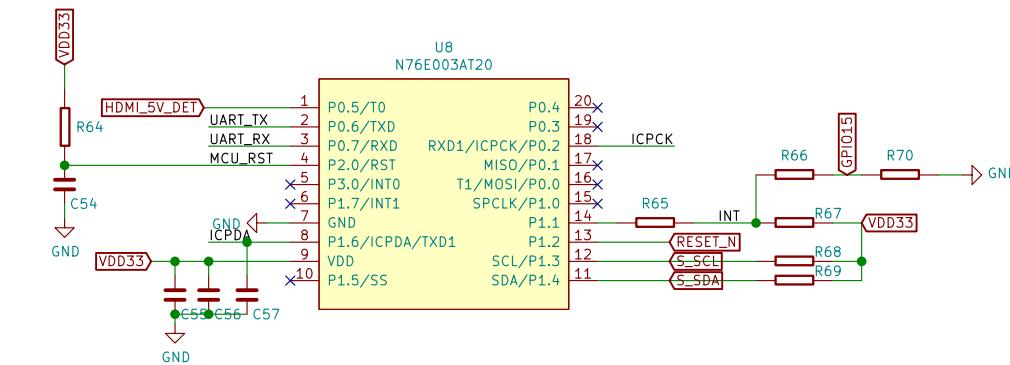
B

C

C

D

D



Programming

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Sheet: /MCU/
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Size: A4 Date: 2022-11-25
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