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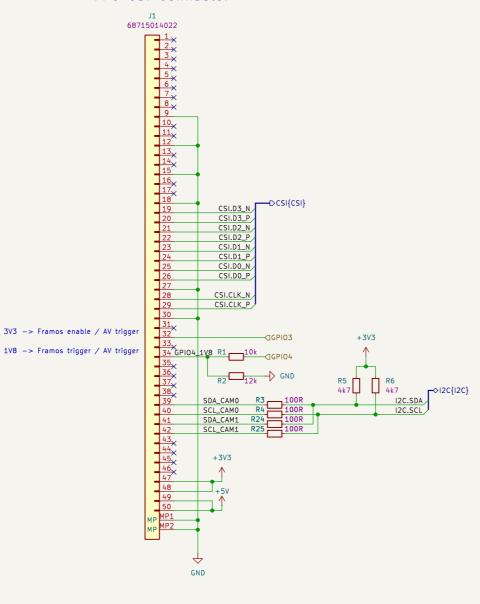
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File: gmsl-serializer.kicad_sch

Title: GSML Serializer

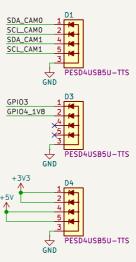
Size: A3 Date: 2024-11-27 Rev: 1.1.1:e6346

KiCad E.D.A. 8.0.5

FFC CSI Connector









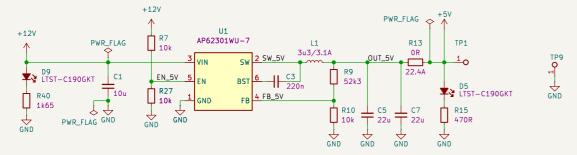
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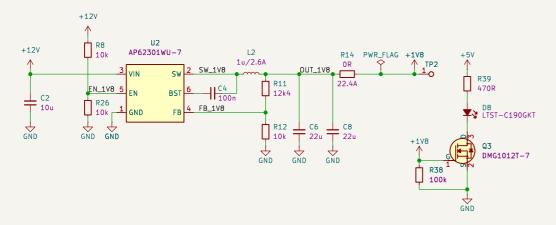
Sheet: /CSI Connector/ File: CSI.kicad_sch

Title: GSML Serializer

5V BUCK CONVERTER



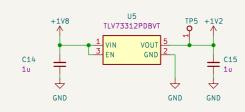
1V8 BUCK CONVERTER

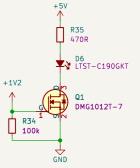


1V25 voltage reference DNP

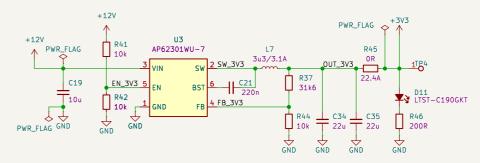


1V8 to 1V2 LDO 300mA





3V3 BUCK CONVERTER



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Sheet: /Supply/
File: supply.kicad_sch

Title: GSML Serializer

Size: A3 Date: 2024–11–27 Rev: 1.1.1:e6344

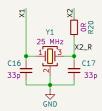
KiCad E.D.A. 8.0.5 Id: 3/5



Crystal

Cinx1 = 3 pF (from MAX96717 data sheet)
Ctrace = 2 pF (estimated)
Cinx2 = 1 pF (from MAX96717 data sheet)
CL = 18 pF (from rrystal data sheet)
Cx1total = Cinx1 + CL1 + Ctrace
Cx2total = Cinx2 + CL2 + Ctrace
CL = (Cx1total * Cx2total) / (Cx1total + Cx2total)

CL1 = 33 pF
CL2 = 33 pF
CX1total = 38 pF
CX2total = 36 pF
CX2total = 36 pF
CL = 18.5 pF (meets the requirements)



Crystal and crystal load capacitors as close as possible to X1 X2 pins

Config pins

R19 10k

CFG0 - I2C address config
R1 = OPEN, R2 = 10k
I2C; Address = 0x40 (7-bit);
Clock= RoR

R1 = 10k, R2 = OPEN
mode = COAX 6Gbps; Pixel mode

+3V3

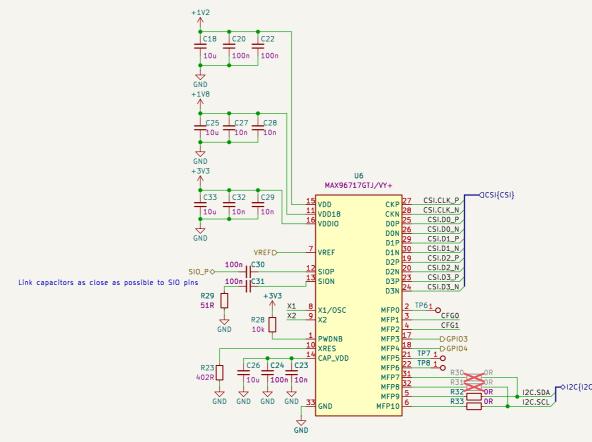
R18
80k6
CFG0

R21
10k
CFG1

R22 10k

Serializer

Decoupling capacitors as close as possible to supply pins





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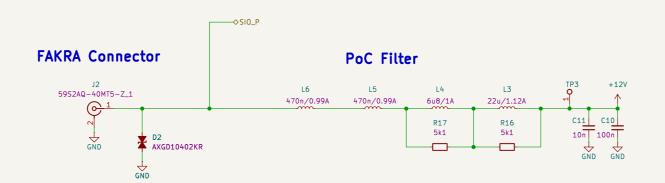
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Sheet: /Serializer/
File: serializer.kicad_sch

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Size: A3 Date: 2024–11–27 Rev: 1.1.1:e6346

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Sheet: /GMSL Connector/
File: GMSL.kicad_sch

Title: GSML Serializer
Size: A3 Date: 2024-11-27
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