



www.antmicro.com
Antmicro Ltd

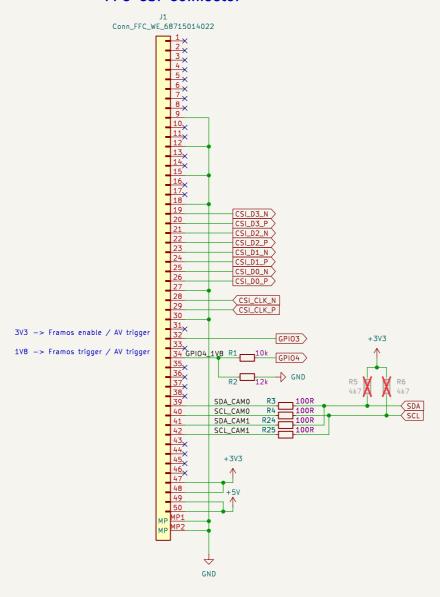
Sheet: /
File: gmsl-serializer.kicad_sch

Title: GSML Serializer

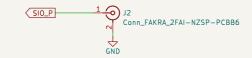
Size: A3 Date: 2024-06-19 Rev: 1.0.1:6983d

KiCad E.D.A. kicad-cli 7.0.11 Id: 1/4

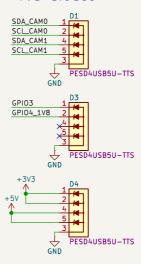
FFC CSI Connector



FAKRA Connector



TVS diodes





www.antmicro.com
Antmicro Ltd

Sheet: /Connectors/
File: connectors.kicad_sch

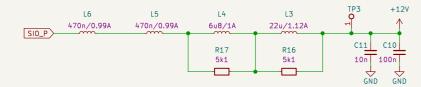
File: connectors.kicad_sch

Title: GSML Serializer

 Size: A3
 Date: 2024-06-19
 Rev: 1.0.1:6983d

 KiCad E.D.A. kicad-cli 7.0.11
 Id: 2/4

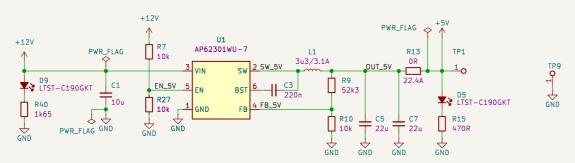
PoC Filter



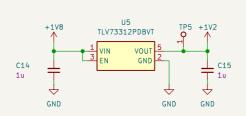
1V25 voltage reference DNP

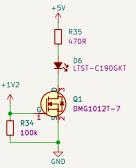


5V BUCK CONVERTER

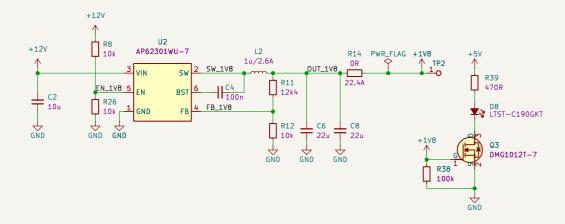


1V8 to 1V2 LDO 300mA

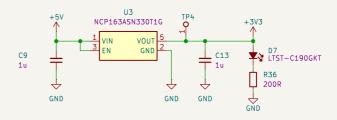




1V8 BUCK CONVERTER



5V to 3V3 LDO 250mA



www.antmicro.com
Antmicro Ltd

Sheet: /Supply/
File: supply.kicad_sch

Title: GSML Serializer

Size: A3 Date: 2024-06-19 Rev: 1.0.1:6983

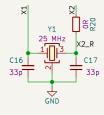
KiCad E.D.A. kicad-cli 7.0.11 Id: 3/4



Crystal

Cinx1 = 3 pF (from MAX96724 data sheet)
Ctrace = 2 pF (estimated)
Cinx2 = 1 pF (from MAX96724 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

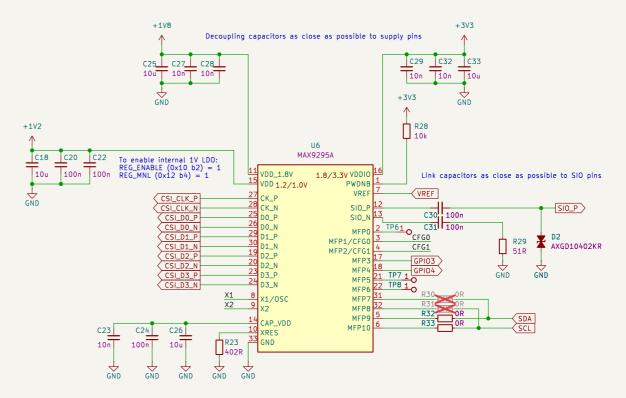
CFGO - I2C address config R1 = OPEN, R2 = 10k address = 0x80



CFG1 - GMSL mode config R1 = OPEN, R2 = 10k mode = COAX GMSL2 6Gbps



Serializer





www.antmicro.com

Antmicro Ltd

Sheet: /Serializer/
File: serializer.kicad_sch

Title: GSML Serializer

Size: A3 Date: 2024-06-19 Rev: 1.0.1:6983d

KiCad E.D.A. kicad-cli 7.0.11 Id: 4/4