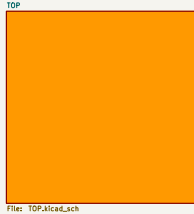


BE-IIS-2CAM REVA

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Industrie Interface Solutions

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Sheet: /
File: BRECHEL_HAT_2CAM.kicad_sch

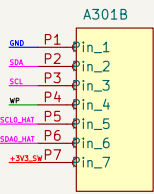
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Size: A4 Date: 2026-06-01

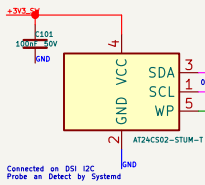
KiCad E.D.A. 10.0.3

Rev: A
Id: 1/11

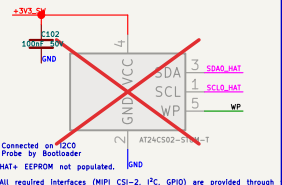
PROGRAMMING



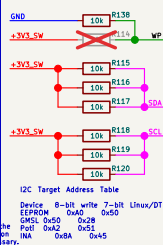
DEVICETREE EEPROM



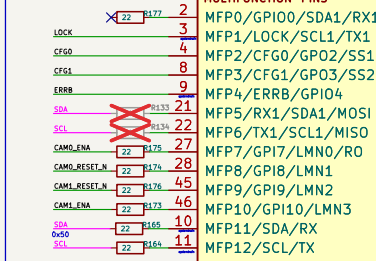
HAT++ EEPROM



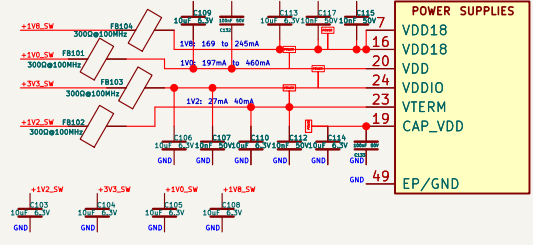
I2C



MAX96714 MULTI



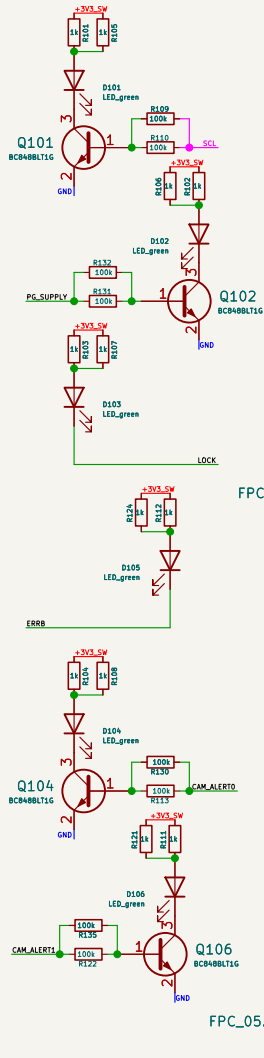
MAX96716 SUPPLY



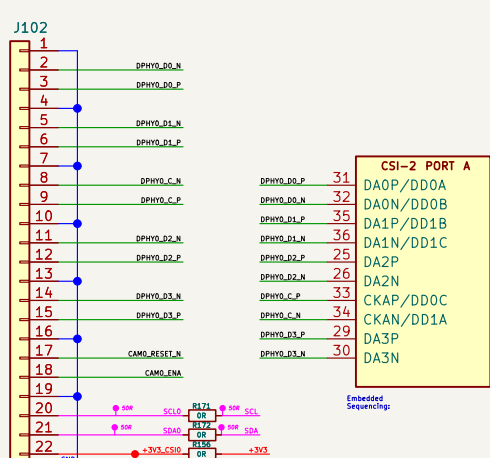
POWER SUPPLIES

VDD18	16
VDD	20
VDDIO	24
VTERM	23
CAP_VDD	19
EP/GND	49

SIGNALING



CSI0

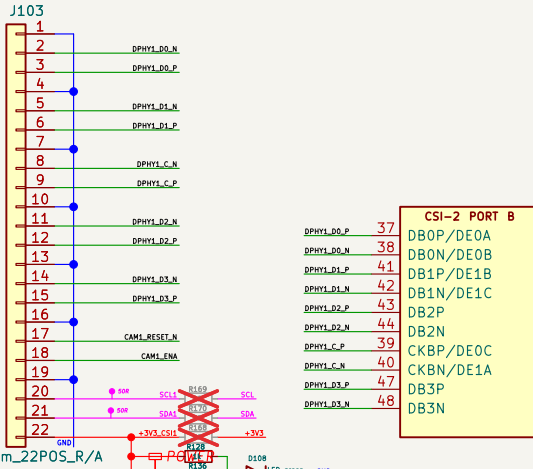


CSI-2 PORT A

DPHY0_D0_P	31	DA0P/DD0A
DPHY0_D0_N	32	DA0N/DD0B
DPHY0_D1_P	35	DA1P/DD1B
DPHY0_D1_N	36	DA1N/DD1C
DPHY0_D2_P	25	DA2P
DPHY0_D2_N	26	DA2N
DPHY0_C_P	33	CKAP/DD0C
DPHY0_C_N	34	CKAN/DD1A
DPHY0_D3_P	29	DA3P
DPHY0_D3_N	30	DA3N

FPC_05.mm_22POS_R/A

CSI1

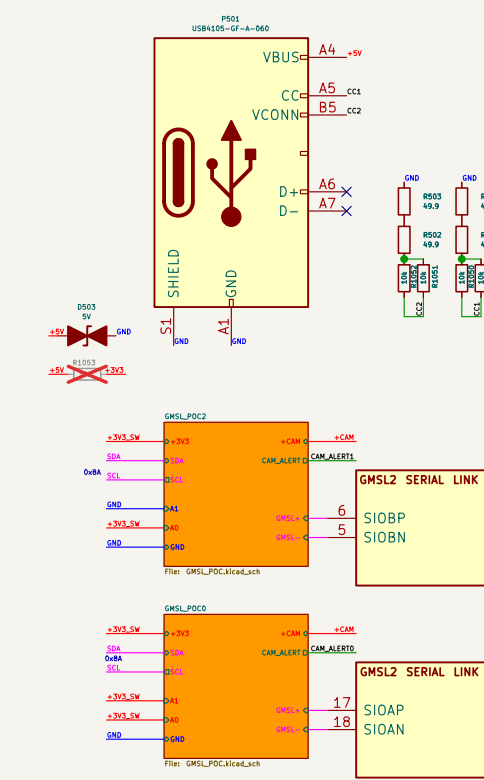


CSI-2 PORT B

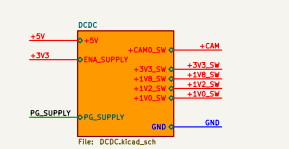
DPHY1_D0_P	37	DB0P/DE0A
DPHY1_D0_N	38	DB0N/DE0B
DPHY1_D1_P	41	DB1P/DE1B
DPHY1_D1_N	42	DB1N/DE1C
DPHY1_D2_P	43	DB2P
DPHY1_D2_N	44	DB2N
DPHY1_C_P	39	CKBP/DE0C
DPHY1_C_N	40	CKBN/DE1A
DPHY1_D3_P	47	DB3P
DPHY1_D3_N	48	DB3N

FPC_05.mm_22POS_R/A

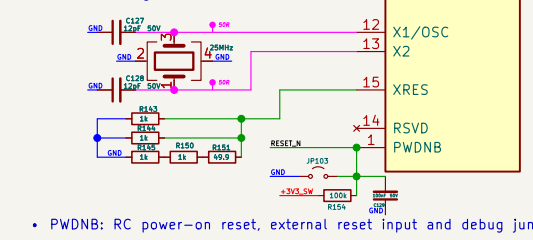
Camera power & monitoring



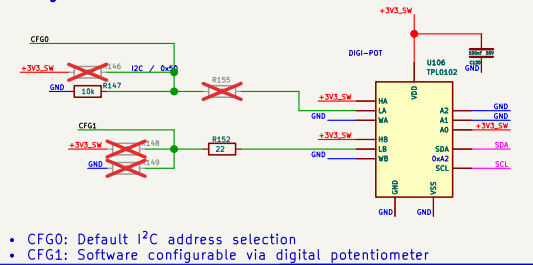
POWER



MAX96716 configuration

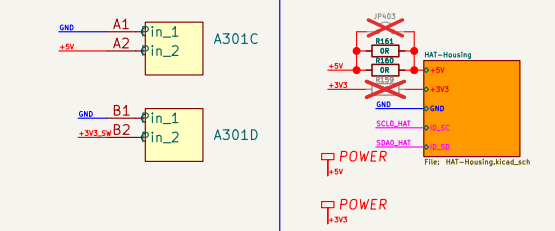


Configuration



- PWDNB: RC power-on reset, external reset input and debug jumper
- CFG0: Default I2C address selection
- CFG1: Software configurable via digital potentiometer

HOUSING & 40P-CONNECTOR



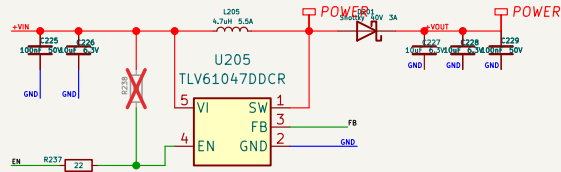
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Sheet: /TOP/
 File: TOP.kicad_sch
Title: BE-IIS-2CAM

Size: A4 Date: 2026-06-01
 KiCad E.D.A. 10.0.3

Rev: A
 Id: 2/11

GND — GND
 +VIN — +VIN
 +VOUT — +VOUT
 EN — EN
 FB — FB



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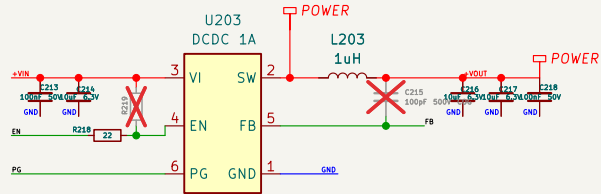
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Title: DC/DC Boost 2.2A

Size: A5 Date: 2026-06-01
 KiCad E.D.A. 10.0.3

Rev: A
 Id: 4/11

GND — GND
 +VIN — +VIN
 +VOUT — +VOUT
 EN — EN
 PG — PG
 FB — FB



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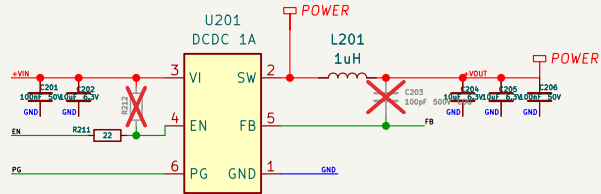
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Title: DC/DC Buck 300mA

Size: A5 Date: 2026-06-01
 KiCad E.D.A. 10.0.3

Rev: A
 Id: 5/11

GND — GND
 +VIN — +VIN
 +VOUT — +VOUT
 EN — EN
 PG — PG
 FB — FB



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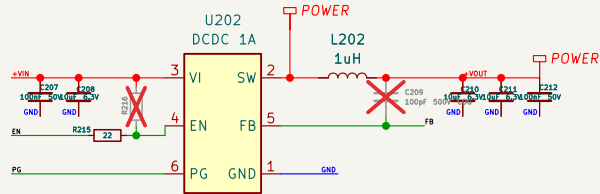
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Title: DC/DC Buck 300mA

Size: A5 Date: 2026-06-01
 KiCad E.D.A. 10.0.3

Rev: A
 Id: 6/11

GND — GND
 +VIN — +VIN
 +VOUT — +VOUT
 EN — EN
 PG — PG
 FB — FB



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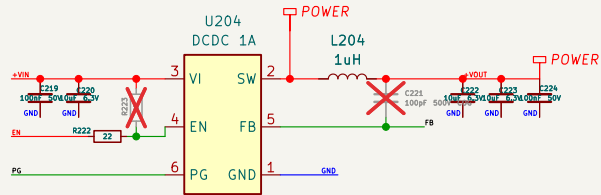
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Title: DC/DC Buck 300mA

Size: A5 Date: 2026-06-01
 KiCad E.D.A. 10.0.3

Rev: A
 Id: 7/11

GND — GND
 +VIN — +VIN
 +VOUT — +VOUT
 EN — EN
 PG — PG
 FB — FB



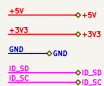
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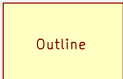
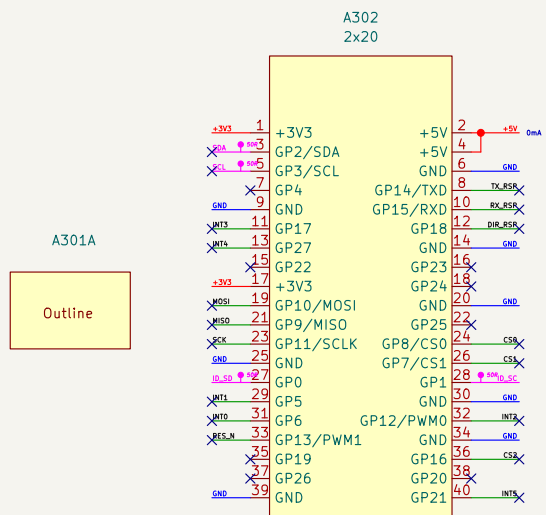
Title: DC/DC Buck 300mA

Size: A5 Date: 2026-06-01
 KiCad E.D.A. 10.0.3

Rev: A
 Id: 8/11



Pi Pinout



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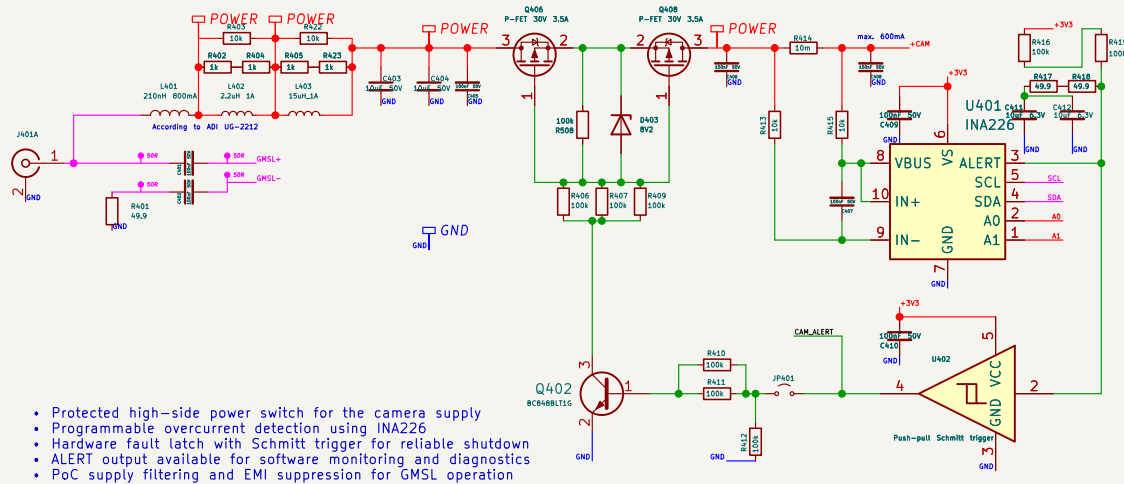
Title: BE-IIS-2CAM HAT Housing

Size: A4 | Date: 2026-06-01
 KiCad E.D.A. 10.0.3

Rev: A
 Id: 9/11

+CAM → +CAM
 +3V3 → +3V3
 GND → GND
 SDA → SDA
 SCL → SCL
 CAM_ALERT → CAM_ALERT
 A0 → A0
 A1 → A1
 GMSL+ → GMSL+
 GMSL- → GMSL-

Camera power & monitoring



- Protected high-side power switch for the camera supply
- Programmable overcurrent detection using INA226
- Hardware fault latch with Schmitt trigger for reliable shutdown
- ALERT output available for software monitoring and diagnostics
- PoC supply filtering and EMI suppression for GMSL operation

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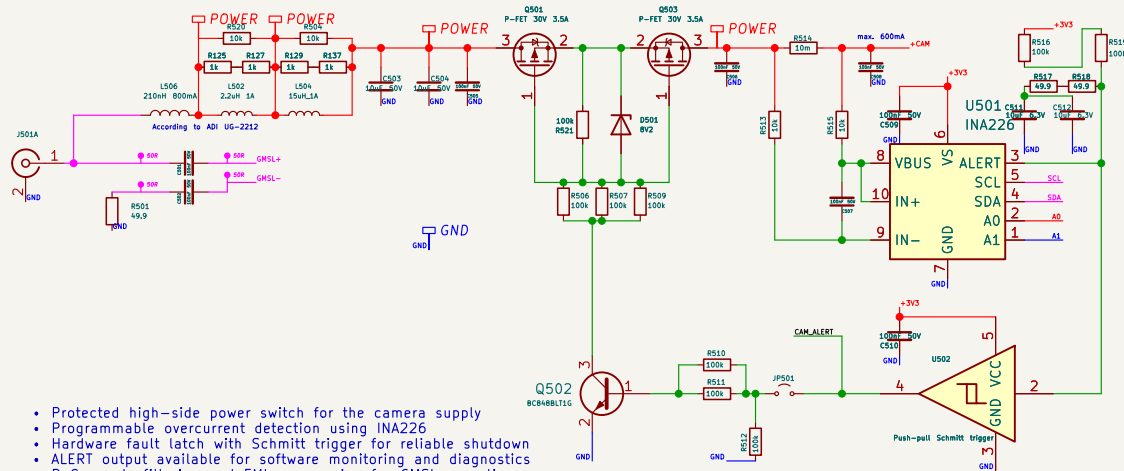
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Title: BE-IIS-2CAM POC

Size: A4	Date: 2026-06-01	Rev: A
KiCad E.D.A. 10.0.3		Id: 10/11

+CAM → +CAM
 +3V3 → +3V3
 GND → GND
 SDA → SDA
 SCL → SCL
 CAM_ALERT → CAM_ALERT
 A0 → A0
 A1 → A1
 GMSL+ → GMSL+
 GMSL- → GMSL-

Camera power & monitoring



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Title: BE-IIS-2CAM POC

Size: A4 Date: 2026-06-01
 KiCad E.D.A. 10.0.3

Rev: A
 Id: 11/11