

Ground Control - RockBLOCK 9704-P

Design requirements:- https://docs.google.com/document/d/102uSy-YxmOLSQODuJOje0U-dM38gha3h9kwTfMUPbio/edit?addon_store&tab=t.0#heading=h.smt7dn6e7kfa

Design Notes

RockBLOCK based on the 9704 module. Schematically identical to RB9704 2A, with exception of patch antenna and attenuator.

Version History

Date, PCB ver, Inc, Description

30/01/2025 1A 1 Initial creation from RB9704 (non-P). Schematic matches RB9704 1E
19/03/2025 2A 1 Add direct battery input, update pinout, add SilkScreen & Adhesive elements.
08/05/2025 2B 1 Specified Black soldermask, Enforce Alt for U9, rotate SMA, add J2 battery connector.

Variant Options

VARIANT should include U15A/B and one of the comms variants
E.G. <U15A RS232>

Name	Fit	Notes
FB_PG	---	Resistor divider bottom connection
BattCon		J2 Picoblade Battery Connector

Top schematic



File: Top sheet.kicad_sch

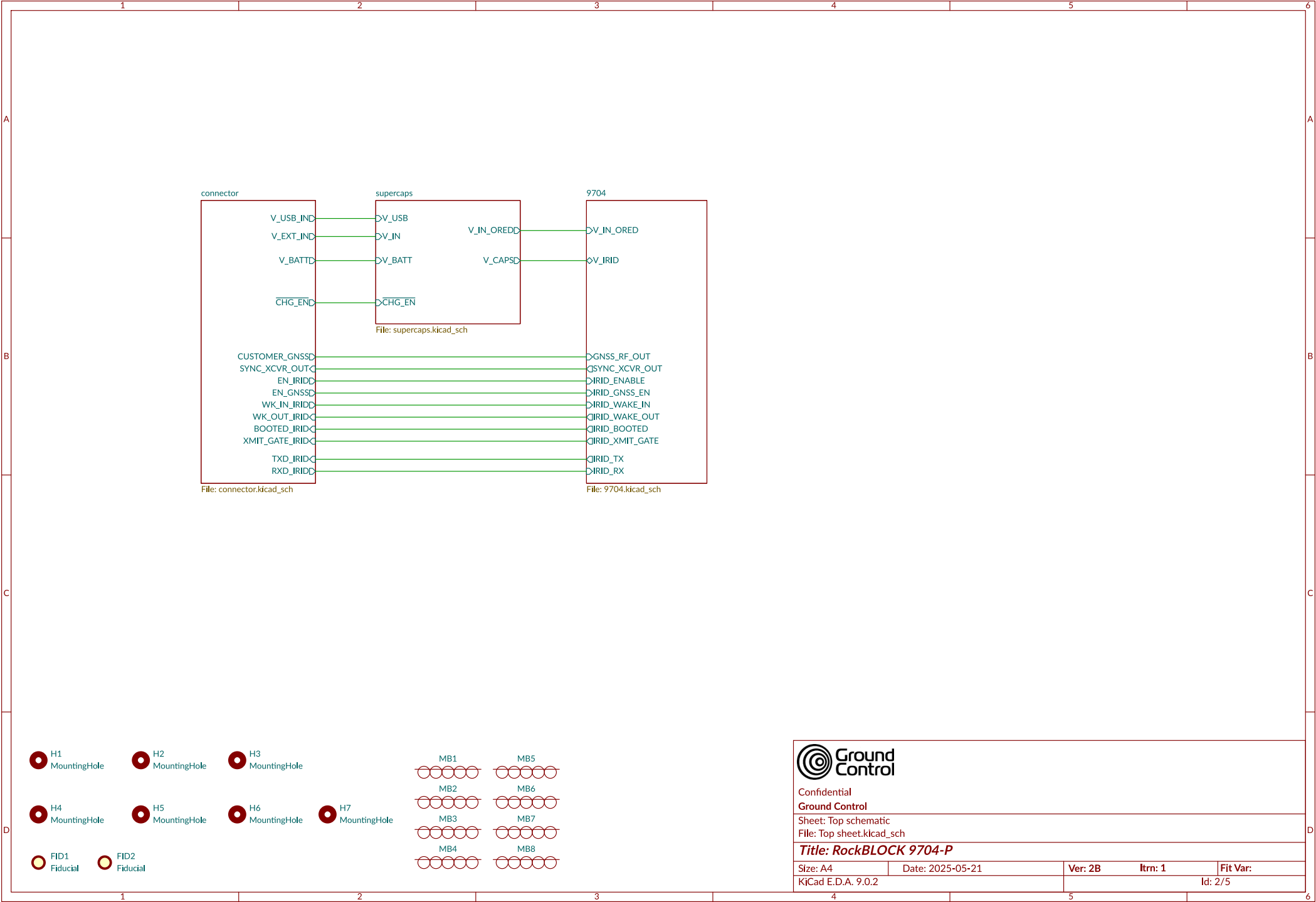


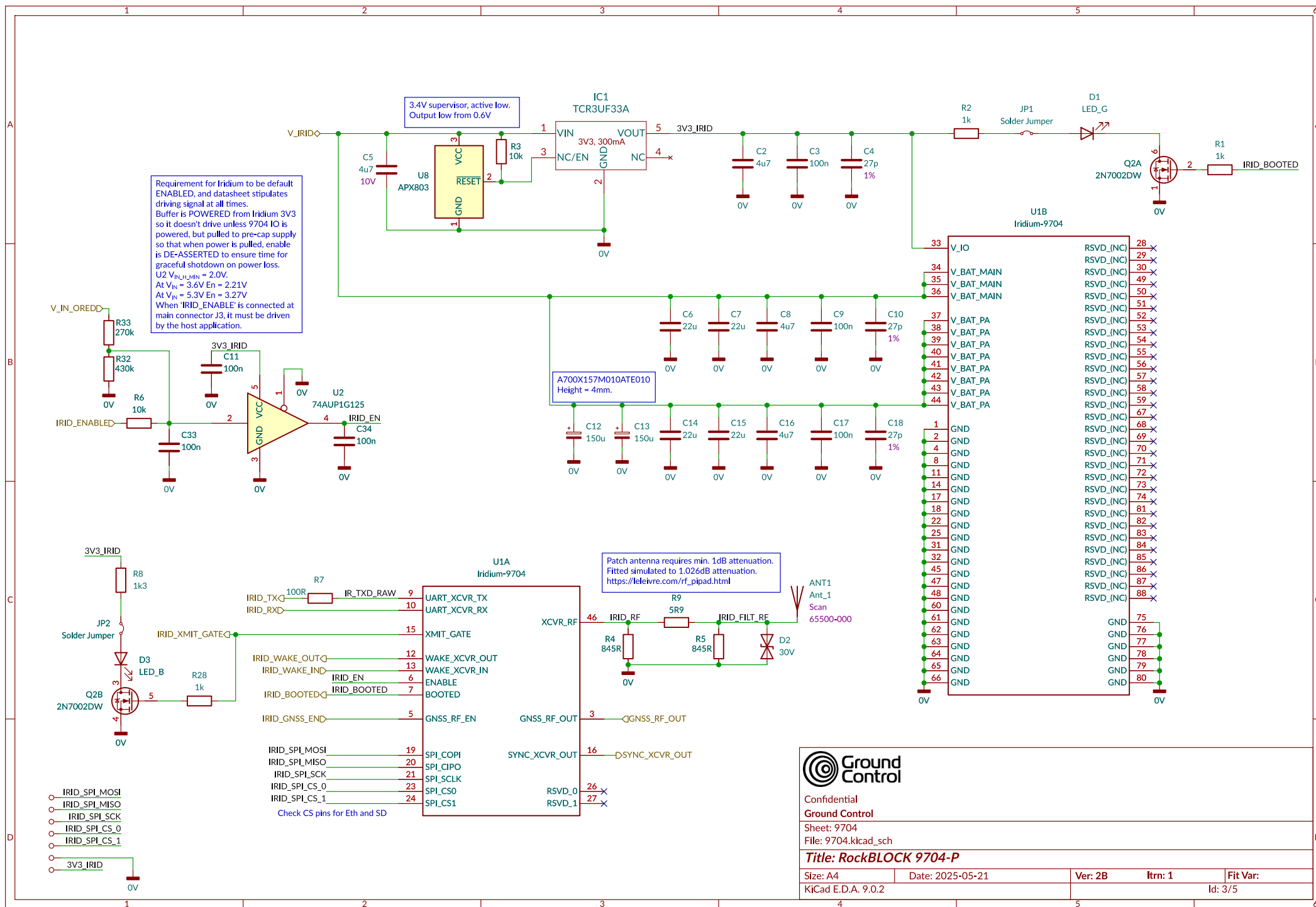
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Sheet: Root
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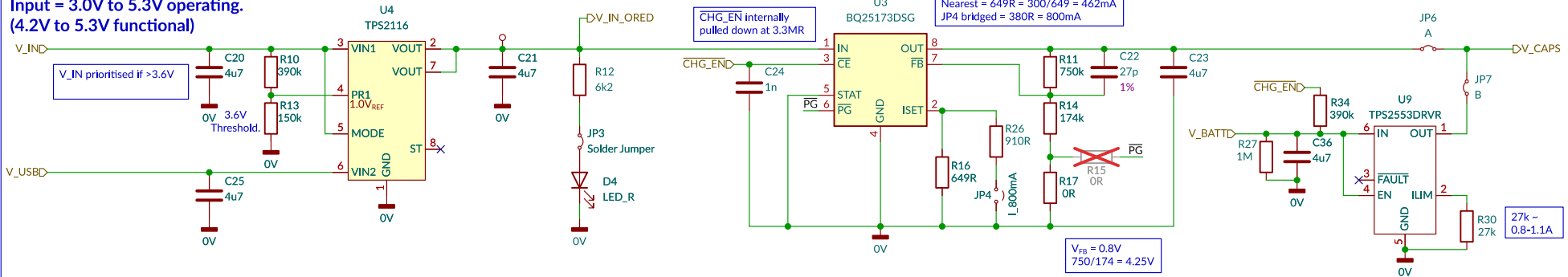
Title: RockBLOCK 9704-P

Size: A4	Date: 2025-05-21	Ver: 2B	Ittn: 1	Fit Var:
KiCad E.D.A. 9.0.2			Id: 1/5	

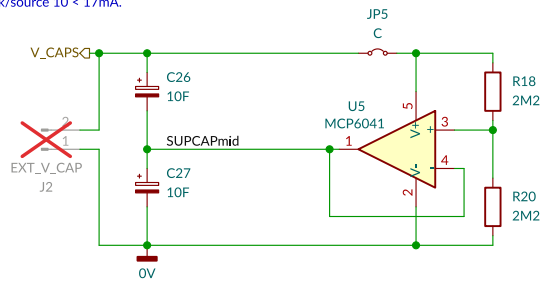




4V2 Supercap charger
BQ25173 4.2V 0.46A output
Input = 3.0V to 5.3V operating.
(4.2V to 5.3V functional)



MCP6041
 Ultra low supply current, offset and input bias current.
 600nA per channel.
 1pA input bias.
 3mV input offset.
 sink/source $10 < 17\text{mA}$.



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Sheet: supercaps

File: supercaps.kicad_sch

Title: RockBLOCK 9704-P

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