

HexTrack PCB

In Development

v0.0.1
2025-01-09

PMW3389-based controller PCB for the HexTrack open-source Trackball.

Block Diagram

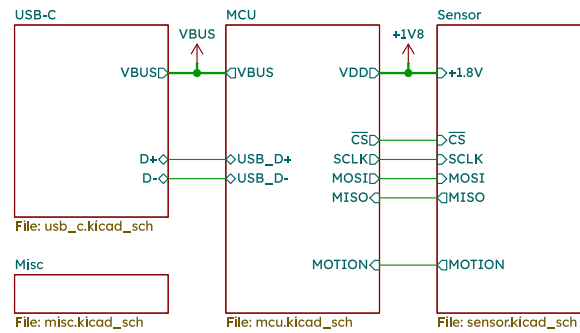
File: block_diagram.kicad_sch

Features

- Uses +1.8V for SPI and power
- Has USB ESD protection
- Powered by an nRF52840 chip
- Uses the onboard LDO of the nRF52840 chip to convert +5V to +1.8V

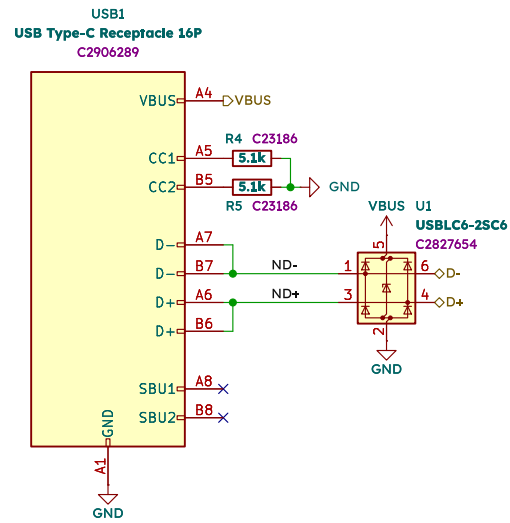
Board Name	Project Name	Engineer	Sheet Title	Sheet Filename and Path	Date	Version	Page Size	Sheet
HexTrack PCB	HexTrack	TMShader	HexTrack PCB -	/hextrack.kicad_sch	2025-01-09	v0.0.1	A4	1 of 6

Block Diagram



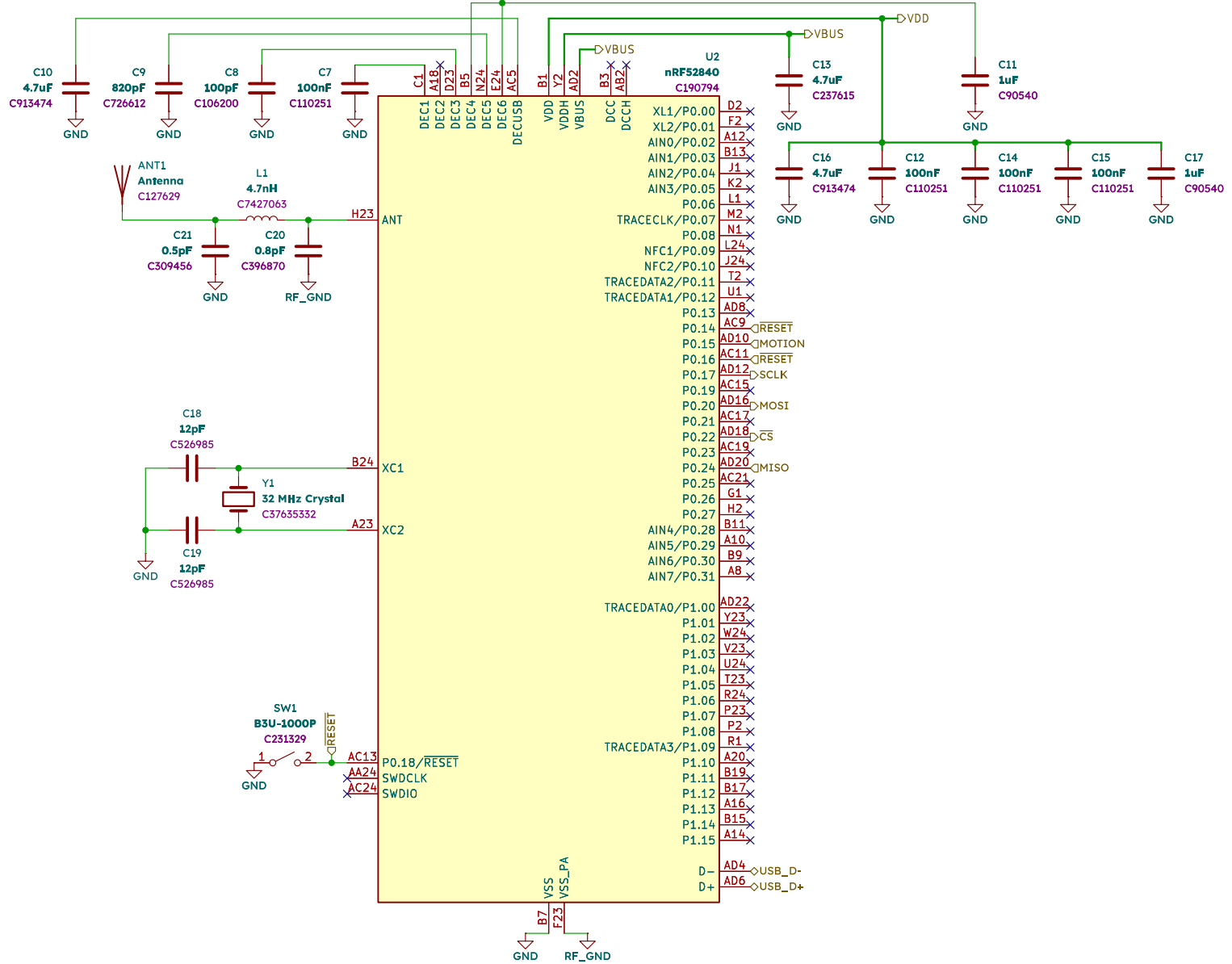
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HexTrack PCB	HexTrack	TMShader	HexTrack PCB - Block Diagram	/Block Diagram/ block_diagram.kicad_sch	2025-01-09	v0.0.1	A4	2 of 6

USB-C



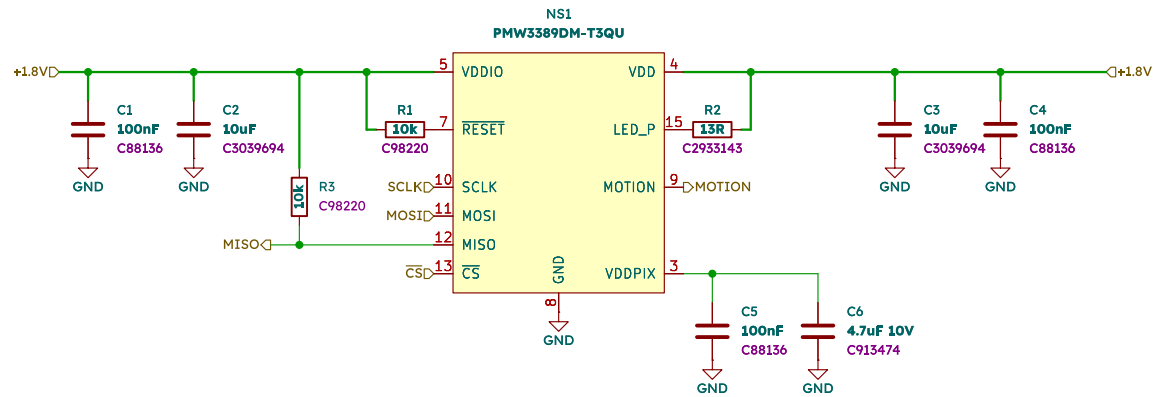
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HexTrack PCB	HexTrack	TMShader	HexTrack PCB - USB-C	/Block Diagram/USB-C/ usb_c.kicad_sch	2025-01-09	v0.0.1	A4	3 of 6

MCU



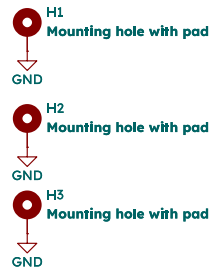
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HexTrack PCB	HexTrack	TMShader	HexTrack PCB - MCU	/Block Diagram/MCU/mcu.kicad_sch	2025-01-09	v0.0.1	A4	4 of 6

Sensor



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HexTrack PCB	HexTrack	TMShader	HexTrack PCB - Sensor	/Block Diagram/Sensor/sensor.kicad_sch	2025-01-09	v0.0.1	A4	5 of 6

Misc



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HexTrack PCB	HexTrack	TMShader	HexTrack PCB - Misc	/Block Diagram/Misc/misc.kicad_sch	2025-01-09	v0.0.1	A4	6 of 6