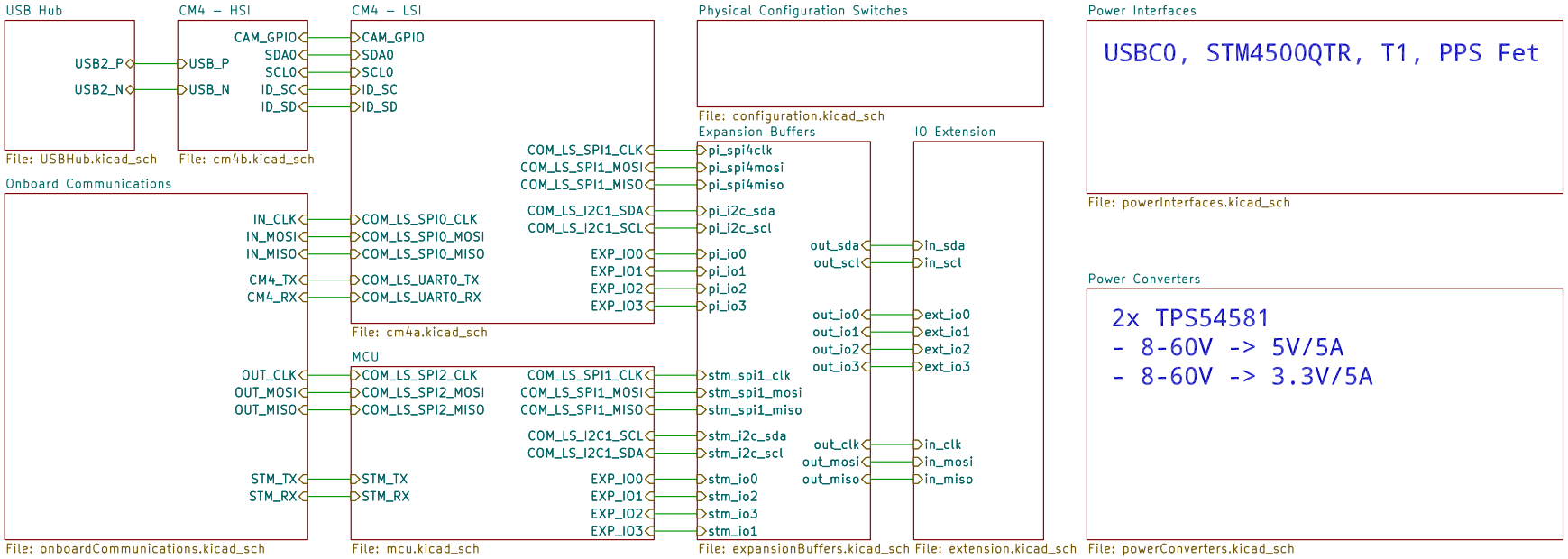
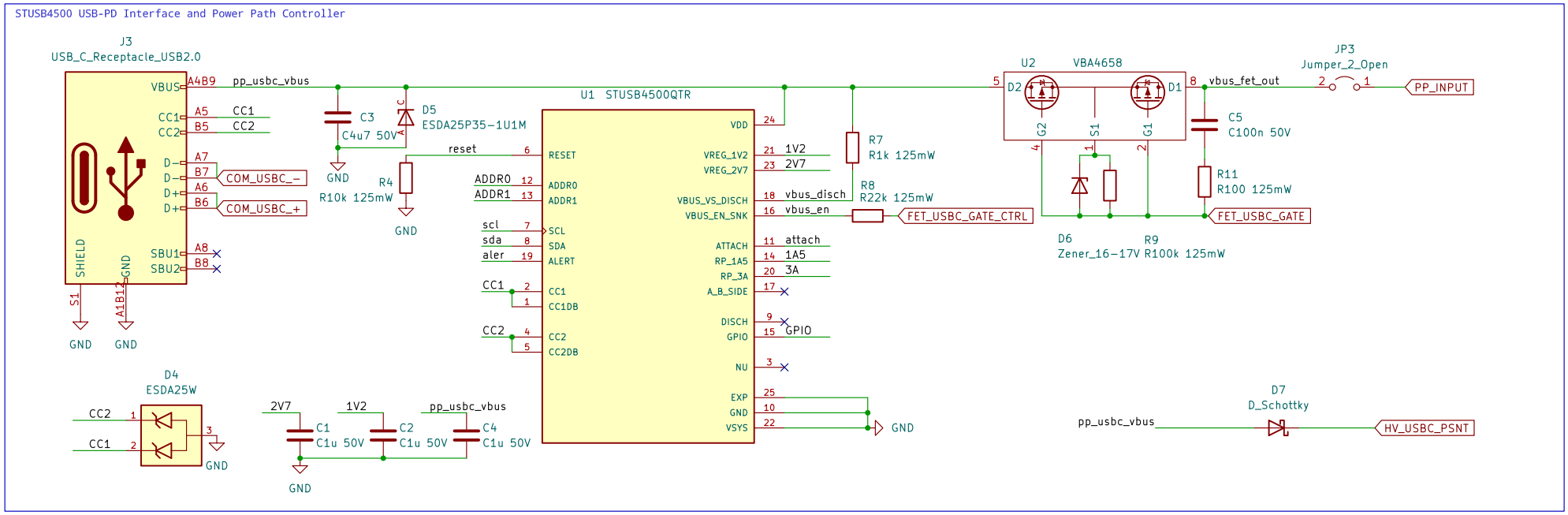
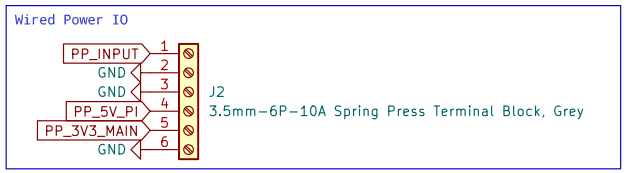
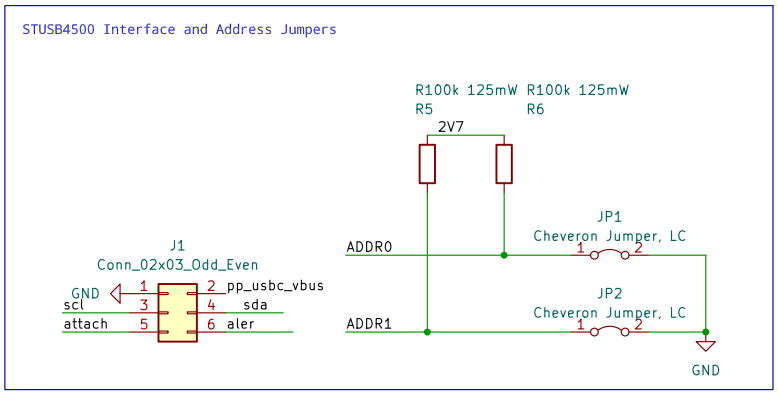
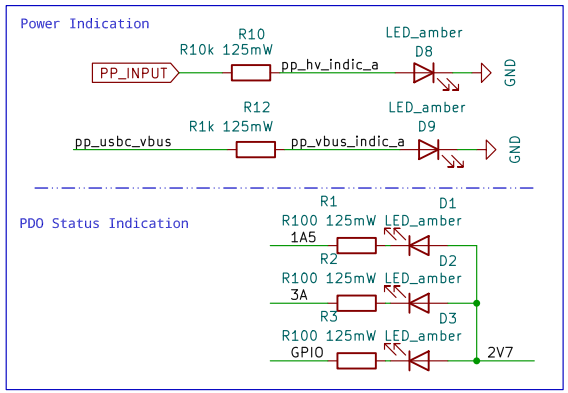


Sheet: / File: firefly-4.kicad_sch	Order at paisleymicro.com MFR SKU PAISLEY-FC-4
Title: Root Layout	**Firefly-4**
Designed by Matthew Guo <matthew@paisleymicro.com>	Firefly Automation Controller for RPI CM4
Approved by Matthew Guo <matthew@paisleymicro.com> Rev: 2.0	PAISLEY MICROSYSTEMS
Size: A4 Date: 2025-02-17 KiCad E.D.A. 8.0.8 Id: 1/15	



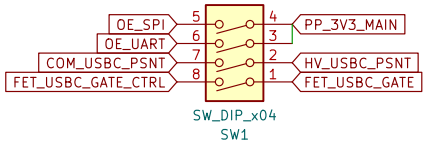




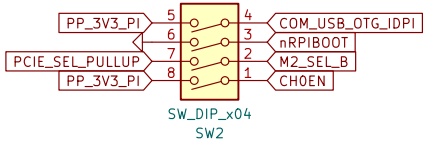


Sheet: /Power Interfaces/ File: powerInterfaces.kicad_sch	Order at paisleymicro.com MFR SKU PAISLEY−FC−4
Title: Power Interfaces	**Firefly−4**
Designed by Matthew Guo <matthew@paisleymicro.com>	Firefly Automation Controller for RPI CM4
Approved by Matthew Guo <matthew@paisleymicro.com>	Rev: 2.0
Size: A4 Date: 2025−02−17 KiCad E.D.A. 8.0.8	Id: 2/15

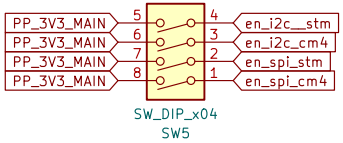
PAISLEY MICROSYSTEMS



Enable buffering the SPI channel between SoM and MCU
Enable buffering the UART channel between SoM and MCU
Let USBC_VBUS trigger the USBC_PSNT (To direct USB2 to USBC)
Enable USBC-PD power to supply PP_MAIN



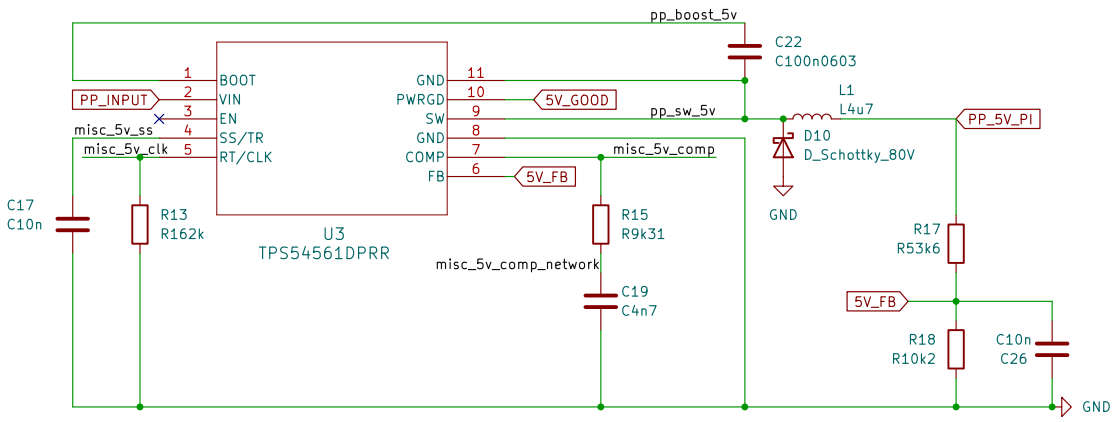
Force USB2 Mode
Boot Flash select
Select routing PCIe to B-key
CH0 Interfaces I2C enable

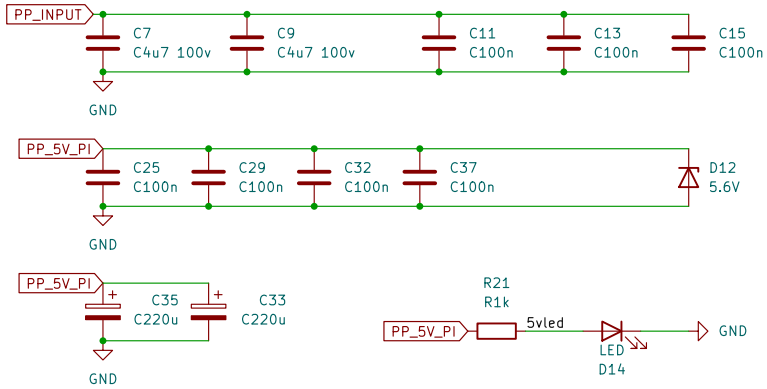


Sheet: /Physical Configuration Switches/ File: configuration.kicad_sch	Order at paisleymicro.com MFR SKU PAISLEY-FC-4
Title:	**Firefly-4**
Designed by Matthew Guo <matthew@paisleymicro.com>	Firefly Automation Controller for RPI CM4
Approved by Matthew Guo <matthew@paisleymicro.com>	**Rev: 2.0**
Size: A4 Date: 2025-02-17 KiCad E.D.A. 8.0.8	Id: 3/15

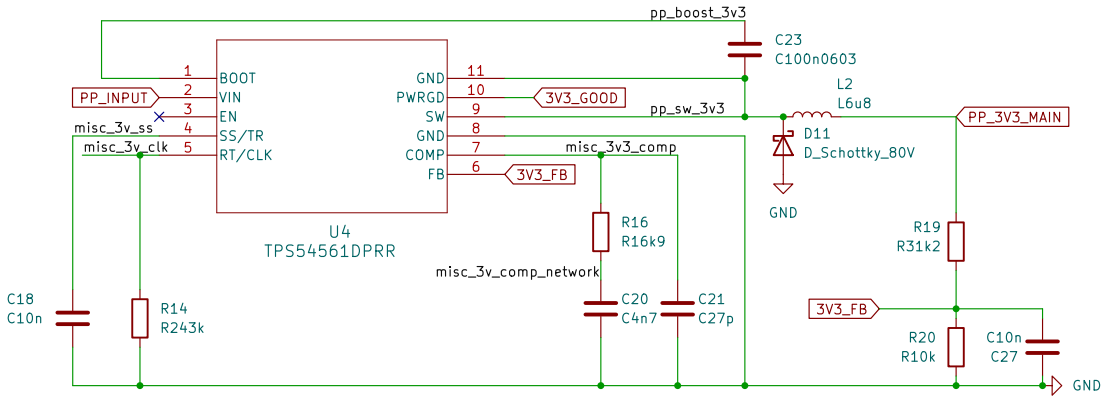
PAISLEY MICROSYSTEMS

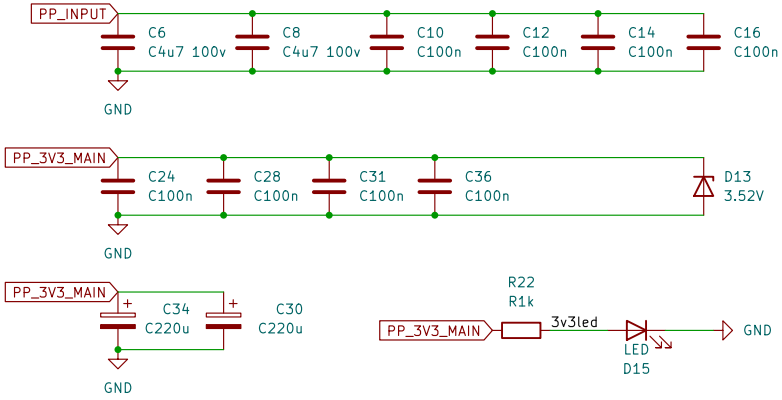
5V





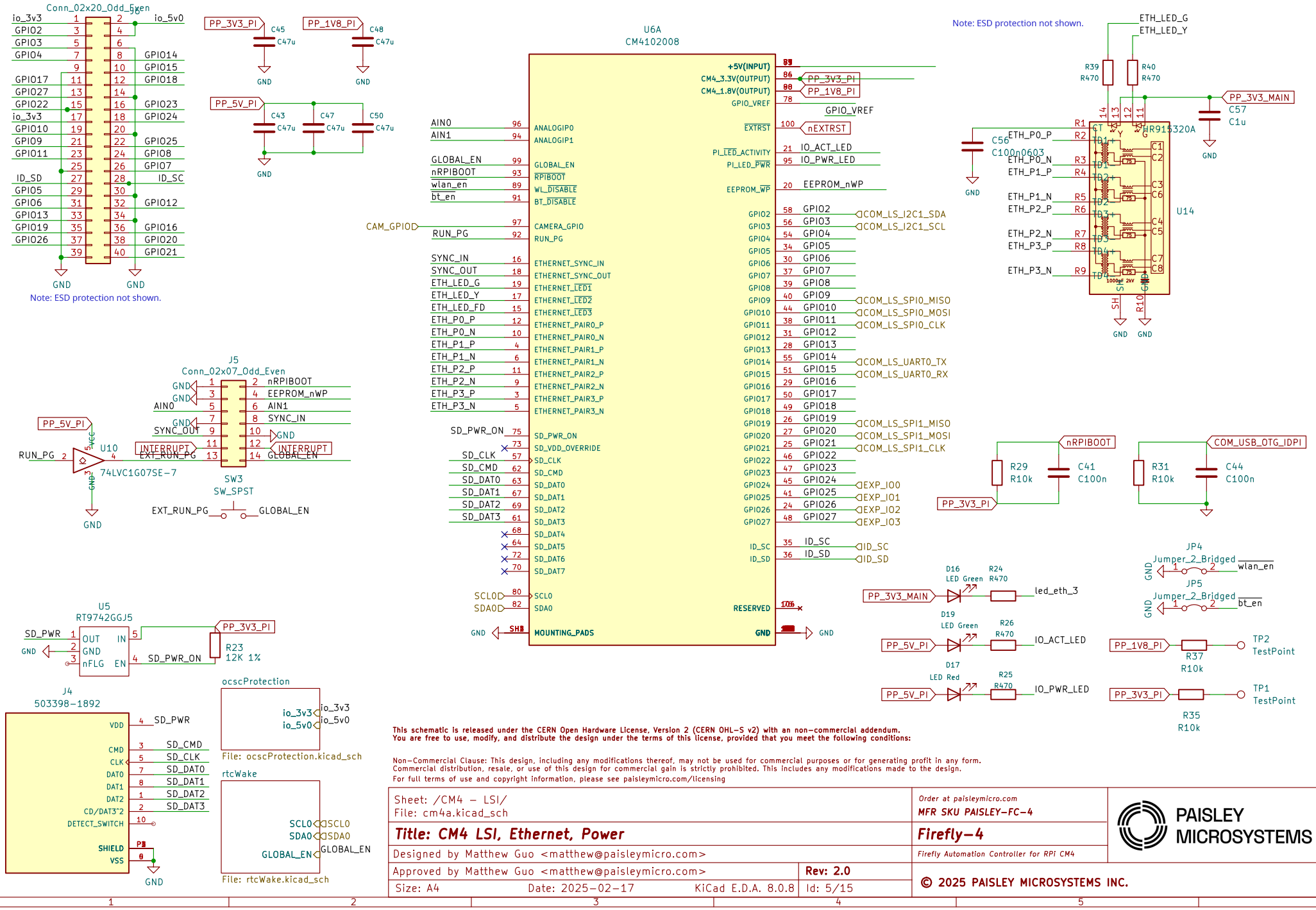
3.3V





Sheet: /Power Converters/ File: powerConverters.kicad_sch	Order at paisleymicro.com MFR SKU PAISLEY-FC-4
Title: Power Converters	**Firefly-4**
Designed by Matthew Guo <matthew@paisleymicro.com>	Firefly Automation Controller for RPI CM4
Approved by Matthew Guo <matthew@paisleymicro.com>	**Rev: 2.0**
Size: A4 Date: 2025-02-17 KiCad E.D.A. 8.0.8	Id: 4/15

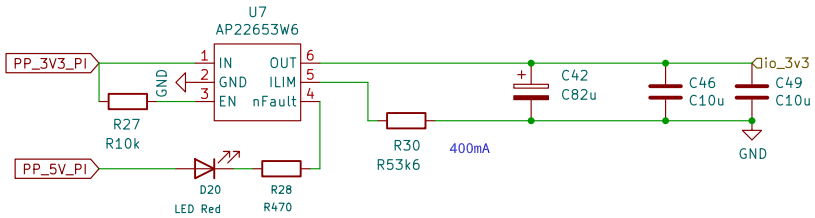
PAISLEY MICROSYSTEMS



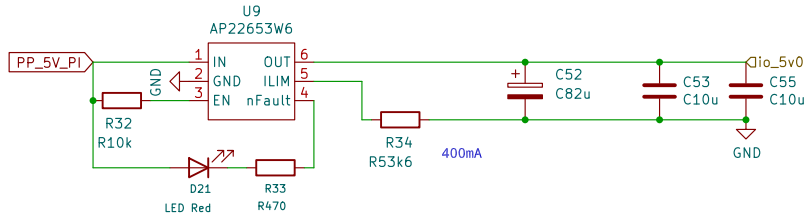
Sheet: /CM4 - LSI/	Order at paisleymicro.com
File: cm4a.kicad_sch	MFR SKU PAISLEY-FC-4
Title: CM4 LSI, Ethernet, Power	**Firefly-4**
Designed by Matthew Guo <matthew@paisleymicro.com>	Firefly Automation Controller for RPI CM4
Approved by Matthew Guo <matthew@paisleymicro.com>	Rev: 2.0
Size: A4 Date: 2025-02-17 KiCad E.D.A. 8.0.8	Id: 5/15

PAISLEY MICROSYSTEMS

3.3V from CM4 regulator protection

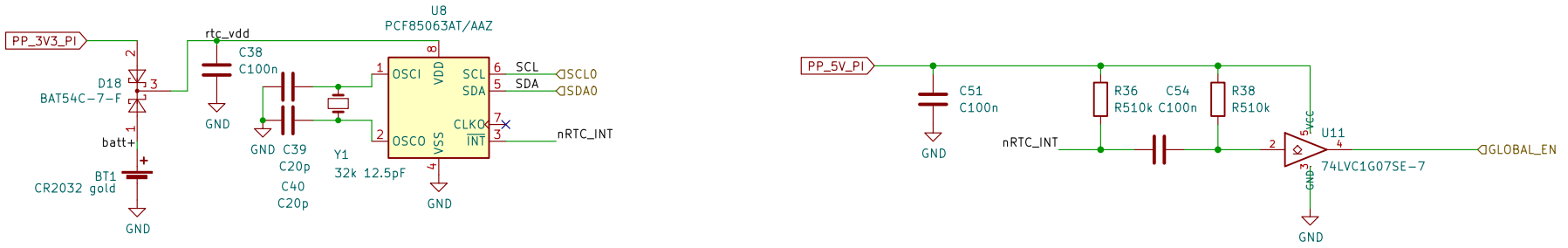


5V main protection



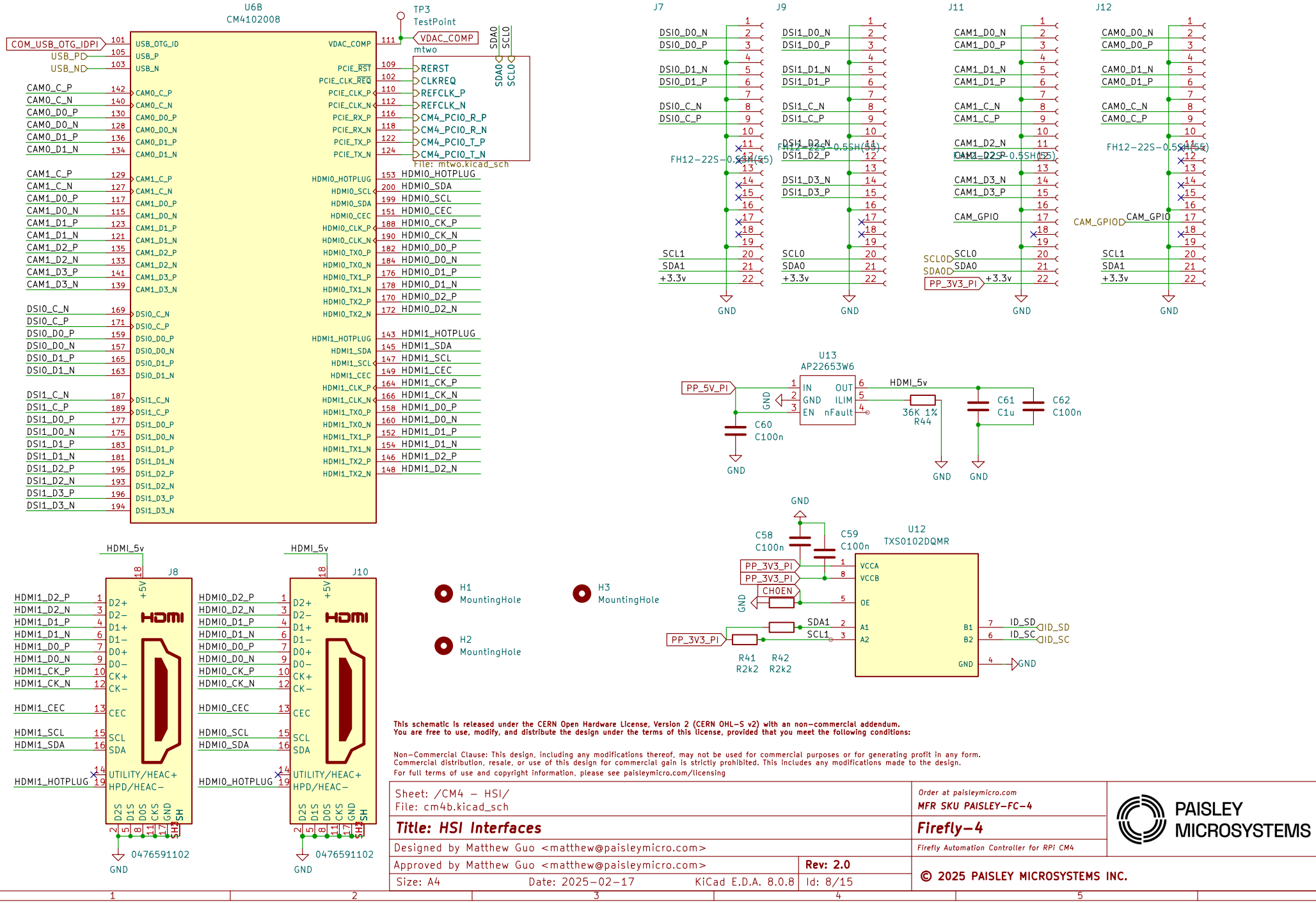
Sheet: /CM4 - LSI/ocscProtection/ File: ocscProtection.kicad_sch	Order at paisleymicro.com MFR SKU PAISLEY-FC-4
Title: Root Layout	**Firefly-4**
Designed by Matthew Guo <matthew@paisleymicro.com>	Firefly Automation Controller for RPI CM4
Approved by Matthew Guo <matthew@paisleymicro.com> Rev: 2.0	PAISLEY MICROSYSTEMS
Size: A4 Date: 2025-02-17 KiCad E.D.A. 8.0.8 Id: 6/15	

RTC and RTC wakeup



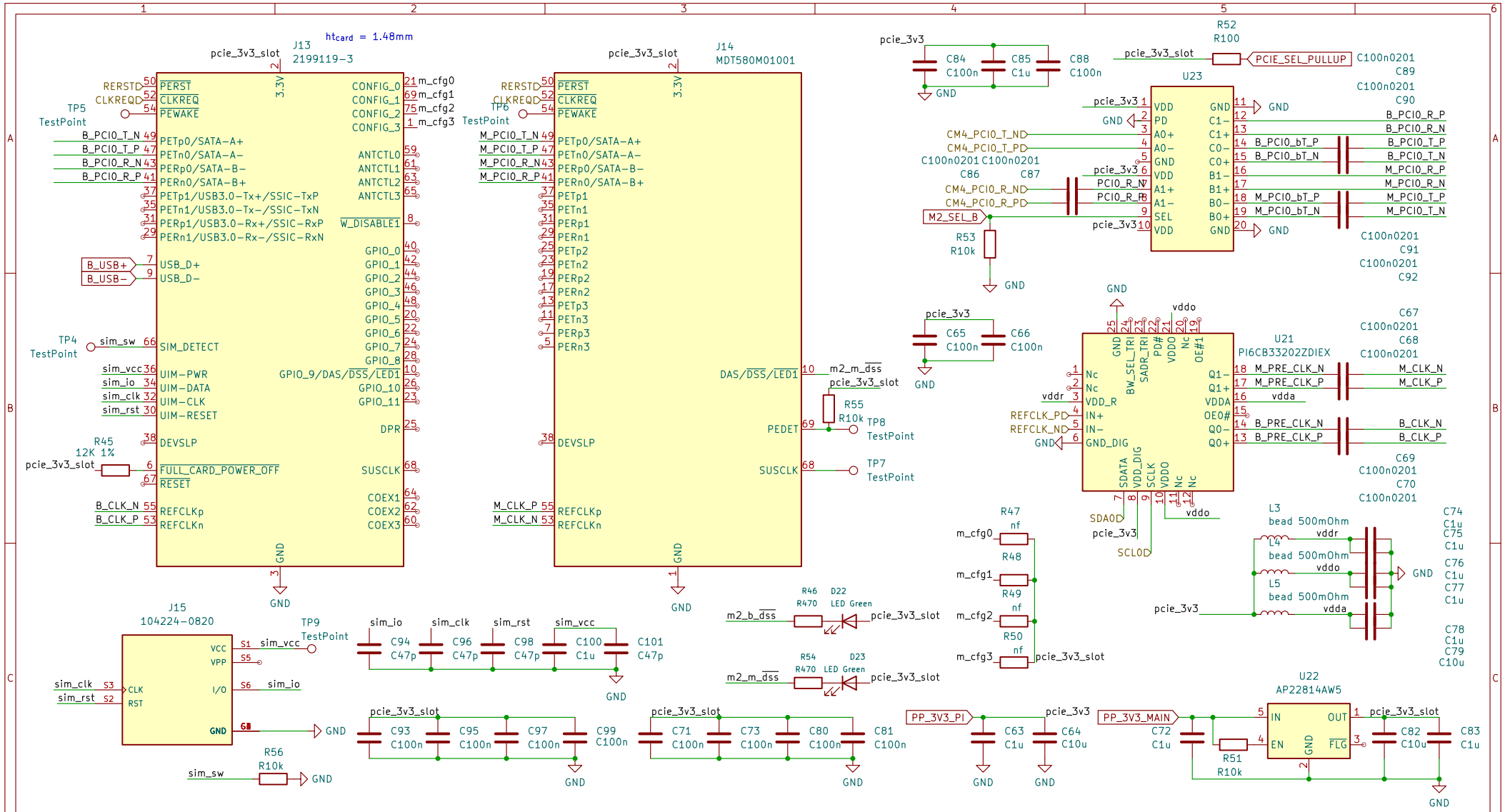
Sheet: /CM4 - LSI/rtcWake/ File: rtcWake.kicad_sch	Order at paisleymicro.com MFR SKU PAISLEY-FC-4
Title: Reference RTC Block	**Firefly-4**
Designed by Matthew Guo <matthew@paisleymicro.com>	Firefly Automation Controller for RPI CM4
Approved by Matthew Guo <matthew@paisleymicro.com>	Rev: 2.0
Size: A4 Date: 2025-02-17 KiCad E.D.A. 8.0.8	Id: 7/15

PAISLEY MICROSYSTEMS



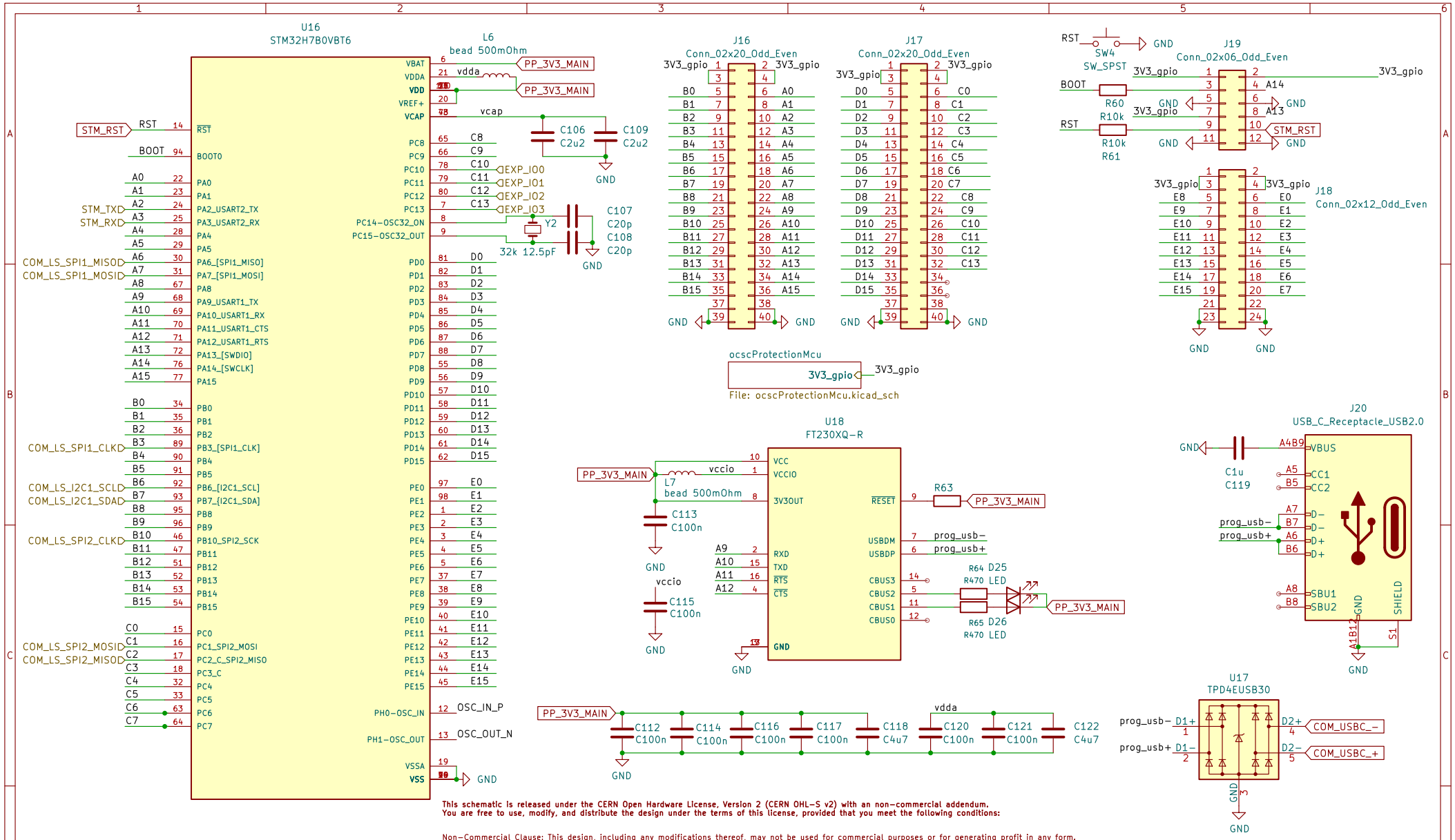
Sheet: /CM4 - HSI/	Order at paisleymicro.com
File: cm4b.kicad_sch	MFR SKU PAISLEY-FC-4
Title: HSI Interfaces	**Firefly-4**
Designed by Matthew Guo <matthew@paisleymicro.com>	Firefly Automation Controller for RPI CM4
Approved by Matthew Guo <matthew@paisleymicro.com>	Rev: 2.0
Size: A4 Date: 2025-02-17 KiCad E.D.A. 8.0.8	Id: 8/15

PAISLEY MICROSYSTEMS



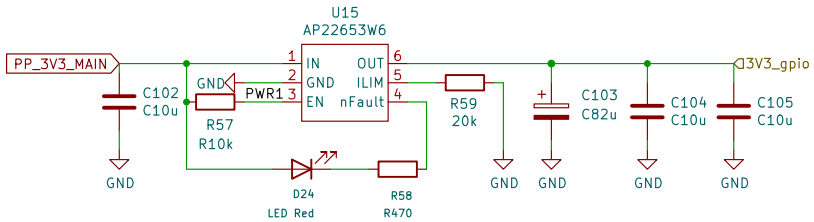
Sheet: /CM4 - HSI/mtwo/	Order at paisleymicro.com
File: mtwo.kicad_sch	MFR SKU PAISLEY-FC-4
Title: M.2 and PCIe Multiplexer	**Firefly-4**
Designed by Matthew Guo <matthew@paisleymicro.com>	Firefly Automation Controller for RPI CM4
Approved by Matthew Guo <matthew@paisleymicro.com>	Rev: 2.0
Size: A4 Date: 2025-02-17 KiCad E.D.A. 8.0.8	Id: 9/15

PAISLEY MICROSYSTEMS

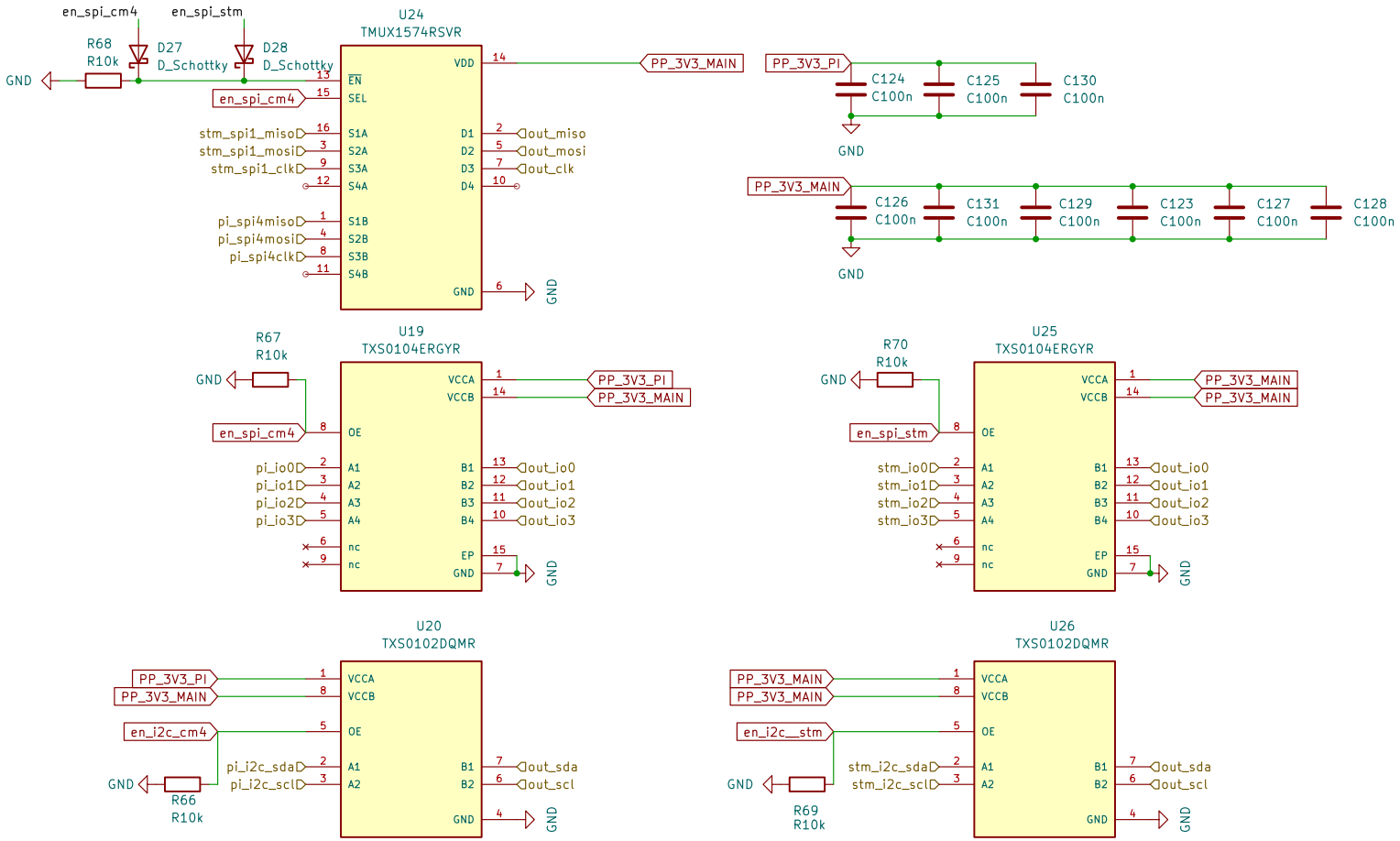


Sheet: /MCU/	Order at paisleymicro.com
File: mcu.kicad_sch	MFR SKU PAISLEY-FC-4
Title: STM32H7 circuitry	**Firefly-4**
Designed by Matthew Guo <matthew@paisleymicro.com>	Firefly Automation Controller for RPI CM4
Approved by Matthew Guo <matthew@paisleymicro.com>	Rev: 2.0
Size: A4 Date: 2025-02-17 KiCad E.D.A. 8.0.8	Id: 10/15

PAISLEY MICROSYSTEMS

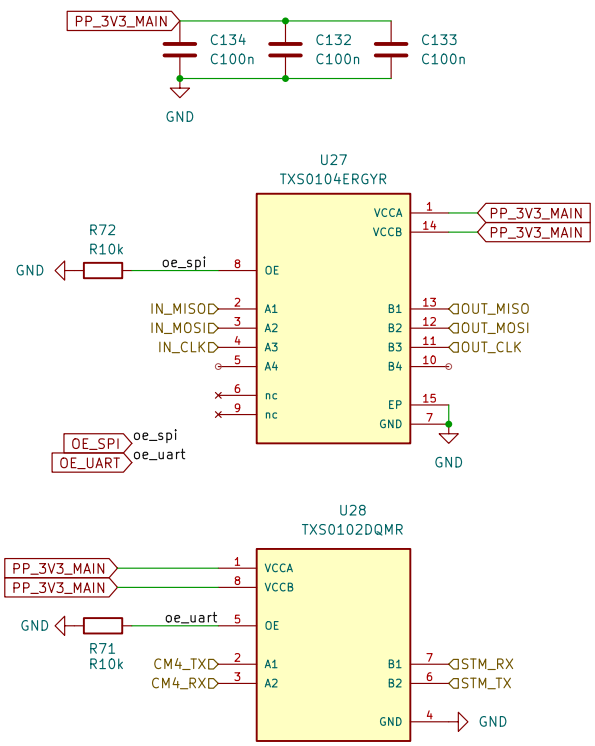


Sheet: /MCU/ocscProtectionMcu/ File: ocscProtectionMcu.kicad_sch	*Order at paisleymicro.com* ***MFR SKU PAISLEY-FC-4***
Title: MCU IO Power Protection	***Firefly-4***
Designed by Matthew Guo <matthew@paisleymicro.com>	*Firefly Automation Controller for RPI CM4*
Approved by Matthew Guo <matthew@paisleymicro.com> — **Rev: 2.0**	PAISLEY MICROSYSTEMS
Size: A4 — Date: 2025-02-17 — KiCad E.D.A. 8.0.8 — Id: 11/15	



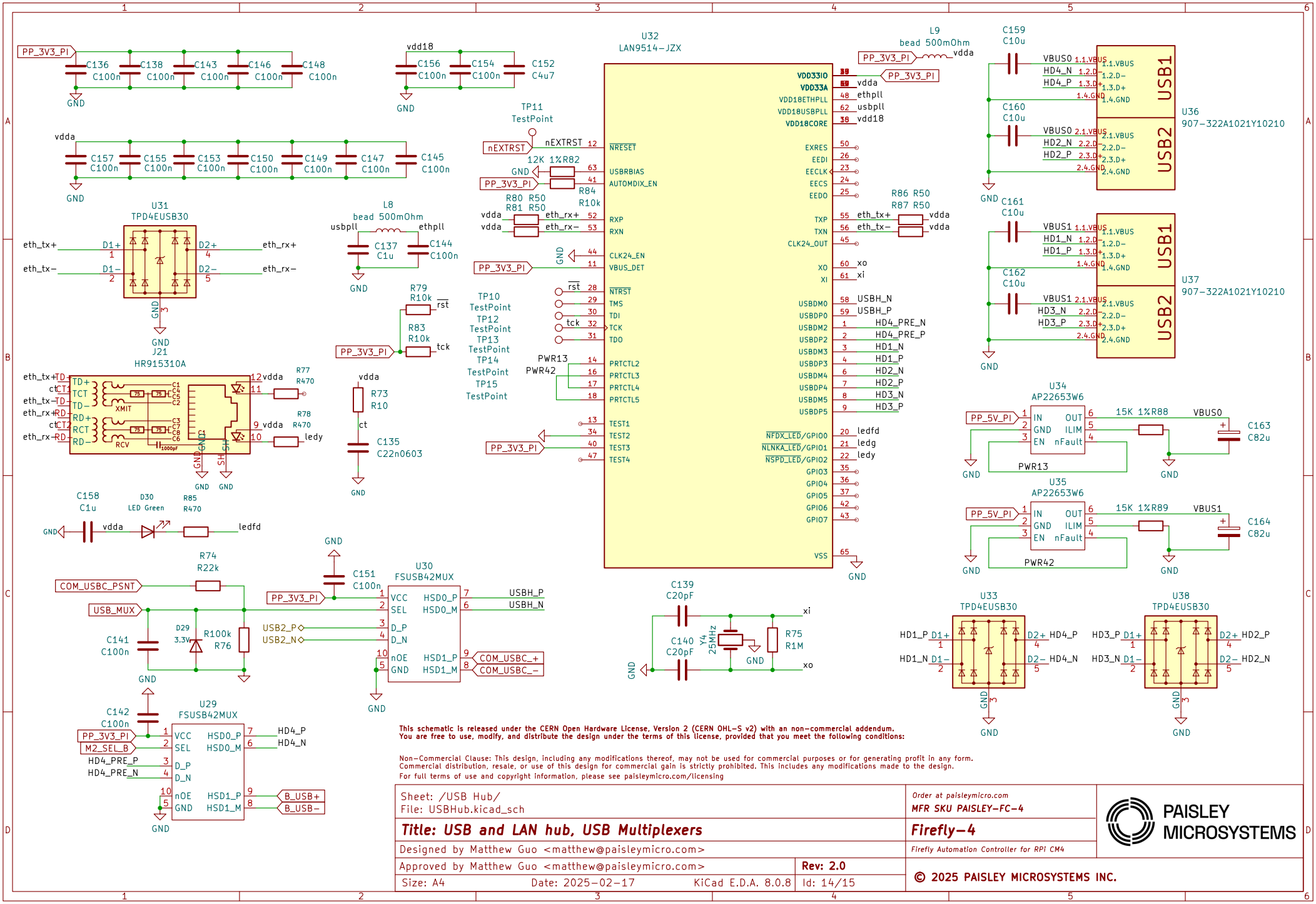
Sheet: /Expansion Buffers/ File: expansionBuffers.kicad_sch	Order at paisleymicro.com MFR SKU PAISLEY-FC-4
Title: Connector IO buffers	**Firefly-4**
Designed by Matthew Guo <matthew@paisleymicro.com>	Firefly Automation Controller for RPI CM4
Approved by Matthew Guo <matthew@paisleymicro.com>	Rev: 2.0
Size: A4 Date: 2025-02-17 KiCad E.D.A. 8.0.8	Id: 12/15

PAISLEY MICROSYSTEMS



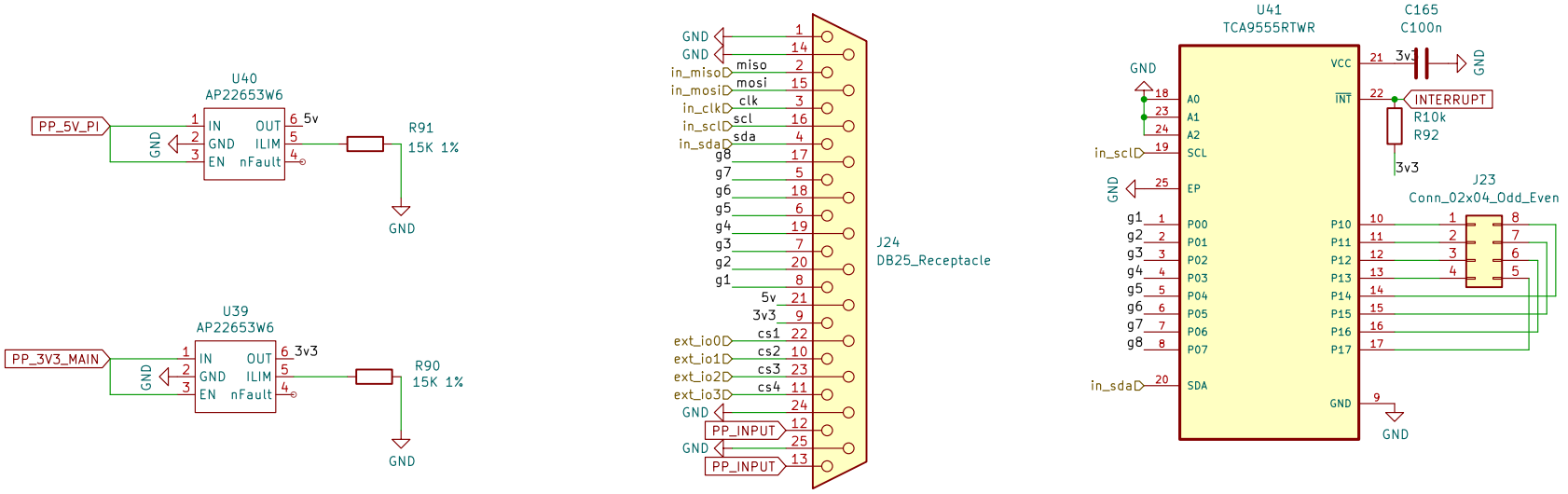
Sheet: /Onboard Communications/ File: onboardCommunications.kicad_sch	Order at paisleymicro.com MFR SKU PAISLEY-FC-4
Title:	**Firefly-4**
Designed by Matthew Guo <matthew@paisleymicro.com>	Firefly Automation Controller for RPI CM4
Approved by Matthew Guo <matthew@paisleymicro.com>	Rev: 2.0
Size: A4 Date: 2025-02-17 KiCad E.D.A. 8.0.8	Id: 13/15

PAISLEY MICROSYSTEMS



Sheet: /USB Hub/	Order at paisleymicro.com
File: USBHub.kicad_sch	MFR SKU PAISLEY-FC-4
Title: USB and LAN hub, USB Multiplexers	**Firefly-4**
Designed by Matthew Guo <matthew@paisleymicro.com>	Firefly Automation Controller for RPI CM4
Approved by Matthew Guo <matthew@paisleymicro.com>	Rev: 2.0
Size: A4 Date: 2025-02-17 KiCad E.D.A. 8.0.8	Id: 14/15

PAISLEY MICROSYSTEMS



Sheet: /IO Extension/ File: extension.kicad_sch	Order at paisleymicro.com MFR SKU PAISLEY-FC-4
Title: Extension connector supporting circuitry	**Firefly-4**
Designed by Matthew Guo <matthew@paisleymicro.com>	Firefly Automation Controller for RPI CM4
Approved by Matthew Guo <matthew@paisleymicro.com> — Rev: 2.0	PAISLEY MICROSYSTEMS
Size: A4 — Date: 2025-02-17 — KiCad E.D.A. 8.0.8 — Id: 15/15	