

The diagram illustrates the system architecture for the RPi 4 Compute Module. At the center is the **RPi 4 Compute Module**, which includes the following components and interfaces:

- Power and Control:**
 - Ctrl pins, e.g. RST**
 - 2x300mA each 3V3, 1V8 VOut**
 - 5V @ >2A Power Input**
 - SDIO (CM4Lite only)**
 - GPIO**
 - Ethernet**
 - 1 - 100** (GPIO pins)
- Connectivity:**
 - 2xHDMI**
 - 2x Display**
 - 2xCAM**
 - PCIe**
 - USB** (101 - 200 pins)

External components and their connections to the RPi 4 Compute Module are as follows:

- Power Management:**
 - PoE -> 5V SMPS:** Receives power from an **RJ45** port and provides 5V power to the module's 5V @ >2A Power Input.
 - 5V -> 3V3 SMPS:** Takes 5V input and provides 3V3 output to the module's 3V3 VOut pins.
- Storage:**
 - NVMe SSD:** Connected to the module's **PCIe** interface.
 - SD Card (Optional):** Connected to the module's **SDIO** interface.
- Connectivity and Expansion:**
 - Samtec QSE-020-01-F-D B2B Connector:** Two connectors are shown, one at the top and one at the bottom, providing I2C + 6 GPIO and Dbg UART connections to external systems.
 - USB 2:1 Switch:** Connected to the module's **USB** interface, allowing selection between the **Micro USB B Connector** and the **USB 2:1 Switch** output.

File: compute_module.sch

Sheet: Supply

Sheet: Interludes

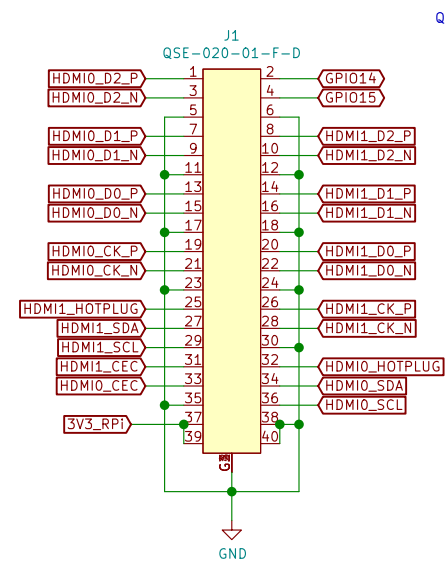
SHEET: F0E

SLEEP: NYMP 550

Sheet: Expansion Connectors

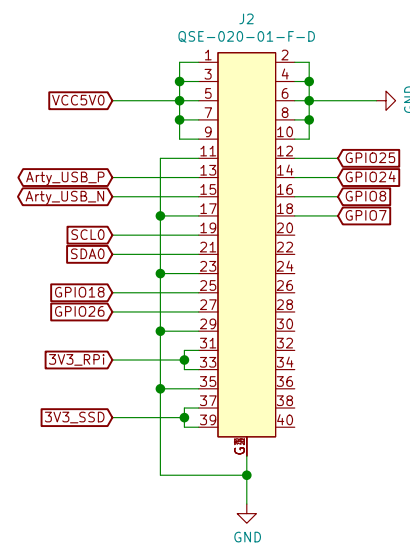
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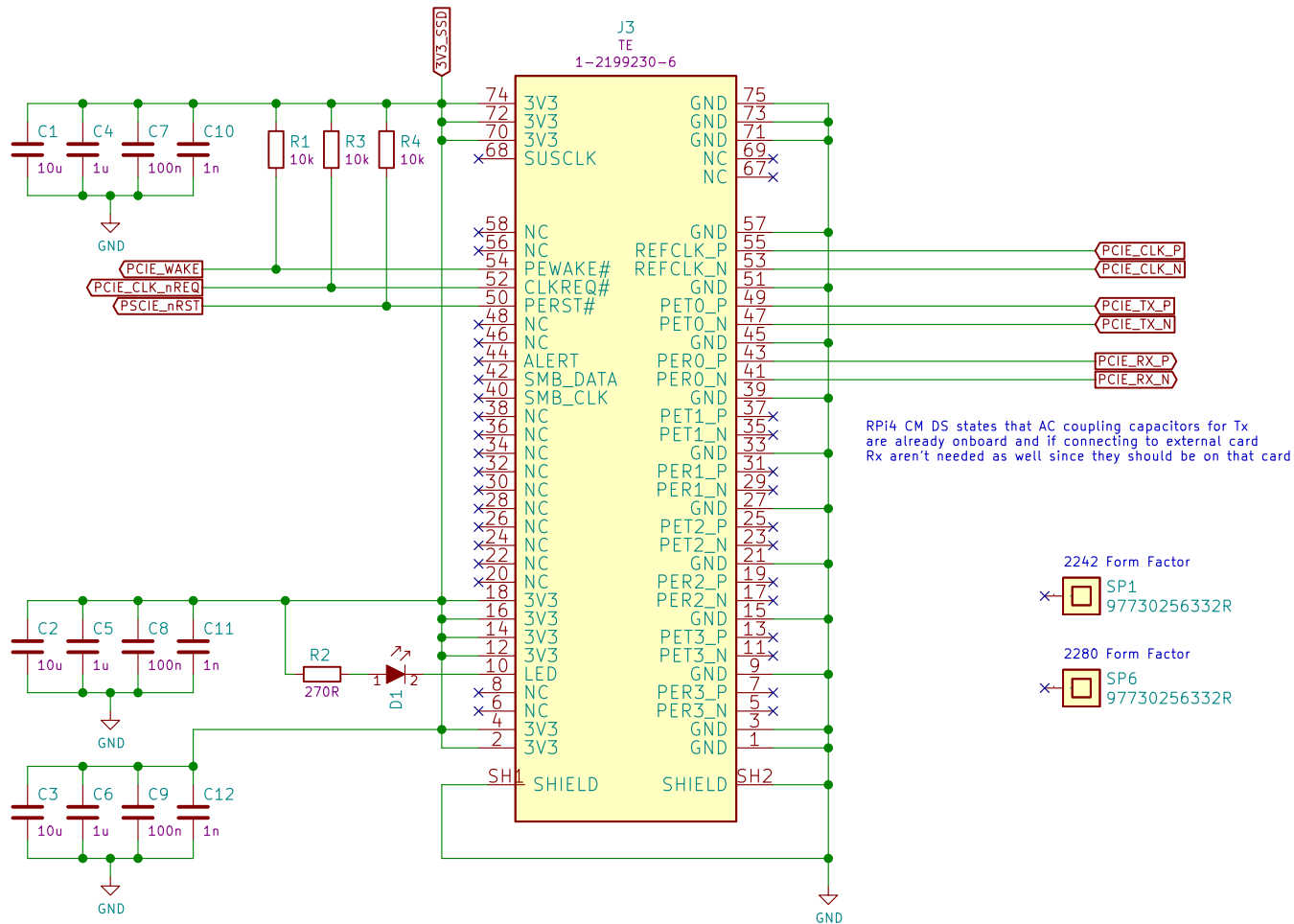
Debug adapter connector



QSE connector current rating:
2A per pin (2 pins powered)

Communication adapter connector





Sheet: /NVMe SSD/
File: nvme-ssd.sch

Title: Scalenode

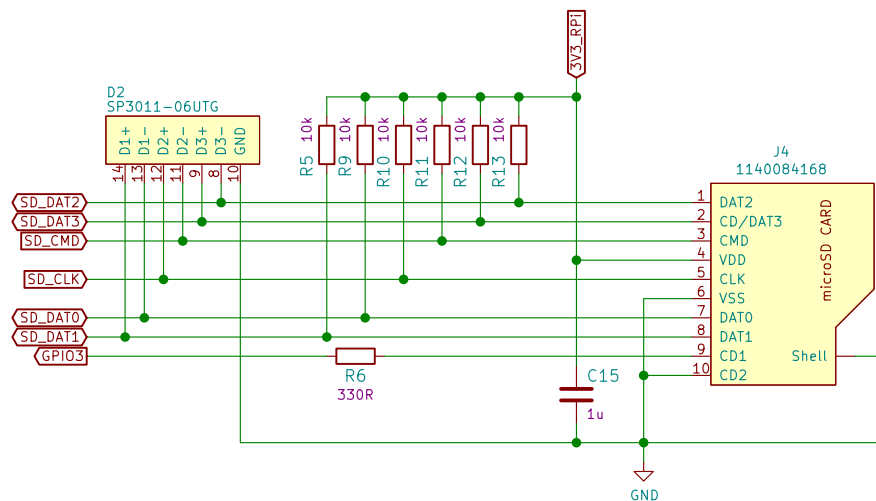
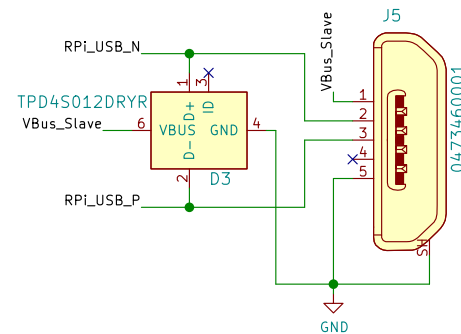
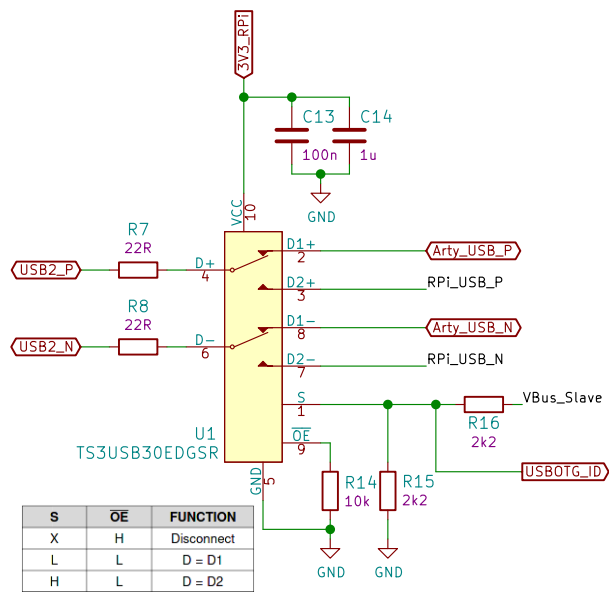
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Rev: 1.0.0

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Sheet: /Interfaces/
File: interfaces.sch

Title: Scalenode

Size: A4 Date: KiCad E.D.A. eeschema 5.1.5+dfsg1-2bpo10+1

Rev: 1.0.0
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