TychoBoB

The TychoBoB is a compact, power-efficient data and payload processing / controller unit designed for space missions and satellite applications.

Peripherals

- USB
- SD 3.0
- 2x Ethernet (1 Gbps)
- M.2 PCIe SSD
- 2x CAN
- 2x RS422 / RS485
- I2C
- SPI

Expansion cards are a planned feature for the TychoBoB system. These cards will connect via an expansion slot located on the bottom of the TychoBoB, allowing users to add custom interfaces or functionality tailored to specific mission requirements.

- CameraLink
- 10 Gbps Ethernet
- LVDS
- GPIOs
- Custom Protcols / Interfaces

Properties

- 145 mm x 72 mm x 23 mm (L x W x H)
- 6W idle (TychOS), 15W peak
- Radiation Mitigation Techniques
- Customizable embedded Linux OS
- Full CSP Stack
- Drivers for relevant interfaces and hardware components
- Tooling for integration of
  - custom user services
  - programmable logic IPs
  - custom Linux OS

System On Module

- Based on AMD Kria K26
  - Quad-core ARM Cortex-A53 MPCore
  - Dual-core ARM Cortex-R5F Core
  - Mali-400 MP2
  - 4 GB 64-bit DDR4
  - 16GB eMMC
- Programmable Logic
  - 256K Logic Cells
  - 1248 DSP slices
  - 26.6 Mb On-Chip SRAM

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