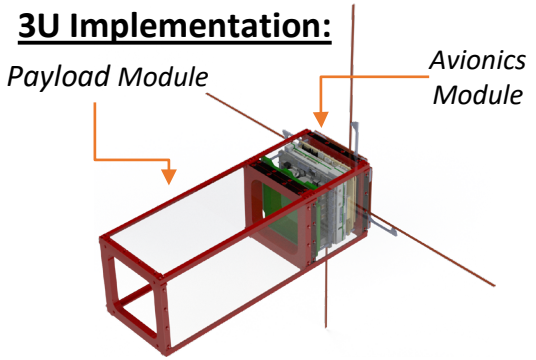
Ut ProSat-x BUS

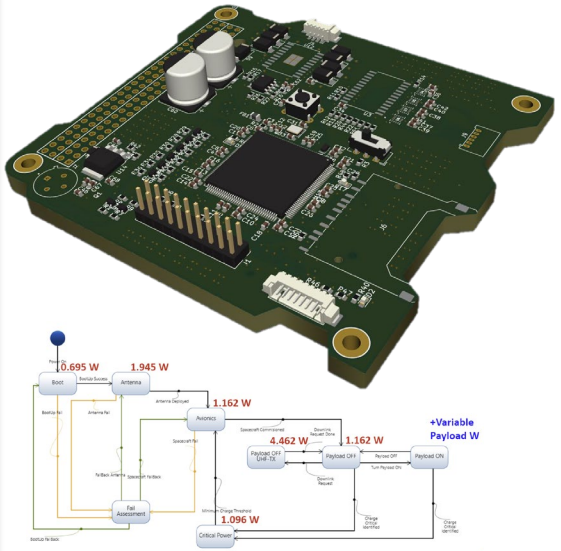
3U Implementation:



Form Factor	Max Payload Volume
1U	2 PC-104 Boards
3U	205x100x100 mm^3
6U	505x100x100 mm^3

Customizable Modular Structure

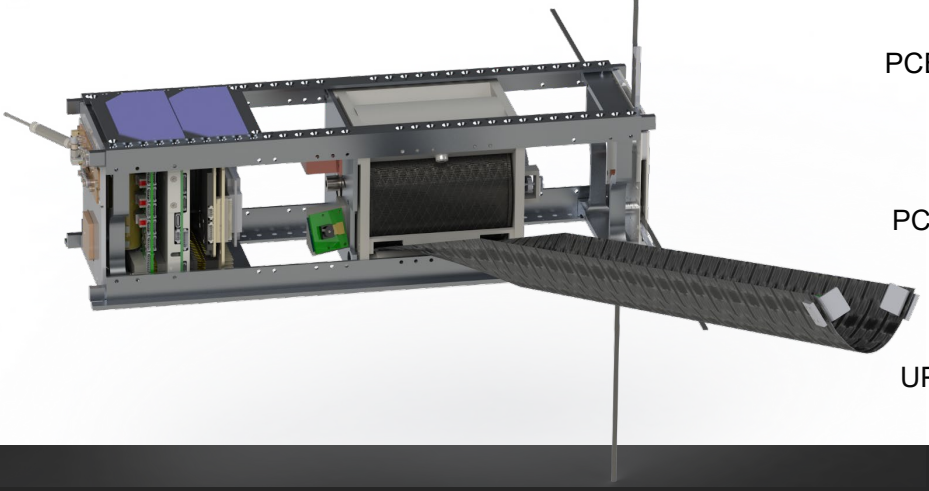
- Standard format: 1 Avionics Module + 1 Payload Module
- Can scale from 1U-27U form factors
- Components can be customized to adapt to payload & CubeSat Dispenser requirements.
- Can be utilized to allow 2 different missions to fly as 1 (i.e. a VT 2U mission + a 1U ODU mission)
- Downloadable CAD for local workshop fabrication



VT UPS-x On Board Computer

- STM32F4xxxx MCU - JTAG/SWO Ready
- Power Lines: 3.3V, 5V, and 8.4V
- 1x UART (PC104)
- 1x UART for an extra payload PCB
- 1x CAN (PC104)
- 3x embedded IMU Units (BMI270)
- 1x SDIO 32GB SD Card
- 1x 8.4V Stepper Motor Driver
- Other Peripheral Connectors: 2x Servo Motors, 1x Enconder, 2x Cameras
- Embedded Software Architecture: RTOS, AX25
- Spacecraft Software Implementations: Power and Data Management; Radio-Key Authentication

VT Satellite Development Team Launch Flight Heritage



2020 – VCC
PCB Design and Integration
(MSP430 + RTOS)

2022 – ThickSat
PCB Design and Integration
(STM32F4)

2023 – Ut ProSat-1
UPS-x On Board Computer
(STM32F4 + RTOS)

Ready to most of COTS Components

- Can operate with a combination of commercially of the shelf (COTS) Modules and VT Modules.
- Electrical Power Systems: 20-70 W
- Onboard Computers
- Radios: UHF, S-Band
- Antennas: UHF, S-Band
- GNSS Modules
- Standard: PC104