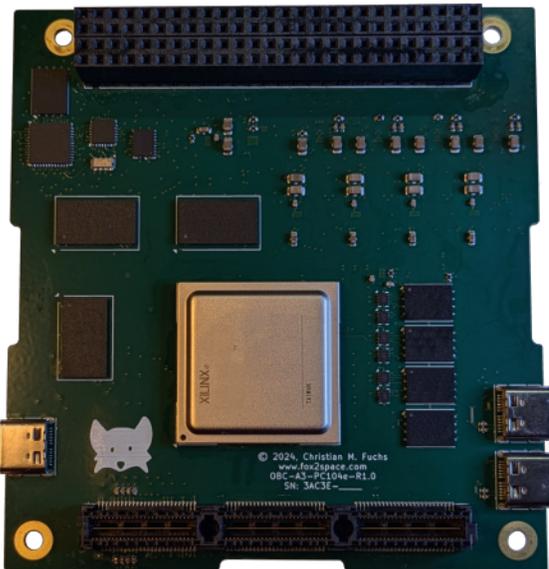
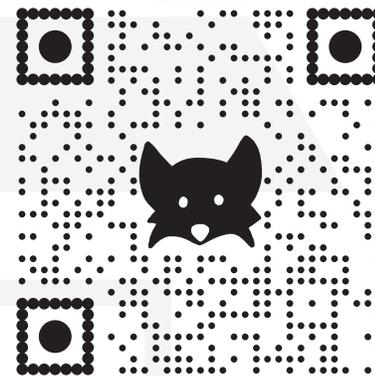


Fox2Space On-Board Computers

Open Standards. Supply Chain Resilient.
Scalable Performance. Truly Fault Tolerant.



Fox2Space On-Board Computers are built as ideal Adaptive Avionics platforms with open standards. They are reliable, efficient, fault-tolerant, and low-power, scaling from SmallSats down to 2U CubeSats. Their design lowers the barrier to fault tolerance, by enabling even novice engineers from other industries to deploy stable, robust, verifiable systems with confidence.



Contact Us:
office@fox2space.com

Lifetime Modeling - Not Reliability Guesstimates

Fault tolerance is achieved at the system level and fully integrated into the embedded stack, offering predictable and even quantifiable mission lifetime assurance based on the mission profile. Fox2Space's OBCs support lifetime modeling similar to the techniques applied in astronomy, physical and mechanical engineering simulation.

Open Standards. Supply Chain Resilience. For Mass Production.

We rely on transparent, open-source standards like LibreCube as mechanical form factor and signaling, PCI/104-Express, and maintain compatibility with EnduroSat and SpaceWire. Our products are built on a unified, templated architecture that can be quickly adapted to specific mission needs. Key components can be easily substituted, ensuring supply chain resilience amid shifting vendor availability or geopolitical factors. This approach can be applied across all spacecraft subsystems to standardize avionics, simplify development, and lower costs at scale.

	Platform	Processor/SoC	Memory	Interfaces
Feather	28/16nm AMD Spartan Fault-Tolerant PSU	SoftrISCv SoC MSP430FR	DDR4 (ECC) Flash (RT)	PC104, 2xCAN, misc. LVDS/RS485
Advanced	28/16nm AMD Artix Fault-Tolerant PSU	SoftrISCv SoC MSP430FR	STT-MRAM (RT) Flash (RT)	+ PCI/104-Express + 2x SpaceWire
Robust	20/16nm AMD Kintex FD-SoI+GaN PSU (RH)	SoftrISCv SoC (ARM Cortex-A option) FD-SoI Control SoC	STT-MRAM (RT) Flash (RT) PCM (RH)	+ PCI/104-Express + 2x SpaceWire
Performance	7nm AMD Versal TMR/RHBM+GaN PSU	SoftrISCv SoC (ARM Cortex-A option) + 2x Cortex-A72/R5F TMR Control SoC	DDR5, MRAM (RT) Flash (RT) PCM (RH)	+ PCI/104-Express + 2x SpaceWire + MIPI, etc.

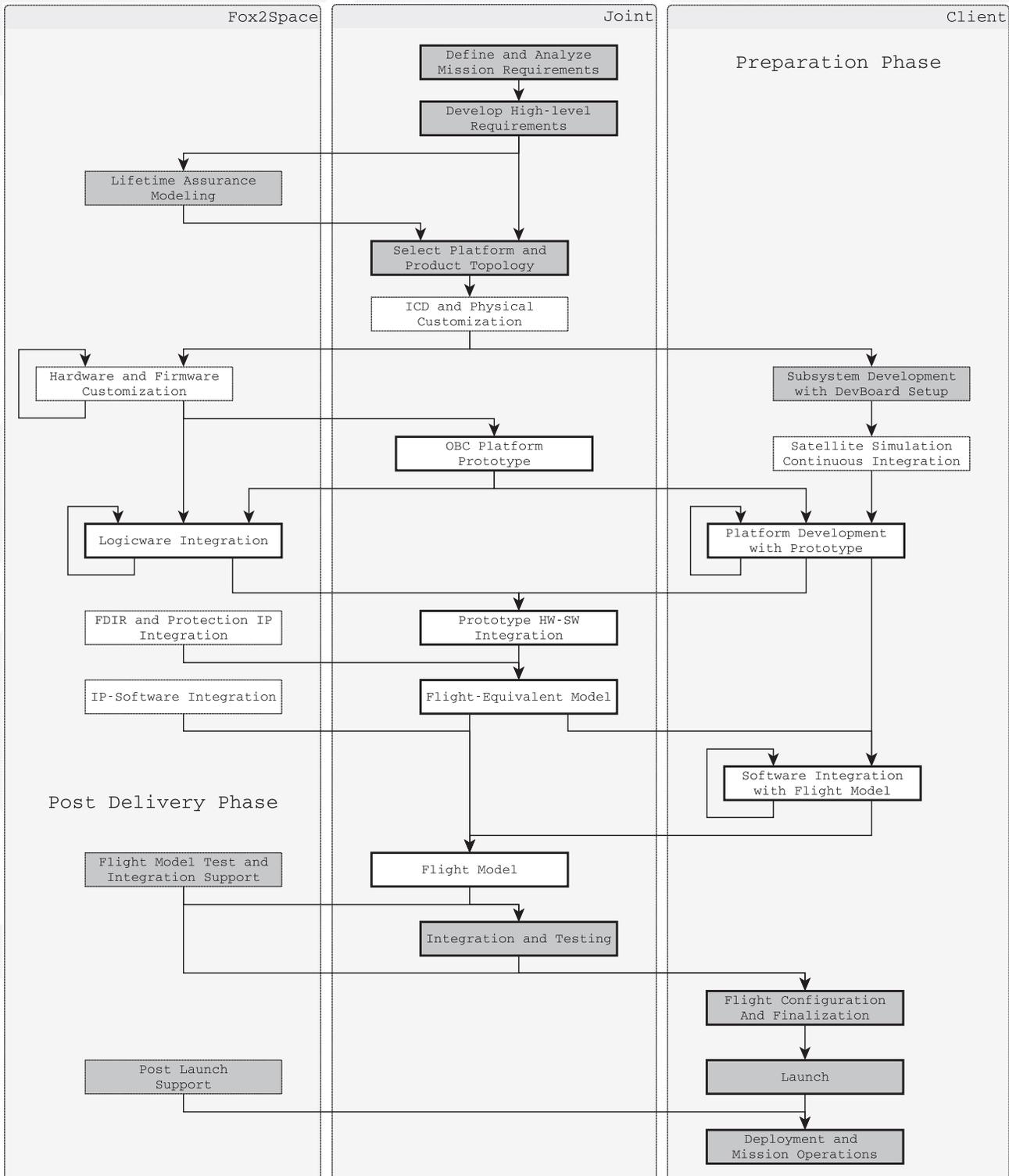
Common: LibreCube Standard 95.89x90.17mm; PC104 is by default LibreCube or EnduroSat Compatible.

Disclaimer: This is info material. Seriously, specifications are subject to change without notice; product WILL vary depending on customer requirements and needs. Memory, Peripherals, and Interfaces can be customized per customer requirements. Customer has agency to approve product configuration during purchasing.



Fox2Space offers a scalable range of onboard computing solutions from ready-made OBCs to fully customized avionics tailored to your mission needs. Adaptive Avionics will be available for licensing by subsystem vendors and satellite builders. This allows seamless integration into 3rd-party products, empowering vendors to underlock more lucrative contracts that they today can not service. It can enable spacecraft to survive even partial destruction while preserving full avionics functionality, and helping increase supply chain robustness.

office@fox2space.com



Fact Sheet

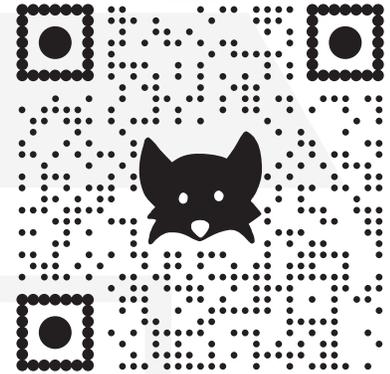
About Fox2Space



Founded in 2020 by a global team of scientists and engineers in Japan, Fox2Space operates in South Africa, the United States, and Europe, with boots on the ground in all regions and the capability to support your satellite, subsystem, service, and avionics and CDH needs worldwide.

Fox2Space's founders invented a series of new technologies which make it possible to achieve strong fault-tolerance and a high degree of redundancy for the most critical applications in space and terrestrial applications, using only widely available COTS components.

Fox2Space developed a suite of tools and support equipment to validate its technologies and help customers quickly become productive with its products and Adaptive Avionics. These tools can simulate entire satellites with real third-party subsystems, as shown in the satellite simulator kit below.



Contact Us:
office@fox2space.com

Adaptive Avionics



Adaptive Avionics enables electronics to behave akin to living tissue when handling damage; instead of failing, they age and sacrifice performance to compensate for damage. These are constructed from independent, autonomously operating cells that cooperate and support each other.

Cells can repair each other and replace incorrectly behaving ones. This allows Adaptive Avionics-protected solutions to not simply fail, but to gradually age and degrade like living tissue. The figure to the right shows an example setup based on the satellite simulator depicted above.

Adaptive Avionics provides system-level fault adaptivity, enabling spacecraft to tolerate diverse failures including radiation. It uses no exotic parts, avoids single-vendor lock-in, and ensures supply chain resilience, trust, and authenticity, even under partial destruction in space, air, sea, or on the ground.

