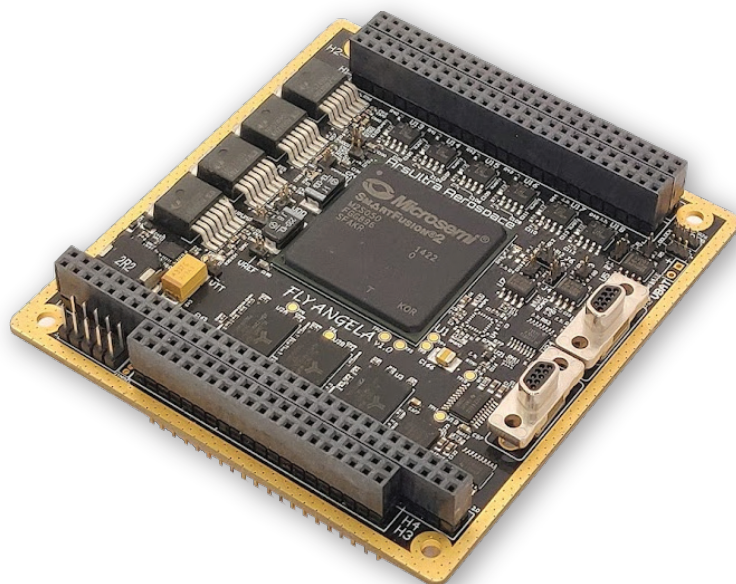


FlyAngela

CubeSat OBC or smallsat payload computer

FlyAngela is an onboard computer for multiple applications. With Automotive grade chips used in power and memory components and PC104-PLUS format is ideal for CubeSat applications. FA has integrated accelerometer, gyroscope, magnetometer and temperature sensors in order to expand on-board navigation capabilities.

It is provided with an extensive variety of interfaces, making it suitable for a wide variety of missions. It has CAN, SPI, I2C, RS422/RS485, GPIO and also optional SPACEWIRE.



PROCESSOR

- > FPGA Smart Fusion2 SoC embedded Cortex-M3 processor @ 24 to 100 MHz user define clock
Embedded Cortex-M3 but also another processor core IP could be flashed

MEMORY

- > 4Gb 32 bits DDR3 SDRAM & EDAC protected memory
- > Embedded SRAM & EDAC protected memory
- > SEU protection
- > 256Mb FLASH
All memories are Automotive grade

COMPLIANT WITH

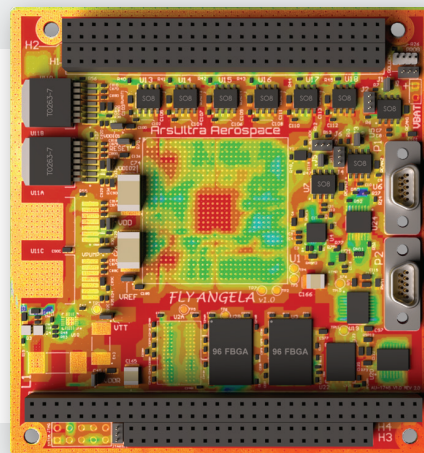
- > ECSS standards
- > Association Connecting Electronics Industries (IPC)



INTERFACES

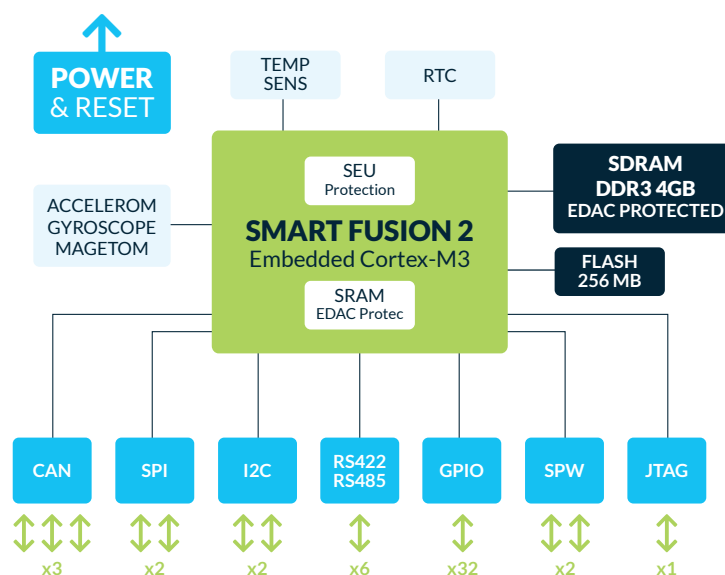
- > 3x CAN Buses
- > 2x SPI Buses (8 Chip Select per bus)
- > 2x I2C Master Slave Buses
- > 6x RS422/RS485 UART
- > 32x GPIO
- > 2x SPACEWIRE (Optional)
- > JTAG Debugging

Note: Not all interfaces are available at the same time.



SENSORS INTEGRATED

- > Accelerometer, Gyroscope, Magnetometer
- > Temperature
- > Real Time Clock for autonomous operation



OTHERS

- > PC/104 Plus Format
- > Automotive power regulation
- > Real Time Clock
- > CubeSat Kit BUS Compatible
- > Automotive RAM, ROM and power regulation
- > FPGA Smart Fusion2 MS025/MS050
- > Embedded Cortex-M3. (Another IP Core could be flashed)
- > 2MB Program Memory Size; 256kB RAM for M4, 2MB RAM for M7; 2048kB flash memory;
- > 4Gbit DDR3 SDRAM with EDAC (ECC). (2G x 32 bits)
- > 256Mbit Automotive NOR Flash Memory (Industrial grade optional)
- > Integrated Accelerometer, Gyroscope and Magnetometer;
- > Integrated Temp Sensor
- > PWM drivers for magnetorquers;
- > Interfaces: CAN, UART, 2x I2C, 2x SPI;
- > 2x SpaceWire (optional)