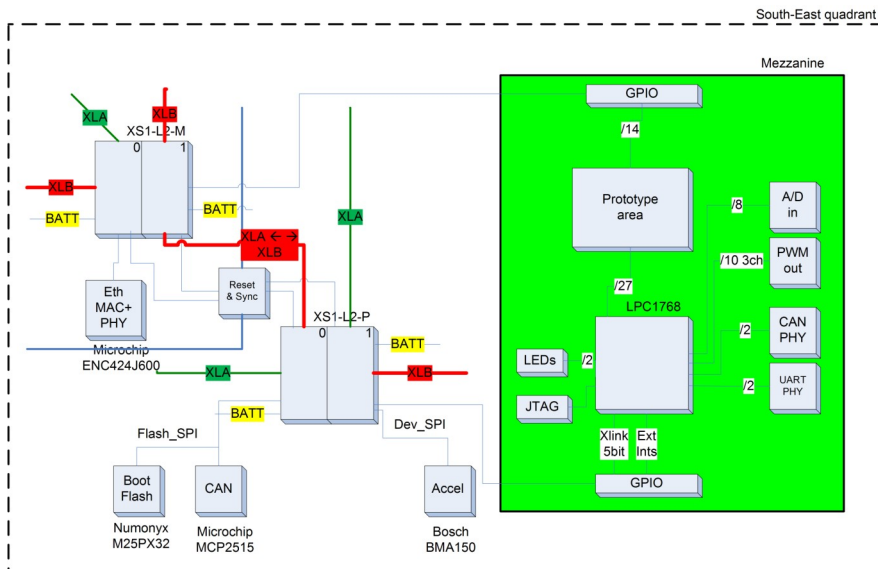


# STARFISH EMBEDDED CONTROLLERS

## Scalable and safety enabled controllers for embedded applications

*Enabled by the formally developed network-centric OpenComRTOS*

The StarFish range of controllers from Altreonic are designed as a solution that can handle most of embedded real-time applications with a special emphasis on high reliability. The scalable architecture is fully controlled by the formally developed network-centric OpenComRTOS and allows easy trade-offs between maximum performance and maximum reliability.



The StarFish concept was also designed so that it can easily be customised for every application, either by reprogramming the software, the high speed I/O or by programming a FPGA.

The figure on the left depicts the StarFish-42 with a general purpose I/O mezzanine controlled by an ARM-M3.

The building block (**StarFish-42**) provides:

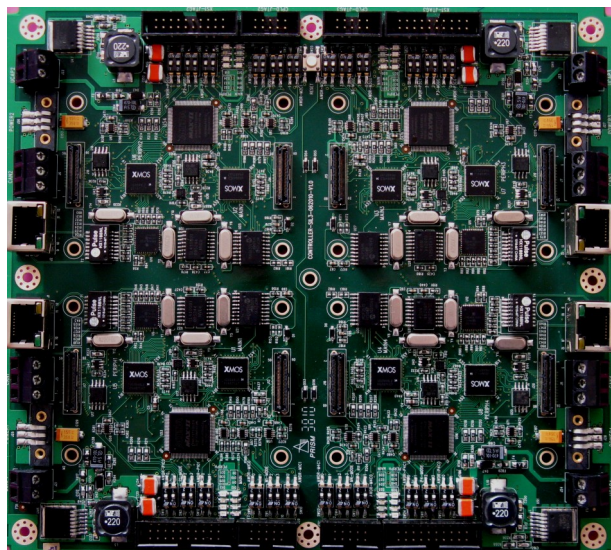
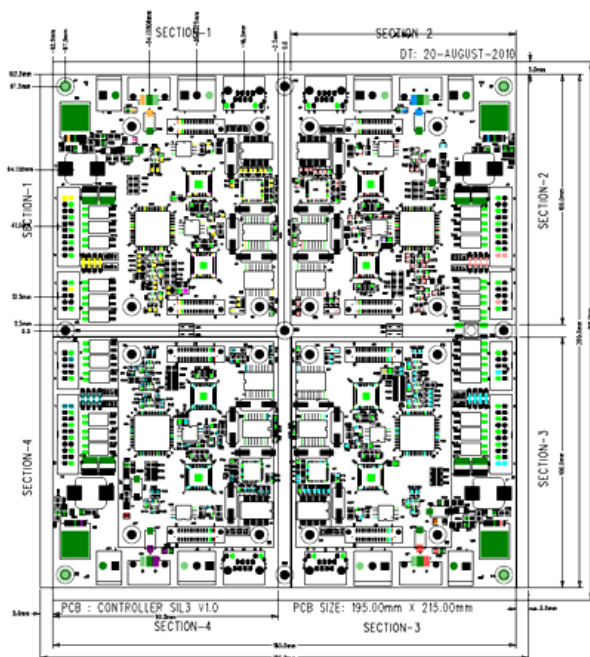
- Two dual-core 32bit real-time processors running at 400 MHz:
  - Each core provides up to 4 threads @ 100 MHz or 8 threads @ 50 MHz
  - A dedicated thread running OpenComRTOS priority scheduled tasks
  - System wide communication and synchronization with OpenComRTOS
  - Customisable threads for precise timing support, I/O or additional processing
  - Global reset and synchronization logic
  - Flash memory
  - 2 x 64 Kbytes of SRAM
  - One Ethernet and one CAN bus interface
  - 3 dedicated high speed links for inter block communication
- A customizable Mezzanine board, allowing:
  - Smart I/O, CAN, Ethernet, I2C, SPI, DAC, ADC, PWM controlled by ARM-M3
  - High speed floating point DSP
  - High speed programmable FPGA and analog I/O
- A dedicated Power Regulator and monitor allowing each block to operate for up to 2 minutes in case of main power failures
- A dedicated accelerometer and temperature sensor
- An analog watchdog timer.
- JTAG connections.

*From Deep Space to Deep Sea*

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*Push button high reliability*



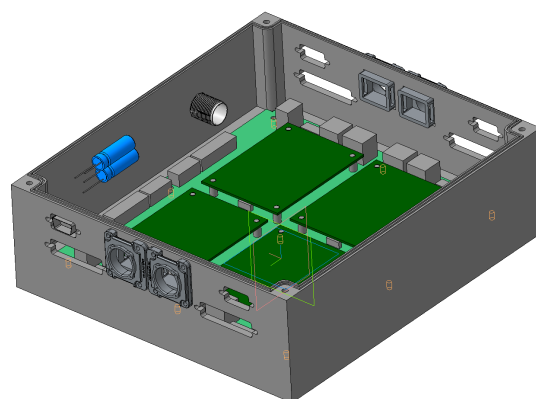
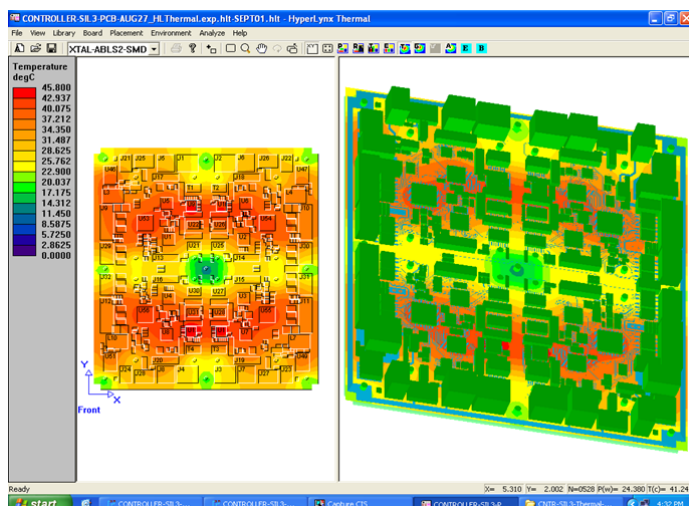


The **StarFish-424** combines 4 StarFish-42 sections, each with a mezzanine section, in a single board. The design is very modular and flexible allowing it to be used for prototyping or for the final embedded system. A separate enclosure is available for embedding it in a system.

The enclosure is produced from a single piece in aluminium for optimal mechanical strength, thermal and RF properties. The StarFish-42 can also be redesigned in different enclosures or adapted to customer needs.

Approximate dimensions of a StarFish242 section: 100x110 mm.

Availability: Q4 2010.



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