UNIBAP
SPACE SOLUTIONS

iX10-101

The iX10 family is Unibap's most competent and versatile computer solution for highly demanding space applications. It offers a wide range of I/O interfaces, exceptional data processing capabilities, and extensive storage capacities. Combined, these features push the boundaries of our utilization of space.
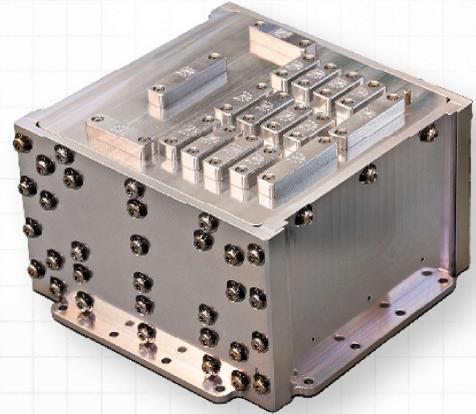
MARKET-LEADING INPUT/OUTPUT

Connect anything to everything with the iX10-101's vast interfacing capability. The standard configuration offers a number of CameraLink, Ethernet, SpaceWire, USB 3.0, CAN, I2C and Serial ports, with even more connectivity available on demand.
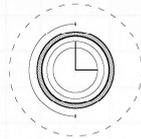
CUTTING-EDGE PERFORMANCE

Unleash Earth's computing force in space. Powered by AMD Ryzen V1000 CPU, AMD Radeon GPUs, and Intel Movidius Myriad X VPU, the iX10 is engineered for the most intricate computations and AI tasks, and its Microsemi PolarFire FPGA and robust SATA and NVMe SSD storage delivers unmatched flexibility and reliability for your mission.

USER FOCUSED

The iX10 is a perfect vehicle to implement the opportunities of open platform computing in space. It runs on Unibap's operating system, a Linux-based operating system that allows even those without prior space experience to create reliable and robust software for the most complex of space missions.
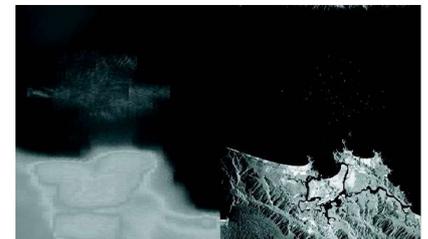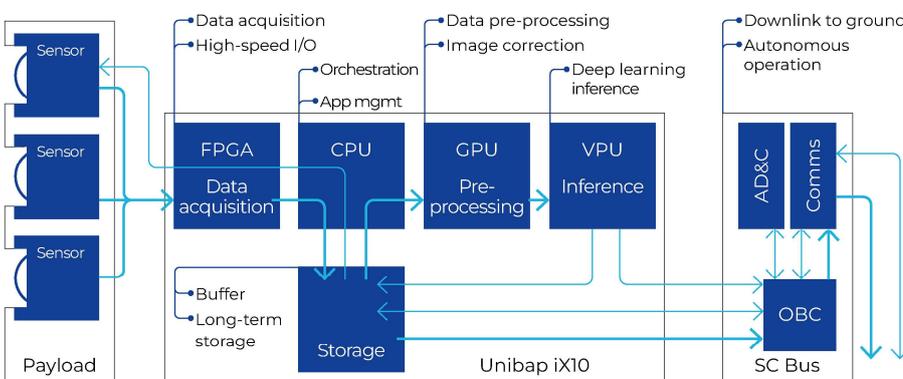
APPLICATION EXAMPLE
Real time SAR-focusing, in-space edge computing to allow deep learning inference, compression and image processing in orbit.

iX10-101
Technical specifications

PROCESSING & MEMORY

Intelligent Processing Core	Unibap COMexpress e23 family
CPU	AMD Ryzen V1000 CPU
GPU	8 x AMD Radeon GPU
VPU	Intel Movidius Myriad X
RAM	24 GB DDR4 ECC (CPU/GPU)
Storage	2 x 4 TB NVMe SSD and 1 x 128 GB SATA SSD

I/O INTERFACE

Camera Link	2 x Camera Link Base
CAN	1 x 2.0/FD
Display port	1 x (inside enclosure)
Ethernet	2 x 10 GbE (10GBASE-T)
I2C	2 x
PPS	Proprietary PLET
Serial communication	1 x RS232 and 4 x RS485/422
SpaceWire	2 x
Stepper motor control	1 x
Thermistor inputs	8 x
USB	2 x USB 3.0 and 1 x USB 2.0

MECHANICAL

Dimensions (est).	125 (W) × 125 (H) × 75 (D) [mm]
Weight	1400 g (800 g without enclosure)
Enclosure	5 mm Al

ENVIRONMENTAL & ELECTRICAL

Power consumption	20 to 40 W (Depending on processing and storage load)
Input power voltage	12 V DC
Operating temperature	-20 °C to 55 °C
Vibration	Qualified for launch, details upon request
Certification	IPC 610-E Class III (RoHS)

SOFTWARE SUPPORT

Operating system	Unibap OS (Linux)
Unibap functions and applications	Supported

Distribution in the US

Distribution in
South Korea and Japan

MOOG

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an ALL CLEAR company