

## iX5-200

The iX5-200 builds on the flight proven iX5-100 series but adds a bridge from the FPGA paradigm into Open Platform Computing. In addition to the CPU and GPU of a standard iX5, the iX5-200 includes an advanced Xilinx FPGA that provides high-speed interfacing and payload control for extreme Edge Computing and Autonomous Operation.



### BRIDGING PARADIGMS



The iX5-200 builds a bridge between the traditional and NewSpace paradigms by connecting the reliability and robustness of an FPGA to the flexibility and ease-of-use of Unibap's Solutions.

### UNIVERSAL PAYLOAD INTERFACE



The iX5-200 cannot only sample and analyse data with tremendous speed and timing, but offers precise control over most sensor subsystems thanks to its LCL-protected regulated supply outputs and analog amplifier stages accommodating up to 20 NTC temperature sensors. Hence, it is the perfect interface to the most demanding payloads.

### INTEGRATION READY



The iX5-200 comes with a custom-made enclosure for thermal and radiation management making it primed for immediate testing and integration.

Capacity	iX5-106	iX5-200	iX10-101A
Processing	VPU - Intel Movidius Myriad X		VPU - Intel Movidius Myriad X
	GPU - AMD Radeon	GPU - AMD Radeon	GPU - AMD Radeon x8
Interfacing	CPU - AMD Steppe Eagle	CPU - AMD Steppe Eagle	CPU - AMD Ryzen V1000
	FPGA - Microsemi SmartFusion	FPGA - Microsemi SmartFusion FPGA - Xilinx KU060	FPGA - Microsemi PolarFire



# Unibap's iX10-200 Universal Payload Interface for High-Performance Space Missions

## Model Name

**iX5-200**

### PROCESSING & MEMORY

Intelligent Processing Core	Unibap Qseven e2160 compute module (AMD Steppe Eagle CPU, AMD Radeon GPU)
RAM	2 GB DDR3 ECC (CPU/GPU) 1GByte DDR4 Xilinx (FPGA)
Storage	2 x 120 GB SATA SSD
FPGA	Xilinx KU060 Microsemi SmartFusion 2

### I/O INTERFACE

CAN v2.0b	1 x (Isolated)
Ethernet, GigaLAN	1 x CbE (1000BASE-T)
GPIO	21 x (single ended)
I2C	4 x
LVDS, general purpose	42 x (signal integrity routed for camera link)
Serial Communication	5 x RS232/422 (Isolated) 9 x RS422 (full duplex) 2 x RS485
SpaceWire	2 x
SPI	2 x (master + slave)
Termistor inputs	20 x AD590
USB	2 x USB 2.0 1 x USB 3.0
Voltage outputs	4 x 5 V (regulated with LCL and U,I monitoring) 1 x 12 V (with LCL and U,I monitoring)

### MECHANICAL

Dimensions	155 (W) x 163 (H) x 54 (D) [mm] Request ICD for details
Mass	1300 grams

### ENVIRONMENTAL & ELECTRICAL

Power Consumption	20-30 W (Depending on processing and storage selection and use)
Vibration	Qualified for SpaceX Falcon9 launch, details upon request
Certification	IPC 610-E Class III (RoHS)

### SOFTWARE SUPPORT

Operating System	Unibap OS
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Information may change at any time.