ИРТЫШ

Server processor Irtysh C616

Contact us:

tramplin.group

Irtysh is a line of modern high-performance processors based on LoongArch architecture. They are designed for mission-critical tasks where manufacturing/production availability is essential. Moreover, it should be reliable and budget-friendly

Areas of applications:

Cloud and Data-centres
Sovereign server solutions with full data control

High-performance computing
Efficiency for scientific and engineering calculations, processing large amount of data

Public Sector and Security Agencies
Protected control systems, data encryption, secure servers

Banks and finance
Payment systems, transaction processing, protection against cyberattacks

Industry and Energy
Automated control systems

Advantages of Irtysh processors:

- Own trusted boot environment
- No undeclared access
- Low power consumption
- Stable production and uninterrupted supply
- Community of engineers and developers, well-developed ecosystem
- In-house design center for developing domestic IP blocks

The nearest performance equivalent
Intel Xeon Silver 4310.

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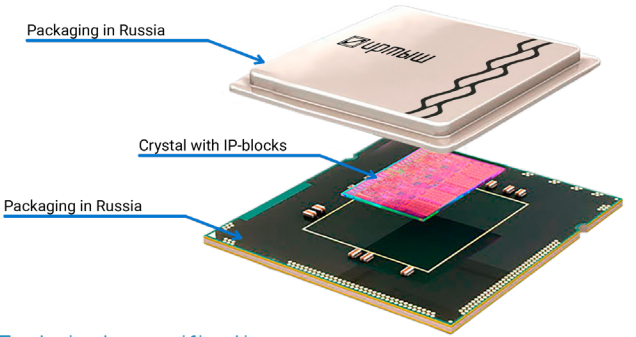
Options of modification:

1xIrtysh C616, 16 cores, 32 threads, max RAM 256 Gb
2xIrtysh C616, 32 cores, 64 threads, max RAM 512 Gb

Localization of packaging in 2027



Technical spesifications of the processor Irtysh C616

Peak clock frequency	2.2GHz	Performance	844.8GFlops@2.2GHz
Number of cores	16	Number of threads	32
Number of chips on wafer	1	Typical power consumption	100-120W
Processor core	64-bit superscalar core LA664; Supports the LoongArch instruction set; Supports 128/256-bit vector instructions; 6-issue out-of-order execution; 4 fixed-point blocks, 4 vector blocks, and 4 access blocks.	Power management	Supports dynamic clock gating of the main module; Supports dynamic frequency scaling of the main clock domain; Supports dynamic regulation of the main voltage domain.
Interprocessor bus	LCL PCIe multiplexing	Security module	Own development that meets the requirements of Russian regulators.
Cache	Every core contains L1 of instructions: 64KB L1 of data: 64KB L2: 256KB Shared L3: 32MB	Memory	4 channels 72 -bit DDR4-3200
I/O	4 channels PCIe x 16 (64 Lane)	Other I/O	SPI UART I2C GPIO