



APPLICATIONS

- modeling
- simulation
- rendering
- synthesis
- searching/sequencing
 - sorting
- cryptography
- compression

MARKETS

- geoscience
 - pharma
 - defense
 - CAD
- aerospace
- government
 - finance
- entertainment

DRC Development System 1000

*The ultimate standalone system
for application acceleration development*

The DRC DS1000 is a complete development platform that contains everything you need to get started modifying your application subroutines to run in hardware.

Designed for single-server development, the system is a standard PC workstation enhanced with either one or two DRC Reconfigurable Processor Units (RPU™). It's a fully-functional, ready-to-go system so you can quickly get to porting and testing your applications without wasting time assembling hardware.

DRC offers two models in the DS1000 family, one containing a Tyan 2-way motherboard with one dual core AMD Opteron™ and one DRC RPU™. You can also get a 4-way system with two dual core Opterons and two DRC RPUs. Your DRC development system also includes DDR memory, disk drives, and a graphics controller.

The DS1000 comes with or without development software. Our development tools partners offer various bundles, some preconfigured with your purchase from DRC, others purchased separately.

If you need to start porting your applications today or need to quickly try out an acceleration solution without huge investment, the DS1000 is the system for you. Get rid of your development environment headaches with an economical system that's completely integrated, fully configured, and ready to go!

DS1000

DRC Development System 1000



DS1000 Family Technical Specifications

	DS1002	DS1004
Standard Hardware Configuration		
CPU	AMD Opteron™ Model 275	Two Opterons Model 875
RPU™	One RPU110-L200	Two RPU110-L200s
Motherboard	Tyan S2891 2-way	Tyan S4881 4-way
Memory DDR	6GB (4GB / CPU, 2GB / RPU)	12GB 2x (4GB / CPU, 2GB / RPU)
Graphics	NVIDIA 7600GT PCI Express video card	NVIDIA 7600GT PCI Express video card
Hard Disks	160GB SATA and 80GB ATA	160GB SATA and 80GB ATA
DVD Drive	NEC 16X DVD +/-R/W dual layer drive	NEC 16X DVD +/-R/W dual layer drive
Hardware Options		
RPU	One RPU110-L160	Two RPU110-L160s
Memory (RPU110-L200)	Additional 2GB (2 x 1GB)	Additional 2GB (2 x 1GB)
Cabinet	Rackmount (1U)	Rackmount (1U)

Software and Tools

- Linux (64 bit) Ubuntu 6.x
- Linux drivers
- RPU manager
- PGI-CDK software (includes MPI)
- Xilinx Design Tools (ISE 8.x)
- RPSyscore

Optional DS1000 rackmount cabinet



RPU System Programming Interfaces

- Reconfiguration over HyperTransport
- Dev/Debug, JTAG

Optional Software

Our development environment partners offer various product bundles you can purchase separately or through DRC.

The DRC Reconfigurable Processor Unit

The DRC RPU leverages all of the features and benefits of AMD64's Direct Connect Architecture and HyperTransport technology.

DRC RPU Model	RPU110-L160	RPU110-L200
FPGA: Xilinx model number	Virtex™-4 LX 160	Virtex-4 LX 200
HT bus Performance per connection	400 MHz x 16 bits 3.2 GB/sec	400 MHz x 8 bits 3.2 GB/sec
Aggregate performance	9.6 GB/sec	9.6 GB/sec
Motherboard memory Performance	4GB (128 bit DDR 400) 6.4 GB/sec	8GB (128 bit DDR 400) 6.4 GB/sec
RPU SRAM/RLDRAM Performance	RLDRAM: 256 MB 800 MB/sec	RLDRAM: 256 MB 800 MB/sec



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