RTDS Technologies
www.rtds.com

# NovaCor

**a new generation of simulation hardware for the RTDS Simulator**

**Introducing NovaCor, a new generation of simulation hardware for the RTDS Simulator – custom built for real time power system simulation and more powerful than ever before. NovaCor allows RTDS Simulator users to do more with less.**

## Simulation Capabilities

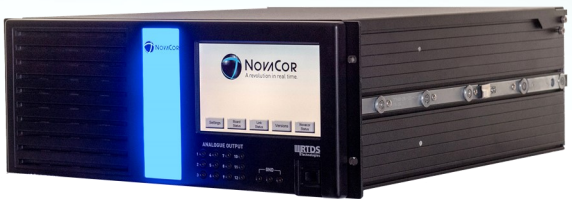
Each rack-mounted NovaCor chassis features IBM's state of the art POWER8 processor, containing 10 powerful cores running at 3.5 GHz. This powerful multicore processor makes NovaCor faster and more capable than the RTDS Simulator's previous processing hardware.

**POWERFUL** Each NovaCor chassis has 2-3 times the simulation capacity of a fully loaded PB5-based rack. Hundreds of nodes are solved on a single core.

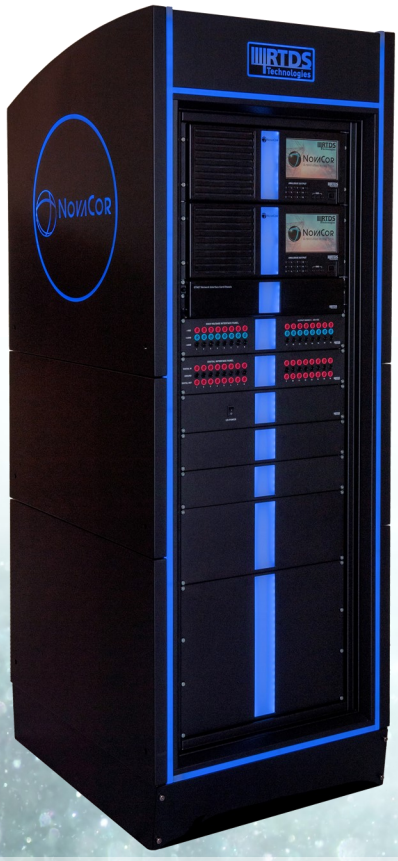
**PRECISE** NovaCor provides higher precision simulations with timesteps reduced by up to 50%.

**SCALABLE** NovaCor allows scalable access through the licensing of 1 to 10 cores per chassis. Overall system expansion and full connectivity of up to 60 chassis is supported.

**ACCESSIBLE** NovaCor allows an entire power system simulation to be run on a single core.



**FEATURING THE POWER8 PROCESSOR**



## Hardware Specifications and Features

| | |
|---|---|
| Processor | POWER8 RISC processor: 10 cores operating at 3.5 GHz |
| Connectivity | 24 x GT ports for connection to GTIO cards and interconnection of small timestep subnetworks on different NovaCor chassis<br>6 x IRC ports<br>1 x GBH port<br>1 x GTSYNC port<br>1 X Ethernet port |
| Built-in I/O | 12 x 12-bit D/A channels operating over a range of +/- 10 V pk |
| Compatibility | Racks based on GTWIF, PB5, and GPC cards<br>GTAO, GTAI, GTDO, GTDI, GTFPI, GTNET, GTNETx2, GTSYNC, GTPFGA Unit |
| Scalability | Up to 60 fully-connected chassis |
| User Interface | RSCAD Software, Version 5+<br>7" touchscreen on each chassis |
| Power | 450 W max., 100-240 V, 50/60 Hz |
| Individual Chassis Dimensions | 48.3 x 52.2 x 17.8 cm (WxDxH) |
| Cubicle Dimensions (optional) | 68.3 x 79.4 x 189.5 cm (WxDxH) |

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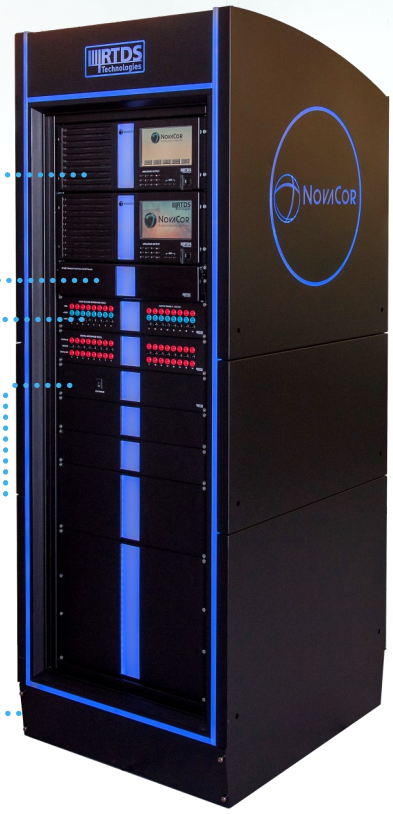
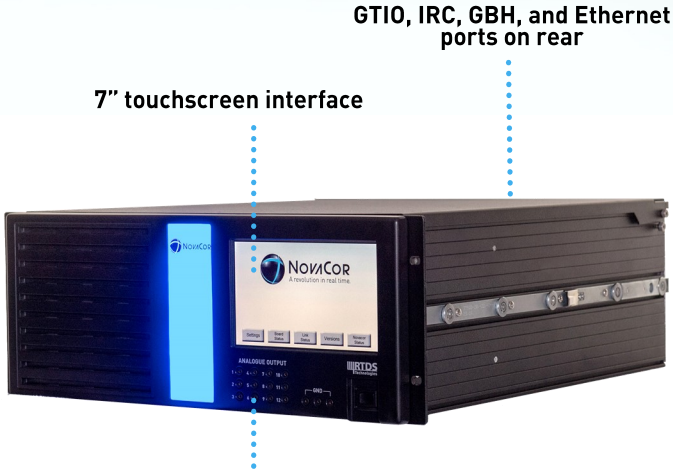
## Cubicle and Chassis Features

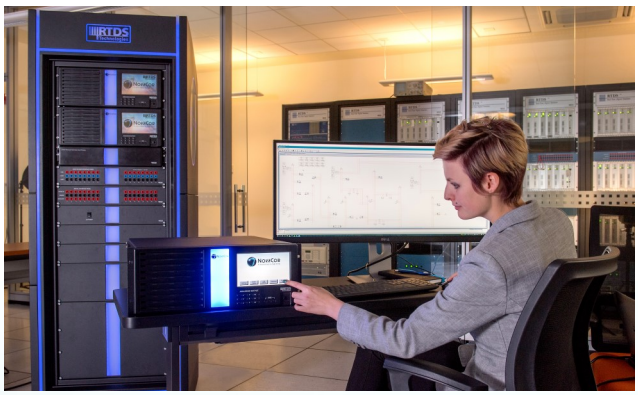



**Interested in the world's fastest and most capable real time power system simulator?**

**Visit www.rtds.com/novacor or email us at rtds@rtds.com.**

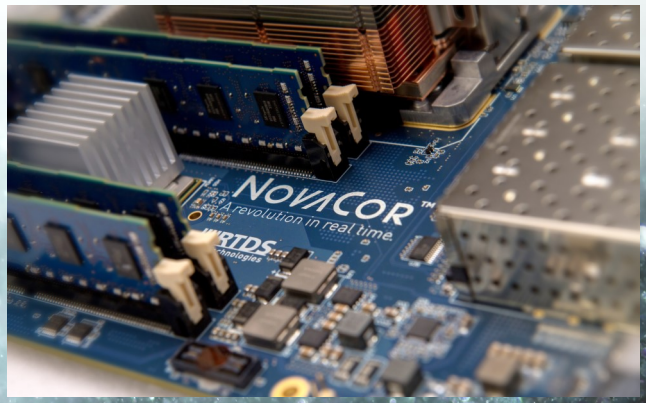
## Applications of Real Time Power System Simulation



The RTDS Simulator is the world standard for real time power system simulation. It is used by all of the world's major protection and control manufacturers, as well as by leading electrical utilities, educational institutions, and research facilities around the world. With the introduction of NovaCor, the RTDS Simulator is even more powerful than ever before.

The Simulator's hardware and all-in-one software, RSCAD, have been specifically designed to perform real time electromagnetic transient simulations. Complex networks are simulated using a typical timestep of 25-50 μs. Small timestep subnetworks operating with timesteps in the range of 1-4 μs simulate fast switching power electronic devices.

- Closed-loop testing of protection and controls
- HVDC and FACTS simulation and testing
- Smart grid and distributed generation
- Power hardware in the loop (PHIL)
- Education and training
- Wide area protection & control scheme testing

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