HARDWARE

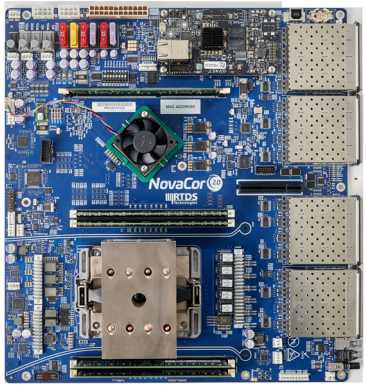
INTRODUCING

NOVACOR® 2.0

NEW CENTRAL PROCESSING HARDWARE FOR THE RTDS® SIMULATOR

NovaCor 2.0 is the newest generation of our main processing hardware - the base unit of the RTDS Simulator. It can be used as a standalone unit or mounted in a NovaCor cubicle alongside other RTDS Simulator processing and I/O hardware.

NovaCor 2.0 features a POWER9® multi-core processor



SIMULATION CAPABILITIES: LARGER, MORE COMPLEX NETWORKS

Each NovaCor 2.0 chassis contains a powerful multicore processor - the IBM™ POWER9® - that has been custom-integrated for the real-time simulation application. Capabilities are scaled via core licensing: up to 10 cores can be licensed per chassis. Adding core licenses increases the simulation capabilities of NovaCor 2.0.

Given the same simulation hardware configuration (i.e. number of licensed cores), NovaCor 2.0 can simulate larger and more complex networks than NovaCor 1.0:

- **20% more Component Load Units**
- **20% more Mainstep Nodes**
- **25% more Substep Nodes (power electronics circuits)**
- **25% more Distribution Mode Nodes**

NovaCor 2.0 cubicle

NEW FEATURE: POWERFUL NON-REAL-TIME SIMULATION

NovaCor 2.0 includes an exciting new feature: a non-real-time simulation mode which supports significantly larger networks than what would be supported on the same hardware in real time.

- **Non-real-time mode allows for 10x more nodes and load units than real-time mode**
- **Get the simulation capability of an entire chassis on a single core**
- **Supports integration of the GTSOC and PSCAD-RSCAD co-simulation features**

NovaCor 2.0 chassis

COMPATIBILITY

NovaCor 2.0 is fully compatible with NovaCor 1.0 - these units can be interconnected for multi-chassis simulation - and all supported I/O and peripherals. NovaCor 2.0 is not compatible with older (GTWIF and WIF card-based) RTDS Simulator systems. NovaCor 2.0 supports the RSCAD FX software and cannot be used with previous software versions (RSCAD V5 and earlier).

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YOUR WORLD IN REAL TIME.

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HARDWARE

NOVACOR 2.0

SPECIFICATIONS

PROCESSOR	IBM® POWER9® RISC processor 10 cores operating at 3.8 GHz
CONNECTIVITY	20 x I/O ports 6 x IRC ports 1 x GBH port 1 x GTSYNC port 1 x UDP port (for external devices) 4 x Aurora ports (for licensing) 1 x Ethernet port (for WIF)
SCALABILITY	Up to 10 licensed cores per chassis Up to 144 interconnected chassis
POWER	450 W max., 100-240 V, 50/60 Hz
DIMENSIONS	48.3 x 52.2 x 17.8 cm (W x D x H) 13.6 kg (weight)

Front of NovaCor 2.0 chassis

12 x analogue outputs

Chassis on/off

Back of NovaCor 2.0 chassis

20 x fibre ports for analogue/digital I/O and GTNETx2 cards

4 x fibre ports for Aurora protocol-based I/O (via licensing)

6 x fibre ports for inter-chassis connections

1 x GTSYNC fibre port

1 x Ethernet port for UDP-based I/O

1 x Ethernet port for workstation interface

Power

Learn more at rtds.com/novacor2.

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