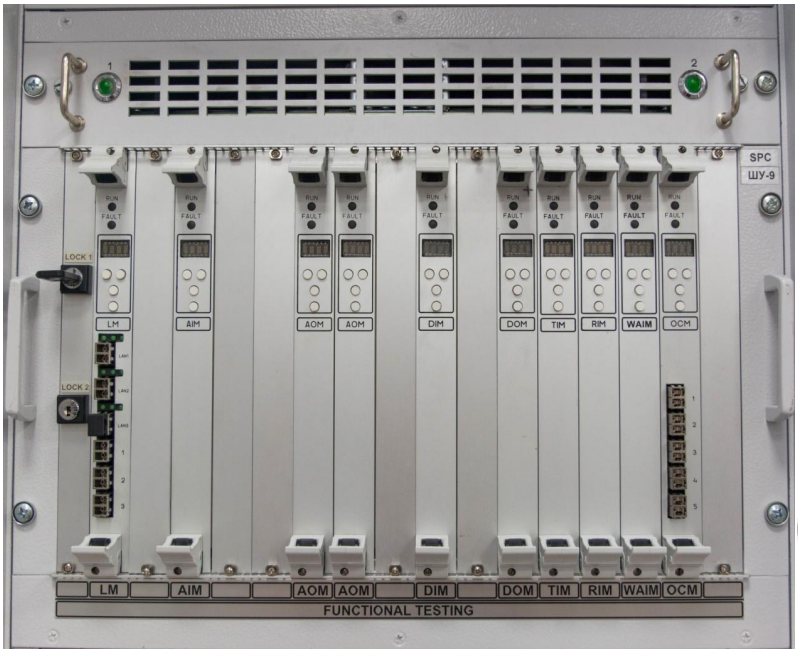
Chassis

Fully Qualified Safety-Related Digital Platform

CURTISS-WRIGHT



About

Curtiss-Wright Nuclear has partnered with Radics, LLC to develop and deliver a digital I&C platform that is robust, flexible, and scalable. It provides state-of-the-art functions, services, and safeguards for both safety and non-safety applications in the nuclear industry. The RadICS product line consists of a Logic Module, basic input/output modules, and specialty modules all housed in a seismically qualified chassis.

The RadICS chassis consists of 16 physical module slots, module communication and power supply backplane, and two fans (with associated control board). The RadICS chassis (in qualified configuration) has a slot for 1 Logic Module (LM) and 14 slots for various I/O and Optical Communication Modules (OCM). Each of the slots is equipped for proper and safe module installation and is configured with electrical protection for each module.

Chassis

- Standard 19-inch rack installation.
- Two redundant 24 VDC supply inputs for distribution to each module slot.
- Input/Output (I/O) and Optical Communication Module (OCM) slots are configurable with rear accessible interface protection modules for electrical protection
- Backplane for communication between the RadICS modules, using direct individual communication lines from each I/O and OCM slot to the Logic Module slot.
- Human Factor features including:
  - Labeling to identify slot allocation
  - Visually verifiable tie-down clamps
  - Blanks panels covering all unused slots
  - Front mounted fiber optic connectors for LM and OCM
  - Rear-connected I/O and OCM cabling
  - Special coding pegs prevent I/O and OCM modules from being inserted into the wrong slot
- Qualified to NRC-approved requirements for environmental, seismic, and electromagnetic compatibility.

radICS

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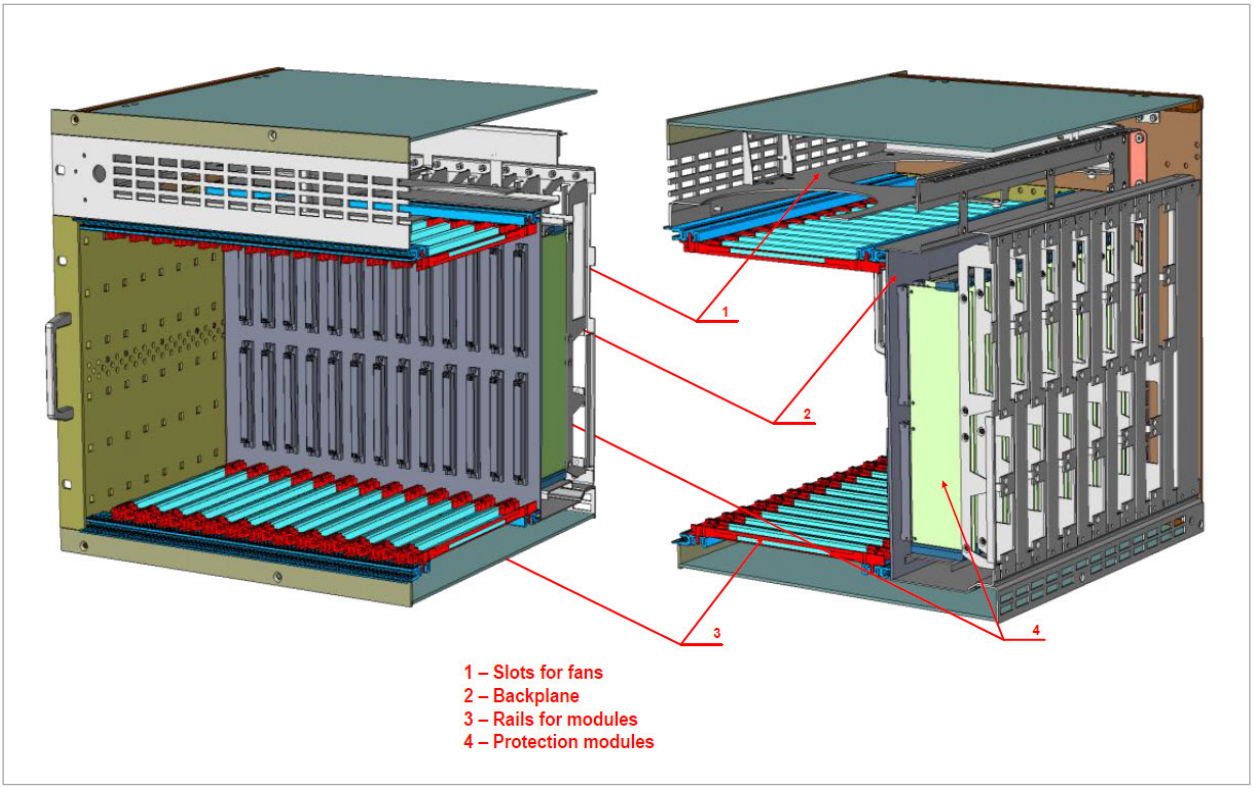
Chassis Technical Specifications

Function	Specifications
Chassis Capacity	2 Logic Module Slots (one slot used in qualified configuration) 14 Input/Output/OCM Module Slots
Backplane Communications	Galvanic-isolated point-to-point LVDS Tx / Rx
Self-Diagnostic Functions	Ventilation module detects fan failures
Power Supply / Consumption	2 independent and redundant inputs – 24 (18 – 36) VDC / 0.5 amp (without modules) Distributed to all module slots
Indications	2 power status LED indicators
Keyswitches	2 keyswitches provided for LM Tuning and Safety Override functions
Operating Temperature	5 to 60 °C (40 to 140 °F)
Operating Humidity	10 to 90% relative humidity, non-condensing



Internal Diagram of the RadICS Chassis

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