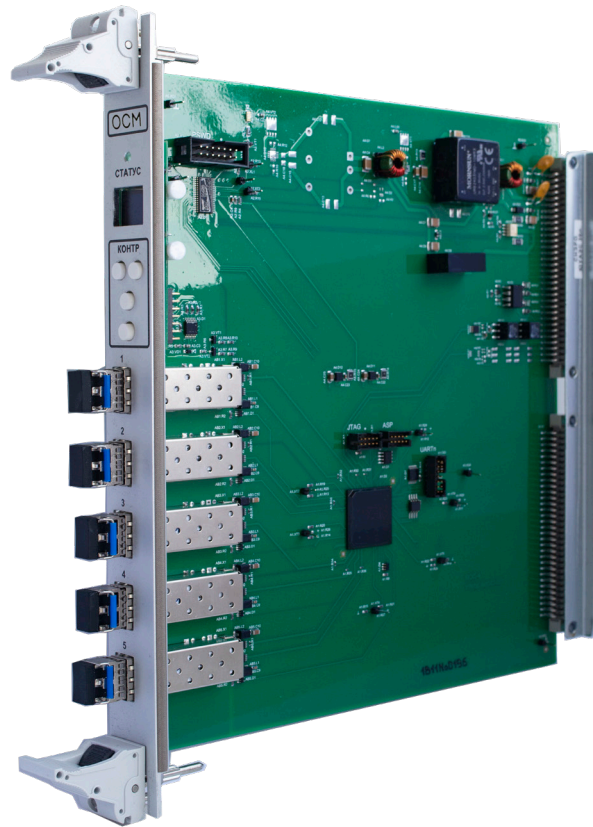




Radiy delivers a digital I&C platform that is robust, flexible, and scalable. It provides state-of-the-art functions, services, and safeguards for applications in industry.

The RadICS B product line consists of a Logic Module, basic input/output modules, and specialty modules all housed in a chassis.

The Optical Communication Module (OCM) receives and transmits data via up to five independent safety qualified point to point fiber optic interfaces that are used to extend the RadICS Platform to additional chassis (OCM to OCM or OCM to LM). The OCM also performs robust and continuous self-diagnostics to ensure the safety and integrity of data transfer and module function.



Optical Communication Module (OCM)

- Five independent fiber optic communication ports with pluggable transceivers for full duplex communications between channels or expansion racks.
- Independent FPGA for analog input processing, self-Diagnostics and microcontroller for power control and fail-safe functional behavior.
- IEC 61508 SIL 2 certification in single and multiple channel configurations.
- Robust self-diagnostics ensure higher reliability and early fault detection.
- Segregation of communication processing, self-diagnostics, and watchdog functions assures safety-critical functionality.
- Robust and dedicated communication links to Logic Module for secure data transfer.
- Inherent on-board diversity features eliminate common cause failure vulnerabilities.
- FPGA technology ensures resilience to obsolescence.



Optical Communication Module Technical Specifications

Fiber Optical Lines Type	optical full duplex
Fiber Optical Lines Speed	100 megabit/second
Information Package Exchange Cycle	5 milliseconds
Diagnostic Package Exchange Cycle	5 milliseconds
Diagnostic Data Exchange Cycle	up to 5 milliseconds
LVDS Line Speed	100 megabit/second
Fiber Optical Line Protocol	proprietary protocol with integrity checking (CRC), galvanic-isolated Tx / Rx
LVDS Line Protocol	proprietary protocol with integrity checking (CRC), galvanic-isolated Tx / Rx
Self-Diagnostic Functions	diverse watchdog unit, checksum analysis, active diagnostics with internal fault detection, hardware error detection, functionally diverse continuous self-diagnostic tests, power supply fault detection
Power Supply / Consumption	2 independent inputs – 24 (18 – 36) VDC / 0.4 amp
Indications	Bicolour status LED indicator (STATUS); 64x48 graphical OLED indicator for providing current operational mode, service information, and error codes
Operating Temperature	4.4 to 60 °C (32 to 140 °F)
Operating Humidity	10 to 90% relative humidity, non-condensing

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For more than 20 years Radiy has provided advanced instrumentation and control (I&C) solutions for nuclear power plant modernization and new build projects in the global market. Radiy's main I&C product, the RadICS I&C Platform, was developed specifically for use in nuclear power plants. It is the only FPGA-based I&C platform with a SIL 3 certification in a single channel configuration. Radics, a wholly owned LLC, provides delivery services for the RadICS I&C Platform for international markets to meet local regulatory requirements. Radiy also offers industrial control systems, electrical equipment, and reverse engineering services.