



mCore[®]SDR

Secure Data Router

mCore[®]SDR was purpose-built for the Industrial Internet of Things (IIoT) as a Secure Data Router, Advanced Protocol Converter, and an Edge Analytics Computer. With multiple layers of cybersecurity, a rugged environmentally-sealed enclosure including a wide temperature range, and a quad-core processor with the ability to perform up to 7 billion calculations per second, mCore[®]SDR is ready for the next generation of industrial IoT and Edge Analytics applications.



AVEVA PI Connector Technology:

mCore[®]SDR utilizes AVEVA PI Connector Technology to bring user data directly into PI, without need for additional communication devices. Data can be buffered to provide excellent data fidelity.

Onboard Analytics Capability:

mCore[®]SDR was designed to provide an environment for performing edge analytics. With built in and expandable data storage, the ability to ingest multiple data streams at a high velocity, an 800 MHz quad-core processor with (5) math coprocessors, mCore[®]SDR has the capability to model real-time, multi-variable data. Essentially, it's capable of performing 7 Billion calculations per second.

Features:

Protocol Support:

CDL[®] (CAT Data Link[®]), S.A.E. J1939, Modbus RTU, Modbus TCP, Allen Bradley Controller Tags, AVEVA OMF, MQTT - Sparkplug, BACnet IP Advanced CDL Driver for Automatic Network Recognition and Network Efficiency

Security

- Hardware Encryption of data
- SSL/TLS Encryption Sockets
- Full Featured Enterprise Level Firewall
- HTTPS Secure Web Server User Interface
- Secure Encryption Key Storage Location

IIOT Enabled

- Utilizes AVEVA PI Connector Technology
- MQTT for Secure SCADA Exception-Based Reporting
- Onboard Data Buffering (to ensure data fidelity)

LED Indicators for Power and Communications

Data and Storage Capacity

- Onboard Customer Data Logging
- 2GB of RAM Memory and 4GB of Onboard Non-Volatile
- Factory Optional microSD Card Storage

Processing Power

Quad Core 800 MHz Processors with 5 Math Coprocessors

Compact Footprint – (L)4¼" x (W)3" x (H)5¼"

Mounting

DIN Rail or Optional Bulkhead Mount

Power Protection

9 - 36V Power Supply

Environmental Ratings:

- IP66/IP67 Enclosure – Water and Dust Resistance
- Class I Div II Haz Loc Approved
- -40° to +70°C (for 8-28 VDC)
- 2-200 Hz 5G Vibration Resistance
- 25G Shock Tested

Supported Industrial Datalinks:

- (1) CAT[®] Data Link Port
- (2) CANbus Ports
- (1) RS232 Serial Port
- (1) RS485 Serial Port
- (2) Ethernet Ports

Your machine. Your data. Your way.

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Powerful User Interface (UI) Access and Tools

mCore[®] SDR includes a powerful UI that enables the ability to configure the device as well as troubleshoot data and connectivity issues. The UI is accessible via an ethernet connection.

The screenshots show the mCore SDR web interface. The first screenshot is the login page with fields for User Name and Password, and a LOG ON button. The second screenshot shows the SYSTEM CONFIGURATION page with tabs for BASIC and PARAMETERS. The third screenshot shows the HOME page with Configuration and Applications sections.

ELEMENT	STATUS	ACTIONS
System	Edited Running	[Icons]
Network	Committed Running	[Icons]

NAME	INTERFACE	STATUS	MAC	ADDRESS	NETMASK	CONNECTION	ACTIONS
Ethernet 1	ethernet0	UP	90:0E:83:00:0E:33	192.168.20.121	255.255.255.0	Full Duplex 100 Mb/s	[Icons]
Ethernet 2	enp1s0	ENABLED	90:0E:83:00:0E:34	None	None		[Icons]

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SIMPLE SOLUTIONS. POWERFUL MONITORING.

DEVICE MANAGEMENT PLATFORM

For high volume, often remote, geographically dispersed deployments of mCoreSDR, managing configurations, connectivity, troubleshooting and updating can be a daunting endeavor. mCoreSDR can be connected to Monico's Device Management Platform (MDMP) for providing valuable insight into the health and status of you connected devices and providing maintenance access to the gateway.

CONNECT YOUR mCoreSDR

- View Performance
- Update
- Configure
- Troubleshoot/Diagnose

www.monicoinc.com/monitoring/mcore-sdr/