About Us

Dynalog (India) Ltd, for over 35 years has been offering Quality Products & Services in the Field of Industrial Networking, Industrial Computing and Automation Solutions. Our Products are deployed under wide range critical applications including Factory Automation, Smart Rail, Smart Grid, Smart City, Intelligent Transportation, Oil & Gas and Marine.

Dynalog’s highly-trained professionals & domain expertise can help providing advanced technology, state-of-the-art product offering to serve today’s critical Industrial Automation Solution demand by means of our outstanding product and services.

www.dynalogindia.com
Brief Specifications:
+ 19” Rack Mountable Multiple Slot Computers in 2U / 4U & 6U Height
+ Wall Mount Computers also Available with 6-10 slots
+ Processors like Celeron, i3, i5 i7 & Xeon Available with 3rd/4th/6th/7th/8th Generation Options.
+ Multiple Slot PC’s with combination of PCIe, PCI & even ISA Available.

Application Scenarios:
+ Data Acquisition & SCADA Based Control Systems.
+ Smart Machines
+ Control Room Applications
+ High Speed Data Acquisition Systems
+ Building Automation

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Brief Specifications:
+ Industrial Grade Monitors in Various Sizes from 7” to 42”
+ Various Touchscreen Options like Resistive, Capacitive etc.
+ Glove Friendly Touchscreen Options Available
+ Video Interface D-SUB (VGA), DVI, HDMI Options available.

Application Scenarios:
+ POS (Point Of Sale) Applications
+ Used along with Industrial Computers in various Applications
+ Control Room Applications
+ Digital Signage Applications

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Brief Specifications:
+ Layer 2 / Layer 3 Industrial Ethernet Managed Switches
+ Unmanaged Industrial Ethernet Switches
+ Industrial POE Ethernets Switches
+ Industrial Firewall / Router for Secure Network Communication System
+ Certificated Industrial Switches with ATEX/EN50155/DNV/IEC 61850

Application Scenarios:
+ Any Industrial Networking Applications
+ Smart City Applications
+ Tunnel Monitoring & Control
+ Video Surveillance
+ Network Infrastructure in Oil & Gas Pipeline Monitoring
+ On Board Rail Network Communication System
+ HTMS / ITMS applications

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Brief Specifications:
+ Arm / X86 platforms, Very Low Power
+ WIFI, LoRa, 4G/ LTE IoT Gateway Options
+ Industrial IEEE 802.11a/b/g/n Wireless Inbuilt
+ LTE/3G Cellular Gateway for Remote Configuration/ Monitoring of Serial /Ethernet Devices or Sensors
+ MQTT & Other Protocols Built in

Application Scenarios:
+ IIoT Applications for Smart Manufacturing
+ AGV / ASRS Applications
+ Machine Automation / Retrofitting
+ Utility, Energy or Telemetry Solutions
+ ITMS / HTMS Solutions over Cloud
+ Remote Configuration & Monitoring of Field Devices
+ ATM & Renting Machine Monitoring
+ Surveillance with AI
Product Offerings:
+ Data Acquisition Modules available giving Data Outputs in Wireless, Modbus TCP, Modbus RTU or even USB Modules some Support Very High Speed Data Acquisition.
+ Each of the above types have Variations like Analog Input, Digital Input, Timer / Counter, Analog Output, Digital Output, Relay, Pulse
+ All Modules have Input to Output Isolation & some with Channel to Channel Isolation also Available.
+ OPC Technology, Push Technology, MQTT support for IOT Applications.
+ Provides Support for Multiple OT & IT Protocols for Ease of Integration

Application Scenarios:
+ Data Acquisition & SCADA based Control Systems.
+ Smart Factories
+ Solar Power System Monitoring
+ Water & Wastewater Remote Monitoring

Brief Specifications:
+ Wide Range of Panel PC’s size’s from 7”,10”,15”,17”,19”,24”
+ Processors like Atom, Celeron, i3, i5 i7 Available
+ Resistive/ Capacitive Touch Screen Options Available
+ DVI/VGA/HDMI Interface Available
+ Resolution : 640x480 / 800x600 / 1024x768 / 1280x1024 1366x768 / 1920x1080

Application Scenarios:
+ Data Acquisition & SCADA based Control Systems.
+ Smart Machines, Machine Automation
+ Building Automation, Kiosks
+ Facility Management
+ Building Automation

Brief Specifications:
+ Panel PCs available from 7” to 26” Display Size
+ Fanless Processors options like Celeron, Atom, i3, i5, i7
+ ECDIS IEC 61174 compliant panels
+ C1D2/ATEX/IEC Ex Zone 2 Certified
+ DNV-GL, LR, ABS, NK, CCS, IEC 60945, and IACS-E10 Certifications available in select models
+ IP54 / IP66 Qualified
+ Robust product design that provides reliable operation in Harsh Environments like Marine, Oil & Gas etc.

Application Scenarios:
+ Offshore Oil Drilling Control Systems
+ Marine Bridge System
+ Refinery Scada /DCS System
Brief Specifications:
+ Small Size Computers with Various Mounting Options
+ Fanless Processors like Arm, Celeron, Atom, i3/i5/i7
+ Various Options for IO’s - Serial, USB, Ethernet etc.

Application Scenarios:
+ Various IIoT Applications
+ Substation Automation Applications
+ BMS Systems
+ Crane Automation
+ Oil & Gas Installations in Remote Areas
+ Remote Configuration & Monitoring of Field Devices
+ Railways & Road Transportation Systems
+ Edge Data Acquisition Systems

Brief Specifications:
+ Connecting Serial RS-232, RS-485 or RS-422 Device over TCP/ IP Network
+ 1/2/4/8/16/32 Serial Port over LAN can be made available using Serial to Ethernet Gateway
+ Some Models available with Dual Ethernet for same Network or Redundant Network

Application Scenarios:
+ Automatic Meter Reading / Energy Monitoring System
+ Machine Monitoring
+ Factory Automation
+ LIMS in Pharma, Food & Other Laboratories
+ Telecom Server Console Management
+ Terminal Automation in Oil & Gas

Brief Specifications:
+ Ruggedized GPU-Aided Edge Computing Platform Designed for Modern Machine Learning Applications.
+ Airflow from Intake to Exhaust with Powerful Fans Featuring Smart Fan Control, it allows a 120W GPU
+ Supports NVIDIA® GPU Graphics card up to 120W TDP/250W TDP
+ Supports up to 2 NVIDIA® Tesla T4/P4 GPU
+ Powerful Expansion Capability Supports PCIe x16 Slot
+ Support IEEE 802.3at PoE+ Gigabit Ethernet

Application Scenarios:
+ Autopilot
+ Autonomous Driving
+ Deep Learning/ Virtual Reality
+ Machine Learning
+ Artificial Intelligence
+ Flight Simulator
+ 3D Digital Drawing

Brief Specifications:
+ Modbus RTU to Modbus/TCP Gateways available with 1/2/4/8/16 Ports Configuration
+ EtherCAT and BACnet Protocol Converters
+ Modbus/PROFINET/EtherNet/IP to PROFIBUS slave gateways
+ Modbus RTU/ASCII-to-PROFIBUS slave gateways

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**Product Offerings:**

- Multi Port RS-232 or RS-422/485 cards or a combination of 2 / 4 / 8 / 16 Ports Available
- Various Data Acquisition Cards Available for AI / AO / DI & DO
- High Speed DA & C Boards, Very Popular for Research / Analysis
- Termination Cables or Boxes Available for Easy Wiring

**Application Scenarios:**

- Machine Automation
- AMR Applications where there are Large Number of Meters
- Automation / Research Various Laboratories
- Embedded Computer Applications

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**Product Offerings:**

- 4.3", 5" Rugged PDA's & 7"- 13" Rugged Tablets
- PDA's Equipped with NFC, 1D/2D Barcode Reader, Fingerprint Scanner and Smart Card Readers
- Docking Stations, Vehicle Mounts available Optionally
- Various Certifications like ATEX, e-Mark etc. Available
- Windows or Android OS options available

**Application Scenarios:**

- IIOT & Edge Computing
- Health Care, Retail, Logistics
- Oil & Gas Installations, Railways
- Various Marine, Military Applications

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**Product Offerings:**

- Various KVM’s & Display Extenders Available
- Improves Ergonomics, Reduces Desktop Clutter
- Minimizes Heat, Noise and Power Requirements
- Supports various OS’s including Windows or Android

**Application Scenarios:**

- Control Room Applications
- Video Wall Solutions
- Telecom / Data Centres
- Multiple Computer Scenarios

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**Product Offerings:**

- USB Based Products
- PCI / PCIe Based Cards

**Application Scenarios:**

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**Product Offerings:**

- **Industrial Mobile Computers**
  - 4.3", 5" Rugged PDA's & 7"- 13" Rugged Tablets
  - PDA's Equipped with NFC, 1D/2D Barcode Reader, Fingerprint Scanner and Smart Card Readers
  - Docking Stations, Vehicle Mounts available Optionally
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  - Various KVM’s & Display Extenders Available
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- Multiple Computer Scenarios
Product Offerings:
+ Firewall/NAT/VPN/Router all-in-one
+ Inspects Industrial Protocols with Packet Guard Technology for OT Networks
+ Industrial Intrusion Prevention System (IPS) Device with Hardware Bypass also Available
+ Reinforce your Network Infrastructure and also Protect your Critical Assets and Networks

Application Scenarios:
+ Shop Floors on Factory
+ Networks where OT & IT Meet
+ IoT applications
+ Oil & Water Pipeline Monitoring
+ Smart City Applications

Product Offerings:
+ Various Interface Conversion like Serial/Fiber/Profibus/CANbus/E1/VDSL/SHDSL
+ Serial Side Isolation Protection Available in Select Models
+ Ring and point-to-point Transmission for Fiber Port Options
+ Industrial Grade Design, IP30 Protection
+ Operating temperature: -10 to 60°C and -40 to 75°C (Wide operating temperature Models)
+ Multiple Industrial Grade Certificates

Application Scenarios:
+ Factory Automation
+ Applications in Power Sector / Substations
+ Pipeline Monitoring / Oil & Gas Applications
+ HTMS / ITMS Applications

Data is now the new Gold & one needs it to be collected, stored & analysed by various departments, thus needing it to be sent in the Factory network as well as the Office Network. We have Smart I/O which supports the most often-used protocols for retrieving I/O data, such as Modbus/TCP and EtherNet/IP for OT engineers, and SNMP and RESTful API for IT engineers.

With so many field devices connected to the industrial IoT (Internet of Things), the need to keep all those "things" continuously connected to the Internet has put a premium on networking products that can deliver continuous connectivity without human intervention. To deploy your I/O data to the cloud easily & effortlessly, you first need to retrieve the I/O data from the Local devices, then convert it to the appropriate protocol. Once all of the data has been prepared for transmission, the final step is to push the data up to your OT (Private Cloud) and/or IT (Public Cloud) platform.
Substations typically have a lot of IED’s meters & other devices sending data over multiple protocols including DNP3, IEC-101, IEC-103, & also converted to IEC-104 or IEC-61850. The computers & switches used in the substation now need to be IEC-61850 Compliant.

Dynalog has supplied good number of their Protocol converters typically the Modbus to IEC-104 or Modbus to IEC-61850 in these types of substations. We also have converters for Serial to ethernet as well as Modbus RTU to Modbus TCP which are very widely used in all verticals. The IEC-61850 computer DA-820 & that can rapidly perform fine-grained data acquisition and data analysis, reducing front-end workload.

An oil and gas based company wanted to enhance the security of their pipeline monitoring solution by upgrading their existing serial-based communication infrastructure to Ethernet-based networks.

Deploying devices with enhanced security features was important to build a secure network. Previously, the company used unmanaged switches at field level to aggregate the data back to the control centre. However, unmanaged switches lack management functions and the security functions required by the industry. Under these circumstances, it is very difficult for operators to monitor the status of the switches at field sites and build the first layer of security for the network. Therefore, Moxa’s recommendation was to upgrade the industrial networks at field sites with industrial managed Ethernet switches because they have enhanced security functions that fully comply with the company’s security policy.
APPLICATION STORY: Electric Vehicle Charging Control and Monitoring

Electric Vehicles is an upcoming market. The EV charging infrastructure consists of multiple charging stations & it requires a large amount of energy when used on a regular basis. These charging stations are remote & unmanned. With more & more charging stations, operators face challenges in maintaining good network connections and centralized management of billing and maintenance.

Our IIoT gateway fills the requirement perfectly with low power architecture, rugged design, it was ideal in the outdoor environments. Our dual SIM Modems give reliable connectivity to the central control station who finally handles the maintenance & billing.

APPLICATION STORY: CNC Machine MonManufacturing

The CNC Machines in a factory needed to be programmed each time a new job was received. Maintenance Engineers had to visit each machine to ensure proper operation and perform routine maintenance tasks. Since every second a CNC machine is idling, off line, or shut down for maintenance translates into lost profits, the factory needed a way to monitor the status of its CNC machines to optimize its manufacturing process.

An Serial to Ethernet converter was connected to each CNC machine in the factory’s Ethernet backbone formed by managed Ethernet switches, there was no manual installation of job, giving maximum output from CNC Machines. Each CNC machine had three different coloured indicator lights that technicians used to monitor the machine’s status and determine specific maintenance tasks. An remote I/O server was used to read these status, sending all data in the Control room PC which was a panel PC Optimizing the resources in the shop floor & maximizing performance.
Overview:
Control room video walls display for SCADA applications requires a large amount of information used by many viewers simultaneously and collaboratively. When viewers need that information for monitoring anything – people, infrastructure, information or a developing situation it must be clear, reliable and precise. Customer target is for High Performance, 24/7 realibility, Flexibility, versalitiy, Maintenance ease, Long life and Low cost of operation.

Solution:
Dynalog offers video wall solutions for control rooms of all size. Dynalog control room display solution delivers high performance and flexibility. Our video wall displays Integrate with your existing hardware and software infrastructure letting you capture and analyze real-time data from multiple inputs in multiple formats and make time-critical decisions with perfect confidence.

Features:
- IP Stream Support RTSP H.264 H.265, Rolling Subtitle, real time edit subtitle content size, colour
- Input Channel Character Overlay, labeling on each open window, Multiple Video Wall Groups Management
- Signal Source Cropping, PIP, Image Layering, Image Overlay, Image Roaming, Zoom in/Out, Stretch, Input Signal preview, Presets Layout, Multi-user Operation, IPad Control
- Audio Card, support audio DE-embed, Audio and video synchronous switch
- Supports upto 320 Inputs/Outputs, Central, Control, Card, IR/IO/RS232/Relay

Result:
Dynalog Video wall controllers and video processors made managing content and information across multiple screens easy. we are redefining how and where you access that data, who you share it with and how you display it.
Our Client’s

DYNALOG’S OPERATIONS IN INDIA

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