ControlLogix 5580 Controller

Future proofing your system and enabling The Connected Enterprise

The ControlLogix® 5580 controller helps enable faster system performance, capacity, productivity and security to help meet the growing demands of smart machines and equipment for manufacturing.

The ControlLogix 5580 controller with Studio 5000® software connects people and processes to enable the Connected Enterprise.

1 Gb

Features and Benefits

Enhanced performance and troubleshooting

- Provides up to 45% more capacity
- 1 gigabit (Gb) embedded Ethernet port enables high-speed I/O and motion control
- Controller functions optimized for maximum system performance
- Display provides enhanced diagnostics and troubleshooting

Added security and capabilities

- Energy storage module removes the need for a battery
- Controller-based change detection and logging enable added security
- Digitally-signed controller firmware adds another layer of security
- Provides role-based access control to routines and Add-On Instructions
- Conformal Coating options to help protect in harsh environments

LISTEN.
THINK.
SOLVE.

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The ControlLogix 5580 controller's high performance capabilities enhance your automation control system in several ways.

Smart

- Display provides enhanced diagnostics and troubleshooting
- Integrated Motion over EtherNet/IP for up to 256 axes
- 1 Gb embedded Ethernet port enables high performance, communications, I/O and motion control
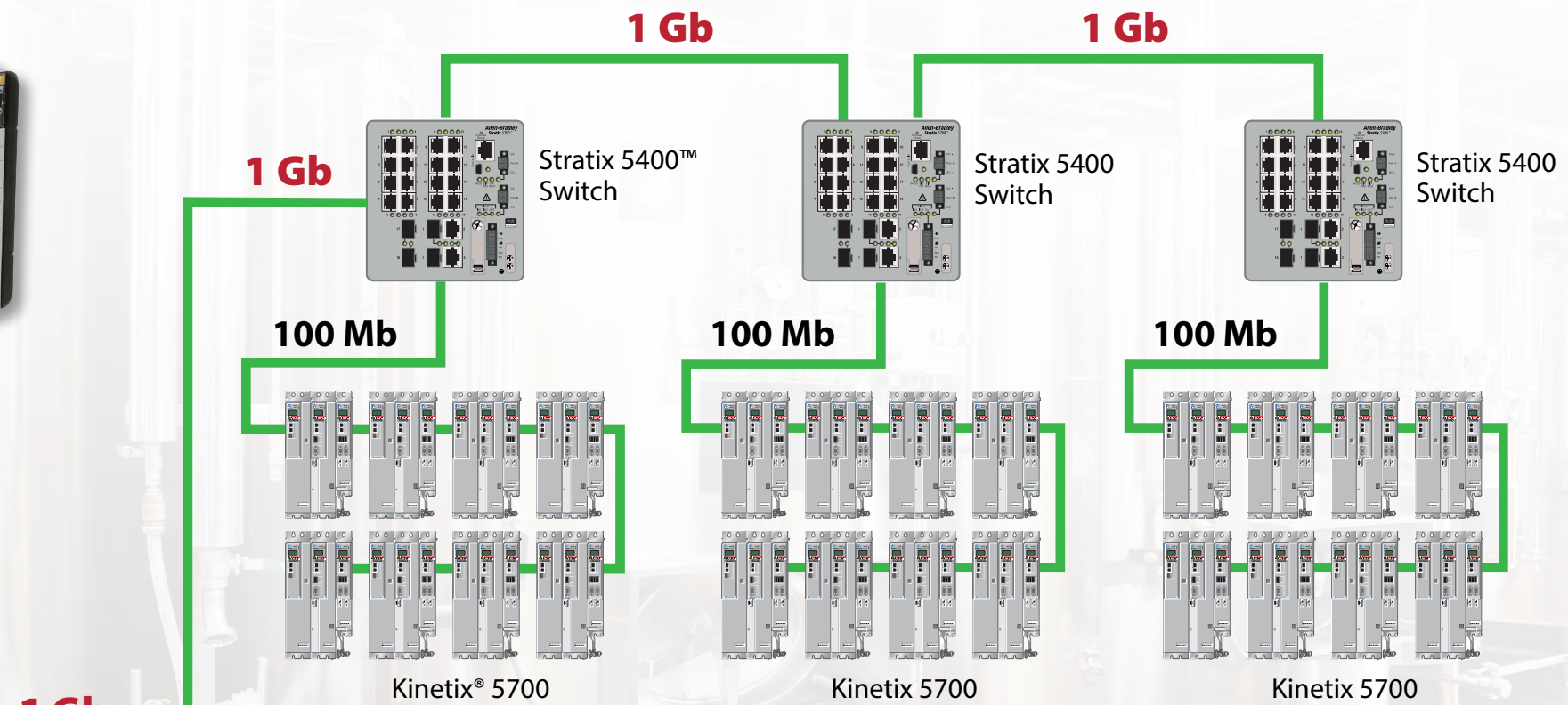
Secure

- Mode change switch adds a physical layer for security
- Digitally-signed and encrypted firmware helps protect against malicious intent
- FactoryTalk® Security provides centralized authentication and access control by verifying the identity of each user-access attempt to the system

Productive

- Secure Digital (SD) card provides optional nonvolatile memory to permanently store user program and tag data on the controller
- Energy storage module removes the need for a battery
- Studio 5000 design and configuration environment provides ease of system design and commissioning

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Integrated Motion over EtherNet/IP

1 Gb

1 Gb

1 Gb

Stratix 5400™ Switch

Stratix 5400 Switch

Stratix 5400 Switch

100 Mb

100 Mb

100 Mb

Kinetix® 5700

Kinetix 5700

Kinetix 5700

1 Gb

Enabling the Connected Enterprise

Bringing people, processes and technology together.

It's about reshaping the future through leverage and convergence.

The Connected Enterprise leverages technology to better gather, analyze data and transform it into actionable, real-time information. Convergence of information technology (IT) and operations technology (OT) into a single, unified architecture capitalizes on operational, business and transactional data for improved enterprise, operations and supply chain performance.
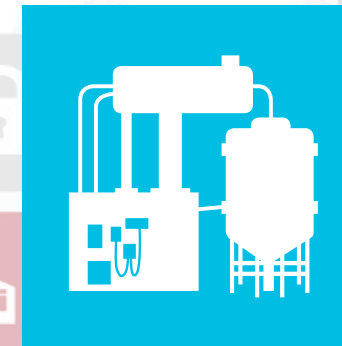
Faster time to market
Design productivity, faster commissioning times with intelligent devices, quicker startup of Greenfields, proven technology around risk mitigation for operations and IT, and the agility to respond to customer trends more quickly.

Lower total cost of ownership
Better life-cycle management, enabling more effective operations, improved energy management, and easier technology migration.

Improved asset utilization and optimization
Improved reliability and quality, and predictive maintenance driven by operational intelligence tools.

Enterprise risk management
Protection of intellectual property and brand image with a safe and secure operating environment, reduced exposure due to poor product quality and internal and external threats.

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Catalog Number		Memory Size	Total number of Controller EtherNet/IP nodes*
Standard	Conformal Coated		
1756-L81E	1756-L81EK	3 MB	60
1756-L82E	1756-L82EK	5 MB	80
1756-L83E	1756-L83EK	10 MB	100
1756-L84E	1756-L84EK	20 MB	150
1756-L85E	1756-L85EK	40 MB	300

* Total includes nodes connected using 1756-ENxT modules

Environmental Specifications and Certifications

Temperature[1]	Operating: 0-60°C (33-140°F)　　Storage: -40-85°C (-40-185°F)
Relative Humidity	5-95% non-condensing
Vibration	2 g at 10-500 Hz
Shock	Operating: 30 g　　Nonoperating: 30 g
Certifications	UL, ULH, cUL, cULH, CE, ATEX, EAC, FMH, KOREA, MARINE, RCM For more details and a full list of product certifications, visit www.ab.com

See the ControlLogix 5580 Controllers Technical Data additional information.