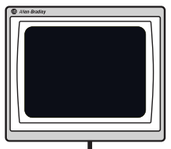
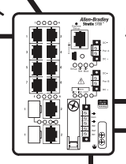
Stratix 5700 Configuration
- Scalable Layer 2 managed industrial switch
- Default configurations for industrial autom ation and EtherNet/IP devices (Global and Smartports)
- Includes integrated Device Level Ring (DLR) connectivity which helps optimize the network architecture.
- Integrated Network Address Translation (NAT) provides 1:1 IP address mapping helping to reduce commissioning time
- Best of Cisco - Catalyst® switch architecture/ feature set

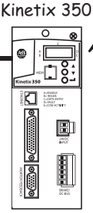
PanelView Plus 7



Plant Network



Stratix 5700



Kinetix 350

PowerFlex 527

Kinetix 350 Capacity
- Optimized for Lower Axis Applications
- 120/230V single phase or 230/460V 3-phase
- 400W – 3kW
- Embedded EtherNet/IP

Kinetix 350 Configuration
- Full integrated motion support for Kinetix350, Kinetix 6500, and PowerFlex 755 using EtherNet/IP
- Studio 5000 Logix Designer common integrated motion programming,configuration, commissioning, and drive diagnostic & maintenance tools.
- Integrated Safe Torque Off SIL2, PLd (ISO 13849)

Kinetix 350 Performance
- High speed registration input on Kinetix drive can trigger a motion task in Studio 5000 Logix Designer for faster event task performance

EtherNet/IP Network Capacity
- EtherNet/IP utilizes standard Ethernet TCP/IP technology to allow you to easily mix and match high speed Motion control, I/O control, drive control, and HMI on a single network

EtherNet/IP

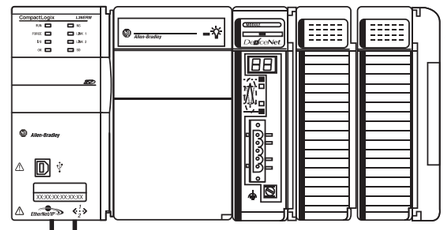
CompactLogix 5370 Overview	L30ERM	L33ERM	L36ERM
Standard Memory	1MB	2MB	3MB
Safety Memory	.5MB	1MB	1.5MB
Total Memory	1.5MB	3MB	4.5MB
Local 1769 Expansion Modules	8	16	30
EtherNet/IP I/O Nodes	16	32	48
Integrated Motion	1-4 Axis CIP Motion	1-8 Axis CIP Motion	1-16 Axis CIP Motion

CompactLogix 5370 L3 Performance
- 2 drives/msec (L30ERM, L33ERM, L36ERM)
- Built-in energy storage eliminates the need for lithium batteries

CompactLogix 5370 L3 Configuration
- Common development environment for all control disciplines across the entire Logix Family.
- USB Port provides easy access to module and networks for configuration,and troubleshooting

CompactLogix 5370 L3 Capacity
- Scalable to a wide range of applications (See Table)
- With L30ERM, L33ERM, L36ERM, support for Integrated Motion on EtherNet/IP provides a cost effective solution for from 1-16 axis of motion

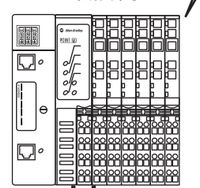
CompactLogix



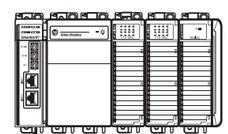
POINT I/O Capacity
- The maximum is 63 POINT I/O modules per adapter
- 1734-AENTR EtherNet/IP adapter utilizes embedded switch technology to support linear or ring topologies

1769 I/O Capacity
- Supports up to 30 1769 I/O Modules (in 3 banks, via extended rack)
- 1769-AENTR EtherNet/IP adapter utilizes embedded switch technology to support linear or ring topologies

Point I/O



1769-AENTR



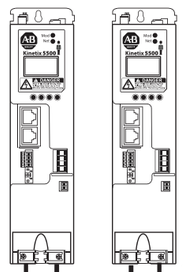
PanelView Plus 7 Capacity
- 512 MB Memory
- Single controller connection
- Up to 25 displays
- Up to 200 alarm messages
- SD storage card slot for data storage, data logging, recipe management and terminal replication
- USB ports for printer, RFID reader and web camera support
- Windows CE 6.0 standard features, including email and text notification and secure FTP server, PDF Viewer

PanelView Plus 7 Configuration
- Complementary to CompactLogix 5370 controllers
- Faceplates and AOIs
- Single Development Environment

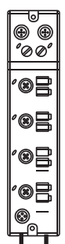
PanelView Plus 7 Performance
- ARM – 1.0 GHz
- Form factor includes sizes from 4" to 15" with wide screen options
- ATEX Zone 2/22 and UL Class 1, Div 2 certification for use in hazardous environments

PowerFlex 527

Kinetix 5500



ArmorBlock I/O Module



ArmorBlock I/O Module Capacity
- Built-in EtherNet/IP™ Dual Port adapter and power supply
- 8 or 16 points per block
- Rated for IP69K and NEMA 4X (when marked) for use without an enclosure
- Self-configuring blocks contain both input and output functionality

PowerFlex 527 Capacity
- 5 to 30 HP, 0.4 to 22KW
- 100 to 600V single or 3-phase
- 24vDC digital I/O
- Analog I/O
- Embedded EtherNet/IP (Linear/Ring with Dual Port Option)

PowerFlex 527 Performance
- V/Hz, SVC, PM, Economizer
- Embedded EMC Filter for 1ph 240V & 3ph, 480V
- Built-in Hardwired Safe Torque-off, SIL3, PLe, Cat 3. (ISO 13849-1)
- Built-in Integrated Safety SIL3, PLe, Cat 3. (ISO 13849-1)
- Closed Loop Feedback allows Positioning Capability (Encoder Card Option)

PowerFlex 527 Configuration
- Innovative LCD Display
- Studio 5000 Logix Designer Programming with AOPs

Kinetix 5500 Capacity
- Scalable Single/Multi Axis Design
- 195-528V single phase or 3-phase
- 600W – 14.6kW
- Embedded 2 Port EtherNet/IP supports Linear/Ring topologies

Kinetix 5500 Configuration
- Full integrated motion support for Kinetix350, Kinetix 5500, Kinetix 6500, and PowerFlex 755 using EtherNet/IP
- Studio 5000 Logix Designer common integrated motion programming,configuration, commissioning, and drive diagnostic & maintenance tools.
- Built-in Hardwired Safe Torque-off, SIL CL2, PLe, Cat 3. (ISO 13849)• Built-in Integrated Safety SIL CL3, PLe, Cat 3. (ISO 13849)

Kinetix 5500 Performance
- High speed registration input on Kinetix drive can trigger a motion task in Studio 5000 Logix Designer for faster event task performance

Publication IASIMP-QR026F-EN-E - September 2017
Supersedes Publication IASIMP-QR026E-EN-E - July 2015

Note: Performance is what we tested, not the max capacity

Rockwell Automation

CompactLogix 5370 L3 Star/Linear

Bill of Material

Qty	Catalog #	Description
		System: Controller Hardware (choose one)
1	1769-L36ERM	COMPACTLOGIX 5370 L3 PROCESSOR 3MB MEMORY
		System: Controller Hardware
1	1769-PA2	85-265 VAC POWER SUPPLY (5V @ 10 AMP)
		System: Communication Hardware
1	1783-BMS06TL	STRATIX 5700 MANAGED SWITCH - 6 FAST ETHERNET COPPER PORTS
		Motion Hardware
2	2198-H003-ERS	KINETIX 5500 2.5Amps (RMS)
2	VPL-A1002A-CJ12AS	KINETIX VP LOW INERTIA MOTOR, IEC 100mm FRAME SIZE, 1500 RPM RATED SPEED
		Single-Cable Technology - One cable between VPL Motor and Kinetix 5500 drive yields simplification and reduces costs. One cable for feed-back, motor brake, and motor power.
1	1585J-M8CBJM-1	SHIELDED ETHERNET CABLE FOR CIP DRIVES, 1 METER
1	1585J-M8CBJM-0M3	SHIELDED ETHERNET CABLES FOR CIP DRIVES, .3 METERS
		***Note:** Catalog numbers consist of characters, each of which identifies a specific version or option for that component. Reference Publication GMC-SG001-EN-E Kinetix Motion Control Selection Guide for additional information*
		Drive Hardware
1	25C-D2P3N104	POWERFLEX 527 DRIVE, 1 HP FRAME A
1	25C-D2P3N114	POWERFLEX 527 AC DRIVE WITH EMBEDDED DUAL PORT ETHERNET/IP AND INTEGRATED SAFETY, 1HP, FRAME A
		***Note:** PowerFlex drives come in many variations - before ordering, you will need to identify voltage rating, horsepower, enclosure type. Please refer to the PowerFlex Selection Guide (PFLEX-SG002-EN-P) for additional details on selecting the right drive for you application.*
		HMI Hardware
1	2711P-B7C22A9P	PANELVIEW PLUS 7 COLOR TOUCH TERMINAL, ETHERNET
		Distributed I/O Hardware - POINT I/O
1	1734-AENTR	1734 DUAL PORT ETHERNET/IP ADAPTER
1	1734-FPD	FIELD POTENTIAL DISTRIBUTOR
1	1734-IA2	120V AC 2 CHANNEL INPUT MODULE
1	1734-OA2	120/230V AC 2 CHANNEL OUTPUT MODULE
4	1734-TB	MODULE BASE W/ REMOVABLE IEC SCREW TERMINALS
1	1794-PS13	85-264V AC TO 24V DC 1.3A POWER SUPPLY
		Distributed I/O Hardware - 1769 I/O
1	1769-AENTR	ETHERNET IP ADAPTER
1	1769-PA2	POWER SUPPLY 120/240 VAC INPUT 2 AMP @ 5 VDC OUTPUT
1	1769-IQ16	16 POINT 24 VDC SINKING/SOURCING INPUT MODULE
1	1769-OB16	16 POINT 24 VDC SOURCING OUTPUT MODULE
1	1769-IF4XOF2	8 BIT RESOLUTION, HIGH SPEED 4 IN/2 OUT ANALOG COMB
1	1769-ECR	RIGHT END CAP/TERMINATOR
		Distributed I/O Hardware - OTHER
1	1732E-IB8M8SOER	SLIM ARMORBLOCK SOE MODULE
		Recommended Software
1	9324-RLD200INTL	STUDIO 5000 LOGIX DESIGNER MINI INTERNATIONAL
		***Note:** ControlLogix Controllers can also be programmed when using Studio 5000 Logix Designer Standard, Full, or Pro.*
1	9701-VWSTENE	FACTORYTALK VIEW STUDIO FOR FACTORYTALK VIEW
		***Note:** You will need to purchase the RSView runtime in addition to the studio if you upgrade from PanelView Plus to the VersaView PC.*

About this Configuration

This CompactLogix 5370 L3 based low cost system demonstrates the power and scalability of the Integrated Architecture on an EtherNet/IP based network. This system utilizes standard EtherNet technology to allow you to easily mix and match high speed Motion control, I/O control, drive control, and HMI on a single EtherNet/IP network.

A key advantage of this architecture is the ability to use Studio 5000 Logix Designer common integrated motion programming,configuration, commissioning, and motion tools for the Kinetix 5500, PowerFlex 527 and PowerFlex 755 family of products.

About the Products

Logix Controllers

- A common set of controls, networks, and programming software available in multiple hardware platforms
- Multiple control disciplines in a single controller - sequential / motion / drives / process
- Multiple Program Languages available in all controllers - Ladder Diagram, Function Block, Structured Text, and Sequential Function Chart
- Tag-based architecture instead of addresses native in the controller
- AMCI 3402 module for Stepper Motion

PanelView Plus 7

- Includes sizes from 4...15 with wide screen options
- Uses Windows CE 6.0 standard features
- Offers Ethernet communications for integration from the machine to the enterprise
- Includes increased memory of 512 MB flash memory/512 MB RAM which provides greater flexibility in applications
- Monitors applications from a remote location with VNC connectivity

PowerFlex Drives

- Serves applications ranging from 0.2 kW (0.25 hp) to 6,770 kW (9,000 hp).
- Common set of networks, operator interface and programming for all PowerFlex drives
- Communication Options – Ethernet/IP, ControlNet, Devicenet, DH Plus, RIO, 3rd party networks
- Hundreds of pieces of status and diagnostic information are shared with Logix controllers directly

Kinetix Servos

- Scalable solution for applications from 100W to 112KW
- Integrated platform to simplify machine design and commissioning
- Smart Motor Technology to provide automatic identification of correct motor-to-drive connectivity
- Kinematics Integrated Motion Solution for Robot Control utilizes standard Logix/Kinetix integrated motion technology

POINT I/O

- Available in IP-20 or IP-67 styles
- Densities from 2-8 points per module
- Removable screw or spring terminals without rewiring
- Mounts horizontally or vertically with no derating required
- Supports EtherNet/IP, ControlNet, DeviceNet and 3rd party networks

Stratix Switches and Network Infrastructure

- Stratix 5400, 5700, 8000 and 8300 Managed switches offer Loop Prevention, Security Services, Diagnostic Information, Segmentation Services(VLANs), Prioritization Services(QoS), and Multicast Management Services.
- Stratix 2000 Unmanaged Switches offer no layer 2 or layer 3 management functionality, but offer lower cost.
- Consider Network Address Translation (NAT), available with the 1783-NATR device and the Stratix 5400/5700 with NAT option, depending on your application requirements.

For More Information and Help

For more information contact your local distributor or Rockwell Automation sales representative.

- www.ab.com (Product Directory, Publication Library, Technical Support)

Rockwell Automation

CompactLogix 5370 L3 Overview	L30ER-NSE	L30ER	L30ERM	L33ER	L33ERM	L36ERM
Memory	1MB	1MB	1MB	2MB	2MB	3MB
Local 1769 Expansion Modules	8	8	8	16	16	30
EtherNet/IP I/O Nodes	16	16	16	32	32	48
Integrated Motion	No	No	1-4 Axis CIP Motion	No	1-8 Axis CIP Motion	1-16 Axis CIP Motion

Stratix 5700 Configuration
- Scalable Layer 2 managed industrial switch
- Default configurations for industrial autom ation and EtherNet/IP devices (Global and Smartports)
- Includes integrated Device Level Ring (DLR) connectivity which helps optimize the network architecture.
- Integrated Network Address Translation (NAT) provides 1:1 IP address mapping helping to reduce commissioning time
- Best of Cisco - Catalyst® switch architecture/ feature set

CompactLogix 5370 L3 Performance
- 2 drives/msec (L30ERM, L33ERM, L36ERM)
- Built-in energy storage eliminates the need for lithium batteries

CompactLogix 5370 L3 Configuration
- Common development environment for all control disciplines across the entire Logix Family.
- USB Port provides easy access to module and networks for configuration,and troubleshooting

Kinetix 5500 Capacity
- Scalable Single/Multi Axis Design
- 195-528V single phase or 3-phase
- 600W – 14.6kW
- Embedded 2 Port EtherNet/IP supports Linear/Ring topologies

CompactLogix 5370 L3 Capacity
- Scalable to a wide range of applications (See Table)
- With L30ERM, L33ERM, L36ERM, support for Integrated Motion on EtherNet/IP provides a cost effective solution for from 1-16 axis of motion

Kinetix 5500 Configuration
- Full integrated motion support for Kinetix350, Kinetix 5500, Kinetix 6500, and PowerFlex 755 using EtherNet/IP
- Studio 5000 Logix Designer common integrated motion programming,configuration, commissioning, and drive diagnostic & maintenance tools.
- Integrated Safe Torque Off SIL2, PLd (ISO 13849)

PanelView Plus 7

Plant Network

Stratix 5700

CompactLogix

Kinetix 5500 Performance
- High speed registration input on Kinetix drive can trigger a motion task in Studio 5000 Logix Designer for faster event task performance

PanelView Plus 7 Capacity
- 512 MB Memory
- Up to 25 displays
- SD storage card slot for data storage, data logging, recipe management and terminal replication
- USB ports for printer, RFID reader and web camera support
- Windows CE 6.0 standard features, including email and text notification and secure FTP server, PDF Viewer
- Single controller connection
- Up to 200 alarm messages

EtherNet/IP Device Level Ring (DLR) Capacity
- Single fault tolerant network provides resiliency
- ODVA standard supports multivendor solutions.

PanelView Plus 7 Configuration
- Complementary to CompactLogix 5370 controllers
- Faceplates and AOIs
- Single Development Environment

PowerFlex 527

Slim ArmorBlock SOE I/O Module Capacity

POINT I/O

Kinetix 5500 (L30/L33/L36ERM ONLY)

EtherNet/IP Device Level Ring (DLR) Configuration
- One node is configured to be the Ring Supervisor
- Typically this is the L2 processor, can also be a 1783-ETAP

Slim ArmorBlock SOE I/O Module Capacity
- Sequence of Events (SOE) module
- Time stamp data can be used for motion soft registration support
- Includes 100us transition time stamp

PowerFlex 527

EtherNet/IP Device Level Ring (DLR) Performance
- High performance network recovery - validated at 3msec or less for up to 50 nodes.

PanelView Plus 7 Performance
- ARM – 1.0 GHz
- Form factor includes sizes from 4" to 15" with wide screen options
- ATEX Zone 2/22 and UL Class 1, Div 2 certification for use in hazardous environments

EtherNet/IP

EtherNet/IP Network Capacity
- EtherNet/IP utilizes standard Ethernet TCP/IP technology to allow you to easily mix and match high speed Motion control, I/O control, drive control, and HMI on a single network

PowerFlex 527 Capacity
- 5 to 30 HP,,4 to 22KW
- 100 to 600V single or 3-phase
- 24vDC digital I/O
- Analog I/O
- Embedded EtherNet/IP (Linear/Ring with Dual Port Option)

PowerFlex 527 Performance
- V/Hz, SVC, PM, Economizer
- Embedded EMC Filter for 1ph 240V & 3ph, 480V
- Built-in Hardwired Safe Torque-off, SIL3, PLe, Cat 3. (ISO 13849-1)
- Built-in Integrated Safety on EtherNet/IP (Safe Torque Off) SIL CL3, PLe, Cat 3 (ISO13849)
- Closed Loop Feedback allows Positioning Capability (Encoder Card Option)

PowerFlex 527 Configuration
- Innovative LCD Display
- Studio 5000 Logix Designer Programming with AOPs

POINT I/O Capacity
- The maximum is 63 POINT I/O modules per adapter
- 1734-AENTR EtherNet/IP adapter utilizes embedded switch technology to support linear or ring topologies

Publication IASIMP-QR026F-EN-E – September 2017
Supersedes Publication IASIMP-QR026E-EN-E – July 2015

Note: Performance is what we tested, not the max capacity

Rockwell Automation

CompactLogix 5370 L3 Star/Ring

Bill of Material

Qty	Catalog #	Description
	System: Controller Hardware (choose one)	
1	1769-L36ERM	COMPACTLOGIX 5370 L3 PROCESSOR 3MB MEMORY
	System: Controller Hardware	
1	1769-PA2	85-265 VAC POWER SUPPLY (5V @ 10 AMP)
	System: Communication Hardware	
1	1783-BMS10CGP	STRATIX 5700 MANAGED SWITCH WITH DLR
	Motion Hardware	
2	2198-H003-ERS	KINETIX 5500 2.5Amps (RMS)
2	VPL-A1002A-CJ12AS	KINETIX VP LOW INERTIA MOTOR, IEC 100mm FRAME SIZE, 1500 RPM RATED SPEED
Single-Cable Technology - One cable between VPL Motor and Kinetix 5500 drive yields simplification and reduces costs. One cable for feedback, motor brake, and motor power.		
1	1585J-M8CBJM-1	SHIELDED ETHERNET CABLE FOR CIP DRIVES, 1 METER
1	1585J-M8CBJM-0M3	SHIELDED ETHERNET CABLES FOR CIP DRIVES, .3 METERS

Note: *Catalog numbers consist of characters, each of which identifies a specific version or option for that component. Reference Publication GMC-SG001-EN-E Kinetix Motion Control Selection Guide for additional information*

Qty	Catalog #	Description
	Drive Hardware	
1	25C-D2P3N104	POWERFLEX 527 DRIVE, 1 HP FRAME A
1	25C-D2P3N114	POWERFLEX 527 AC DRIVE WITH EMBEDDED DUAL PORT ETHERNET/IP AND INTEGRATED SAFETY, 1HP, FRAME A

Note: *PowerFlex drives come in many variations - before ordering, you will need to identify voltage rating, horsepower, enclosure type. Please refer to the PowerFlex Selection Guide (PFLEX-SG002-EN-P) for additional details on selecting the right drive for you application.*

Qty	Catalog #	Description
	HMI Hardware	
1	2711P-B7C22A9P	PANELVIEW PLUS 7 COLOR TOUCH TERMINAL, ETHERNET

Qty	Catalog #	Description
	Distributed I/O Hardware - POINT I/O	
1	1734-AENTR	1734 DUAL PORT ETHERNET/IP ADAPTER
1	1734-FPD	FIELD POTENTIAL DISTRIBUTOR
1	1734-IA2	120V AC 2 CHANNEL INPUT MODULE
1	1734-OA2	120/230V AC 2 CHANNEL OUTPUT MODULE
4	1734-TB	MODULE BASE W/ REMOVABLE IEC SCREW TERMINALS
1	1794-PS13	85-264V AC TO 24V DC 1.3A POWER SUPPLY
	Distributed I/O Hardware - 1769 I/O	
1	1769-AENTR	ETHERNET IP ADAPTER
1	1769-PA2	POWER SUPPLY 120/240 VAC INPUT 2 AMP @ 5 VDC OUTPUT
1	1769-IQ16	16 POINT 24 VDC SINKING/SOURCING INPUT MODULE
1	1769-OB16	16 POINT 24 VDC SOURCING OUTPUT MODULE
1	1769-IF4XOF2	8 BIT RESOLUTION, HIGH SPEED 4 IN/2 OUT ANALOG COMB
1	1769-ECR	RIGHT END CAP/TERMINATOR
	Distributed I/O Hardware - OTHER	
1	1732E-IB8M8SOER	SLIM ARMORBLOCK SOE MODULE

Qty	Catalog #	Description
	Recommended Software	
1	9324-RLD200INTL	STUDIO 5000 LOGIX DESIGNER MINI INTERNATIONAL

Note: *ControlLogix Controllers can also be programmed when using Studio 5000 Logix Designer Standard, Full, or Pro.*

Qty	Catalog #	Description
1	9701-VWSTENE	FACTORYTALK VIEW STUDIO FOR FACTORYTALK VIEW

Note: *You will need to purchase the RSView runtime in addition to the studio if you upgrade from PanelView Plus to the VersaView PC.*

About this Configuration

This CompactLogix 5370 L3 based low cost system demonstrates the power and scalability of the Integrated Architecture on an EtherNet/IP based network. This system utilizes standard EtherNet technology to allow you to easily mix and match high speed Motion control, I/O control, drive control, and HMI on a single EtherNet/IP network.

A key advantage of this architecture is the ability to use Studio 5000 Logix Designer common integrated motion programming,configuration, commissioning, and motion tools for the Kinetix 5500, PowerFlex 527 and PowerFlex 755 family of products.

About the Products

Logix Controllers

- A common set of controls, networks, and programming software available in multiple hardware platforms
- Multiple control disciplines in a single controller - sequential / motion / drives / process
- Multiple Program Languages available in all controllers - Ladder Diagram, Function Block, Structured Text, and Sequential Function Chart
- Tag-based architecture instead of addresses native in the controller
- AMCI 3402 module for Stepper Motion

PanelView Plus 7

- Includes sizes from 4...15 with wide screen options
- Uses Windows CE 6.0 standard features
- Offers Ethernet communications for integration from the machine to the enterprise
- Includes increased memory of 512 MB flash memory/512 MB RAM which provides greater flexibility in applications
- Monitors applications from a remote location with VNC connectivity

PowerFlex Drives

- Serves applications ranging from 0.2 kW (0.25 hp) to 6,770 kW (9,000 hp).
- Common set of networks, operator interface and programming for all PowerFlex drives
- Communication Options – Ethernet/IP, ControlNet, Devicenet, DH Plus, RIO, 3rd party networks
- Hundreds of pieces of status and diagnostic information are shared with Logix controllers directly

Kinetix Servos

- Scalable solution for applications from 100W to 112KW
- Integrated platform to simplify machine design and commissioning
- Smart Motor Technology to provide automatic identification of correct motor-to-drive connectivity
- Kinematics Integrated Motion Solution for Robot Control utilizes standard Logix/Kinetix integrated motion technology

POINT I/O

- Available in IP-20 or IP-67 styles
- Densities from 2-8 points per module
- Removable screw or spring terminals without rewiring
- Mounts horizontally or vertically with no derating required
- Supports EtherNet/IP, ControlNet, DeviceNet and 3rd party networks

Stratix Switches and Network Infrastructure

- Stratix 5400, 5700, 8000 and 8300 Managed switches offer Loop Prevention, Security Services, Diagnostic Information, Segmentation Services(VLANs), Prioritization Services(QoS), and Multicast Management Services.
- Stratix 2000 Unmanaged Switches offer no layer 2 or layer 3 management functionality, but offer lower cost.
- Consider Network Address Translation (NAT), available with the 1783-NATR device and the Stratix 5400/5700 with NAT option, depending on your application requirements.

For More Information and Help

For more information contact your local distributor or Rockwell Automation sales representative.

- www.ab.com (Product Directory, Publication Library, Technical Support)

Rockwell Automation