Ethernet Switches

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Stratix

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Quick Selection Guide

	 Stratix 8300 Layer 3 Modular Managed Switches	 Stratix 8000 Modular Managed Switches	 Stratix 6000 Fixed Managed Switches	 Stratix 2000 Unmanaged Switches	 Embedded Switch Technology
Description	Layer 3 modular managed Ethernet switches that scale from 6 to 26 ports; optimized for both IT and manufacturing environments	Modular managed Ethernet switches that scale from 6 to 26 ports; optimized for both IT and manufacturing environments	Fixed managed Ethernet switches designed to help ease deployment of an Ethernet network on the plant floor	Industrial-grade unmanaged Ethernet switches that are ideal for small, isolated networks	Embeds popular switch features directly into your hardware
Features	• Layer 3 routing • Copper and fiber port options, including 100 Mbps and 1 G fiber support • Cisco operating system (IOS) • Cisco Catalyst switch architecture/feature set • CIP interface to Integrated Architecture • RSLogix 5000 Add-On Profile • Predefined Logix tags • FactoryTalk View HMI software diagnostic faceplates • Removable CompactFlash memory card	• Copper and fiber port options, including 100 Mbps and 1 G fiber support • Cisco operating system (IOS) • Cisco Catalyst switch architecture/feature set • CIP interface to Integrated Architecture • RSLogix 5000 Add-On Profile • Predefined Logix tags • FactoryTalk View HMI software diagnostic faceplates • Removable CompactFlash memory card	• Copper and fiber port options • CIP interface to Integrated Architecture • RSLogix 5000 Add-On Profile • Predefined Logix tags • FactoryTalk View HMI software diagnostic faceplates	• Copper and fiber port options • Require no configuration • AC or DC power • Autonegotiate, speed, and duplex settings • Automatic cross over cable detection	• Optimized for EtherNet/IP I/O and motion applications • Supports IEEE 1588 precision time protocol (PTP) • Fast recovery rate • Open standard technology
Available Models	• 1783-RMS06T • 1783-RMS10T • 1783-MX08F • 1783-MX08T	• 1783-MS06T • 1783-MS10T • 1783-MX08F • 1783-MX08T	• 1783-EMS04T • 1783-EMS08T	• 1783-US03T01F • 1783-US05T • 1783-US06T01F • 1783-US08T	• 1783-ETAP • 1783-ETAP1F • 1783-ETAP2F
Additional Information	• See page 9-5	• See page 9-7	• See page 9-9	• See page 9-11	• See page 9-13

Description

For real-time control and information flow throughout the manufacturing and IT enterprise, Rockwell Automation offers a full portfolio of industrial Ethernet switches and media, featuring a line of managed switches integrated with Cisco technology. The portfolio contains many popular features that are in use today by IT and Controls organizations that deploy standard, unmodified Ethernet with settings optimized for use in EtherNet/IP applications.

Stratix switch products include Stratix 8000/8300™ Modular Managed Switches, Stratix 6000™ Fixed Managed Switches, and Stratix 2000™ Unmanaged Switches. Embedded switch technology is available in various Rockwell Automation products to enable ring and linear topologies.

See the following for more information:

- EtherNet/IP Embedded Switch Technology Application Guide, publication ENET-AP005
- EtherNet/IP Performance and Application Guide, publication ENET-AP001
- EtherNet/IP Media Planning and Installation Manual, available from www.odva.org
- Additional resources, such as design guides, white papers, and presentations, are available at Converged Plantwide EtherNet Architectures

Select the switch depending on the application and environment.

If your application	Select
• Requires Layer 3 routing • Integrates enterprise and manufacturing environments • Manages multicast traffic • Requires diagnostics data • Requires security options	Page 9-5
• Integrates enterprise and manufacturing environments • Manages multicast traffic • Requires diagnostics data • Requires security options	Page 9-7
• Integrates plant floor devices • Manages multicast traffic • Requires diagnostics data • Requires security options	Page 9-9
• Requires easy set-up and direct replacement of switches • Is a small, isolated network	Page 9-11
• Requires multiple Ethernet topologies • Requires high performance resilient networks • Requires diagnostic data	Page 9-13

Environmental Specifications and Certifications

Environmental Specifications

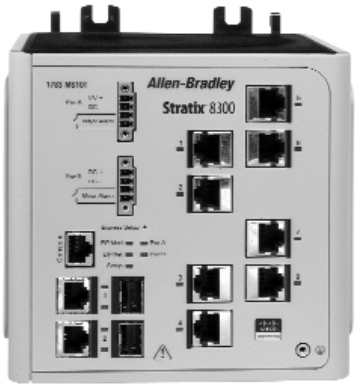
	Stratix 8000/8300 Switches	Stratix 6000 Switches	Stratix 2000 Switches	EtherNet/IP Taps with Embedded Switch Technology
Operating Temperature	-40…60 °C (-40…140 °F)	0…60 °C (32…140 °F)	0…60 °C (32…140 °F)	Copper tap:❄ -25…70 °C (-13…158 °F) Fiber tap:❄ -25…60 °C (-13…140 °F)
Enclosure Type Rating	IP20	IP20	IP20	None (open-style)
Relative Humidity	5…95% noncondensing	5…95% noncondensing	5…95% noncondensing	5…95% noncondensing
Vibration	2 g at 10…500 Hz	2 g at 10…500 Hz	2 g at 10…500 Hz	5 g at 10…500 Hz
Operating Shock	20 g	15 g	15 g	30 g
Nonoperating Shock	30 g	30 g	30 g	50 g
Dimensions (HxWxD), approx.	Base switch:‡ 147 x 152 x 112 mm Expansion modules:‡ 147 x 97 x 112 mm	114 x 51 x 89 mm	4- and 5-port switch:✶ 108 x 22.5 x 127 mm 7- and 8-port switch:✶ 108 x 45 x 127 mm	132 x 56.7 x 35.6 mm

❄ Cat. nos.: Copper tap, 1783-ETAP. Fiber tap, 1783-ETAP1F, 1783-ETAP2F.
‡ Cat. nos.: Base switch, 1783-MS06T, 1783-MS10T, 1783-RMS06T, 1783-RMS10T. Expansion modules, 1783-MX08T, 1783-MX08F.
✶ Cat. nos.: 4- and 5-port switch, 1783-US03T01F, 1783-US05T. 7- and 8-port switch, 1783-US06T01F, 1783-US08T.

Certifications

Stratix 8000/8300: c-UL-us, CE, C-Tick, Ex, EtherNet/IP, Marine, IEC 61850, IEEE1613.
Stratix 6000: c-UL-us, CE, C-Tick, Ex, c-ETL-us, EtherNet/IP.
Stratix 2000: c-UL-us, CE, C-Tick, Ex.
EtherNet/IP Taps: c-UL-us, CE, C-Tick, Ex, EtherNet/IP.

When product is marked. See the Product Certification link at www.ab.com for Declarations of Conformity, Certificates, and other certification details.



Description

The Allen-Bradley Stratix 8300 lLayer 3 managed switch extends the Allen-Bradley Stratix 8000 industrial switch family to provide Layer 3 routing capability. As a full-featured Layer 3 switch, the new Stratix 8300 offers static, dynamic, multicast, redundant, IPv6 and policy-based routing and VFR-Lite virtualization. This allows for maximum flexibility in providing secure segmented architectures for industrial Ethernet applications.

Optimized with features for both IT and manufacturing environments, the Stratix 8000 and 8300™ Modular Managed Ethernet Switches are the first of their kind. The result of a joint collaboration between Cisco and Rockwell Automation, this industrial Ethernet switch line uses the current Cisco Catalyst operating system, feature set, and user interface, making IT professionals feel at home. At the same time, it provides easy set-up and comprehensive diagnostic information from within the Rockwell Automation Integrated Architecture.

Users have the benefits of the Common Industrial Protocol (CIP) interface for predefined Logix tags and configuration screens in RSLogix 5000 programming software, as well as diagnostic faceplates for Rockwell Software FactoryTalk View HMI software, which is the preferred way for controls and automation professionals to integrate networked devices. Modular and industrially rated, the product line scales from 6 to 26 ports with options for copper and fiber to meet a variety of applications.

Features

- Best of Cisco:
  - Secure integration with enterprise network
  - Cisco internet operating system (IOS)
  - Cisco Catalyst switch architecture/feature set
  - Common configuration tools; command line interface (CLI), CNA, and Device Manager
- Best of Rockwell Automation:
  - CIP interface to Integrated Architecture
  - RSLogix 5000 programming software for configuration (AOP)
  - Predefined Logix tags for diagnostics
  - FactoryTalk View HMI software faceplates for status monitoring and alarming
- Best for the manufacturing environment:
  - Removable CompactFlash memory card stores configuration for easy device replacement
  - Industrial environmental ratings
  - Default configurations for industrial automation and EtherNet/IP devices (Globals and Smartports)

Product Selection

Base Switches

Cat. No.	Description	
1783-RMS06T	6 copper ports (includes 2 dual-purpose ports with SFP slots), Layer 3 switch	
1783-RMS10T	10 copper ports (includes 2 dual-purpose ports with SFP slots), Layer 3 switch	

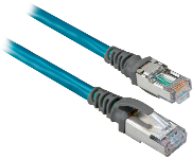
Expansion Modules

Cat. No.	Description		Cat. No.	Description	
1783-MX08T	8 copper ports		1783-MX08F	8 fiber ports	

Fiber Optic Uplink Transceivers (SFPs)

Cat. No.	Description	Compatible With
1783-SFP100FX	100Base-FX Multi-mode Fiber SFP	Stratix 8000/8300
1783-SFP100LX	100Base-LX Single-mode Fiber SFP	Stratix 8000/8300
1783-SFP1GSX	1000Base-SX Multi-mode Fiber Transceiver	Stratix 8000/8300, Stratix 6000
1783-SFP1GLX	1000Base-LX/LH Single-mode Fiber SFP	Stratix 8000/8300, Stratix 6000

Ethernet Cable

Cat. No.	Description	
1585J-M8PBJM-2∗	RJ45 to RJ45 patchcord	
1585-C8PB-S100❄	Ethernet cable spool	
1585J-M8CC-H	Field attachable connector, IDC	

∗ Replace -2 (2 m) with 5 (5 m) or 10 (10 m) for additional standard cable lengths.
❄ Replace 100 (100 m) with 300 (300 m) or 600 (600 m) for additional standard cable lengths.

Technical Specifications

	Base Switches		Expansion Modules	
	1783-RMS06T	1783-RMS10T	1783-MX08T	1783-MX08F
Ports per Module	6	10	8	8
Total Ports, Max	Up to 26✶			
Copper Ports	4 10/100 ports 2 10/100/1000 ports	8 10/100 ports 2 10/100/1000 ports	8 10/100 ports	—
SFP Slots❄	2 (when SFP is used, corresponding 10/100/1000 copper is disabled)		—	
Fiber Ports	2 SFP slots support 100 Mbps and 1 G multi-mode and single-mode SFPs with LC connector		—	8 100 Base-FX ports with LC connector
CompactFlash Memory	Yes (installed) Spare replacement CompactFlash cards: 1783-RMCF (for 1783-RMS06T, 1783-RMS10T)	Yes	Yes	Yes
Power Requirements	24/48V DC			
Inrush Current, Max.	2.0 A			
Power Dissipation	15.1 W	15.7 W	2.8 W	10.1 W
Fiber Optic Ethernet Data Rate	—	—	—	100 Mbps
Fiber Optic Link Budget	—	—	—	8 dB with 62.5 / 125 µm multimode cable 4 dB with 50 / 125 µm multimode cable
Fiber Optic Cable Length, Max	—	—	—	Graded index multimode fiber; 2000 m
Fiber Optic Connector Type	—	—	—	LC

✶ Maximum port counts require expansion module.
❄ Two dual-purpose ports can be used for SFP or 10/100/1000 copper.

Key Software Features

Feature	Benefit
Cisco IOS (Internetwork Operating System)	Provides robust features compatible with the Cisco IT enterprise environment.
RSLogix 5000 AOP (Add On Profile)	Enables easy switch setup and diagnostics with Logix controllers and the Integrated Architecture.
VLAN (Virtual LAN) with trunking	Helps ease network management in the production network.
QoS (Quality of Service)	Enables prioritization of applications, users, or data flows to help provide a higher level of network predictability.
Bandwidth Threshold Alarming	Supports alarms to track network changes and detect malfunctioning devices.
STP/RSTP (Spanning Tree Protocol/Rapid Spanning Tree Protocol)	Provides a resilient path between switches for applications that require a fault-tolerant network.
REP (Resilient Ethernet Protocol)	Supports ring, ring segment, or nested ring segments, providing network resiliency across switches with a rapid recovery time.
MAC ID Port Security	Enables tracking network changes from the controller through new MAC ID notifications.
DHCP per port	Supports assigning a specific IP address to each port, enabling device replacement without manually configuring IP addresses.
SNMP (Simple Network Management Protocol)	Provides familiar IT tools to monitor and configure network-attached devices.
CIP Sync (IEEE 1588)	Supports very high precision clock synchronization across automation devices for time-critical tasks such as accurate alarming for post-event diagnostics and precision motion.
IEEE 802.1x Security	Tracks access to network resources and helps secure the network infrastructure.
IGMP (Internet Group Management Protocol) Snooping and Querier	Reduces multicast traffic from intensive IP applications, such as I/O control on EtherNet/IP.
EtherChannels	Provides port trunking technology to automatically redistribute network traffic in the case of a failed link.
Smart ports	Recommended port configurations commonly used in automation network applications. Smart ports optimize a port configuration to the type of device connected. They are easily assigned and help prevent port misconfiguration.
Layer 3 Routing	Enables routing between VLANs and subnets. Supports Statix, dynamic, multicast, redundant, IPUG, and Policy - based routing and VFR-Lite vertualization.
Port Mirroring	Copies network traffic seen on one switch port to another. Typically used as a diagnostic tool.

Description

Optimized with features for both IT and manufacturing environments, the Stratix 8000™ Modular Managed Ethernet Switches are the first of their kind. The result of a joint collaboration between Cisco and Rockwell Automation, this industrial Ethernet switch line uses the current Cisco Catalyst operating system, feature set and user interface, making IT professionals feel at home. At the same time, it provides easy set-up and comprehensive diagnostic information from within the Rockwell Automation Integrated Architecture.

Users have the benefits of CIP interface for predefined Logix tags and configuration screens in RSLogix 5000 programming software, as well as diagnostic faceplates for Rockwell Software FactoryTalk View HMI software, which is the preferred way for controls and automation professionals to integrate networked devices. Modular and industrially rated, the product line scales from 6 to 26 ports with options for copper and fiber to meet a variety of applications.

Features

- Best of Cisco:
  - Secure integration with enterprise network
  - Cisco internet operating system (IOS)
  - Cisco Catalyst switch architecture/feature set
  - Common configuration tools, command line interface (CLI), CNA, and Device Manager
- Best of Rockwell Automation:
  - CIP interface to Integrated Architecture
  - RSLogix 5000 programming software for configuration (AOP)
  - Predefined Logix tags for diagnostics
  - FactoryTalk View HMI software faceplates for status monitoring and alarming
- Best for the manufacturing environment:
  - Removable CompactFlash memory card stores configuration for easy device replacement
  - Industrial environmental ratings
  - Default configurations for industrial automation and EtherNet/IP devices (Globals and Smartports)

Product Selection

Base Switches

Cat. No.	Description	
1783-MS06T	6 copper ports (includes 2 dual-purpose ports with SFP slots), Layer 2 switch	
1783-MS10T	10 copper ports (includes 2 dual-purpose ports with SFP slots), Layer 2 switch	

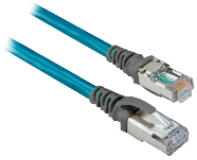
Expansion Modules

Cat. No.	Description		Cat. No.	Description	
1783-MX08T	8 copper ports		1783-MX08F	8 fiber ports	

Fiber Optic Uplink (SFP) Transceivers

Cat. No.	Description	Compatible With
1783-SFP100FX	100Base-FX Multi-mode Fiber SFP	Stratix 8000/8300
1783-SFP100LX	100Base-LX Single-mode Fiber SFP	Stratix 8000/8300
1783-SFP1GSX	1000Base-SX Multi-mode Fiber Transceiver	Stratix 8000/8300, Stratix 6000
1783-SFP1GLX	1000Base-LX/LH Single-mode Fiber SFP	Stratix 8000/8300, Stratix 6000

Ethernet Cable

Cat. No.	Description	
1585J-M8PBJM-2✶	RJ45 to RJ45 patchcord	
1585-C8PB-S100❄	Ethernet cable spool	
1585J-M8CC-H	Field attachable connector, IDC	

✶ Replace -2 (2 m) with 5 (5 m) or 10 (10 m) for additional standard cable lengths.
❄ Replace 100 (100 m) with 300 (300 m) or 600 (600 m) for additional standard cable lengths.

Technical Specifications

	Base Switches		Expansion Modules	
	1783-MS06T	1783-MS10T	1783-MX08T	1783-MX08F
Ports per Module	6	10	8	8
Total Ports, Max	Up to 26✶			
Copper Ports	4 10/100 ports 2 10/100/1000 ports	8 10/100 ports 2 10/100/1000 ports	8 10/100 ports	—
SFP Slots❄	2 (when SFP is used, corresponding 10/100/1000 copper is disabled)		—	
Fiber Ports	SFP slots support 100 Mbps and 1 G multi-mode and single-mode fiber with LC connector		—	8 100 Base-FX ports with LC connector
CompactFlash Memory	Yes (installed) Spare replacement CompactFlash cards: 1783-MCF (for 1783-MS06T, 1783-MS10T)			
Power Requirements	24/48V DC			
Inrush Current, Max.	2.0 A			
Power Dissipation	15.1 W	15.7 W	2.8 W	10.1 W
Fiber Optic Ethernet Data Rate	—		—	100 Mbps
Fiber Optic Link Budget	—		—	8 dB with 62.5 / 125 µm multimode cable 4 dB with 50 / 125 µm multimode cable
Fiber Optic Cable Length, Max	—		—	Graded index multimode fiber; 2000 m
Fiber Optic Connector Type	—		—	LC

✶ Maximum port counts require expansion module.
❄ Two dual-purpose ports can be used for SFP or 10/100/1000 copper.

Key Software Features

Feature	Benefit
Cisco IOS (Internetwork Operating System)	Provides robust features compatible with the Cisco IT enterprise environment.
RSLogix 5000 AOP (Add On Profile)	Enables easy switch setup and diagnostics with Logix controllers and the Integrated Architecture.
VLAN (Virtual LAN) with trunking	Helps ease network management in the production network.
QoS (Quality of Service)	Enables prioritization of applications, users, or data flows to help provide a higher level of network predictability.
Bandwidth Threshold Alarming	Supports alarms to track network changes and detect malfunctioning devices.
STP/RSTP (Spanning Tree Protocol/Rapid Spanning Tree Protocol)	Provides a resilient path between switches for applications that require a fault-tolerant network.
REP (Resilient Ethernet Protocol)	Supports ring, ring segment, or nested ring segments, providing network resiliency across switches with a rapid recovery time.
MAC ID Port Security	Enables tracking network changes from the controller through new MAC ID notifications.
DHCP per port	Supports assigning a specific IP address to each port, enabling device replacement without manually configuring IP addresses.
SNMP (Simple Network Management Protocol)	Provides familiar IT tools to monitor and configure network-attached devices.
CIP Sync (IEEE 1588)	Supports very high precision clock synchronization across automation devices for time-critical tasks such as accurate alarming for post-event diagnostics and precision motion.
IEEE 802.1x Security	Tracks access to network resources and helps secure the network infrastructure.
IGMP (Internet Group Management Protocol) Snooping and Querier	Reduces multicast traffic from intensive IP applications, such as I/O control on EtherNet/IP.
EtherChannels	Provides port trunking technology to automatically redistribute network traffic in the case of a failed link.
Smart ports	Recommended port configurations commonly used in automation network applications. Smart ports optimize a port configuration to the type of device connected. They are easily assigned and help prevent port misconfiguration.
Port Mirroring	Copies network traffic seen on one switch port to another. Typically used as a diagnostic tool.

Description

With simple setup and default configurations for EtherNet/IP, the Stratix 6000 line of fixed managed switches is designed to help ease deployment of the Ethernet network on the plant floor. Ideal for the controls environment, Stratix 6000 switches offer CIP tags and configuration screens in RSLogix 5000 programming software. Diagnostic faceplates for FactoryTalk View HMI software, which is the preferred way for controls and automation professionals to integrate networked devices, are also available. Switch options include a four-port copper or eight-port copper with an option for fiber uplink to higher level networks.

Features

- Integration into the Integrated Architecture with CIP
- Web-based configuration utility
- CIP Interface to Integrated Architectures
- RSLogix 5000 programming software for configuration (AOP)
- Predefined Logix tags for diagnostics
- FactoryTalk View HMI faceplates for status montioring and alarming

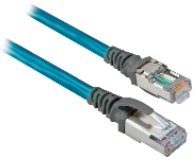
Product Selection

Cat. No.	Description	
1783-EMS04T	4 copper ports	
1783-EMS08T	8 copper ports 1 fiber SFP slot	

Fiber Optic Uplink Transceivers (SFPs)

Cat. No.	Description	Compatible With
1783-SFP1GSX	1000Base-SX Multi-mode Fiber Transceiver	Stratix 8000/8300, Stratix 6000
1783-SFP1GLX	1000Base-LX/LH Single-mode Fiber SFP	Stratix 8000/8300, Stratix 6000

Ethernet Cable

Cat. No.	Description	
1585J-M8PBJM-2✶	RJ45 to RJ45 patchcord	
1585-C8PB-S100❄	Ethernet cable spool	
1585J-M8CC-H	Field attachable connector, IDC	

✶ Replace -2 (2 m) with 5 (5 m) or 10 (10 m) for additional standard cable lengths.
❄ Replace 100 (100 m) with 300 (300 m) or 600 (600 m) for additional standard cable lengths.

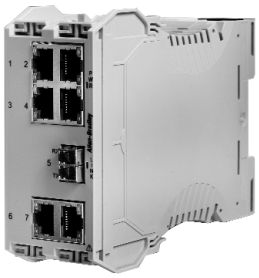
Technical Specifications

	1783-EMS04T	1783-EMS08T
Ports per Module	4	(9) 8 +1 SFP slot
Copper Ports	4 10/100 full/half duplex	8 10/100 full/half duplex
Fiber Ports	—	supports 1 G fiber SFP
SFP Slots	—	1
CompactFlash Memory	No	
Power Requirements	12…48V DC Class 2/SELV 100 mA at 24V DC	12…48V DC Class 2/SELV 250 mA at 24V DC
Inrush Current, Max.	2.2 A	
Power Dissipation	2.6 W @ 60 °C (140 °F) max	5.8 W @ 60 °C (140 °F) max
Fiber Optic Ethernet Data Rate	—	1000 Mbps∗
Fiber Optic Connector Type	—	LC∗

∗ Available with optional SFP module.

Key Software Features

Feature	Benefit
RSLogix 5000 AOP (Add On Profile)	Enables easy switch setup and diagnostics with Logix controllers and the Integrated Architecture.
VLAN (Virtual LAN) with trunking	Helps ease network management in the production network.
QoS (Quality of Service)	Enables prioritization of applications, users, or data flows to help provide a higher level of network predictability.
Bandwidth Threshold Alarming	Supports alarms to track network changes and detect malfunctioning devices.
MAC ID Port Security	Enables tracking network changes from the controller through new MAC ID notifications.
DHCP per port	Supports assigning a specific IP address to each port, enabling device replacement without manually configuring IP addresses.
IGMP (Internet Group Management Protocol) Snooping and Querier	Reduces multicast traffic from intensive IP applications, such as I/O control on EtherNet/IP.
Port Mirroring	Copies network traffic seen on one switch port to another. Typically used as a diagnostic tool.



Description

Stratix 2000™ industrial-grade unmanaged switches require no configuration, which helps you set up and install your switch quickly. The Stratix 2000 line has flexible power requirements and can be used with AC or DC power. The switches connect easily with Logix controllers and have features to autonegotiate for speed and duplex per port. Stratix 2000 switches are ideal for small, isolated networks.

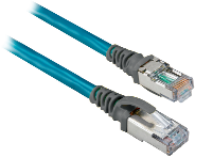
Features

- Easy to start up and use
- Multiple port count and fiber options available
- AC or DC power
- Autonegotiates speed & duplex setting
- Automatic cable cross over detection

Product Selection

Cat. No.	Description	
1783-US03T01F	3 copper ports 1 fiber port	
1783-US05T	5 copper ports	
1783-US06T01F	6 copper ports 1 fiber port	
1783-US08T	8 copper ports	

Ethernet Cable

Cat. No.	Description	
1585J-M8PBJM-2∗	RJ45 to RJ45 patchcord	
1585-C8PB-S100❄	Ethernet cable spool	
1585J-M8CC-H	Field attachable connector, IDC	

∗ Replace -2 (2 m) with 5 (5 m) or 10 (10 m) for additional standard cable lengths.
❄ Replace 100 (100 m) with 300 (300 m) or 600 (600 m) for additional standard cable lengths.

Technical Specifications

	1783-US03T01F	1783-US05T	1783-US06T01F	1783-US08T
Ports per Module	4	5	7	8
Copper Ports	3	5	6	8
Fiber Ports	1	—	1	—
Power Requirements	24V DC (10…35V DC)			
Current Consumption, Max.	400 mA @ 10V DC			
Power Consumption, Max.	4 W (6 VA)			
Inrush Current, Max.	2.2 A			
Fiber Optic Ethernet Data Rate	100 Mbps	—	100 Mbps	—
Fiber Optic Link Budget	8 dB with 62.5 / 125 µm multimode cable 4 dB with 50 / 125 µm multimode cable	—	8 dB with 62.5 / 125 µm multimode cable 4 dB with 50 / 125 µm multimode cable	—
Fiber Optic Cable Length, Max	Graded index multimode fiber; 2000 m	—	Graded index multimode fiber; 2000 m	—
Fiber Optic Connector Type	LC			

Description

The Embedded Switch Technology embeds popular switch features directly into your hardware to support high performance applications, without the need for additional configuration. This technology enables linear and device-level ring topologies for EtherNet/IP applications.

Features

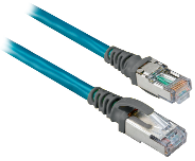
- Optimized for EtherNet/IP I/O and motion applications
- Supports IEEE 1588 precision time protocol (PTP) for precise time synchronization and Quality of Service (QoS) to help prioritize data transmission
- Typical recovery rate for a 50-node device-level ring is less than 3 ms
  - – Fast recovery rate makes failures appear transparent to most devices on the network
  - – Machines often continue operations without any system interruptions
- Open standard technology available to 3rd party vendors allows EtherNet/IP interoperability

Product Selection

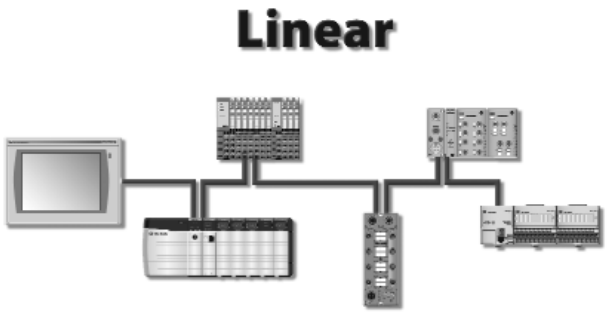
The 1783-ETAP modules enable single port devices to connect to a ring or linear topology.

Cat. No.	Description	
1783-ETAP	EtherNet/IP Tap 3 copper ports	
1783-ETAP1F	EtherNet/IP Tap 2 copper ports, 1 fiber port	
1783-ETAP2F	EtherNet/IP Tap 1 copper port, 2 fiber ports	

Ethernet Cable

Cat. No.	Description	
1585J-M8PBJM-2✶	RJ45 to RJ45 patchcord	
1585-C8PB-S100❄	Ethernet cable spool	
1585J-M8CC-H	Field attachable connector, IDC	

✶ Replace -2 (2 m) with 5 (5 m) or 10 (10 m) for additional standard cable lengths.
❄ Replace 100 (100 m) with 300 (300 m) or 600 (600 m) for additional standard cable lengths.



Embedded switch technology products from Rockwell Automation support additional EtherNet/IP topology options, such as device-level ring and linear, for your application.

Technical Specifications

	1783-ETAP	1783-ETAP1F	1783-ETAP2F
Ports per Module	3	3	
Copper Ports	3 10/100 Mbps, full or half duplex	2 10/100 Mbps, full or half duplex	1 10/100 Mbps, full or half duplex
Fiber Ports	—	1 100 Base-FX port multimode, with LC connector	2 100 Base-FX port multimode, with LC connector
CompactFlash Memory	No		
Power Requirements	24V DC (20.4…27.6V DC)		
Current Consumption, Max.	125 mA @ 24V DC	200 mA @ 24V DC	260 mA @ 24V DC
Power Consumption, Max.	3 W	4.8 W	6.24 W
Fiber Optic Ethernet Data Rate	—	100 Mbps	
Fiber Optic Link Budget	—	12.8 dB for 62.5/125 µm multimode fiber 9.3 dB for 50/125 µm multimode fiber	
Fiber Optic Cable Length, Max	—	Graded index multimode fiber; 2000 m	
Fiber Optic Connector Type	—	LC	

Key Software Features

Feature	Benefit
RSLogix 5000 AOP (Add On Profile)	Enables easy switch setup and diagnostics with Logix controllers and the Integrated Architecture
VLAN (Virtual LAN) with trunking	Helps ease network management in the production network
QoS (Quality of Service)	Enables prioritization of applications, users, or data flows to help provide a higher level of network predictability
Bandwidth Threshold Alarming	Supports alarms to track network changes and detect malfunctioning devices
STP/RSTP (Spanning Tree Protocol/Rapid Spanning Tree Protocol)	Provides a resilient path between switches for applications that require a fault-tolerant network
DLR (Device-level Ring)	Supports a resilient ring network at the device level without external switching hardware, providing fast recovery rates for real-time control applications
CIP Sync (IEEE 1588)	Supports very high precision clock synchronization across automation devices for time-critical tasks such as accurate alarming for post-event diagnostics and precision motion
IGMP (Internet Group Management Protocol) Snooping and Querier	Reduces multicast traffic from intensive IP applications, such as I/O control on EtherNet/IP

Additional Products with Embedded Switch Technology

Cat. No.	Description	
1756-EN2TR	ControlLogix 2-Port EtherNet/IP Communication Module	
1734-AENTR	POINT I/O 2-Port EtherNet/IP Adapter	
1738-AENTR	ArmorPoint I/O 2-Port EtherNet/IP Adapter