

Stratix Ethernet Switch Specifications

Stratix 5700 Catalog Numbers 1783-BMS06SL, 1783-BMS06SA, 1783-BMS06TL, 1783-BMS06TA, 1783-BMS06SGL, 1783-BMS06SGA, 1783-BMS06TGL, 1783-BMS06TGA, 1783-BMS10CL, 1783-BMS10CA, 1783-BMS10CGL, 1783-BMS10CGA, 1783-BMS10CGP, 1783-BMS10CGN, 1783-BMS20CL, 1783-BMS20CA, 1783-BMS20CGL, 1783-BMS20CGP, 1783-BMS20CGN, 1783-BMS20CGPK

Stratix 8000 and 8300 Catalog Numbers 1783-MS06T, 1783-MS10T, 1783-RMS06T, 1783-RMS10T, 1783-MX08T, 1783-MX08F

Stratix 6000 Catalog Numbers 1783-EMS08T, 1783-EMS04T

Embedded Switch Technology Catalog Numbers 1783-ETAP, 1783-ETAP1F, 1783-ETAP2F

Stratix 2000 Catalog Numbers 1783-US03T01F, 1783-US06T01F, 1783-US05T, 1783-US08T

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Stratix 5700 Ethernet Managed Switches

Cat. No.	Total Ports	RJ45 Ports ⁽²⁾	Combo Ports	SFP Slots	Software Type	CIP Sync (IEEE 1588)	NAT	Conformal Coating
1783-BMS06SL	6	4 FE	—	2 FE	Lite	—	—	—
1783-BMS06SA	6	4 FE	—	2 FE	Full	—	—	—
1783-BMS06TL	6	6 FE	—	—	Lite	—	—	—
1783-BMS06TA	6	6 FE	—	—	Full	—	—	—
1783-BMS06SGL	6	4 FE	—	2 GE	Lite	—	—	—
1783-BM06SGA	6	4 FE	—	2 GE	Full	—	—	—
1783-BMS06TGL	6	4FE + 2 GE	—	—	Lite	—	—	—
1783-BMS06TGA	6	4 FE + 2 GE	—	—	Full	—	—	—
1783-BMS10CL	10	8 FE	2 FE	—	Lite	—	—	—
1783-BMS10CA	10	8 FE	2 FE	—	Full	—	—	—
1783-BMS10CGL	10	8 FE	2 GE	—	Lite	—	—	—
1783-BMS10CGA	10	8 FE	2 GE	—	Full	—	—	—
1783-BMS10CGP	10	8 FE	2 GE	—	Full	Yes	—	—
1783-BMS10CGN	10	8 FE	2 GE	—	Full	Yes	Yes	—
1783-BMS20CL	20	16 FE	2 FE	2 FE	Lite	—	—	—
1783-BMS20CA	20	16 FE	2 FE	2 FE	Full	—	—	—
1783-BMS20CGL	20	16 FE	2 GE	2 FE	Lite	—	—	—
1783-BMS20CGP ⁽¹⁾	20	16 FE	2 GE	2 FE	Full	Yes	—	—
1783-BMS20CGN ⁽¹⁾	20	16 FE	2 GE	2 FE	Full	Yes	Yes	—
1783-BMS20CGPK	20	16 FE	2 GE	2 FE	Full	Yes	—	Yes

(1) Future release

(2) FE = Fast Ethernet; GE = Gigabit Ethernet.

Technical Specifications - Stratix 5700 Switches

Attribute	1783-BMS06SL, 1783-BMS06SA, 1783-BMS06TL, 1783-BMS06TA, 1783-BMS06SGL, 1783-BMS06SGA, 1783-BMS06TGL, 1783-BMS06TGA	1783-BMS10CL, 1783-BMS10CA, 1783-BMS10CGL, 1783-BMS10CGA	1783-BMS10CGN, 1783-BMS10CGP	1783-BMS20CL, 1783-BMS20CA, 1783-BMS20CGL, 1783-BMS20CGP, 1783-BMS20CGN, 1783-BMS20CGPK
Power requirements	User supply: 0.5...2.0 A max @ 12...48V DC Alarm: 1 A @ 30V DC or 0.5 A @ 48V DC			
Power consumption	9.5 W @ 24V DC @ 40 °C (104 °F) 15 W max	12.5 W @ 24V DC/40 °C (104 °F) 17 W max	15 W @ 24V DC/40 °C (104 °F) 20 W max	21 W @ 24V DC/40 °C (104 °F) 30 W max
Isolation voltage	50V (continuous), basic insulation type, DC power ports to ground, DC power ports to Ethernet ports, and DC power ports to alarm ports No isolation between individual Ethernet ports No isolation between console port and system Type tested at 850V DC for 60 s			

Technical Specifications - Stratix 5700 Switches

Attribute	1783-BMS06SL, 1783-BMS06SA, 1783-BMS06TL, 1783-BMS06TA, 1783-BMS06SGL, 1783-BMS06SGA, 1783-BMS06TGL, 1783-BMS06TGA	1783-BMS10CL, 1783-BMS10CA, 1783-BMS10CGL, 1783-BMS10CGA	1783-BMS10CGN, 1783-BMS10CGP	1783-BMS20CL, 1783-BMS20CA, 1783-BMS20CGL, 1783-BMS20CGP, 1783-BMS20CGN, 1783-BMS20CGPK
Ethernet connections	RJ45 connector according to IEC 60603-7, 2- or 4-pair Category 5e minimum cable according to TIA 568-B.1 or Category 5 cable according to ISO/IEC 24702			
DC power connections	0.5...0.8 mm ² (20...18 AWG) solid or stranded copper wire rated at 75 °C (167 °F) or greater, 1.2 mm (3/64 in.) insulation max, 6.3 mm (0.25 in.) ±0.5 mm (0.02 in.) strip length			
Alarm connections	0.5...0.8 mm ² (20...18 AWG) solid or stranded, UL/CSA-rated style 1007 or 1569 twisted-pair copper appliance wiring material (AWM) wire (such as Belden part number 9318), 6.3 mm (0.25 in.) ±0.5 mm (0.02 in.) strip length			
Ground connection	4.0 mm ² (12 AWG) min, stranded copper wire			
SFP modules ⁽¹⁾	<ul style="list-style-type: none"> • 1783-SFP100FX • 1783-SFP1GSX • 1783-SFP100LX • 1783-SFP1GLX 			
Memory card	1784-SD1			
Torque	0.23 N·m (2.0 lb·in) on power and alarm connectors 0.96 N·m (8.5 lb·in) max on ground terminals			
Weight, approx	1.11 kg (2.45 lb)	1.25 kg (2.75 lb)	1.38 kg (3.05 lb)	2.04 kg (4.50 lb)
Wiring category ⁽²⁾	3 - on console and alarm ports 2 - on DC power ports 2 - on Ethernet ports			
Enclosure type rating	None (open-style)			
North American temp code	T4			
IEC temp code	T4			

(1) SFP modules supported only on switches with combo ports or SFP slots.

(2) Use this Conductor Category information for planning conductor routing. Refer to Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).

Environmental Specifications - Stratix 5700 Switches

Attribute	Stratix 5700 Switches
Temperature, operating IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock)	-40...60 °C (-40...140 °F)
Temperature, surrounding air, max	60 °C (140 °F)
Temperature, nonoperating IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold), IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat), IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock)	-40...85 °C (-40...185 °F)
Relative humidity IEC 60068-2-30 (Test Db, Unpackaged Damp Heat)	5...95% noncondensing

Environmental Specifications - Stratix 5700 Switches

Attribute	Stratix 5700 Switches
Vibration IEC 60068-2-6 (Test Fc, Operating)	2 g @ 10...500 Hz
Shock, operating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	30 g
Shock, nonoperating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	55 g
Emissions CISPR11 (IEC 61000-6-4)	Class A
ESD immunity IEC 61000-4-2	8 kV contact discharges 15 kV air discharges
Radiated RF immunity IEC 61000-4-3	20V/m with 1 kHz sine-wave 80% AM from 80...1000 MHz 20V/m with 200 Hz 50% pulse 100% AM at 900 MHz 10V/m with 1 kHz sine-wave 80% AM from 1000...2700 MHz
EFT/B immunity IEC 61000-4-4	±4 kV at 5 kHz and ±2 kV at 100 kHz on DC power ports ±4 kV at 2.5 kHz, ±2 kV at 5 kHz, and ±1 kV at 100 kHz on alarm ports ±4 kV at 2.5 kHz, ±2 kV at 5 kHz, and ±1 kV at 100 kHz on Ethernet ports
Surge transient immunity IEC 61000-4-5	±1 kV line-line (DM) and ±2 kV line-earth (CM) on DC power ports ±2 kV line-earth (CM) on Ethernet ports
Conducted RF immunity IEC 61000-4-6	10V rms with 1 kHz sine-wave 80% AM from 150 kHz...80 MHz
Voltage variation IEC 61000-4-29	10 ms interruption on DC supply ports
Damped oscillatory wave immunity IEC 61000-4-18	±1 kV line-line (DM) and ±2.5 kV line-earth (CM) on power ports

Certifications - Stratix 5700 Switches

Certifications (when product is marked) ⁽¹⁾	Stratix 5700 Switches
c-UL-us	UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E65584. UL Listed for Class I, Division 2 Group A,B,C,D Hazardous Locations, certified for U.S. and Canada. See UL File E194810.
CE	European Union 2004/108/EC EMC Directive, compliant with: <ul style="list-style-type: none"> EN 61326-1; Meas./Control/Lab., Industrial Requirements EN 61000-6-2; Industrial Immunity EN 61000-6-4; Industrial Emissions EN 61131-2; Programmable Controllers (Clause 8, Zone A & B)
C-Tick	Australian Radiocommunications Act, compliant with: <ul style="list-style-type: none"> AS/NZS CISPR 11; Industrial Emissions
Ex	European Union 94/9/EC ATEX Directive, compliant with: <ul style="list-style-type: none"> EN 60079-15; Potentially Explosive Atmospheres, Protection "n" EN 60079-0; General Requirements II 3 G Ex nA nC IIC T4X Gc
Korean	Korean Registration of Broadcasting and Communications Equipment, compliant with: <ul style="list-style-type: none"> Article 58-2 of Radio Waves Act, Clause 3
EtherNet/IP	ODVA conformance tested to EtherNet/IP specifications

(1) See the Product Certification link at <http://www.ab.com> for declarations of conformity, certificates, and other certification details.

Dimensions - Stratix 5700 Switches

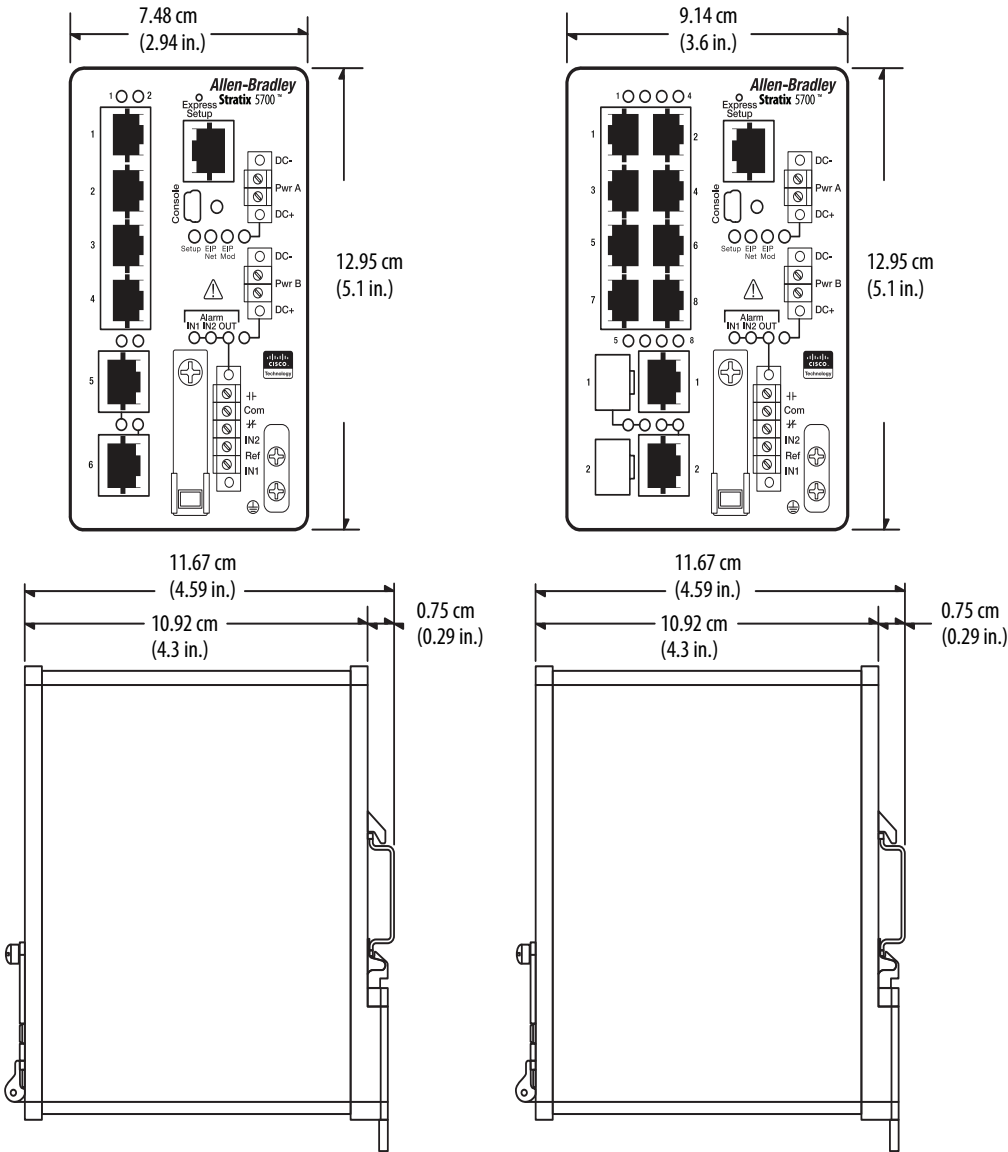
To prevent the switch from overheating, observe the following minimum clearances:

- Top and bottom: 50.8 mm (2.0 in.)
- Sides: 50.8 mm (2.0 in.)
- Front: 50.8 mm (2.0 in.)

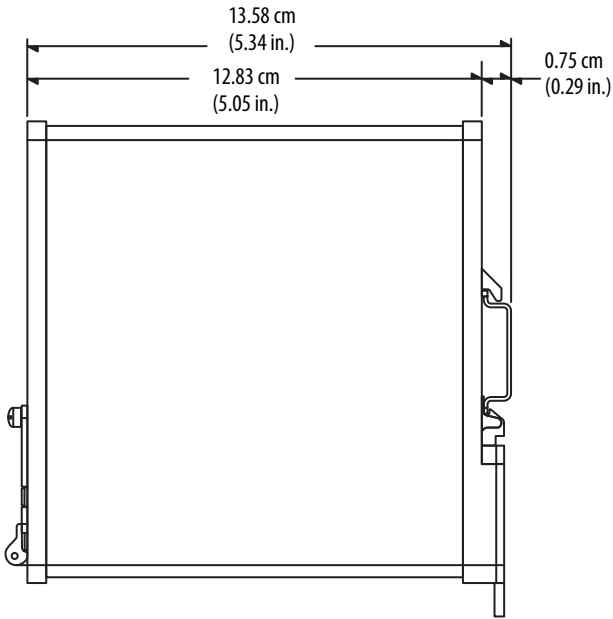
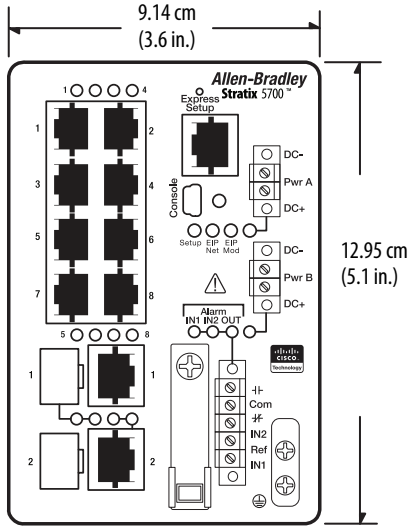
These diagrams are representative of the Stratix 5700™ switches. Actual faceplates vary depending on the catalog number.

6-port Switches
(1783-BMS06SL, 1783-BMS06SA, 1783-BMS06TL, 1783-BMS06TA,
1783-BMS06SGL, 1783-BMS06SGA, 1783-BMS06TGL,
1783-BMS06TGA)

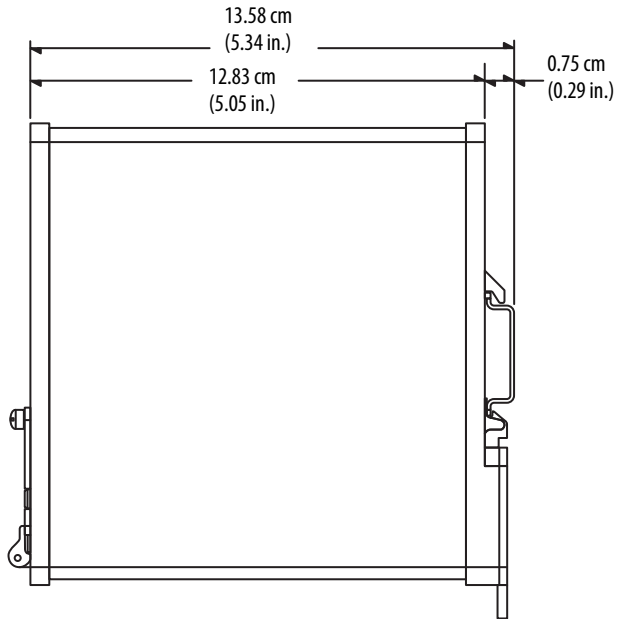
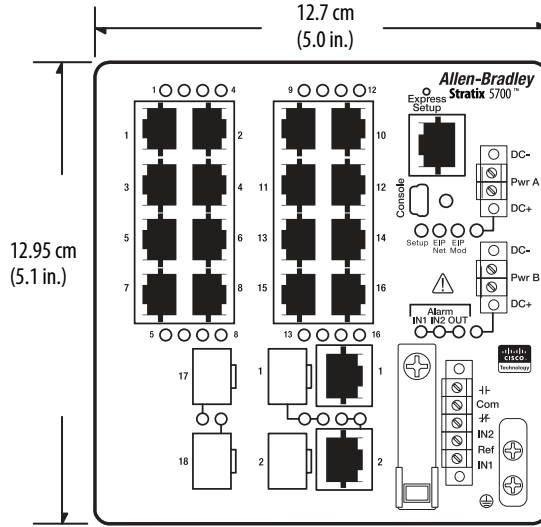
10-port Switches
(1783-BMS10CL, 1783-BMS10CA, 1783-BMS10CGL, 1783-BMS10CGA)



10-port Switches
(1783-BMS10CGP, 1783-BMS10CGN)



20-port Switches
(1783-BMS20CL, 1783-BMS20CA, 1783-BMS20CGL, 1783-BMS20CGP,
1783-BMS20CGN, 1783-BMS20CGPK)



Stratix 8000 and Stratix 8300 Ethernet Managed Switches

Technical Specifications - Stratix 8000 and Stratix 8300 Switches

Attribute	1783-MS06T	1783-MS10T	1783-RMS06T	1783-RMS10T	1783-MX08T	1783-MX08F
Description	Stratix 8000™ managed switch, Layer 2 • 6 ports	Stratix 8000 managed switch, Layer 2 • 10 ports	Stratix 8300™ managed switch, Layer 3 • 6 ports	Stratix 8300 managed switch, Layer 3 • 10 ports	Expansion module • 8 ports, copper	Expansion module • 8 ports, fiber
Inrush current, max	2.0 A					
Switch input rating, max	1A max @ 18...60V DC, CL 2/SELV				0.3A @ 12V DC	1A @ 12V DC
Alarm relay rating, max	1A max @ 30V DC, CL 2/SELV				—	
Power dissipation	15.1 W	15.7 W	15.1 W	15.7 W	2.8 W	10.1 W
Isolation voltage	75 V (continuous), basic insulation type, power to ground, power to network channels, and power to alarm No isolation between individual Ethernet ports No isolation between console port and system Type tested at 1000V AC for 60 s				75 V (continuous), basic insulation type, expansion backplane to network channels No isolation between individual Ethernet ports Type tested at 1000V AC for 60 s	
Ethernet connections	RJ45 connector according to IEC 60603-7, 2- or 4-pair Category 5e minimum cable according to TIA 568-B.1 or Category 5 cable according to ISO/IEC 24702					—
DC power and alarm connections	0.5...0.8 mm ² (20...18 AWG) solid or stranded copper wire rated at 90 °C (194 °F) or greater, 1.2 mm (3/64 in.) insulation max				—	
Functional ground connection	3.3...5.3 mm ² (12...10 AWG) solid or stranded copper wire rated at 75 °C (167 °F) or greater				—	
SFP modules ⁽¹⁾	<ul style="list-style-type: none"> • 1783-SFP100FX • 1783-SFP1GSX • 1783-SFP100LX • 1783-SFP1GLX 					
Memory card	1783-MCF		1783-RMCF		—	
Torque	0.23 N•m (2.0 lb•in) on power and alarm connectors					
Wiring category ⁽²⁾	2 - on alarm ports 2 - on power ports 2 - on Ethernet ports				2 - on Ethernet ports	—
Enclosure type rating	None (open-style) Meets IP20					
North American temp code	T4					
IEC temp code	T4					

(1) SFP modules supported only on switches with combo ports or SFP slots.

(2) Use this Conductor Category information for planning conductor routing. Refer to Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).

Technical Specifications - Stratix 8000 and Stratix 8300 Fiber Expansion Module

Attribute	1783-MX08F
Ethernet data rate	100 Mbps
Connecting mode	Full duplex
Optical wavelength	1310 nm
Optical cable length, max	Graded index multimode fiber; 2000 m
Optical link budget	8 db with 62.5/125 μ m multimode cable 4 db with 50/125 μ m multimode cable
Connector type	IEC 61754-20 LC connector

Environmental Specifications - Stratix 8000 and Stratix 8300 Switches

Attribute	1783-MS06T, 1783-MS10T, 1783-RMS06T, 1783-RMS10T	1783-MX08T	1783-MX08F
Temperature, operating IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock)	-40...60 °C (-40...140 °F)		
Temperature, surrounding air, max	60 °C (140 °F)		
Temperature, nonoperating IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold), IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat), IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock)	-40...85 °C (-40...185 °F)		
Relative humidity IEC 60068-2-30 (Test Db, Unpackaged Damp Heat)	5...95% noncondensing		
Vibration IEC 60068-2-6 (Test Fc, Operating)	2 g @ 10...500 Hz		
Shock, operating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	20 g		
Shock, nonoperating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	30 g		
Emissions CISPR 11	Group 1, Class A		
ESD immunity IEC 61000-4-2	8 kV contact discharges 15 kV air discharges		
Radiated RF immunity IEC 61000-4-3	20V/m with 1 kHz sine-wave 80% AM from 80...1000 MHz 10V/m with 200 Hz 50% Pulse 100% AM at 900 MHz 10V/m with 200 Hz 50% Pulse 100% AM at 1890 MHz 10V/m with 1 kHz sine-wave 80% AM from 1000...2700 MHz		
EFT/B immunity IEC 61000-4-4	\pm 4 kV at 2.5 kHz and \pm 2 kV at 5 kHz on power ports \pm 4 kV at 2.5 kHz and \pm 2 kV at 5 kHz on alarm ports \pm 4 kV at 2.5 kHz and \pm 2 kV at 5 kHz on Ethernet ports	\pm 4 kV at 2.5 kHz and \pm 2 kV at 5 kHz on Ethernet ports	—

Environmental Specifications - Stratix 8000 and Stratix 8300 Switches

Attribute	1783-MS06T, 1783-MS10T, 1783-RMS06T, 1783-RMS10T	1783-MX08T	1783-MX08F
Surge transient immunity IEC 61000-4-5	±1 kV line-line (DM) and ±2 kV line-earth (CM) on power ports ±1 kV line-line (DM) and ±2 kV line-earth (CM) on alarm ports ±2 kV line-earth (CM) on Ethernet ports	±2 kV line-earth (CM) on Ethernet ports	—
Conducted RF immunity IEC 61000-4-6	10V rms with 1 kHz sine-wave 80% AM from 150 kHz . . . 80 MHz		—
Magnetic field immunity IEC 61000-4-8	30 A/m long duration and 300 A/m short duration at 50 and 60 Hz		
Oscillatory surge withstand IEEE C37.90.1	2.5 kV		—
Voltage variation IEC 61000-4-29	10 ms interruption on DC supply ports	—	

Certifications - Stratix 8000 and Stratix 8300 Switches

Certifications (when product is marked) ⁽¹⁾	1783-MS06T, 1783-MS10T, 1783-RMS06T, 1783-RMS10T	1783-MX08T, 1783-MX08F
c-UL-us	UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E65584. UL Listed for Class I, Division 2 Group A,B,C,D Hazardous Locations, certified for U.S. and Canada. See UL File E194810.	
CE	European Union 2004/108/EC EMC Directive, compliant with: <ul style="list-style-type: none"> EN 61326-1; Meas./Control/Lab., Industrial Requirements EN 61000-6-2; Industrial Immunity EN 61000-6-4; Industrial Emissions EN 61131-2; Programmable Controllers (Clause 8, Zone A & B) 	
C-Tick	Australian Radiocommunications Act, compliant with: <ul style="list-style-type: none"> AS/NZS CISPR 11; Industrial Emissions 	
Ex	European Union 94/9/EC ATEX Directive, compliant with: <ul style="list-style-type: none"> EN 60079-15; Potentially Explosive Atmospheres, Protection "n" EN 60079-0; General Requirements (Zone 2) 	
KC	Korean Certification of Broadcasting and Communications Equipment, compliant with: <ul style="list-style-type: none"> Framework Act on Telecommunications and Radio Waves Act 	
EtherNet/IP	ODVA conformance tested to EtherNet/IP specifications	

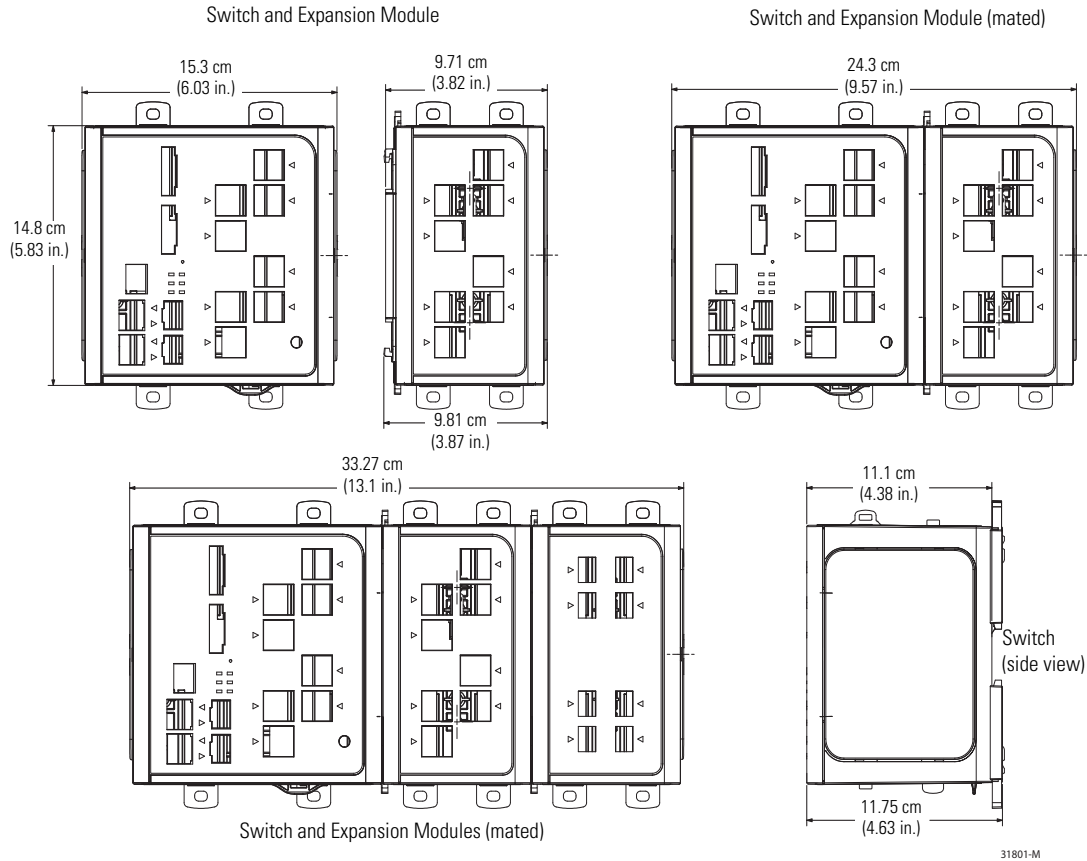
(1) See the Product Certification link at <http://www.ab.com> for declarations of conformity, certificates, and other certification details.

Optional Expansion Modules - Stratix 8000 and Stratix 8300 Switches

Cat. No.	Description
1783-MX08T	Expansion module with 8 10/100 Base-T copper Ethernet ports
1783-MX08F	Expansion module with 8 100 Base-F fiber-optic Ethernet ports

Dimensions - Stratix 8000 and Stratix 8300 Switches

This illustration shows dimensions for the 1783-MS10T switch and the 1783-MX08T expansion module. Dimensions for the other switches are the same as the 1783-MS10T switch. Dimensions for the 1783-MX08F expansion module are the same as the 1783-MX08T expansion module.



For panel-mounting, the height of the center of the mounting holes on both the top and bottom latches measures 8.73 mm (0.34 in.) above the top surface (or below the bottom surface) of the switch.

On the switch base unit, the tab hole center-to-center spacing is 6.83 cm (2.69 in.).

For expansion modules, the tab hole center-to-center spacing is 4.36 cm (1.72 in.).

Airflow around the switch and through the vents is unrestricted. To prevent the switch from overheating, these minimum clearances must be met:

- Top and bottom: 105 mm (4.13 in.)
- Left and right: 90 mm (3.54 in.)
- Front: 65 mm (2.56 in.)

Stratix 6000 Ethernet Managed Switches

Technical Specifications - Stratix 6000 Switches

Attribute	1783-EMS08T	1783-EMS04T
Description	Stratix 6000™ managed switch <ul style="list-style-type: none"> • 8 ports • 1 fiber SFP slot 	Stratix 6000 managed switch <ul style="list-style-type: none"> • 4 ports
Power requirements	250 mA @ 24V DC (12...48V DC) CL 2/SELV	100 mA @ 24V DC (12...48V DC) CL 2/SELV
Power dissipation, max	5.8 W	2.6 W
Thermal dissipation, max	24.6 BTU/hr @ 60 °C (140 °F)	
Network ports	8 RJ45 10/100 full/half duplex ports, optional SFP transceiver port	4 RJ45 10/100 full/half duplex ports
Protocols	TCP/IP, EtherNet/IP, Telnet, Http, DHCP, BOOTP, FTP, IGMP, SMTP	
Indicators	16 port indicators 3 status indicators	8 port indicators 2 status indicators
EtherNet/IP features	MAC ID management, bandwidth alarming, port control, link status, scaled bandwidth information, and connections active	
Switch features	VLAN, IGMP snooping, IGMP query V1 and V2, DHCP server, BOOTP server, QoS, port mirroring	
Options	1 GB fiber-optic transceiver	—
Inrush current, max	2.2 A	
Isolation voltage	50V (continuous), basic insulation type, power to ground and power to network channels No isolation between individual network channels Routine tested at 707V AC for 1 s	
Ethernet connections	RJ45 connector according to IEC 60603-7, 2- or 4-pair Category 5e minimum cable according to TIA 568-B.1 or Category 5 cable according to ISO/IEC 24702	
DC power connections	0.33...3.3 mm ² (22...12 AWG) solid or stranded copper wire rated at 75 °C (167 °F) or greater, 1.2 mm (3/64 in.) insulation max	
Functional ground connection	3.3 mm ² (12 AWG) solid or stranded copper wire rated at 75 °C (167 °F) or greater	
SFP modules ⁽¹⁾	<ul style="list-style-type: none"> • 1783-SFP1GSX • 1783-SFP1GLX 	
Torque	1.36 N•m (12 lb-in) on DC power and functional ground	
Wiring category ⁽²⁾	2 - on DC power ports 2 - on Ethernet ports	
Enclosure type rating	None (open-style) Meets IP20	
North American temp code	T4	
IEC temp code	T4	

(1) SFP modules supported only on switches with combo ports or SFP slots.

(2) Use this Conductor Category information for planning conductor routing. Refer to Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).

Environmental Specifications - Stratix 6000 Switches

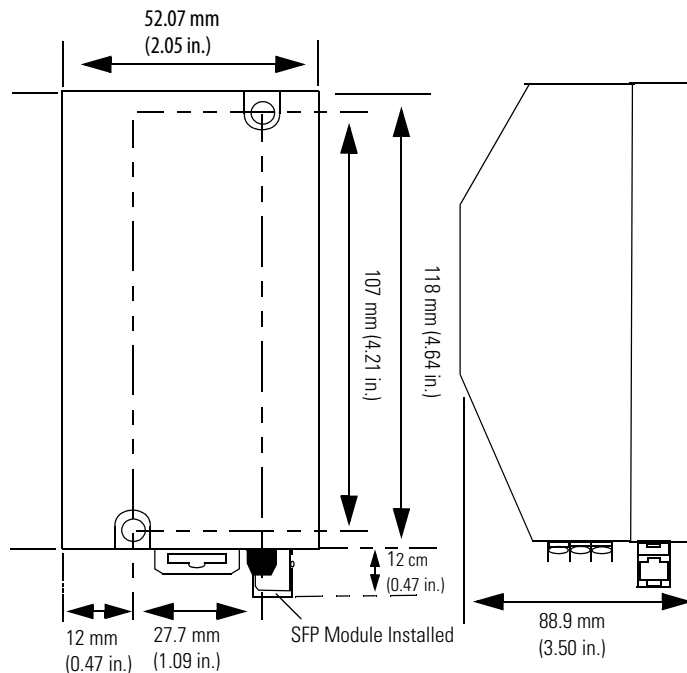
Attribute	1783-EMS04T, 1783-EMS08T
Temperature, operating IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock)	0...60 °C (32...140 °F)
Temperature, surrounding air, max	60 °C (140 °F)
Temperature, nonoperating IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold), IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat), IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock)	-40...85 °C (-40...185 °F)
Relative humidity IEC 60068-2-30 (Test Db, Unpackaged Damp Heat)	5...95% noncondensing
Vibration IEC 60068-2-6 (Test Fc, Operating)	2 g @ 10...500 Hz
Operating shock IEC 60068-2-27 (Test Ea, Unpackaged Shock)	15 g
Nonoperating shock IEC 60068-2-27 (Test Ea, Unpackaged Shock)	30 g
Emissions CISPR 11	Group 1, Class A
ESD immunity IEC 61000-4-2	6 kV contact discharges 8 kV air discharges
Radiated RF immunity IEC 61000-4-3	10V/m with 1 kHz sine-wave 80% AM from 80...2000 MHz 10V/m with 200 Hz 50% Pulse 100% AM at 900 MHz 10V/m with 200 Hz 50% Pulse 100% AM at 1890 MHz 1V/m with 1 kHz sine-wave 80% AM from 2000...2700 MHz
EFT/B immunity IEC 61000-4-4	±2 kV at 5 kHz on power ports ±1 kV at 5 kHz on Ethernet ports
Surge transient immunity IEC 61000-4-5	±1 kV line-line (DM) and ±2 kV line-earth (CM) on DC power ports ±2 kV line-earth (CM) on shielded Ethernet port
Conducted RF immunity IEC 61000-4-6	10V rms with 1 kHz sine-wave 80% AM from 150 kHz...80 MHz
Magnetic field immunity IEC 61000-4-8	30 A/m long duration and 300A/m short duration at 50 and 60 Hz
Voltage variation IEC 61000-4-29	10 ms interruption on DC supply ports

Certifications - Stratix 6000 Switches

Certifications (when product is marked) ⁽¹⁾	1783-EMS04T, 1783-EMS08T
c-UL-us	UL Listed Information Technology Equipment, certified for US and Canada. See UL File E151729.
c-ETL-us	ETL Listed Industrial Control Equipment, certified for US and Canada. ETL Listed for Class I, Division 2 Group A,B,C,D Hazardous Locations, certified for U.S. and Canada
CE	European Union 2004/108/EC EMC Directive, compliant with: <ul style="list-style-type: none"> EN 61326-1; Meas./Control/Lab., Industrial Requirements EN 61000-6-2; Industrial Immunity EN 61000-6-4; Industrial Emissions EN 61131-2; Programmable Controllers (Clause 8, Zone A & B)
C-Tick	Australian Radiocommunications Act, compliant with: <ul style="list-style-type: none"> AS/NZS CISPR 11; Industrial Emissions
Ex	European Union 94/9/EC ATEX Directive, compliant with: <ul style="list-style-type: none"> EN 60079-15; Potentially Explosive Atmospheres, Protection "n" EN 60079-0; General Requirements (Zone 2)
KC	Korean Certification of Broadcasting and Communications Equipment, compliant with: <ul style="list-style-type: none"> Framework Act on Telecommunications and Radio Waves Act
EtherNet/IP	ODVA conformance tested to EtherNet/IP specifications

(1) See the Product Certification link at <http://www.ab.com> for Declarations of Conformity, Certificates, and other certification details.

Dimensions - Stratix 6000 Switches



Mount the switches, as shown, in the vertical position only. We do not recommend horizontal mounting due to thermal considerations. Follow these guidelines.

- Provide 50 mm (2 in.) of space on all sides for adequate heat dissipation.
- Leave 100 mm (4 in.) for installation and removal if using the fiber-optic port on the bottom of the 1783-EMS08T switch.

Embedded Switch Technology

Technical Specifications - EtherNet/IP Taps

Attribute	1783-ETAP	1783-ETAP1F	1783-ETAP2F
Description	EtherNet/IP tap • 3 copper ports	EtherNet/IP tap • 2 copper ports • 1 fiber port	EtherNet/IP tap • 1 copper port • 2 fiber ports
Tap type	Copper	Fiber, single-port	Fiber, dual-port
Current consumption, max	125 mA @ 24V DC	200 mA @ 24V DC	260 mA @ 24V DC
DC power supply voltage rating	24V DC (20.4...27.6V DC) CL 2/SELV		
Isolation voltage	30V (continuous), basic insulation type, network channels to power and network channels to network channels		
	Type tested at 1250V DC for 60 s	Type tested at 853V AC for 60 s	
Power consumption, max	3 W	4.8 W	6.24 W
Power dissipation	3 W	4.8 W	6.24 W
Ethernet connections	RJ45 connector according to IEC 60603-7, 2- or 4-pair Category 5e minimum cable according to TIA 568-B.1 or Category 5 cable according to ISO/IEC 24702		
DC power connections	One 0.33...3.3 mm ² (22...12 AWG) or two 0.33...1.3 mm ² (22...16 AWG) solid or stranded copper wire rated at 75 °C (167 °F) or greater, 1.2 mm (3/64 in.) insulation max		
Torque	0.6...0.8 N·m (5...7 lb·in) on power connectors		
Wiring category ⁽¹⁾	1 - on power ports 2 - on communication ports		
Enclosure type rating	None (open-style)		
North American temp code	T5	T4A	T4
IEC temp code	T5	T4	T4

(1) Use this Conductor Category information for planning conductor routing. Refer to Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).

Technical Specifications - EtherNet/IP Tap Fiber Connections

Attribute	1783-ETAP1F, 1783-ETAP2F
Fiber transceiver type	100Base-FX IEEE802.3u
Optical wavelength	1310 nm no cap
Transmitter launch power at Beginning of Life (BOL), min Allow -1 dB at End of Life (EOL)	-19 dBm into 62.5/125 μ m fiber, N/A = 0.275 -22.5 dBm into 50/125 μ m fiber, N/A = 0.20
Receiver sensitivity, min	-31.8 dBm
Receiver sensitivity, max	-14 dBm
Fiber channel power budget at rated BER (2 connected taps, either 1783-ETAP1F or 1783-ETAP2F)	12.8 dB for 62.5/125 μ m multimode fiber 9.3 dB for 50/125 μ m multimode fiber
Fiber connections	Glass 62.5/125 μ m and 50/125 μ m multimode fiber Simplex or duplex Jacket type and jacket diameter is dependent on connector selection Graded Index (GI) fiber Per IEC 60794-1-1, IEC 60793-2-10 category A1 fibers
Connector type	IEC 61754-20 LC connector, maximum insertion loss 0.75 dB per connection
Channel length, max	2 km (1.24 mi) ⁽¹⁾

(1) The channel, that is, connectors and cable, must not exceed the allowable power budget.

Environmental Specifications - EtherNet/IP Taps

Attribute	1783-ETAP	1783-ETAP1F, 1783-ETAP2F
Temperature, operating IEC 60068-2-1 (Test Ad, Operating Cold) IEC 60068-2-2 (Test Bd, Operating Dry Heat) IEC 60068-2-14 (Test Nb, Operating Thermal Shock)	-25...70 °C (-13...158 °F)	-25...60 °C (-13...140 °F)
Temperature, surrounding air, max	70° C (158 °F)	60° C (140 °F)
Temperature, nonoperating IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold) IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat) IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock)	-40...85 °C (-40...185 °F)	
Relative humidity IEC 60068-2-30 (Test Db, Unpackaged Damp Heat)	5...95% noncondensing	
Vibration IEC 60068-2-6 (Test Fc, Operating)	5 g @ 10...500 Hz	
Shock, operating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	30 g	
Shock, nonoperating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	50 g	
Emissions CISPR 11	Group 1, Class A	
ESD immunity IEC 61000-4-2	6 kV contact discharges 8 kV air discharges	

Environmental Specifications - EtherNet/IP Taps

Attribute	1783-ETAP	1783-ETAP1F, 1783-ETAP2F
Radiated RF immunity IEC 61000-4-3	10V/m with 1 kHz sine-wave 80% AM from 80...2000 MHz 10V/m with 200 Hz 50% Pulse 100% AM at 900 MHz 10V/m with 200 Hz 50% Pulse 100% AM at 1890 MHz 3V/m with 1 kHz sine-wave 80% AM from 2000...2700 MHz	
EFT/B immunity IEC 61000-4-4	±4 kV at 5 kHz on power ports ±3 kV at 5 kHz on communication ports	
Surge transient immunity IEC 61000-4-5	±1 kV line-line (DM) and ±2 kV line-earth (CM) on power ports ±2 kV line-earth (CM) on communication ports	
Conducted RF immunity IEC 61000-4-6	10V rms with 1 kHz sine-wave 80% AM from 150 kHz...80 MHz	
Voltage variation IEC 61000-4-29	10 ms interruption on DC supply ports	

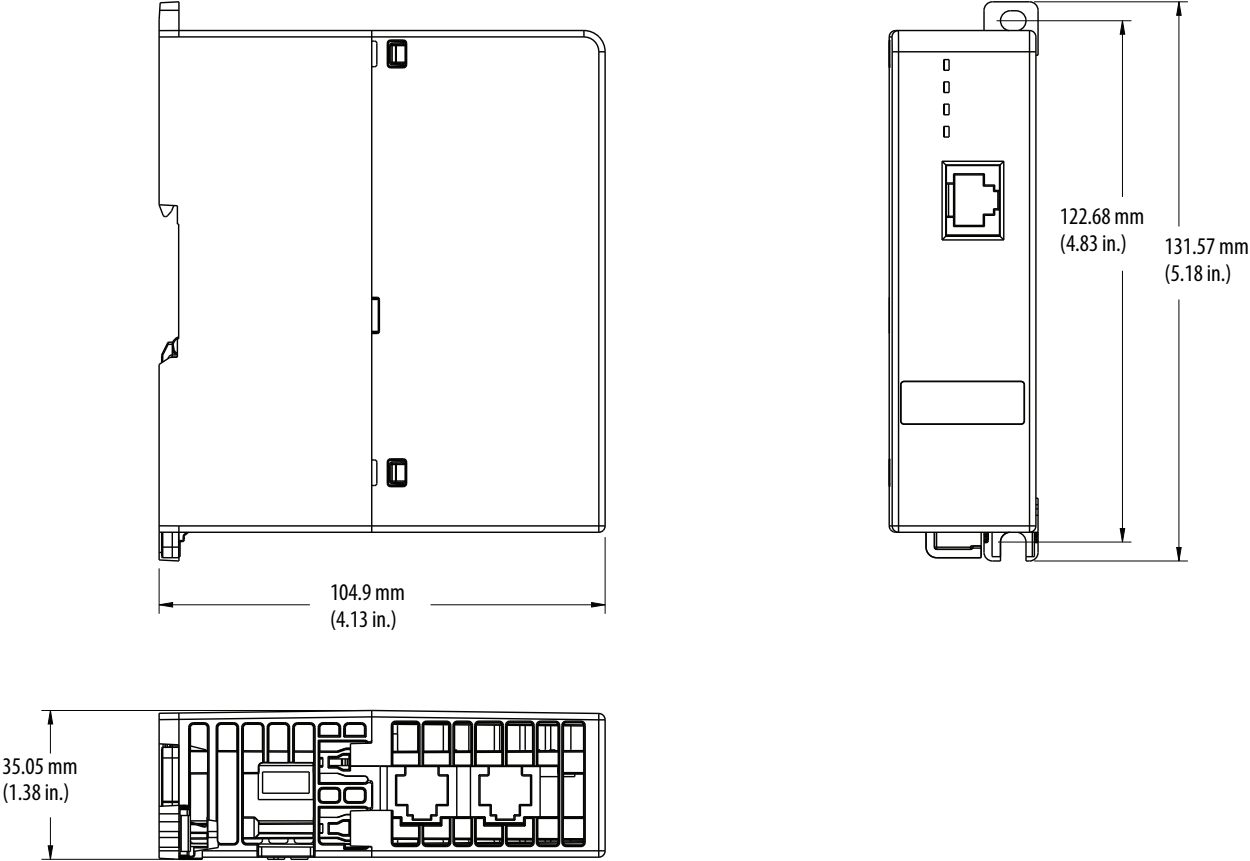
Certifications - EtherNet/IP Taps

Certification ⁽¹⁾	1783-ETAP	1783-ETAP1F, 1783-ETAP2F
c-UL-us	UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E65584. UL Listed for Class I, Division 2 Group A,B,C,D Hazardous Locations, certified for U.S. and Canada. See UL File E194810.	
CE	European Union 2004/108/EC EMC Directive, compliant with: <ul style="list-style-type: none"> EN 61326-1; Meas./Control/Lab., Industrial Requirements EN 61000-6-2; Industrial Immunity EN 61000-6-4; Industrial Emissions EN 61131-2; Programmable Controllers (Clause 8, Zone A and B) 	
C-Tick	Australian Radiocommunications Act, compliant with: AS/NZS CISPR 11; Industrial Emissions	
Ex	European Union 94/9/EC ATEX Directive, compliant with: <ul style="list-style-type: none"> EN 60079-15; Potentially Explosive Atmospheres, Protection "n" EN 60079-0; General Requirements II 3 G Ex nA IIC T5 X 	European Union 94/9/EC ATEX Directive, compliant with: <ul style="list-style-type: none"> EN 60079-15; Potentially Explosive Atmospheres, Protection "n" EN 60079-0; General Requirements II 3 G Ex nA IIC T 4 X
KC	Korean Certification of Broadcasting and Communications Equipment, compliant with: <ul style="list-style-type: none"> Framework Act on Telecommunications and Radio Waves Act 	
EtherNet/IP	ODVA conformance tested to EtherNet/IP specifications	

(1) When product is marked. See the Product Certification link at <http://www.ab.com> for Declarations of Conformity, Certificates, and other certification details.

Dimensions - EtherNet/IP Taps

This illustration shows dimensions for the 1783-ETAP tap. The dimensions for the 1783-ETAP1F and 1783-ETAP2F taps are the same.



Stratix 2000 Ethernet Unmanaged Switches

Technical Specifications - Stratix 2000 Switches

Attribute	1783-US03T01F	1783-US06T01F	1783-US05T	1783-US08T
Description	Stratix 2000™ unmanaged switch <ul style="list-style-type: none"> • 3 copper ports • 1 fiber port 	Stratix 2000 unmanaged switch <ul style="list-style-type: none"> • 6 copper ports • 1 fiber port 	Stratix 2000 unmanaged switch <ul style="list-style-type: none"> • 5 copper ports 	Stratix 2000 unmanaged switch <ul style="list-style-type: none"> • 8 copper ports
Inrush current, max	2.2 A			
AC power-supply voltage rating	20V AC (10...24V AC)			
DC power-supply voltage rating	24V DC (10...35V DC)			
Isolation voltage	30V (continuous), basic insulation type, power to network channels No isolation between individual network channels Type tested at 500V AC for 60 s			
Power consumption, max	4 W (6 VA) Current 400 mA at 10V DC			
Ethernet connections	RJ45 connector according to IEC 60603-7, 2- or 4-pair Category 5e minimum cable according to TIA 568-B.1 or Category 5 cable according to ISO/IEC 24702			
DC power connections	1.5...2.5 mm ² (16...14 AWG) solid or stranded copper wire rated at 75 °C (167 °F) or greater 1.2 mm (3/64 in.) insulation max			
Torque, max recommended	0.8 N·m (7 lb·in) on power connectors			
Wiring category ⁽¹⁾	2 - on power ports 2 - on communication ports			
Enclosure type rating	None (open-style) Meets IP20			
North American temp code	T4			
IEC temp code	T4			

(1) Use this Conductor Category information for planning conductor routing. Refer to Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).

Technical Specifications - Stratix 2000 Fiber Connections

Attribute	1783-US03T01F, 1783-US06T01F
Ethernet data rate	100 Mbps
Connecting mode	Full duplex
Optical wavelength	1310 nm
Optical cable length, max	Graded index multimode fiber; 2000 m
Optical link budget	8 db with 62.5/125 μm multimode cable 4 db with 50/125 μm multimode cable
Connector type	IEC 61754-20 LC connector
Fiber connections	Glass 62.5/125 μm and 50/125 μm multimode fiber Simplex or duplex Jacket type and jacket diameter is dependent on connector selection Graded Index (GI) fiber Per IEC 60794-1-1, IEC 60793-2-10 category A1 fibers

Environmental Specifications - Stratix 2000 Switches

Attribute	1783-US06T01F	1783-US03T01F, 1783-US05T, 1783-US08T
Temperature, operating IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock)	0...60 °C (32...140 °F)	
Temperature, surrounding air, max	60 °C (140 °F)	
Temperature, nonoperating IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold) IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat) IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock)	-40...85 °C (-40...185 °F)	
Relative humidity IEC 60068-2-30 (Test Db, Unpackaged Damp Heat)	5...95% noncondensing	
Vibration IEC 60068-2-6 (Test Fc, Operating)	2 g @ 10...500 Hz	
Operating shock IEC 60068-2-27 (Test Ea, Unpackaged Shock)	15 g	
Nonoperating shock IEC 60068-2-27 (Test Ea, Unpackaged Shock)	30 g	
Emissions CISPR 11	Group 1, Class A	
ESD immunity IEC 61000-4-2	4 kV contact discharges 8 kV air discharges	6 kV contact discharges 8 kV air discharges
Radiated RF immunity IEC 61000-4-3	10V/m with 1 kHz sine-wave 80% AM from 80...2000 MHz 10V/m with 200 Hz 50% Pulse 100% AM at 900 MHz 10V/m with 200 Hz 50% Pulse 100% AM at 1890 MHz 1V/m with 1 kHz sine-wave 80% AM from 2000...2700 MHz	
EFT/B immunity IEC 61000-4-4	±2 kV at 5 kHz on power ports ±2 kV at 5 kHz on Ethernet ports	
Surge transient immunity IEC 61000-4-5	±1 kV line-line (DM) and ±2 kV line-earth (CM) on DC power ports ±2 kV line-earth (CM) on shielded Ethernet port	
Conducted RF immunity IEC 61000-4-6	10V rms with 1 kHz sine-wave 80% AM from 150 kHz...80 MHz	

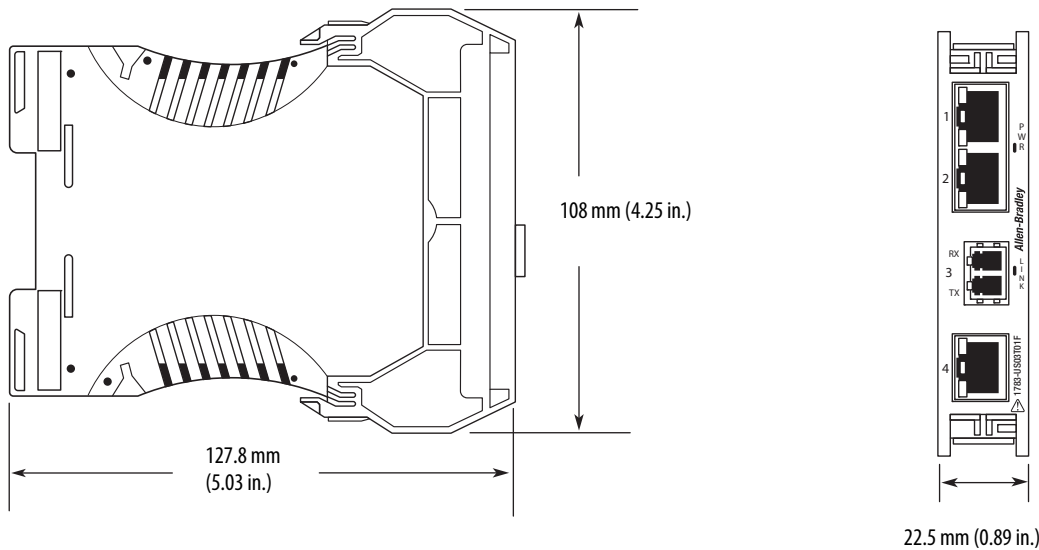
Certifications- Stratix 2000 Switches

Certifications (when product is marked)⁽¹⁾	1783-US03T01F, 1783-US06T01F, 1783-US05T, 1783-US08T
c-UL-us	UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E65584. UL Listed for Class I, Division 2 Group A,B,C,D Hazardous Locations, certified for U.S. and Canada. See UL File E194810.
CE	European Union 2004/108/EC EMC Directive, compliant with: <ul style="list-style-type: none"> • EN 61326-1; Meas./Control/Lab., Industrial Requirements • EN 61000-6-2; Industrial Immunity • EN 61000-6-4; Industrial Emissions • EN 61131-2; Programmable Controllers (Clause 8, Zone A & B)
C-Tick	Australian Radiocommunications Act, compliant with: <ul style="list-style-type: none"> • AS/NZS CISPR 11; Industrial Emissions
Ex	European Union 94/9/EC ATEX Directive, compliant with: <ul style="list-style-type: none"> • EN 60079-15; Potentially Explosive Atmospheres, Protection “n” • EN 60079-0; General Requirements II 3 G Ex nA II T4 X
KC	Korean Certification of Broadcasting and Communications Equipment, compliant with: <ul style="list-style-type: none"> • Framework Act on Telecommunications and Radio Waves Act
EtherNet/IP	ODVA conformance tested to EtherNet/IP specifications

(1) See the Product Certification link at <http://www.ab.com> for Declarations of Conformity, Certificates, and other certification details.

Dimensions - Stratix 2000 Switches

1783-US03T01F and 1783-US05T Switch Dimensions



The 1783-US06T01F and 1783-US08T switches have the same depth and height as the switches above, but they are 45 mm (1.77 in.) wide.

Accessories

Small Form-factor Pluggable (SFP) Transceivers

Cat. No.	Description	Wavelength	Core Size/ Cladding Size (micron)	Modal Bandwidth (MHz/km)	Cable Length	Compatibility
1783-SFP100FX	100 Base-FX multi-mode transceiver	1310 nm	50/125	500	2 km (6562 ft)	Stratix 5700 Stratix 8000 Stratix 8300
			62.5/125	500		
1783-SFP100LX	100 Base-LX single-mode transceiver	1310 nm	G.652	—	10 km (32.81 ft)	Stratix 5700 Stratix 8000 Stratix 8300
1783-SFP1GSX	1000 Base-SX multi-mode transceiver	850 nm	62.5/125	160	220 m (722 ft)	Stratix 6000 Stratix 5700 Stratix 8000 Stratix 8300
			62.5/125	200	275 m (902 ft)	
			50/125	400	500 m (1640 ft)	
			50/125	500	550 m (1804 ft)	
1783-SFP1GLX	1000 Base-LX/LH single-mode transceiver	1310 nm	G.652	—	10 km (32.81 ft)	Stratix 6000 Stratix 5700 Stratix 8000 Stratix 8300

Memory Cards

Cat. No.	Description	Compatibility
1784-SD1	1 GB industrial SD card	Stratix 5700
1783-MCF	Stratix 8000 CompactFlash card (spare)	Stratix 8000
1783-RMCF	Stratix 8300 CompactFlash card (spare)	Stratix 8300

Ethernet Cable

Cat. No.	Description	Cable Length
1585J-M8PBJM-2	Unshielded (UTP) RJ45 to RJ45 patchcord	2 m (6.56 ft)
1585J-M8PBJM-5		5 m (16.41 ft)
1585J-M8PBJM-10		10 m (32.81 ft)
1585J-M8CBJM-2	Shielded (STP) RJ45 to RJ45 patchcord	2 m (6.56 ft)
1585J-M8CBJM-5		5 m (16.41 ft)
1585J-M8CBJM-10		10 m (32.81 ft)
1585-C8CB-S100	Unshielded Ethernet cable spool	100 m (328.08 ft)
1585-C8PB-S100	Shielded Ethernet cable spool	100 m (328.08 ft)
1585-C8PB-S300		300 m (984.25 ft)
1585-C8PB-S600		600 m (1,968.51 ft)
1585J-M8CC-SH	Field attachable connector, IDC	—

For additional Ethernet media choices, see On-Machine™ Connectivity Catalog, publication [M117-CA001](#).

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
EtherNet/IP Industrial Protocol White Paper, publication ENET-WP001	Describes how to implement services and data objects on a TCP/UDP/IP based Ethernet network.
Stratix 5700 Ethernet Managed Switch Installation Instructions, publication 1783-IN009	Provides details about installing and configuring the switch.
Stratix 5700 Ethernet Managed Switches User Manual, publication 1783-UM004	Provides detailed information on configuring and managing the switches.
Stratix 8000 and 8300 Ethernet Managed Switches User Manual, publication 1783-UM003	Provides detailed information on configuring and managing the switches.
Stratix 6000 Ethernet Managed Switch User Manual, publication 1783-UM001	Provides details about how to configure and use the switch.
Stratix 2000 Ethernet Unmanaged Switch Installation Instructions, publication 1783-IN001	Provides details about installing and configuring the switch.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation® industrial system.
Product Certifications website, http://www.ab.com	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications at <http://www.rockwellautomation.com/literature/>. To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.

Notes:

Important Information

Solid-state equipment has operational characteristics differing from those of electromechanical equipment. Safety Guidelines for the Application, Installation and Maintenance of Solid State Controls (publication [SGI-1.1](#) available from your local Rockwell Automation sales office or online at <http://www.rockwellautomation.com/literature/>) describes some important differences between solid-state equipment and hard-wired electromechanical devices. Because of this difference, and also because of the wide variety of uses for solid-state equipment, all persons responsible for applying this equipment must satisfy themselves that each intended application of this equipment is acceptable.

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Rockwell Otomasyon Ticaret A.Ş., Kar Plaza İş Merkezi E Blok Kat:6 34752 İçerenköy, İstanbul, Tel: +90 (216) 5698400

www.rockwellautomation.com

Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

Europe/Middle East/Africa: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

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