

Stratix Ethernet Device 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-BMS12T4E2CGL, 1783-BMS12T4E2CGP, 1783-BMS12T4E2CGNK, 1783-BMS20CL, 1783-BMS20CA, 1783-BMS20CGL, 1783-BMS20CGP, 1783-BMS20CGN, 1783-BMS20CGPK

Stratix 8000 and Stratix 8300 Catalog Numbers 1783-MS06T, 1783-MS10T, 1783-RMS06T, 1783-RMS10T, 1783-MX04E, 1783-MX04T04E, 1783-MX04S, 1783-MX08S, 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, 1783-US5T, 1783-US8T

Stratix 5900 Catalog Number 1783-SR

Topic	Page
Stratix 5700 Ethernet Managed Switches	2
Stratix 8000 and Stratix 8300 Ethernet Managed Switches	10
Stratix 6000 Ethernet Managed Switches	17
Embedded Switch Technology	20
Stratix 2000 Ethernet Unmanaged Switches	24
Stratix 5900 Services Router	29
Accessories	32
Additional Resources	33



Summary of Changes

This manual contains new and updated information. Changes throughout this revision are marked by change bars, as shown to the left of this paragraph.

Topic	Page
Addition of Stratix 5700™ Power over Ethernet switches (cat. nos. 1783-BMS12T4E2CGL, 1783-BMS12T4E2CGP, 1783-BMS12T4E2CGNK)	5
Addition of Stratix 8000™ and Stratix 8300™ Power over Ethernet, expansion modules (cat. nos. 1783-MX04E, 1783-MX04T04E)	13
Addition of Stratix 2000™ unmanaged switch with 5 copper ports (cat. no. 1783-US5T)	24
Addition of Stratix 5900™ services router (cat. no. 1783-SR)	29

Stratix 5700 Ethernet Managed Switches

Cat. No.	Total Ports	RJ45 Ports ⁽¹⁾	Combo Ports	Power Over Ethernet Ports (PoE/PoE+)	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-BMS06SGA	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-BMS12T4E2CGL	18	12 FE	2 GE	4 FE	—	Lite	—	—	—
1783-BMS12T4E2CGP	18	12 FE	2 GE	4 FE	—	Full	Yes	—	—
1783-BMS12T4E2CGNK	18	12 FE	2 GE	4 FE	—	Full	Yes	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	20	16 FE	2 GE	—	2 FE	Full	Yes	—	—
1783-BMS20CGN	20	16 FE	2 GE	—	2 FE	Full	Yes	Yes	—
1783-BMS20CGPK	20	16 FE	2 GE	—	2 FE	Full	Yes	—	Yes

(1) 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
Alarm relay ratings	1 A @ 30V DC or 0.5 A @ 48V DC			
Power requirements	0.5...2.0 A max @ 12...48V DC			0.5...3.0 A max @ 12...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			
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
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

Technical Specifications - Stratix 5700 Power over Ethernet Switches

Attribute	1783-BMS12T4E2CGL, 1783-BMS12T4E2CGP, 1783-BMS12T4E2CGNK
Ethernet data rate	10/100 Mbps
Alarm relay ratings	30V DC, 1 A or 48V DC, 0.5 A
Power requirements	12...48V DC, 0.5...3.0 A max
Power over Ethernet input power	48V DC for PoE 54V DC for PoE+ or a combination of PoE and PoE+
Power consumption	15 W @ 24V DC 40 °C (104 °F) 20 W max
Isolation voltage	60 V (continuous), basic insulation type, DC power ports to ground, and PoE power ports to ground No isolation between individual Ethernet ports No isolation between PoE power and Ethernet ports No isolation between console port and system Type tested at 1585V DC 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 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)
Wiring category ⁽²⁾	3 - on console and alarm ports 2 - on DC power ports 2 - on Ethernet ports
Pilot duty rating	Alarm not rated
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 Power over Ethernet Switches

Attribute	1783-BMS12T4E2CGL, 1783-BMS12T4E2CGP, 1783-BMS12T4E2CGNK
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)	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	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...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 1V/m with 1 kHz sine-wave 80% AM from 1000...2700 MHz
EFT/B immunity IEC 61000-4-4	±4 kV at 5 kHz on DC power ports ±4 kV at 5 kHz on alarm ports ±4 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 Ethernet ports
Conducted RF immunity IEC 61000-4-6	10V rms with 1 kHz sine-wave 80% AM from 150 kHz...80 MHz
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. AEx/Ex nA nC IIC T4 Gc X
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) European Union 2011/65/EU RoHS, compliant with: <ul style="list-style-type: none"> • EN 50581; Technical Documentation
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 T4 Gc X
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

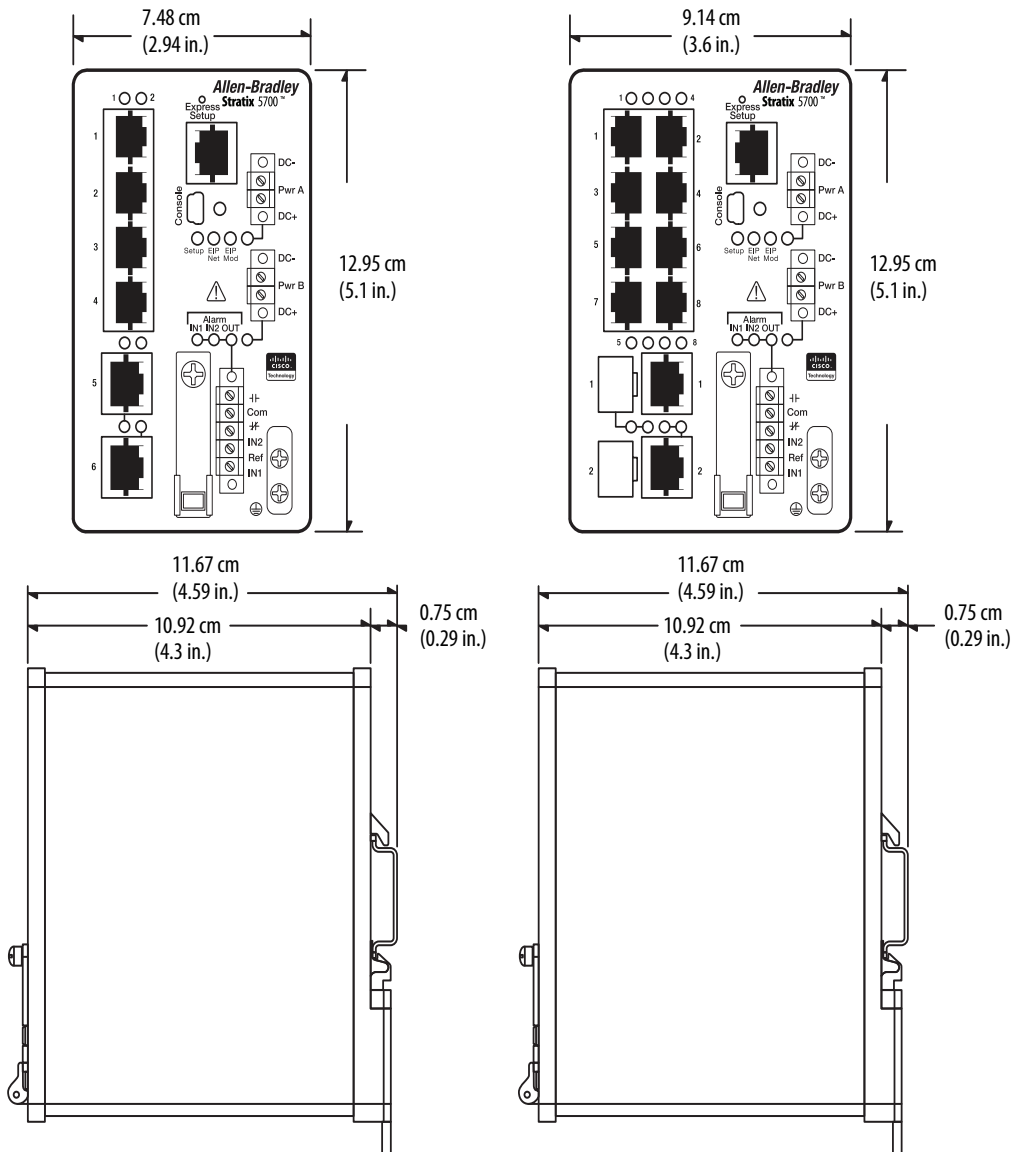
To prevent the switch from overheating, observe the following minimum clearances:

- 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.

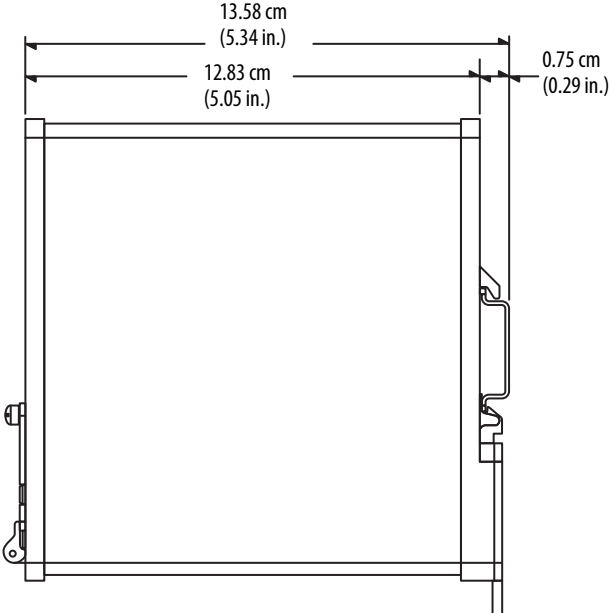
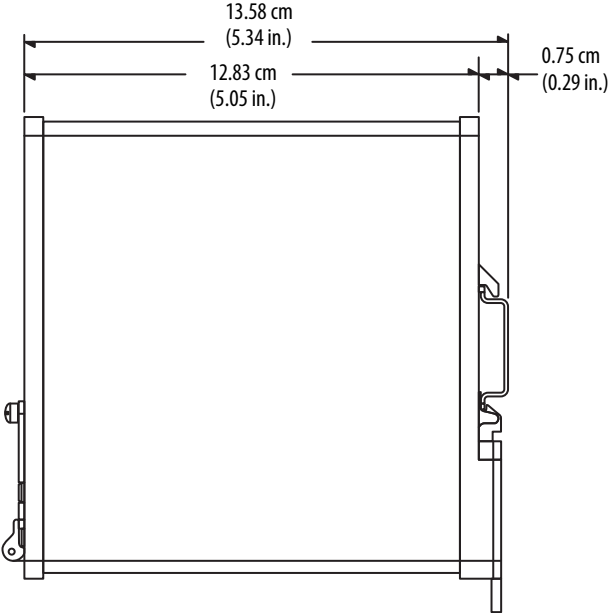
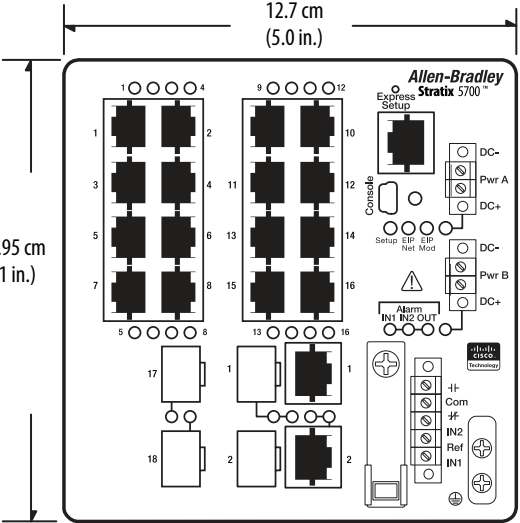
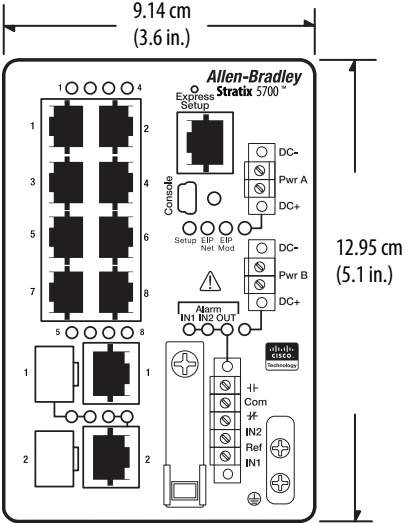
6-port Switches
 (1783-BMS06SL, 1783-BMS06SA, 1783-BMS06TL, 1783-BMS06TA,
 1783-BMS06SGL, 1783-BMS06SGA, 1783-BMS06TGL,
 1783-BMS06TGA)

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



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

18-port and 20-port Switches
(1783-BMS12T4E2CGL, 1783-BMS12T4E2CGP, 1783-BMS12T4E2CGNK,
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
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
Inrush current, max	2.0 A			
Switch input rating, max	2 A max @ 18...60V DC, CL 2/SELV			
Alarm relay rating, max	1 A max @ 30V DC, CL 2/SELV			
Power dissipation	15.1 W	15.7 W	15.1 W	15.7 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			
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			
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 8000 and Stratix 8300 Switches

Attribute	1783-MS06T, 1783-MS10T, 1783-RMS06T, 1783-RMS10T
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 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 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	±4 kV at 2.5 kHz and ±2 kV at 5 kHz on power ports ±4 kV at 2.5 kHz and ±2 kV at 5 kHz on alarm ports ±4 kV at 2.5 kHz and ±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 power ports ±1 kV line-line (DM) and ±2 kV line-earth (CM) on alarm 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
Magnetic pulse immunity IEC 61000-4-9	—
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
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) European Union 2011/65/EU RoHS, compliant with: <ul style="list-style-type: none"> EN 50581; Technical Documentation
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 T4 Gc
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
1783-MX04S	Expansion module with 4 100 FX fiber-optic SFP slots
1783-MX08S	Expansion module with 8 100 FX fiber-optic SFP slots
1783-MX04E	Expansion module with 4 Power over Ethernet ports
1783-MX04T04E	Ethernet expansion module with 4 10/100 Base-T copper Ethernet ports and 4 Power over Ethernet ports

Technical Specifications - Stratix 8000 and Stratix 8300 Expansion Modules

Attribute	1783-MX08T	1783-MX08F	1783-MX04S	1783-MX08S
Description	Expansion module <ul style="list-style-type: none"> 8 ports, copper 	Expansion module <ul style="list-style-type: none"> 8 ports, fiber 	Expansion module <ul style="list-style-type: none"> 4 SFP ports, fiber 	Expansion module <ul style="list-style-type: none"> 8 SFP ports, fiber
Backplane power	3.3V DC, 1.7 A max	3.3V DC, 3.6 A max	3.3V DC, 2.5 A max	3.3V DC, 4.0 A max
Power consumption	5.6 W	11.8 W	8.25 W	13.2 W
Isolation voltage	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	—	—	—

Technical Specifications - Stratix 8000 and Stratix 8300 Expansion Modules

Attribute	1783-MX08T	1783-MX08F	1783-MX04S	1783-MX08S
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	—		
SFP modules	—		<ul style="list-style-type: none"> • 1783-SFP100FX • 1783-SFP100LX 	
Wiring category ⁽¹⁾	2 - on Ethernet ports	—		
Enclosure type rating	None (open-style)			
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 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

Technical Specifications - Stratix 8000 and Stratix 8300 Power over Ethernet Expansion Modules

Attribute	1783-MX04E	1783-MX04T04E
Description	Expansion module <ul style="list-style-type: none"> • 4 ports, Power over Ethernet 	Expansion module <ul style="list-style-type: none"> • 4 ports, copper • 4 ports, Power over Ethernet
Backplane power	3.3V DC, 0.94 A max	3.34V DC, 1.08 A max
Power over Ethernet input power	48V DC for PoE 54V DC for PoE+ or a combination of PoE and PoE+ 2.5 A max	48V DC for PoE 54V DC for PoE+ or a combination of PoE and PoE+ 2.4 A max
Power dissipation	3.0 W	3.6 W
Isolation voltage	60 V (continuous), basic insulation type, expansion backplane to network ports, expansion backplane to power ports, and power ports to network ports No isolation between individual network ports Type tested at 1570V DC 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	
SFP modules	—	
Wiring category ⁽¹⁾	2 - on Ethernet ports 2 - on power ports	

Technical Specifications - Stratix 8000 and Stratix 8300 Power over Ethernet Expansion Modules

Attribute	1783-MX04E	1783-MX04T04E
Enclosure type rating	None (open-style)	
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](#).

Environmental Specifications - Stratix 8000 and Stratix 8300 Expansion Modules

Attribute	1783-MX08T	1783-MX08F	1783-MX04S, 1783-MX08S	1783-MX04E, 1783-MX04T04E
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		15 g	
Shock, nonoperating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	30 g			
Emissions CISPR11 (IEC 61000-6-4)	Class A			
ESD immunity IEC 61000-4-2	8 kV contact discharges 15 kV air discharges		6 kV contact discharges 8 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		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 2.5 kHz and ±2 kV at 5 kHz on Ethernet ports	—		±2 kV at 5 kHz on power ports and ±2 kV at 5 kHz on Ethernet ports
Surge transient immunity IEC 61000-4-5	±2 kV line-earth (CM) on Ethernet ports	—		±1 kV line-line(DM) and ±2 kV line-earth(CM) on power ports ±2 kV line-earth(CM) on communication ports

Environmental Specifications - Stratix 8000 and Stratix 8300 Expansion Modules

Attribute	1783-MX08T	1783-MX08F	1783-MX04S, 1783-MX08S	1783-MX04E, 1783-MX04T04E
Conducted RF immunity IEC 61000-4-6	10V rms with 1 kHz sine-wave 80% AM from 150 kHz...80 MHz	—		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		30 A/m long duration and 300 A/m short duration at 50 Hz	
Magnetic pulse immunity IEC 61000-4-9	—		300 A/m pulse	
Oscillatory surge withstand IEEE C37.90.1	2.5 kV	—		
Damped oscillatory wave immunity IEC 61000-4-18	—			±1 kV line-line(DM) and ±2.5 kV line-earth(CM) on power ports

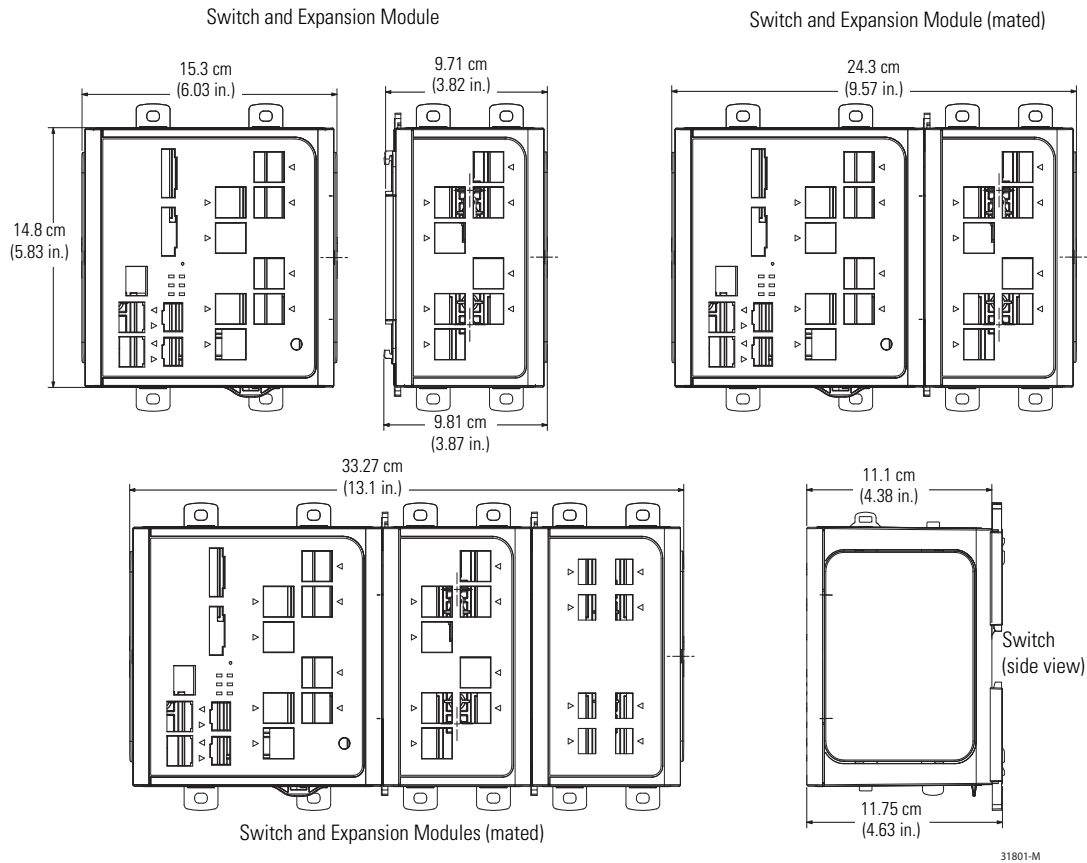
Certifications - Stratix 8000 and Stratix 8300 Expansion Modules

Certifications (when product is marked) ⁽¹⁾	1783-MX08T, 1783-MX08F	1783-MX04S, 1783-MX08S	1783-MX04E, 1783-MX04T04E
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. Ex nA IIC T4X Gc X / AEx nA IIC T4X Gc		
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) European Union 2011/65/EU RoHS, compliant with: <ul style="list-style-type: none"> EN 50581; Technical Documentation 		
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 IIC T4 Gc 		
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 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 other expansion modules 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)	
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

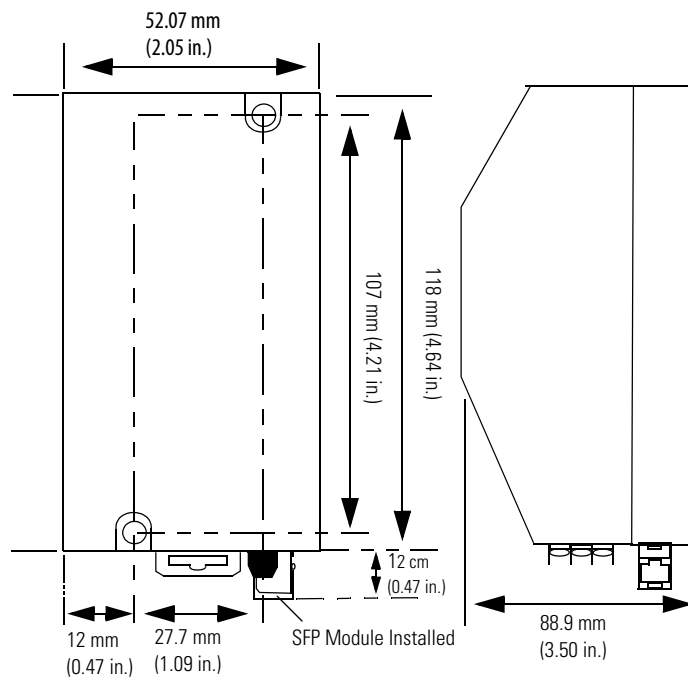
Attribute	1783-EMS04T, 1783-EMS08T
Temperature, operating IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock)	0...60 °C (32...140 °F)
Temperature, surrounding air, max	60 °C (140 °F)
Temperature, nonoperating IEC 60068-2-1 (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 CISPR11 (IEC 61000-6-4)	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) European Union 2011/65/EU RoHS, compliant with: <ul style="list-style-type: none"> EN 50581; Technical Documentation
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 nL IIC T4
KC	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 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 <ul style="list-style-type: none"> 3 copper ports 	EtherNet/IP tap <ul style="list-style-type: none"> 2 copper ports 1 fiber port 	EtherNet/IP tap <ul style="list-style-type: none"> 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 μm fiber, N/A = 0.275 -22.5 dBm into 50/125 μm 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 μm multimode fiber 9.3 dB for 50/125 μm multimode fiber
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
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 CISPR11 (IEC 61000-6-4)	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 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	

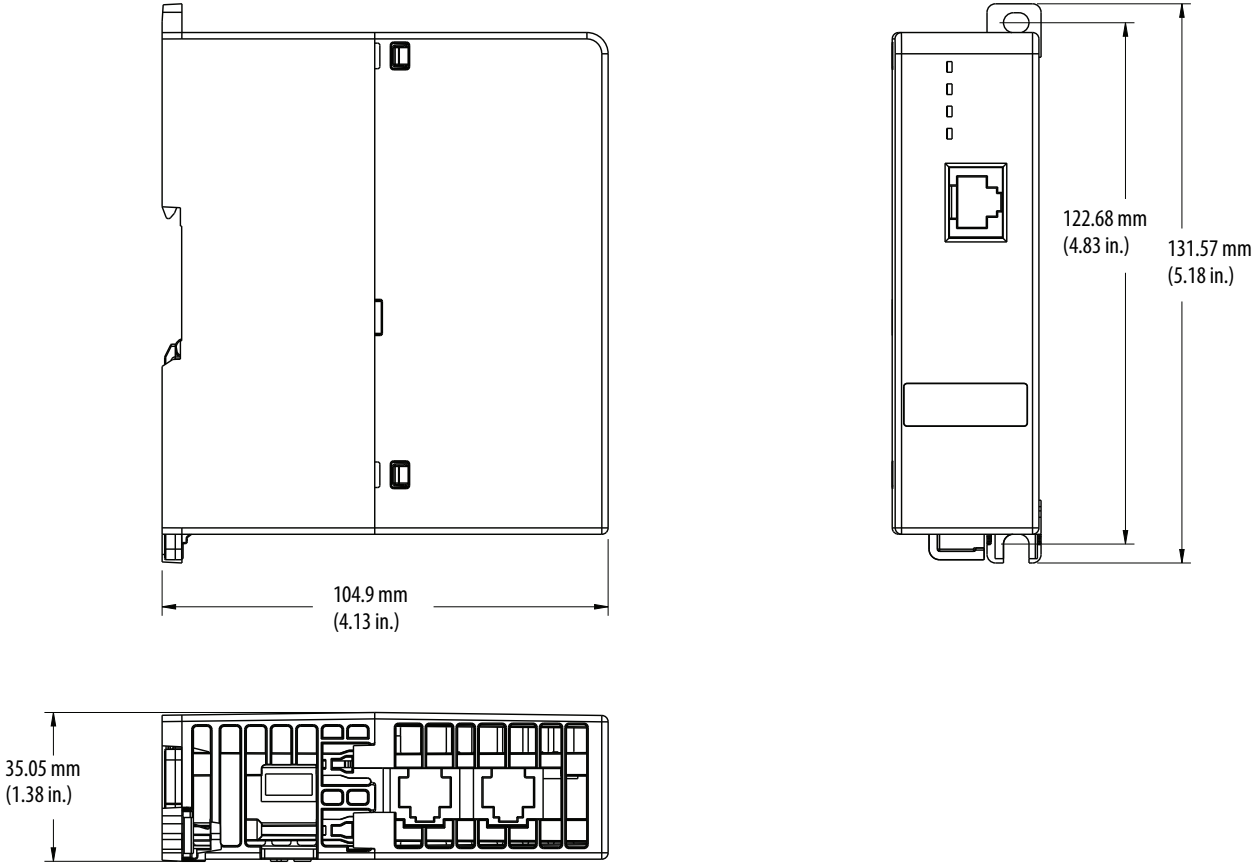
Certifications - EtherNet/IP Taps

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) European Union 2011/65/EU RoHS, compliant with: <ul style="list-style-type: none"> • EN 50581; Technical Documentation 	
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 T4 X
KC	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) 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	1783-US5T	1783-US8T
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 	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					
Power supply voltage	20V AC (10...24V AC) 24V DC (10...35V DC)				24V (18...60V DC, 18...30V AC 50/60 Hz), 361 mA, Class 2/SELV	
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 (6VA) Current 400 mA @10V DC				2 W @ 24V AC/DC	4.04 W @ 24V AC/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				0.75...2.5 mm ² (18...14 AWG) twisted-pair copper wire suitable for 30 °C (86 °F) above surrounding ambient temperature outside the enclosure Functional Earth connection: 2.5 mm ² (14 AWG) copper wire suitable for 86 °F (30 °C) above surrounding ambient temperature outside the enclosure, with a suitable ring terminal	
Torque, max recommended	0.8 N·m (7 lb·in) on power connectors				1.82 N·m (16 lb·in) on power /functional earth connector	
Wiring category ⁽¹⁾	2 - on power ports 2 - on communication ports				1 - on power ports 2 - on communication ports	
Enclosure type rating	None (open-style)					
North American temp code	T4				T5	
IEC temp code	T4				T5	

(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	1783-US5T	1783-US8T
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		2 g @ 10...150 Hz	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 CISPR11 (IEC 61000-6-4)	Class A			
ESD immunity IEC 61000-4-2	4 kV contact discharges 8 kV air discharges	6 kV contact discharges 8 kV air discharges	8 kV contact discharges 15 kV air discharges	6 kV contact discharges 8 kV air discharges

Environmental Specifications - Stratix 2000 Switches

Attribute	1783-US06T01F	1783-US03T01F, 1783-US05T, 1783-US08T	1783-US5T	1783-US8T
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		10V/m with 1 kHz sine-wave 80% AM from 80...2000 MHz 3V/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 communication ports		±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 DC power ports ±2 kV line-earth (CM) on communication port		±2 kV line-line (DM) and ±4 kV line-earth (CM) on DC power ports ±2 kV line-earth (CM) on communication 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 300 A/m short duration at 50 Hz	
Magnetic pulse immunity IEC 61000-4-9	—		—	30 A/m pulse

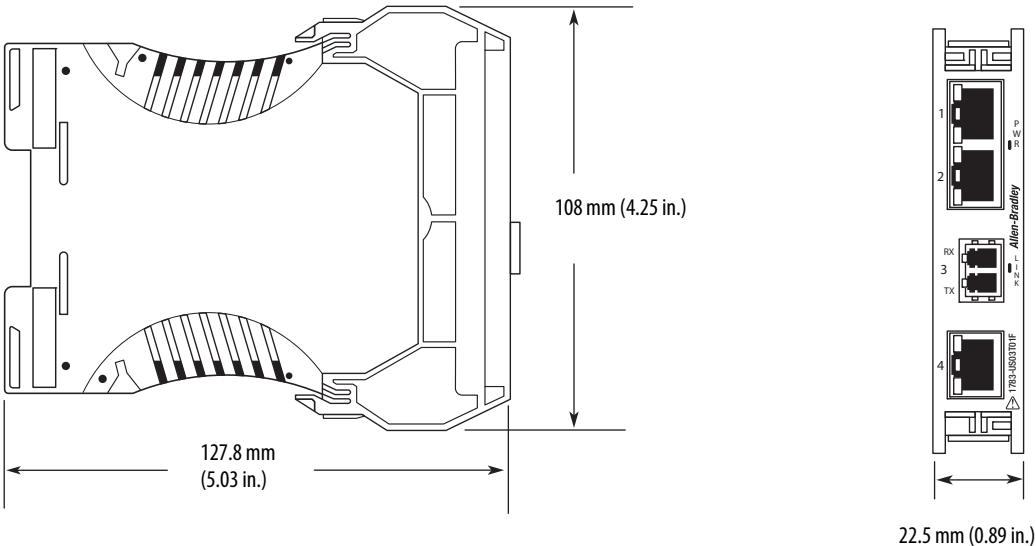
Certifications- Stratix 2000 Switches

Certifications (when product is marked) ⁽¹⁾	1783-US03T01F, 1783-US06T01F, 1783-US05T, 1783-US08T	1783-US5T, 1783-US8T
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) European Union 2011/65/EU RoHS, compliant with: <ul style="list-style-type: none"> EN 50581; Technical Documentation 	
RCM	Australian Radiocommunications Act, compliant with: <ul style="list-style-type: none"> EN 61000-6.4; 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 T4 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 T5 Gc
KC	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.

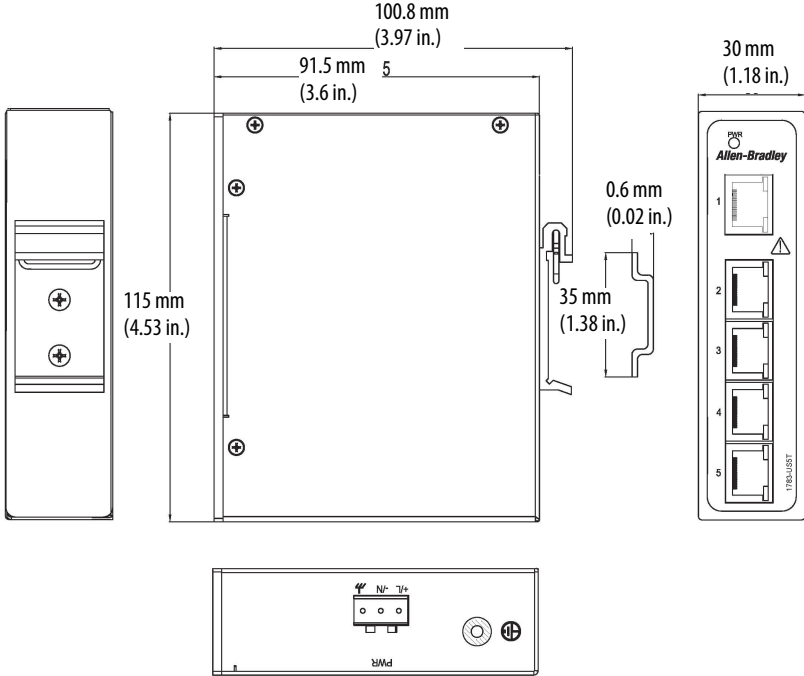
Dimensions - Stratix 2000 Switches

1783-US03T01F and 1783-US05T Switch Dimensions

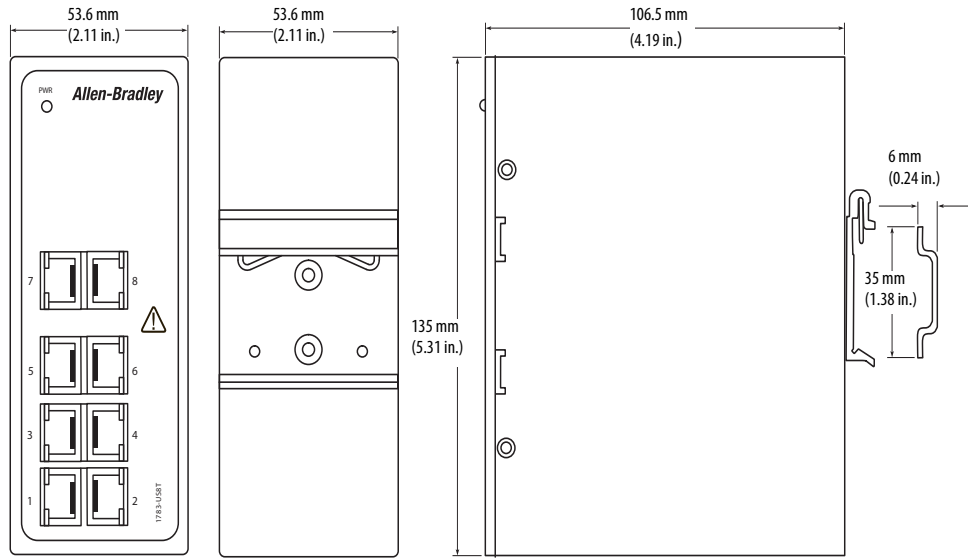


The 1783-US06T01F and 1783-US08T switches have the same depth and height as the switches above, but they are 45 mm (1.77 in.) wide.

1783-US5T Switch Dimensions



1783-US8T Switch Dimensions



32312-M

Stratix 5900 Services Router

Technical Specifications - Stratix 5900 Services Router

Attribute	1783-SR
Input voltages	5V, 4 A Class 2 Requires LITEON PA-1200-3SA4 power adapter (100...240V AC, 50/60Hz, 0.8A)
Power consumption, max	11 W
Isolation voltage	Not rated
Weight	1.5 kg (3.2 lb)
Wiring category ⁽¹⁾	3 - on power ports 2 - on Ethernet ports
Enclosure type rating	Meets IP41
Router AC Power Adapter⁽²⁾	
Input voltage	85...264V AC 100...240V AC nom
Power consumption, max	25 W
Output power, max	20 W (5V DC, 4 A)

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

(2) AC power adapter is not IP41 rated. Installation must include protection of the adapter and power plug from water.

Environmental Specifications - Stratix 5900 Services Router

Attribute	1783-SR
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...60 °C (-13...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 60068-2-64 (Test Fh, Operating)	1.12 Grms random
Operating shock IEC 60068-2-27 (Test Ea, Unpackaged Shock)	15 g
Nonoperating shock IEC 60068-2-27 (Test Ea, Unpackaged Shock)	15 g
Emissions CISPR22 (IEC 61000-6-4)	Class B
ESD immunity IEC 61000-4-2	8 kV contact discharges 15 kV air discharges

Environmental Specifications - Stratix 5900 Services Router

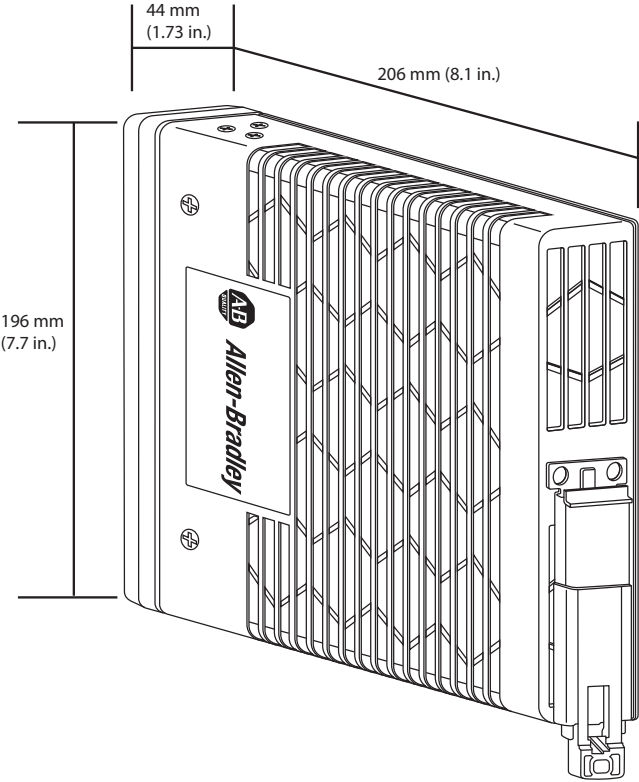
Attribute	1783-SR
Radiated RF immunity IEC 61000-4-3	10V/m with 1 kHz sine-wave 80% AM from 80 . . . 2000 MHz 10V/m with 1 kHz sine-wave 80% AM from 2000 . . . 2700 MHz
EFT/B immunity IEC 61000-4-4	±500 kV at 5 kHz on Ethernet ports
Surge transient immunity IEC 61000-4-5	±1 kV line-earth (CM) on shielded 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 5900 Services Router

Certifications (when product is marked) ⁽¹⁾	1783-SR
c-UL-us	UL Listed Information Technology Equipment, certified for US and Canada. See UL File E136709.
CE	European Union 1999/5/EC R&TTE Directive, compliant with: <ul style="list-style-type: none"> • EN 55022; ITE Emissions • EN 55024; ITE Immunity • EN 60950; ITE Safety European Union 2011/65/EU RoHS, compliant with: <ul style="list-style-type: none"> • EN 50581; Technical documentation
C-Tick	Australian Radiocommunications Act, compliant with: <ul style="list-style-type: none"> • ACMA EMC Std 08
CCC	GB 4943. 1, GB 9254, YD/T993

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

■ Dimensions - Stratix 5900 Services Router



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.
Stratix 5900 Services Router User Manual, publication 1783-UM005	
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.

Important User Information

Read this document and the documents listed in the additional resources section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice.

If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

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The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Rockwell Automation, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

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