

## **Release Notes**

# **CompactLogix EtherNet/IP Communication Module**

Catalog Number 1768-ENBT

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### **About This Publication**

This publication describes enhancements, anomalies (corrected and known), and other concepts related to the CompactLogix EtherNet/IP Bridge Module, firmware revision 2.003.

Information that has been added or changed since the last revision of this publication is indicated by a change bar as shown to the right of this paragraph.

In addition to information specific to the most recent firmware revision, the information from previous minor revisions is retained in these release notes for your reference.

## 2 CompactLogix EtherNet/IP Communication Module

### Compatible Versions of Software

Use these or later versions of software with the 1768-ENBT module.

| If using this software    | Use this version or later |
|---------------------------|---------------------------|
| RSLink Classic            | 2.43                      |
| RSLink Enterprise         | 3.00                      |
| RSLogix 5000              | 15.00                     |
| RSNetWorx for EtherNet/IP | 5.11                      |
| RSNetWorx for ControlNet  |                           |
| RSNetWorx for DeviceNet   |                           |

### Enhancements

These enhancements have been made with firmware revision 2.003.

- The link between a TCP connection and the associated CIP connection has been decoupled. As a result, TCP connections can be closed without affecting existing CIP connections.

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- The number of TCP and CIP connections has been doubled to 64 TCP connections and 128 CIP connections.

## 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-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-US8T

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## 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.

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| Corrections to Stratix 5700 alarm relay ratings and power supply requirements                  | 3    |
| Addition of Stratix 8000 and Stratix 8300 expansion modules (cat. nos. 1783-MX04S, 1783-MX08S) | 8    |
| Addition of Stratix 2000 switch (cat. no. 1783-US8T)                                           | 22   |

## Stratix 5700 Ethernet Managed Switches

| Cat. No.       | Total Ports | RJ45 Ports <sup>(1)</sup> | 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-BMS06SGA  | 6           | 4 FE                      | —           | 2 GE      | Full          | —                    | —   | —                 |
| 1783-BMS06TGL  | 6           | 4 FE + 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  | 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,<br>1783-BMS06SA,<br>1783-BMS06TL,<br>1783-BMS06TA,<br>1783-BMS06SGL,<br>1783-BMS06SGA,<br>1783-BMS06TGL,<br>1783-BMS06TGA                                                                                                                                     | 1783-BMS10CL,<br>1783-BMS10CA,<br>1783-BMS10CGL,<br>1783-BMS10CGA | 1783-BMS10CGN,<br>1783-BMS10CGP          | 1783-BMS20CL,<br>1783-BMS20CA,<br>1783-BMS20CGL,<br>1783-BMS20CGP,<br>1783-BMS20CGN,<br>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)<br>15 W max                                                                                                                                                                                                                                 | 12.5 W @ 24V DC/40 °C (104 °F)<br>17 W max                        | 15 W @ 24V DC/40 °C (104 °F)<br>20 W max | 21 W @ 24V DC/40 °C (104 °F)<br>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<br>No isolation between individual Ethernet ports<br>No isolation between console port and system<br>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 <sup>2</sup> (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 <sup>2</sup> (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 <sup>2</sup> (12 AWG) min, stranded copper wire                                                                                                                                                                                                                      |                                                                   |                                          |                                                                                                        |
| SFP modules <sup>(1)</sup>     | <ul style="list-style-type: none"> <li>• 1783-SFP100FX</li> <li>• 1783-SFP1G5X</li> <li>• 1783-SFP100LX</li> <li>• 1783-SFP1GLX</li> </ul>                                                                                                                                  |                                                                   |                                          |                                                                                                        |
| Memory card                    | 1784-SD1                                                                                                                                                                                                                                                                    |                                                                   |                                          |                                                                                                        |
| Torque                         | 0.23 N·m (2.0 lb-in) on power and alarm connectors<br>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 <sup>(2)</sup> | 3 - on console and alarm ports<br>2 - on DC power ports<br>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<br>IEC 60068-2-1 (Test Ad, Operating Cold),<br>IEC 60068-2-2 (Test Bd, Operating Dry Heat),<br>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<br>IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold),<br>IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat),<br>IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock) | -40...85 °C (-40...185 °F)                                                                                                                                                                                 |
| Relative humidity<br>IEC 60068-2-30 (Test Db, Unpackaged Damp Heat)                                                                                                                                                  | 5...95% noncondensing                                                                                                                                                                                      |
| Vibration<br>IEC 60068-2-6 (Test Fc, Operating)                                                                                                                                                                      | 2 g @ 10...500 Hz                                                                                                                                                                                          |
| Shock, operating<br>IEC 60068-2-27 (Test Ea, Unpackaged Shock)                                                                                                                                                       | 30 g                                                                                                                                                                                                       |
| Shock, nonoperating<br>IEC 60068-2-27 (Test Ea, Unpackaged Shock)                                                                                                                                                    | 55 g                                                                                                                                                                                                       |
| Emissions<br>CISPR11 (IEC 61000-6-4)                                                                                                                                                                                 | Class A                                                                                                                                                                                                    |
| ESD immunity<br>IEC 61000-4-2                                                                                                                                                                                        | 8 kV contact discharges<br>15 kV air discharges                                                                                                                                                            |
| Radiated RF immunity<br>IEC 61000-4-3                                                                                                                                                                                | 20V/m with 1 kHz sine-wave 80% AM from 80...1000 MHz<br>20V/m with 200 Hz 50% pulse 100% AM at 900 MHz<br>10V/m with 1 kHz sine-wave 80% AM from 1000...2700 MHz                                           |
| EFT/B immunity<br>IEC 61000-4-4                                                                                                                                                                                      | ±4 kV at 5 kHz and ±2 kV at 100 kHz on DC power ports<br>±4 kV at 2.5 kHz, ±2 kV at 5 kHz, and ±1 kV at 100 kHz on alarm ports<br>±4 kV at 2.5 kHz, ±2 kV at 5 kHz, and ±1 kV at 100 kHz on Ethernet ports |
| Surge transient immunity<br>IEC 61000-4-5                                                                                                                                                                            | ±1 kV line-line (DM) and ±2 kV line-earth (CM) on DC power ports<br>±2 kV line-earth (CM) on Ethernet ports                                                                                                |
| Conducted RF immunity<br>IEC 61000-4-6                                                                                                                                                                               | 10V rms with 1 kHz sine-wave 80% AM from 150 kHz...80 MHz                                                                                                                                                  |
| Voltage variation<br>IEC 61000-4-29                                                                                                                                                                                  | 10 ms interruption on DC supply ports                                                                                                                                                                      |
| Damped oscillatory wave immunity<br>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) <sup>(1)</sup> | Stratix 5700 Switches                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| c-UL-us                                                | UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E65584.<br>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"> <li>• EN 61326-1; Meas./Control/Lab., Industrial Requirements</li> <li>• EN 61000-6-2; Industrial Immunity</li> <li>• EN 61000-6-4; Industrial Emissions</li> <li>• EN 61131-2; Programmable Controllers (Clause 8, Zone A &amp; B)</li> </ul> |
| C-Tick                                                 | Australian Radiocommunications Act, compliant with: <ul style="list-style-type: none"> <li>• AS/NZS CISPR 11; Industrial Emissions</li> </ul>                                                                                                                                                                                               |
| Ex                                                     | European Union 94/9/EC ATEX Directive, compliant with: <ul style="list-style-type: none"> <li>• EN 60079-15; Potentially Explosive Atmospheres, Protection "n"</li> <li>• EN 60079-0; General Requirements II 3 G Ex nA nC IIC T4X Gc</li> </ul>                                                                                            |
| Korean                                                 | Korean Registration of Broadcasting and Communications Equipment, compliant with: <ul style="list-style-type: none"> <li>• Article 58-2 of Radio Waves Act, Clause 3</li> </ul>                                                                                                                                                             |
| 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: 105 mm (4.13 in.)
- Exposed side (not connected to the module): 90 mm (3.54 in.)
- Front: 65 mm (2.56 in.)

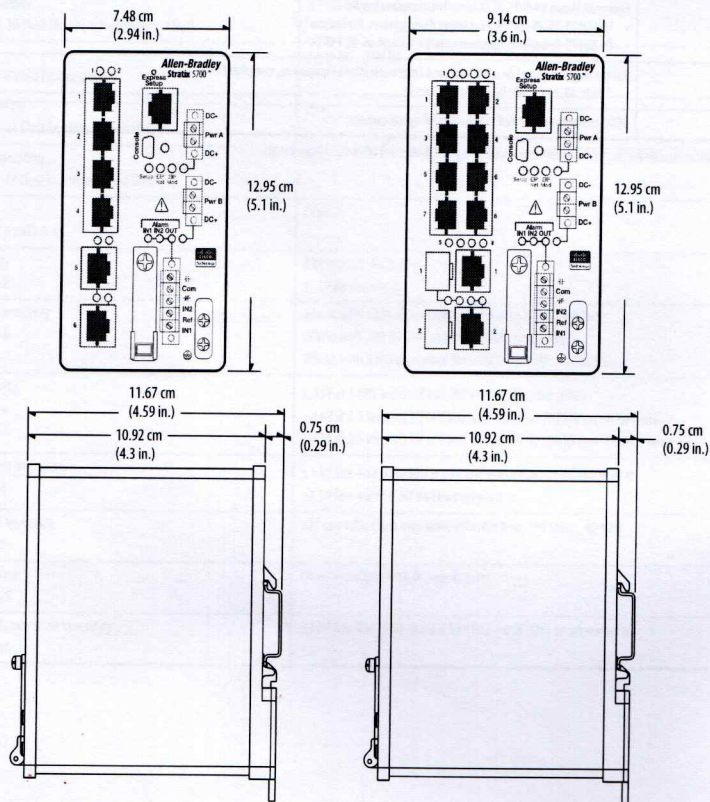
These diagrams are representative of the Stratix 5700™ switches. Actual faceplates vary depending on the catalog number.

### 6-port Switches

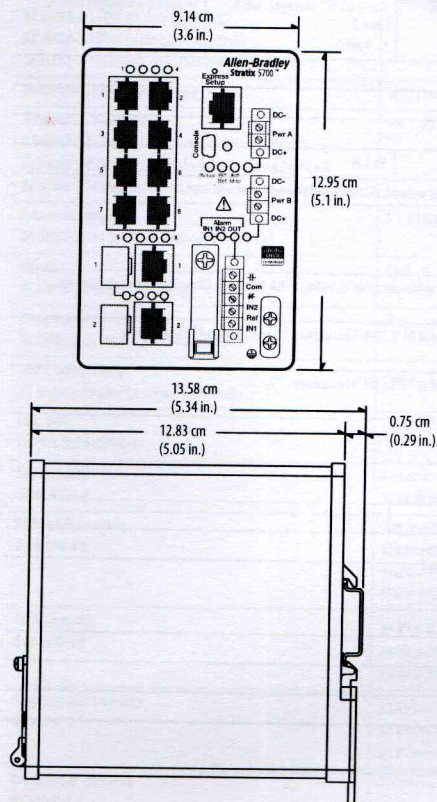
(1783-BMS06SL, 1783-BMS06SA, 1783-BMS06TL, 1783-BMS06TA,  
1783-BMS06SGL, 1783-BMS06SGA, 1783-BMS06TGL,  
1783-BMS06TGA)

### 10-port Switches

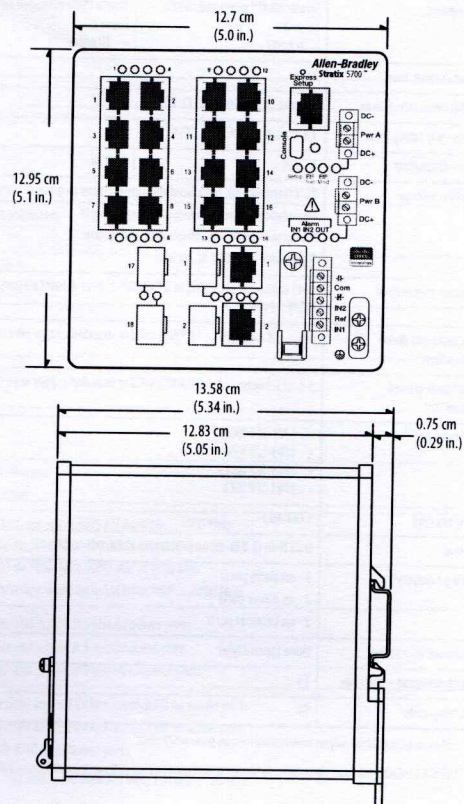
(1783-BMS10CL, 1783-BMS10CA, 1783-BMS10CGL, 1783-BMS10CGA)



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                                                                                     |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Description                    | Stratix 8000™ managed switch, Layer 2 <ul style="list-style-type: none"><li>• 6 ports</li></ul>                                                                                                                                                | Stratix 8000 managed switch, Layer 2 <ul style="list-style-type: none"><li>• 10 ports</li></ul> | Stratix 8300™ managed switch, Layer 3 <ul style="list-style-type: none"><li>• 6 ports</li></ul> | Stratix 8300 managed switch, Layer 3 <ul style="list-style-type: none"><li>• 10 ports</li></ul> |
| 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<br>No isolation between individual Ethernet ports<br>No isolation between console port and system<br>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 mm² (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 mm² (12...10 AWG) solid or stranded copper wire rated at 75 °C (167 °F) or greater                                                                                                                                                   |                                                                                                 |                                                                                                 |                                                                                                 |
| SFP modules <sup>(1)</sup>     | <ul style="list-style-type: none"><li>• 1783-SFP100FX</li><li>• 1783-SFP1GSX</li><li>• 1783-SFP100LX</li><li>• 1783-SFP1GLX</li></ul>                                                                                                          |                                                                                                 |                                                                                                 |                                                                                                 |
| Memory card                    | 1783-MCF                                                                                                                                                                                                                                       |                                                                                                 | 1783-RMCF                                                                                       |                                                                                                 |
| Torque                         | 0.23 N-m (2.0 lb-in) on power and alarm connectors                                                                                                                                                                                             |                                                                                                 |                                                                                                 |                                                                                                 |
| Wiring category <sup>(2)</sup> | 2 - on alarm ports<br>2 - on power ports<br>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<br>IEC 60068-2-1 (Test Ad, Operating Cold),<br>IEC 60068-2-2 (Test Bd, Operating Dry Heat),<br>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<br>IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold),<br>IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat),<br>IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock) | -40...85 °C (-40...185 °F)                                                                                                                                                                                          |
| Relative humidity<br>IEC 60068-2-30 (Test Db, Unpackaged Damp Heat)                                                                                                                                                  | 5...95% noncondensing                                                                                                                                                                                               |
| Vibration<br>IEC 60068-2-6 (Test Fc, Operating)                                                                                                                                                                      | 2 g @ 10...500 Hz                                                                                                                                                                                                   |
| Shock, operating<br>IEC 60068-2-27 (Test Ea, Unpackaged Shock)                                                                                                                                                       | 20 g                                                                                                                                                                                                                |
| Shock, nonoperating<br>IEC 60068-2-27 (Test Ea, Unpackaged Shock)                                                                                                                                                    | 30 g                                                                                                                                                                                                                |
| Emissions<br>CISPR11 (IEC 61000-6-4)                                                                                                                                                                                 | Class A                                                                                                                                                                                                             |
| ESD immunity<br>IEC 61000-4-2                                                                                                                                                                                        | 8 kV contact discharges<br>15 kV air discharges                                                                                                                                                                     |
| Radiated RF immunity<br>IEC 61000-4-3                                                                                                                                                                                | 20V/m with 1 kHz sine-wave 80% AM from 80...1000 MHz<br>10V/m with 200 Hz 50% Pulse 100% AM at 900 MHz<br>10V/m with 200 Hz 50% Pulse 100% AM at 1890 MHz<br>10V/m with 1 kHz sine-wave 80% AM from 1000...2700 MHz |
| EFT/B immunity<br>IEC 61000-4-4                                                                                                                                                                                      | ±4 kV at 2.5 kHz and ±2 kV at 5 kHz on power ports<br>±4 kV at 2.5 kHz and ±2 kV at 5 kHz on alarm ports<br>±4 kV at 2.5 kHz and ±2 kV at 5 kHz on Ethernet ports                                                   |
| Surge transient immunity<br>IEC 61000-4-5                                                                                                                                                                            | ±1 kV line-line (DM) and ±2 kV line-earth (CM) on power ports<br>±1 kV line-line (DM) and ±2 kV line-earth (CM) on alarm ports<br>±2 kV line-earth (CM) on Ethernet ports                                           |
| Conducted RF immunity<br>IEC 61000-4-6                                                                                                                                                                               | 10V rms with 1 kHz sine-wave 80% AM from 150 kHz...80 MHz                                                                                                                                                           |
| Magnetic field immunity<br>IEC 61000-4-8                                                                                                                                                                             | 30 A/m long duration and 300 A/m short duration at 50 and 60 Hz                                                                                                                                                     |
| Magnetic pulse immunity<br>IEC 61000-4-9                                                                                                                                                                             | —                                                                                                                                                                                                                   |
| Oscillatory surge withstand<br>IEEE C37.90.1                                                                                                                                                                         | 2.5 kV                                                                                                                                                                                                              |
| Voltage variation<br>IEC 61000-4-29                                                                                                                                                                                  | 10 ms interruption on DC supply ports                                                                                                                                                                               |

**Certifications - Stratix 8000 and Stratix 8300 Switches**

| Certifications (when product is marked) <sup>(1)</sup> | 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.<br>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"> <li>• EN 61326-1; Meas./Control/Lab., Industrial Requirements</li> <li>• EN 61000-6-2; Industrial Immunity</li> <li>• EN 61000-6-4; Industrial Emissions</li> <li>• EN 61131-2; Programmable Controllers (Clause 8, Zone A &amp; B)</li> </ul> |
| C-Tick                                                 | Australian Radiocommunications Act, compliant with: <ul style="list-style-type: none"> <li>• AS/NZS CISPR 11; Industrial Emissions</li> </ul>                                                                                                                                                                                               |
| Ex                                                     | European Union 94/9/EC ATEX Directive, compliant with: <ul style="list-style-type: none"> <li>• EN 60079-15; Potentially Explosive Atmospheres, Protection "n"</li> <li>• EN 60079-0; General Requirements II 3 G Ex nA nC IIC T4X Gc</li> </ul>                                                                                            |
| KC                                                     | Korean Certification of Broadcasting and Communications Equipment, compliant with: <ul style="list-style-type: none"> <li>• Framework Act on Telecommunications and Radio Waves Act</li> </ul>                                                                                                                                              |
| 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          |

**Technical Specifications - Stratix 8000 and Stratix 8300 Expansion Modules**

| Attribute         | 1783-MX08T                                                                                                                                                              | 1783-MX08F                           | 1783-MX04S                               | 1783-MX08S                               |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------|------------------------------------------|
| Description       | Expansion module<br>• 8 ports, copper                                                                                                                                   | Expansion module<br>• 8 ports, fiber | Expansion module<br>• 4 SFP ports, fiber | Expansion module<br>• 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<br>No isolation between individual Ethernet ports<br>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"> <li>• 1783-SFP100FX</li> <li>• 1783-SFP100LX</li> </ul> |            |
| Wiring category <sup>(1)</sup> | 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 µm multimode cable<br>4 db with 50/125 µm multimode cable |
| Connector type            | IEC 61754-20 LC connector                                                    |

## Environmental Specifications - Stratix 8000 and Stratix 8300 Expansion Modules

| Attribute                                                                                                                                                                                                            | 1783-MX08T                 | 1783-MX08F | 1783-MX04S, 1783-MX08S |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------|------------------------|
| Temperature, operating<br>IEC 60068-2-1 (Test Ad, Operating Cold),<br>IEC 60068-2-2 (Test Bd, Operating Dry Heat),<br>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<br>IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold),<br>IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat),<br>IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock) | -40...85 °C (-40...185 °F) |            |                        |
| Relative humidity<br>IEC 60068-2-30 (Test Db, Unpackaged Damp Heat)                                                                                                                                                  | 5...95% noncondensing      |            |                        |
| Vibration<br>IEC 60068-2-6 (Test Fc, Operating)                                                                                                                                                                      | 2 g @ 10...500 Hz          |            |                        |
| Shock, operating<br>IEC 60068-2-27 (Test Ea, Unpackaged Shock)                                                                                                                                                       | 20 g                       |            | 15 g                   |
| Shock, nonoperating<br>IEC 60068-2-27 (Test Ea, Unpackaged Shock)                                                                                                                                                    | 30 g                       |            |                        |

## Environmental Specifications - Stratix 8000 and Stratix 8300 Expansion Modules

| Attribute                                    | 1783-MX08T                                                                                                                                                                                                          | 1783-MX08F | 1783-MX04S, 1783-MX08S                                                                                                                                                                                             |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Emissions<br>CISPR11 (IEC 61000-6-4)         | Class A                                                                                                                                                                                                             |            |                                                                                                                                                                                                                    |
| ESD immunity<br>IEC 61000-4-2                | 8 kV contact discharges<br>15 kV air discharges                                                                                                                                                                     |            | 6 kV contact discharges<br>8 kV air discharges                                                                                                                                                                     |
| Radiated RF immunity<br>IEC 61000-4-3        | 20V/m with 1 kHz sine-wave 80% AM from 80...1000 MHz<br>10V/m with 200 Hz 50% Pulse 100% AM at 900 MHz<br>10V/m with 200 Hz 50% Pulse 100% AM at 1890 MHz<br>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<br>10V/m with 200 Hz 50% Pulse 100% AM at 900 MHz<br>10V/m with 200 Hz 50% Pulse 100% AM at 1890 MHz<br>3V/m with 1 kHz sine-wave 80% AM from 2000...2700 MHz |
| EFT/B immunity<br>IEC 61000-4-4              | ±4 kV at 2.5 kHz and ±2 kV at 5 kHz on Ethernet ports                                                                                                                                                               | —          |                                                                                                                                                                                                                    |
| Surge transient immunity<br>IEC 61000-4-5    | ±2 kV line-earth (CM) on Ethernet ports                                                                                                                                                                             | —          |                                                                                                                                                                                                                    |
| Conducted RF immunity<br>IEC 61000-4-6       | 10V rms with 1 kHz sine-wave<br>80% AM from 150 kHz...80 MHz                                                                                                                                                        | —          |                                                                                                                                                                                                                    |
| Magnetic field immunity<br>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<br>IEC 61000-4-9     | —                                                                                                                                                                                                                   |            | 300 A/m pulse                                                                                                                                                                                                      |
| Oscillatory surge withstand<br>IEEE C37.90.1 | 2.5 kV                                                                                                                                                                                                              | —          |                                                                                                                                                                                                                    |

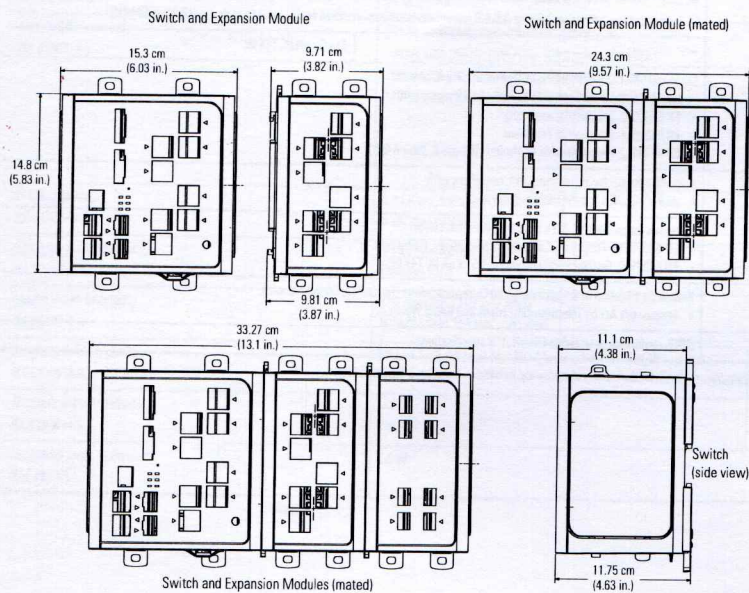
## Certifications - Stratix 8000 and Stratix 8300 Expansion Modules

| Certifications (when product is marked) <sup>(1)</sup> | 1783-MX08T, 1783-MX08F                                                                                                                                                                                                                                                 | 1783-MX04S, 1783-MX08S |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| c-UL-us                                                | UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E65584.<br>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 IIC T4X Gc   |
| CE                                                     | European Union 2004/108/EC EMC Directive, compliant with:<br>• EN 61326-1; Meas./Control/Lab., Industrial Requirements<br>• EN 61000-6-2; Industrial Immunity<br>• EN 61000-6-4; Industrial Emissions<br>• EN 61131-2; Programmable Controllers (Clause 8, Zone A & B) |                        |
| C-Tick                                                 | Australian Radiocommunications Act, compliant with:<br>• AS/NZS CISPR 11; Industrial Emissions                                                                                                                                                                         |                        |
| Ex                                                     | European Union 94/9/EC ATEX Directive, compliant with:<br>• EN 60079-15; Potentially Explosive Atmospheres, Protection "n"<br>• EN 60079-0; General Requirements II 3 G Ex nA IIC T4X Gc                                                                               |                        |
| KC                                                     | Korean Certification of Broadcasting and Communications Equipment, compliant with:<br>• 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"> <li>• 8 ports</li> <li>• 1 fiber SFP slot</li> </ul>                                                            | Stratix 6000 managed switch <ul style="list-style-type: none"> <li>• 4 ports</li> </ul> |
| 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<br>3 status indicators                                                                                                                                       | 8 port indicators<br>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<br>No isolation between individual network channels<br>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 <sup>2</sup> (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 <sup>2</sup> (12 AWG) solid or stranded copper wire rated at 75 °C (167 °F) or greater                                                                                   |                                                                                         |
| SFP modules <sup>(1)</sup>     | <ul style="list-style-type: none"> <li>• 1783-SFP16SX</li> <li>• 1783-SFP16LX</li> </ul>                                                                                        |                                                                                         |
| Torque                         | 1.36 N-m (12 lb-in) on DC power and functional ground                                                                                                                           |                                                                                         |
| Wiring category <sup>(2)</sup> | 2 - on DC power ports<br>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

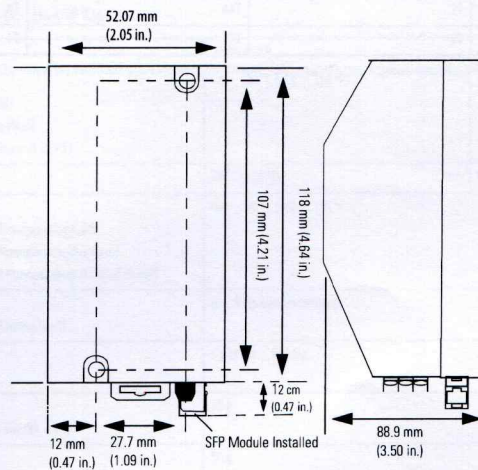
| Attribute                                                                                                                                                                                                            | 1783-EMS04T, 1783-EMS08T                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Temperature, operating<br>IEC 60068-2-1 (Test Ad, Operating Cold),<br>IEC 60068-2-2 (Test Bd, Operating Dry Heat),<br>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<br>IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold),<br>IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat),<br>IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock) | -40...85 °C (-40...185 °F)                                                                                                                                                                                         |
| Relative humidity<br>IEC 60068-2-30 (Test Db, Unpackaged Damp Heat)                                                                                                                                                  | 5...95% noncondensing                                                                                                                                                                                              |
| Vibration<br>IEC 60068-2-6 (Test Fc, Operating)                                                                                                                                                                      | 2 g @ 10...500 Hz                                                                                                                                                                                                  |
| Operating shock<br>IEC 60068-2-27 (Test Ea, Unpackaged Shock)                                                                                                                                                        | 15 g                                                                                                                                                                                                               |
| Nonoperating shock<br>IEC 60068-2-27 (Test Ea, Unpackaged Shock)                                                                                                                                                     | 30 g                                                                                                                                                                                                               |
| Emissions<br>CISPR11 (IEC 61000-6-4)                                                                                                                                                                                 | Class A                                                                                                                                                                                                            |
| ESD immunity<br>IEC 61000-4-2                                                                                                                                                                                        | 6 kV contact discharges<br>8 kV air discharges                                                                                                                                                                     |
| Radiated RF immunity<br>IEC 61000-4-3                                                                                                                                                                                | 10V/m with 1 kHz sine-wave 80% AM from 80...2000 MHz<br>10V/m with 200 Hz 50% Pulse 100% AM at 900 MHz<br>10V/m with 200 Hz 50% Pulse 100% AM at 1890 MHz<br>1V/m with 1 kHz sine-wave 80% AM from 2000...2700 MHz |
| EFT/B immunity<br>IEC 61000-4-4                                                                                                                                                                                      | ±2 kV at 5 kHz on power ports<br>±1 kV at 5 kHz on Ethernet ports                                                                                                                                                  |
| Surge transient immunity<br>IEC 61000-4-5                                                                                                                                                                            | ±1 kV line-line (DM) and ±2 kV line-earth (CM) on DC power ports<br>±2 kV line-earth (CM) on shielded Ethernet port                                                                                                |
| Conducted RF immunity<br>IEC 61000-4-6                                                                                                                                                                               | 10V rms with 1 kHz sine-wave 80% AM from 150 kHz...80 MHz                                                                                                                                                          |
| Magnetic field immunity<br>IEC 61000-4-8                                                                                                                                                                             | 30 A/m long duration and 300A/m short duration at 50 and 60 Hz                                                                                                                                                     |
| Voltage variation<br>IEC 61000-4-29                                                                                                                                                                                  | 10 ms interruption on DC supply ports                                                                                                                                                                              |

### Certifications - Stratix 6000 Switches

| Certifications (when product is marked) <sup>(1)</sup> | 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.<br>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"> <li>• EN 61326-1; Meas./Control/Lab., Industrial Requirements</li> <li>• EN 61000-6-2; Industrial Immunity</li> <li>• EN 61000-6-4; Industrial Emissions</li> <li>• EN 61131-2; Programmable Controllers (Clause 8, Zone A &amp; B)</li> </ul> |
| C-Tick                                                 | Australian Radiocommunications Act, compliant with: <ul style="list-style-type: none"> <li>• AS/NZS CISPR 11; Industrial Emissions</li> </ul>                                                                                                                                                                                               |
| Ex                                                     | European Union 94/9/EC ATEX Directive, compliant with: <ul style="list-style-type: none"> <li>• EN 60079-15; Potentially Explosive Atmospheres, Protection "n"</li> <li>• EN 60079-0; General Requirements II 3 G Ex nA nL IIC T4X</li> </ul>                                                                                               |
| KC                                                     | Korean Registration of Broadcasting and Communications Equipment, compliant with: <ul style="list-style-type: none"> <li>• Article 58-2 of Radio Waves Act, Clause 3</li> </ul>                                                                                                                                                             |
| 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<br>• 3 copper ports                                                                                                                                                             | EtherNet/IP tap<br>• 2 copper ports<br>• 1 fiber port | EtherNet/IP tap<br>• 1 copper port<br>• 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<br>Type tested at 1250V DC 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 <sup>2</sup> (22...12 AWG) or two 0.33...1.3 mm <sup>2</sup> (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 <sup>(1)</sup> | 1 - on power ports<br>2 - on communication ports                                                                                                                                                |                                                       |                                                       |
| Enclosure type rating          | None (open-style)                                                                                                                                                                               |                                                       |                                                       |
| North American temp code       | TS                                                                                                                                                                                              | T4A                                                   | T4                                                    |
| IEC temp code                  | TS                                                                                                                                                                                              | T4                                                    | T4                                                    |

(1) Use this Conductor Category information for planning conductor routing. Refer to Industrial Automation Wiring and Grounding Guidelines, publication 1770-1.1.

**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<br>Allow -1 dB at End of Life (EOL)     | -19 dBm into 62.5/125 $\mu$ m fiber, N/A = 0.275<br>-22.5 dBm into 50/125 $\mu$ m fiber, N/A = 0.20                                                                                                                                         |
| Receiver sensitivity, min                                                                        | -31.8 dBm                                                                                                                                                                                                                                   |
| Receiver sensitivity, max                                                                        | -14 dBm                                                                                                                                                                                                                                     |
| Fiber channel power budget at rated BER<br>(2 connected taps, either 1783-ETAP1F or 1783-ETAP2F) | 12.8 dB for 62.5/125 $\mu$ m multimode fiber<br>9.3 dB for 50/125 $\mu$ m multimode fiber                                                                                                                                                   |
| Fiber connections                                                                                | Glass<br>62.5/125 $\mu$ m and 50/125 $\mu$ m multimode fiber<br>Simplex or duplex<br>Jacket type and jacket diameter is dependent on connector selection<br>Graded Index (GI) fiber<br>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) <sup>(1)</sup>                                                                                                                                                                                                               |

(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<br>IEC 60068-2-1 (Test Ad, Operating Cold)<br>IEC 60068-2-2 (Test Bd, Operating Dry Heat)<br>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<br>IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold)<br>IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat)<br>IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock) | -40...85 °C (-40...185 °F)                     |                            |
| Relative humidity<br>IEC 60068-2-30 (Test Db, Unpackaged Damp Heat)                                                                                                                                                | 5...95% noncondensing                          |                            |
| Vibration<br>IEC 60068-2-6 (Test Fc, Operating)                                                                                                                                                                    | 5 g @ 10...500 Hz                              |                            |
| Shock, operating<br>IEC 60068-2-27 (Test Ea, Unpackaged Shock)                                                                                                                                                     | 30 g                                           |                            |
| Shock, nonoperating<br>IEC 60068-2-27 (Test Ea, Unpackaged Shock)                                                                                                                                                  | 50 g                                           |                            |
| Emissions<br>CISPR11 (IEC 61000-6-4)                                                                                                                                                                               | Class A                                        |                            |
| ESD immunity<br>IEC 61000-4-2                                                                                                                                                                                      | 6 kV contact discharges<br>8 kV air discharges |                            |

**Environmental Specifications - EtherNet/IP Taps**

| Attribute                                 | 1783-ETAP                                                                                                                                                                                                          | 1783-ETAP1E, 1783-ETAP2F |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Radiated RF immunity<br>IEC 61000-4-3     | 10V/m with 1 kHz sine-wave 80% AM from 80...2000 MHz<br>10V/m with 200 Hz 50% Pulse 100% AM at 900 MHz<br>10V/m with 200 Hz 50% Pulse 100% AM at 1890 MHz<br>3V/m with 1 kHz sine-wave 80% AM from 2000...2700 MHz |                          |
| EFT/B immunity<br>IEC 61000-4-4           | ±4 kV at 5 kHz on power ports<br>±3 kV at 5 kHz on communication ports                                                                                                                                             |                          |
| Surge transient immunity<br>IEC 61000-4-5 | ±1 kV line-line (DM) and ±2 kV line-earth (CM) on power ports<br>±2 kV line-earth (CM) on communication ports                                                                                                      |                          |
| Conducted RF immunity<br>IEC 61000-4-6    | 10V rms with 1 kHz sine-wave 80% AM from 150 kHz...80 MHz                                                                                                                                                          |                          |
| Voltage variation<br>IEC 61000-4-29       | 10 ms interruption on DC supply ports                                                                                                                                                                              |                          |

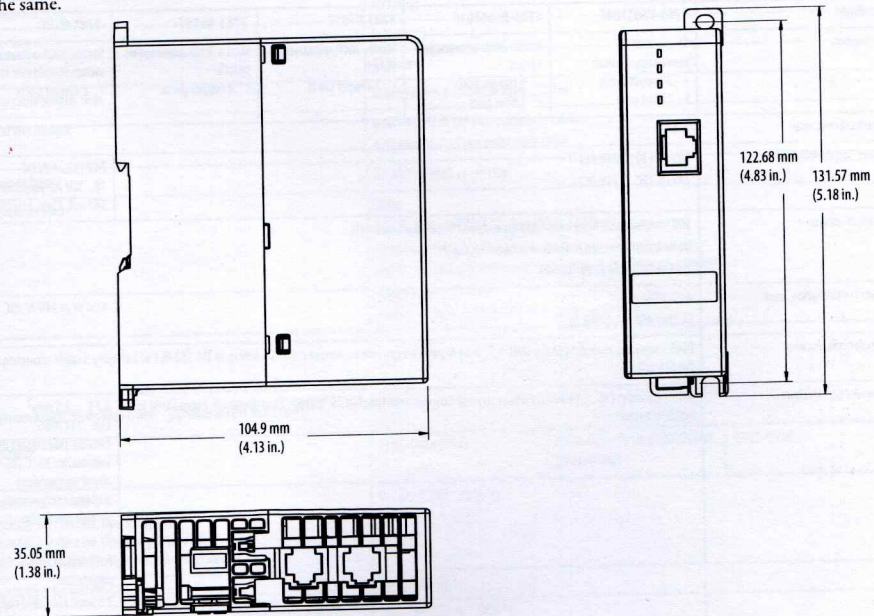
**Certifications - EtherNet/IP Taps**

| Certification <sup>(1)</sup> | 1783-ETAP                                                                                                                                                                                                                                                                | 1783-ETAP1E, 1783-ETAP2F                                                                                                                                                                    |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| c-UL-us                      | UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E65584.<br>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:<br>• EN 61326-1; Meas./Control/Lab., Industrial Requirements<br>• EN 61000-6-2; Industrial Immunity<br>• EN 61000-6-4; Industrial Emissions<br>• EN 61131-2; Programmable Controllers (Clause 8, Zone A and B) |                                                                                                                                                                                             |
| C-Tick                       | Australian Radiocommunications Act, compliant with:<br>AS/NZS CISPR 11; Industrial Emissions                                                                                                                                                                             |                                                                                                                                                                                             |
| Ex                           | European Union 94/9/EC ATEX Directive, compliant with:<br>• EN 60079-15; Potentially Explosive Atmospheres, Protection "n"<br>• EN 60079-0; General Requirements<br>• II 3 G Ex nA IICT 5 X                                                                              | European Union 94/9/EC ATEX Directive, compliant with:<br>• EN 60079-15; Potentially Explosive Atmospheres, Protection "n"<br>• EN 60079-0; General Requirements<br>• II 3 G Ex nA IICT 4 X |
| KC                           | Korean Registration of Broadcasting and Communications Equipment, compliant with:<br>• 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-US8T                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description                    | Stratix 2000™ unmanaged switch<br>• 3 copper ports<br>• 1 fiber port                                                                                      | Stratix 2000 unmanaged switch<br>• 6 copper ports<br>• 1 fiber port | Stratix 2000 unmanaged switch<br>• 5 copper ports | Stratix 2000 unmanaged switch<br>• 8 copper ports | Stratix 2000 unmanaged switch<br>• 8 copper ports                                                                                                                                                                                                                                                                                                                               |
| Inrush current, max            | 2.2 A                                                                                                                                                     |                                                                     |                                                   |                                                   |                                                                                                                                                                                                                                                                                                                                                                                 |
| Power supply voltage           | 20V AC (10...24V AC)<br>24V DC (10...35V DC)                                                                                                              |                                                                     |                                                   |                                                   | 24V (18...60V DC,<br>18...30V AC 50/60 Hz),<br>361 mA, Class 2/SELV                                                                                                                                                                                                                                                                                                             |
| Isolation voltage              | 30V (continuous), basic insulation type, power to network channels<br>No isolation between individual network channels<br>Type tested at 500V AC for 60 s |                                                                     |                                                   |                                                   |                                                                                                                                                                                                                                                                                                                                                                                 |
| Power consumption, max         | 4 W (6VA)<br>Current 400 mA @10V 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 mm² (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 mm²<br>(18...14 AWG)<br>twisted-pair copper wire<br>suitable for 30 °C (86 °F)<br>above surrounding<br>ambient temperature<br>outside the enclosure.<br><br>Functional Earth<br>connection:<br>2.5 mm² (14 AWG) copper<br>wire suitable for 86 °F (30<br>°C) above surrounding<br>ambient temperature<br>outside the enclosure,<br>with a suitable ring<br>terminal. |
| Torque, max recommended        | 0.8 N-m (7 lb-in) on power connectors                                                                                                                     |                                                                     |                                                   |                                                   | 1.82 N-m (16 lb-in) on<br>power /functional earth<br>connector                                                                                                                                                                                                                                                                                                                  |
| Wiring category <sup>(1)</sup> | 2 - on power ports<br>2 - on communication ports                                                                                                          |                                                                     |                                                   |                                                   | 1 - on power ports<br>2 - on communication<br>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 $\mu$ m multimode cable<br>4 db with 50/125 $\mu$ m multimode cable                                                                                                                                                      |
| Connector type            | IEC 61754-20 LC connector                                                                                                                                                                                                                   |
| Fiber connections         | Glass<br>62.5/125 $\mu$ m and 50/125 $\mu$ m multimode fiber<br>Simplex or duplex<br>Jacket type and jacket diameter is dependent on connector selection<br>Graded Index (GI) fiber<br>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-US8T |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------|
| Temperature, operating<br>IEC 60068-2-1 (Test Ad, Operating Cold),<br>IEC 60068-2-2 (Test Bd, Operating Dry Heat),<br>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<br>IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold)<br>IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat)<br>IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock) | -40...85 °C (-40...185 °F)                                                                                                                                                                                         |                                                                                                               |           |
| Relative humidity<br>IEC 60068-2-30 (Test Db, Unpackaged Damp Heat)                                                                                                                                                | 5...95% noncondensing                                                                                                                                                                                              |                                                                                                               |           |
| Vibration<br>IEC 60068-2-6 (Test Fc, Operating)                                                                                                                                                                    | 2 g @ 10...500 Hz                                                                                                                                                                                                  |                                                                                                               |           |
| Operating shock<br>IEC 60068-2-27 (Test Ea, Unpackaged Shock)                                                                                                                                                      | 15 g                                                                                                                                                                                                               |                                                                                                               |           |
| Nonoperating shock<br>IEC 60068-2-27 (Test Ea, Unpackaged Shock)                                                                                                                                                   | 30 g                                                                                                                                                                                                               |                                                                                                               |           |
| Emissions<br>CISPR11 (IEC 61000-6-4)                                                                                                                                                                               | Class A                                                                                                                                                                                                            |                                                                                                               |           |
| ESD immunity<br>IEC 61000-4-2                                                                                                                                                                                      | 4 kV contact discharges<br>8 kV air discharges                                                                                                                                                                     | 6 kV contact discharges<br>8 kV air discharges                                                                |           |
| Radiated RF immunity<br>IEC 61000-4-3                                                                                                                                                                              | 10V/m with 1 kHz sine-wave 80% AM from 80...2000 MHz<br>10V/m with 200 Hz 50% Pulse 100% AM at 900 MHz<br>10V/m with 200 Hz 50% Pulse 100% AM at 1890 MHz<br>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<br>3V/m with 1 kHz sine-wave 80% AM from 2000...2700 MHz |           |

## Environmental Specifications - Stratix 2000 Switches

| Attribute                                 | 1783-US06T01F                                                                                                   | 1783-US03T01F, 1783-US05T, 1783-US08T | 1783-US8T                                                                                                       |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| EFT/B immunity<br>IEC 61000-4-4           | ±2 kV at 5 kHz on power ports<br>±2 kV at 5 kHz on communication ports                                          |                                       | ±4 kV at 5 kHz on power ports<br>±3 kV at 5 kHz on communication ports                                          |
| Surge transient immunity<br>IEC 61000-4-5 | ±1 kV line-line (DM) and ±2 kV line-earth (CM) on DC power ports<br>±2 kV line-earth (CM) on communication port |                                       | ±2 kV line-line (DM) and ±4 kV line-earth (CM) on DC power ports<br>±2 kV line-earth (CM) on communication port |
| Conducted RF immunity<br>IEC 61000-4-6    | 10V rms with 1 kHz sine-wave 80% AM from 150 kHz... 80 MHz                                                      |                                       |                                                                                                                 |
| Magnetic field immunity<br>IEC 61000-4-8  | —                                                                                                               |                                       | 30 A/m long duration and 300 A/m short duration at 50 Hz                                                        |
| Magnetic pulse immunity<br>IEC 61000-4-9  | —                                                                                                               |                                       | 30 A/m pulse                                                                                                    |

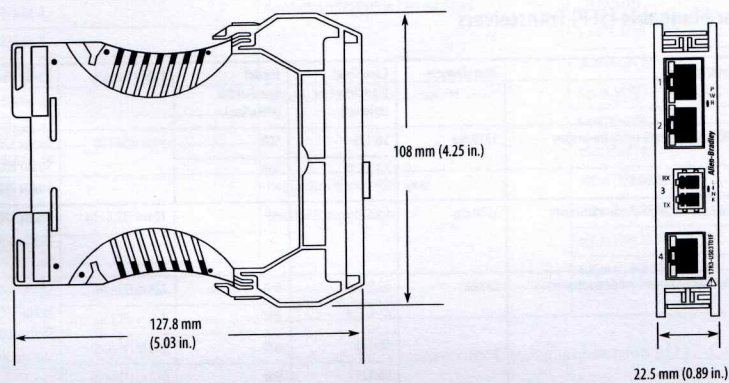
## Certifications - Stratix 2000 Switches

| Certifications (when product is marked) <sup>(1)</sup> | 1783-US03T01F, 1783-US06T01F, 1783-US05T, 1783-US08T                                                                                                                                                                                                                   | 1783-US8T |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| c-UL-us                                                | UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E65584.<br>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:<br>• EN 61326-1; Meas./Control/Lab., Industrial Requirements<br>• EN 61000-6-2; Industrial Immunity<br>• EN 61000-6-4; Industrial Emissions<br>• EN 61131-2; Programmable Controllers (Clause 8, Zone A & B) |           |
| C-Tick                                                 | Australian Radiocommunications Act, compliant with:<br>• AS/NZS CISPR 11; Industrial Emissions                                                                                                                                                                         |           |
| Ex                                                     | European Union 94/9/EC ATEX Directive, compliant with:<br>• EN 60079-15; Potentially Explosive Atmospheres, Protection "n"<br>• EN 60079-0; General Requirements II 3 G Ex nA IIC TSX Gc                                                                               |           |
| KC                                                     | Korean Registration of Broadcasting and Communications Equipment, compliant with:<br>• Article 58-2 of Radio Waves Act, Clause 3                                                                                                                                       |           |

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

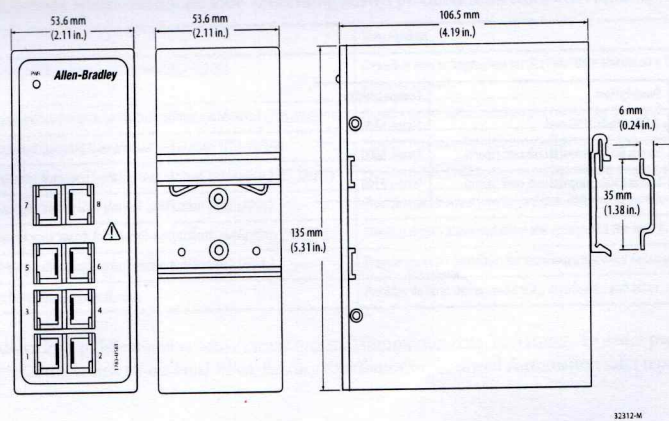
## Dimensions - Stratix 2000 Switches

### 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-US8T Switch Dimensions



## Accessories

### Small Form-factor Pluggable (SFP) Transceivers

| Cat. No.      | Description                             | Wavelength | Core Size/<br>Cladding Size<br>(micron) | Modal<br>Bandwidth<br>(MHz/km) | Cable Length     | Compatibility                                                |
|---------------|-----------------------------------------|------------|-----------------------------------------|--------------------------------|------------------|--------------------------------------------------------------|
| 1783-SFP100FX | 100 Base-FX multi-mode transceiver      | 1310 nm    | 50/125                                  | 500                            | 2 km (6562 ft)   | Stratix 5700<br>Stratix 8000<br>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<br>Stratix 8000<br>Stratix 8300                 |
| 1783-SFP1GSX  | 1000 Base-SX multi-mode transceiver     | 850 nm     | 62.5/125                                | 160                            | 220 m (722 ft)   | Stratix 6000                                                 |
|               |                                         |            | 62.5/125                                | 200                            | 275 m (902 ft)   | Stratix 5700                                                 |
|               |                                         |            | 50/125                                  | 400                            | 500 m (1640 ft)  | Stratix 8000                                                 |
|               |                                         |            | 50/125                                  | 500                            | 550 m (1804 ft)  | Stratix 8300                                                 |
| 1783-SFP1GLX  | 1000 Base-LX/LH single-mode transceiver | 1310 nm    | G.652                                   | —                              | 10 km (32.81 ft) | Stratix 6000<br>Stratix 5700<br>Stratix 8000<br>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 <a href="#">ENET-WP001</a>                      | Describes how to implement services and data objects on a TCP/UDP/IP based Ethernet network. |
| Stratix 5700 Ethernet Managed Switch Installation Instructions, publication <a href="#">1783-IN002</a>   | Provides details about installing and configuring the switch.                                |
| Stratix 5700 Ethernet Managed Switches User Manual, publication <a href="#">1783-UM004</a>               | Provides detailed information on configuring and managing the switches.                      |
| Stratix 8000 and 8300 Ethernet Managed Switches User Manual, publication <a href="#">1783-UM003</a>      | Provides detailed information on configuring and managing the switches.                      |
| Stratix 6000 Ethernet Managed Switch User Manual, publication <a href="#">1783-UM001</a>                 | Provides details about how to configure and use the switch.                                  |
| Stratix 2000 Ethernet Unmanaged Switch Installation Instructions, publication <a href="#">1783-IN001</a> | Provides details about installing and configuring the switch.                                |
| Industrial Automation Wiring and Grounding Guidelines, publication <a href="#">1770-4.1</a>              | Provides general guidelines for installing a Rockwell Automation® industrial system.         |
| Product Certifications website, <a href="http://www.ab.com">http://www.ab.com</a>                        | 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 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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## Corrected Anomalies

These anomalies have been corrected with firmware revision 2.003.

| Corrected Anomaly                                                          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Connecting to a device with a rapid response time may result in a timeout. | <p>When connecting to a device with a more rapid response time (for example, a computer or a 1768-EN2T module), the 1768-ENBT module's attempt to open the TCP connection may time out.</p> <p>The timeout occurs because the faster device has sent a reply to the 1768-ENBT module before the 1768-ENBT module socket is fully open and the module is unprepared to receive the reply. The 1768-ENBT module misses the reply and the TCP connection times out.</p> <p>This firmware revision corrects this issue by preparing the 1768-ENBT module to receive the reply earlier.</p> <p>Lgx00079880</p> |
| Extensive access of the module's web pages affects functionality.          | <p>The 1768-ENBT module asserts when several users access the module's web pages at a given time.</p> <p>This firmware revision corrects this anomaly by making more memory available for the web pages to function properly when accessed by several users.</p> <p>Lgx00080499</p>                                                                                                                                                                                                                                                                                                                       |
| Use of a 000.000.000 subnet mask results in a network error.               | <p>When the 1768-ENBT module's subnet mask is set to 000.000.000, the module is not recognized on the network.</p> <p>This firmware revision corrects this issue by using a different IP mask verification algorithm.</p> <p>Lgx00078991</p>                                                                                                                                                                                                                                                                                                                                                              |
| Specifying a Host Name results in missing profile information.             | <p>If the 1768-ENBT module is configured to use a Host Name rather than an IP Address, other module properties do not display properly.</p> <p>When a Host Name is used, the Module Info, Port Configuration, and Port Diagnostics tabs of the Module Properties dialog do not display module information.</p> <p>Lgx00078678</p>                                                                                                                                                                                                                                                                         |

## Known Anomalies

No known anomalies have been identified with this revision.

## Additional Resources

These documents contain additional information related to the 1768-ENBT module.

| Resource                                                                                                                  | Description                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| 1768-ENBT CompactLogix EtherNet/IP Communication Module Installation Instructions, publication <a href="#">1768-IN002</a> | Provides details about module installation and troubleshooting, as well as module technical specifications.                        |
| EtherNet/IP Modules in Logix5000 Control Systems User Manual, publication <a href="#">ENET-UM001</a>                      | Provides details about how to assemble and mount the controller, how to upgrade firmware, and controller technical specifications. |

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

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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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