

Stratix 5800 Ethernet Managed Switches and Expansion Modules

Cat. No.	Total Ports	RJ45 Ports ⁽¹⁾	PoE/PoE+ Ports ⁽²⁾	SFP Slots	Modular	Firmware Type	Advanced Feature Support
Switches							
1783-MMS10B	10	8 GE	—	2 GE	No	Layer 2	No
1783-MMS10BE	10	—	8 GE	2 GE	No	Layer 2	No
1783-MMS10	10	8 GE	—	2 GE	Yes	Layer 2	No
1783-MMS10A	10	8 GE	—	2 GE	Yes	Layer 2	Yes
1783-MMS10E	10	—	8 GE	2 GE	Yes	Layer 2	No
1783-MMS10EA	10	—	8 GE	2 GE	Yes	Layer 2	Yes
1783-MMS10R	10	8 GE	—	2 GE	Yes	Layer 3	No
1783-MMS10AR		8 GE	—	2 GE	Yes	Layer 3	Yes
1783-MMS10ER	10	—	8 GE	2 GE	Yes	Layer 3	No
1783-MMS10EAR	10	—	8 GE	2 GE	Yes	Layer 3	Yes
Expansion Modules							
1783-MMX8T	8	8 GE	—	—	—	—	No
1783-MMX8TA	8	8 GE	—	—	—	—	Yes
1783-MMX8E	8	—	8 GE	—	—	—	No
1783-MMX8EA	8	—	8 GE	—	—	—	Yes
1783-MMX8S	8	—	—	8 GE	—	—	No
1783-MMX8SA	8	—	—	8 GE	—	—	Yes
1783-MMX6T2S	8	6 GE	—	2 GE	—	—	No
1783-MMX16T	16	16 GE	—	—	—	—	No
1783-MMX16E	16	—	16 GE	—	—	—	No
1783-MMX14T2S	16	14 GE	—	2 GE	—	—	No

(1) GE = Gigabit Ethernet

(2) There is a power budget of 360 W shared across PoE/PoE+ ports.

These restrictions apply to Stratix 5800 expansion modules:

- Only one expansion module can be mated to one modular switch.
- Expansion modules with PoE ports are supported only on modular switches with PoE ports.
- Expansion modules with advanced feature support are supported only on modular switches with advanced feature support.

Table 29 - Stratix 5800 Switches and Expansion Module Compatibility

Cat. No.	1783-MMX8T	1783-MMX8TA	1783-MMX8E	1783-MMX8EA	1783-MMX8S	1783-MMX8SA	1783-MMX6T2S	1783-MMX16T	1783-MMX16E	1783-MMX14T2S
1783-MMS10B	No expansion module support									
1783-MMS10BE	No expansion module support									
1783-MMS10	Supported	Not Supported	Not Supported	Not Supported	Supported	Not Supported	Supported	Supported	Not Supported	Supported
1783-MMS10A	Supported	Supported	Not Supported	Not Supported	Supported	Supported	Supported	Supported	Not Supported	Supported
1783-MMS10E	Supported	Not Supported	Supported	Not Supported	Supported	Not Supported	Supported	Supported	Supported	Supported
1783-MMS10EA	Supported	Supported	Supported	Supported	Supported	Supported	Supported	Supported	Supported	Supported
1783-MMS10R	Supported	Not Supported	Not Supported	Not Supported	Supported	Not Supported	Supported	Supported	Not Supported	Supported
1783-MMS10AR	Supported	Supported	Not Supported	Not Supported	Supported	Supported	Supported	Supported	Not Supported	Supported
1783-MMS10ER	Supported	Not Supported	Supported	Not Supported	Supported	Not Supported	Supported	Supported	Supported	Supported
1783-MMS10EAR	Supported	Supported	Supported	Supported	Supported	Supported	Supported	Supported	Supported	Supported

Table 30 - Technical Specifications - Stratix 5800 Expansion Modules

Attribute	1783-MMX8T	1783-MMX8TA	1783-MMX8E	1783-MMX8EA	1783-MMX8S	1783-MMX8SA	1783-MMX6T2S	1783-MMX16E	1783-MMX16T	1783-MMX14T2S
Power consumption	6 W	12 W	6 W @ 24 VDC Max PoE power @ 50V: 240 W	20 W @ 24 VDC Max PoE power @ 50V: 240 W	19 W	27 W	9 W	12 W @ 24 VDC Max PoE power @ 50V: 240 W	15 W	16 W
Power dissipation	6 W	12 W	14 W	20 W	19 W	27 W	9 W	21 W	15 W	16 W

Table 31 - Technical Specifications - Stratix 5800 Switches

Attribute	1783-MMS10BE	1783-MMS10E, 1783-MMS10ER	1783-MMS10EA 1783-MMS10EAR	1783-MMS10 1783-MMS10R	1783-MMS10A, 1783-MMS10AR	1783-MMS10B
Alarm relay	30V DC, 1 A or 48V DC, 0.5 A					
Power input, max	12...54V DC, 5.5 A	12...54V DC, 10.6 A	12...54V DC, 10.7 A	12...48V DC, 4.0 A	12...54V DC, 6.4A	12...48V DC, 2.2 A
PoE input power	44...54V DC for PoE 50...54V DC for PoE+ or a combination of PoE and PoE+			—		
Power consumption	23 W @ 24 DC Max PoE power @ 50V: 240 W	23 W @ 24 DC Max PoE power @ 50V: 240 W	36 W @ 24 VDC Max PoE power @ 50V: 240 W	23 W	36 W	23 W
Power dissipation	32 W	32 W	47 W	23 W	36 W	23 W
Wire size, 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					
Wire size, DC power connections, max	0.5...0.8 mm ² (20...18 AWG) solid or stranded, UL/CSA-rated style 1007 or 1569 twisted-pair copper appliance wiring material (AWM) wire, such as Belden part number 9318), 6.3 mm (0.25 in.) ± 0.5 mm (0.02 in.) strip length					
Wire size, ground connection, max	4.0 mm ² (12 AWG) minimum, stranded copper wire					
Wire size, alarm connections, max	0.5... 0.8 mm ² (20...18 AWG) solid or stranded, UL/CSA-rated style 1007 or 1569 twisted-pair copper appliance wiring material (AWM) wire, such as Belden part number 9318), 6.3 mm (0.25 in.) ± 0.5 mm (0.02 in.) strip length					
Screw torque, power terminals	0.565 N•m (5.0 in•lb)					
Screw torque, power terminal captive screw	0.226 N•m (2.0 in•lb)					
Screw torque, ground connection	0.51 N•m (4.5 in•lb) max					
Screw torque, alarm connection	0.23 N•m (2.0 in•lb) max					
Wiring category	3 - on console and alarm ports 2 - on DC power ports 2 - on Ethernet ports					
Pilot duty rating	Alarm not rated					
Enclosure type rating	None (open-style)					
North America temp code	T4					
ATEX temp code	T4					
Memory card	1784-SDHC8					
SFP modules ⁽¹⁾	1783-SFP100FX 1783-SFP100LX 1783-SFP100EXC 1783-SFP100ZXC 1783-SFP1G SX 1783-SFP1GLX 1783-SFP1GEXE 1783-SFP1GZX 1783-SFP1GTE					

(1) SFP modules are supported only on switches with combo ports or SFP slots. For SFP specifications, see [page 82](#).

Table 32 - Environmental Specifications - Stratix 5800 Switches

Attribute	1783-MMS10BE, 1783-MMS10E	1783-MMS10B, 1783-MMS10, 1783-MMS10A, 1783-MMS10AR, 1783-MMS10EA, 1783-MMS10R, 1783-MMS10ER, 1783-MMS10EAR
Temperature, operating IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock):	Series A: -40 °C < Ta < +55 °C (-40 °F < Ta < +131 °F) Series B: -40 °C < Ta < +60 °C (-40 °F < Ta < +140 °F)	-40 °C < Ta < +60 °C (-40 °F < Ta < +140 °F)
Temperature, surrounding air, max	Series A: 55 °C (131 °F) Series B: 60 °C (140 °F)	60 °C (140 °F)
Temperature, nonoperating IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold), IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat), IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock)	-40...+85 °C (-40...+185 °F)	
Relative humidity IEC 60068-2-30 (Test Db, Unpackaged Damp Heat)	5...95% noncondensing	
Vibration IEC 60068-2-6 (Test Fc, Operating)	2 g @ 10...500 Hz	
Shock, operating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	15 g	
Shock, nonoperating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	30 g	
Emissions	IEC 61000-6-4	
ESD immunity IEC 61000-4-2	6 kV contact discharges 8 kV air discharges	
Radiated RF immunity IEC 61000-4-3	10V/m with 1 kHz sine-wave 80% AM from 80...2000 MHz 10V/m with 200 Hz 50% Pulse 100% AM at 900 MHz 10V/m with 200 Hz 50% Pulse 100% AM at 1890 MHz 3V/m with 1 kHz sine-wave 80% AM from 2000...2700 MHz	
EFT/B immunity IEC 61000-4-4	±4 kV at 5 kHz on power ports ±4 kV at 100 kHz on Alarm ports ±2 kV at 5 kHz on Ethernet ports	
Surge transient immunity IEC 61000-4-5	±1 kV line-line(DM) and ±2 kV line-earth(CM) on power ports no signal ports - omit from publication no shielded ports - omit from publication ±2 kV line-earth(CM) on Ethernet ports	
Conducted RF immunity IEC 61000-4-6	10V rms with 1 kHz sine-wave 80% AM from 150 kHz...80 MHz	
Environmental rating	IP30	
Electric Power Stations Communications Networking EEE 1613	EEE 1613	
Electric Substations Communications Networking IEC 61850-3	IEC 61850-3 ⁽¹⁾	

(1) The switch only meets the requirements of IEC 61850-3 when powered by a redundant power supply configuration.