CE Mark Declaration of Conformance for EMI and Safety (EEC)

This is to certify that this product complies with ISO/IEC Guide 22 and EN45014. It conforms to the following EMC specifications:

EN55022(1988)/CISPR-22(1985)	Class A
EN60555-2(1995)	Class A
EN60555-3	
IEC1000-4-2(1995)	4kV CD, 8kV AD
IEC1000-4-3(1995)	3V/m
IEC1000-4-4(1995)	1kV - (power line), 0.5kV - (signal line)
IEC 1000-4-6(1995)	3Vrms

This product complies with the requirements of the Low Voltage Directive 73/23/EEC and the EMC Directive 89/336/EEC.

VCCI Class A Compliance (Japan)

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Warranty

Accton warrants to the original owner that the product delivered in this package will be free from defects in material and workmanship for a period of three (3) years from the date of purchase from Accton or it's Authorized reseller. For the warranty to apply, you must register your purchase by returning the registration card indicating the date of purchase and including proof of purchase. There will be a minimal charge to replace consumable components, such as fuses, power transformers, and mechanical cooling devices. The warranty does not cover the product if it is damaged in the process of being installed. Accton recommends that you have the company from whom you purchased this product install it.

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EM4582-SX-SC
E0699-R01
150079-102

Accton

EM4582-SX-SC Module
User's Guide

The EM4582-SX-SC Slide-in Module

The EM4582-SX-SC slide-in module is designed for use in various Accton switch models. At present, suitable units include:

- CheetahSwitch Workgroup-3514F (ES3514F)
- CheetahSwitch Workgroup-3526F (ES3526F)
- CheetahSwitch Workgroup-3526G (ES3526G)

Contact your distributor for advice on newly released switches which may be designed for use with these modules.

Caution: Do not install this module in any other units.

The EM4582-SX-SC includes 1 1000BASE-SX (SC-Type) port which can be used for a high-speed backbone or server connection. Detailed information on configuring this module and advice about Gigabit Ethernet configuration rules can be found in the switch's user guide.

Safety Warning

Before installing or removing the EM4582-SX-SC, first disconnect the switch from the main power supply. For full safety instructions, please refer to the user guide that accompanies the switch.

Warning: *Optical Safety for Fiber Optic Modules*

CLASS I LASER DEVICE

When using a fiber optic media expansion module, never look at the transmit laser while it is powered on. Also, never look directly at the fiber TX port and fiber cable ends when they are powered on.

Avertissment: *Ports pour fibres optiques - sécurité sur le plan optique*

DISPOSITIF LASER DE CLASSE I

Ne regardez jamais le laser tant qu'il est sous tension. Ne regardez jamais directement le port TX (Transmission) à fibres optiques et les embouts de câbles à fibres optiques tant qu'ils sont sous tension.

Warnhinweis: *Faseroptikanschlüsse - Optische Sicherheit*

Niemals ein Übertragungslaser betrachten, während dieses eingeschaltet ist. Niemals direkt auf den Faser-TX-Anschluß und auf die Faserkabelenden schauen, während diese eingeschaltet sind.

Handling the Module

Caution: The EM4582-SX-SC can easily be damaged by electrostatic discharge.

To prevent electrostatic damage, observe the following guidelines:

- Do not remove the EM4582-SX-SC from its packaging until you are ready to install it.
- Do not touch any of the module's pins, connectors or components.
- Hold the module only by its edges or front panel.
- Wear an anti-static wristband connected to a suitable earth ground whenever handling the module.
- Store or transport these modules only in appropriate anti-static packaging.

Installing the EM4582-SX-SC

1. Ensure that the switch is disconnected from the main power supply, and you are wearing an anti-static wristband connected to a suitable earth ground.
2. Place the unit on a flat surface. Using a flathead screwdriver, remove the screws from the cover plate of an empty slot on the rear panel of the switch.
3. Keep the cover plate in a safe place. If you remove the module, replace the cover plate to prevent dust and debris from entering the unit and to maintain proper air flow.
4. Holding the module with the text on the front panel upright, slide it into the unit, ensuring that the edge connector is fully engaged. Be sure the front panel of the module is flush against the switch, and then attach it to the unit with the retainer screws attached to the face plate.

Making Fiber Optic Connections

1. Remove the cover from the fiber connector on the module. Keep it in a safe place, and place it back on the connector if you unplug the fiber cable from the module.
2. Plug the fiber connector on the cable into the fiber optic socket on the module.
3. Connect the other end of the cable to any device that has a standard 1000BASE-SX Gigabit Ethernet fiber interface. Maximum length for Gigabit cable is listed below.

Fiber Size	Fiber Bandwidth	Maximum Length
62.5/125 micron	160 MHz/km	2-220 m (7-722 ft)
	200 MHz/km	2-275 m (7-902 ft)
50/125 micron	400 MHz/km	2-500 m (7-1641 ft)
	500 MHz/km	2-550 m (7-1805 ft)

Note: This module operates at 1Gbps, and supports auto-negotiation for duplex mode (half duplex or full duplex) and flow control.

Putting the Switch Online

1. Power up the switch.
2. Check the LED indicators on the switch to ensure that the module is operating correctly. Refer to the switch's user guide for a description of the LED indications.

Troubleshooting

If you experience any problems with the module, check the following items before contacting your distributor:

- Ensure the switch with the slide-in module is powered up.
- Ensure that the device attached to the module is powered up and operating correctly.
- Ensure that the module is properly seated in the slot.
- Verify that the port is configured to match the communication mode of the attached device (1Gbps and half/full duplex mode).
- Check all connectors on both ends of the cables to be sure they are properly engaged. When inserting fiber cable into an SC-type port, be sure the plug clicks into place to ensure that it is properly seated.
- If you are using an SC-ST converter, try switching the TX and RX connections.
- Clean the cable plugs by wiping them gently with a clean tissue or cotton ball moistened with a little ethanol. Dirty fiber terminators on the fiber optic cables will impair the quality of the light transmitted through the cable.

Specifications

Ports	1 1000BASE-SX, SC type
Communication Mode	Half duplex, full duplex, auto-negotiation
Cable Type	50/125µm, 62.5/125µm MMF
Switching Method	Store-and-forward
Filtering/Forwarding	Full line speed
Queue Buffer	2 Mbytes
Power Compumption	2.4W maximum
Temperature	0-50°C (32-122°F) Std. Opr. -40-70°C (-40-158°F) Storage
Humidity	5% to 95% (Non-condensing)
Standards	IEEE 802.3z ISO/IEC 8802-3
Certification	CE Mark
Emissions	FCC Class A, VCCI Class A, CISPR Class A
Immunity	IEC 1000-4-2/3/4/6

EMI Certification

FCC Class A (USA)
This equipment has been tested with a Class A computing device and has been found to comply with part 15 of FCC Rules. Operation in a residential area may cause unacceptable interference to radio and TV receptions requiring the operator to take whatever steps are necessary to correct the interference.

Class A (Canada Department of Communications)
This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of the Department of Communications.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe A prescrites dans la norme sur le matériel brouilleur: "Appareils Numérques", NMB-003 édictée par le ministère des Communications.