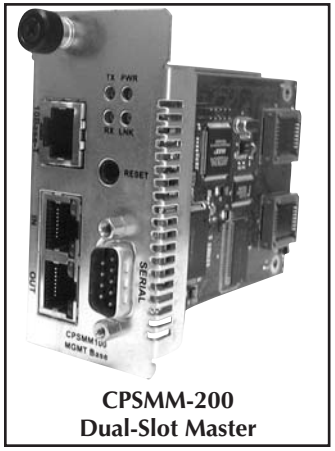
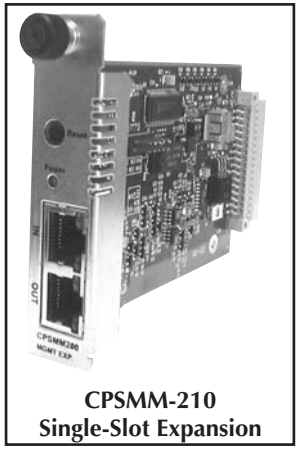
User's Guide

CPSMM-200 - Dual-Slot *Master Management Module*

CPSMM-210 - Single-Slot *Expansion Management Module*



CPSMM-200
Dual-Slot Master



CPSMM-210
Single-Slot Expansion

Transition Networks **CPSMM-200 Dual-Slot Master Management Module** enables network management of a single *PointSystem*™ chassis (CPSMC0800-100, CPSMC13xx-100, CPSMC18xx-xxx, and CPSMC19xx-100) and any installed media converter slide-in-modules.

The CPSMM-200 includes Transition Networks **CPSMM100 Firmware** embedded in the module, which can be accessed via the DB-9 serial port or the 10Base-T RJ-45 Ethernet port.

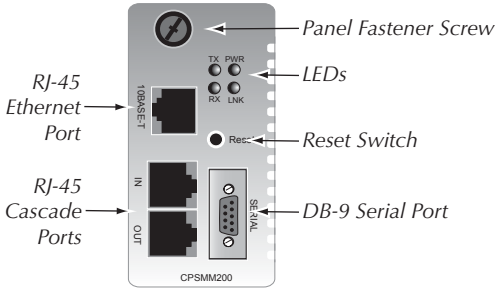
In addition, the CPSMM-200 has two RJ-45 ports ("in" and "out") to accommodate stacking multiple *PointSystem*™ chassis. Multiple chassis can be "cascaded" in this manner with a **CPSMM-210 Single-Slot Expansion Management Module** installed in each subsequent chassis in the stack.

Installation 4
Network Management 6
Operation 7
Technical Specifications 9
Troubleshooting 10
Compliance Information 12

CPSMM-200 Dual-Slot Master Management Module

The figure below illustrates the components of the CPSMM-200 management module:

- A **panel fastener screw** that secures the management module to the *Pointsystem™* chassis.
- **PWR** (power), **LNK** (link), **RX** (receive) and **TX** (transmit) LED indicators.
- A **reset switch**, which resets ONLY the CPSMM-200 management module (not the chassis in which it is installed).
- A 10Base-T **RJ-45 Ethernet port**, through which the management module communicates, using the Ethernet network, with a remote Network management Station (NMS) or with a Telnet connection
- A **DB-9 serial port**, through which the management module communicates with the command-line interface.
- Two (2) **RJ-45 cascade ports**, through which multiple *Pointsystem™* chassis are connected (see page 4).

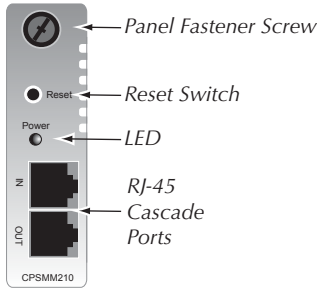


CPSMM-200 dual-slot master management module

CPSMM-210 Single-Slot Expansion Management Module

The figure below illustrates the components of the CPSMM-210 expansion management module:

- A **panel fastener screw** that secures the management module to the *Pointsystem™* chassis.
- A **POWER** LED indicator.
- A **reset switch**, which resets ONLY the CPSMM-210 management module (not the chassis in which it is installed).
- Two (2) **RJ-45 cascade ports**, through which multiple *Pointsystem™* chassis are connected (see page 4).



CPSMM-210 single-slot expansion management module

Application CD

The enclosed application CD contains:

1. **CPSMM100 Firmware**, which includes:
   - a Command-Line Interface (CLI),
   - a Telnet server,
   - a Web browser, and
   - an SNMP Agent.
2. ***FocalPoint™* 2.0 Management Application**, which can be used to monitor and control the *PointSystem™* chassis from a remote location.
3. A **User's Guide**, which describes in detail how to use both the CPSMM100 Firmware and the *FocalPoint™ 2.0* management application.

Installation

Single Chassis Option

The CPSMM-200 management module is designed be installed into a Transition Networks PointSystem™ chassis to enables network management of any media converter slide-in-modules installed in the chassis. The following chassis are available:

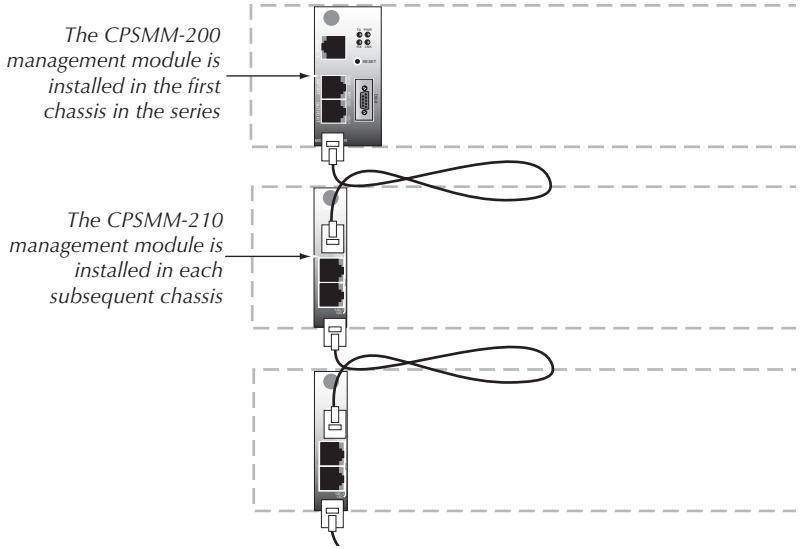
- CPSMC0800-100, 8-slot PointSystem™ chassis
- CPSMC13xx-100, 13-slot PointSystem™ chassis
- CPSMC18xx-xxx, 18-slot PointSystem™ chassis
- CPSMC19xx-100, 19-slot PointSystem™ chassis

The CPSMM-200 management module is installed in one of the Transition Network *PointSystem™* chassis. (Configuration for the 13-slot, 18-slot, or 19-slot chassis is shown.)

Cascade Option

The management module cascade option allows the network administrator to connect up to eight (8) *PointSystem™* chassis into one manageable stack, providing a single management source for up to 143 conversion devices.

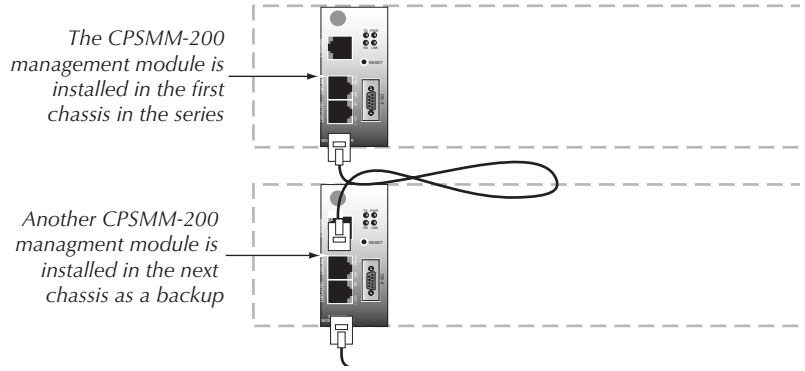
To create the cascade option, the CPSMM-200 dual-slot master management module is installed in the first chassis in the series. The CPSMM-210 single-slot expansion management module is installed in each subsequent chassis.



Installation -- Continued

Redundant Management Option

An alternative setup involves installing two CPSMC-200 dual-slot master management modules into two adjacent chassis for redundant management.



Redundant management can also be set up with the two CPSMM-200 modules installed in the same chassis.

In this set-up, the two modules auto-negotiate; where one is the primary module while the other is in stand-by mode. If the primary module fails, the stand-by module automatically takes over and manages the network.

Replacing the CPSMM-200

The CPSMM-200 can be hot-swapped, that is, it can be replaced while the *PointSystem™* chassis is powered. However, please note that:

- If there are **two** management modules installed in the same network, the stand-by module will continue to manage the network while the primary module is replaced. Also, the stand-by module will retain all network settings.
- If there is **only one** management module installed, all SNMP management operations will cease once the module is removed. The newly installed management module must be reconfigured to resume network management.

Replacing the CPSMM-210

The CPSMM-210 can also be hot-swapped. However, unlike the CPSMM-200, the network's management settings do not need to be reconfigured if the CPSMM-210 is replaced.

For more information on installing or replacing the management modules, see the user's guide for the chassis in which the module will be installed. The chassis manuals can be found on the Web at: www.transition.com.

Network Management

CPSMM100 Firmware

The Transition Networks CPSMM100 Firmware is embedded in the CPSMM-200 management module. The firmware includes:

- a **Command-Line Interface (CLI)**,
- a **Telnet server**,
- a **Web browser**, and
- an **SNMP agent**.

Each of these applications can be accessed either through the module's DB-9 serial port or RJ-45 Ethernet port, which allows the network administrator to monitor and control the network from an attached terminal or from a remote location.

FocalPoint™ 2.0 Management Application

Transition Networks *FocalPoint™ 2.0* management application can be installed in a networked computer to provide a graphical user interface to monitor the network. The version on the enclosed CD supports all features of the enclosed CPSMM100 Firmware as well as all Transition Networks slide-in-modules that are available at the time the CD was produced.

NOTE: For detailed information on how to:

- Set up and configure a network using the CPSMM100 Firmware.
- Use the Command-Line Interface, Telnet server, or Web browser.
- Install and use the FocalPoint™ 2.0 management application.

See the ***FocalPoint™ 2.0* Management Application and CPSMM100 Firmware User's Guide** on the enclosed application CD. It can also be viewed on the Transition Networks website at: www.transition.com.

Operation

Reset Switch

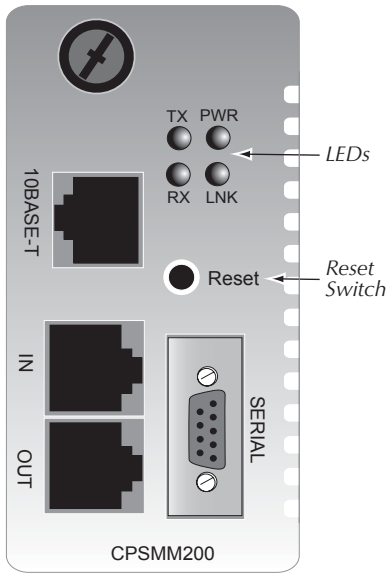
Both the CPSMM-200 and the CPSMM-210 have a reset switch which resets only the management module (not the entire chassis in which the module has been installed).

Operation -- Continued

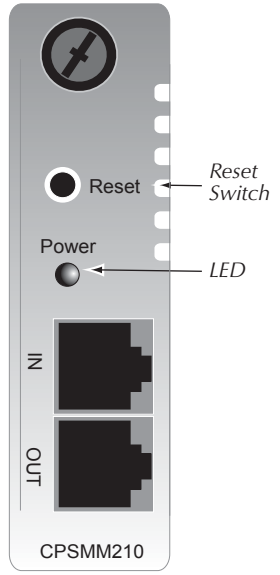
LED Indicators

Both the CPSMM-200 and the CPSMM-210 have a power LED:

PWR On = The management module is receiving power from the chassis.



CPSMM-200



CPSMM-210

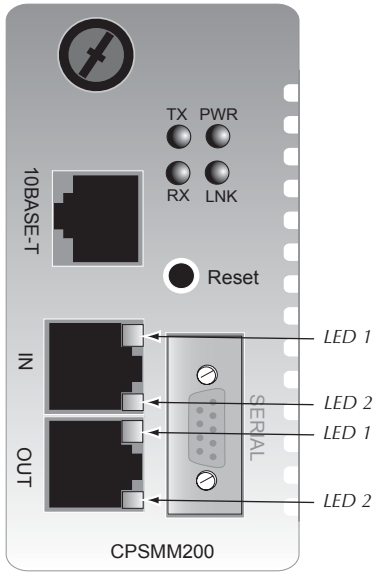
The CPSMM-200 management module also has three additional status LEDs, which are used to monitor the operation of the management module in the network.

LNK	On =	A link has been established via the DB-9 serial port or the RJ-45 Ethernet port.
RX	Flashing =	The management module is receiving data via the DB-9 serial port or the RJ-45 Ethernet port.
TX	Flashing =	The management module is transmitting data via the DB-9 serial port or the RJ-45 Ethernet port.

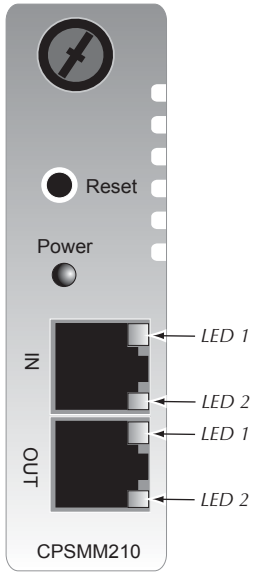
Operation -- Continued

LED Indicators

Both the CPSMM-200 and CPSMM-210 have four LEDs embedded in the cascade ports.



CPSMM-200



CPSMM-210

IN - LED 1 *(amber)* Flashes once when the management module is powered on and indicates that the BIA (burned in address) has gone through the read cycle.

IN - LED 2 *(green)* Flashes when a signal is being received or transmitted via either RJ-45 cascade port. This LED also flashes if there is network activity on chassis' backplane.

OUT - LED 1 *(amber)* Remains **on** if the module is the only management module in the network, or if it is the primary management module in a network with two management modules.

Remains **off** if the module is the secondary management module in a network with two management modules.

OUT - LED 2 *(green)* Remains on when the processor inside the module has started and is initialized.

Technical Specification

For use with Transition Networks models CPSMM-200, CPSMM-210, or equivalent.

Standards	CISPR 22:1993; Class A & B; CE Mark	
CPSMM-200:		
Dimensions	3.4" x 1.72" x 5.0" (86 mm x 44 mm x 127 mm)	
Shipping Weight	6 oz. (181 g) (approximate)	
Power Consumption	3.3 Watts.	
MTBF	144,000 hours (MIL217F2 V5.0) (MIL-HDBK-217F) 713,000 hours (Bellcore7 V5.0)	
CPSMM-210:		
Dimensions	3.4" x 0.86" x 5.0" (86 mm x 22 mm x 127 mm)	
Shipping Weight	3 oz. (91 g) (approximate)	
Power Consumption	2.4 Watts.	
MTBF	343,000 hours (MIL217F2 V5.0) (MIL-HDBK-217F) 1,145,000 hours (Bellcore7 V5.0)	
Environment	Tmra*:	0 to 60°C (32 to 140°F)
	Storage Temp:	-20 to 85°C (-4 to 185°F)
	Humidity:	10 to 90%, non condensing
	Altitude:	0 to 10,000 feet
Warranty	Lifetime	

*Manufacturer's rated ambient temperature: Tmra range for these management modules depend on the physical characteristics and the installation configuration of the Transition Networks *PointSystem*™ chassis in which the modules will be installed. See the user's guide **for the chassis in which these modules will be installed** for temperature-related installation constraints.

The information in this user's guide is subject to change. The most up-to-date revision of the CPSMM-200-210 user's guide can be viewed at: www.transition.com.

Troubleshooting

1. **Press the Reset button on the management module. Does the fault resolve itself?**
   NO
   - Proceed to step 2.

2. **Is the "Power" LED illuminated?**
   NO
   - Is the management module inserted properly into the chassis?
   - Is the chassis properly connected to the external power source.
   - Contact Technical Support: US/Canada: 1-800-260-1312, International: 00-1-952-941-7600.

   YES
   - Proceed to step 3.

3. **Is the "LNK" (link) LED illuminated?**
   NO
   - If the DB-9 serial port is being used for data transmission, check it for proper connection.
   - If the RJ-45 Ethernet port is being used for data transmission, check it for proper connection.
   - Contact Technical Support: US/Canada: 1-800-260-1312, International: 00-1-952-941-7600.

   YES
   - Proceed to step 4.

4. **Is the "IN - LED 1" LED illuminated?**
   YES
   - The BIA (burned in address) has not gone through the read cycle.
   - Contact Technical Support: US/Canada: 1-800-260-1312, International: 00-1-952-941-7600 .

   NO
   - Proceed to step 5.

5. **Is the "IN-LED 2" LED illuminated?**
   NO
   - If there is no network activity, proceed to step 6.
   - Check the RJ-45 cascade cable(s) for proper connection.
   - Contact Technical Support: US/Canada: 1-800-260-1312, International: 00-1-952-941-7600 .

   YES
   - Proceed to step 6.

Troubleshooting -- Continued

6. **Is the "OUT-LED 2" LED illuminated?**
   NO
   - The processor inside the management module has not initialized.
   - Contact Technical Support: US/Canada: 1-800-260-1312, International: 00-1-952-941-7600 .

NOTE: To Isolate faults involving data transmission, Please see the "Troubleshooting" section of the ***FocalPoint*™ Management Application & CPSMM100 Firmware User's Guide** on the enclosed application CD. It can also be viewed on the Transition Networks website at: www.transition.com.

TRANSITION networks

Declaration of Conformity

Name of Mfg:	**Transition Networks** 6475 City West Parkway, Minneapolis MN 55344 USA
Model:	**CPSMM-200 Dual-Slot Master Management Module** **CPSMM-210 Single-Slot Expansion Management Module**
Part Number(s):	**CPSMM-200, CPSMM-210**
Regulation:	**EMC Directive 89/336/EEC**

Purpose: To declare that the ***CPSMM-200*** *and* ***CPSMM-210*** to which this declaration refers are in conformity with the following standards.

CISPR 22:1993; EN 55022:1994, A1:1995, A2:1997; Class A & B; FCC Part 15 Subpart B; EN 55024:1998; EN 61000-3-2:1995; EN 61000-3-3:1005

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s).

Stephen Anderson, Vice-President of Engineering — July 8, 2001 (Date)

Compliance Information

CISPR22/EN55022 Class A & B + EN55024
CE Mark

FCC Regulations

This equipment has been tested and found to comply with the limits for a Class A & B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at the user's own expense.

Canadian Regulations

This digital apparatus does not exceed the Class A & B limits for radio noise for digital apparatus set out on the radio interference regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Class A & B prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

CAUTION: RJ connectors are NOT INTENDED FOR CONNECTION TO THE PUBLIC TELEPHONE NETWORK. Failure to observe this caution could result in damage to the public telephone network.

Der Anschluss dieses Gerätes an ein öffentlickes Telekommunikationsnetz in den EG-Mitgliedstaaten verstösst gegen die jeweligen einzelstaatlichen Gesetze zur Anwendung der Richtlinie 91/263/EWG zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über Telekommunikationsendeinrichtungen einschliesslich der gegenseitigen Anerkennung ihrer Konformität.

Contact Transition Networks

Technical support is available 24 hours a day.
US and Canada: 1-800-260-1312 International: 00-1-952-941-7600

Chat live via the Web with Transition Networks Technical Support.
Log onto www.transition.com and click the **Transition Now** link.

Transition Networks provides seminars via live web-based training.
Log onto www.transition.com and click the **Learning Center** link.

Send an e-mail anytime to our technical support staff at: **techsupport@transition.com**

Transition Networks
6475 City West Pkwy
Minneapolis, MN 55344, USA
telephone: 952-941-7600
toll free: 800-526-9267
fax: 952-941-2322

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