Media Converter Chassis

Management Module

User's Guide

FCC Warning

This equipment has been tested and found to comply with the regulations for a Class A 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 this user's guide, 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 his own expense.

CE Mark Warning

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

VCCI Warning

注意
　この装置は、情報処理装置等電波障害自主規制協議会(VCCI)の基準
に基づく第一種情報技術装置です。この装置を家庭環境で使用すると電波妨
害を引き起こすことがあります。この場合には使用者が適切な対策を講ずる
よう要求されることがあります。

$C\,E\,\boxtimes$

29071500MCB1000

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INTRODUCTION

The Management Module supports the Media Converter Chassis to monitor the each Media Converter Module status and to configure advanced function of the Media Converter Chassis. Through in-band management via TELNET, Web Browser and management utility or the out-band management via RJ-45 UTP console port to monitor/configure the Media Converter Chassis.

The Management Module supports SNMP protocol to advise the network manager while the device occur an abnormal status.

Purpose

This manual discusses how to install the Management Module to the Media Converter Chassis.

Overview of this User's Guide

Introduction. Describes the Management Module and its features.

Unpacking and Install. Helps you get started with the basic installation of the Management Module.

Identifying External Components. Describes the front panel and LED indicators of the Management Module.

Configure The Management Module. Helps you how to configure the Management Module.

Connecting the Management Module. Tells how you can connect the Management Module to your network.

Technical Specifications. Lists the technical (general, physical and environmental, performance and Routers settings) specifications of the Management Module.

UNPACKING AND INSTALL

This chapter provides unpacking and setup information for the Management Module.

Unpacking

Open the box of the Management Module and carefully unpack it. The box should contain the following items:
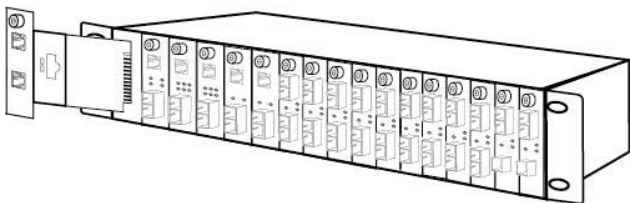
● **One Management Module**
● **This User's Guide**

If any item is found missing or damaged, please contact your local reseller for replacement.

Installing the Management Module

● Install the Management Module into the Media Converter Chassis.
● Connect the Management Module to the network.

The chassis's first slot is for the Management Module as illustration.
Slide in the management module in the first slot of the chassis system.

IDENTIFYING EXTERNAL COMPONENTS

This section identifies all the major external components of the Management Module. The front panel is shown, followed by a description of each panel feature. The indicator panel is described in detail in the next chapter.

Front Panel

The figure below shows the front panels of the Management Module.

The LED indicators of the Management Module include Power On, Power Fail, Fan Fail, MGM, Console and Link/ACT. The following shows the LED indicators for the Switch along with an explanation of each indicator.
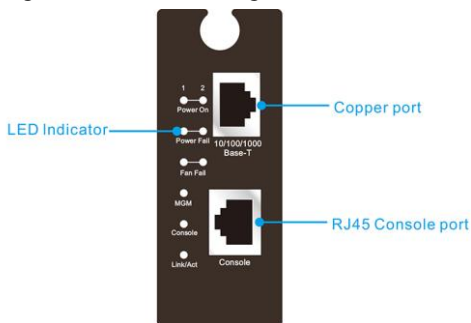
● **LED Indicator Panel**

   Refer to the next section for detailed information.

● **10/100/1000 Mbps Gigabit Ethernet Port**

   To configure the device through Web Browser or TELNET program via LAN Ethernet.

● **RJ-45 UTP console port**

   To configure the device through RJ-45 UTP console port.

LED Indicators

There are two powers at the rear and will indicate on the front panel the status of the power and fan:

Power On: Lights green when the power is inserted.

Power Fail: Lights Amber when the power is inserted and it is fail.

Fan Fail: Lights Amber when the fan is fail to work.

MGM: Blinks green when the device CPU is working and lights amber when the CPU works fail.

Console: Blinks green when the data is transmitting through console port and blinks amber when transmitting the wrong data.

Link/Act: Lights green when link to networking Ethernet and blinks green for activity.

CONFIGURING THE SYSTEM

This chapter provides network managers and system administrators with information about how to configure the Media Converter Chassis via the Management Module.

The reader of this document should be knowledgeable about network devices, device configuration, network management, and Internet browsers. The user is assumed to be a network administrator or manager with an understanding of network operations.

Management through Web browser

The Media Converter Chassis is accessible using a Web browser (IE explorer, Google Chrome, etc.) to open up the chassis monitoring system. The default IP Address for the chassis system Management Module is "*192.168.1.1*", and the default Login name and password is both "*root*".

Main Menu
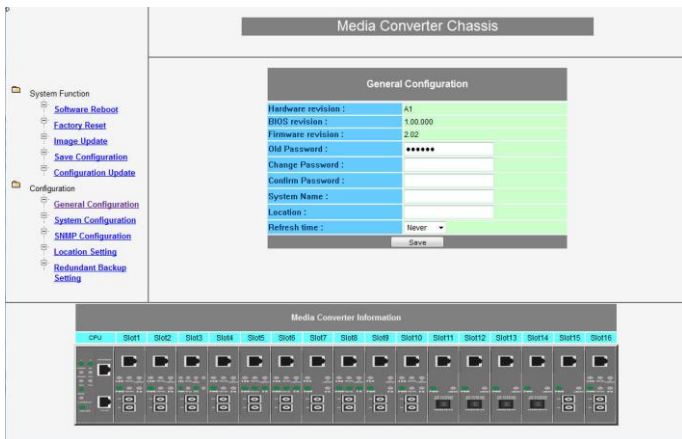
The Main Menu will show out the Hardware Revision, BIOS Revision and Firmware Revision, to set the management system, click on the left side menu, System Function and Configuration, in the center screen is the status screen that appears where you clicked on the left side menu.

Click on the Media Converter slot and it will appear a screen for you to monitor or control, depend on what media converter you are using.

1   System Function

There are five items in System Function menu, "Software Reboot, Factory Reset, Image Update, Save Configuration and Configuration Update.
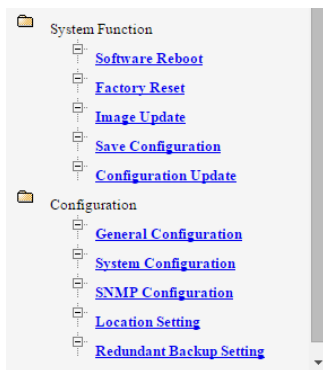
1-2 Software Reboot

Reboot the management module in order to run the new setting properly.

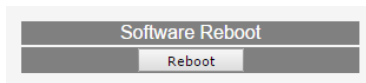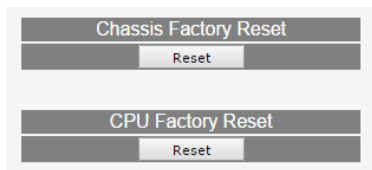| Software Reboot |
| --- |
| Reboot |

1-3 Factory Reset

This function is to set the device back to the default setting in case of the messy setting. There are two functions in Factory Reset page:

Chassis Factory Reset: for all modules factory reset.
CPU Reset: only this control module factory reset.

Chassis Factory Reset
Reset

CPU Factory Reset
Reset

1-4 Image Update

The section is to set the TFTP Server IP Address first and the Image File name as you store in the TFTP Server. The Image File can be updated by uploading the image file from the TFTP server.

TFTP Server Image Update	
TFTP Server IP :	
Image File :	
Update	
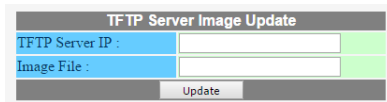
Note: The content of the image file will write the whole firmware of the management module, please be sure that the image file is correct.

1-5 Save Configuration

The section is to save the change on the flash to make sure all configuration settings is permanent.

Save Configuration
Save
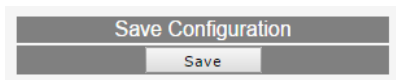
1-6 Configuration Update

The section is explaining how to upload and download the configure setting of the module.

The Configuration Upload is to restore a setting file to the management module.

The Configuration Download is to backup the setting from the management module.

Configuration Upload	
Target IP :	192.168.1.2
Configuration File :	Choose File No file chosen
Upload	
Configuration Download	
Download	

2 Configuration

There are five items in Configuration menu, General Configuration, System Configuration, SNMP Configuration, Location Setting and Redundant Backup Setting.

2-1 General Configuration

General Configuration	
Hardware revision :	B1
BIOS revision :	1.00.000
Firmware revision :	V1.00.002
Old Password :	
Change Password :	
Confirm Password :	
System Name :	
Location :	
Refresh time :	Never ▼
Save	

Hardware revision: noted the version of the Media Converter Chassis.
BIOS revision: noted the version of the BIOS.
Firmware revision: noted the version of the firmware.
Old Password: the Old of the admit password.
Change Password: the changing of the admit password.

Confirm Password: to confirm the setting of admit password.

System Name: to authorize the device system name.

Location: to show the Media Converter Chassis where it is located.

Refresh time: to set the refreshing time of the device through the web.

NOTE: After configuring the system device, need to press the save button to save the setting.

2-2   System Configuration

System Configuration	
MAC Address :	0C:14:72:EF:01:02
IP Address :	192.168.1.1
Subnet Mask :	255.255.255.0
Default GateWay :	0.0.0.0
Save	

MAC Address: will show out the MAC address of the Management Module.

IP Address: to allocate an IP address for the Management Module, the default IP is "192.168.1.1".

Subnet Mask: to set the Subnet Mask, the default is 255.255.255.0".

Default Gateway: to set the gateway address, the default is "0.0.0.0". (0.0.0.0 Means no default gateway address)

NOTE: After configuring the system device, need to press the save button to save the setting.

2-3   SNMP Configuration

SNMP Configuration					
Get Community Name :	public		Set Community Name :	private	
Trap Community Name :	public		Trap Host IP Address :	192.168.1.2	
Cold Start Trap :	○ Enabled	● Disabled	Warm Start Trap :	○ Enabled	● Disabled
Authentication Fail Trap :	○ Enabled	● Disabled	Power Fail Trap :	● Enabled	○ Disabled
Fan Fail Trap :	● Enabled	○ Disabled	MC Plugin Trap :	● Enabled	○ Disabled
MC Pullout Trap :	● Enabled	○ Disabled	MC Broken Trap :	● Enabled	○ Disabled
MC Link Up Trap :	● Enabled	○ Disabled	MC Link Down Trap :	● Enabled	○ Disabled
MC Active Slot Xchg Trap :	● Enabled	○ Disabled	MC Active Slot Lose Trap :	● Enabled	○ Disabled
Save					

Get Community Name: to get the device community name (default = public).

Set Community Name: to set the device community name (default = private).

Trap Community Name: to authorize the device trap community name (default = public).

Trap Host IP Address: to set the trap host IP address (same as monitoring station IP address).

Cold Start trap: to set the trap for rebooting the device (default = disable).

Warm Start trap: to set the trap when the device had been reset (default = disable).

Authentication Fail Trap: to set the warning trap when the community name of the device and workstation are different (default = disable).

Power Fail Trap: to set the Power Fail Trap (default = enable).

Fan Fail Trap: to set the Fan fail trap (default = enable).

MC Plugin Trap: to set the trap when a Media Converter Module has been plugged in (default = enable).

MC Pullout Trap: to set the trap when the Media Converter Module has been pulled out (default = enable).

MC Broken trap: to set the trap when the Media Converter Module was broken (default = enable).

MC Link up trap: to set the trap when a linking is connected (default = enable).

MC Link down trap: to set the trap when a linking is disconnected (default = enable).

MC Active Slot Xchg trap: to set the trap when there is a redundant function activated (default = enable).

MC Active Slot Lose trap: to set the trap when the redundant function is fail (default = enable).

2-4 Converter Location Setting

Converter Location Setting				
Slot 1:	Slot1	Slot 2:	Slot2	
Slot 3:	Slot3	Slot 4:	Slot4	
Slot 5:	Slot5	Slot 6:	Slot6	
Slot 7:	Slot7	Slot 8:	Slot8	
Slot 9:	Slot9	Slot 10:	Slot10	
Slot 11:	Slot11	Slot 12:	Slot12	
Slot 13:	Slot13	Slot 14:	Slot14	
Slot 15:	Slot15	Slot 16:	Slot16	
		Save		

Allocating each slot's location in order to remember in where each slot was connected.

2-5 Redundant Backup Setting

Redundant Backup Setting			Act:	Master:	Slave:	Restart:
Group:						
1	○ Enabled	◉ Disabled	*	1	2	☐
2	○ Enabled	◉ Disabled	*	3	4	☐
3	○ Enabled	◉ Disabled	*	5	6	☐
4	○ Enabled	◉ Disabled	*	7	8	☐
5	○ Enabled	◉ Disabled	*	9	10	☐
6	○ Enabled	◉ Disabled	*	11	12	☐
7	○ Enabled	◉ Disabled	*	13	14	☐
8	○ Enabled	◉ Disabled	*	15	16	☐
		Save				

The redundant function is to change the master line to the slave line in case of the linking fails happen.

The Redundant functions were set fixed, the master slot is slot 1(odd number slot) and the slave slot is slot 2(even number slot), and there are eight redundant groups in all. The "Act" will indicate what slot is active.

When Master slot link fail, slave slot will be enabled. When the slave slot is activated, we need to transfer again to the master slot, and we need to check the "Restart" box on the group then click Save button.

The redundant function depends only on some Smart Media Converters.

Configure Through Terminal Emulator/TELNET Program

Console and Terminal Emulator program setting

The Media Converter Chassis Management Module can be accessible using a terminal or terminal emulator attached to the RJ-45 UTP console port.

1. Serial port configuration cable:

   One end of the cable is a DB9 serial port, which connects to serial port on computer. Other end is an RJ-45 UTP port, which connects to the Media Converter Chassis.

2. To configure the Hyper Terminal of the management PC via serial port configuration cable to manage the Media Converter Chassis.

3. By default, the Media Converter Management Module uses the following serial port parameter values:

Bits per second	115200
Stop bits	1
Data bits	8
Parity	NONE
Flow Control	NONE

The default Login name and password is both "*root*".

TELNET program setting

The Media Converter Chassis Management Module can be accessible using TELNET through LAN.

1. Run TELNET program.

2. Enter the IP address "*192.168.1.1*" (the factory-default IP address setting).

3. The default Login name and password is both "*root*".

Management Setting Through Command Line Interface (CLI)

The Command Line Interface (CLI) has following functions:

1. Reboot
2. Factory Reset
3. Image Update
4. General Configuration
5. IP interface configuration
6. SNMP Configuration
7. CPU module information
8. Media Converter Configuration
9. Redundant Backup Setting
10. Configuration
11. System Function

1 Reboot

COMMANDS	reboot

2 Factory Reset

COMMANDS	reset
	cpureset

reset: for all modules factory reset.
cpueset: only this control module factory reset.

3 Image Update

| **COMMANDS** | update <ipaddr> <path_filename (64)> |

The <ipaddr> is to set the TFTP Server IP Address first and <path_filename (64)> is the Image File name as you store in the TFTP Server.

4   General Configuration

COMMANDS	config system passwd
	config system name <string 31>
	config system location <string 31>
	config system **refreshtime** {never | 10secs | 30secs | 1min | 5mins}
	show system

The "refreshtime" is to set the refreshing time of the device through the web.

5   IP interface configuration

COMMANDS	config ipif system ipaddress <ip_addr> <ip_mask> [<ip_addr>]
	show ipif

<ip_addr>: to allocate an IP address for the device, the default IP is "192.168.1.1".

<ip_mask> : to set the Subnet Mask, the default is "255.255.255.0".

[<ip_addr>]: to set the gateway address.

6   SNMP Configuration

COMMANDS	config snmp **get**_communityname [<community_string (31)>]
	config snmp **set**_communityname <community_string (31)>
	config snmp **trap**_communityname <community_string (31)>
	config snmp **trap_hostip** <ipaddr>
	config snmp **coldstart_trap** {enable | disable}

config snmp **warmstart_trap** {enable | disable}
config snmp **authfail_trap** {enable | disable}
config snmp **powerfail_trap** {enable | disable}
config snmp **fanfail_trap** {enable | disable}
config snmp mc**plugin**_trap {enable | disable}
config snmp mc**pullout**_trap {enable | disable}
config snmp mc**linkup**_trap {enable | disable}
config snmp mc**linkdown**_trap {enable | disable}
config snmp mc**broken**_trap {enable | disable}
config snmp mc**activeslotXCHG**_trap {enable | disable}
config snmp mc**activeslotLOSE**_trap {enable | disable}
show snmp

SNMP Configuration commands:

config snmp **get**_communityname**:** to configure the "**get**" community name (default = public).

config snmp **set**_communityname**:** to configure the "**set**" community name (default = private).

config snmp **trap**_communityname**:** to configure the "**trap**" community name (default = public) for authorize the device trap.

config snmp **trap_hostip:** to set the trap host IP address (same as monitoring station IP address).

config snmp **coldstart_trap:** to set the trap for rebooting the device (default = disable).

config snmp **warmstart_trap:** to set the trap when the device had been reset (default = disable).

config snmp **authfail_trap:** to set the warning trap when the community name of the device and workstation are different (default = disable).

config snmp **powerfail_trap:** to set the Power Fail Trap (default = enable).

config snmp **fanfail_trap** {enable \| disable}**:** to set the fan fail trap (default = enable).

config snmp **mcplugin_trap** {enable \| disable}**:** to set the trap when a Media Converter module has been plugged in (default = enable).

config snmp **mcpullout_trap** {enable | disable}**:** to set the trap when the Media Converter module has been pulled out (default = enable).

config snmp **mclinkup_trap** {enable | disable}**:** to set the trap when a linking is connected (default = enable).

config snmp **mclinkdown_trap** {enable | disable}**:** to set the trap when a linking is disconnected (default = enable).

config snmp **mcbroken_trap** {enable | disable}**:** to set the trap when the Media Converter module was broken (default = enable).

config snmp **mcactiveslotXCHG_trap** {enable | disable}**:** to set the trap when there is a redundant function activated (default = enable).

config snmp **mcactiveslotLOSE_trap** {enable | disable}**:** to set the trap when the redundant function is fail (default = enable).

7   CPU module information

COMMANDS	**show** mediaconverter chassis

8   Media Converter Configuration

	show mediaconverter status
COMMANDS	config mediaconverter **slot** <integer (1-16)> ([name <string (7)>] [Device_LLCF {v|x}] [Device_Enable {v|x}] [M1_LLR {v|x}] [M1_Auto {A|F}] [M1_Speed {10M|100M|1G}] [M1_Dup {F|H}] [M1_FC {v|x}] [M1_Enable {v|x}] [M2_LLR {v|x}] [M2_Auto {A|F}] [M2_Dup {F|H}] [M2_Enable {v|x}])

Media Converter Configuration command (*Some of the function can be control only depends on the Smart Media Converter Modules)*:

```
config mediaconverter slot <integer (1-16)> ( [name <string (7)>]
                                             [Device_LLCF {v|x}]
                                             [Device_Enable {v|x}]
                                             [M1_LLR {v|x}]
                                             [M1_Auto {A|F}]
                                             [M1_Speed {10M|100M|1G}]
                                             [M1_Dup {F|H}]
                                             [M1_FC {v|x}]
                                             [M1_Enable {v|x}]
                                             [M2_LLR {v|x}]
                                             [M2_Auto {A|F}]
                                             [M2_Dup {F|H}]
                                             [M2_Enable {v|x}])
```

{v|x}, **V** stands for "yes" and **X** stands for "No".

{A|F}, "A" for Auto-Negotiation or "F" for "forced Mode".

{10M|100M|1G}, to select the speed of the copper port, "10M", "100M" or "1G"

{F|H}, "F" for Full Duplex or "H" for Half Duplex

9 Redundant Backup Setting

COMMANDS	**show** mediaconverter redundant
	config mediaconverter **redundantgrp** <integer (1-8)> ([{enable|disable}] [restart])

The redundant function is to change the master line to the slave line in case of the linking fails happen.

The Redundant functions were set fixed, the master slot is slot 1(odd number slot) and the slave slot is slot 2(even number slot), and there are eight redundant groups in all. The "Act" will indicate what slot is active.

The redundant function depends only on some Smart Media Converters.

Redundant Backup Setting commands:

show mediaconverter redundant: show master slot or slave slot is active.

config mediaconverter **redundantgrp** <integer (1-8)> [restart]: When Master slot linking fails happen, slave slot will be enabling; user can process this command change the active slot (slave slot) back to the master slot.

config mediaconverter **redundantgrp** <integer (1-8)> [enable|diable]: There are eight redundant groups can be enable or disable when those Smart Media Converters support the redundant function.

10 Configuration

COMMANDS	save config

11 System Function

	clear
COMMANDS	**show** command_history
	logout

TECHNICAL SPECIFICATIONS

General	
Applicable Standards	IEEE 802.3 10Base-T Ethernet
	IEEE 802.3u 100 Base-TX Fast Ethernet
	IEEE 802.3ab 1000BASE-T Gigabit Ethernet
	IEEE 802.3x flow control
Protocol	CSMA/CD
Data Transfer Rate	Ethernet: 10Mbps (half duplex), 20Mbps (full duplex)
	Fast Ethernet: 100Mbps (half duplex), 200Mbps (full duplex)
	Gigabit Ethernet: 2000Mbps (full duplex)
LED Indicators	Power On, Power Fail, Fan Fail, MGM, Console, Link/ACT
Cable	10BASET: 2-pair UTP Cat. 3,4,5; EIA/TIA- 568 100-ohm STP
	100BASE-TX: 2-pair UTP Cat. 5; EIA/TIA-568 100-ohm STP
	1000BASE-T: 4-pair UTP Cat. 5; EIA/TIA-568 100-ohm STP
Fixed Ports	1 x 10/100/1000Mbps Gigabit Ethernet port
	1 x RJ45 Console port
Power Consumption	2.75 watts. (max.)
Temperature	Operating: 0° ~ 40° C, Storage: -25° ~ 70° C
Humidity	Operating: 10% ~ 90%, Storage: 5% ~ 90%
EMI:	FCC Class A, CE Mark Class A, VCCI Class A