

Signamax[™] Connectivity Systems OAM Managed Dual Rate Converter Series

USER'S GUIDE

Signamax[™] Connectivity Systems

OAM Managed Dual Rate Converter Series

User's Guide

FCC Warning

This equipment has been tested and found to comply with the limits 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.

SignamaxTM Connectivity Systems from Advanced Electronic Supports Products Inc. All rights reserved. All brand names are registered trademarks of their relative holders.

Trademarks

Product names mentioned in this manual may be trademarks or registered trademarks of those products and are hereby acknowledged.

- Ethernet is a trademark of Xerox Corporation.
- Microsoft Windows is a trademark of Microsoft Corporation.
- Signamax[™] is a trademark of Advanced Electronic Support Products, Inc.

Preface

This OAM Managed Dual Rate Media Converter can be monitored and configured through management via SNMP and Web-based. This manual describes how to install and use the Signamax[™] OAM Managed Dual Rate Media Converter. The Signamax[™] OAM Managed Dual Rate Media Converter introduced here provides one channel media conversion solution:

10/100/1000BaseTX to 100Base or 1000Base dual rate fiber interface

The Signamax[™] OAM Managed Dual Rate Media Converter fully complies with IEEE802.3 10BaseT, IEEE802.3u 100BaseTX/FX, IEEE802.3ab 1000BaseT, and IEEE802.3z 1000BaseSX/LX Ethernet standards.

In this manual, you will find:

- Product overview
- Features on the media converter
- Illustrative LED functions
- Installation instructions
- System configuration
- Specifications

Table of Contents

FCC WARNING 1
CE Mark Warning1
TRADEMARKS1
PREFACE
TABLE OF CONTENTS 3
INTRODUCTION4
Product Overview4 Product Features4 Packing List4
ONE-CHANNEL MEDIA CONVERTER
Ports6 Front Panel & LEDs6 Reset Button7
INSTALLATION
SELECTING A SITE FOR THE EQUIPMENT8 Connecting to Power8 Installing in a Chassis8
System Configuration10
Logging on to the Media Converter
REMOTE SETTING
REMOTE SETTING 27 TOOLS 31 LOGOUT 34 SPECIFICATIONS 35

Introduction

The OAM Managed Dual Rate Media Converter provides one channel for media conversion between 10/100/1000BaseTX to 100Base or 1000Base dual rate fiber interface.

Product Overview



Product Features

- Complies with IEEE802.3 10BaseT, IEEE802.3u 100BaseTX/FX, IEEE802.3ab 1000BaseT, and IEEE802.3z 1000BaseSX/LX.
- Complies with IEEE802.3ah OAM standard.
- Supports SNMP v1 & v2c Management.
- Supports Q in Q double tagged frame transparent.
- Supports IN-BAND Loop Back and Diagnostic.
- One fiber interface supports dual rate 100BaseFX/BX or 1000BaseSX/LX/BX fiber transmission.
- Gigabit transmission supports 9K Bytes jumbo frame.
- 1000Mbps-Auto/Full-duplex, 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX.
- Supports IEEE802.3x Flow control: Flow control for Full-duplex and Back pressure for Half-duplex.
- Full wire-speed forwarding rate.
- Operating voltage and Max. current consumption: 0.25A @ 12VDC. Power consumption: 3W Max.
- Power Supply: 12VDC external universal PSU.
- $-20^{\circ}F$ to $131^{\circ}F$ ($0^{\circ}C$ to $55^{\circ}C$) operating temperature range.

Packing List

When you unpack this product package, you will find the items listed below. Please inspect the contents, and report any apparent damage or missing items immediately to our authorized reseller.

- The Media Converter
- User's Manual
- AC to DC Power Adaptor

One-Channel Media Converter

Ports

This converter provides one TX port and one dual rate 100BaseFX/BX or 1000BaseSX/LX/BX fiber interface. For the dual rate 100BaseFX/BX or 1000BaseSX/LX/BX fiber interface, it provides options of multi-mode/single-mode or WDM multi-mode/single-mode fiber. For the TX port, it uses RJ-45 connector and supports auto MDIX for uplink purpose.

Front Panel & LEDs



LED Indicators

The LED indicators give you instant feedback on status of the converter:

LED's	State	Indication			
	Chandu	Power On			
PWR (Green)	Sleady	PWR stands for Power			
	Off	Power Off			
Orana Deat	Steady	Green: Copper Port connection at the speed of 1000Mbps			
Copper Port		Amber: Copper Port connection at the speed of 100Mbps			
Speed	Off	Copper Port connection at the speed of 10Mbps			
LNKC (Green)	Steady	A valid network connection is established on FX port			
	Flashing	Data transmitting			
	Steady	When device in OAM Active Mode			
(Croop)	Flashing	Blinks for 4 seconds if loopback testing pass, when			
(Green)		device in OAM Passive Mode			
CE	Steady	Fiber port connection at the speed of 1000Mbps			
GE	Off	Fiber port connection at the speed of 100Mbps			
	Steady	A valid network connection is established on FX port			
LINKF (Green)	Flashing	Data transmitting			
LFS (Green)	Chandra	LFS function enabled			
	Steady	LFS stands for Link Fault Signaling			
	Off	LFS function disabled			

Reset Button

The reset button is used to reset the web-interface IP or device settings.

Reset the device:

Insert a paper clip or a similar object into the reset hole to press the reset button.

Reset the web-interface IP to 192.168.1.10:

Insert a paper clip or a similar object into the reset hole. Press and hold the reset button for 5~10 seconds.

Reset to factory default:

Insert a paper clip or a similar object into the reset hole. Press and hold the reset button for 10 seconds until the OAM LOOP LED slowly blinks.

Installation

This chapter gives step-by-step installation instructions for the Converter.

Selecting a Site for the Equipment

As with any electric device, you should place the equipment where it will not be subjected to extreme temperatures, humidity, or electromagnetic interference. Specifically, the site you select should meet the following requirements:

- The ambient temperature should be between 32 and 122 degrees Fahrenheit (0 to 50 degrees Celsius).
- The relative humidity should be less than 95 percent, non-condensing.
- Surrounding electrical devices should not exceed the electromagnetic field (RFC) standards for IEC 801-3, Level 2 (3V/M) field strength.
- Make sure that the equipment receives adequate ventilation. Do not block the ventilation holes on each side of the equipment.
- The power outlet should be within 1.8 meters of the product.

Connecting to Power

This Converter is a plug-and-play device.

Connect the supplied AC to DC power adapter to the receptacle at the back of the converter. Attach the plug into a standard AC outlet.

Installing in a Chassis

The Converter is designed to fit into any of the expansion slots on a rackmount chassis.

- Unscrew the carrier from the desired expansion slot on the chassis.
- Fit the converter onto the carrier.
- When the converter is completely seated onto the carrier, insert the carrier to the guide rails of the expansion slot.
- Carefully slide in the carrier until it is fully and firmly fit the chassis.
- Fasten the carrier to the chassis by the screws.

<NOTE> Never insert any converter into the chassis directly without using the supplied carriers. The carriers allow secure and consistent placement of the converters into the chassis' backplane without causing any damage.

System Configuration

This chapter provides network managers and system administrators with information about how to configure the OAM Managed Dual Rate Media Converter via the Web Browser.

Logging on to the Media Converter

🗿 Web Smart Media Converter Login - Microsoft Internet Explorer 💦 🔲 🔯
Eile Edit View Favorites Tools Help
🚱 Back 🝷 📀 👻 📓 🏠 🔎 Search 👷 Favorites 🤣 🔗 🍃 🍇
Address 🎒 http://192.168.1.10/logout.htm 🔹 🔁 Go 🛛 Links 🎽 📆
OAM 10/100/1000BASE-TX to 100/1000BASE-FX Dual Rate Media Converter Username: admin Password: Login
🕘 Done 🔹 🔮 Internet

The default IP Address for the OAM Managed Media Converter is 192.168.1.10. Enter the factory default Username (admin). Enter the factory default Password (no password). Then click on the "Login" button to log on to the OAM Managed Media Converter.

Main Menu

🛿 Web Smart Media Converter - Microsoft Internet Explorer 📃 🗖 🔀								
<u>F</u> ile <u>E</u> dit <u>V</u> iew F <u>a</u> vorites	<u>T</u> ools <u>H</u> elp				an 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 19			
🕒 Back 🔹 🐑 🕑 😨 🚯 🔎 Search 👷 Favorites 🤣 😥 🖓 🔛 🖓								
Address 🕘 http://192.168.1.10/index.htm 🔽 🛃 Go 🛛 Links 🎽 🏚 🔹								
	SIGNAMAX Local Device Information							
Network		MAC Address	00:e0:b3:91:f1:02					
Information		Software Version	1.0.5					
Local Setting		Firmware Date	2013/03/04					
Local Setting		IP Address	192.168.1.10					
Remote Setting		Gateway	0.0.0.0					
Atomoto Setting		Subnet Mask	255.255.255.0					
Tools		Description						
Local Port Status								
		Ports	ТР	FX				
		Signal Detect(SD)	Detected	No				
		Link Status	On	Down				
		Speed	100M					
		Duplex Mode	Full					
		Flow Control	Enable	Enable				
		Auto Negotiation	Enable					
Notice: If FX was a SFP type, when changed the SFP module or link status, we recommended reboot to ensure the proper functioning of the FX.								
🕘 Done				🥥 Internet	.:			

Network Information

File Edit Yew Fayorites Tools Status	Web Smart Media Co	nverter	- Microsoft Inter	net Explorer			×			
Image: Search of the second	Eile Edit View Favorites	<u>T</u> ools <u>H</u> elp					R			
Address Nttp://192.168.1.10/index.htm Image: Section 2	🔾 Back 🔹 🕥 🐁 😰 🐔 🔎 Search 👷 Favorites 🤣 🎯 🍛 😹 😹									
Information ACA Address 00:e0:b3:91:f1:02 Information Software Version 1.0.5 Local Setting IP Address 192:168:1.10 Remote Setting Subnet Mask 255:255:0 Tools Description Description Logout Local Port Status IP Address Signal Detect(SD) Detected No Link Status On Down Speed 100M Image: Control Enable Auto Negotiation Enable Image: Control Enable Notice: If FX was a SFP type, when changed the SFP module or link status, we recommended reboot to ensure the proper functioning of the FX. Image: Control Enable	Address 🗃 http://192.168.1.10/index.htm 💽 🔁 Go 🛛 Links 🎽 🏚 🔹									
MAC Address 00:e0:b3:91:f1:02 Information I.0.5 Information I.0.5 Firmware Date 2013/03/04 Remote Setting Dis Logout Cocal Port Status Ports TP Signal Detect(SD) Detected Notice: If FX was a SFP type, when changed the SFP module or link status, we recommended reboot to censure the proper functioning of the FX.			Local	Device Inform	nation		^			
Information Software Version 1.0.5 Firmware Date 2013/03/04 Prediction 192.168.1.10 Gateway 0.0.0 Subnet Mask 255.255.255.0 Dogout Description Logout Forts TP Signal Detect(SD) Detected No Link Status On Down Speed 100M 100M Duplex Mode Full Flow Control Flow Control Enable Auto Negotiation Notice: If FX was a SFP type, when changed the SFP module or link status, we recommended reboot to resure the proper functioning of the FX. or	Network		MAC Address	00:e0:b3:91:f1:02						
Local Setting Firmware Date 2013/03/04 Remote Setting DP Address 192.168.1.10 Gateway 0.0.0 Subnet Mask 255.255.0 Dos Description Description Description Logout Cocal Port Status Image: Comparison of the status of t	Information		Software Version	1.0.5						
Image: setting settin	Local Setting		Firmware Date	2013/03/04						
Gateway 0.0.0 Subnet Mask 255.255.0 Dos Description Logout Local Port Status Ports TP Signal Detect(SD) Detected Notice: FW Flow Control Enable Auto Negotiation Enable Notice: IF FX was a SFP type, when changed the SFP module or link status, we recommended reboot to ensure the proper functioning of the FX.	Local Setting		IP Address	192.168.1.10						
Subnet Mask 255.255.0 Description Logout Local Port Status Signal Detect(SD) Detected No Link Status On Down Speed 100M Duplex Mode Full Flow Control Enable Auto Negotiation Enable Notice: If FX was a SFP type, when changed the SFP module or link status, we recommended reboot to ensure the proper functioning of the FX.	Remote Setting		Gateway	0.0.0.0						
Description Logout Local Port Status ^{Ports} ^{TP} ^{Signal Detect(SD)} Detected No Link Status On Down Speed 100M Duplex Mode Full Flow Control Enable Auto Negotiation Enable Notice: If FX was a SFP type, when changed the SFP module or link status, we recommended reboot to ensure the proper functioning of the FX.			Subnet Mask	255.255.255.0						
Logout Local Port Status Ports IP FX Signal Detect(SD) Detected No Link Status On Down Speed 100M Duplex Mode Full Flow Control Enable Enable Auto Negotiation Enable Enable Notice: If FX was a SFP type, when changed the SFP module or link status, we recommended reboot to ensure the proper functioning of the FX. or other	Tools		Description							
Ports TP FX Signal Detect(SD) Detected No Link Status On Down Speed 100M Image: Speed state sta	Logout		L	ocal Port Statu	IS	_	=			
Signal Detect(SD) Detected No Link Status On Down Speed 100M 100M Duplex Mode Full 100M Flow Control Enable Enable Auto Negotiation Enable Notice: If FX was a SFP type, when changed the SFP module or link status, we recommended reboot to ensure the proper functioning of the FX. 0			Ports	ТР	FX					
Link Status On Down Speed 100M			Signal Detect(SD)	Detected	No					
Speed 100M Duplex Mode Full Flow Control Enable Auto Negotiation Enable Notice: If FX was a SFP type, when changed the SFP module or link status, we recommended reboot to ensure the proper functioning of the FX.			Link Status	On	Down					
Duplex Mode Full Flow Control Enable Auto Negotiation Enable Notice: If FX was a SFP type, when changed the SFP module or link status, we recommended reboot to ensure the proper functioning of the FX.			Speed	100M						
Flow Control Enable Enable Auto Negotiation Enable Image: Control of Co			Duplex Mode	Full						
Auto Negotiation Enable Notice: If FX was a SFP type, when changed the SFP module or link status, we recommended reboot to ensure the proper functioning of the FX.			Flow Control	Enable	Enable					
Notice: If FX was a SFP type, when changed the SFP module or link status, we recommended reboot to ensure the proper functioning of the FX.			Auto Negotiation	Enable						

It will show local device information and local port status.

Local Setting

IP Configuration

Web Smart Media Conver	ter - I	Microsoft Internet	Explorer		. 🗆 🔀
<u>File Edit View Favorites Tools</u>	<u>H</u> elp				1
😋 Back 🔹 📀 🔺 📓 🏠	🔎 Se	arch 🤺 Favorites 🚱	🗞 🗟 🦫		
Address 🕘 http://192.168.1.10/				🖌 🔁 Go 🕴 Links	" 🔁 -
		I	P Configuration		
Natural Information		DHCP Client	Disable 💌		
Network information		IP Address	192.168.1.10		
Local Setting		Subnet Mask	255.255.255.0		
ID Configuration		Gateway	0.0.0.0		
Password Setting		Description			
Converter Configuration Port Configuration MIB Counter SNMP Configuration SNMP Community Setting VLAN Q-in-Q	War	ning: Description f	Apply ield can only be a nur '*@'	mber, in Englis	h or
Remote Setting					
Tools Logout					
🕘 Done				Internet	

- DHCP Client: Click "DHCP Client" drop-down menu to choose "Disable" or "Enable" from the "DHCP Client" drop-down list to disable or enable DHCP Client setting for the media converter. You need to set the IP Address, Subnet Mask, and Gateway by self if DHCP Client is disabled. The IP Address would be provided by DHCP Server if the DHCP Client is enabled.
- IP Address: Click in "IP Address" text box and type a new address to change the IP Address.
- Subnet Mask: Click in "Subnet Mask" text box and type a new address to change the Subnet Mask.
- Gateway: Click in the "Gateway" text box and type a new address to change the Gateway.
- Description: Click in the "Description" text box and type a description for the media converter.
- Apply: Click "Apply" button when you finished IP Configuration.

Password Setting

🛿 Web Smart Media Converter - Microsoft Internet Explorer 📃 🗖 🔀							
<u>Eile E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u> ools	Help	📲					
😋 Back 🔹 📀 🕤 💌 🛃 🏠	🔎 Search 🤺 Favorites 🚱 🔗 🌭 🔜 🔏						
Address 💩 http://192.168.1.10/		🔽 🛃 Go 🛛 Links 🎽 📆 🔹					
	Password Setting						
	Login Name admin						
Network Information	Old Password						
Local Setting	New Password						
IP Configuration	Confirm						
Password Setting Converter Configuration Port Configuration MIB Counter SNMP Configuration SNMP Configuration SNMP Community Setting VLAN Q-in-Q Remote Setting Tools	Арріу						
Logout							
🕘 Done		🔮 Internet					

- Login Name: The factory default login name "admin" can't be changed.
- Old Password: Click in "Old Password" text box and type the old password. You must type the old password into this field if you want to set a new password. The password must be "a"-"z", "A"-"Z", "0"-"9", and "_". The max length is 16 characters.
- New Password: Click in "New Password" text box and type a new password.
- Confirm: Click in "Confirm" text box and type the new password in "Confirm" text box again to verify it.
- Apply: Click "Apply" button when you finished Password Setting.

Converter Configuration

🗿 Web Smart Media Converter - Microsoft Internet Explorer 📃 🗖 🔀								
Eile Edit View Favorites Tools Help								
😋 Back 🔹 🕥 - 🖹 🛃 🏠 🔎 Search 🧙 Favorites 🤀 😥 😓 😹								
Address 💩 http://192.168.1.10/				🖌 🄁 🖸 Link	s " 🔁 🕇			
		Conve	erter Configura	ition				
Network Information		Jumbo Frame (9K)	⊙ Disable ○ Enable					
Network Information		Link Transparent	⊙ Disable ○ Enable					
Local Setting		Link Fault Pass Through	• Disable					
IP Configuration Password Setting		Forward CRC Error Frame	● Drop ○ Forward					
Converter Configuration Port Configuration		Forward Pause Frame	● Drop ○ Forward					
MIB Counter SNMP Configuration SNMP Community Setting VLAN O-in-O		Management Packet High Priority (This function need reset to take effect!)	⊖ Disable					
Remote Setting		Broadcast Storm Filter	⊙ Disable ○ Enable					
Tools		Multicast Storm Filter	⊙ Disable ○ Enable					
Logout		Unknown DA Unicast Storm Filter	⊙ Disable ○ Enable					
			Apply					
Notice : When Management Packet High Priority is enabled, all management packet will be allocated to high priority queue to garantee bandwidth.								
🕘 Done				🥥 Internet				

- Jumbo Frame (9K): The media converter could pass the max 9KB packet if enable this function.
- Link Transparent: If the Link Transparent (Link Fault Signaling) is enabled, the Link Loss Carry Forward will be active.
- Link Fault Pass Through: Choose "Disable" or "Enable" this function to disable or enable Link Fault Signaling.
- Forward CRC Error Frame: The CRC error packets will be passed if enable this function. Otherwise the CRC error packets will be dropped.
- Forward Pause Frame: The media converter will forward pause frame and regard it as a normal packet if enable this function.
- Management Packet High Priority: Need to reset media converter then this function will take effect. All management packet will be allocated to high priority

queue to guarantee bandwidth when Management Packet High Priority is enabled. Media converter will enable QoS and four queues and set queue 3 as strict priority if enable this function. All management packets such as 802.3ah OAM and SNMP packets will be in queue 3 to guarantee bandwidth.

- Broadcast Storm Filter: If enable this function, when too many broadcast packets arrive in a period time, the broadcast packets will be dropped.
- Multicast Storm Filter: If enable this function, when too many multicast packets arrive in a period time, the multicast packets will be dropped.
- Unknown DA Unicast Storm Filter: If enable this function, when too many unknown DA unicast packets arrive in a period time, the unknown DA unicast packets will be dropped.
- Apply: Click "Apply" button when you finished Converter Configuration.

Port Configuration

Web Smart Media Conve	rter -	Micr	osoft Inter	net Explor	er	
Elle Edit Yiew Favorites Tools	Help					1
🔇 Back + 🔘 - 🔳 🗟 🏠	ps	earch	Favorites	🛛 🗟 • 🔮	S - 3	
Agdress Attp://192.168.1.10/						🖌 🛃 Go 🛛 Links 🍟 👰 -
SIGNAMAX				Por	t Configuration	
Network Information	Port	Link	Mode	Flow Control	Ingress Rate Limit (kbps)	Egress Rate Limit (kbps)
	TP	100F	Auto Speed 💌	Enable 💌	Not Limit 💌 0	Not Limit 💌 0
Local Setting	FX	Down	1000 Fuli 💌	Enable 💌	Not Limit 💉 0	Not Limit 🕑 0
Password Setting Converter Configuration Port Configuration MIB Counter SNMP Configuration SNMP Community Setting VLAN Q-in-Q Remote Setting Tools		1	R Notice : Wh	l ate limit is en FX link t	Apply] [Refresh] 64kbps as a minimal o 1000Mbps, the FX n	i step node can be set.
Logout						D Internet

- Mode: Click "Mode" drop-down menu to choose "Auto Speed", "1000 Full", "100 Full", "100 Half", "10 Full", "10 Half" from the "Mode" drop-down list for TP port. And click "Mode" drop-down menu to choose "Auto Speed", "1000 Full", "100 Full" from the "Mode" drop-down list for FX port.
- Flow Control: Click "Flow Control" drop-down menu to choose "Disable" or "Enable" from the "Flow Control" drop-down list to disable or enable Flow Control for TP or FX port.
- Ingress Rate Limit (kbps): Click "Ingress Rate Limit" drop-down menu to choose the ingress rate limit from the "Ingress Rate Limit" drop-down list for TP or FX port. Or click "Ingress Rate Limit" drop-down menu to choose the "User Setting" from the "Ingress Rate Limit" drop-down list for TP or FX port. Then click in "Ingress Rate Limit" text box and type an ingress rate limit for TP or FX port. The ingress rate limit should be divided exactly by 64 because 64kbps is as a minimal step for ingress rate limit. The program will change the ingress rate limit to 64

automatically if the ingress rate limit is not divided by 64, for example 65.

- Egress Rate Limit (kbps): Click "Egress Rate Limit" dropdown menu to choose the egress rate limit from the "Egress Rate Limit" drop-down list for TP or FX port. Or click "Egress Rate Limit" drop-down menu to choose the "User Setting" from the "Egress Rate Limit" drop-down list for TP or FX port. Then click in "Egress Rate Limit" text box and type an egress rate limit for TP or FX port. The egress rate limit should be divided exactly by 64 because 64kbps is as a minimal step for egress rate limit. The program will change the egress rate limit to 64 automatically if the egress rate limit is not divided by 64, for example 65.
- Apply: Click "Apply" button when you finished Port Configuration.
- Refresh: Click "Refresh" button to show the current Port Configuration again.

MIB Counter

Web Smart Media Conve	rter - Microsoft Internet	Explorer		
Elle Edit View Favorites Tools	Help			
🔇 Back + 🐑 - 💌 🗷 🐔	🔎 Search 🤺 Favorites 🧑	0-203		
Agdress a http://192.168.1.10/			×	🔁 Go 🕴 Links 🍟 🗍
SIGNAMAX	(The follow	MIB Count	t ers • port received numl	ber)
, retroite information	Port	TP	FX	CPU
Local Setting	Total Bytes	117288	0	278089
IP Configuration	Total Pkts	944	0	482
Password Setting	Total Error Pkts	0	0	0
Converter Configuration	Unicost Pkts	571	0	482
MIR Counter	Multicast Pkts	5	0	0
SNMP Configuration	Broadcast Pkts	368	0	0
SNMP Community Setting	64	397	0	268
VLAN Q-in-Q Remote Setting	65-127	378	0	10
	128-255	49	0	9
	256-511	117	0	5
	512-1023	3	0	27
ools	1024-1518	0	0	163
Logout	Undersize Pkts	0	0	0
	Oversize Pkts	0	0	0
	Fragments	0	0	0
	CRC Errors	0	0	0
	Jabbers	0	0	0
	Drop Events	0	0	0
	Pause Frames	0	0	0

This page shows local device's MIB counters.

- Clear: All MIB counters will be cleared to zero if click "Clear" button.
- Refresh: Click "Refresh" button to show the current MIB counters again.

Web Smart Media Conver	ter - Microsoft Internet Explorer	
<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u> ools	Help	-
🚱 Back 🝷 🕥 🕤 💌 🛃 🏠	🔎 Search 🤺 Favorites 🤣 🎯 🗟 🗸 🍓 🚍 🦓	
Address a http://192.168.1.10/	So Links »	- 🔊
SIGNAMAX	SNMP Configuration	
	SNMP Ability Disable 💙	
Network Information	Trap mode Disable 🗸	
Local Setting	SNMP Trap IP Address 0.0.0.0	
IP Configuration Password Setting Converter Configuration MIB Counter SNMP Configuration SNMP Community Setting VLAN Q-in-Q	Αρρίγ	
Remote Setting		
Tools Logout		
E Done	🌒 Internet	

SNMP Configuration

- SNMP Ability: Click "SNMP Ability" drop-down menu to choose "Disable" or "Enable" from the "SNMP Ability" drop-down list to disable or enable SNMP functions.
- Trap Mode: Click "Trap Mode" drop-down menu to choose "Disable" or "Enable" from the "Trap Mode" dropdown list to disable or enable to send trap event to SNMP server.
- SNMP Trap IP Address: Click in "SNMP Trap IP Address" text box and type SNMP server's IP address used for trap destination IP.
- Apply: Click "Apply" button when you finished SNMP Configuration.

SNMP Community Setting

Web Smart Media Conver	ter - Microsoft Internet Explorer							
<u>File Edit View Favorites Tools</u>	Help 🥂							
🚱 Back 🝷 🕥 🕤 💌 🛃 🏠	😋 Back 🔹 🛞 🕑 📓 🚷 🔎 Search 🤺 Favorites 🤣 ⊘ 👟 🌺 🔜 🦓							
Address 🕘 http://192.168.1.10/	🗸 🄁 Go 🛛 Links 🎽 👘 🗸							
	SNMP Read Community							
Network Information	Add Read Community							
Local Setting	Delete Read Community							
IP Configuration Password Setting	Read Community 1 public							
Converter Configuration Port Configuration MIB Counter	SNMP Write Community							
SNMP Configuration SNMP Community Setting	Add Write Community							
VLAN Q-in-Q	Delete Write Community							
Remote Setting	Write Community 1 private							
Tools	Apply Clear Read All Clear Write All							
Logout								
	Notice: The SNMP support 5 Read/Write Community.							
🕘 Done	🧳 Internet 🦼							

This media converter supports up to 5 SNMP Read/Write Communities.

SNMP Read Community:

- Add Read Community: Click in "Add Read Community" text box and type a read community name.
- Delete Read Community: Click in "Delete Read Community" text box and type a read community name to be deleted.

SNMP Write Community:

- Add Write Community: Click in "Add Write Community" text box and type a write community name.
- Delete Write Community: Click in "Delete Write Community" text box and type a write community name to be deleted.
- Clear Read All: Click "Clear Read All" button to clear all read community names.

- Clear Write All: Click "Clear Write All" button to clear all write community names.
- Apply: Click "Apply" button when you finished SNMP Community Setting.

VLAN

/LAN Group:			
Web Smart Media Convertion	ter - Microsoft Internet Explorer 💦 🔲 🔀		
<u>File Edit View Favorites Tools</u>	Help 🥂		
🚱 Back 🝷 🕥 🕤 💌 🛃 🐔	🔎 Search 🤺 Favorites 🚱 🔗 🗟 🛛 🍇		
Address 🕘 http://192.168.1.10/	So Links »		
SIGNAMAX Network Information	802.1Q VLAN Group		
Local Setting IP Configuration Password Setting Converter Configuration Port Configuration MIB Counter SNMP Configuration SNMP Community Setting VLAN VLAN Group VLAN Per Port Setting Q-in-Q	Арріу		
Remote Setting			
Tools Logout			
🕘 Done	🥑 Internet		

- VLAN Mode: Click "VLAN Mode" drop-down menu to choose "Disable" or "Enable" from the "VLAN Mode" drop-down list to disable or enable 802.1Q VLAN Group. User could set 16 VLAN entries if enable 802.1Q VLAN Group functions. Each VLAN entry could set VID and member port. The VID should be 1~4094.
- Apply: Click "Apply" button when you finished VLAN Group setting.

VLAN Per Port Setting:

Signamax™ OAM Managed Dual Rate Media Converter

Web Smart Media Conver	ter - Micro	soft	Internet Exploi	rer	
<u>File Edit View Favorites Tools</u>	<u>H</u> elp				2
😋 Back 🔹 🐑 🕑 🔀 💋 Search 🤺 Favorites 🤣 🎯 😪 🍇 🔙 🚳					
Address 🕘 http://192.168.1.10/				🖌 🄁 Co	Links » 📆 🔹
	8	302	.1Q VLAN Per	Port Setting	J
Nature A Tafarratian		Port	Egress Link Type	Port VLAN Entry	
Network Information		ТР	Don't Touch Tag 💙	0 🗸	
Local Setting		FX	Don't Touch Tag 💌	1 🗸	_
The Conference in a		CPU	Don't Touch Tag 🚩	2 💙	
IP Configuration Password Setting Converter Configuration Port Configuration SNMP Configuration SNMP Community Setting VLAN VLAN Group VLAN Per Port Setting Q-in-Q	Notice: Plo	ease	(Apply) make sure the through CPU	VLAN port en J port.	try can go
Remote Setting					
Tools Logout					
截 Done				🔮 Intern	et 🤢

• Egress Link Type:

Replace Tag: The media converter will remove VLAN tags from packets then add new tags to them. The inserted tag is the ingress port's "Default tag", which is indexed by port "Port based VLAN index". This is a replacement processing for tagged packets and an insertion for untagged packets.

Remove Tag: The media converter will remove VLAN tags from packets if they are tagged when these packets are output. The media converter will not modify packets received without tags.

Add Tag: The media converter will add VLAN tags to packets if they are not tagged when these packets are output on this port. The media converter will not add tags to packets already tagged. The inserted tag is the ingress port's "Default tag", which is indexed by port's "Port based VLAN index". Don't Touch Tag: Do not insert or remove VLAN tags to/from packet which is output on this port.

- Port VLAN Entry: Select Port based VLAN index. The number means VLAN table entry index, not VID.
- Apply: Click "Apply" button when you finished VLAN Group setting.

<u>Q-in-Q</u>

🗈 Web Smart Media Converter - Microsoft Internet Explorer 📃 🔲 🔀			
<u>File Edit View Favorites Tools</u>	<u>H</u> elp	A	
🔇 Back 👻 💿 🕐 📓 🟠 🔎 Search 🤺 Favorites 🤣 😥 😓 😹			
Address 🍓 http://192.168.1.10/			
	Q in Q Fu	Inctions Configuration	
Natarak	Q in Q Enable	Disable 💙	
Network Information	Out Layer VLAN Tag Ether Type (HEX)	0x <mark>8100</mark>	
Local Setting	Out Layer VLAN VID (DEC)	0	
Password Setting	Q in Q direction	TP Add QinQ Tag, FX Remove Tag 💌	
Converter Configuration Port Configuration MIB Counter SNMP Configuration SNMP Community Setting VLAN VLAN Group VLAN Per Port Setting Q-in-Q Remote Setting	Apply Warning: If enable Q-in-Q, web connection may be lost because of the VLAN tag		
Tools Logout			
Done		🔮 Internet 🛒	

- Q in Q Enable: Click "Q in Q Enable" drop-down menu to choose "Disable" or "Enable" from the "Q in Q Enable" drop-down list to disable or enable Q in Q function.
- Out Layer VLAN Tag EtherType (HEX): Click in "Out Layer VLAN Tag EtherType" text box and type user defined Q-in-Q out layer VLAN tag Ether type.
- Out Layer VLAN VID (DEC): Click in "Out Layer VLAN VID" text box and type user defined Q-in-Q out layer VLAN tag VID.
- Q in Q direction: Click "Q in Q direction" drop-down menu to choose "P0 Add QinQ Tag. P1 Remove Tag." or "P1 Add QinQ Tag. P0 Remove Tag." from the "Q in Q direction" drop-down list to select Q in Q direction.
- Apply: Click "Apply" button when you finished VLAN Group setting.

Remote Setting

802.3ah Functions

802.3ah Configuratio	on:		
Web Smart Media Converter - Microsoft Internet Explorer			
<u>F</u> ile <u>E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u> ools	<u>H</u> elp		A.
🌀 Back 🔹 🌍 🐇 📓 🏠 🔎 Search 🤺 Favorites 🚱 🍰 🛁 🖓			
Address 🕘 http://192.168.1.10/			🖌 🔁 Go 🛛 Links 🎽 🐔 🕇
SIGNAMAX Network Information	802.3 a	h OAM Configu	Iration
Local Setting	802.3ah Function	O Disable	Enable
	802.3ah Mode	Passive	○ Active
Remote Setting	Remote Loopback	O Disable	Enable
802.3ah Functions 802.3ah Configuration Loopback Test 802.3ah Status		Apply	
Tools	٤	302.3ah Status	•
Logout	Discovery Status	FAULT	
	Fiber Port Status	NORM FWD	
		Refresh	
One			🥥 Internet

- 802.3ah Function: Choose "Disable" or "Enable" to • disable or enable 802.3ah function.
- 802.3ah Mode: Choose "Passive" or "Active" to set • passive or active 802.3ah mode.
- Remote Loopback: Choose "Disable" or "Enable" to • disable or enable remote loopback.
- Apply: Click "Apply" button when you finished 802.3ah • OAM Configuration.
- Refresh: Click "Refresh" button to show the current • 802.3ah status again.

.

Loopback Test:			
🗿 Web Smart Media Converter - Microsoft Internet Explorer 🛛 🔲 🗖 🔀			
Eile Edit View Favorites Tools Help 🦧			
🌀 Back 🔹 🕥 🕞 📓 🚮 🔎 Search 🤺 Favorites 🤣 🍰 🔜 🦓			
Address 💰 http://192.168.1.10/	🔽 🔁 Go 🛛 Links 🎽 📆 🕇		
	802.3ah Loop Back Test		
Network Information	Send Packet 16 (1~255)		
Local Setting	Packet Length(Not include CRC) 60 (60~1514)		
Remote Setting	Apply		
802.3ah Functions 802.3ah Configuration Loopback Test 802.3ah Status			
Tools			
Logout	🔮 Internet		

- Send Packet Number (1~255): Click in "Send Packet Number" text box and type packet number to be sent.
- Packet Length (Not include CRC) (60~1514): Click in "Packet Length" text box and type packet length.
- Apply: Click "Apply" button when you finished 802.3ah Loop Back Test.

Signamax™ OAM Managed Dual Rate Media Converter

Eile Edit View Favorites Tools	Help		
🔇 Back - 🐑 · 💌 😰 🏠	🔎 Search 🤺 Favorites 🕢	6- 🗟 🖻 🚳	
Agdress 1 http://192.168.1.10/			Go 🛛 Links 🔭 🛛 😨
SIGNAMAX	802.3	ah Status Infor	mation
Network Information			
		Global Config	
Local Setting		100 C	
	The second se		
amoto Catting	Function Enable	ENABLED	
Remote Setting	Function Enable Fiber Port State Local DTE MAC	NORM FWD	
Remote Setting 802.3ah Functions 803.3ah Configuration Loopback Test 302.3ah Status	Function Enable Fiber Port State Local DTE MAC	ENABLED NORM FWD 00-E0-83-91-F1-02 Flags Field	
Remote Setting 802.3ah Functions 802.3ah Configuration Loopback Text 902.3ah Status 1001s	Function Enable Fiber Port State Local DTE MAC	NORM FWD 00-E0-B3-91-F1-02 Flags Field Local	Remote
Remote Setting 802.3 ah Functions 803.3 ha Configuration Leopback Test 802.3 ah Status Fools	Function Enable Fiber Port State Local DTE MAC Remote Stable	ENABLED NORM FWD 00-E0-B3-91-F1-02 Flags Field Local FALSE	Remote
Remote Setting 802 34h Functions 802 34h Configuration Loopbact Test 802 34h Status Fools Logout	Function Enable Fiber Port State Local DTE MAC	EAARLED NORM FWD 00-E0-83-91-F1-02 Flags Field FALSE FALSE	Remote
Remote Setting 802-3ah Functions 802-3ah Functions 102-3ah Status 102-3ah Status 10015	Function Enable Fiber Port State Local DTE MAC Remote Stable Remote Evaluating Local Stable	EAABLED NORM FWD 00-60-83-91-F1-02 Flags Field FALSE FALSE FALSE	Remote
Remote Setting 802.3ah Functions 103.3ah Configuration Leopboch Test 102.3ah Status Tools Logout	Function Enable Fiber Port State Local DTE MAC Remote Stable Remote Evaluating Local Stable Local Stable	EAASE FALSE FALSE FALSE FALSE FALSE	Remote
Remote Setting 802.3ah Functions 803.3ah Configuration Leophoda Text 102.3ah Statur Tools Logout	Function Enable Fiber Port State Local DTE MAC Remote Stable Remote Evaluating Local Stable Local Evaluating Critical Event	EAAELED NORM FWD 00-E0-83-91-F1-02 Flags Field FALSE FALSE FALSE FALSE FALSE FALSE FALSE	Remote
Remote Setting 802 3ah Functions 503 Jah Configuration Leopbadi Tert 303 Jah Status 100 Jah Logout	Function Enable Fiber Port State Local DTE MAC Remote Stable Remote Evaluating Local Stable Local Stable Critical Event Dying Gasp	EAAUED NORM FWD OO-E0-83-91-F1-02 Flags Field EALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE	Remote

Web Smart Media Converter - Microsoft Internet Explorer				
Eile Edit View Favorites Tools	Help		27	
🔾 Back • 🔘 · 💌 🖉 🐔	🔎 Search 👷 Favorites 🙆 🙆	• 🕹 🖂 🍇		
Address Attp://192.168.1.10/			👻 🛃 Go 🛛 Linka 🥙 🧌 -	
SIGNAMAX	D	iscovery Informatio	n	
Network Information	Discovery State	FAULT		
	Local PDU	LF_INFO		
Local Setting	Local Satisfied	FALSE		
215 Annual Contraction Statement	Remote State Valid	FALSE		
Remote Setting	Local Lost Link Timer Done	TRUE		
802.3ah Functions	Local Link Status	FALSE		
502 Jah Configuration Loopback Test 302 Jah Status		Information TLV		
Tools		Local	Remote	
Longent	State Mux	FWD		
Logota	State Par	FWD		
	Revision	0x0		
	Variable	FALSE		
	Link Events	TRUE		
	Loopback	TRUE		
	Unidir	FALSE		
	Mode	PASSIVE		
	Remote Dying Gasp Count:	Remote Dying Gasp 0 Clear Refresh		
	Notice: If you want to clean Dying Gasp Count, you can click clear button!			
a) Done			 Internet 	

User's Manual

802.3ah Status:

This page shows 802.3ah Status Information of the media converter.

Tools

System Reboot



- OK: Click "OK" button to restart the media converter.
- OK: Click "Cancel" button to cancel the media converter restarting.

Save and Restore



- SaveToFlash: Click "SaveToFlash" button to save all current configurations to media converter as backup.
- LoadFromFlash: Click "LoadFromFlash" button to restore to previous backup configuration. The Web Interface may be disconnected for restoration.
- ResetToFactory: Click "ResetToFactory" button. The Web Interface will be disconnected. The system will back to factory default mode after media converter resets all configurations. The default IP address is 192.168.1.10.

Firmware Upgrade



- Browse: Click "Browse" button to select the location and file of the new firmware image file on your computer.
- Upgrade: Click "Upgrade" button. The new firmware image file will be burned into the flash. Reset the media converter to use the new firmware.

Logout



- OK: Click "OK" button to logout of the media converter.
- OK: Click "Cancel" button to cancel the media converter logout.

Specifications

Applicable Standards	IEEE802.3 10BaseT
	IEEE802.3u 100BaseTX/FX
	IEEE802.3ab 1000BaseT
	IEEE802.3z 1000BaseSX/LX
Fixed Ports	1 10/100/1000BaseTX port
	1 dual rate 100BaseFX/BX or
	1000BaseSX/LX/BX fiber interface
Speed	
10BaseT	10/20Mbps for half/full-duplex
100BaseTX	100/200Mbps for half/full-duplex
100BaseFX/BX	200Mbps for full-duplex
1000BaseT	2000Mbps for full-duplex
1000BaseSX/LX/BX	2000Mbps for full-duplex
Forwarding rate	14,880pps for 10Mbps
	148,810pps for 100Mbps
	1,488,100pps for 1000Mbps
LED Indicators	Device: PWR, OAM LOOP
	Fiber port: LNKF, GE
	TX port: LNKC, Copper Port Speed, LFS
Dimensions	3.16" (W) x 4.3" (D) x 0.94" (H)
	(80.3mm (W) × 109.2mm (D) × 23.8mm (H))
Weight	1.1lbs. (0.5Kg)
Power	External power adaptor 12VDC, 0.25A
Power Consumption	3W Max.
Operating Temperature	32°F ~ 122°F (0°C ~ 50°C)
Storage Temperature	-4°F ~ 158°F (-20℃ ~ 70℃)
Humidity	5 ~ 95%, non-condensing
Emissions	CE Mark Class A
	FCC part 15 Class A
	VCCI Class A

Contact Information

SIGNAMAX[™] CONNECTIVITY SYSTEMS An AESP Company 999 N.W. 159th Drive Miami, Florida 33169, U.S.A. Phone: 305-944-7710 Fax: 305-949-4483 Sales: 800-446-2377 Tech. Support: 800-446-2377, ext. 201 Http://www.signamax.com E-mail: info@signamax.com