Active Products - Switches

LP-SGW2400 24 ports 10/100/1000 24 ports Remote Web Manageable Smart Switch 10/100/1000 Mbps SNMP capable

LPSGW2400_UG_ENB01W



LP-SGW2400 24 ports 10/100/1000 24 ports Remote Web Manageable Smart Switch 10/100/1000 Mbps SNMP capable.



Chapter 1 Product Specification

Thank you for the loyalty you have shown to our company and products. We are sure the performance and the quality of our devices will be up to your demanding standards. LanPro provides technical support to your product along its lifetime so you get the most of your investment.

1.1 Product Characteristics

 \ast Complies with IEEE802.3, IEEE802.3u, IEEE802.3ab standards

*24 10/100/1000M Auto-negotiation RJ45 port, Auto MDI/MDIX function.

*Supports IEEE802.3x flow control for full-duplex, and backpressure flow control for half-duplex.

*48Gbps backplane bandwidth, support Non-blocking wire-speed forwarding.

*Store and forward architecture, integrated 8K MAC address table, meet all the application demands.

*Supports up to 16 VLAN groups for 802.1q VLAN.

*Supports up to 24 trunks with up to 16 ports in a trunk;

*Supports port bandwidth control function.

*Supports QoS function.

*Supports port-based access control support (IEEE 802.1X).

*Supports source IP filter per port to block unwanted access.

*Supports broadcast storm smart control function.

*Supports port mirror.

*Supports Web Smart and console manager.

*Supports HTTP switch system software upgrading, configuration file, backup and reset function.

*Supports circuit diagnoses.

*Supports flow statistic function, dynamic display switch port receiving -transferring data package situation.

*Suports administration via console.

*Inside wide power, 2 Fan Vents for additional redundance, 1U steel case, 19 Inches strong metallic standard structure design.

1.2 Packing list

Please check the articles included after you open the packing as below:

*1 piece 24 ports Ethernet Switch.
*1 piece power cable.
*1 piece console cable.
*1 pair "L" bracket.
*8 pieces screw.
*4 pieces rubber padding.
*1 piece User's manual.

If any element is remaining, please contact with your distributor. LanPro can supply spare parts in case you need to repair a damaged unit.

Chapter 2 Hardware Installation

2.1 Quick Installation Guide

Choose a proper place for the LP-SGW2400 rack mountable switch, considering the surroundings such as power requirements, space, keep it away from sunlight, heat source, and electromagnetic interference area. The wind range must be at least 10 cm (3 inches) for a good ventilation.

Installation & Connection method:

Stick the rubber padding to the rear side of the switch.

- 2 Use standard EIA 19' rack mount and fix the rack on both sides of the switch. LanPro has a complete line-up of cabinets, racks and Server racks for all kinds of applications.
- 3 Adjust the holes so that they can fit and fasten the switch with the turnbuckle.
- Plug the cable into the switch socket, turn the power on, the switch will test itself, all indicators and lights are on at the same time, after 5 seconds the lights automatically turn off and test is done.
- Put one end of the Cat.5, Cat5e or 6 cable cable into a RJ45 port of the switch, the other end is connected with the NIC card and router If the power of the switch is on, the related indicators are on. Every port of the switch can be used as Uplink port.
 Note: Don't plug a phone line into an RJ45 port, otherwise it will damage the unit.
- 6 The switch can adjust the power automatically depending on the input voltage range within the
 - marked voltage on the rear board.

2.2 LED Indications

LED	Status	Indications
Power	ON/OFF	Power on/off
Link/Act	ON/OFF	Ports connected/Ports unconnected
	FLASH	Data frames are through
Speed	ON/OFF	The transmission rate among ports is 1000Mbps./ The transmission rate is 10/100 Mbps.

Chapter 3 Configuration Guide

3.1 Fast Log In

Notice: You must configure IP for the managing PC, because the default parameter of the switch is listed as below: Default IP address is 192.168.2.1, there is no password. You can log in the switch setting window through the steps as below:

1

Connect the switch with the managing PC adapter.

2

Turn on the switch power supplier.

3

Make sure the PC IP address belong to 192.168.2.xxx, e.g:192.168.2.100(xxx is the integer between 2~254).

4

Open the browser, input the http://192.168.2.1 and "Enter" it, you will see the switch login window as below (take 24 Ports Switch as sample), (figure1):

6

Input the Password (default there is no password), then click the "**Apply**" and the Configuration window will show as below:

There are items in the window's left side, they are: "Configuration", "Monitoring" and "Maintenance". You can set the relative items according to your demands (the more detailed guide will be mentioned in the later chapters, will take the 24Port Switch as sample).

Figure 2



Please enter password to login

Password:

Apply

Figure 1

3.2 System

LanPro LP-SGW2400 S	iNMP Gigabit Switch - Microsoft Int	ernet Explorer	
Ele Edit Yew Favor	ites Iools Help		
🔾 Back + 🔿 - 💌 🙎) 🟠 🔎 Search 😒 Favorites 🍯	0 🙆 - 🗟 🖬	
Address (a) http://192.168	3.2.1/		💌 🛃 Go Links
	LP-SGW24	00 SNMP Gigabit S	witch
SLANP	RO		
			WWW.LAN-PRODUCTS.CO
Configuration	System Configuration	1	
System		00.01 -1.00.00.01	T 1
Ports	MAC Address	00-01-01-00-00-01	
Aggregation	S/W Version	Luton24 2.30b	
RSTP	HVVV Version	1.0	
802.1X IGMP Seconing	Temperature	0.0	-
Mirroring	Active IP Address	192.168.2.1	-
Filter	Active Subnet Mask	200.200.200.0	-
Rate Limit Storm Control	Active Gateway	0.0.0	
	UNCP Server	0.000	-
Monitoring	Lease Time Left	U secs	
Statistics Overview			
LACP Status			=1
IGMP Status	DHCP Enabled		
VeriPHY Ping	Fallback IP Address	192.168.2.1	
Maintenance	Fallback Subnet Mask	255.255.255.0	
Maintenance	Fallback Gateway	0.0.0.0	
Warm Restart	TFTP Server Enabled	Г	
Software Upload	Management VLAN	1	
Configuration File Transfer	Name		-
Logout	Password		

Figure 3

System: Display current switch system situation and you can set the relative items according to your demands.

MAC address: Display the current switch MAC address.
Software Version: Display the switch Software version.
Hardware Version: Display the switch hardware version.
Temperature: This item is ineffective.
Active IP Address: 192.168.2.1 (default).
Active Subnet Mask: 255.255.255.0 (default).
Active Gateway: 0.0.0.0 (default).
DHCP Server: 0 (default).
Lease Time Left: 0 (default).

3.3 Ports

Port display Link station and can set each port as: speed, flow control. Every port can choose one work mode in 7 kinds as below: 10M half-duplex, 10M full-duplex, 100M half-duplex, 100M full-duplex, 1000M full-duplex, autonegotiation, disable. Default is auto-negotiation. Each port must choose a best work mode after it is negotiated with the corresponding object automatically.

LanPro LP-SGW24	100 SNMP Gigat	nit Switch - Mic	rosoft Internet Explo	rer		
Ele Edit Yew I	Fgvorites Looks	Help		-		100
Address (B) http://19	2 168 2 1/	search Scha	vorces 😸 💭 🖓	68		Links 39
verse len underligen	2.100.2.1)	1.0.00				urs
SI ANI	000	LP-SC	3W2400 SN	IMP Gigabi	Switch	
					WWW.LAN-PRODUCT	rs.com
Configuration	Port Conf	iguration				
System	P. 11. T.	L. P.	শা			
Ports VLANs	Enable Ju	mbo Frames	1			
Aggregation LACP						
RSTP 802.1X						
IGMP Snooping Mirroring	Port	Link	Mode	Flow Control		
Quality of Service	1	Down	Auto Speed 💌	F		
Rate Limit Storm Control	2	Down	Auto Speed 💌	F		
	3	100FDX	Auto Speed ·	F		
Monitoring	4	Down	Auto Speed -	Π.		
Statistics Overview	5	Down	Auto Speed ·	E.		
LACP Status	6	Down	Auto Speed ·	Г		
IGMP Status	7	Down	Auto Speed *	F		
Ping	8	Down	Auto Speed *	Г		
Maintenance	9	Down	Auto Speed -	E		
	10	Down	Auto Speed *	-		
Warm Restart Factory Default		and the second second	Plate Opered	-		
Software Upload		Power	Auto Speed	-		
Transfer	12	Down	Auto Speed	1		
Logout	13	Down	Auto Speed V	3 6		

Figure 4

3.4 VLANs

Can set 16 VLAN groups for 802.1q VLAN.

VLAN group setting: the port can communicate only when it is set to the same VLAN goup, a port can belong to a multi VLAN group, and can communicate with a multi VIan group at the same time.

LanPro LP-SGW240	00 SNMP Gigabit Switch - Microsoft Internet Explorer	
Ele Edit yew Fr	gvorites Iools Help	4
🔾 Back 🔹 🔿 🔹 💽	😰 🏠 🔎 Search 👷 Favorites 🙆 😥 🖓 🖼	
Address A http://192	.168.2.1/	💌 🛃 Go Links
	LP-SGW2400 SNMP Gigabit Switc	h
SLAN	PRO	
	WWW	LAN-PRODUCTS.CO
Configuration	Port Segmentation (VLAN) Configuration	
System Ports MLANS	Add a VLAN	
Aggregation LACP RSTP	VLAN ID	
IGMP Snooping	Add	
Quality of Service		
Rate Limit Storm Control	VLAN Configuration List	
Monitoring		
Statistics Overview Detailed Statistics LACP Status RSTP Status IGMP Status VeriPHY	Modify Delete Refresh Port Config	
Ping		
Maintenance		
Warm Restart Factory Default Software Upload Configuration File Transfer		

Figure 5



3.5 Aggregation

Aggregation, also called port trunk ismostly used for the Uplink passage redundancy, an incorrect containerTrunk group can not span the VLAN, all the trunk members must be in the same VLAN, otherwise Trunk function will be lost. You cannot connect the two Trunk groups into each other, and cannot connect two switches by two Trunk passages. Any operation of them will make the network cycle and stop the network.

figuration	Aggregatio	on/	Trui	nkir	ng C	on	igu	rati	on											-					
im In	Group\Port	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
gation	Normal	•	•	•	·	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
x	Group 1	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Snooping	Group 2	C	C	C	C	0	C	0	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
y of Service	Group 3	c	C	C	C	c	C	C	C	C	c	c	c	C	c	C	C	c	C	c	C	C	0	C	C
Control	Group 4	c	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	0	C	C
itoring	Group 5	C	C	C	c	C	C	0	0	C	c	c	C	C	C	C	C	C	C	C	C	0	C	C	C
tics Overview ed Statistics	Group 6	C	C	c	C	C	C	C	C	C	c	c	C	C	C	C	C	C	C	c	C	C	C	C	C
Status	Group 7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
HY	Group 8	c	C	C	C	C	C	C	C	C	c	c	c	C	C	C	c	C	C	C	C	C	C	C	c
tenance			_			100	1.11	0.41.0							1.1.1.1			r							

Figure 6

SLANPRO

3.6 LACP

LACP (IEEE 802.3ad Link Aggregation Protocol) provides a way to set up aggregation automatically between switches.

Agaress 121 http://192.16	8.2.1/	-					Link
-		LP-SG	W2400 SNM	Gigabit	Switch		
3 LANP	RO					BRODUCT	
					WWWW.LAN	PRODUCT	5.0
Configuration	LACPH	ort Config	uration				
System	Port Pr	otocol Enable	d Key Value				
/LANs	1	Г	auto				
ACP	2	Г	auto				
02.1X GMP Snooping	3	Г	auto				
Airroring Quality of Service	4	E	auto				
Rate Limit	5	-	Lauto				
Storm Control	6	-	[auto				
Monitoring	0	-	auto				
Statistics Overview	1		auto				
ACP Status	8		auto				
GMP Status	9	Г	auto				
Ping	10	Π.	auto				
Maintenance	11	Г	auto				
North Designation	12		auto				
factory Default	13	Г	auto				
Software Upload Configuration File	14	Г	otue				
Transfer	15	5	lauto				

3.7 RSTP

RSTP is a protocol that prevents loops in the network and dynamically reconfigures which physical links in a switch should forward frames.

			014	a. On that	
Address 1 http://192	.168.2.1/	_			- E 60 Un
-	L	P-SGW2	400	SNMP Giga	bit Switch
3 LANI	PRO			accession of the second	
					WWW.LAN-PRODUCTS.C
Configuration	RSTP System	m Configuration	n		
System	-				
orts	System Priority	32768 -			
agregation	Hello Time	2			
STP 12 1X	Max Age	20			
SMP Snooping	Forward Delay	15			
luality of Service	Force version	Normal *			
torm Control					
torm Control					
torm Control					
Anitoring	RSTP Port C	onfiguration			
tate Limit from Control fonitoring tatistics Overview letailed Statistics	RSTP Port C	configuration			
ate Limit torm Control Ionitoring tatistics Overview etailed Statistics ACP Status STP Status	RSTP Port C	onfiguration Protocol Enabled	Edge	Path Cost	
ate Limit torm Control fonitoring tatistics Overview etailed Statistics ACP Status STP Status SMP Status eirPHY	RSTP Port C Port Aggregations	Configuration Protocol Enabled	Edge	Path Cost	
ate Limit form Control Ionitoring tatistics Overview etailed Statistics ACP Status STP Status STP Status MP Status enPHY ing	RSTP Port C Port Aggregations 1	Configuration Protocol Enabled	Edge	Path Cost	
ate Limit torm Control Ionitoring tatistics Overview etailed Statistics ACP Status STP Status STP Status MP Status enPHY ing	RSTP Port C Port Aggregations 1 2	Configuration Protocol Enabled	Edge	Path Cost	
ate Limit torm Control Ionitoring tatistics Overview enaded Statistics ACP Status STP Status enPHY Ing Iaintenance	RSTP Port C Port Aggregations 1 2 3	Configuration	Edge	Path Cost Judo Judo Judo	
ate Limit toom Control lonitoring talistics Overview etailed Statistics STP Status STP Status eniPHY ing laintenance /arm Restart scroor Default	RSTP Port C Port Aggregations 1 2 3	Configuration Protocol Enabled	Edge	Path Cost Juto Juto Juto	
ate Limit Ionitoring talistics Overview etailed Statistics ACP Status ST Status MPPHY ng Iaintenance /arm Restart actory Default otware Upload	RSTP Port C Port Aggregations 1 2 3 4	configuration Protocol Enabled	Edge	Path Cost Jauto Jauto Jauto Jauto	
table Limit torm Control Anitoring Statistics Overview Vetabled Statistics ACP Status STP Status STP Status StP Status tertPHV Maintenance Varm Restart actory Default ordinvare Upoad ordingutation File regene	RSTP Port C Port Aggregations 1 2 3 4 5	Configuration Protocol Enabled	Edge	Path Cost auto auto auto auto auto auto	

3.8 802.1X

Sets or shows 802.1X processes for every port of the SGW2400 switch.

		1.0	0014	24		Olymphik (Sec. 14 - In	
		LP-	SGW	241	UU SNMP	Gigabit S	switch	
	HU						WWW LAN-	RODUCT
Configuration	802.1X	Configu	ration					
-								
ystem	Mode:		Disabled	•				
LANs	RADIUS I	Р	0.0.0.0					
ACP	RADIUS	JDP Port	1812	-				
12 11	DADING			_				
firroring	RADIUS	secret						
iter	Dert	Admin	State		Dort State			
tate Limit Storm Control	FUIL	Ean	Authorized	-	902 IV Disabled	Do authentionto	Earon DainitiaEro	Ctotistics
		Forces	Huthonzed	-	OU2. TA Disabled	Re-autoenticate	Force Reminanze	STOUSICE
Ionitoring	2	Force	Authorized	-	802.1X Disabled	Re-authenticate	Force Reinitialize	Statistics
Statistics Overview	3	Force	Authorized		802.1X Disabled	Re-authenticate	Force Reinitialize	Statistics
etailed Statistics ACP Status	4	Force	Authorized	٠	802.1X Disabled	Re-authenticate	Force Reinitialize	Statistics
STP Status	5	Force	Authorized		802.1X Disabled	Re-authenticate	Force Reinitialize	Statistics
/eriPHY Ping	6	Force	Authorized	•	802.1X Disabled	Re-authenticate	Eorce Reinitialize	Statistics
Aaintenance	7	Force	Authorized	•	802.1X Disabled	Re-authenticate	Eorce Reinitialize	Statistics
	8	Force	Authorized		802.1X Disabled	Re-authenticate	Force Reinitialize	Statistics
Varm Restart actory Default	9	Force	Authorized	•	802.1X Disabled	Re-authenticate	Force Reinitialize	Statistics
Software Upload	10	Force	Authorized		802.1X Disabled	Re-authenticate	Force Reinitialize	Statistics
ransfer	11	Force	Authorized		802.1X Disabled	Re-authenticate	Eorce Reinitialize	Statistics
ogout	12	Force	Authorized		802.1X Disabled	Re-authenticate	Force Reinitialize	Statistics

Figure 9

Figure 7

Figure 8

3.9 IGMP Snooping

Per default – and when enabled - IGMP snooping will function in each statically defined VLAN (i.e. those VLANs that are stored in non-volatile configuration memory). The IGMP snooping module will listen to IP multicast router IGMP queries and the IGMP reports from hosts, and will update the switch device MAC table with IP multicast group MAC addresses and port masks according to the received reports. If no IP multicast router is present in an IGMP enabled VLAN, the switch will perform the querying itself in that particular VLAN.

The switch querying functionality can be enabled and disabled per VLAN. The switch must be setup for IP management in order for the querying to work.

IGMP Enab	led	
Router Por	ts	1
Unregistere	ed IPMC Flooding enabled	N
VLAN ID	IGMP Snooping Enabled	IGMP Querying Enabled
1	V	N
1	l I	

3.10 Mirroring

Port mirror function can transfer a monitored package (means the received and sent or sending receiving package can be monitored by the monitor mode) to the monitor port, satisfy the managing bureau to monitor the Internet cafe, the enterprise monitoring software monitors the totality of visiting demands. If the monitor and monitored port is the same port, the later will be neglected by the system automatically.

The Monitor port bandwidth should be bigger or equal to the monitored port bandwidth.

SLANP	RO		
			WWW.LAN-PRODUCTS.CO
Configuration	Mirroring Co	offerentian	
Configuration	Milloring Co	iniguration	
System	Port	Mirror Source	
VLANs	1	F	
LACP	2		
802.1X	3	Г	
Mirroring Quality of Service	4	F	
Filter Pate Limit	5	F	
Storm Control	6	F	
Monitoring	7		
and services	8	F	
Detailed Statistics	9	F	
RSTP Status	10	F	
VeriPHY VeriPHY	11		
Ping	12		
Maintenance	13		
Warm Restart	14		
Factory Default	15	_	
Configuration File	16		
Transfer	17		
	18		

Figure 11

3.11 Quality of Service

Shows the configured QoS mode, IP ToS Precedence priority mapping, VLAN user priority mapping, default priority, default VLAN user priority, L4 default priority, L4 match priority and UDP/TCP entries for the port.

QoS Configuration					
QoS Mode	QoS Disabled 💌				
APPLY	CANCEL				

Figure 12

SLANPRO

3.12 Filter

Sets the source IP filter per port to block unwanted access.

	Filter	Configuration	on		
System Ports	Port		Source IP Fil	lter	DHCP Server
Aggregation	1000	Mode	IP Address	IP Mask	Allowed
RSTP	1	Static	0.0.0.0	0.0.0.0	9
802.1X IGMP Snooping	2	Disabled 💌	[- F
Quality of Service	3	Disabled •	[-	-
Rate Limit Storm Control	4	Disabled -		-	-
Monitoring	5	Disabled •			-
Statistics Overview	6	Disabled -		- (
Detailed Statistics LACP Status	7	Disabled •		- [-
RSTP Status IGMP Status VeriPHV	8	Disabled 💌			-
Ping	9	Disabled -		- j	-
Maintenance	10	Disabled •			-
Warm Restart	11	Disabled •		-	
Factory Default Software Upload	12	Disabled •		- [-
Configuration File	13	Disabled v	í		

Address Attp://192.168.2.1/

3.13 Rate Limit

The Rate Limit can prevent the saome customer to occupy a huge bandwidth which may affect the normal network using. An ISP or WISP application as well as a district broadband network environment needs this kind of switch application quite a lot.

Port: 24 Optional 10/100/1000Mbps port, choose the relative port if needed.

Policer/Shaper Speed:

optional is as below: 128kbps, 256kbps, 384kbps, 512kbps, 640kbps, 768kbps, 836kbps, 896kbps, 1024Mbps, 1152kbps, 1280kbps, 1408kbps, 1536kbps, 1664kbps, 1792kbps, 1920kbps, 2048kbps, 2176kbps, 2304kbps, 2432kbps, 2560kbps, 2688kbps, 2816kbps, 2944kbps, 3072kbps, 3200kbps, 3328kbps, 3456kbps, 3584kbps, 3712kbps, 3840kbps, 3968 kbps.

Notice: If the chosen speed is higher than the practical speed, the status column will display the chosen No., but not the practical speed.



3.14 Storm Control

Storm Control: Can Prevent the switch the transfer of broadcasts, when the broadcast package arrives, the switch sets frames according to the customer's setting, the exceeding package will be thrownautomatically, this will ensure that the switch runs in an stable way, Broadcast Control speed: optional is 1kfps, 2fps, 4fps, 8fps, 16fps, 32fps, 64fps, 128fps, 256fps, 512fps, 1024fps, 2048fps, 4096fps, 8192fps, 16384fps, 32768fps.

Remarks:

1.-Broadcast means sending the data package to all the host of thenetwork.

2.-Multicast means sending the data package to a Host aroup of the network.

3.-Uncase means sending the data package to a Host of the network.

4.-Unknown uncase means the destination MAC address haven't been confirmed.

5.-Switch cannot control the broadcast package totally, can only restrict the broadcast sent speed.

Configuration	Rate Limit	Configuration		
System	Port	Policer	Shaper	[
VLANs Aggregation	1	3712 kbps 💌	No Limit 💌	
LĂČP* RSTP	2	No Limit 💌	No Limit 💌	1
802.1X IGMP Snooping	3	No Limit 💌	No Limit 💌	1
Mirroring Quality of Service	4	No Limit 💌	No Limit 💌	
Rate Limit	5	No Limit 💌	No Limit 💌	1
Storm Control	6	No Limit 💌	No Limit 💌	
Monitoring	7	No Limit 💌	No Limit 💌	
Statistics Overview	8	No Limit 💌	No Limit 💌	
LACP Status	9	No Limit 💌	No Limit 💌	
IGMP Status	10	No Limit 💌	No Limit 💌	
Ping	11	No Limit 💌	No Limit 💌	1
Maintenance	12	No Limit 💌	No Limit 💌	
Nam Dectart	13	No Limit 💌	No Limit 💌	
Factory Default	14	No Limit 💌	No Limit 💌	
Software Upload Configuration File	15	No Limit 💌	No Limit 💌	
Transfer Logout	16	No Limit 💌	No Limit 💌	
	17	Ale Link al	Ata Linck w	

Figure 14

Storm Control Configuration Storm Control Number of frames per second **ICMP** Rate No Limit 💌 Learn Frames Rate No Limit 💌 Broadcast Rate No Limit 🔻 No Limit 💌 Multicast Rate No Limit 💌 Flooded unicast Rate Refresh Apply

Figure 15

🕶 🛃 Go 🛛 Links

	Chapter	4	Monitoring	Guide
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4.1 Statistics Overview

Display all the port current Transmit information and Receive information.

					WWW.LAN-F	RODUCTS
			Statistic	s Overview fo	r all ports	
Configuration	Clear Re	fresh				
System	-					
VLANs	Port	Tx Bytes	Tx Frames	Rx Bytes	Rx Frames	Tx Errors
Aggregation	1	0	0	0	0	0
RSTP	2	0	0	0	0	0
802.1X	3	0	0	0	0	0
IGMP Snooping	4	395926	774	148063	1210	0
Quality of Service	5	0	0	0	0	0
Filter Pate Limit	6	0	0	0	0	0
Storm Control	7	0	0	0	0	0
	8	0	0	0	0	0
Monitoring	9	0	0	0	0	0
	10	0	0	0	0	0
Statistics Overview	51	0	0	0	0	0
LACP Status	12	0	0	0	0	0
RSTP Status	13	0	0	0	0	0
VeriPHY	14	0	0	0	0	0
Ping	15	0	0	0	0	0
	16	0	0	0	0	0
Maintenance	17	0	0	0	0	0
	18	0	0	0	0	0
Warm Restart	19	0	0	0	0	0
Factory Default	20	0	0	0	0	0
Configuration File	21	0	0	0	0	0
Transfer	22	0	0	0	0	0
Logout	23	0	0	0	0	0
1000000	24	0	0	0	0	0

Figure 16

Figure 17

4.2 Detailed Statistics

Display the port current Transmit detailed information and Receive detailed information.

and the second s							WWW	V.LAN-	PRODUC	TS.CO
			Sta	tistics	for Port	1				
onfiguration	Clear Refresh	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Port 7	Port 8	
em		Port 9	Port 10	Port 11	Port 12	Port 13	Port 14	Port 15	Port 16	
		Port 17	Port 18	Port 19	Port 20	Port 21	Port 22	Port 23	Port 24	
ation	Receive	Total					Trar	ısmit Tota	1	
	Rx Paskets			0	Tx Packets					1
nooping	Rx Octets			0	Tx Octets					(
of Service	Rx High Priority Paskets				Tx High Prior	ty Packets				
	Rx Low Priority Packets				Tx Low Prices	ly Packets				
ontrol	Rx Breadcast				Tx Broadcast					()a
	Rc Multicart				Tx Multicart					
itoring	Rx Broad- and Multicast			0	Tx Bisad- and	d Multicast				0
	Rc Enor Padents			0	Tx Enor Pade	ets .				
ics Overview	Receive Siz	e Counters					Transmit	Size Cou	nters	
Status	Rx64 Bytes				Tx 04 Bytes					24
Xatus	Rx65-127 Bytes			,	Tx 65-127 By	tes				39
Yatus	Rx 128-255 Bytes				Tx 128-255 B	ytes				
	Rx 255-511 Bytes				Tx 256-511 B	ytes				
and the second	Rx 512-1023 Bytes				Tx 512-1023	Bytes		3		
ntenance	Rx 1024 Bytes				Tx 1024 Byte	d .				
10.00	Receive Erro	or Counters					Transmit	Error Cou	inters	
n Restart	Rc CRC/Aligment				Tx Collisions			1		
are Unload	Rx Undersize				Tx Drops					24
guration File	Rx Oversize				Tx Overflow	i				
ar	Rx Fragments	· · · · · ·								_
	Pro Jakhara	0			18					

4.3 LACP Status

Display the port LACP Status.





	Address a http://192	.168.2.1/						Go Links »
Display the port RSTP Port Status.	SLAN	PRO	LP-SGW2400	SNMP	Gigat	bit Swi w	tch ww.lan	-PRODUCTS.COM
	Configuration	RSTP VL	AN Bridge Overview					
	System	VLAN Id	Bridge Id	Hello Time	Max Age	Fwd Delay	Topology	Root Id
	VLANs Aggregation	1	32769:00-01-c1-00-00-0	2 2	20	15	Steady	This switch is Root!
	LACP RSTP 802.1X IGMP Snooping Mirroring Quality of Service Filter	Refresh RSTP Pol	rt Status					
	Rate Limit Storm Control	Port/Grou	p Vlan Id Path Cost Ed	ge Port P2p]	Port Protor	col Port Stat	e	
	Monitoring	Port 1				Non-STR	•	
	Statistics Overview	Port 2				Non-STR		
	Detailed Statistics LACP Status	Port 3				Non-STR		l
	IGMP Status	Port 4				Non-STR	•	l
	Ping	Port 5				Non-STR	•	
	Maintenance	Port 6				Non-STR		
Eigure 10		Port 7				Non-STR	1	
lighte 13	Warm Restart Factory Default	Port 8				Non-STR		
	Software Upload	Port 9				Non-STR	•	
	Transfer	Port 10				Non-STR		
	Logout	Port 11				Non-STR		

4.5 IGMP Status

Display IGMP Status.

	IGMP S	Status						
	VLAN ID	Querier	Queries transmitted	Queries received	v1 Reports	v2 Reports	v3 Reports	v2 Leaves
	1	Idle	0	0	0	0	0	0
Figure 20	Refres	h		_				

4.7 Ping

4.6 VeriPHY

Type of diagnostics. **"Full"** comprises cable length and full anomaly check, **"anomaly"** comprises full anomaly check and **"termination"** comprises anomaly check without check for coupling between pairs (default: full).

The ping function is to	test the connectedness	of	the
between the switch and	destination.		

t	Port 1 💌	
de	Full	
le Statu	IS	0
ole Statu Pair	S	Status
ble Statu Pair A	S Length [m] -	Status -
ble Statu Pair A B	S Length [m] -	Status - -
able Statu Pair A B C	S Length [m] - -	Status - - -

Figure 21

Ping Parameters Target IP address Count 1 💌 Time Out (in secs) 1 💌 Apply **Ping Results** Target IP address 0.0.0.0 Status Test complete Received replies 0 0 Request timeouts 0 Average Response Time (in ms) Refresh

Figure 21b

link

E	LA	NI	DF	20

	E	Chapter 5 Maintenance Guide		
	5.1 Warm Restart			
		Warm Restart: click "Yes" to start	restart the switch.	
	Figure 22	a Warm Restart? Yes	No	
	5.2 Factory Default			
		Restore Factory Configuration: cl factory default configuration.	ick "Yes" to start res	tore
		NOTICE: Please do login into t after you restore factory default o changed the default IP address b the new IP address of you set.	the switch window a configuration. If you o efore restore, please	gain once use
		Factory Default		
	Figure 23	Are you sure you want to perform a F	actory Default? Yes	No
	5.3 Software Upload	1		
The up will re login.	ograding process will n boot automatically af	eed about 1 minute, the switch ter upgraded, you need to re- Figure 24	Software Upload	Browse
	5.4 Configuration Fi	le Transfer		
•	Configuration File	upload and download.	Configuration Uplo	Browse
	5.5 Logout	Figure 25	Configuration Dow	nload
Contract				
cance securi	i user, exit the settir ty.	iy window, make sure system	Please enter pass	sword to login
		Figure 26	Apply	

Chapter 6 Command Line Interface

6.1 Com Port Set-up

To use the command line interface you may connect a PC COM port to the RS-232 connector and activate a terminal program, e.g. HyperTerminal under Windows. The COM port must be set up to run 8 data bits, 1 stop bit, no parity, 115200 baud and without flow control.

New Con - | D | × 02 08 20 2 X COMI Propertie ? X Connect To Settings Port Settings New Connection Change I Bits per second United State Data bits: 8 • 21 Parity: None ٠ Stop bits: 1 * • Cognect using: COM Flow control None ٠ Configure Detect Carrier Loss Figure 27 Restore Defaults OK Cancel Appl OK. Cancel Auto detect Auto detect NUM Capture

6.2 Command Hierarchy

Figure 28

The CLI is hierarchical with two levels: a top level and a group level. The group level consists of the following groups: System, Console, Port, MAC, VLAN, Aggregation, LACP, RSTP, User Group, QoS, Mirror, IP, Dot1X, Debug.

At top level you may enter a command by giving the full command string, including group, or you may change context into a group by entering the name of the group.

At group level you may enter commands for the particular group you have chosen without specifying the group name or you may return to the top level by entering the up command.

The current level and group is indicated by the prompt. If you are at the top level, the prompt will be: >

If you are at group level, the prompt will display the actual group, e.g.

System>

At group level you also have the option of using the slash (/) key to refer to a context relative to the top level. E.g. you may be in the system group and enter a /console/configuration command or change context into the console group by entering **/console**.

Port - Port commands MAC - MAC commands VLAN - VLAN commands Aggr - Aggregation commands LACP - IEEE 802.3ad Link Aggregation commands RSTP - IEEE 802.1w Rapid Spanning Tree commands User Group - User Group commands QoS - QoS commands Mirror - Mirror commands Dot1x - Dot1x commands Filter - Filter commands Fortx - Dot1x commands Bot1x - Dot1x commands Filter - Filter commands Fortx - Dot1x commands Fortx - Dot1x commands Fortx - Dot1x commands Fortx - Dot1x commands Filter - EiMP Snooping commands Debug - Debug commands	le - - - - - - - - - - - - - - - - - - -			Conversion of the second secon	Nore EE r co lte	ale com ga 80 80 Gr Sn Sn	comma mar mma tic 2.3 2.1 oup mar com com com com com	and and and and and and and and and and	ands s comr Lin Rap: nds ds ds ds ds	s nk id anc	nds Age Spa Is	areç anni İs	iat: ng	on Tr	ee	omm CO	ands mmar	s nds			
---	--	--	--	--	------------------------	--	---	--	---	----------------------	-------------------------	--------------------	------------	----------	----	-----------	--------------	----------	--	--	--



6.3 Login/Logout Procedures

To get access to the CLI you must login by entering a password. You will automatically be queried about the password.

The password is configurable. The password check may be disabled by setting the password to an empty string "", in which case any password entered during login will be accepted.

You may logout at any time and at any context level using the "exit" command.

Figure 29

Debug >System System? Commands at System Cont System Rest System Rest System Trag System Trag System Trag System Trag System Reat System Trag 	- Debug of System 10 iguration ore Defau: e[(cname)] ot [em] (community community core Defau: ng to defa ing new co	commands [all] [t [keepIP disable] ress) [<communi [<communi [<communi [t KeepIP ault config ult config onfigurati</communi </communi </communi 	ty stri ity stri ty stri guration on	ng>] ing>] ng>] n				
Password:								
Connected 0:03:57	Auto detect	115200 8-N-1	SCROLL	CAPS	NUM	Capture	Print echo	

6.4 Help Utility

You may get help by pressing the **?** key or entering **"help"**. The help info depends on the context: At top level, a list of command groups is displayed.

At group level, a list of the command syntaxes for the current group is displayed.

If the help command is issued for a specific command, the command syntax and a description of the command are shown.

6.5 Example 1

Commands at top level:

The command hierarchy and the help utility is demonstrated in the following example: >? <enter>

System	– System commands
Console	- Console commands
Port	- Port commands
MAC	- MAC table commands
VLAN	- VLAN commands
Aggregation	 Aggregation/Trunking commands
LACP	-IEEE802.3ad Link aggregation commands.
RSTP	- IEEE802.1w Rapid Spanning Tree commands.
User Group	- User Group commands.
QoS	– QoS commands
Mirror	- Mirror commands
IP	– IP commands
Dot1x	- Dot1x commands
Debug	- Debug commands

> console <enter> Console> ? <enter> Commands at Console level: Console Configuration Console Password [<password>] Console Timeout [<timeout>] Console Prompt [<prompt string>] Console> password ? Syntax: Console Password [<password>] Description: Set or display console password. The empty string ("") disables the password check. [<password>]: Password string of up to 16 characters. Console>

>/ >? Commands at System Console Port MAC VLAN Aggr LACP RSTP User Group QoS Mirror IP Dot1x Filter IGMP Debug >	top leve - System - Consol - Port C - MAC co - VLAN c - Aggreg - IEEE 8 - User 6 - QoS co - Mirror - IP com - Dotlx - Filter - IGMP S - Debug	1: commands e commands ommands ation comm 02.3ad Lin roup comma mmands commands commands commands nooping co commands	ands k Aggreg d Spanni nds mmands	ation com ng Tree co	mands ommands		
					-	-	<u> </u>

6.5 Example 2

1

Please open the Hyperterminal console. Configure the Hyper terminal.

2

Input the password an press hit enter

You will be located at the console root, indicated by the symbol > In order to know the available commands in this level, please enter ? and then "**enter**".



Figure 31

3

Place the sublevel you wish to enter to, in this example we wish to reset the switch values to factory settings, hence we input: "System" and then "Enter" In order to take a look at the sublevel values, we enter: ? and then "enter" We will be able to look at the available commands. In this case, we will input: Restore Default KeepIP this will restablish factory settings and keep the IP, then input: "Enter" The equipment will show us the factory settings restablishment and the reset process.



Figure 33

VLAN – VLA Aggr – Agg LACP – IEE RSTP – IEE User Group – Use QoS – QoS Mirror – Mir IP – IP Dot1x – Dot Filter – Fil IGMP – IGM Debug – Deb >	regation commands regation comm E 802.3ad Lin E 802.1w Rapi r Group commands ror commands ror commands 1x commands 1x commands ter commands P Snooping co ug commands	ands k Aggred d Spann nds mmands	gation ing Tr	n comm ee co	ands mmands	
---	--	--	------------------	-----------------	----------------	--

Figure 32

4

In order to return to the submenú, please input the symbol "/" and then ""\Enter".

Please input "Exit" and then "Enter" for exiting.

Debug >System System>?	- Debug c	ommands			
System Cont	iguration	[all]			
System Rest	ore Defaul	t lkeep1P	1		
System Rebo	ot				
System Xmoo	em	i anh 1 a 1			
System SNM		1Sablej			
System Read	community	[<communi< th=""><th>ty string></th><th>1</th><th></th></communi<>	ty string>	1	
System Writ	ecommunity	[<commun< td=""><td>ity string</td><td>>1</td><td></td></commun<>	ity string	>1	
System Irap	community	L <commun1< th=""><th>ty string></th><th>1</th><th></th></commun1<>	ty string>	1	
Up System>Rest *** Restore	ore Defaul ng to defa d to defau	t KeepIP ult confi ult config	guration uration	•	
*** Hctiva	ing new co	nfigurati	on		
Suctors /					
System>/ >exit					

Figure 34