



8 PORT 10/100 MBPS WEB MANAGED POE SWITCH, 2 COMBO

Ports

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As our products undergo continuous development the specifications are subject to change without prior notice



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1 Introduction

Power-over-Ethernet (PoE) eliminates the need to run DC power to other devices on a wired LAN. Using a Power-over-Ethernet system, installers need to run only a single Category 5 Ethernet cable that carries both power and data to each device. This allows greater flexibility in the locating of network devices and, in many cases, significantly decreases installation costs.

There are two system components in PoE - the PSE (Power Sourcing Equipment) and the PD (Powered Device). The IEEE 802.3af/at specification defines PSE as a device that inserts power onto an Ethernet cable. The PSE may be located at the switch (End-span configuration). or it may be a separate device located between the switch and the PD (Mid-span configuration). The PD is the natural termination of this link, receiving the power, and could be an IP phone, a WLAN access point, or any other IP device that requires power. The current is transmitted over two of the four twisted pairs of wires in a Category-5 cable.

Power-over-Ethernet follows the IEEE 802.3af/at specification and is completely compatible with existing Ethernet switches and networked devices. Because the Power Sourcing Equipment (PSE) tests whether a networked device is PoE-capable, power is never transmitted unless a Powered Device is at the other end of the cable. It also continues to monitor the channel. If the Powered Device does not draw a minimum current, because it has been unplugged or physically turned off, the PSE shuts down the power to that port. Optionally, the standard permits Powered Devices to signal to the PSEs exactly how much power they need.

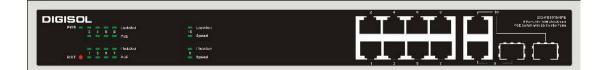
The PoE switch is a multi-port fast Ethernet switch that can be used to build high-performance switched workgroup networks. This switch is a store-and-forward device that offers low latency for high-speed networking. It also features a 'store-and-forward switching' scheme that allows the switch to auto-learn and store source addresses in a 8K-entry MAC address table. The switch is targeted at workgroup, department or backbone computing environments.



2 Hardware Description

2.1 Front Panel

The front panel consists of LED indications, reset button and 8x10/100 PoE ports + 2x10/100/1000 Uplink pots.



2.2 LED Indicators

Power LED: The Power LED lights up when the switch is connected to a power source.

Link/Act LED:

Green (for megabit ports): Indicates that the port is running at 100M.

Green (for gigabit ports): Indicates that the port is running at 100M.

Blinking: Indicates that the switch is either sending or receiving data to the port.

Light off: No link.

PoE LED:

Green: Indicates the PoE powered device (PD) is connected and the port supplies power successfully.

Light off: Indicates no powered device (PD) connected.

Reset: By pressing the Reset button for 5 seconds the switch will change back to the default configuration and all changes will be lost.

2.3 Rear Panel

The rear panel view of the switch consists of a AC power connector, Power Switch and Fuse.





3 Hardware Installation

3.1 Package contents

Package contents include the following:

- PoE Switch:8x10/100 PoE ports with 2x10/100/1000 combo ports Ethernet Switch
- AC power cord
- Two (2) rack-mount pallet and Six (6) screws
- Four (4) adhesive-backed rubber feet
- User's manual

IMPORTANT: If any piece is missing or damaged, please contact your local dealer or reseller for service.

3.2 Switch Installation

Desktop or Shelf Installation

When installing the switch on a desktop or shelf, the rubber feet included with the device must be attached on the bottom at each corner of the device's base. Allow enough ventilation space between the device and the objects around it.

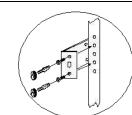
Note: Do not press on the switch. Any pressure more than 4.5kg may cause damage to switch.

Rack Installation

The switch can be mounted in an EIA standard size 19-inch rack, witch can be placed in a wiring closet with other equipment. To install, attach the mounting brackets to the switch's side panels (one on each side) and secure them with the screws provided.



Then, use the screws provided with the equipment rack to mount the switch in the rack.



Please be aware of following safety instructions when installing:

- Elevated Operating Ambient If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.
- Reduced Air Flow Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
- Mechanical Loading Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
- Circuit Overloading Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
- Reliable Earthing Reliable Earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips)."

3.3 Grounding the Switch

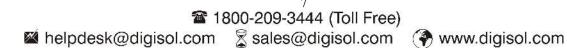
The section describes how to connect the switch to ground. You must complete this procedure before powering your switch.

Required Tools and Equipment

- Ground screws: One M4 x 6mm (metric) pan-head screw
- Ground cable: The grounding cable should be sized according to local and national installation requirements. Depending on the power supply and system, a 12 to 6 AWG copper conductor is required for U.S installation. Commercially available 6 AWG wire is recommended. The length of the cable depends on the proximity of the switch to proper grounding facilities.
- A screwdriver

The following steps let you connect the switch to a protective ground:

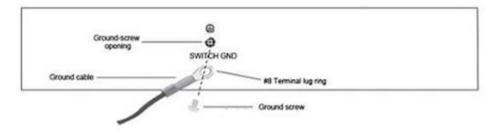
Step 1: Verify if the system power is off. Step 2: Use the ground cable to place the #8 terminal lug ring on top of the ground-screw





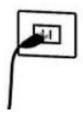
opening, as seen in the figure below.

- Step 3: Insert the ground screw into the ground-screw opening.
- Step 4: Using a screwdriver, tighten the ground screw to secure the ground cable to the switch.
- Step 5: Attach the terminal lug ring at the other end of the grounding cable to an appropriate grounding stud or bolt on rack where the switch is installed.
- Step 6: Verify if the connections at the ground connector on the switch and the rack are securely attached.



3.4 Plugging in the AC Power Cord

Users may now connect the AC power cord into the rear of the switch and to an electrical outlet (preferably one that is grounded and surge protected).

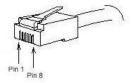


Power Failure

As a precaution, the switch should be unplugged in case of power failure. When power is resumed, plug the switch back in.

3.5 Connecting Ethernet Interface

Use switch's UTP to connect to other Ethernet terminals. Refer to the following chart:





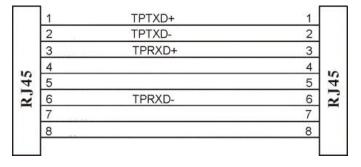
UTP port explanation for Fast Ethernet is shown as follows:

Pin NO.	Description	Name	Note
1	Data transmission positive	TPTXD+	Output
2	Data transmission negative	TPTXD-	Output
3	Data receive positive	TPRXD+	Input
6	Data receive negative	TPRXD-	Input

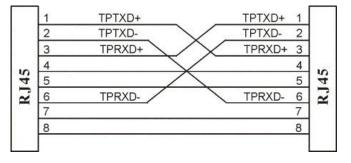
UTP port explanation for Gigabit Ethernet is shown as follows:

Pin NO.	Description	Name	Note
1	Data transmission positive	TPTXD1+	Output
2	Data transmission negative	TPTXD1-	Output
3	Data receive positive	TPRXD2+	Input
6	Data receive negative	TPRXD2-	Input
4	Data Bi-directional positive	BI_D3+	Bidirectional
5	Data Bi-directional negative	BI_D3-	Bidirectional
7	Data Bi-directional positive	BI_D4+	Bidirectional
8	Data Bi-directional negative	BI_D4-	Bidirectional

Cable connection and colors follow the regulations in EIA/TIA 568A as follows:



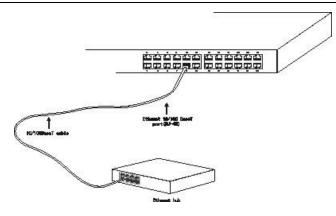
Cable connection and colors follow the regulation in EIA/TIA 568B as follows:



Choose the connection which best fits the connection between switch and other Ethernet terminal. 10/100Base-TX port and other Ethernet terminal connection is shown as follows:







4 Troubleshooting

This section is intended to help solve the most common issues with the PoE Switch

Incorrect connections

Every port on this switch can automatically detect either straight or crossover cables when you link it with other Ethernet devices but other devices may demand a specific cable type (depending on the device). Choose the appropriate cable to connect between the units. The RJ-45 connector should use correct UTP or STP cable, 10/100Mbps port use 2-pairs twisted cable. If th RJ-45 connector is not correctly pinned then the link will fail.

Faulty or loose cables

Look for loose or obviously faulty connections. If they appear to be OK, make sure the connections are snug. If that does not correct the problem, try a different cable.

Non-standard cables

Non-standard and miswired cables may cause numerous network collisions and other network problems, and can seriously impair network performance. A cable tester is the recommended tool for network installation.

RJ-45 ports: Use unshielded twisted-pair (UTP) or shield twisted-pair (STP) cable for RJ-45 connections: 100Ω Category 3, 4 or 5 cable for 10Mbps connections, 100Ω Category 5 cable for 100Mpbs connections, or 100Ω Category 5e/above cable for 1000Mbps connections. Also be sure that length of any twisted-pair connection does not exceed 100 meters (328 feet). We suggest using Category 5e cable when connection to power a device.

Improper Network Topologies

It is important to make sure that you have a valid network topology. Common topology faults



include excessive cable length and too many repeaters (hubs) between end nodes. In addition, you should make sure that your network topology contains no data path loops. Between any two ends nodes, there should be only one active cabling path at any time. Data path loops will cause broadcast storms that will severely impact your network performance.

Diagnosing LED Indicators

To assist in identifying problems, the switch can be easily monitored through panel indicators, which describe common problems the user may encounter and where the user can find possible solutions. If the LED display detection isn't correct, please unplug then plug in the cable again.

If the power indicator does not light when the power cord in plugged in, you may have a problem with the power outlet or power connections, power losses, or surges at power outlet. If the problem still cannot be resolved, please contact the local dealer for assistance.

5 Getting Started

This chapter introduces the management interface of the switch.

5.1 Management Options

The Switch can be managed through any port on the device by using the Web-based Management

Each switch must be assigned its own IP Address, which is used for communication with Web-Based Management. The PC's IP address should be in the same range as the switch. Each switch can allow only one user to access the Web-Based Management at a time.

Please refer to the following installation instructions for the Web-based Management.

5.2 Using Web-based Management

After a successful physical installation, you can configure the switch, monitor the network status, and display statistics using a web browser.

Connecting to the Switch

You will need the following equipment to begin the web configuration of your device:

■ A PC with a RJ-45 Ethernet connection





A standard Ethernet cable

Connect the Ethernet cable to any of the ports on the front panel of the switch and to the Ethernet port on the PC.

Login Web-based Management

In order to login and configure the switch via an Ethernet connection, the PC must have an IP address in the same subnet as the switch. For example, if the switch has an IP address of **192.168.0.1**, the PC should have an IP address of **192.168.0.1x** (where x is a number between $2 \sim 254$), and a subnet mask of 255.255.255.0. Open the web browser and enter **192.168.0.1** (the factory-default IP address) in the address bar. Then press <Enter>.



When the following logon dialog box appears, enter the username and password then click **OK**. The default username is **admin** and password is **admin**.

6 Configuration

The features and functions of the switch can be configured for optimum use through the Web-based Management.

6.1 Welcome

After a successful login you will see the screen bellows:



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Administrator	^	System Status		^
PoE		D:		- 1
 Port Management VLAN Setting 		Model Nunber	DG-F\$1510HPE	
Per Port Counter		Software Version	V108.8	
QoS Setting		MAC Address	10:f0:13:f0:18:26	
Security		Number of Ports	8+2	
Spanning Tree Trunking		System Name	switch MAX:15	
DHCP Relay Agent			Idle Time: 0 (1~30 Minutes)	
Backup/Recovery		Idle Time Security	Auto Logout(Default).	
 Miscellaneous SNMP Settings 		•	Back to the last display.	
			Update	~
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6.2 Administrator

Administrator -> Authentication Configuration

Here you can enter a new Username/Password and confirm it.

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DIGIS	OL	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	
Administrator Authentication Configuration	Authentication C	Configuration	
System IP Configuration	Setting	Value	
System Status	Username	admin max:15	
 Load default setting Firmware Update Reboot Device 	Password Confirm	••••• max:15	
PoE		Update	
 Port Management VLAN Setting Per Port Counter QoS Setting Security 	Note: Username & Password can	n only use "a-z", "A-Z", "0-9", "_", "+", "-", "=".	
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Administrator -> System IP Configuration

There are two ways for the switch to obtain an IP address: Static and DHCP (Dynamic Host Configuration Protocol).

When using static mode, the **IP address**, **Subnet Mask** and **Gateway** can be manually configured. When using DHCP mode, the Switch will first look for a DHCP server to provide it with an IP





address (including network mask and default gateway) before using the default or previously entered settings. By default the IP setting is static mode with IP address is 192.168.0.1 and subnet mask is 255.255.255.0

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Administrator Authentication Configuration		figuration	
 <u>System IP</u> <u>Configuration</u> 	Setting	Value	
 System Status Load default setting 	IP Address	192 . 168 . 0 . 1	
 Firmware Update Reboot Device 	Subnet Mask	255 . 255 . 255 . 0	
> PoE	Gateway	192 . 168 . 0 . 254	
Port Management	IP Configure	●Static ○DHCP	
VLAN Setting Per Port Counter		Update	
 QoS Setting Security Spanning Tree 	C		
http://192.168.0.1/setIP.htm			[®] 100% ▼

Administrator -> System Status

Comment: By entering a Comment, the device can more easily be recognized on the LAN.

Idle Time Security: It controls the idle time-out period for security purposes, when there is no action for a specific time span in the Web-based Management. If the current session times out (expires), the user is required a re-login before using the Web-based Management again. Selective range is from 3 to 30 minute, and the default setting is 5 minutes.

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DIGIS	30)L		
 Administrator Authentication 	^	System Status		^
Configuration System IP Configuration		Model Nunber	DG-FS1510HPE	
System Status Load default setting		Software Version	V108.8	
 Firmware Update 		MAC Address	10:f0:13:f0:18:26	
Reboot Device		Number of Ports	8+2	
PoE Port Management		System Name	switch MAX:15	
 VLAN Setting Per Port Counter QoS Setting 		□ Idle Time Security		
Security	~		Back to the last display.	
>			Update	Ĩ
http://192.168.0.1/Status.htt	m		R 100%	•

Administrator -> Load default setting



Provide a safe reset option for the switch. All configuration settings in non-volatile RAM will be reset to factory default and then the switch will reboot.

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DIGIS	30	
Administrator	^	
 Authentication Configuration 		Load Default Setting
 System IP Configuration 		recover switch default setting excluding the IP address, User name and Password
System Status		13
 Load default setting Firmware Update 		Load
Reboot Device		
PoE		
Port Management		
VLAN Setting		
Per Port Counter		
QoS Setting		
Security	\sim	
X		
http://192.168.0.1/setDef.htm	n	🔍 100% 🔻

Administrator -> Firmware Update

You must enter the password of device in order to determine the firmware needs to be updated.

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DIGIS	30	
V Administrator	^	Firmware Update
 Authentication Configuration System IP Configuration System Status Load default setting Firmware Update Reboot Device PoE Port Management VLAN Setting Per Port Counter QoS Setting 		Please input the password to continue the Firmware Update process. Password ReConfirm Update Notice: After clicking the "UPDATE" button, IF the firmware update webpage is not redirected correctly or is shown as "Webpage not found". Please connect to http://192.168.0.1
Security	~	
< >		€ ,100% ▼

After a correct password the switch will erase the old firmware first.

After completing the erase you will see the screen bellows. Specify the Firmware Path (or Browse for one) that you are going to use, and then click **Update**. The state will show 'OK' after completion, and 'Fail' is firmware upgrade fails or cannot be completed for any reason.



Administrator -> Reboot Device

Provide a safe way to reboot the system. Click Reboot to restart the switch.

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DIGIS	2 4 6 8	
Administrator Authentication Configuration System IP Configuration System Status Load default setting Firmware Update Reboot Device PoE Port Management VLAN Setting Per Port Counter QoS Setting Security	Click "Confirm" to Reboot the Device Confirm	
http://192.168.0.1/resetdevice.	htm	€ 100% ▼

6.3 Port Management

Port Management -> Port Configuration

In this page, the status of all ports can be monitored and adjusted for optimum configuration.

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Administrator	Port Co	onfigurat	ion		1	357	9 10			
 Port Management Port Configuration Port Mirroring Bandwidth Control 	Function	Tx/Rx Ability	Auto- Negotiation	Speed	Duplex	Pause	Backpressu:	re Add Learr		
Bandwidth Control Broadcast Storm Control VLAN Setting	Select Port No.		01 □ 02 □ 0							
Per Port Counter QoS Setting				Up	date				15	
Security Spanning Tree		Current Status Setting Status								
	Port Link	Speed Dupl	lex FlowCtrl		Auto- Nego Spe	ed Duplex	Pause Back	pressure	Addr. Learni	
ttp://192.168.0.1/PortSet.htm								a 1	.00% 🔻	

Enable: Enable or disable the port's connection

Auto-Nege: Enable or disable port auto-NDI/MDIX

Speed: Copper connections can operate in Forced Mode settings (1000M Full, 100M Full, 100M Halt, 10M Full, 10M Half), Auto, or Disabled. The default setting for all ports is Auto.





Duplex: Copper connections can operate in Full-Duplex or Half-Duplex Mode Symmetric Pause: **Asymmetric Pause: Backpressure:** Addr. Learning: Enable or disable port learning MAC address.

<u>Port Management -> Port Mirroring</u>

Port Mirroring is a method of monitoring network traffic that forwards a copy of each incoming and/or outgoing packet from one port of the Switch to another port where the packet can be studied. This enables network managers to better monitor network performances.

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DIGISOL 2 4 6 8 1 3 5 7 9 10											
Administrator PoE	Port Mirrorin	g									
 Port Management Port Configuration Port Mirroring 	Dest Port	1	2 □	<mark>3</mark> □	4 □	5 □	<mark>6</mark> □	7 □	8	9 □	10 □
 Bandwidth Control Broadcast Storm Control 	Monitored Packets	Disab	le 🗸	10	-		111	85		<u>6</u> 2	
VLAN Setting	Source Port	1	2	3 □	4 □	5	6 □	7	8	9	10 □
 Per Port Counter QoS Setting 	FOIL					U	pdate				
Security	Multi to Multi Sn	iffer f	unction								
Spanning Tree											
Trunking											
< >	1									æ,	100% 👻

TX (transmit) mode: Duplicates the data transmitted from the source port and forwards it to the Target Port. Click "all" to include all ports into port mirroring.

RX (receive) mode: Duplicates the data that received from the source port and forwards it to the Target Port. Click "all" to include all ports into port mirroring.

Both (transmit and receive) mode: Duplicate both the data transmitted from and data sent to the source port, and forwards all the data to the assigned Target Port. Click "all" to include all ports into port mirroring.

Note. The target ports will stop mirroring packets if there are unknown tags or destination packets sent out by source ports.

Port Management -> Bandwidth Control

The Bandwidth Control page allows network managers to define the bandwidth settings for a specified port's transmitting and receiving data rates.



			♪ + ≧ C 🧭 SmartSwitch Web-Ba	sse C× ↑ 2 4 6 8 1 0 0 0 1 3 5 7 9 10	× #
 Administrator PoE Port Management 	^	Bandwidt	h Control		_
Port Configuration Port Mirroring		Port No	Tx Rate	Rx Rate	
Bandwidth Control Broadcast Storm		01 🗸	(0~255) (0:Full Speed)	(0~255) (0:Full Speed)	
 Broadcast Solution VLAN Setting Per Port Counter QoS Setting Security Spanning Tree Trunking Chrono Solution http://192.168.0.1/DataRate 	~	Speed Base	Low Low: (1)32Kbps Tx/Rx bandwidth resolution for Actual Tx/Rx bandwidth =Rate value x High: (1)256Kbps Tx/Rx bandwidth=Rate value x 2 When link speed is 10MB. The rate val (2)the bandwidth resolution is 2048Kbps for Actual Tx/Rx bandwidth=Rate value x 2 When link speed is 10MB. The rate value x 2 When link speed x 2 When	32 kbps. The rate value is 1~255. r port 1~ port 24. 256Kbps. The rate value is 1~255. ue is 1~39. or port 25, port 26. 2048Kbps. The rate value is 1~255.	~

TX Rate: This allows you to enter data receive rate from 0 to 255 (base on speed base), 0 for full speed.

RX Rate: This allows you to enter data transmit rate from 0 to 255 (base on speed base), 0 for full speed.

Speed Base:

Port Management -> Broadcast Storm Control

The Broadcast Storm Control feature provides the ability to control the receive rate of broadcast packets. Once a packet storm has been detected, the Switch will drop packets coming into the Switch until the storm has subsided.

← → ▲ http://192.168.0.	1/		Q - 2 C	Sma	rtSwitch W	/eb-Base	CX				↑ ★ ☆
DIGIS						882.8	4 6 8 3 5 7	9 1	0		
Administrator Administrator	Broadcast S	torm	Cont	rol							
Port Management	Threshold						⁶³ ~ <mark>6</mark> 3				
Port Mirroring Bandwidth Control	Enable	1	<mark>2</mark> □	3 □	<mark>4</mark> □	5 □	6 □	7 □	<mark>8</mark> □	9	10 □
Broadcast Storm Control							pdate				
 VLAN Setting Per Port Counter QoS Setting 	This value indicate unit. One time unit speed										
 Security Spanning Tree 	Note: This effect n passing through th									st packe	t count
Trunking											
										æ,	100% 👻



6.4 VLAN Setting

VLAN Setting -> VLAN Mode

A VLAN is a group of ports that can be anywhere in the network, but communicate as though they were in the same area. VLANs can be easily organized to reflect department groups (such as R&D, Marketing), usage groups (such as e-mail), or multicast groups (multimedia applications such as video conferencing), and therefore help to simplify network management by allowing users to move devices to a new VLAN without having to change any physical connections.

← ⇒ ← http://192.168.0.	1/	D = 50	Concernation of the second			<u> </u>
DIGIS			🥭 SmartSwitch Web-	$\begin{array}{c} 2 & 4 & 6 & 8 \\ \hline & \hline$	9 I0	
Administrator PoE	VLAN Mode	9				
 Port Management VLAN Setting VLAN mode VLAN Member Multi to 1 Setting 	VLAN Mode	Port Based VLAN C	hange VLAN mode			
 Per Port Counter QoS Setting Security 						
 Spanning Tree Trunking DHCP Relay Agent 						
Backup/Recovery	tm					€ 100% ·

Prot Based VLAN: Port-Based VLANs are the simplest and most common form of VLAN. It assigns the appliance LAN ports to VLANs, effectively transforming the appliances. You can assign multiple ports to the same VLAN, or each port to a separate VLAN.

802.1Q VLAN: By default, 802.1Q VLAN is disabled. With 802.1Q VLAN enabled, the VLAN VID 1 is created by default with an empty VLAN name field and all ports are configured as "Untagged" members.

VLAN Setting ->



	2.168.0.1	/		Q	- 20	<i> S</i> ma	rtSwitch	Web-Bas	e C ×				□ <u>-</u> ★ ↑	× ¤
DIGI	50	DL						2 1	$\begin{array}{c}4 & 6\\ \hline \\ \hline \\ 3 & 5\\ \hline \\ 3 & 5\end{array}$		10			
Administrator	^	VLAN Member	Setti	ng (Pe	ort Ba	sed)								
PoE Port Management		Port						01 🗸	Read					1
VLAN Setting		Dest PORT		01	02	03	04	05	06	07	08	09	10	1
 VLAN mode VLAN Member 		select		V		V	V	V		V				
Multi to 1 Setting Per Port Counter QoS Setting						Updat	e Lo	oadDefau)	t					
Security						1	/LAN ME	EMBER						٦
 Spanning Tree Trunking 		Port	1	2	3	4		5	6	7	8	9	1 0	
DHCP Relay Agent Backup/Recovery	~	1	v	v	v	v		v	v	v	v	v	v	
< >		2	v	v	v	v		v	v	v	v	v	v 100%	-

Add VLAN: Click to create a new VLAN name and to select VLAN ports. The VLAN name should be less than 10 characters. To save the members in a group, click **Add.**

VLAN Setting ->

	68.0.:	L/	Q	- BC	<i> S</i> mar	tSwitch We	eb-Base (:×	1			• □ •	
DIGIS	3(DL]] 📮 [9 1	Ō			
Administrator PoE	^	Multi to 1 Setting											^
Port Management		Destination PortNo.					01	~]
VLAN mode		Current Setting					Por	rt:-					
 VLAN Member <u>Multi to 1 Setting</u> 			01	02 □	03	04	05	06 □	07 □	08	09	10 □	
 Per Port Counter QoS Setting Security 		Disable Port	Not	e: ″Di	sabled	port″d	disa		tch phy	sical p	oort whi	ch is	
 Spanning Tree Trunking 		1.A example for Mul	ti-to-l	struct	ure								
 DHCP Relay Agent Backup/Recovery > 	~					Ports	V	LAN (Groups	1			~
											æ	100%	• 11

6.5 Per Port Counter

<u>Per Port Counter -> Port Counter</u>

The Statistics screen displays the status of each port packet count.



← → @ http://192.168.0.1 DIGIS(오 두 🗟 🖒 <i>Թ</i> SmartSwitch We		★ ⊀
	Counter Catego	ory	1 3 5 7 9 10	
Port Management VLAN Setting	Counter 1	Mode Selection: Transmit Pack	ket & Receive Packet 🗸 🛛 Update	
Per Port Counter	Port	Transmit Pa	acket Receive Packet	
Port Counter	01	0	0	
QoS Setting	02	0	0	
Security	03	0	0	
Spanning Tree	04	0	0	i.
DHCP Relay Agent	05	0	0	
Backup/Recovery	06	0	0	
		0	0	
Miscellaneous V	07	V		

6.6 QoS Setting

<u>QoS Setting -> Priority Mode</u>

00		
(→) ttp://192.168.0.	1/	P + ≧ C 🦪 SmartSwitch Web-Base C× 🏠 🕆 🌣
DIGIS	DL	$\begin{array}{c} 2 & 4 & 6 & 8 \\ \hline \hline$
Administrator PoE	Priori	ty Mode
 Port Management VLAN Setting 	Priority N	lode
 Per Port Counter QoS Setting Priority Mode 	Mode	 ● First-In-First-Out ○ All-High-before-Low ○ Weight-Round-Robin. Low weight ○ ✓ High weight: ○ ✓
Port, 802.1p ,IP/DS based		Update
 TCP/UDP Port Based Security Spanning Tree Trunking 	The "low If "low we	/hen the queue weight is set to "0", it will be treated as "8". wieght" and "high weight" means the ratio of the packet in the transmit queue. For example, eight" and "high weight" are set to "3" and "5", the ratio of the trasmit packet for the low b high priority is 3/5.
DHCP Relay Agent		
K http://192.168.0.1/QoSM.htm	1	€ <u>100%</u> ▼

QoS Setting -> Port, 802.1p ,IP/DS based



DIGIS	58.0.1/ BC					h Web-Base C ×	, Ç		☆ ☆	
Administrator	^	Class of Service	Configu	iration		1 3 5 7	9 10			_
Port Management		Enable High Pri	ority							٦
VLAN Setting Per Port Counter QoS Setting		Port No.\Mode	Port Base	VLAN Tag	IP / DS	Port No.\Mode	Port Base	VLAN Tag	IP / DS	10
 Priority Mode 		1				6				
Port, 802.1p .IP/DS based		2				7				
TCP/UDP Port Based		3				8				1
Security		4				9				1
Spanning Tree		5				10				1
Trunking						ate				1

QoS Setting -> TCP/UDP Port Based

← → 🦉 http://192.168.0		P + ≥ C SmartSwitch Web-Base C × 2 4 6 8	<u>†</u> ★ ¤
DIGIS			
Administrator	Class of Service Co	nfiguration	
PoE Port Management			
VLAN Setting	Protocol	Option	
Per Port Counter	FTP(20,21)	F-I-F-0 🗸	
QoS Setting Priority Mode	SSH(22)	F-I-F-0 🗸	
 Port, 802.1p ,IP/DS based 	TELNET(23)	F-I-F-0 🗸	
<u>TCP/UDP Port Based</u>	SMTP(25)	F-I-F-0 🗸	
Security	DNS(53)	F-I-F-0 🗸	
Spanning Tree	TFTP(69)	F-I-F-0 🗸	
Trunking DHCP Relay Agent	HTTP(80,8080)	F-I-F-0 🗸	
	POP3(110)	F-I-F-0 🗸	

6.7 Security

Security -> MAC Address Binding



					×
← → ♦ http://192.168.0.	.1/	🔎 🔻 🗟 🕈 🦉 SmartSwite	ch Web-Base C ×	↑ ★	æ
DIGIS	OL		$ \begin{array}{c} 2 & 4 & 6 & 8 \\ \hline 1 & 1 & 2 & 5 & 7 \\ 1 & 3 & 5 & 7 \end{array} $	9 10	
Administrator	MAC Address E	Binding			~
≱ PoE		5			
 Port Management VLAN Setting 	Port No.		MAC Address		
Per Port Counter QoS Setting	1]-	1
Security	, 		: : : : : : : : : : : : : : : : : : :]; 🗔	1
MAC Address Binding TCP/UDP Filter		Select Port 01 V Bind	ing Disable 🗸 Update		
 Spanning Tree Trunking DHCP Relay Agent 	Note: If you enable th disabled automatically		function, the addres	s leaning function will be	
Backup/Recovery	Port No.	Binding Status	Port No.	Binding Status	
	1	Disable	6	Disable	~
				🔍 100% 🗸	

Security -> TCP/UDP Filter

DIGIS	C	DL		2 4 	6 8 1 1 1 1 1 1 1 1	
Administrator		TCP_UDP Fill	ter Configurat	tion		
VLAN Setting		Function Enable	Disable 🗸			
 Per Port Counter QoS Setting Security 						
QoS Setting		Port Filtering Rule	(2) "negative" me	ans the selected pr	d protocol will be ei otocol will be droppe protocol will be forwa	d and other p
QoS Setting Security MAC Address Binding <u>TCP/UDP Filter</u>		Port Filtering Rule	Note: (1) The outgoing (2) "negative" me	ans the selected pr	otocol will be dropped	d and other p
QoS Setting Security MAC Address Binding		Port Filtering Rule	Note: (1) The outgoing (2) "negative" me "positive"	ans the selected pr means the selected	otocol will be dropped protocol will be forwa	d and other p arded and othe

6.8 Spanning Tree

Spanning Tree -> STP Bridge Settings



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DIGIS		
 Administrator PoE 	TP Bridge Settings	^
Port Management	Spanning Tree Settings	
VLAN Setting Per Port Counter	STP Mode Bridge Hello Time Max Age Forward Delay	
QoS Setting	(0~61440) (1~10 Sec) (6~40 Sec) (4~30 Sec)	
Security		
😵 Spanning Tree	Submit	
STP Bridge Settings STP Port Settings	Note: 2*(Forward Delay-1) >= Max Age,	
Loopback Detection Trunking	Max Age >= 2*(Hello Time+1)	
DHCP Relay Agent	Bridge Priority must be multiplies of 4096	
Backup/Recovery	ote: If you enable the MAC address binding function, the address leaning function will b isabled automatically. Then both RSTP/STP and address learning will be affected. (%) 100%	•

Spanning Tree -> STP Port Settings

🔶 🔿 🍯 http://192.168.0.	1/ 🔎 🕈 🗟 🖒 🏉 SmartSwitch Web-Base C 🗙	↑ ★ ☆
DIGIS		
Administrator	STP Port Settings	~
PoE		
Port Management	STP Port Settings	
VLAN Setting	RPC	
Per Port Counter	Port No. Priority (1~20000000)	
QoS Setting	(0~240)	
Security	0=AUTO	
😼 Spanning Tree		
STP Bridge Settings	Submit	
STP Port Settings Loopback Detection	Priority should be a multipe of 16	
Trunking	54	
DHCP Relay Agent		
Backup/Recovery	STP Port Status	~
< >		>
		🔍 100% 👻

Spanning Tree -> Loopback Detection



	i8.0.1/		<u>&</u> 5≊ ج	SmartSwitch Web-Base C ×	× □ = ×
DIGIS	60	DL		2 4 6 8 	
Administrator PoE	^	Loopback	Detection Sett	ings	1
Port Management		Loopbac	k Detect Function	Disable 🗸	
VLAN Setting		A	uto Wake Up	Disable 🗸	
Per Port Counter		Wake-U	p Time Interval	10 sec 🗸	
QoS Setting			S	Jubmit	
Security		L			1
😼 Spanning Tree					
 STP Bridge Settings STP Port Settings 		Reset All Ports			
Loopback Detection		Port No.	Status		
Trunking		1			
DHCP Relay Agent	~	2			
Backup/Recovery		3			
< >		4	<u></u>		€ 100% -

6.9 Trunking

Trunking -> Link Aggregation Settings

The Trunking function allows the switch to combine two or four ports together to increase bandwidth. Select the Trunking Groups, choose the Members to be grouped together, and then click **Submit** to activate the selected Trunking Groups.

← ⇒ <i>Ø</i> http://192	.168.0.1	1	, 0 + 1	20 🧲	SmartSv	witch Wel	o-Base C.	×				× ★¤
DIGI	50	DL					$\begin{array}{c} 2 \\ 1 \\ 1 \\ 1 \\ 3 \end{array}$	6 8 6 8 5 7	9 1	0		
Administrator	^	Trunking										
Port Management		System Prio	rity			1		(1~655	35)			
VLAN Setting		Link Aggregation	Algori	thm		1	MAC Src&	Dst	~			
Per Port Counter				Si	ubmit							
QoS Setting												
Security												
Spanning Tree		Refresh										
 Link Aggregation 				Link G	roup 1			Link (roup 2		Link G	rou
Settings			P1	P2	P3	P4	P5	P6	P7	P8	P9	
DHCP Relay Agent		Member	✓	V	V	-	1	-	~		V	
Backup/Recovery Miscellaneous	~			<u> </u>	(<u>2610</u>		1000				1 <u></u>	
Miscellaneous		State		Disat	ole 🗸			Disat	le 🗸		Disab	ole 🗸
\ /		×										1



6.10 DHCP Relay Agent

DHCP Relay Agent -> DHCP Relay Agent

00		
(←) ⇒	1/ ・ D マー 🗟 🖒 🦾 SmartSwitch Web-Base C ×	
DIGIS		8 7 9 10
Administrator PoE	DHCP Relay Agent	
Port Management	10	
VLAN Setting	DHCP Relay State :	Disable 🗸
Per Port Counter	DHCP Relay Hops Count Limit (1-16):	16
QoS Setting		
Security	DHCP Relay Option 82 State :	Disable 🗸
Spanning Tree	Update	
🦻 Trunking		
2 DHCP Relay Agent		
DHCP Relay Agent		
Relay Server VLAN MAP Relay		
Agent		
Backup/Recovery		
http://192.168.0.1/relay.htm		€ 100% ▼

DHCP Relay Agent -> Relay Server

(←) ⇒ <i>[</i> http://192.168.0	0.1/ ♀ ☜ ♂ 🧭 SmartSwitch Web-Base C ×	n ★ ¤
DIGIS		
Administrator PoE	DHCP Relay Agent	^
 Port Management VLAN Setting 	DHCP Server IP	
Per Port Counter		
QoS Setting	DHCP Server IP List	
Security		
🤌 Spanning Tree		
🦻 Trunking		
DHCP Relay Agent		
DHCP Relay Agent		
Relay Server VLAN MAP Relay		
Agent		
Backup/Recovery		~
< >	<	>
		🔍 100% 🔻 🔤

DHCP Relay Agent -> VLAN MAP Relay Agent



← → @ http://192.168.0		Rd de submission	
		BC	<u>↑ ★ ☆</u>
DIGIS			9 10
Administrator	DHCP Relay Agent		
 Port Management VLAN Setting 	VLAN ID	1-4094 Map Server IP 🔽	Add
 Per Port Counter QoS Setting 	MAP List		
 Security Spanning Tree 	VLAN ID	Server IP	Action
Trunking DHCP Relay Agent			
DHCP Relay Agent Relay Server VLAN MAP Relay			
Agent			
	1		• 100% •

6.11 Backup/Recovery

Allow the current configuration settings to be saved to a file (not including the password), and if necessary, you can restore configuration settings from the file.

← → @ http://192.168.0.	- □ - ×
DIGIS	
PoE	Configuration Backup/Recovery
 Port Management VLAN Setting 	Backup(Switch→PC)
 Per Port Counter QoS Setting 	Please check "Download" to download EEPROM contents. Download
 Security 	
Spanning Tree Trunking	Recovery(PC→Switch)
DHCP Relay Agent	Select the image file : 浏览…
 Backup/Recovery Miscellaneous 	Password: Update
SNMP Settings	
Logout	
C > http://192.168.0.1/backup.htm	R 100% 👻

Backup or restore the configuration file to or from your local drive.

Click Download to save the current settings to your disk.

Click Browse to browse your inventories for a saved backup settings file.

Click **Update** after selecting the backup settings file you want to restore.

Note: Switch will reboot after restore and all current configurations will be lost





6.12 Miscellaneous

Miscellaneous ->	Miscellaneous	Settings

	ー ローズ ク マ 湿 d 🥥 SmartSwitch Web-Base C× 合 🛧 🛱
DIGIS	DL 2 4 6 8 0 0 0 0 1 3 5 7 9 10
PoE	Miscellaneous Setting
 Port Management VLAN Setting 	
Per Port Counter	Output Queue Aging Time
QoS Setting	Aging time Disable v The output queue aging function allows the administrator to select the aging time of a pac stored in the output queue. A packet stored in the output queue for a long time will lower t
Security	ms packet buffer, resulting in the poor utilization of the buffer and the poor switch performanc
Spanning Tree Trunking	VLAN Striding
 DHCP Relay Agent Backup/Recovery 	VLAN Striding When this function is enabled, the switch will forward a uni-cast packet to the destination is matter whether the destination port is in the same VLAN group.
Miscellaneous SNMP Settings	IGMP Snooping V1 & V2
 SNMP settings Logout 	IGMP Snooping Distributed IGMP Snooping V1 & V2 function enable
< >	(
	🖲 100% 👻

6.13 SNMP Settings

	0.1/ ♀ ☜ ♂ 🏈 SmartSwitch Web-Base C ×	
DIGIS		
≥ PoE	SNMP Settings	^
 Port Management VLAN Setting 		
Per Port Counter	Community Settings	
QoS Setting	Community Name Acco	ess Right
 Security Spanning Tree 	public	l Only 🗸
> Trunking	Read	l Only 🗸
DHCP Relay Agent	Update	
Backup/Recovery Miscellaneous		
SNMP Settings	SNMP Settings	
> Logout	System Descrition	
< >	System Contact	~
		a 100% -



6.15 Logout

Click this to end this session

Note: If you close the web browser without clicking the **Logout** button, it will be seen as an abnormal exit and the login session will still be occupied.

6.16 PoE

PoE -> PoE Status

The Statistics screen displays the total Watts usage of PoE Switch.

		March International States of the local states		
(←) → Ø http://192.3	.68.0.	1/ 🔎 구 🗟 Ĉ 🏼 🏉 SmartS	witch Web-Base C ×	↑ ★ ₽
DIGIS	3(DL	2 4 6 8 	
Administrator	~	PoE Status		
💀 PoE		je under de ministration de la companya de la compa Tr		
 PoE Status PoE Setting 		Max Power Consumption each port System operation status	30 watt(for IEEE802.3at) On	
 PoE Power Delay PoE Scheduling 		Main Power consumption	781.6(Watt)	
NTP Setting PoE Autocheck				
Port Management				
VLAN Setting				
Per Port Counter				
QoS Setting				
Security				
Spanning Tree	~			
ζ				
http://192.168.0.1/PoEstatu	s.htm			€ 100% -

PoE -> PoE Setting

This section provides PoE (Power over Ethernet) Configuration and PoE output status of PoE Switch.



(-) (-) (-) (-) (-) (-) (-) (-) (-) (-)	2.168.0.1	L/		Q + 8 C	<i>ể</i> SmartSwitch Web-Base C ×	<u>₩ ★ ₩</u>
DIGI	5(DL			2 4 6 8 1 1 1 1 1 3 5 7 9 10	
Administrator	^	PoE Se	etting			^
2 PoE		2				
PoE Status					Status	
PoE Setting PoE Power Delay		Function			v	
PoE Scheduling		Port No.			01 02 03 04 05 06 07	08 🗆
NTP Setting			38		Update	
PoE Autocheck		ļ				
Port Management					Port Status Refresh	
VLAN Setting		Port	Status	Class	Power Consumption(Watt)	Current (
Per Port Counter		1	Enable	&	97.7	997
QoS Setting		2	Enable	&	97. 7	997
Security		3	Enable	&	97. 7	997
Spanning Tree		4	Enable	&	97.7	997
		5	Enable	&	97.7	997
< >		<				€ 100% -

Status: Can enable or disable the PoE function.

Class: Class 0 is the default for PDs. However, to improve power management at the PSE, the PD may opt to provide a signature for Class 1 to 4.

The PD is classified based on power. The classification of the PD is the maximum power that the PD will draw across all input voltages and operational modes. A PD shall return Class 0 to 4 in accordance with the maximum power draw as specified by following Table.

Class	Usage	Range of maximum power used by the PD
0	Default	0.44 to 12.95 Watts
1	Optional	0.44 to 3.84 Watts
2	Optional	3.84 to 6.49 Watts
3	Optional	6.49 to 12.95 Watts
4	Optional	12.95 to 25.5 Watts

Power Consumption (Watt): It shows the PoE supply Watts.

Current (mA): It shows the PoE device current Amp.

Current-Limit (mA): It can limit the port PoE supply Amp. Per port maximum value must less 600. Once power overload detected, the port will auto shut down and we should manually enable the PoE port.

PoE -> PoE Power Delay

This section provides PoE Power Delay Configuration.



	.168.0.1	L/		오 두 🗟 Ċ 🏾 🏉 SmartSwitch V	Neb-Base C ×	(_ □ <mark> →</mark> 3	
DIGIS	5(DL			$\begin{array}{c} 2 & 4 & 6 & 8 \\ \hline 1 & \hline 1 & \hline 1 & \hline 1 & 5 & 7 \end{array}$	9 I0	
Administrator	^	PoE P	ower De	elay			^
 PoE Status PoE Setting <u>PoE Power Delay</u> PoE Scheduling 		Function Port No.		Delay Mode V 01 02	03 04 05	Delay Time(0~300) second] 060708	•
 PoE Scheduling NTP Setting PoE Autocheck 		FOIT NO.			Update		-
Port Management		Port	Delay Mod	le Delay Time (seco	nd)		
VLAN Setting		1 Disabl		0			
Per Port Counter		2	Disable				
QoS Setting		3	Disable				
Security		4	Disable				
Spanning Tree	~	5	Disable				~
97 - 11		6	Disable	0			
< >		<				€ 100% -	4

Delay Mode: Enable or disable the port's PoE Power Delay function. **Delay Time:** Set PoE power delay time $(0 \sim 300)$.

PoE -> PoE Scheduling

PoE Schedule user can configure a duration time for PoE port as default value does not provide power.

(→) @ http://192.	169.01					<u></u>			-	
DIGIS				,	0 - 🛯 C	遵 SmartSw		2 4 6		<u>↑</u> ★ ¤
Administrator	^	PoE S	chedu	ling						^
 PoE Status PoE Setting PoE Power Delay <u>PoE Scheduling</u> NTP Setting 		Sche	ule on Po edule Mod dule AM/F t all	e	01 V Disable V A.M. V]				
PoE Autocheck		Hour	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.	
Port Management		00 🗆	•	~		•	~	~		
VLAN Setting		01 🗆	•	V	V	 Image: A start of the start of	~	~		
Per Port Counter		02 🗆	V	~		•	~	~		
SQOS Setting		03 🗆	•	v	V		•	V		
Security		04 🗆	-	V			v	~		
Spanning Tree	~	05 🗆	-	1	V	V	~	V	V	
×		06 🗆			<	V		V		~
										💐 100% 🔻

Note Please enable NTP and correct the System Time first.

As default value, all PoE Schedule Profile functions are disabled

Please use mouse to click on the block about what time you want to supply power for PoE port.

PoE -> NTP Setting



This section provide the NTP Configuration of PoE Switch

← → @ http://192.	168.0.:	1/	・ P マ 習 C 🦪 SmartSwitch Web-Base C ×	→	
DIGIS	3(DL			
Administrator PoE	^	NTP Setting	1		
 PoE Status PoE Setting 		System Time	0:36:15		
PoE Power DelayPoE Scheduling		NTP Server	#1 165.193.126.2 #2 59.124.196.85		
 <u>NTP Setting</u> PoE Autocheck 		Time Zone	UTC 0:00 V Update		
 Port Management VLAN Setting 					
 Per Port Counter QoS Setting 					
Security					
Spanning Tree	~				
http://192.168.0.1/NTP.htm				4 100%	•

System Time: Display current time information

NTP Server: Allow assign #1 or #2 NTP server IP address manually Time Zone: Allow select the time zone according to current location

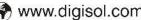
PoE -> PoE Auto-check

The PoE Switch can be configured to monitor connected PD's status in real-time via ping action. Once the PD stops working and without response, the PoE Switch is going to restart PoE port power, and bring the PD back to work. It will greatly enhance the reliability and reduces administrator management burden.

← → @ http://192 DIGIS				♪ - ≧ C <i>愛</i> Smail	tSwitch Web-Base	4 6 4 6 3 5		×
Administrator PoE	•	PoE Auto-che	ck					^
 PoE Status PoE Setting PoE Power Delay PoE Scheduling NTP Setting PoE Autocheck 		PoE Setting Set Port No. OI V IP Address PoE Power Delay PoE Scheduling Checking Time V Reset Delay Time 3 V NTP Setting Time Min. Time Sec.	0 0 0 0 Enable Checking Port.No 01 02 03 04 05					
Port Management		Port No.		IP Addr	ess	Enable Status		
VLAN Setting		1		0. 0. 0. 0		Off.		1
Per Port Counter QoS Setting		2		0. 0. 0. 0		Off.		1
Security		3		0. 0. 0. 0		Off.		1
Spanning Tree	~	4 5		0. 0. 0. 0		Off.		1
				0. 0. 0.	. 0		Off.	
							· 100%	•

Set Port No.: Select the port witch you want to set IP Address

IP Address: Allow assign IP address witch you want to monitor





Checking Time: Select time interval of ping action (1-10Min) **Enable Checking Port. No:** Select the port witch you want to enable PoE Auto-check



