

UltraTech
POWER PRODUCTS

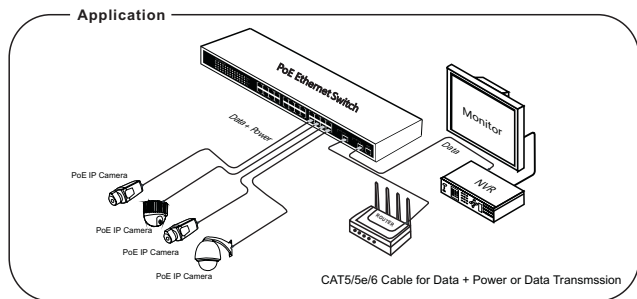


10 Port Gigabit L2 Managed PoE Switch

8 Port PoE + 2 Port Uplink (2 SFP)



OE-8PRTMAN is an L2 Managed PoE Switch, equipped with 8 Gigabit PoE (10M/100M/1G) and SFP transceiver (1G) slots for flexible link. It is compliant with IEEE 802.3af/at standards with sufficient PoE power budget for any application.



Software Login Information

The default values of the L2 Managed PoE switch is listed in the table below:

IP Address	192.168.1.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.254
User Name	admin
Password	admin

Features

- Conforms to IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3af, IEEE 802.3at.
- Provides 8 10/100/1000Base-T ports and 2 Gigabit SFP.
- Provides 8 PoE+ injectors with a total of 130W built-in power supply.
- High backplane bandwidth of 20 Gbps.
- IEEE 802.3x flow control.
- EMI standards comply with FCC, CE class B.
- UL listed.

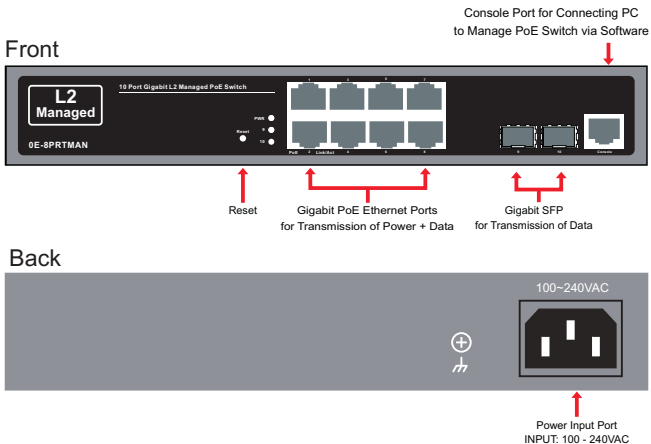


Notice

The transmission distance is related to the connected cable. Standard Cat5e/6 network cable and the quality of camera will help maximize the furthest distance possible.

Board Diagram

10 Port Gigabit L2 Managed PoE Switch



Installation Steps

Please check the following items before installation. If any items are missing, please contact ADI or the installing company.

- | | |
|---|------|
| ● 10 Port Gigabit L2 Managed PoE Switch | 1 pc |
| ● Rack mount kit | 1 pc |
| ● AC power cable | 1 pc |
| ● User manual | 1 pc |

Please follow the below installation steps:

1. Please turn off the power signal and the display device's power before installation.
Please note: Installing with the power on will damage the equipment.
2. Use a network cable to connect the PoE IP camera or other devices to 1-8 PoE port of the PoE Switch.
3. Use a network cable to connect equipment to the uplink port and NVR or computer.
4. Connect the AC cable to the unit.
5. Use a network cable to connect the PC to the console port, and use login information in page 1 to manage PoE switch via software.
6. Check if the installation is correct, the equipment is in good condition and the connection is stable; then connect power to the system.
7. Ensure the PoE Switch has power and works properly.



Specifications

Item		Description	
Power	Power Supply	Built-in Power Supply	
	Input Voltage	100–240 VAC	
	Output Voltage	52VDC	
	PoE Budget	130W for PoE	
Ethernet	Speed	1–8 Port: 10/100/1000 Mbps 9–10 Port: 1000 Mbps SFP Port (SFP support optical module rates: 1.25 Gbps)	
	Transmission Distance	328 ft. (100 meters) for RJ45 SFP optical module is optional, and the transmission distance depends on the optical module	
Network Switch	Ethernet Standards	IEEE 802.3 / 802.3u / 802.3x / 802.3ab / 802.3af / 802.3at	
	Switching Capacity	20 Gbps	
	Transfer Rate		14,880 pps for 10 Mbps
			148,800 pps for 100 Mbps
			1,488,000 pps for 1000 Mbps
MAC Address	8K MAC address table		
LINK/ACT Indicator	On	Green	The port is connecting
	Blinks	-	The port is receiving or transmitting data
	Off	-	The port is not linked successfully with the device
PoE Indicator	On	Green	Power device is connected
	Off	-	Power device is not connected or power forwarding fails
	PoE pin assignment		V+ (RJ45 Pin 1, 2), V- (RJ45 Pin 3, 6)
Environment	Working Temperature		0°C~40°C (32°F~104°F)
	Storage Temperature		-40°C~70°C (-40°F~158°F)
	Humidity Non-Condensing		0~85%
	INDOOR USE ONLY		
Mechanical	Dimensions L x W x H		10.63" x 7.09" x 1.73"
			270 x 180 x 44 mm
	Color		Black

Specifications are subject to change without prior notice.

Troubleshooting

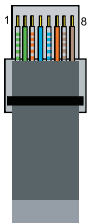
- Make sure the equipment is installed according to the manufacturer's installation guide.
- Confirm RJ45 cable order meets EIA/TIA 568A or 568B standard.
- Every PoE port can provide PoE equipment maximum power less than 30W, please do not connect the PoE equipment with power over 30W.
- Replace the equipment with a proper functioning 10 Port Gigabit L2 Managed PoE Switch to check if the equipment is damaged.
- Please contact UltraTech Support at 833-574-9124, or contact the installing company.
- Total PoE power between all 8 PoE ports is limited to 130W.
- If software login information has been lost, press and hold down the reset button on the front of the PoE switch for 10 seconds. The LED indicator for each port will start blinking, and the user name and password will reset to the default values shown on page 1 of this manual.

Plug Producing Method

Instruments to be used: wire crimper, network tester and wire sequence of RJ45 plug should conform with EIA/TIA568A or 568B.

1. Please remove 2cm of the insulating layer and bare 8 pairs UTP cable.
2. Separate the 8 pairs of UTP cable and straighten.
3. Line up the 8 pairs of cable per EIA TIA 568A or 568B.
4. Cut off the cables to leave 1.5cm bare wire.
5. Plug 8 cables into RJ45 plug, ensuring that each cable is in each pin.
6. Use the wire crimper to crimp.
7. Repeat above steps to make additional ends.
8. Use network tester to test the cable.

Pin	Color
1	White/Green
2	Green
3	White/Orange
4	Blue
5	White/Blue
6	Orange
7	White/Brown
8	Brown



EIA/TIA 568A

Pin	Color
1	White/Orange
2	Orange
3	White/Green
4	Blue
5	White/Blue
6	Green
7	White/Brown
8	Brown



EIA/TIA 568B



Notice

When choosing an RJ45, ensure that if one end is EIA/TIA568A, the other end is also EIA/TIA568A.
When choosing an RJ45, ensure that if one end is EIA/TIA568B, the other end is also EIA/TIA568B.

1. Limited Warranty

a. General

Subject to the terms and conditions of this Limited Warranty, from the date of sale through the period of time for product categories specified in Section 1(b), ADI warrants its UltraTech products to be free from defects in materials and workmanship under normal use and service, normal wear and tear excepted. Except as required by law, this Limited Warranty is only made to Buyer and may not be transferred to any third party.

ADI shall have no obligation under this Limited Warranty or otherwise if:

- (i) The product is improperly installed, applied or maintained;
- (ii) The product is installed outside of stated operating parameters, altered, or improperly services or repaired;
- (iii) Damage is caused by outside natural occurrences, such as lightning, power surges, fire, floods, acts of nature, or the like.
- (iv) Defects resulting from unauthorized modification, misuse, vandalism, or other causes unrelated to defective materials or workmanship, or failures related to batteries of any type used in connection with the products sold hereunder.

ADI only warrants those products branded as UltraTech products and sold by ADI. Any other products branded by third parties are warranted by the third party manufacturer for a period as defined by the third party manufacturer, and ADI assigns to Buyer those warranties and only those warranties extended by such third party manufacturers or vendors for non-ADI branded products. ADI does not itself warrant any non-ADI branded product and sells only on an as is basis in accordance with ADI's terms and conditions of sale.

b. Specific Warranties for product categories are as follows:

Product Categories	Warranty Period
SLA Batteries	12 months
CCTV Power Supplies	24 months
Surge Protection	24 months
UPS (Uninterruptible Power Supply)	24 months
Power and Relays	30 months
Network Switches/PoE Switches	Limited Lifetime
Alkaline Batteries	Limited Lifetime
Lithium Batteries	Limited Lifetime

2. EXCLUSION OF WARRANTIES, LIMITATION OF LIABILITY

THERE ARE NO WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. TO THE FULLEST EXTENT PERMITTED BY LAW, IN NO CASE SHALL ADI BE LIABLE TO ANYONE FOR ANY (I) CONSEQUENTIAL, INCIDENTAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES ARISING OUT OF OR RELATING IN ANY WAY TO THE PRODUCT AND/OR FOR BREACH OF THIS OR ANY OTHER WARRANTY OR CONDITION, EXPRESS OR IMPLIED, OR UPON ANY OTHER BASIS OF LIABILITY WHATSOEVER, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY ADI'S OWN NEGLIGENCE OR FAULT AND EVEN IF ADI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSSES OR DAMAGES. Any product description (whether in writing or made orally by ADI or ADI's agents), specifications, samples, models, bulletin, drawings, diagrams, engineering sheets, or similar materials used in connection with the Buyer's order are for the sole purpose of identifying ADI's products and shall not be construed as an express warranty or condition. Any suggestions by ADI or ADI's agents regarding use, applications or suitability of the products shall not be construed as an express warranty or condition unless confirmed to be such in writing by ADI. ADI does not represent that the products it sells may not be compromised or circumvented; that the products will prevent any personal injury or



property loss by burglary, robbery, fire or otherwise, or that the products will in all cases provide adequate warning or protection. Buyer understands and will cause its customer to understand that a properly installed and maintained product is not insurance or guarantee that such will not cause or lead to personal injury or property loss.

CONSEQUENTLY ADI SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY, PROPERTY DAMAGE OR OTHER LOSS BASED ON ANY CLAIM AT ALL INCLUDING A CLAIM THAT THE PRODUCT FAILED TO GIVE WARNING. However, if ADI is held liable whether directly or indirectly for any loss or damage with respect to the products it sells, regardless of cause or origin, its maximum liability shall not in any case exceed the purchase price of the product, which shall be fixed as liquidated damages and not as a penalty and shall be the complete and exclusive remedy against ADI.

3. Limitation on Liability to Buyer's Customers.

Buyer agrees to limit liability to its customers to the fullest extent permitted by law. Buyer acknowledges that ADI shall only be deemed to give consumers of its products such statutory warranties as may be required by law and at no time shall Buyer represent to its customers and/or users of ADI products that ADI provides any additional warranties. By accepting the products, to the fullest extent permitted by law, Buyer assumes all liability for, and agrees to indemnify and hold ADI harmless against and defend ADI from, any and all suits, claims, demands, causes of action and judgments relating to damages, whether for personal injury or to personal property, suffered by any person, firm, corporation or business association, including but not limited to, Buyer's customers and/or users of the products because of any failure of the products to detect and/or warn of the danger for which the goods were designed or any other failure of the products whether or not such damages are caused or contributed to by the sold or joint concurring negligence or fault of ADI.

4. Returns

Subject to the terms and conditions listed below, during the applicable warranty period, ADI will replace Product or provide a credit at purchase at its sole option free of charge

any defective products returned prepaid. Any obligations of ADI to replace Limited Lifetime warranty products pursuant to this warranty which result from defect are limited to the availability of replacement product. ADI reserves the right to replace any such products with the then currently available products, or provide a credit in its sole discretion. In the event Buyer has a problem with any ADI product, please call your local ADI branch for return instructions:

For US call 1-800-233-6261

For Canada call 877-234-7378

For Puerto Rico call 787-793-8830

For EMEA contact your local ADI Branch

Be sure to have the model number and the nature of the problem available. In the event of replacement, the return product will be credited to Buyer's account and a new invoice issued for the replacement item. ADI reserves the right to issue a credit only in lieu of replacement.

If any UltraTech product is found to be in good working order or such product's inability to function properly is a result of user damage or abuse, the product will be returned to Buyer in the same condition as received and Buyer shall be responsible for any return freight changes.

5. Governing Law

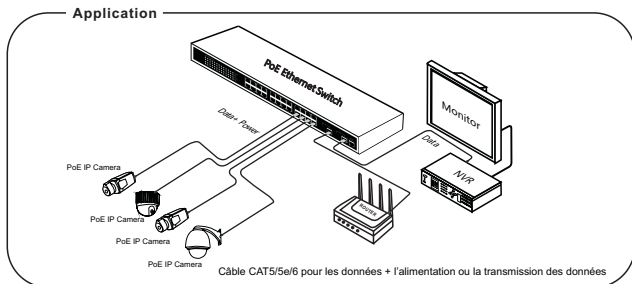
For North America – The laws of State of New York apply to this Limited Warranty.

For EMEA – This Limited Warranty shall be governed by the laws of England and Wales.

6. Miscellaneous

Where any term of this Limited Warranty is prohibited by such laws, it shall be null and void, but the remainder of the Limited Warranty shall remain in full force and effect.

Le **0E-8PRTMAN** est un commutateur PoE géré L2 équipé de 8 ports Gigabit PoE (10M/100M/1G) et de ports SFP (1G) pour une connectivité polyvalente. Il respecte les normes IEEE 802.3af/at et offre suffisamment de puissance PoE pour toute application.



Justificatifs de connexion logicielle

Les valeurs par défaut du commutateur PoE géré L2 sont répertoriées ci-dessous :

Adresse IP	192.168.1.1
Masque de sous-réseau	255.255.255.0
Passerelle par défaut	192.168.1.254
Nom d'utilisateur	admin
Mot de passe	admin

Fonctionnalité

- Conforms to IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3af, IEEE 802.3at.
- 8 ports 10/100/1000Base-T, 2 ports Gigabit SFP.
- Offre 8 adaptateurs PoE+ pour un total de 130 W d'alimentation intégrée.
- Bande passante d'arrière-plan élevée à 20 Gb/s.
- Commande de flux conforme à la norme IEEE 802.3x.
- Normes EMI conformes à la catégorie B de la FCC, CE.
- Homologué UL.



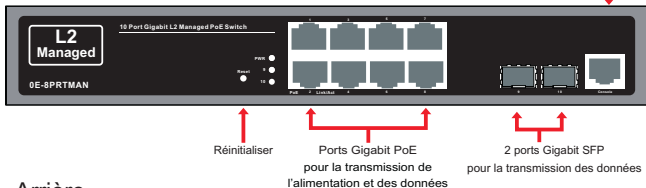
Avis

La distance de transmission est dépendante du câble raccordé. Nous conseillons l'utilisation d'un câble réseau standard Cat5e/6 et d'une caméra de qualité afin d'obtenir une distance de transmission accrue.

Schéma

10 Ports Gigabit Commutateur PoE Gérés L2

Avant



Arrière



Étapes d'installation

Veillez vérifier la présence de ces unités avant l'installation. Si l'une ou l'autre est manquante, veuillez communiquer avec le revendeur.

- 10 Ports Gigabit Commutateur PoE Gérés L2 1 pièce
- Câble d'alimentation CA 1 pièce
- Trousse pour montage sur bâti 1 pièce
- Guide de l'utilisateur 1 pièce

Veillez suivre les étapes d'installation ci-dessous

1. Coupez l'alimentation du signal et du périphérique d'affichage avant l'installation. Une installation sous tension endommagera l'équipement de transmission.
2. Utilisez le câble réseau pour raccorder la caméra IP PoE ou d'autres périphériques PD aux ports PoE 1 à 8 du commutateur PoE.
3. Utilisez un câble réseau pour raccorder le port de liaison montante à un NVR ou à un ordinateur.
4. Branchez câble d'alimentation CA.
5. Veillez à ce que l'installation soit correcte, que l'équipement soit en bonne condition et que la connexion soit stable. Ensuite, mettez le système sous tension.
6. Assurez-vous que l'équipement Ethernet soit alimenté et fonctionne adéquatement.

Spécifications

Unité		Description	
Alimentation	Bloc d'alimentation	Alimentation intégrée	
	Tension d'entrée	100 à 240 V CA	
	Tension de sortie	52 V CC	
	Capacité de puissance PoE	130 W pour la PoE	
Ethernet	Vitesse	Port 1~8 : 10/100/1000 Mbit/s 9~10 : 1000 Mbit/s ports SFP (vitesse de module optique prise en charge par SFP : 1,25 Gb/s)	
	Distance de transmission	328 pi (100 m) pour RJ45 Module optique SFP facultatif, distance de transmission variant selon le module	
Commutateur réseau	Norme Ethernet	IEEE 802.3 / 802.3u / 802.3x / 802.3ab / 802.3af / 802.3at	
	Capacité de commutation	20 Gb/s	
	Débit de transfert		14,880 pps pour 10 Mb/s
			148,800 pps pour 100 Mb/s
			148,800 pps pour 1000 Mb/s
Adresse MAC	Table d'adresses MAC 8K		
LIAISON/ACT	Marche	Vert	Le port se connecte
	Clignote	-	Le port reçoit ou transmet des données
	Arrêt	-	La liaison entre le port et le périphérique a échoué
Indicateur PoE	Marche	Vert	PD connecté
	Arrêt	-	Dispositif d'alimentation non connecté ou échec de la transmission de l'alimentation
	Attribution du NIP PoE		V+ (RJ45 Pin 1, 2), V- (RJ45 Pin 3, 6)
Environnement de fonctionnement	Température de fonctionnement		0°C~40°C (32°F~104°F)
	Température d'entreposage		-40°C~70°C (-40°F~158°F)
	Humidité sans condensation		0~85%
	USAGE INTÉRIEUR SEULEMENT		
Mécanique	Dimensions L x l x H		10.63 po x 7.09 po x 1.73 po
			270 x 180 x 44 mm
	Couleur		Noir

Une modification de caractéristique ne sera pas considérable.

Dépannage

Veillez suivre les étapes si l'équipement présente une défaillance.

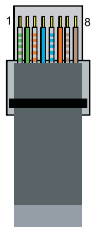
- Assurez-vous que l'équipement est installé selon les directives du guide d'installation du fabricant.
- Confirmez que l'ordre de câblage du RJ45 répond aux normes EIA/TIA568A ou 568B.
- La puissance maximale admissible par le port PoE vers l'équipement est de 30 W. Ne branchez pas un équipement PoE qui consomme plus de 30 W.
- Remplace l'équipement présentant un commutateur PoE 10 ports géré L2 afin de vérifier si l'équipement est endommagé.
- Veuillez communiquer avec le fournisseur si le problème persiste.
- La puissance PoE totale entre les 8 ports PoE est limitée à 130 W.
- En cas de perte des identifiants de connexion au logiciel, appuyez et maintenez le bouton de réinitialisation à l'avant du commutateur PoE pendant 10 s. L'indicateur DEL de chaque port clignotera, ce qui signifie que le nom d'utilisateur et le mot de passe ont été réinitialisés aux valeurs par défaut présentées à la page 1 de ce manuel.

Méthode de branchement

Instruments à utiliser: onduateur de fils, testeur de réseau. La séquence de câblage de la prise RJ45 doit être conforme à EIA/TIA568A ou 568B.

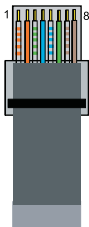
1. Retirez 2 cm de la gaine isolante et dénudez un câble UTP à 8 paires.
2. Séparez les 8 paires du câble UTP et étendez-les.
3. Alignez les 8 tiges du câble selon les normes EIA TIA 568A ou 568B.
4. Coupez les câbles pour laisser une longueur dénudée de 1.5 cm.
5. Branchez 8 câbles dans la prise RJ45; assurez-vous que chaque câble est dans chaque broche.
6. Utilisez l'onduateur de fils pour les replier.
7. Répétez les 6 étapes précédentes pour l'autre extrémité.
8. Utilisez le testeur de réseau pour vérifier le bon fonctionnement du câble.

Pin	Color
1	White/Green
2	Green
3	White/Orange
4	Blue
5	White/Blue
6	Orange
7	White/Brown
8	Brown



EIA/TIA 568A

Pin	Color
1	White/Orange
2	Orange
3	White/Green
4	Blue
5	White/Blue
6	Green
7	White/Brown
8	Brown



EIA/TIA 568B



Avis

Lorsque vous optez pour un RJ45, assurez-vous qu'une extrémité soit conforme à EIA/TIA568A; l'autre doit aussi être conforme à EIA/TIA568A.

Lorsque vous optez pour un RJ45, assurez-vous qu'une extrémité soit conforme à EIA/TIA568B; l'autre doit aussi être conforme à EIA/TIA568B.

1. Garantie limitée

a. Généralités

Sous réserve des modalités de la présente garantie limitée, à compter de la date de vente et pendant la période de garantie applicable aux catégories de produits précisée au paragraphe 1b), ADI garantit que ses produits UltraTech sont libres de tout vice de matériaux et de fabrication dans des conditions d'utilisation et d'entretien normales, sauf l'usure normale. Sauf si les lois l'exigent, la présente garantie limitée est offerte uniquement à l'acheteur et ne peut être transférée à un tiers.

ADI n'a aucune obligation aux termes de la présente garantie limitée ou autrement dans les circonstances suivantes :

- i. le produit est mal installé, appliqué ou entretenu;
- ii. le produit est installé de manière non conforme aux paramètres d'exploitation indiqués, modifié ou mal entretenu ou réparé;
- iii. le produit est endommagé par des phénomènes naturels extérieurs comme la foudre, une surcharge, un incendie, une inondation, une force majeure ou un phénomène similaire;
- iv. les défauts du produit résultent d'une modification non autorisée, d'une mauvaise utilisation, d'un acte de vandalisme ou d'autres causes non liés aux vices de matériaux ou de fabrication, ou à une défaillance des piles de quelque type que ce soit utilisées avec les produits vendus aux termes des présentes.

ADI ne garantit que les produits portant la marque UltraTech qu'elle vend. Les autres produits portant une marque de tiers sont garantis par le fabricant tiers pendant une période définie par ce dernier, et ADI cède à l'acheteur ces garanties et uniquement les garanties offertes par ces fabricants tiers ou vendeurs à l'égard de produits ne portant pas ses marques. ADI ne garantit pas de produits ne portant pas ses marques et vend ces produits tels quels, conformément à ses modalités de vente.

b. Les garanties particulières applicables aux catégories de produits sont les suivantes:

Catégories de produits	Période de la garantie
Batteries plomb-acide scellées	12 mois
Blocs d'alimentation CCTV	24 mois
Protection contre les surcharges	24 mois
UPS (systèmes d'alimentation sans coupure)	24 mois
Alimentation et relais	30 mois
Commutateurs réseau/Commutateurs PoE	Durée de vie limitée
Piles alcalines	Durée de vie limitée
Piles au lithium	Durée de vie limitée

2. EXCLUSION DE GARANTIES ET LIMITATION DE RESPONSABILITÉ

IL N'EXISTE AUCUNE GARANTIE OU CONDITION, EXPRESSE OU IMPLICITE, DE QUALITÉ MARCHANDE, D'ADAPTATION À UNE FIN PARTICULIÈRE OU AUTRE QUI DÉPASSE LE CADRE DE LA DESCRIPTION FOURNIE AU RECTO DES PRÉSENTES. DANS LA PLEINE MESURE PERMISE PAR LA LOI, ADI NE SAURAIT EN AUCUN CAS ÊTRE TENUE RESPONSABLE ENVERS QUICONQUE DES DOMMAGES CONSÉCUTIFS, INDIRECTS, SPÉCIAUX OU PUNITIFS DÉCOULANT DU PRODUIT OU LIÉS À CELUI-CI DE QUELQUE FAÇON QUE CE SOIT ET/OU DU NON-RESPECT DE LA PRÉSENTE GARANTIE OU DE TOUTE AUTRE GARANTIE OU CONDITION, EXPRESSE OU IMPLICITE, OU DE TOUTE AUTRE RÉCLAMATION FONDÉE SUR LA RESPONSABILITÉ, MÊME SI LA PERTE OU LES DOMMAGES SONT CAUSÉS PAR LA NÉGLIGENCE OU LA FAUTE D'ADI ET MÊME SI CETTE DERNIÈRE A ÉTÉ AVISÉE DE LA POSSIBILITÉ QUE DE TELLES PERTES OU DE TELS DOMMAGES SURVIENNENT. Les descriptions de produits (fournies par écrit ou verbalement par ADI ou ses mandataires), caractéristiques techniques, échantillons, modèles, bulletins, dessins, diagrammes, esquisses techniques ou documents similaires utilisés par l'acheteur pour passer une commande visent uniquement à décrire les produits d'ADI et ne doivent pas être interprétés comme des garanties ou conditions

expresses. Les suggestions faites par ADI ou ses mandataires au sujet de l'utilisation, de l'application ou du caractère approprié des produits ne doivent pas être interprétées comme des garanties ou conditions expresses, sauf si ADI confirme par écrit qu'il s'agit de garanties ou de conditions expresses. ADI ne garantit pas qu'il n'y aura aucune atteinte à l'intégrité des produits qu'elle vend ou que les produits qu'elle vend ne seront pas contournés, qu'ils préviendront les blessures ou les pertes matérielles en cas de cambriolage, de vol, d'incendie ou autrement ou qu'ils constitueront dans tous les cas une protection ou un avertissement approprié. L'acheteur comprend qu'un produit dûment installé et entretenu permet uniquement de réduire le risque de cambriolage, de vol ou d'incendie sans avertissement, mais qu'il ne constitue pas une assurance ou une garantie qu'un tel événement ne se produira pas ou qu'il n'entraînera pas des blessures ou des pertes matérielles. PAR CONSÉQUENT, ADI NE SAURAIT ÊTRE TENUE RESPONSABLE DES BLESSURES, DES DOMMAGES MATÉRIELS OU D'AUTRES PERTES FAISANT L'OBJET D'UNE RÉCLAMATION, Y COMPRIS UNE RÉCLAMATION SELON LAQUELLE LE PRODUIT N'AURAIT PAS DONNÉ DE SIGNAL D'AVERTISSEMENT. Toutefois, si ADI est tenue responsable, directement ou indirectement, de pertes ou de dommages à l'égard des produits qu'elle vend, quelle qu'en soit la cause ou l'origine, sa responsabilité n'excédera en aucun cas le prix d'achat du produit, dont le remboursement sera exigé à titre de dommages-intérêts extrajudiciaires et non d'amende, et il s'agira du recours exclusif et intégral pouvant être exercé contre ADI.

3. Limitation de la responsabilité envers les clients de l'acheteur.

L'acheteur s'engage à limiter la responsabilité envers ses clients dans la pleine mesure permise par la loi. L'acheteur reconnaît qu'ADI ne sera réputée avoir fourni aux consommateurs de ses produits que les garanties qui sont exigées par la loi. L'acheteur ne doit en aucun cas déclarer à ses clients et/ou aux utilisateurs des produits d'ADI que cette dernière offre d'autres garanties. Par l'acceptation des produits, l'acheteur assume, dans la pleine mesure permise par la loi, la pleine responsabilité à l'égard de toutes les poursuites, réclamations, mises en demeure et causes d'action et à l'égard de tous les jugements se rapportant à des dommages-intérêts, que ce soit pour des préjudices personnels ou des dommages matériels, subis par une personne, une firme, une société

ou une association commerciale, y compris les clients de l'acheteur et/ou les utilisateurs des produits, en raison de toute omission de la part des produits de déceler le danger pour la détection duquel ils sont conçus et/ou de donner l'alerte de ce danger ou un avertissement de toute autre défaillance des produits, que ces dommages aient été causés par la négligence dont ADI est l'auteur ou le coauteur, et il tiendra ADI à couvert à cet égard et prendra fait et cause pour lui.

4. Retours

Sous réserve des modalités énumérées ci-après, durant la période de garantie applicable, ADI remplacera le produit ou donnera une note de crédit à l'achat, à son gré et sans frais, à l'égard de tout produit défectueux qui lui est retourné. L'obligation qui incombe à ADI de remplacer le produit visé par une garantie à vie limitée aux termes de la garantie en question si celui-ci est défectueux se limite à la disponibilité d'un produit de remplacement. ADI se réserve le droit de remplacer un produit défectueux par le produit qui est disponible à ce moment-là, ou de donner une note de crédit, à son gré. Si l'acheteur a un problème avec un produit d'ADI, il doit appeler sa succursale ADI locale pour connaître la marche à suivre pour retourner le produit.

Aux États-Unis, composer le 1 800 233-6261

Au Canada, composer le 877 234-7378

À Porto Rico, composer le 787 793-8830

Pour EMEA, contactez votre agence ADI locale

L'acheteur doit avoir en main le numéro du modèle et décrire la nature du problème. En cas de remplacement, le prix du produit retourné sera porté au crédit du compte de l'acheteur et une nouvelle facture sera établie pour le produit de remplacement. ADI se réserve le droit de donner une note de crédit plutôt que de remplacer le produit.

Si l'on établit que le produit UltraTech n'est pas défectueux ou que son mauvais fonctionnement résulte d'une utilisation abusive ou de dommages causés par l'utilisateur, le produit sera retourné à l'acheteur dans le même état que celui dans lequel il a été reçu et l'acheteur devra acquitter les frais de transport.



5. Lois applicables

Pour l'Amérique du Nord – Les lois de l'État de New York s'appliquent à la présente garantie limitée.

Pour EMEA - Cette garantie limitée est régie par les lois d'Angleterre et du Pays de Galles.

6. Modalités diverses

Si une modalité de la présente garantie limitée est interdite par ces lois, elle sera nulle, mais le reste de la présente garantie limitée demeurera pleinement en vigueur.

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www.adiglobal.com

Technical Support: 833.574.9124



0E-8PRTMAN



8 40049 30715 5



Software User Manual

GUI General Use

CLI Network Administrators

0E-8PRTMAN

0E-24PRTMAN



L2 Managed PoE Switches Release A3





GUI User Manual

0E-8PRTMAN

0E-24PRTMAN

L2 Managed PoE Switches

Release A3



About This Manual

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Purpose	This GUI user guide gives specific information on how to operate and use the management functions of the 0E-8PRTMAN / 0E-24PRTMAN via HTTP web browser.
Audience	The Manual is intended for use by network administrators who are responsible for operating and maintaining network equipment; consequently, it assumes a basic working knowledge of general switch functions, the Internet Protocol (IP), and Hypertext Transfer Protocol (HTTP).
CONVENTIONS	The following conventions are used throughout this manual to show information.
WARRANTY	See the Customer Support/ Warranty booklet included with the product. A copy of the specific warranty terms applicable to your Manufacture products and replacement parts can be obtained from your Manufacture Sales and Service Office authorized dealer.
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Revision History

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INTRODUCTION

Overview

In this User Guide, it will not only tell you how to install and connect your network system but configure and monitor the 0E-8PRTMAN / 0E-24PRTMAN through the web by (RJ-45) serial interface and Ethernet ports step-by-step. Many explanations in detail of hardware and software functions are shown as well as the examples of the operation for web-based interface.

The 0E-8PRTMAN / 0E-24PRTMAN are L2 smart PoE switches, is a portfolio of affordable managed switches that provides a reliable infrastructure for your business network. These switches deliver more intelligent features you need to improve the availability of your critical business applications, protect your sensitive information, and optimize your network bandwidth to deliver information and applications more effectively. It provides the ideal combination of affordability and capabilities for entry level networking includes small business or enterprise application and helps you create a more efficient, better-connected workforce.

0E-8PRTMAN / 0E-24PRTMAN is L2 smart POE Switches, the specification is highlighted as follows.

Features

- **Layer 2 Switch**
 - 802.1d (STP), 802.1w (RSTP), 802.1s (MSTP)
 - Loop protection
 - SNMP
 - QoS
 - VLAN
 - LACP
 - DHCP Server
- **PoE Management**
 - PoE Per Port On/OFF Control
 - PoE Status
 - PoE Power Delay
 - PoE Auto Checking
 - PoE Scheduling Profile

Chapter 1

Operation of Web-based Management

Initial Configuration

This chapter instructs you how to configure and manage the 0E-8PRTMAN / 0E-24PRTMAN through the web user interface. With this facility, you can easily access and monitor through any one port of the switch all the status of the switch, including, each port activity, Spanning tree status, port aggregation status, VLAN and priority status, and so on.

The default values of the 0E-8PRTMAN / 0E-24PRTMAN are listed in the table below:

IP Address	192.168.1.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.254
User Name	admin
Password	admin

After the 0E-8PRTMAN / 0E-24PRTMAN have been finished configuring the interface, you can browse it at re-login page. In the IP address bar of a browser, it will show the following screen and ask you to input username and password in order to login and access authentication.

The default username is “**admin**” and password is “**admin**”. For the first time to use, please enter the default username and password, and then click the **<Login>** button. The login process now is completed. In this login menu, you have to input the complete username and password respectively, the 0E-8PRTMAN / 0E-24PRTMAN will not give you a shortcut to username automatically. This looks inconvenient, but safer.

In the 0E-8PRTMAN / 0E-24PRTMAN, allowed two or more users using administrator’s identity to manage this switch, which administrator to do the last setting, it will be an available configuration to effect the system.



NOTE:

To optimize the display effect, we recommend you to use Google Chrome,, Firefox, Microsoft Edge and have the resolution 1024x768. The switch supported neutral web browser interfaces



0E-8PRTMAN

Figure 1: The login page

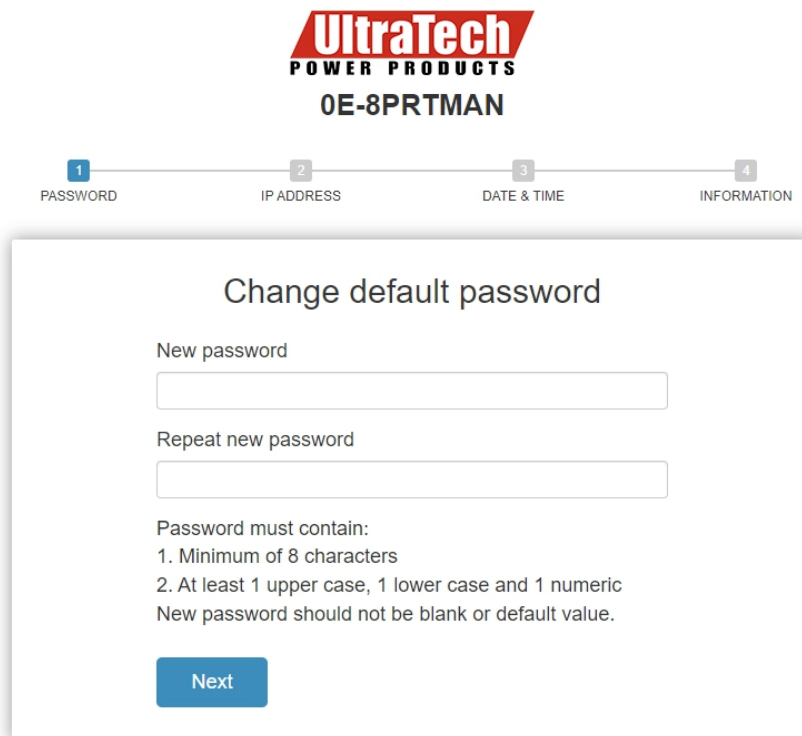
Chapter 2 FIRST TIME WIZARD

When the first time you use this device, you can configure some basic settings, such as password, IP address, date & time, system information.

According to the following procedure:

Step1: Change default password

Configure new password and enter it again.



The image shows a configuration wizard interface for the UltraTech OE-8PRTMAN device. At the top, the logo 'UltraTech POWER PRODUCTS' and model number 'OE-8PRTMAN' are displayed. Below the logo is a progress bar with four steps: 1. PASSWORD, 2. IP ADDRESS, 3. DATE & TIME, and 4. INFORMATION. Step 1 is currently active. The main content area is titled 'Change default password' and contains two input fields: 'New password' and 'Repeat new password'. Below these fields, the password requirements are listed: 'Password must contain: 1. Minimum of 8 characters, 2. At least 1 upper case, 1 lower case and 1 numeric. New password should not be blank or default value.' A blue 'Next' button is located at the bottom of the form.

Figure 2: Change default password

Step2: Set IP address

Select “obtain IP address via DHCP” or “Set IP address manually” to set IP address.

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1 2 3 4
PASSWORD IP ADDRESS DATE & TIME INFORMATION

Set IP address

Obtain IP address via DHCP

Set IP address manually

IP address
192.168.1.1

Subnet mask
255.255.255.0

Default router
192.168.1.254

DNS
0.0.0.0

Previous Next

Figure 3: Set IP address

Step3: Set date and time

Enable “Automatic data and time” or select manually to set date and time.

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1 2 3 4
PASSWORD IP ADDRESS DATE & TIME INFORMATION

Set date and time

Automatic date and time

Manually
2023-03-04 21:53:49

Previous Next

Figure 4: Set date and time

Step4: Set system information

You can set some system information to this device, such as “System contact”, “System name”, “System location”.

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0E-8PRTMAN

1 2 3 4
PASSWORD IP ADDRESS DATE & TIME INFORMATION

Set system information

System contact

System name

System location

Figure 5: Set system information

Chapter 3 SYSTEM

PoE Managed switch software provides rich functionality for switches in your networks. This guide describes how to use Web-based management interface (Web UI) to configure managed switch software features.

The Web UI supports all frequently used web browsers listed below:

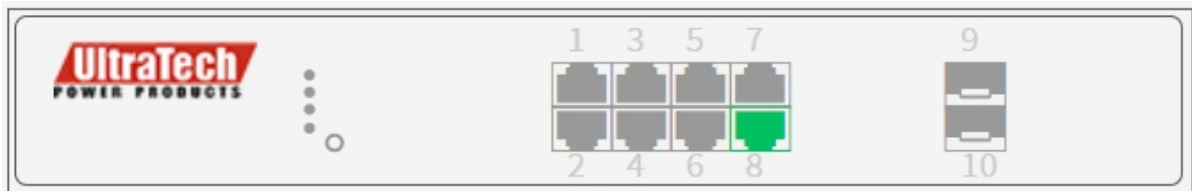


Figure 6: Port Information

In the Web UI, the left column shows the configuration menu. The top row shows the switch's current linking status described below.

- Orange : The LAN port is powered on and is connected with 10/100M linking speed powered device.
- Green : The LAN port is powered on and is connected with 1000M linking speed powered device
- Gray : The LAN port is NOT connected with any device.

On the top-right part, it shows useful functions for users to save the system configuration, log out the system. The rest of the screen area displays the configuration settings.

3-1 System Information

You can identify the system by configuring system name, location and the contact of the switch. The switch system's contact information is provided here.

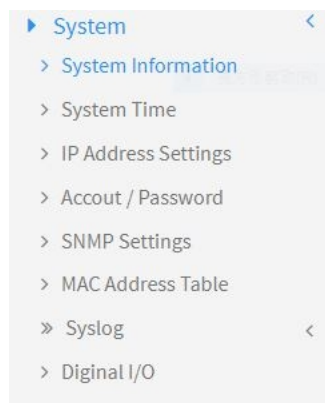


Figure 7: System

Web interface

To configure System Information in the web interface:

1. Click System -> System Information.

2. Input System Name, Location and Contact information in this page.

3. Click Apply.

System Information	
Model Name	0E-8PRTMAN
System Description	8xGbE PoE + 2xGbE SFP Managed Switch
Firmware Version	2.03.0531
MAC Address	6C:2A:DF:01:00:51
System Name	<input type="text" value="0E-8PRTMAN"/>
Location	<input type="text"/>
Contact	<input type="text"/>
System Date	2023-03-04 21:54:53
System Uptime	0 days, 0:05:53

Figure 8: System Information

Parameter Description:

■ Description

Displays the system description.

■ Model Name

Displays the factory defined model name for identification purpose.

■ MAC Address

Base MAC address of the switch.

■ IP Address

The IP Address of this switch.

■ Subnet Mask

The Subnet Mask IP Address of this switch.

■ Default Gateway

The Gateway IP Address of this switch.

■ Firmware Version

The software version of this switch.

■ System Time

The current (GMT) system time and date. The system time is obtained through the Timing server running on the switch, if any.

■ Uptime

The period of time the device has been operated.

■ System name

An administratively assigned name for this managed node. By convention, this is the node's fully-qualified domain name. A domain name is a text string drawn from the alphabet (A-Z, a-z), digits (0-9), minus sign (-). No space characters are permitted as part of a name. The first character must be an alpha character. And the first or last character must not be a minus sign. The allowed string length is 0 to 128.

■ Location

The physical location of this node(e.g., telephone closet, 3rd floor). The allowed string length is 0 to 128, and the allowed content is the ASCII characters from 1 to 32.

■ Contact

The textual identification of the contact person for this managed node, together with information on how to contact this person. The allowed string length is 0 to 128, and the allowed content is

the ASCII characters from 32 to 126.

3-2 System Time

The switch provides manual and automatic ways to set the system time via NTP. Manual setting is simple and you just input “Year”, “Month”, “Day”, “Hour”, “Minute” and “Second” within the valid value range indicated in each item.

Web interface

To configure System Time in the web interface:

1. Click System -> System Time.
2. Specify the Time parameter.
3. Click Apply.

NOTE:

Each time when you click apply, it will set new date to system. If **Clock Source** is “Local Setting” and **Daylight Saving Time** is “On”, the **System Date** should be manual to “Standard Time” to avoid time configuration shift.

System Time	
Time Configuration	
Clock Source	Local Settings
System Date	2023-01-01 08:02:40 (yyyy-mm-dd hh:mm:ss)
NTP Server	
Time Zone Configuration	
Time Zone	(UTC+08:00)Taipei
Acronym	(0 - 16 characters)
Daylight Saving Time Configuration	
Daylight Saving Time	off
Start Time settings	
Month	Jan
Week	1
Day	Mon
Hours	0
End Time settings	
Month	Jan
Week	1
Day	Mon
Hours	0
Offset settings	
Offset	0
Apply Reset	

Figure 9: System Time

Parameter Description:

■ Time Configuration

You can input Year, Month, Day, Hour, Minute and Second manually, or by clicking "Copy Computer Time" button to get time through PC, and to enable/disable obtaining system time through the time server.

■ Time Zone

Lists various Time Zones worldwide. Select appropriate Time Zone from the drop down and click Apply to set.

■ Daylight Saving Time

To enable/disable daylight saving time function.

■ Start Time Settings

Month - Select the starting month.

Day - Select the starting day.

Hours - Select the starting hour.

■ End Time Settings

Month - Select the ending month.

Day - Select the ending day.

Hours - Select the ending hour.

■ Offset

The number of minutes to be added by Daylight Saving Time. (Range: 1 to 720 minutes)

3-3 IP Address Settings

The IPv4 address for the switch could be obtained via DHCP Server for VLAN 1. To manually configure an address, you need to change the switch's default settings to values that are compatible with your network. You may also need to establish a default gateway between the switch and management stations that exist on another network segment.

Web Interface

To configure an IP Settings in the web interface:

1. Click System -> IP Address Settings.
2. Enable or Disable the IPv4 DHCP Client.
3. Specify the IPv4 Address, Subnet Mask and Gateway.
4. Input IPv4 DNS Server if desired.
5. Click Apply.

IP Address Settings	
IPv4 DHCP Client Enable	<input type="checkbox"/>
IPv4 Address	192.168.1.1
Subnet Mask	255.255.255.0
Gateway	192.168.1.254
DNS Server	0.0.0.0
IPv6 DHCP Client Enable	<input type="checkbox"/>
IPv6 Link-Local Address	fe80::6e2a:dfff:fe01:3b
IPv6 Address	::
IPv6 Prefix Length	64
IPv6 Gateway	::

Apply Reset

Figure 10: IP Address Setting

Parameter Description:

- **DHCP Client Enable**

Enable the DHCP client by clicking this checkbox. If this option is enabled, the system will configure the IPv4 address and mask of the interface using the DHCP protocol. The DHCP client will announce the configured System Name as hostname to provide DNS lookup.

- **IPv4 Address**

The IPv4 address of the interface in dotted decimal notation.

If DHCP is enabled, this field is not used. The field may also be left blank if IPv4 operation on the interface is not desired.

- **Subnet Mask**

User IP subnet mask of the entry.

- **Default Gateway**

The IP address of the IP gateway. Valid format is dotted decimal notation, or a valid IPv6 notation. Gateway and Network must be in the same type.

- **DNS Server**

This setting controls the DNS name resolution done by the switch.

3-4 Account / Password

This page provides an overview of the current users. Use this page to modify the user name and password.

Web Interface

To configure User Account in the web interface:

1. Click System -> Account/Password.
2. Specify the User Name.
3. Specify new password and confirm new password.
4. Click Apply.

Account / Password	
Username	<input type="text" value="admin"/>
New Password	<input type="text"/>
Confirm Password	<input type="text"/>

Figure 11: Account / Password

Parameter Description:

■ **Username**

The name identifying the user. The field can be input 32 characters.

■ **New Password**

To type the new password. The field can be input 32 characters.

■ **Confirm Password**

To type the new password again. You must type the same password again in the field.

Chapter 4 Port

The section describes to configure the Port detail parameters of the switch. Others you could use the Port configure to enable or disable the Port of the switch. Monitor the ports content or status in the function

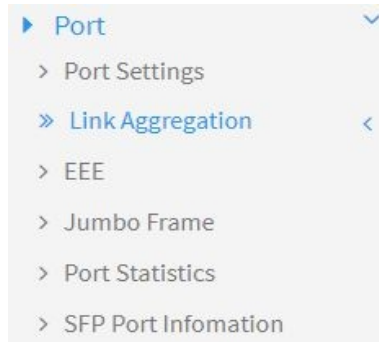


Figure 12: Port Setting

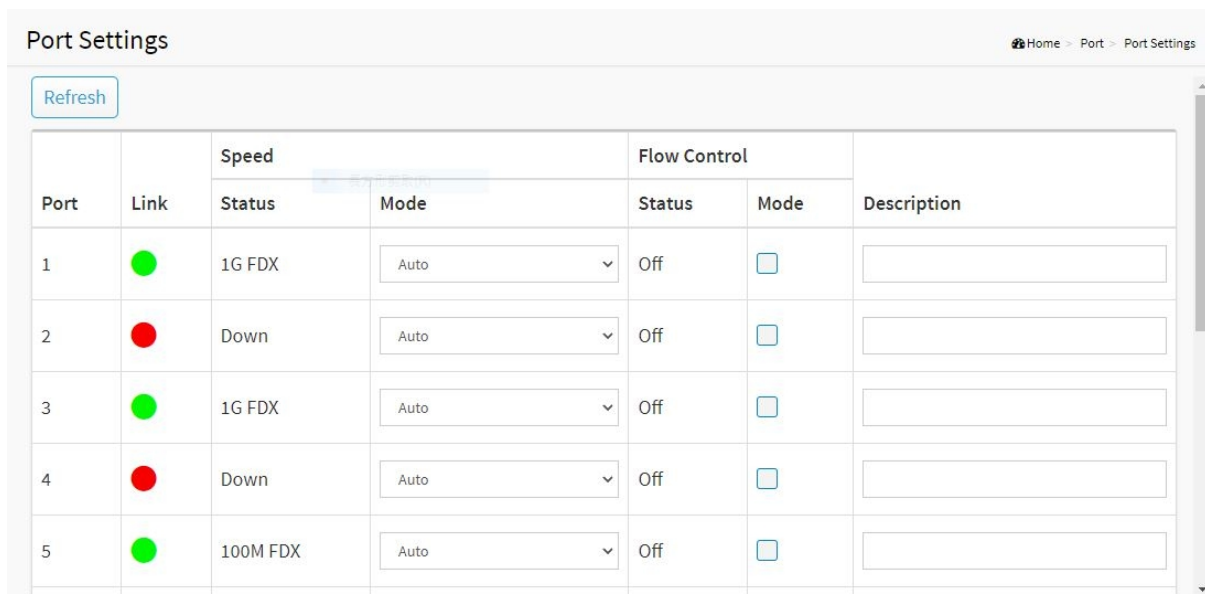
4-1 Port Setting

This page displays current port configuration. Ports can also be configured here.

Web Interface

To configure a Current Port Configuration in the web interface:

1. Click Port -> Port Setting.
2. Click the port number which you want to configure. (For example: Port 9)
3. Click Edit.
4. Specify the parameters you want to configure.
5. Click Apply.

A screenshot of the 'Port Settings' web interface. The page has a breadcrumb trail: 'Home > Port > Port Settings'. There is a 'Refresh' button in the top left. Below the breadcrumb is a table with columns: 'Port', 'Link', 'Speed', 'Flow Control', and 'Description'. The 'Speed' column is further divided into 'Status' and 'Mode'. The 'Flow Control' column is further divided into 'Status' and 'Mode'. The table contains five rows of data for ports 1 through 5. Port 1 is up (green dot), 1G FDX, Auto mode, Flow Control Off. Port 2 is down (red dot), Down status, Auto mode, Flow Control Off. Port 3 is up (green dot), 1G FDX, Auto mode, Flow Control Off. Port 4 is down (red dot), Down status, Auto mode, Flow Control Off. Port 5 is up (green dot), 100M FDX, Auto mode, Flow Control Off. Each row has a text input field for the 'Description' column.

Port	Link	Speed		Flow Control		Description
		Status	Mode	Status	Mode	
1	●	1G FDX	Auto	Off	<input type="checkbox"/>	
2	●	Down	Auto	Off	<input type="checkbox"/>	
3	●	1G FDX	Auto	Off	<input type="checkbox"/>	
4	●	Down	Auto	Off	<input type="checkbox"/>	
5	●	100M FDX	Auto	Off	<input type="checkbox"/>	

Figure 13: Port Setting

4-2 Link Aggregation

This page is used to configure port's LACP.

Web Interface

To configure a Current Port's LACP in the web interface:

1. Click Port -> Link Aggregation.
2. Specify Link Aggregation Group and the port's LACP method you want to configure. (For example: Port 9)
3. Click Apply.

Port	Method	Group	LACP Role	LACP Timeout	LACP Priority
1	None	1	Active	Fast	1
2	None	1	Active	Fast	1
3	None	1	Active	Fast	1
4	None	1	Active	Fast	1
5	None	1	Active	Fast	1
6	None	1	Active	Fast	1
7	None	1	Active	Fast	1
8	None	1	Active	Fast	1
9	None	1	Active	Fast	1

Figure 14: Link Aggregation

Parameter Description:

■ Method

Current port's LACP method.(None/LACP/Static)

4-3 EEE(Energy Efficient Ethernet)

This page is used to set current ports' energy configuration.

Web Interface

To configure a Current Port EEE Configuration in the web interface:

1. Click Port -> EEE.
2. Specify the parameters you want to configure.
3. Click Apply.

Port	Configure
1	Disabled ▾
2	Disabled ▾
3	Disabled ▾
4	Disabled ▾
5	Disabled ▾
6	Disabled ▾
7	Disabled ▾
8	Disabled ▾

Figure 15: Link Aggregation

Parameter Description:

■ **Configure**

To enable/disable EEE function

4-4 Jumbo Frame

This page is used to set jumbo frame function.

Web Interface

To configure jumbo frame function in the web interface:

1. Click Port -> Jumbo Frame.
2. Specify the parameters you want to configure.
3. Click Apply.

Jumbo Frame

Jumbo Frame	<input type="checkbox"/>
-------------	--------------------------

Apply
Reset
長方形ボタン (A)

Figure 16: Jumbo Frame

Parameter Description:

- To enable/disable jumbo frame function.

4-5 Port Statistics

The Port Statistics page displays port summary and status information. This page displays

standard counters on network traffic from the Interfaces. The port counters would be display in four groups individually.

Web Interface

To display Port Statistics in the web interface:

1. Click Port -> Port Statistics.
2. Check Packets, Bytes , Error and Drops individually to view each port's statistics information.
3. Click "Clear" button will clear counter of current selected port.

The screenshot shows a web interface titled "Port Statistics" with a breadcrumb "Home > Port > Port Statistics". Below the title are controls for "Auto-Refresh" (set to "off"), a "Refresh" button, and a "Clear" button. The main content is a table with 8 rows representing ports and 9 columns. The columns are grouped into four categories: Packets, Bytes, Errors, and Drops. Each category has two sub-columns: Received and Transmitted. The data for each port is as follows:

Port	Packets		Bytes		Errors		Drops	
	Received	Transmitted	Received	Transmitted	Received	Transmitted	Received	Transmitted
1	709	771863	49618	56042281	0	0	0	0
2	0	0	0	0	0	0	0	0
3	689508	185682	74201364	15832718	0	0	0	0
4	0	0	0	0	0	0	0	0
5	5649	770722	2102210	55974615	0	0	0	0
6	0	0	0	0	0	0	0	0
7	4759	778557	678075	62270085	0	0	0	0
8	0	0	0	0	0	0	0	0

Figure 17: Port Statistics

Parameter Description:

- **Refresh[Button]**
To refresh selected port information.
- **Clear[Button]**
To clear counter of current selected port.

4-6 SFP Port Information

The section describes that switch could display the SFP module detail information which you connect it to the switch. The information includes: Connector type, Fiber type, wavelength, bit rate and Vendor OUI etc.

Web Interface

To display Port Statistics in the web interface:

4. Click Port -> SFP Port Information

SFP Port Information

Home > Port > SFP Port Information

Auto-Refresh off Port 9 ▾

Port	9
Connector Type	none
Fiber Type	none
Tx Central Wavelength	none
Bit Rate	none
Vendor OUI	none
Vendor Name	none
Vendor P/N	none
Vendor Revision	none
Vendor Serial Number	none

Figure 18: SFP Port Information

Parameter Description:

- **Refresh[Button]**
To refresh selected port information.

Chapter 5 PoE Management

This chapter describes the PoE management including PoE Configuration, PoE Status, PoE Power Delay, PoE Auto Check and PoE Scheduling Profile.

5-1 PoE Configuration

This page displays current PoE ports' power ON/OFF status and schedule profile. It can also be configured here.

Web Interface

To configure a PoE port's power in the web interface:

1. Click PoE Management -> PoE Configuration.
2. Specify the parameters which you want to configure.
3. Click Apply.

The screenshot shows the 'PoE Configuration' web interface. At the top right, there is a breadcrumb trail: Home > PoE Management > PoE Configuration. Below the title, there is a table with 5 columns: Port, PoE Mode, PoE Schedule, Priority, and Maximum Power [W]. The table contains 8 rows, each representing a port. All ports are currently set to 'Enabled' mode, 'Disabled' schedule, 'High' priority, and a maximum power of 32W. At the bottom of the table, there are two buttons: 'Apply' and 'Reset'.

Port	PoE Mode	PoE Schedule	Priority	Maximum Power [W]
1	Enabled	Disabled	High	32
2	Enabled	Disabled	High	32
3	Enabled	Disabled	High	32
4	Enabled	Disabled	High	32
5	Enabled	Disabled	High	32
6	Enabled	Disabled	High	32
7	Enabled	Disabled	High	32
8	Enabled	Disabled	High	32

Figure 19: PoE Configuration

Parameter Description:

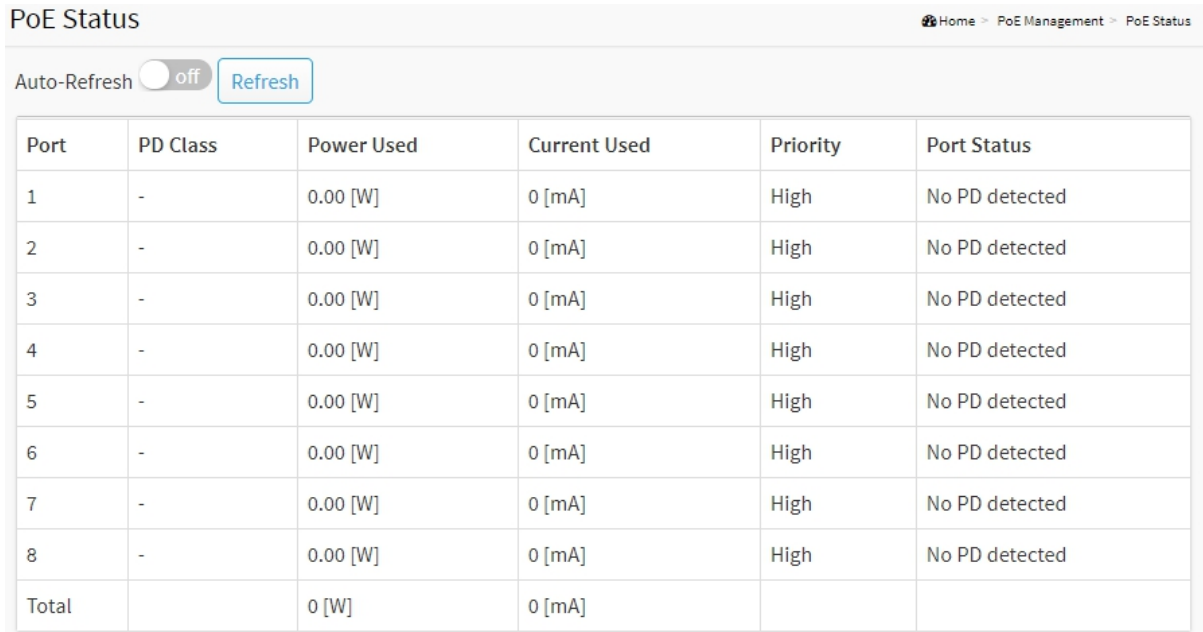
- **PoE Mode**
To enable/disable port's power
- **PoE Schedule**
To set port's schedule profile. (profile 1 to 10, disabled means no schedule profile)
- **Priority**
To set port's priority.
- **Maximum Power(W)**
To set port's power.

5-2 PoE Status

This page displays current ports' power status.

Web Interface

To display PoE port's power information in the web interface, click PoE Management -> PoE Status.



The screenshot shows the 'PoE Status' web interface. At the top right, there is a breadcrumb trail: Home > PoE Management > PoE Status. Below the breadcrumb, there is an 'Auto-Refresh' toggle switch set to 'off' and a 'Refresh' button. The main content is a table with the following data:

Port	PD Class	Power Used	Current Used	Priority	Port Status
1	-	0.00 [W]	0 [mA]	High	No PD detected
2	-	0.00 [W]	0 [mA]	High	No PD detected
3	-	0.00 [W]	0 [mA]	High	No PD detected
4	-	0.00 [W]	0 [mA]	High	No PD detected
5	-	0.00 [W]	0 [mA]	High	No PD detected
6	-	0.00 [W]	0 [mA]	High	No PD detected
7	-	0.00 [W]	0 [mA]	High	No PD detected
8	-	0.00 [W]	0 [mA]	High	No PD detected
Total		0 [W]	0 [mA]		

Figure 20: PoE Status

Parameter Description:

- **Auto Refresh**
To refresh web page automatically every 10 seconds.
- **Port**
The port number.
- **PD Class**
The IEEE802.3af/at/bt defined power classification.
Class0: 0.44~12.95 W
Class1: 0.44~3.84 W
Class2: 3.84W~6.49 W
Class3: 6.49~12.95 W
Class4: 12.95~25.5 W
- **Power Allocated**
The port's PoE can used maximum
- **Power Used**
The port's PoE used power.
- **Current Used**
The port's PoE used current.
- **Priority**

The port's PoE priority.

- **Port Status**

The port's PoE Status.

5-3 PoE Power Delay

This page displays current PoE ports' power delay function. It can also be configured here.

Web Interface

To configure a port power delay function in the web interface:

1. Click PoE Management -> PoE Power Delay.
2. Specify the parameters which you want to configure.
3. Click Apply.

Port	Delay Mode	Delay Time (0~300 sec)
1	Disabled	0
2	Disabled	0
3	Disabled	0
4	Disabled	0
5	Disabled	0
6	Disabled	0
7	Disabled	0
8	Disabled	0

Figure 21: PoE Power Delay

Parameter Description:

- **Delay Mode**

To enable/disable power delay function

- **Delay Time**

To set port's power delay time. (0 ~ 300 seconds)

5-4 PoE Auto Checking

This page displays current PoE ports' power auto checking function. It can also be configured here.

Web Interface

To configure a port power auto checking function in the web interface:

1. Click PoE Management -> PoE Auto Checking.
2. Specify the parameters which you want to configure.

3. Click Apply.

PoE Auto Checking Home > PoE Management > PoE Auto Checking

Ping Check off

Port	Ping IP Address	Start Time	Interval Time(sec)	Retry Time	Failure Log	Failure Action	Reboot Time(sec)	Max. Reboot Times
1	0.0.0.0	30	30	3	error:0, total:0	Nothi	15	0
2	0.0.0.0	30	30	3	error:0, total:0	Nothi	15	0
3	0.0.0.0	30	30	3	error:0, total:0	Nothi	15	0
4	0.0.0.0	30	30	3	error:0, total:0	Nothi	15	0
5	0.0.0.0	30	30	3	error:0, total:0	Nothi	15	0

Figure 22: Power Auto Check

Parameter Description:

■ Ping IP Address

The PD's IP Address used to test its connectivity.

■ Start Time

After Startup Time, PoE auto checking function will be started. Default: 30, range: 30-60 seconds.

■ Interval Time

Device will send checking message to PD each interval time. Default: 30, range: 10-120 seconds.

■ Retry Time

When PoE port can't ping the PD, it will retry to send detection again. When reaching the retry time, it will trigger failure action. Default: 3, range: 1-5.

■ Failure Log

Failure loggings counter.

■ Failure Action

The action when reaching the retry time fail detection.

Nothing: Keep Ping the remote PD but does nothing further.

Reboot: Cut off the power of the PoE port, make PD rebooted.

■ Reboot Time

When PD has been rebooted, the PoE port restored power after the Reboot Time. Default: 15, range: 3-120 sec.

5-5 PoE Scheduling Profile

This page displays current PoE ports' power schedule profile function. It can also be configured here.

Web Interface

To configure power scheduling profile in the web interface:

1. Click PoE Management -> PoE Scheduling Profile.

2. Specify the parameters which you want to configure.
3. Click Apply.

PoE Scheduling Profile Home > PoE Management > PoE Scheduling Profile

Profile	<input type="text" value="1"/>			
Name	<input type="text" value="profile1"/>			
Week Day	Start Time		End Time	
	HH	MM	HH	MM
*	<input type="text" value="<>"/>	<input type="text" value="<>"/>	<input type="text" value="<>"/>	<input type="text" value="<>"/>
Monday	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Tuesday	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Wednesday	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Thursday	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

Figure 23: PoE Scheduling Profile

Parameter Description:

- **Profile**
The profile number. (1~last)
- **Name**
The profile name.
- **Start Time <HH>**
The starting hour time.
- **Start Time <MM>**
The starting minute time.
- **End Time <HH>**
The ending hour time.
- **End Time <MM>**
The ending minute time.

Chapter 6 VLAN

A virtual local area network, virtual LAN or VLAN, is a group of hosts with a common set of requirements that communicate as if they were attached to the same broadcast domain, regardless of their physical location. A VLAN has the same attributes as a physical local area network (LAN), but it allows for end stations to be grouped together even if they are not located on the same network switch. VLAN membership can be configured through software instead of physically relocating devices or connections.

6-1 VLAN Configuration

To create new VLANs for management purpose. The management VLAN is used to establish an IP connection to the switch from a workstation connected to a port in the VLAN. By default, the active management VLAN is VLAN 1, but you can designate any VLAN as the management VLAN and only one management VLAN can be active at a time.

When you specify a new management VLAN, your HTTP connection to the old management VLAN is lost. For this reason, you should have a connection between your management station and a port in the new management VLAN or connect to the new management VLAN through a multi-VLAN route

Web Interface

To create new VLANs the web interface:

1. Click VLAN -> VLAN configuration
2. Input new VLANs.
3. Click Apply.

The screenshot shows the 'VLAN Configuration' web interface. It has a breadcrumb trail: Home > VLAN > VLAN Configuration. The interface is divided into two main sections: 'Global VLAN Configuration' and 'Port VLAN Configuration'.

Global VLAN Configuration:

- Management VLAN: 1
- Allow Access VLANs: 1

Port VLAN Configuration:

Port	Mode	Port VLAN	Ingress Filtering	Ingress Acceptance	Allowed VLANs
1	Access	1	<input checked="" type="checkbox"/>	Tagged and Untagged	1
2	Access	1	<input checked="" type="checkbox"/>	Tagged and Untagged	1
3	Access	1	<input checked="" type="checkbox"/>	Tagged and Untagged	1
4	Access	1	<input checked="" type="checkbox"/>	Tagged and Untagged	1
5	Access	1	<input checked="" type="checkbox"/>	Tagged and Untagged	1

Figure 24: VLAN Configuration

Parameter Description:

■ Allow Access VLANs

The VLANs list you want to create. Enter the final VLAN list you want.
e.g. 1 or 1,4,9,11 which means your system has VLAN 1,4,9,11.

6-2 VLAN Membership

This page provides an overview of membership status of VLANs. Users can set ports as untagged or tagged member of VLAN.

Web Interface

To configure VLAN membership configuration in the web interface:

1. Click VLAN -> VLAN Membership.
2. To see the VLAN member for the port(s).
3. Click Apply.

	Port Memebers									
VLAN ID	1	2	3	4	5	6	7	8	9	10
1	U	U	U	U	U	U	U	U	U	U

Figure 25: VLAN Member

Parameter Description:

- **VLAN ID**
The VLAN ID list(s).
- **Port Members**
The port status with VLAN setting.

Chapter 7 IGMP Snooping

The function is used to establish the multicast groups to forward the multicast packet to the member ports, and, in nature, avoids wasting the bandwidth while IP multicast packets are running over the network. This is because a switch that does not support IGMP or IGMP Snooping cannot tell the multicast packet from the broadcast packet, so it can only treat them all as the broadcast packet. Without IGMP Snooping, the multicast packet forwarding function is plain and nothing is different from broadcast packet.

A switch supported IGMP Snooping with the functions of query, report and leave, a type of packet exchanged between IP Multicast Router/Switch and IP Multicast Host, can update the information of the Multicast table when a member (port) joins or leaves an IP Multicast Destination Address. With this function, once a switch receives an IP multicast packet, it will forward the packet to the members who joined in a specified IP multicast group before.

The packets will be discarded by the IGMP Snooping if the user transmits multicast packets to the multicast group that had not been built up in advance. IGMP mode enables the switch to issue IGMP function that you enable IGMP proxy or snooping on the switch, which connects to a router closer to the root of the tree. This interface is the upstream interface. The router on the upstream interface should be running IGMP.

7-1 Property

This page sets the property of IGMP Snooping, including State, Immediate Leave and Unknown Multicast.

Web Interface

To configure the property of IGMP Snooping in the web interface:

1. Click IGMP Snooping -> Property.
2. Specify the parameters which you want to configure.
3. Click Apply.



Property	Value
State	<input type="checkbox"/> Enable
Immediate Leave	<input type="checkbox"/> Enable
Unknown Multicast	<input type="checkbox"/> Block

Apply Reset

Figure 26: Property

Parameter Description:

- **State**
To enable/disable IGMP Snooping function.
- **Immediate Leave**

If set enabled, the multicast traffic would be stopped as soon as an IGMP leave message received on a port

■ **Unknown Multicast**

If set blocked, the unknown multicast received would be dropped; Otherwise, the packets would be flooded

7-2 Group Address

This page displays the group address for all port members.

Web Interface

To view the group address in the web interface:

1. Click IGMP Snooping -> Group Address.
2. Click "Clear" to delete the entries.
3. Click "Refresh" to reload the entries.

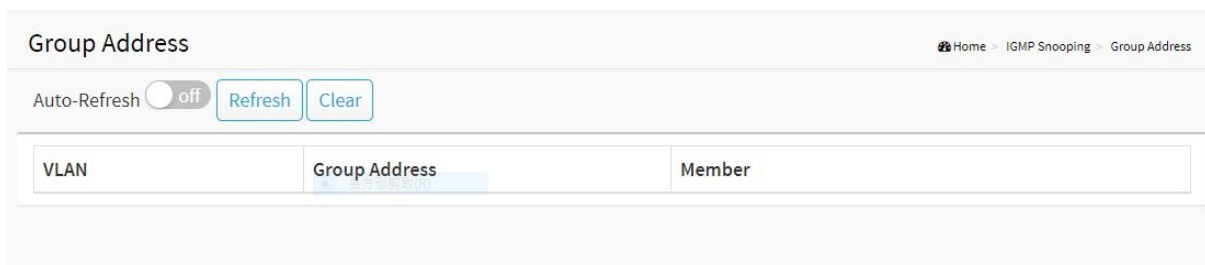


Figure 27: Group Address

Parameter Description:

- **VLAN**
VLAN.
- **Group Address**
Group Address of IGMP Snooping.
- **Member**
IGMP Snooping Members.
- **Clear[Button]**
To delete the entries.
- **Refresh[Button]**
To reload the entries.

Chapter 8 LLDP

The switch supports the LLDP. For current information on your switch model, The Link Layer Discovery Protocol (LLDP) provides a standards-based method for enabling switches to advertise themselves to adjacent devices and to learn about adjacent LLDP devices. The Link Layer Discovery Protocol (LLDP) is a vendor-neutral Link Layer protocol in the Internet Protocol Suite used by network devices for advertising their identity, capabilities, and neighbors on a IEEE 802 local area network, principally wired Ethernet. The protocol is formally referred to by the IEEE as Station and Media Access Control Connectivity Discovery specified in standards document IEEE 802.1AB.

8-1 LLDP Configuration

This page is used to configure LLDP settings. You can per port to do the LLDP configuration and the detail parameters, the settings will take effect immediately. This page allows the user to inspect and configure the current LLDP port settings.

Web Interface

To configure the LLDP settings in the web interface:

1. Click LLDP -> LLDP Configuration.
2. Specify LLDP parameters you want to configure.
3. Click Apply.

The screenshot shows the 'LLDP Configuration' web interface. At the top right, there is a breadcrumb trail: 'Home > LLDP > LLDP Configuration'. The main configuration area contains a table with the following settings:

State	<input checked="" type="checkbox"/> Enable
Tx Interval	<input type="text" value="30"/> seconds
Tx Hold	<input type="text" value="4"/> times
Tx Delay	<input type="text" value="2"/> seconds
Tx Reinit	<input type="text" value="2"/> seconds

Below the configuration table is a section titled 'LLDP System Information' with the following details:

Chassis ID Subtype	macAddress
Chassis ID	6C:2A:DF:01:00:51
System Name	0E-8PRTMAN
System Description	8xGbE PoE + 2xGbE SFP Managed Switch

System Description		8xGbE PoE + 2xGbE SFP Managed Switch				
LLDP Port Configuration						
		Optional TLVs				
Port	Mode	Port Description	System Name	System Description	System Capabilities	Management Address
1	RxTx	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	RxTx	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	RxTx	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4	RxTx	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5	RxTx	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6	RxTx	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Figure 28: LLDP Configuration

Parameter Description:

■ **State**

To enable/disable LLDP function.

■ **TX Hold**

Specify the LLDP packet hold time interval as a multiple of the LLDP timer value. The range is 2 to 10, and the default value is 4.

■ **TX Interval**

Specify how often the software sends LLDP updates in seconds. The range is 5 to 32768 seconds. The default value is 30 seconds.

■ **TX Reinit**

Specify the minimum time in seconds an LLDP port waits before reinitializing LLDP transmission. The range is from 1 to 10 and the default value is 2 seconds.

■ **TX Delay**

Specify the delay in seconds between successive LLDP frame transmissions initiated by value or status changes in the LLDP local systems MIB. The range is from 1 up to 8192 seconds and the default transmission delay is 2 seconds.

■ **Chassis ID Subtype**

Type of chassis ID (for example, MAC address).

■ **Chassis ID**

Identifier of the chassis. Where the chassis ID subtype is a MAC address, the MAC address of the device is displayed.

■ **System Name**

The Name of the device.

■ **System Description**

The Description of the device.

■ **LLDP Port Configuration:**

Enable/Disable LLDP State for the ports.

8-2 LLDP Neighbor

This page is to display LLDP neighborhood status.

Web Interface

To display the LLDP neighborhood status in the web interface, click LLDP -> LLDP Neighbor.

Local Port	Chassis ID	Port ID	Port Description	System Name	System Capabilities	System Description	Management Address
gi1	D0:17:C2:93:8E:ED	D0:17:C2:93:8E:ED					

Figure 29: LLDP Information

Parameter Description:

■ Local Port

The normal port of the device.

■ Chassis ID

Identifier of the chassis. Where the chassis ID subtype is a MAC address, the MAC address of the device is displayed.

■ Port ID

Port identifier.

■ System Name

The Name of the device.

■ System Capabilities

Identifies the switch's primary capabilities (bridge, router).

■ System Description

The Description of the device.

■ Management Address

Specify the management address to be used in LLDP Management Address type, length, and value (TLV) messages. The Management Address TLV typically contains the IPv4 or IPv6 management addresses of the local system. Only out-of-band management addresses must be used for the management-address. Other remote managers can use this address to obtain information related to the local device.

Chapter 9 Loop Prevention

The chapter describes how to prevent loop situation.

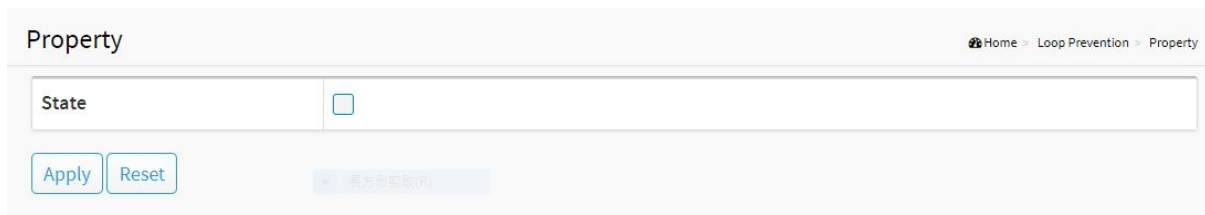
9-1 Property

This page is used to configure the loop prevention.

Web Interface

To configure the loop prevention in the web interface:

1. Click Loop Prevention -> Property.
2. Specify the parameter you want to configure.
3. Click Apply.



The screenshot shows a web interface titled "Property". In the top right corner, there is a breadcrumb trail: "Home > Loop Prevention > Property". The main content area contains a form with a label "State" and a checkbox. Below the form, there are two buttons: "Apply" and "Reset". At the bottom of the form, there is a small button with the text "高级配置(0)".

Figure 30: Property

Parameter description:

- **State**
- To enable/disable loop prevention function.

9-2 Status

This page is used to display the loop status of ports.

Web Interface

To view the loop status in the web interface, click Loop Prevention -> Status.

Status

Auto-Refresh off [Refresh](#)

Port	Status
1	Normal
2	Normal
3	Normal
4	Normal
5	Normal
6	Normal
7	Normal
8	Normal
9	Normal

Figure 31: Status

Chapter 10 Security

This section shows you to configure the Port Security settings of the Switch. You can use the Port Security feature to restrict input to an interface by limiting and identifying MAC addresses.

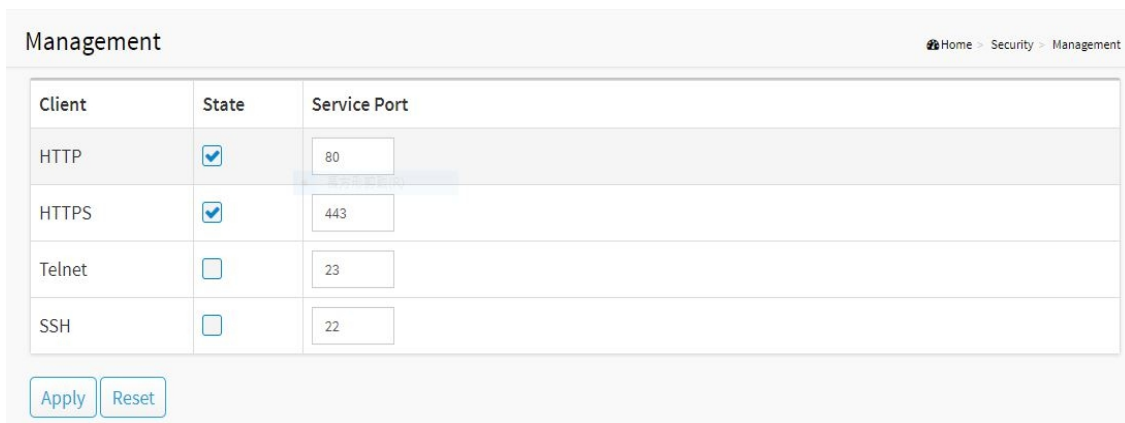
10-1 Management

This page is used to configure the connect function.

Web Interface

To configure the IP filter function the web interface:

1. Click Security -> Management.
2. Specify the connection parameter you want to configure.
3. Click Apply.



Client	State	Service Port
HTTP	<input checked="" type="checkbox"/>	80
HTTPS	<input checked="" type="checkbox"/>	443
Telnet	<input type="checkbox"/>	23
SSH	<input type="checkbox"/>	22

Apply Reset

Figure 32: Management

10-2 Port Isolation

This page is used to configure the Port Isolation function.

Web Interface

To configure the port isolation in the web interface:

1. Click Security -> Port Isolation.
2. Specify the parameter you want to configure.
3. Click Apply.

Port Isolation Home > Security > Port Isolation

Port Number									
1	2	3	4	5	6	7	8	9	10
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Figure 33: Port Isolation

Parameter Description:

■ **Port Number**

Select the port of the device to isolate.

10-3 Port Security

This page is used to configure the Port Security function.

Web Interface

To configure the port security in the web interface:

1. Click Security -> Port Security.
2. Specify the parameter you want to configure.
3. Click Apply.

Configuration Home > Security > Port Security > Configuration

System Configuration

Mode off

Port Configuration

Port	Mode	MAC Limit	Action	State	Re-open
1	Disabled ▾	1	None ▾	Disabled	<input type="button" value="Re-open"/>
2	Disabled ▾	1	None ▾	Disabled	<input type="button" value="Re-open"/>
3	Disabled ▾	1	None ▾	Disabled	<input type="button" value="Re-open"/>
4	Disabled ▾	1	None ▾	Disabled	<input type="button" value="Re-open"/>
5	Disabled ▾	1	None ▾	Disabled	<input type="button" value="Re-open"/>

Figure 34: Port Security

Parameter Description:

■ **Port**

The normal port of the device.

■ **Mode**

The state of the function.

■ **MAC Limit**

The limit number of MAC address.

■ **Action**

The state of the port

10-4 Storm Control

This page is used to configure the storm control function. A traffic storm occurs when packets flood the LAN, creating excessive traffic and degrading network performance. The traffic broadcast and multicast suppression (or storm control) feature prevents LAN ports from being disrupted by a broadcast, multicast and unicast traffic storm on physical interfaces.

Web Interface

To configure the storm control function in the web interface:

1. Click Security -> Storm Control.
2. Specify the parameter you want to configure.
3. Click Apply.

Storm Control Home > Security > Storm Control

Port	Broadcast		Unknown Multicast		Unknown Unicast	
	Enable	Rate (pps)	Enable	Rate (pps)	Enable	Rate (pps)
1	<input type="checkbox"/>	<input type="text" value="10000"/>	<input type="checkbox"/>	<input type="text" value="10000"/>	<input type="checkbox"/>	<input type="text" value="10000"/>
2	<input type="checkbox"/>	<input type="text" value="10000"/>	<input type="checkbox"/>	<input type="text" value="10000"/>	<input type="checkbox"/>	<input type="text" value="10000"/>
3	<input type="checkbox"/>	<input type="text" value="10000"/>	<input type="checkbox"/>	<input type="text" value="10000"/>	<input type="checkbox"/>	<input type="text" value="10000"/>
4	<input type="checkbox"/>	<input type="text" value="10000"/>	<input type="checkbox"/>	<input type="text" value="10000"/>	<input type="checkbox"/>	<input type="text" value="10000"/>
5	<input type="checkbox"/>	<input type="text" value="10000"/>	<input type="checkbox"/>	<input type="text" value="10000"/>	<input type="checkbox"/>	<input type="text" value="10000"/>
6	<input type="checkbox"/>	<input type="text" value="10000"/>	<input type="checkbox"/>	<input type="text" value="10000"/>	<input type="checkbox"/>	<input type="text" value="10000"/>

Figure 35: Storm Control

Parameter description:

- **Rate**
The rate for controlling broadcast, multicast and unicast traffic storm on physical interfaces.
- **Enable**
To enable/disable the function.

10-5 DoS Attack Prevention

This page is used to configure the DoS Attack Prevention function.

Web Interface

To configure the DoS Attack Prevention function in the web interface:

1. Click Security -> DoS Attack Prevention.
2. Specify the parameter you want to configure.
3. Click Apply.

DoS Attack Prevention Home > Security > DoS Attack Prevention

POD	<input checked="" type="checkbox"/> Enable	Land	<input checked="" type="checkbox"/> Enable
UDP Blat	<input checked="" type="checkbox"/> Enable	TCP Blat	<input checked="" type="checkbox"/> Enable
DMAC = SMAC	<input checked="" type="checkbox"/> Enable	Null Scan Attack	<input checked="" type="checkbox"/> Enable
X-Mas Scan Attack	<input checked="" type="checkbox"/> Enable	TCP SYN-FIN Attack	<input checked="" type="checkbox"/> Enable
TCP SYN-RST Attack	<input checked="" type="checkbox"/> Enable	ICMP Fragment	<input checked="" type="checkbox"/> Enable
TCP-SYN	<input checked="" type="checkbox"/> Enable	TCP Fragment	<input checked="" type="checkbox"/> Enable
Ping Max Size	<input checked="" type="checkbox"/> Enable IPv4 <input checked="" type="checkbox"/> Enable IPv6	<input type="text" value="512"/> Byte (0 - 65535)	
TCP Min Hdr Size	<input checked="" type="checkbox"/> Enable	<input type="text" value="20"/> Byte (0 - 31)	
IPv6 Min Fragment	<input checked="" type="checkbox"/> Enable	<input type="text" value="1240"/> Byte (0 - 65535)	
Smurf Attack	<input checked="" type="checkbox"/> Enable	<input type="text" value="0"/>	

Figure 36: DoS Attack Prevention

DoS Attack Prevention Home > Security > DoS Attack Prevention

Port	State
1	Disabled <input type="button" value="v"/>
2	Disabled <input type="button" value="v"/>
3	Disabled <input type="button" value="v"/>
4	Disabled <input type="button" value="v"/>
5	Disabled <input type="button" value="v"/>
6	Disabled <input type="button" value="v"/>
7	Disabled <input type="button" value="v"/>
8	Disabled <input type="button" value="v"/>

Figure 37: DoS Attack Prevention (Detail)

Parameter description:

- **Port**
The normal port of the device.
- **State**
- To enable/disable the function.

Chapter 11 SNMP

Any Network Management System (NMS) running the Simple Network Management Protocol (SNMP) can manage the Managed devices equipped with SNMP agent, provided that the Management Information Base (MIB) is installed correctly on the managed devices. The SNMP is a protocol that is used to govern the transfer of information between SNMP manager and agent and traverses the Object Identity (OID) of the management Information Base (MIB), described in the form of SMI syntax. SNMP agent is running on the switch to response the request issued by SNMP manager.

Basically, it is passive except issuing the trap information. The switch supports a switch to turn on or off the SNMP agent. If you set the field SNMP "Enable", SNMP agent will be started up. All supported MIB OIDs, including RMON MIB, can be accessed via SNMP manager. If the field SNMP is set "Disable", SNMP agent will be de-activated, the related Community Name, Trap Host IP Address, Trap and all MIB counters will be ignored.

11-1 Configuration

This section describes how to configure SNMP System on the switch. This function is used to configure SNMP settings, community name, trap host and public traps as well as the throttle of SNMP. A SNMP manager must pass the authentication by identifying both community names, then it can access the MIB information of the target device. So, both parties must have the same community name. Once completing the setting, click <Apply> button, the setting takes effect.

Web Interface

To configure the configure SNMP System in the web interface:

1. Click Security, SNMP and configuration.
2. Evoke SNMP State to enable or disable the SNMP function.
3. Specify the Read Community, Write Community.
4. Click Apply.

Configuration Home > SNMP > Configuration

State	<input type="checkbox"/>				
Community					
Name 1	<input type="text"/>	Access Mode	Read-Only ▾	Group Name	<input type="text"/>
Name 2	<input type="text"/>	Access Mode	Read-Only ▾	Group Name	<input type="text"/>
Trap Host					
IP Address 1	<input type="text"/>	Name	SNMPv1 ▾	Community	<input type="text"/>
IP Address 2	<input type="text"/>	Name	SNMPv1 ▾	Community	<input type="text"/>

Figure 38: The SNMP Configuration

Parameter description:

■ Read Community :

Indicates the community read access string to permit access to SNMP agent. The allowed string length is 1 to 31, and the allowed content is the ASCII characters from 33 to 126.

The field is applicable only when SNMP version is SNMPv1 or SNMPv2c. If SNMP version is SNMPv3, the community string will be associated with SNMPv3 communities table. It provides more flexibility to configure security name than a SNMPv1 or SNMPv2c community string. In addition to community string, a particular range of source addresses can be used to restrict source subnet.

■ Write Community :

Indicates the community write access string to permit access to SNMP agent. The allowed string length is 1 to 31, and the allowed content is the ASCII characters from 33 to 126.

The field is applicable only when SNMP version is SNMPv1 or SNMPv2c. If SNMP version is SNMPv3, the community string will be associated with SNMPv3 communities table. It provides more flexibility to configure security name than a SNMPv1 or SNMPv2c community string. In addition to community string, a particular range of source addresses can be used to restrict source subnet.

Buttons

■ Apply :

Click to save changes.

■ Reset :

Click to undo any changes made locally and revert to previously saved values.

11-2 SNMPv3

11-2.1 Communities

The function is used to configure SNMPv3 communities. The Community is unique. To create a new community account, please check <Add new community> button, and enter the account information then check <Save>. Max Group Number: 6.

Web Interface

To configure the configure SNMP Communities in the web interface:

1. Click Security, SNMP, SNMPv3 and Communities.
2. Click Add new community.
3. Specify the SNMP communities parameters.
4. Click Apply.
5. If you want to modify or clear the setting then click Reset.



Delete	Community	Source IP	Source Mask
<input type="button" value="Delete"/>	<input type="text"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0"/>
<input type="button" value="Delete"/>	<input type="text"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="0"/>

Figure 39: The SNMPv3 Communities Configuration

Parameter description:

■ Community

Indicates the community access string to permit access to SNMPv3 agent. The allowed string length is 1 to 32, and the allowed content is ASCII characters from 33 to 126. The community string will be treated as security name and map a SNMPv1 or SNMPv2c community string.

■ Source IP

Indicates the SNMP access source address. A particular range of source addresses can be used to restrict source subnet when combined with source mask.

■ Source Mask

Indicates the SNMP access source address mask

Buttons

■ Add New Entry :

Click to add new entry. Specify the name and configure the new entry. Click "Save".

■ Delete :

Check to delete the entry. It will be deleted during the next save.

■ Apply :

Click to save changes.

■ Reset :

Click to undo any changes made locally and revert to previously saved values.

11-2.2 Users

The function is used to configure SNMPv3 user. The Entry index key is UserName. To create a new UserName account, please check <Add new user> button, and enter the user information then check <Apply>. Max Group Number: 6.

Web Interface

To configure SNMP Users in the web interface:

1. Click Security, SNMP, SNMPv3 and Users.
2. Click Add new entry.
3. Specify the SNMPv3 Users parameter.
4. Click Apply.

Delete	UserName	SecurityLevel	AuthenticationProtocol	AuthenticationPassword	PrivacyProtocol	PrivacyPassword
Add New Entry						
Apply Reset						

SNMPv3 User Configuration

Delete	UserName	SecurityLevel	AuthenticationProtocol	AuthenticationPassword	PrivacyProtocol	PrivacyPassword
Delete	<input type="text"/>	Auth, Priv	MD5	<input type="text"/>	DES	<input type="text"/>
Add New Entry						
Apply Reset						

Figure 40: The SNMP Users Configuration

Parameter description:

- **User Name :**

A string identifying the user name that this entry should belong to. The allowed string length is 1 to 31, and the allowed content is ASCII characters from 33 to 126.

- **Security Level :**

Indicates the security model that this entry should belong to. Possible security models are:

NoAuth, NoPriv: No authentication and no privacy.

Auth, NoPriv: Authentication and no privacy.

Auth, Priv: Authentication and privacy.

The value of security level cannot be modified if entry already exists. That means it must first be ensured that the value is set correctly.

- **Authentication Protocol :**

Indicates the authentication protocol that this entry should belong to. Possible authentication protocols are:

MD5: An optional flag to indicate that this user uses MD5 authentication protocol.

SHA: An optional flag to indicate that this user uses SHA authentication protocol.

The value of security level cannot be modified if entry already exists. That means must first ensure that the value is set correctly.

- **Authentication Password :**

A string identifying the authentication password phrase. For MD5 authentication protocol, the allowed string length is 8 to 39. For SHA authentication protocol, the allowed string length is 8 to 39. The allowed content is ASCII characters from 33 to 126.

- **Privacy Protocol :**

Indicates the privacy protocol that this entry should belong to. Possible privacy protocols are:

DES: An optional flag to indicate that this user uses DES authentication protocol.

AES: An optional flag to indicate that this user uses AES authentication protocol.

- **Privacy Password :**

A string identifying the privacy password phrase. The allowed string length is 8 to 31, and the allowed content is ASCII characters from 33 to 126.

Buttons

- **Add New Entry :**

Click to add new entry. Specify the name and configure the new entry. Click "Apply".

- **Delete :**

Check to delete the entry. It will be deleted during the next save.

■ **Apply :**

Click to save changes.

■ **Reset :**

Click to undo any changes made locally and revert to previously saved values.

11-2.3 Groups

The function is used to configure SNMPv3 group. The Entry index key are Security Model and Security Name. To create a new group account, please check <Add new group> button, and enter the group information then check <Save>. Max Group Number:12.

Web Interface

To configure SNMP Groups in the web interface:

1. Click Security, SNMP, SNMPv3 and Groups.
2. Click Add new entry.
3. Specify the SNMP group parameter.
4. Click Apply.

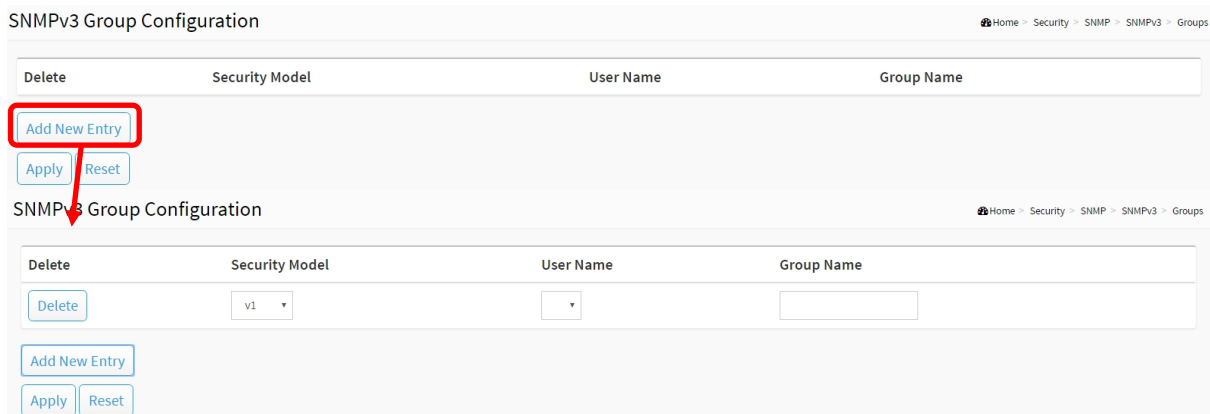


Figure 41: The SNMP Groups Configuration

Parameter description:

■ **Security Model :**

Indicates the security model that this entry should belong to. Possible security models are:

v1: Reserved for SNMPv1.

v2c: Reserved for SNMPv2c.

usm: User-based Security Model (USM).

■ **Security Name :**

A string identifying the security name that this entry should belong to. The allowed string length is 1 to 31, and the allowed content is ASCII characters from 33 to 126.

■ **Group Name :**

A string identifying the group name that this entry should belong to. The allowed string length is 1 to 32, and the allowed content is ASCII characters from 33 to 126.

Buttons

■ **Add New Entry :**

Click to add new entry. Specify the name and configure the new entry. Click "Apply".

■ **Delete :**

Check to delete the entry. It will be deleted during the next save.

■ **Apply :**

Click to save changes.

■ **Reset :**

Click to undo any changes made locally and revert to previously saved values.

11-2.4 Views

The function is used to configure SNMPv3 view. The Entry index keys are OID Subtree and View Name. To create a new view account, please check <Add new view> button, and enter the view information then click <Apply>. Max Group Number: 12.

Configure SNMPv3 view table on this page. The entry index keys are View Name and OID Subtree.

Web Interface

To configure SNMP views in the web interface:

1. Click Security, SNMP, SNMPv3 and Views.
2. Click Add new entry.
3. Specify the SNMP View parameters.
4. Click Apply.
5. If you want to modify or clear the setting then click Reset.

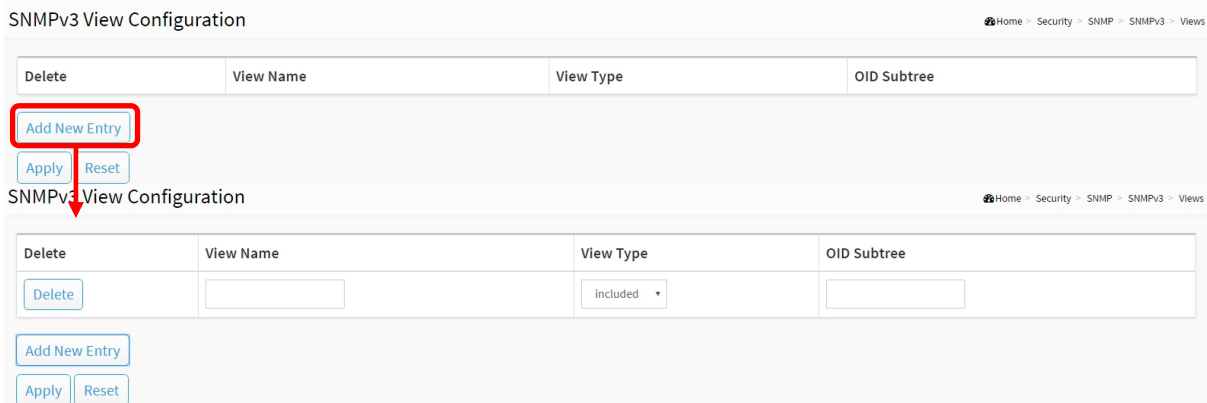


Figure 42: The SNMP Views Configuration

Parameter description:

■ **View Name :**

A string identifying the view name that this entry should belong to. The allowed string length is 1 to 31, and the allowed content is ASCII characters from 33 to 126.

■ **View Type :**

Indicates the view type that this entry should belong to. Possible view types are:

Included: An optional flag to indicate that this view subtree should be included.

Excluded: An optional flag to indicate that this view subtree should be excluded.

In general, if a view entry's view type is 'excluded', there should be another view entry existing with view type as 'included' and its OID subtree should overstep the 'excluded'

view entry.

■ **OID Subtree :**

The OID defining the root of the subtree to add to the named view. The allowed OID length is 1 to 128. The allowed string content is digital number or asterisk(*).

Buttons

■ **Add New Entry :**

Click to add new entry. Specify the name and configure the new entry. Click "Save".

■ **Delete :**

Check to delete the entry. It will be deleted during the next save.

■ **Apply :**

Click to save changes.

■ **Reset :**

Click to undo any changes made locally and revert to previously saved values.

11-2.5 Access

The function is used to configure SNMPv3 accesses. The Entry index key are Group Name, Security Model and Security level. To create a new access account, please check <Add new access> button, and enter the access information then check <Apply>. Max Group Number : 12.

Web Interface

To display the configure SNMP Access in the web interface:

1. Click Security, SNMP, SNMPv3 and Accesses.
2. Click Add new entry.
3. Specify the SNMP Access parameters.
4. Click Apply.
5. If you want to modify or clear the setting then click Reset.

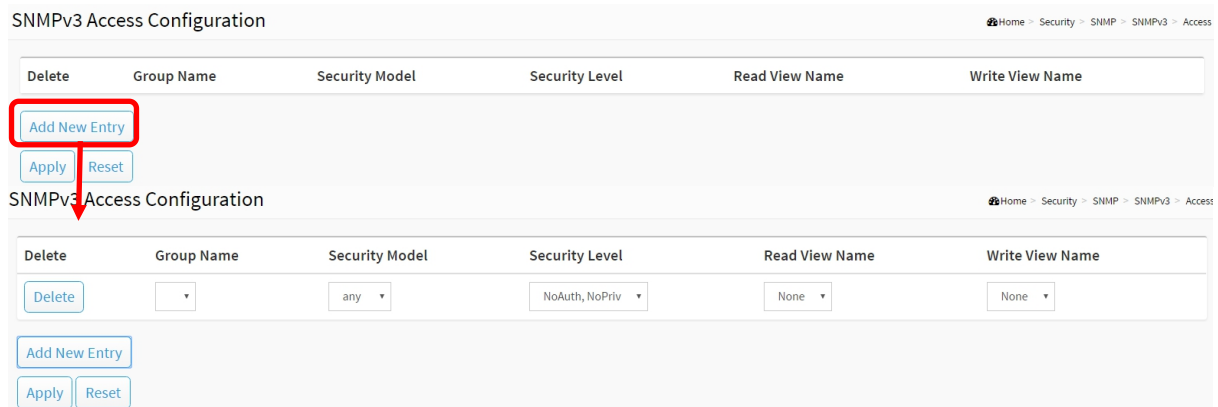


Figure 43: The SNMP Accesses Configuration

Parameter description:

■ **Group Name :**

A string identifying the group name that this entry should belong to. The allowed string length is 1 to 31, and the allowed content is ASCII characters from 33 to 126.

■ **Security Model :**

Indicates the security model that this entry should belong to. Possible security models are:

Any: Any security model accepted(v1|v2c|usm).

v1: Reserved for SNMPv1.

v2c: Reserved for SNMPv2c.

usm: User-based Security Model (USM).

■ **Security Level :**

Indicates the security model that this entry should belong to. Possible security models are:

NoAuth, NoPriv: No authentication and no privacy.

Auth, NoPriv: Authentication and no privacy.

Auth, Priv: Authentication and privacy.

■ **Read View Name :**

The name of the MIB view defining the MIB objects for which this request may request the current values. The allowed string length is 1 to 31, and the allowed content is ASCII characters from 33 to 126.

■ **Write View Name :**

The name of the MIB view defining the MIB objects for which this request may potentially set new values. The allowed string length is 1 to 31, and the allowed content is ASCII characters from 33 to 126.

Buttons

■ **Add New Entry :**

Click to add new entry. Specify the name and configure the new entry. Click "Apply".

■ **Delete :**

Check to delete the entry. It will be deleted during the next save.

■ **Apply :**

Click to save changes.

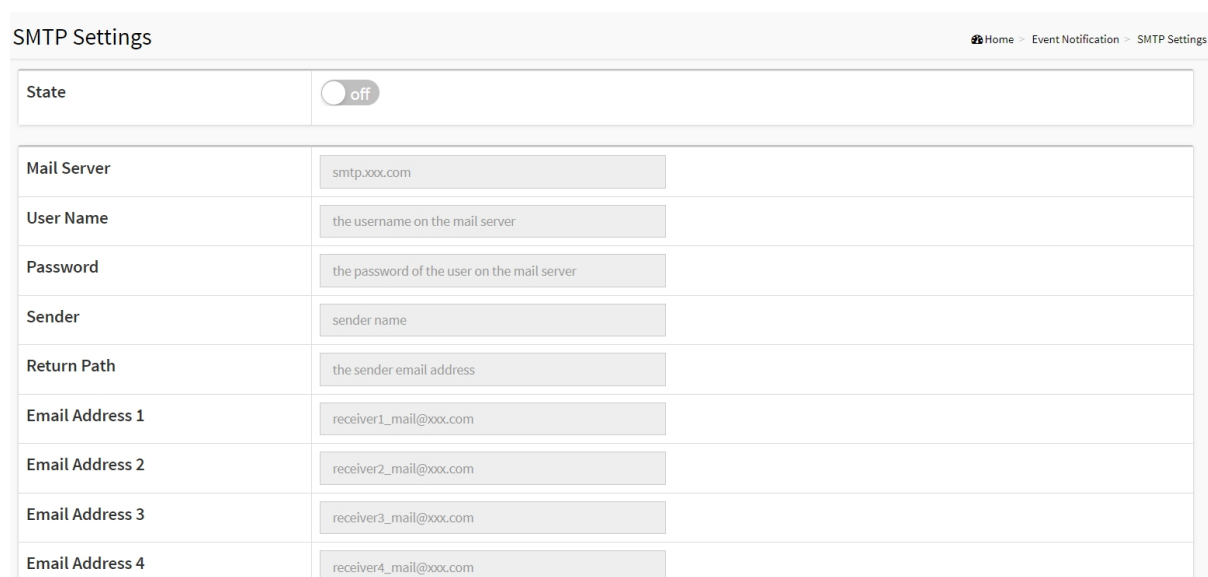
■ **Reset :**

Click to undo any changes made locally and revert to previously saved values.

Chapter 12 Event Notification

12-1 SMTP Settings

Configure SMTP (Simple Mail Transfer Protocol) on this page. Simple Mail Transfer Protocol is the message-exchange standard for the Internet. The Switch is to be configured as a client of SMTP while the server is a remote device that will receive messages from the switch that alarm events occurred. Please go to SMTP Setting user interface help page to see the full setting description.



State	<input type="checkbox"/> off
Mail Server	smtp.xxx.com
User Name	the username on the mail server
Password	the password of the user on the mail server
Sender	sender name
Return Path	the sender email address
Email Address 1	receiver1_mail@xxx.com
Email Address 2	receiver2_mail@xxx.com
Email Address 3	receiver3_mail@xxx.com
Email Address 4	receiver4_mail@xxx.com

Figure 44: SMTP Settings

12-2 Syslog

12-2.1 Syslog Configuration

The Syslog Configuration is a standard for logging program messages. It allows separation of the software that generates messages from the system that stores them and the software that reports and analyzes them. It can be used as well a generalized informational, analysis and debugging messages. It is supported by a wide variety of devices and receivers across multiple platforms.

Web Interface

To configure the SysLog Settings in the web interface:

1. Click System -> Syslog Configuration.
2. Specify Mode and Server 1(or Server 2) parameters.
3. Click Apply.

Syslog Configuration Home > System > Syslog > Syslog Configuration

Mode	<input checked="" type="checkbox"/>
Server 1	<input type="text"/>
Server 2	<input type="text"/>

Figure 45: Syslog Configuration

Parameter Description:

- **Mode**
To enable/disable Syslog function
- **Server1(or Server2)**
SysLog Server. (IPv4 format)

12-2.2 View Log

To display Log, click System -> SysLog -> View Log

View Log Home > System > Syslog > View Log

ID	Level	Time	Message
0	notice	Jan 05 2021 14:02:40	New http connection for user admin16, source 192.168.1.111 ACCEPTED
1	notice	Jan 05 2021 13:57:17	http connection for user admin16, source 192.168.1.111 TERMINATED
2	notice	Jan 05 2021 13:33:54	New http connection for user admin16, source 192.168.1.111 ACCEPTED
3	notice	Jan 05 2021 13:14:06	http connection for user admin16, source 192.168.1.111 TERMINATED
4	notice	Jan 05 2021 12:42:39	New http connection for user admin16, source 192.168.1.111 ACCEPTED
5	notice	Jan 05 2021 12:41:56	http connection for user admin16, source 192.168.1.111 TERMINATED
6	notice	Jan 05 2021 12:31:46	New http connection for user admin16, source 192.168.1.111 ACCEPTED
7	notice	Jan 05 2021 12:19:36	http connection for user (null), source 192.168.1.111 TERMINATED
8	notice	Jan 05 2021 12:18:54	New http connection for user admin16. source 192.168.1.111 ACCEPTED

Figure 46: View log

Parameter Description:

- **Level**
The log event category
- **Time**
The log event occurs time
- **Message**
The log event content
- **Refresh[Button]**
To reload log events
- **Clear[Button]**
To clear log events

12-3 Event Configuration

This page displays event configurations for Syslog , SNMP trap and SMTP.

Event Configuration Home > Event Notification > Event Configuration

Event	Syslog	SNMP Trap	SMTP
Auth-Failed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Link Up/Down	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Warm-Start	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cold-Start	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PoE PD On/Off	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PoE PD Fault	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Figure 47: Event Configuration

Chapter 13 Quality of Service

Quality of Service refers to traffic prioritization and resource reservation control mechanisms rather than the achieved service quality. Quality of Service is the ability to provide different priority to different applications, users, or data flows, or to guarantee a certain level of performance to a data flow.

Quality of Service is particularly important for the transport of traffic with special requirements. In particular, developers have introduced Voice over IP technology to allow computer networks to become as useful as telephone networks for audio conversations, as well as supporting new applications with even stricter network performance requirements.

13-1 Global Settings

This page is used to configure the QoS mode, including CoS/802.1p, DSCP ,IP Precedence and 802.1p /DSCP.

Web Interface

To configure the QoS mode in the web interface:

1. Click Quality of Service -> Global Setting
2. Specify the parameter you want to configure.
3. Click Apply.

Parameter Description:

■ CoS/802

Traffic is mapped to queues based on the VPT field in the VLAN tag, or based on the per-port default CoS/802.1p value (if there is no VLAN tag on the incoming packet), the actual mapping of the VPT to queue can be configured on the CoS/802.1p to Queue page.

■ DSCP

All IP traffic is mapped to queues based on the DSCP field in the IP header. The actual mapping of the DSCP to queue can be configured on the DSCP to Queue page. If traffic is not IP traffic, it is mapped to the best effort queue.

■ IP Precedence

Traffic is mapped to queues based on the IP precedence. The actual mapping of the IP precedence to queue can be configured on the IP Precedence to Queue page.

■ 802.1p /DSCP

Differentiated Services Code Point (DSCP) is a priority level that prioritizes the network traffic based on the DSCP queue mapping on the DSCP Settings page.

Global Settings Home > Quality of Service > Global Settings

State on

Trust Mode

- Disabled
- CoS/802.1p
- DSCP
- IP Precedence
- CoS/802.1p-DSCP

Figure 48: Global Setting

13-2 Port Settings

Web Interface

To configure the logical port for the setting in the web interface:

1. Click Quality of Service -> Port Setting.
2. Specify the parameter you want to configure.
3. Click Apply.

Port Settings Home > Quality of Service > Port Settings

Port	Mode	Default CoS	Remark CoS	Remark DSCP	Remark IP Precedence
1	Untrust	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Untrust	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Untrust	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Untrust	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Untrust	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Untrust	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Untrust	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Figure 49: Port Setting

Parameter Description:

■ Mode

Untrust:

All ingress traffic on the port is mapped to the best effort queue and no classification/prioritization takes place.

Trust:

Port prioritize ingress traffic is based on the system wide configured trusted mode, which is either CoS/802.1p trusted mode, IP Precedence trusted mode or DSCP trusted mode.

■ Default CoS

FIFO, Low, Normal, Medium and High. Select the default CoS value to be assigned for incoming untagged packets. The range is 0 to 7.

■ Source CoS

The CoS value is determined based on C-Tag or S-Tag for incoming tagged packets.

- **Remark CoS**

Click the checkbox to remark the CoS/802.1p priority for egress traffic on this port.

- **Remark DSCP**

Click the checkbox to remark the DSCP value for egress traffic on this port.

- **Remark IP Precedence**

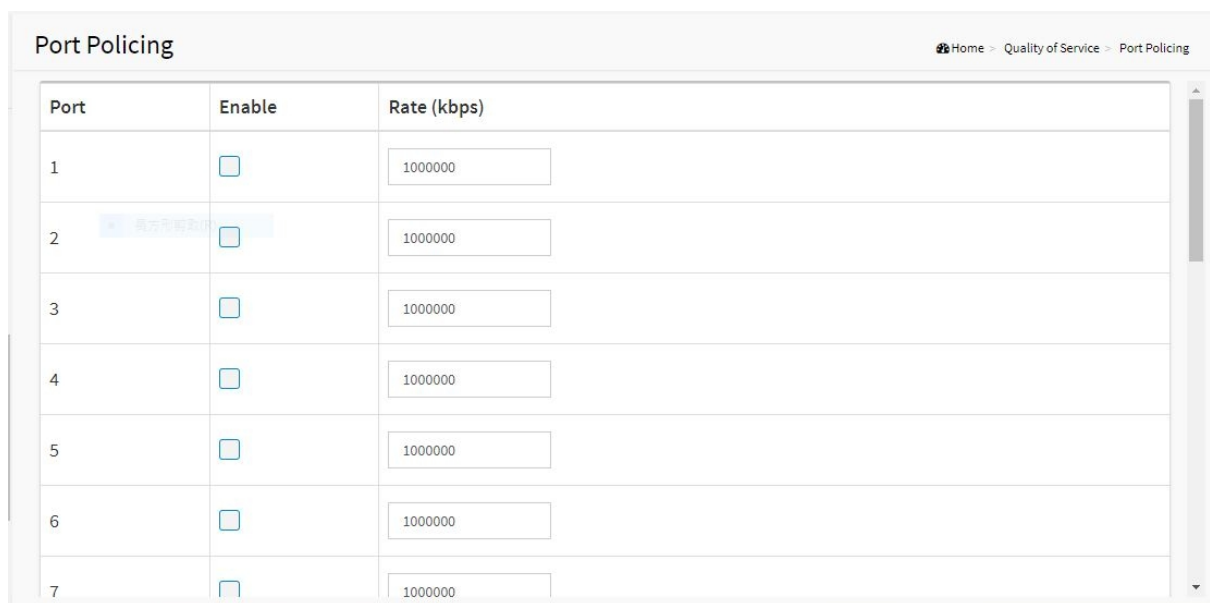
Click the checkbox to remark the IP precedence for egress traffic on this port.

13-3 Port Policing

Web Interface

To configure the logical port for the setting in the web interface:

4. Click Quality of Service -> Port Policing.
5. Specify the parameter you want to configure.
6. Click Apply.



Port	Enable	Rate (kbps)
1	<input type="checkbox"/>	1000000
2	<input type="checkbox"/>	1000000
3	<input type="checkbox"/>	1000000
4	<input type="checkbox"/>	1000000
5	<input type="checkbox"/>	1000000
6	<input type="checkbox"/>	1000000
7	<input type="checkbox"/>	1000000

Figure 50: Port Policing

Parameter Description:

- **Enable**

To evoke which Port you need to enable the QoS Ingress Port Policers function.

- **Rate(kbps)**

To set the Rate limit value for this port, the default is 1000000.

13-4 Port Shaper

Web Interface

To configure the logical port for the setting in the web interface:

7. Click Quality of Service -> Port Shaper.
8. Specify the parameter you want to configure.
9. Click Apply.

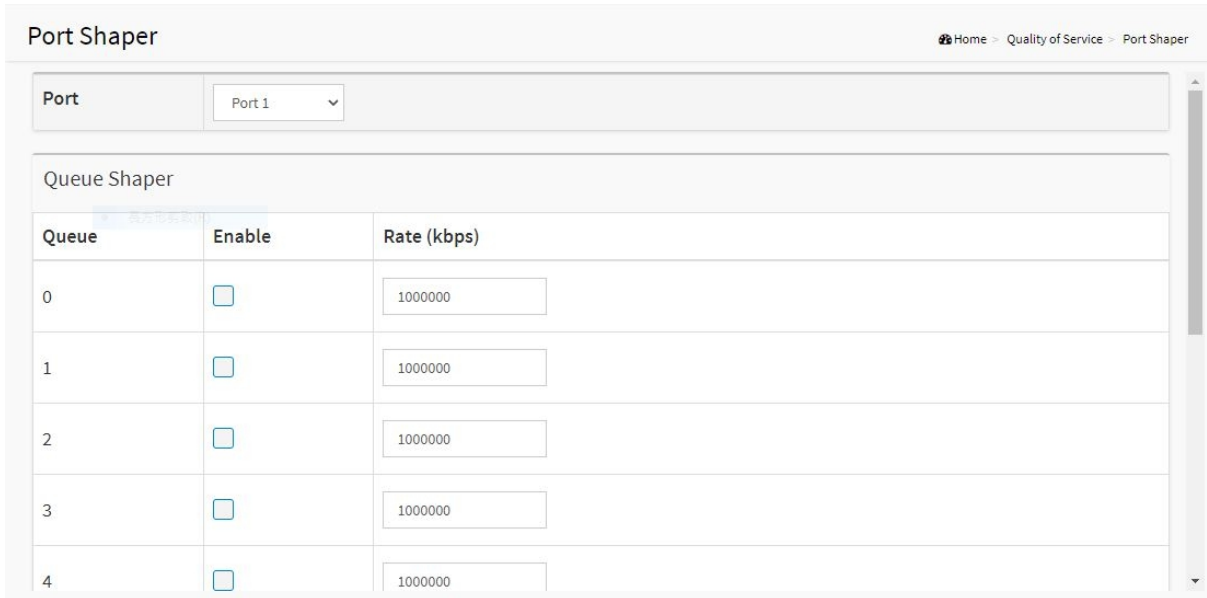


Figure 51: Port Shaper

Parameter Description:

■ **Enable**

Controls whether the queue shaper is enabled for this queue on this switch port.

■ **Rate(kbps)**

Controls the rate for the queue shaper. The default value is 1000000.

13-5 Port Scheduler

Web Interface

To configure the logical port for the setting in the web interface:

10. Click Quality of Service -> Port Scheduler.
11. Specify the parameter you want to configure.
12. Click Apply.

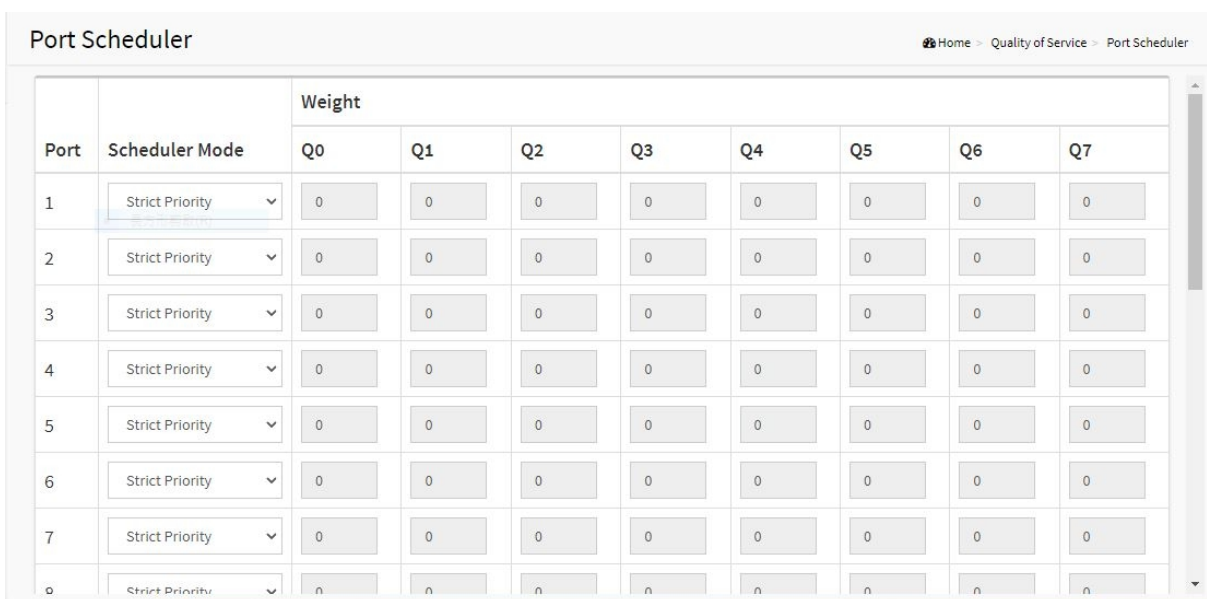


Figure 52: Port Scheduler

Parameter Description:

■ **Scheduler Mode**

Controls whether the queue shaper is enabled for this queue on this switch port. Controls whether the scheduler mode is "Strict Priority", "WRR" or "WFQ" on this switch port.

■ **Weight**

Controls the rate for the queue shaper. The default value is 1000000. Controls the weight for this queue. The default value is "0". This value is restricted to 0-127. This parameter is only shown if "Scheduler Mode" is set to "Weighted".

13-6 CoS/802.1p Mapping

This page is used to configure the Class of Service (CoS) which prioritizes the network traffic based on the CoS queue mapping on the CoS Settings.

Web Interface

To configure the CoS in the web interface:

- 13. Click Quality of Service -> CoS/802.1p Mapping.
- 14. Specify the parameter you want to configure.
- 15. Click Apply.

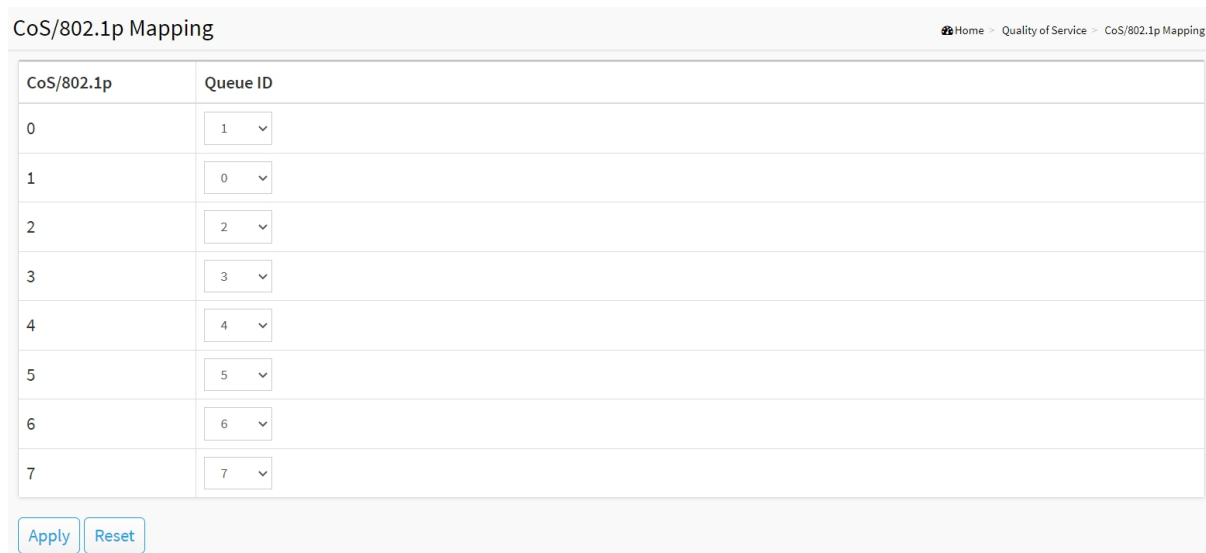


Figure 53: CoS/802.1p Mapping

Parameter Description:

■ **Queue ID**

Select the egress queue to which the 802.1p priority is mapped. Eight egress queues are supported, where Queue 7 is the highest priority egress queue and Queue 0 is the lowest priority egress queue.

13-7 CoS/802.1p Remarking

This page is use the Queues to CoS/802.1p page to remark the CoS/802.1p priority for egress traffic from each queue.

Web Interface

To configure the rate limit function in the web interface:

- 1. Click Quality of Service -> CoS/802.1p remarking

2. Specify the parameter you want to configure.

3. Click Apply.

CoS/802.1p Remarking Home > Quality of Service > CoS/802.1p Remarking

Queue ID	CoS/802.1p
0	0 ▾
1	1 ▾
2	2 ▾
3	3 ▾
4	4 ▾
5	5 ▾
6	6 ▾
7	7 ▾

Figure 54 :CoS/802.1p Remarking

Parameter Description:

■ **Queue ID**

Displays the Queue ID, where Queue 7 is the highest priority egress queue and Queue 0 is the lowest priority egress queue.

■ **CoS/802.1p**

For each output queue, select the CoS/802.1p priority to which egress traffic from the queue is remarked.

Chapter 14 Spanning Tree

The Spanning Tree Protocol (STP) can be used to detect and disable network loops, and to provide backup links between switches, bridges or routers. This allows the switch to interact with other bridging devices (that is, an STP-compliant switch, bridge or router) in your network to ensure that only one route exists between any two stations on the network, and provide backup links which automatically take over when a primary link goes down.

STP - STP uses a distributed algorithm to select a bridging device (STP-compliant switch, bridge or router) that serves as the root of the spanning tree network. It selects a root port on each bridging device (except for the root device) which incurs the lowest path cost when forwarding a packet from that device to the root device. Then it selects a designated bridging device from each LAN which incurs the lowest path cost when forwarding a packet from that LAN to the root device. All ports connected to designated bridging devices are assigned as designated ports. After determining the lowest cost spanning tree, it enables all root ports and designated ports, and disables all other ports. Network packets are therefore only forwarded between root ports and designated ports, eliminating any possible network loops.

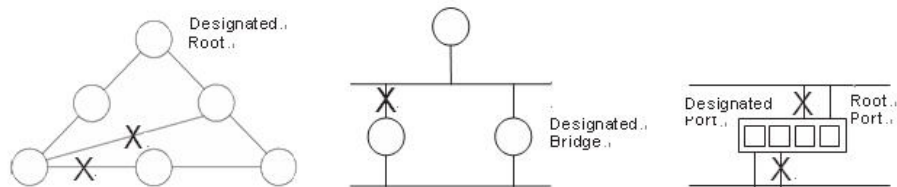


Figure 55: The Spanning Tree Protocol

Once a stable network topology has been established, all bridges listen for Hello BPDUs (Bridge Protocol Data Units) transmitted from the Root Bridge. If a bridge does not get a Hello BPDU after a predefined interval (Maximum Age), the bridge assumes that the link to the Root Bridge is down. This bridge will then initiate negotiations with other bridges to reconfigure the network to reestablish a valid network topology.

14-1 State

The section describes that you can select enable spanning tree protocol or not, and you can select what protocol version you want.

Web Interface

To configure the Spanning Tree Protocol version in the web interface:

1. Click Spanning Tree -> State.
2. To enable/disable the Spanning Tree Protocol.
3. Select the Spanning Tree Protocol version.
4. Click Apply.

Multiple Spanning Tree Protocol	<input checked="" type="checkbox"/>
Force Version	MSTP

Apply Reset

Figure 56: State

Parameter Description:

- **Multiple Spanning Tree Protocol**
To enable/disable spanning tree protocol.
- **Force Version**
The Spanning Tree protocol version, including STP, RSTP and MSTP.

14-2 Region Config

The section describes how to configure the basic identification of a MSTP bridge. Bridges participating in a common MST region must have the same Region Name and Revision Level.

Web Interface

To configure the Region Config in the web interface:

1. Click Spanning Tree -> Region Configuration
2. Specify the Region Name and Revision Level.
3. Click Apply.

Region Name	6C:2A:DF:01:00:51 (0-32 characters)
Revision Level	0 (0-65535)

Apply Reset

Figure 57: Region Config

Parameter Description:

- **Region Name**
The name identifying the VLAN to MSTI mapping. Bridges must share the name and revision (see below), as well as the VLAN-to-MSTI mapping configuration in order to share spanning trees for MSTI's (Intra-region). The name is at most 32 characters.
- **Revision Level**
The revision of the MSTI configuration named above. This must be an integer between 0 and 65535.

14-3 Instance View

The section describes how to configure the basic identification of a MSTP bridge. Bridges participating in a common MST region must have the same Region Name and Revision Level.

The section providing an MST instance table which include information(vlan membership of a MSTI) of all spanning instances provisioned in the particular MST region which the bridge belongs to. Through this table, additional MSTP configuration data can be applied and MSTP status can be retrieved.

Web Interface

To configure the MSTP Instance in the web interface:

1. Click Spanning Tree -> Instance View.
2. Click Add VLAN.
3. Specify the Instance ID and Vlan Mapping.
4. Click Instance Config, Port Config, Instance Status and Port Status to see the detail.
5. If you want to cancel the setting, click Delete.

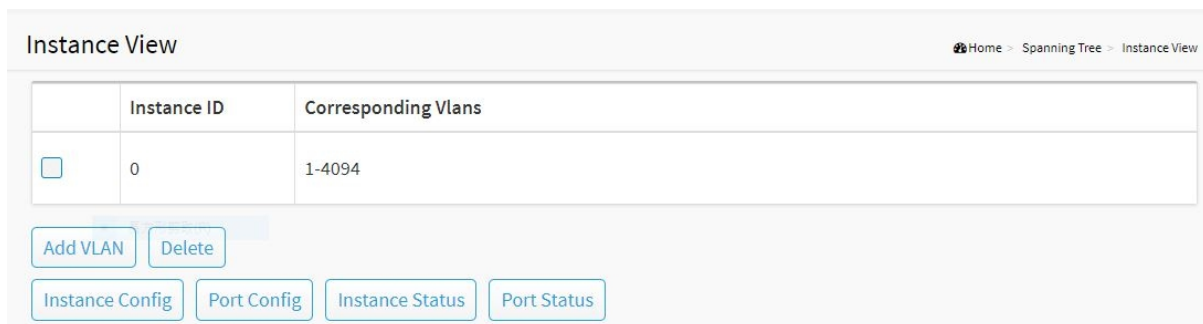


Figure 58: MSTP Instance Config

Parameter Description:

■ Instance ID

Every spanning tree instance need to have a unique instance ID within 1~15. Instance 0 (CIST) always exists and cannot be deleted. Additional spanning instances (MSTIs) can be added or deleted. At least one vlan must be provisioned for an MSTI to declare the need for the MSTI to be existent.

■ Corresponding VLANs

1-4094.

Multiple vlans can belong to an MSTI. All vlans that are not provisioned through this will be automatically assigned to Instance 0(CIST).

■ Add VLAN[Button]

To add an MSTI and provide its vlan members for a specific MSTI, you can add up to 15.

■ Delete[Button]

To delete an MSTI.

■ Instance Config[Button]

To provision spanning tree performance parameters per instance.

■ Port Config[Button]

To provision spanning tree performance parameters per instance per port.

■ Instance Status[Button]

To show the status report of a particular spanning tree instance.

■ Port Status[Button]

To show the status report of all ports regarding a specific spanning tree instance.

Add VLAN

Instance ID	<input type="text"/>
VLAN Mapping	<input type="text"/>

Figure 59: Add VLAN

Parameter Description:

- **Instance ID**

The Range is 1-15

- **Vlan Mapping**

The list of VLANs mapped to the MSTI. The VLANs can be given as a single (xx, xx must be between 1 and 4094) VLAN, or a range (xx-yy), each of which must be separated with comma and/or space. A VLAN can only be mapped to one MSTI. An unused MSTI should just be left empty. (I.e. not having any VLANs mapped to it.) Example: 2,5,20-40.

Instance Config (ID=0)

Priority	<input type="text" value="32768"/>
Max. Age	<input type="text" value="20"/>
Forward Delay	<input type="text" value="15"/>
Max. Hops	<input type="text" value="20"/>

Figure 60: Instance Config (ID 0)

Parameter Description:

- **Priority**

The priority parameter used in the CIST(Common and Internal Spanning Tree) connection.

0 / 4096 / 8192 / 12288 / 16384 / 20480 / 24576 / 28672 / 32768 / 36864 / 40960 / 45056 / 49152 / 53248 / 57344 / 61440

- **MAX. Age**

Range: 6-40 sec

The max age timer controls the maximum length of time that passes before a bridge port saves its configuration BPDU information. This time is 20 sec by default, but you can tune the time to be between 6 and 40 sec.

- **Forward Delay**

Range: 4-30 sec

It is the same definition as in the RSTP protocol. The forward delay is the time that is spent in the listening and learning state. This time is equal to 15 sec by default, but you can tune the time to be between 4 and 30 sec.

■ **MAX. Hops**

Range: 1-40 sec

It's a new parameter for the multiple spanning tree protocol. It is used in the internal spanning tree instances. "CIST Remaining Hops" or "MSTI Remaining Hops" in the Spanning tree protocol message would decreased by one when the message is propagated to the neighboring bridge. If the Remaining Hops in a message is zero, the message (BPDU) would be regarded as invalid. Max Hops is used to specify the initial value of the Remaining Hops for Regional Root Bridge (Either CIST Regional Root or MSTI Regional Root)

Port Config (ID=0)

Port Config of Instance 0 Home > Spanning Tree > Instance View

Port Config							Migration Check
Port	STP Enable	Path Cost		Priority	Admin Edge	Admin P2P	Mcheck
1	<input checked="" type="checkbox"/>	Auto		128	Yes	Auto	---
2	<input checked="" type="checkbox"/>	Auto		128	Yes	Auto	---
3	<input checked="" type="checkbox"/>	Auto		128	Yes	Auto	---
4	<input checked="" type="checkbox"/>	Auto		128	Yes	Auto	---
5	<input checked="" type="checkbox"/>	Auto		128	Yes	Auto	---
6	<input checked="" type="checkbox"/>	Auto		128	Yes	Auto	---

Figure 61: Port Config (ID 0)

Parameter Description:

■ **Port**

The logical port for the settings contained in the same row.

■ **Path Cost**

Range: 0-200000000

It is the same definition as in the RSTP specification. But in MSTP, this parameter can be respectively applied to ports of CIST and ports of any MSTI.

■ **Priority**

0 / 16 / 32 / 48 / 64 / 80 / 96 / 112 / 128 / 144 / 160 / 176 / 192 / 208 / 224 / 240

It is the same definition as in the RSTP specification. But in MSTP, this parameter can be respectively applied to ports of CIST and ports of any MSTI.

■ **Admin Edge**

Yes / No

It is the same definition as in the RSTP specification for the CIST ports.

■ **Admin P2P**

Auto / True / False

It is the same definition as in the RSTP specification for the CIST ports.

■ **MCheck**

It is the same definition as in the RSTP specification for the CIST ports.

Instance Status (ID=0)

Instance Status (ID=0)	
MSTP State	Disabled
Force Version	MSTP
Bridge Max Age	20
Bridge Forward Delay	15
Bridge Max Hops	20
Instance Priority	32768
Bridge MAC Address	6C:2A:DF:01:00:51
CIST ROOT PRIORITY	32768
CIST ROOT MAC	6C:2A:DF:01:00:51
CIST EXTERNAL ROOT PATH COST	0
CIST ROOT PORT ID	0

Figure 62: Instance Status (ID 0)

Parameter Description:

- **MSTP State**
MSTP protocol is Enable or Disable.
- **Force Version**
It shows the current spanning tree protocol version configured.
- **Bridge Max Age**
It shows the Max Age setting of the bridge itself.
- **Bridge Forward Delay**
It shows the Forward Delay setting of the bridge itself.
- **Bridge Max Hops**
It shows the Max Hops setting of the bridge itself.
- **Instance Priority**
Spanning tree priority value for a specific tree instance(CIST or MSTI)
- **Bridge Mac Address**
The Mac Address of the bridge itself.
- **CIST ROOT PRIORITY**
Spanning tree priority value of the CIST root bridge
- **CIST ROOT MAC**
Mac Address of the CIST root bridge
- **CIST EXTERNAL ROOT PATH COST**
Root path cost value from the point of view of the bridge's MST region.
- **CIST ROOT PORT ID**
The port ID of the bridge's root port. In MSTP, peer port of a root port may reside in different MST region or in the same MST region. The first case indicates that the root port's owner is the CIST regional root bridge.
- **CIST REGIONAL ROOT PRIORITY**
Spanning tree priority value of the CIST regional root bridge. Note that CIST Regional Root bridge is different from CIST Root bridge. One exception is that when a bridge belonging to an MST region happens to be the root bridge of the CST(Common Spanning Tree). An MST Region in the CST can be regarded as a common RSTP bridge. The IST(Internal Spanning Tree) and MSTIs are transparent to bridges outside this region.
- **CIST REGIONAL ROOT MAC**

Mac Address of the CIST regional root bridge.

- **CIST INTERNAL ROOT PATH COST**

Root path cost value from the point of view of the bridges inside the IST.

- **CIST CURRENT MAX AGE**

Max Age of the CIST Root bridge.

- **CIST CURRENT FORWARD DELAY**

Forward Delay of the CIST Root bridge.

Port Status (ID=0)

Port Status of Instance 0 Home > Spanning Tree > Instance View

[Back](#) [Refresh](#)

Port	Status	Role	Path Cost	Priority	Hello	Oper. Edge	Oper. P2P
1	Disable	Disable	20000	128	0	V	
2	Disable	Disable	20000	128	0	V	
3	Disable	Disable	20000	128	0	V	
4	Disable	Disable	20000	128	0	V	
5	Disable	Disable	20000	128	0	V	
6	Disable	Disable	20000	128	0	V	
7	Disable	Disable	20000	128	0	V	
8	Forwarding	Designated	20000	128	2	V	V
9	Disable	Disable	20000	128	0	V	
10	Disable	Disable	20000	128	0	V	

Figure 63: Port Status (ID 0)

Parameter Description:

- **Port No**

The port number to which the configuration applies.

- **Status**

The forwarding status. Same definition as of the RSTP specification.

Possible values are "FORWARDING", "LEARNING", "DISCARDING"

- **Role**

The role that a port plays in the spanning tree topology.

Possible values are "disable"(disable port) , "alternate"(alternate port) , "backup"(backup port) , "ROOT"(root port) , "DSGN"(designated port) , "MSTR"(master port). The last 3 are possible port roles for a port to transit to FORWARDING state

- **Path Cost**

Display currently resolved port path cost value for each port in a particular spanning tree instance.

- **Priority**

Display port priority value for each port in a particular spanning tree instance.

- **Hello**

Per port Hello Time display. It takes the following form:

Current Hello Time/Hello Time Setting

- **Oper. Edge**

Whether or not a port is an Edge Port in reality.

- **Oper. P2P**

Whether or not a port is a Point-to-Point Port in reality.

Chapter 15 MAC Address Table

The MAC address table page displays all MAC address entries on the switch including static MAC address created by administrator or auto learned from hardware.

Web Interface

To display MAC Address Table page, click System -> MAC Address Table

Type	VLAN	MAC Address	Port Members													
			CPU	1	2	3	4	5	6	7	8	9	10	11	12	
Dynamic	1	00:02:D1:0E:D3:6D						✓								
Dynamic	1	54:A0:50:8A:B1:73		✓												
Dynamic	1	54:AB:3A:59:F1:43										✓				
Management	1	68:8D:B6:00:CF:00	✓													
Dynamic	1	68:8D:B6:01:BF:96				✓										
Dynamic	1	68:8D:B6:01:C0:7E				✓										
Dynamic	1	68:8D:B6:01:C0:9B				✓										
Dvnamic	1	68:8D:B6:01:E1:75				✓										

Figure 64: MAC Address Table

Parameter Description:

- **VLAN**
VLAN ID of the MAC address
- **MAC Address**
MAC address
- **Type**
Type of MAC address
 - . Management: DUT's base MAC address for management purpose
 - . SecureStatic: Manually configured by administrator for port security function.
 - . SecureDynamic: Dynamically learned by hardware associated with port security. It will be aged out.
 - . Dynamic: Dynamically learned by hardware, and it will be aged out.
- **Port**
Type of Port
 - . CPU: DUT's CPU port for management purpose
 - . Other: Normal switch port
- **Clear Dynamic[Button]**
To clear all dynamic entries.
- **Refresh[Button]**
To retrieve latest MAC address entries shown on this page.

Chapter 16 DHCP

The section describes how to configure and display the DHCP Snooping parameters of the switch. The DHCP Snooping can prevent attackers from adding their own DHCP servers to the network.

16-1 DHCP Server

This page is used to configure the DHCP Server, including State, Start IP/End IP addresses and Client Lease Time. DHCP Server will allocate these IP addresses to DHCP clients. And deliver configuration parameters to DHCP clients.

Web Interface

To configure the DHCP Server in the web interface:

1. Click DHCP -> DHCP Server.
2. Specify the parameter you want to configure.
3. Click Apply.

DHCP Server	
State	Disabled
Start IP Address	0.0.0.0
End IP Address	0.0.0.0
Client Lease Time	86400 minutes

Apply Reset

Figure 65: DHCP Server

Parameter description:

- **State**
To enable/disable DHCP Server function.
- **Start IP Address and End IP Address**
Define the IP range. The Start IP Address must be smaller than or equal to the End IP Address.
- **Client Lease Time**
Range: 1 - 14400000, 0: infinite
Display the lease time of the pool.

Chapter 17 Diagnostics

This chapter provides a set of basic system diagnosis, including Mirroring, Ping and LAN Cable Diagnostics.

17-1 Mirroring

This page is used to configure the ports' mirror function. You can mirror traffic from any source port to a target port for real-time analysis. You can then attach a logic analyzer or RMON probe to the target port and study the traffic crossing the source port in a completely unobtrusive manner.

Mirror Configuration is to monitor the traffic of the network. For example, we assume that Port A and Port B are Monitoring Port and Monitored Port respectively, thus, the traffic received by Port B will be copied to Port A for monitoring.

Web Interface

To configure port mirroring in the web interface:

1. Click Diagnostics -> Mirroring.
2. Click the Enable checkbox.
3. Select Monitor Destination Port. (Mirror Port)
4. Specify the state of Monitor Source Port.
5. Click Apply.

Port	Mode
1	Disabled
2	Disabled
3	Disabled
4	Disabled
5	Disabled
6	Disabled

Figure 66: Mirroring

Parameter Description:

- **Mode**
To enable/disable port mirroring function.
- **Monitor Destination Port**

Port to output the mirrored traffic. Also known as the mirror port. Frames from ports that have either source (rx) or destination (tx) mirroring enabled are mirrored on this port.

■ **Monitor Source Port State**

To enable/disable source port mirroring function:

- Disabled: neither frames transmitted nor frames received are mirrored.
- Enabled: Frames received and frames transmitted are mirrored on the mirror port.

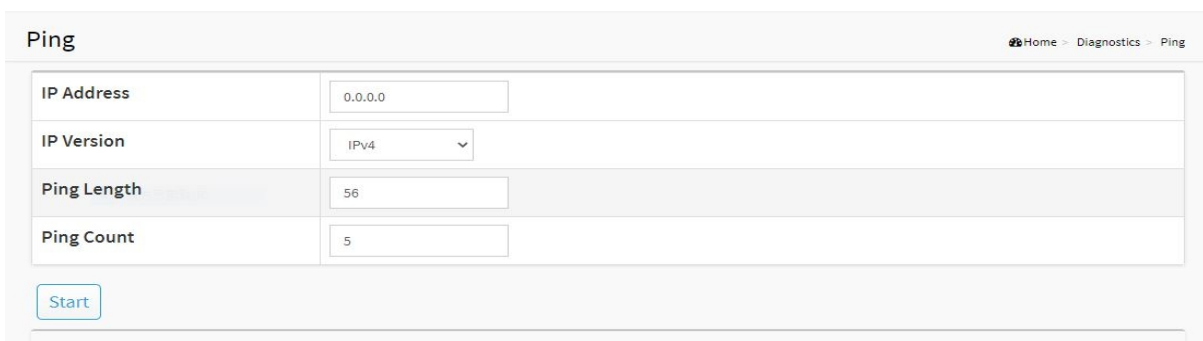
17-2 Ping

This section allows you to issue ICMP Echo packets to troubleshoot Ipv4 connectivity issues.

Web Interface

To configure a PING in the web interface:

1. Click Diagnostics -> Ping.
2. Specify IP Address and Ping Count..
3. Click Ping to start.
4. Click Stop to stop.



The screenshot shows a web interface titled "Ping". In the top right corner, there is a breadcrumb trail: "Home > Diagnostics > Ping". The main area contains a form with four rows of input fields:

IP Address	<input type="text" value="0.0.0.0"/>
IP Version	<input type="text" value="IPv4"/>
Ping Length	<input type="text" value="56"/>
Ping Count	<input type="text" value="5"/>

Below the form is a "Start" button.

Figure 67: Ping

Parameter Description:

- **IP Address**
To specify the target IP Address of the Ping.
- **IP Version**
To select the IP Version.
- **Ping Length**
The payload size of the ICMP packet. Values range from 1 bytes to 1452 bytes.
- **Ping Count**
The count of the ICMP packet. Values range from 1 time to 60 times.

17-3 LAN Cable Diagnostics

This section shows how to run LAN Cable Diagnostics for copper ports.

Web Interface

To configure a LAN Cable Diagnostics Configuration in the web interface:

1. Click Diagnostics -> Cable Diagnostics.
2. Specify Port which you want to check.
3. Click Cable Test.

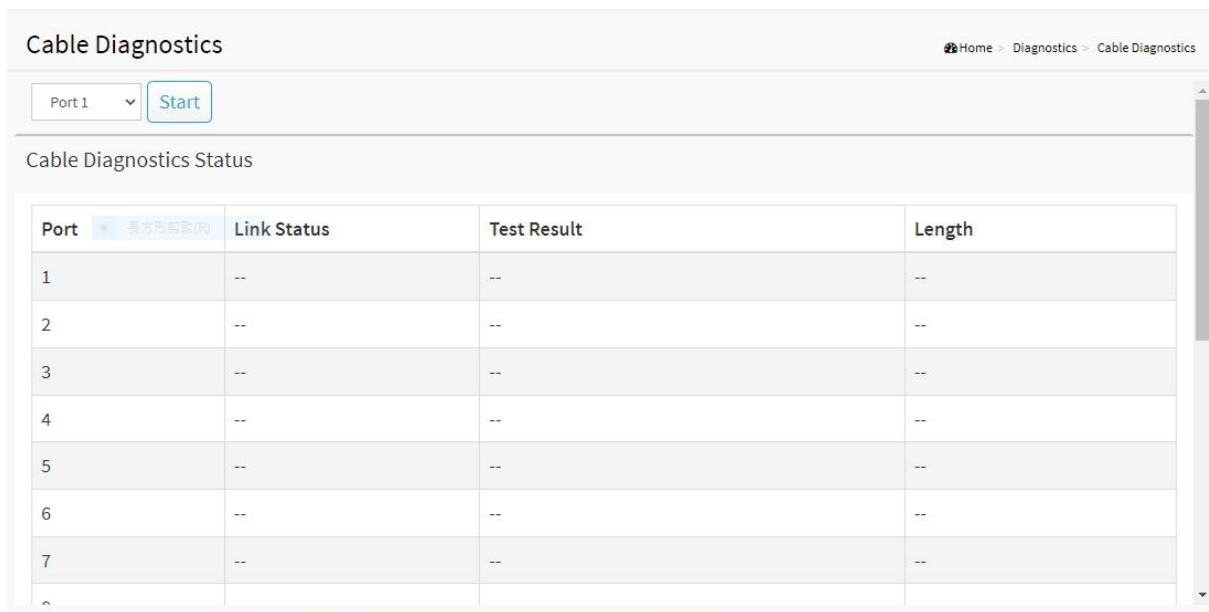


Figure 68: LAN Cable Diagnostics

Parameter Description:

- **Port**
The port where you are requesting Cable Diagnostics.
- **Result**
The status of copper test. It include:
 - . OK: Correctly terminated pair
 - . Short Cable: A short circuit was detected on the twisted pair.
 - . Open Cable: Opening pair. One scenario is the cable doesn't plug to the link partner.
 - . Impedance mismatch: The normal impedance should be 100Ω, impedance mismatch is detected if the impedance measured is not in the range 70Ω~130Ω.
 - . Line Drive: The high impedance is detected. One scenario is the cable plug to a power down link partner.
- **Length**
Distance in meter from the port to the location on the cable where the fault was discovered.

Chapter 18 Maintenance

This chapter provides the maintenance of the system. These includes Configuration Import/Export, Restart Device, Reset to default and Firmware Upgrade.

18-1 Configuration

18-1.1 Backup / Restore

This section describes how to import or export the Switch Configuration for maintenance needs. Any current configuration files will be exported as text format, and the configuration files on the switch can be backed up and saved on the station running the web browser.

It is possible to transfer any of the files on the switch to the web browser. Select the configuration file for uploading, as the file must be backup before uploading.

Web Interface

To import or export the current device's configuration in the web interface:

1. Click Maintenance -> Configuration -> Backup / Restore
2. For upload configuration, select the file you want to backup and restore.
3. For backup, click Backup to save the configuration file.

Backup Home > Maintenance > Configuration > Backup

Select configuration file for backup.
Please note: running-config may take a while to prepare for download.

File Name

running-config

startup-config

Backup

Restore Home > Maintenance > Configuration > Restore

Source File 未選擇任何檔案

Destination File

File Name

running-config

startup-config

Restore

Figure 69: Backup / Restore

Parameter Description:

- **Backup[Button]**
Set port enable/disable.
- **Restore[Button]**
Set port enable/disable.

18-2 Restart Device

This section describes how to restart the device for any maintenance needs. Any configuration files or scripts that you saved in the switch should still be available afterwards.

Web Interface

- To Restart Device in the web interface:
1. Click Maintenance -> Restart Device.
 2. Click Yes.

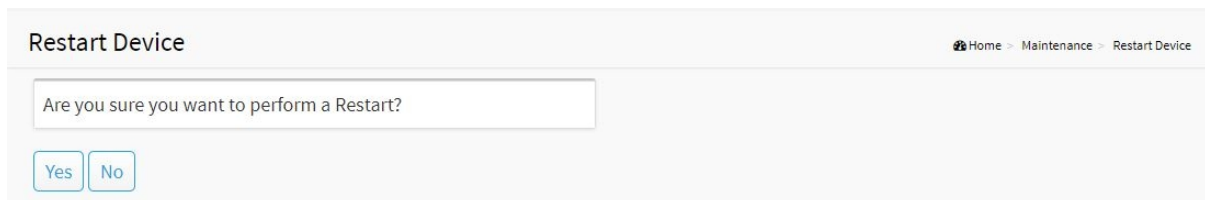


Figure 70: Restart Device

Parameter Description:

- **Yes[Button]**
To restart device

18-3 Reset Default

This section describes how to restore the Switch configuration to factory default value.

Web Interface

- To restore to factory default value in the web interface:
1. Click Maintenance -> Reset Default.
 2. Click Yes.



Figure 67: Reset Default

Parameter Description:

- **Yes[Button]**

To reset the device to factory default value.

18-4 Firmware Upgrade

To display firmware upgrade page, you can click 'Maintenance -> Firmware Upgrade'. This page allows user to upgrade firmware image through HTTP.

Web Interface

To update firmware of the device in the web interface:

1. Click Maintenance -> Firmware -> Firmware Upgrade.
2. Choose the firmware you want to upgrade.
3. Click Upload.



Figure 68: Firmware Upgrade

Parameter Description:

- **Firmware File**
The firmware version which currently runs on this device
- **Upload[Button]**
Click to perform firmware upgrading.
Don't turn off the device during the firmware upgrading.

18-5 Firmware Selection

To display firmware upgrade page, you can click 'Maintenance -> Firmware -> Firmware Selection'. This page allows user to select firmware image through UI.

Web Interface

To update firmware of the device in the web interface:

4. Click Maintenance -> Firmware -> Firmware Selection.
5. Choose the firmware version you want to use.
6. Click Activate.

Active Image	
Partition	secondary
Version	2.03.0531
Date	2023-03-01 11:17:59

Alternate Image	
Partition	primary
Version	2.03.052p
Date	2023-02-25 11:46:38

[Activate Alternate Image](#)

Figure 69: Firmware Upgrade**Parameter Description:**

- **Activate Alternate Image[Button]**
The firmware version which would like to activate on this device.
- **Reset[Button]**
Reset the setting.



CLI User Manual

0E-8PRTMAN

0E-24PRTMAN

L2 Managed PoE Switches

Release A3



ABOUT THIS GUIDE

PURPOSE This guide gives specific information on how to operate CLI to manage this switch.

AUDIENCE The guide is intended for use by network administrators who are responsible for operating and maintaining network equipment; consequently, it assumes a basic working knowledge of general switch functions, Internet Protocol (IP), and SSH Protocol.

Revision History

Release	Date	Revision
Initial Release	2021/02/04	A1
Revision	2022/01/03	A2
Revision	2023/01/13	A3

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Chapter 1 CLI Management

The following description is the brief of the network connection.

-- Attach the RJ45 serial port on the switch's front panel which used to connect to the switch for telnet configuration

-- At "Com Port Properties" Menu, configure the parameters as below: (see the next section)

Baud rate	115200
Stop bits	1
Data bits	8
Parity	N
Flow control	none

1-1 Login

The command-line interface (CLI) is a text-based interface. User can access the CLI through either a direct serial connection to the device or a Telnet session (Default IP address: **192.168.1.1**). The default user and password to login into the Managed Switch are listed below:

Username: **admin**

Password: **admin**

After you login successfully, the prompt will be shown as “<sys_name>#”. See the following figures. It means you behave as an administrator and have the privilege for setting the Managed Switch. If log as not the administrator, the prompt will be shown as “<sys_name>>”, it means you behave as a guest and are only allowed for setting the system under the administrator. Each CLI command has its privilege

```
Username: admin
```

```
Password: admin
```

```
0E-8PRTMAN#
```

1-2 Commands of CLI

The CLI is divided into several modes. If a user has enough privilege to run a particular command, the user has to run the command in the correct mode. To see the commands of the mode, please input “?” after the system prompt, then all commands will be listed in the screen. The command modes are listed as follows:

Command Modes

MODE	PROMPT	COMMAND FUNCTION IN THIS MODE
exec	<sys_name>#	Display current configuration, diagnostics, maintenance
config	<sys_name>(config)#	Configure features other than those below
config-if	<sys_name>(config-interface)#	Configure ports
config-if-range	<sys_name>(config-if-range)#	Configure a range of ports
config-vlan	<sys_name>(config-vlan)#	Configure static vlan

Commands reside in the corresponding modes could run only in that mode. If a user wants to run a particular command, the user has to change to the appropriate mode. The command modes are organized as a tree, and users start to in enable mode. The following table explains how to change from one mode to another.

Change Between Command Modes

MODE	ENTER MODE	LEAVE MODE
exec	--	--
config	Configure terminal	exit
config-interfcae	Interface <port-type> <port-number>	exit
config-interfcae-range	Interface range <port-type> <port-type-list>	exit
config-vlan	vlan <vlan_list>	exit

1-3 Global Commands of CLI

0E-8PRTMAN# ?

clear	Reset functions
clock	Manage the system clock
configure	Configuration Mode
copy	Copy from one file to another
debug	Debug Options
delete	Delete a file from the flash file system
disable	Turn off privileged mode command
end	End current mode and change to enable mode
exit	Exit current mode and down to previous mode
no	Negate command
ping	Send ICMP ECHO_REQUEST to network hosts
reboot	Halt and perform a cold restart
restore-defaults	Restore to default
save	Save running configuration to flash
show	Show running system information
ssl	Setup SSL host keys
terminal	Terminal configuration
traceroute	Trace route to network hosts

Chapter 2 CLEAR of CLI

Table : CLEAR Commands

Command	Function
interfaces	Interface status and configuration
ip	IP information
lACP	LACP Configuration
line	To identify a specific line for configuration
lldp	Reset lldp information
logging	Log Configuration
mac	MAC configuration
port-security	Port Security
power	Power-over-Ethernet Configuration
spanning-tree	Spanning-tree configuration

2-1 interfaces

Clear interface status and configuration.

Syntax

clear interfaces GigabitEthernet <port_list> counters

clear interfaces LAG <lag_list> counters

Parameter

GigabitEthernet	Gigabit ethernet interface to configure	
	<port_list>	Port List X-Y,Z
LAG	IEEE 802.3 Link Aggregation interface	
	<lag_list>	LAG List X-Y,Z

Example

```
0E-8PRTMAN# clear interfaces GigabitEthernet 1-3,6 counters
```

```
0E-8PRTMAN# clear interfaces LAG 2-4,6 counters
```

```
0E-8PRTMAN#
```

2-2 ip

Clear IP information.

Syntax

clear ip igmp snooping groups {<cr>|<dynamic>|<static>}

clear ip igmp snooping statistics

Parameter

groups	IPv4 multicast groups	
	<cr>	
	dynamic	dynamic groups
	static	static groups
statistics	Clear IGMP snooping statistics	

Example

```
0E-8PRTMAN# clear ip igmp snooping statistics
0E-8PRTMAN# clear ip igmp snooping groups static
0E-8PRTMAN# clear ip igmp snooping groups dynamic
0E-8PRTMAN#
```

2-3 lacp

Clear LACP Configuration.

Syntax

Clear lacp counters

Parameter

counters	LAG number
-----------------	------------

Example

```
0E-8PRTMAN# clear lacp counters
0E-8PRTMAN#
```

2-4 line

Clear a specific line for configuration.

Syntax

clear line telnet

Parameter

telnet	Telnet daemon configuration
---------------	-----------------------------

Example

```
0E-8PRTMAN# clear line telnet
0E-8PRTMAN#
```

2-5 lldp

Clear lldp information.

Syntax

clear lldp global statistics

clear lldp interfaces GigabitEthernet <port_list> statistics

clear lldp interfaces LAG <lag_list> statistics

Parameter

global	Clear LLDP statistics		
	statistics		
interfaces	Clear LLDP statistics for specified ports		
	GigabitEthernet	Gigabit ethernet interface to configure	
		<port_list>	Port List X-Y,Z
	LAG	IEEE 802.3 Link Aggregation interface	
<lag_list>		LAG List X-Y,Z	

Example

```
0E-8PRTMAN# clear lldp global statistics
```

```
0E-8PRTMAN# clear lldp interfaces GigabitEthernet 1-3,6 statistics
```

```
0E-8PRTMAN# clear lldp interfaces LAG 1-3,6 statistics
```

```
0E-8PRTMAN#
```

2-6 logging

Clear log configuration.

Syntax

clear logging {<buffered>|<file>}

Parameter

buffered	Buffered logging
file	File logging

Example


```

0E-8PRTMAN# clear logging buffered
0E-8PRTMAN# clear logging file
0E-8PRTMAN#

```

2-7 mac

Clear MAC configuration.

Syntax

```

clear mac address-table dynamic
clear mac address-table dynamic interface GigabitEthernet <port_list>
clear mac address-table dynamic interface LAG <lag_list>
clear mac address-table dynamic vlan <vlan_id>

```

Parameter

interface	Interface status and configuration		
	GigabitEthernet	Gigabit ethernet interface to configure	
		<port_list>	Port List X-Y,Z
	LAG	IEEE 802.3 Link Aggregation interface	
<lag_list>		LAG List X-Y,Z	
vlan	VLAN configuration		
	<vlan_id>	VLAN ID (1-4094)	

Example

```

clear mac address-table dynamic
0E-8PRTMAN# clear mac address-table dynamic interfaces GigabitEthernet 1-3,6
0E-8PRTMAN# clear mac address-table dynamic interfaces LAG 1-3,6
0E-8PRTMAN# clear mac address-table dynamic vlan 2
0E-8PRTMAN#

```

2-8 port-security

Clear port security configuration.

Syntax

```

clear port-security all {<cr>|<address>|<interface>}

```

clear port-security configured {<cr>|<address>|<interface>}

clear port-security dynamic {<cr>|<address>|<interface>}

clear port-security sticky {<cr>|<address>|<interface>}

Parameter

all	All secure mac addresses
configured	Configured secure mac addresses
dynamic	Secure MAC address auto-learned by hardware
sticky	Secure MAC address either auto-learned or configured

Example

```
0E-8PRTMAN# clear port-security all
0E-8PRTMAN# clear port-security all address 68:8D:B6:00:00:01
0E-8PRTMAN# clear port-security all interface GigabitEthernet 1
0E-8PRTMAN#
```

2-9 power

Clear power-over-ethernet configuration.

Syntax

clear power inline interfaces GigabitEthernet <port_list> statistics

Parameter

<port_list>	Port List X-Y,Z
--------------------------	-----------------

Example

```
0E-8PRTMAN# clear power inline interfaces GigabitEthernet 3-6 statistics
0E-8PRTMAN#
```

2-10 spanning-tree

clear spanning-tree statistics

Syntax

clear spanning-tree interfaces GigabitEthernet <port_list> statistics

clear spanning-tree interfaces LAG <lag_list> statistics

Parameter

GigabitEthernet	Gigabit ethernet interface to configure	
	<port_list>	Port List X-Y,Z
LAG	IEEE 802.3 Link Aggregation interface	
	<lag_list>	LAG List X-Y,Z

Example

0E-8PRTMAN# clear spanning-tree interfaces GigabitEthernet 1-3,6 statistics

0E-8PRTMAN# clear spanning-tree interfaces LAG 1-3,6 statistics

0E-8PRTMAN#

Chapter 3 CLOCK of CLI

Manage the system clock.

Syntax

clock set <HH:MM:SS> <month> <day> <year>

Parameter

set	Manually set the system clock	
	< HH:MM:SS >	Current time in hours (24 Hour format), minutes, and seconds.
	<month>	jan Month January feb Month February mar Month March apr Month April may Month May jun Month June jul Month July aug Month August sep Month September oct Month October nov Month November dec Month December
	<day>	Current day in the month.Current year
	<year>	<2000-2035>

Example

```
0E-8PRTMAN# clock set 16:54:00 jan 7 2022
```

```
0E-8PRTMAN#
```

Chapter 4 CONFIGURE Commands of CLI

Table : CONFIGURE Commands

Command	Function
boot	Booting Operations
clock	Manage the system clock
custom	Custom Module configuration
dos	DoS information
do	To run exec commands in current mode
end	End current mode and change to enable mode
errdisable	Error Disable
exit	Exit current mode and down to previous mode
hostname	Set system's network name
interface	Select an interface to configure
ip	IP information
ipv6	IPv6 information
jumbo-frame	Jumbo Frame configuration
lacp	LACP Configuration
lag	Link Aggregation Group Configuration
line	To identify a specific line for configuration
lldp	Global LLDP configuration subcommands
logging	Log Configuration
loop-prevention	Loop-prevention configuration
mac	MAC configuration
management-vlan	Management VLAN configuration
mirror	Mirror configuration
no	Negate command
ntp	Network Time Protocol
port-security	Port Security
power	Power-over-Ethernet Configuration
qos	QoS configuration
smtp	SMTP Configuration

snmp	SNMP information
spanning-tree	Spanning-tree configuration
system	System information
username	Local User
vlan	VLAN configuration

4-1 configure

Configure from the terminal.

Syntax

configure

Example

```
0E-8PRTMAN# configure
0E-8PRTMAN(config)#
```

4-1.1 boot

To select booting image.

Syntax

boot system {<image0>|<image1>}

Parameter

image0	Runtime image 0
image1	Runtime image 1

Example

```
0E-8PRTMAN(config)# boot system image0
0E-8PRTMAN(config)#
```

4-1.2 clock

To manage the system clock.

Syntax

```
clock {<source>|<summer-time>|<timezone>}
```

Parameter

source	Configure an external time source for the system clock
summer-time	Configure the system to automatically switch to summer time (daylight saving time)
timezone	Set the time zone for display purposes

Example

```
0E-8PRTMAN(config)# clock source local
```

```
0E-8PRTMAN(config)# clock source ntp
```

```
0E-8PRTMAN(config)#
```

4-1.3 custom

To configure custom module.

Syntax

```
custom enable
```

Parameter

Example

```
0E-8PRTMAN(config)# custom enable
```

```
0E-8PRTMAN(config)#
```

4-1.4 dos

To configure DoS.

Syntax

```
dos {<daeqsa-deny>|<icmp-frag-pkts-deny>|<icmpv4-ping-max-check>|<icmpv6-ping-max-check>|  
  
<ipv6-min-frag-size-check>|<land-deny>|<nullscan-deny>|<pod-deny>|<smurf-deny>|  
  
<syn-sport1024-deny>|<synfin-deny>|<synrst-deny>|<tcp-frag-off-min-check>|<tcpblat-deny>|  
  
<tcphdr-min-check>|<udpblat-deny>|<udpblat-deny>}  
  
dos icmp-ping-max-length <0-65535>  
dos ipv6-min-frag-size-length <0-65535>  
dos smurf-netmask <0-32>  
dos tcphdr-min-length <0-31>
```

Parameter

daeqsa-deny	Destination MAC equals to source MAC
icmp-frag-pkts-deny	Fragmented ICMP packets
icmp-ping-max-length	DoS information
icmpv4-ping-max-check	Check ICMPv4 ping maximum packets size
icmpv6-ping-max-check	Check ICMPv6 ping maximum packets size
ipv6-min-frag-size-check	Check minimum size of IPv6 fragments
ipv6-min-frag-size-length	DoS information
land-deny	Source IP equals to destination IP
nullscan-deny	NULL Scan Attacks
pod-deny	Ping of Death Attacks
smurf-deny	Smurf Attacks
smurf-netmask	DoS information
syn-sport1024-deny	SYN packets with sport less than 1024
synfin-deny	SYN and FIN bits set in the packet
synrst-deny	SYNC and RST bits set in the packet
tcp-frag-off-min-check	TCP fragment packet with offset equals to one
tcpblat-deny	Source TCP port equals to destination TCP port
tcphdr-min-check	Check minimum TCP header
tcphdr-min-length	DoS information
udpblat-deny	Source UDP port equals to destination UDP port
xma-deny	Xmascan: sequence number is zero and the FIN, URG and PSH bits are set

Example


```
0E-8PRTMAN(config)# dos xma-deny
0E-8PRTMAN(config)#
```

4-1.5 do

To run exec commands in current mode.

Syntax

do <command for exec mode>

Parameter

Example

```
0E-8PRTMAN(config)# do show users
  Username      Protocol      Location
-----
      admin      console      0.0.0.0
0E-8PRTMAN(config)#
```

4-1.6 end

End current mode and change to enable mode.

Syntax

end

Example

```
0E-8PRTMAN(config)# end
0E-8PRTMAN#
```

4-1.7 errdisable

Error Disable.

Syntax

errdisable recovery cause {<acl>|<all>|<arp-inspection>|<bpdu-guard>|<broadcast-flood>|<dhcp-rate-limit>|<psecure-violation>|<selfloop>|<unicast-flood>|<unknown-multicast-flood>}

errdisable recovery interval <interval_time>

Parameter

cause	Error Disabled caused reason	
	acl	Enable timer to recover from acl causes
	all	Enable timer to recover from all causes
	arp-inspection	Enable timer to recover from arp rate limit causes
	bpdu-guard	Enable timer to recover from bpdu guard causes
	broadcast-flood	Enable timer to recover from broadcast flood causes
	dhcp-rate-limit	Enable timer to recover from dhcp rate limit causes
	psecure-violation	Enable timer to recover from port security causes
	selfloop	Enable timer to recover from selfloop causes
	unicast-flood	Enable timer to recover from unicast flood causes
	unknown-multicast-flood	Enable timer to recover from unknown multicast flood
interval	Recovery interval	
	<interval_time>	Interval with the number of seconds (30-86400)

Example

```
0E-8PRTMAN(config)# errdisable recovery cause unknown-multicast-flood
0E-8PRTMAN(config)#
```

4-1.8 exit

Exit current mode and down to previous mode.

Syntax

exit

Example

```
0E-8PRTMAN(config)# exit
0E-8PRTMAN#
```

4-1.9 hostname

To set system's network name.

Syntax

hostname <system_network_name>

Parameter

system_network_name	System network name (1-32 words)
----------------------------	----------------------------------

Example

```
0E-8PRTMAN(config)# hostname 0E-8PRTMAN
0E-8PRTMAN(config)#
```

4-1.10 interface

Select an interface to configure.

Syntax

interface GigabitEthernet <port_number>

interface LAG <lag_id>

interface range GigabitEthernet <port_list>

interface range LAG <lag_list>

Parameter

GigabitEthernet	Gigabit ethernet interface to configure			
	<port_number>	Port number		
LAG	IEEE 802.3 Link Aggregation interface			
	<lag_id>	LAG id		
range	Interface range command			
	GigabitEthernet	Gigabit ethernet interface to configure		
		<port_list>	Port List X-Y,Z	
		back-pressure	Enable back-pressure	

			custom	Custom Module configuration
			description	Interface specific description
			dos	DoS information
			do	To run exec commands in current mode
			duplex	Configure duplex operation
			eee	EEE configuration
			end	End current mode and change to enable mode
			exit	Exit from current mode
			flowcontrol	Configure flow-control mode
			ip	IP information
			lacp	LACP Configuration
			lag	Link Aggregation Group Configuration
			lldp	LLDP interface subcommands
			mac	MAC configuration
			no	Negate command
			port-security	Port Security
			power	Power-over-Ethernet Configuration
			protected	Configure an interface to be a protected port
			qos	QoS configuration
			rate-limit	Rate limit configuration of the specified incoming traffic
			shutdown	Shutdown the selected interface
			spanning-tree	Spanning-tree configuration
			speed	Configure speed operation
			storm-control	Storm control configuration
			switchport	Set switching mode characteristics
	LAG	IEEE 802.3 Link Aggregation interface		
		<lag_list>	LAG List X-Y,Z	
			back-pressure	Enable back-pressure
			custom	Custom Module configuration
			description	Interface specific description
			dos	DoS information
			do	To run exec commands in current mode
			duplex	Configure duplex operation
			end	End current mode and change to enable

				mode
			exit	Exit from current mode
			flowcontrol	Configure flow-control mode
			ip	IP information
			mac	MAC configuration
			no	Negate command
			protected	Configure an interface to be a protected port
			qos	QoS configuration
			shutdown	Shutdown the selected interface
			spanning-tree	Spanning-tree configuration
			speed	Configure speed operation
			switchport	Set switching mode characteristics

Example

```
0E-8PRTMAN(config)# interface GigabitEthernet 1
0E-8PRTMAN(config-if)#
```

4-1.10.1 back-pressure

Back-pressure configuration.

Syntax

back-pressure

no back-pressure

Example

```
0E-8PRTMAN(config-if)# back-pressure
0E-8PRTMAN(config-if)# no back-pressure
0E-8PRTMAN(config-if)#
```

4-1.10.2 custom

Per port custom module configuration

Syntax

custom enable

no custom enable

Parameter

custom enable	Enable per port custom function
no custom enable	Disable per port custom function

Example

```
0E-8PRTMAN(config-if)# custom enable
```

```
0E-8PRTMAN(config-if)# no custom enable
```

```
0E-8PRTMAN(config-if)#
```

4-1.10.3 description

Interface specific description

Syntax

description <WORD>

no description

Parameter

WORD	Description string (1-63 words)
-------------	---------------------------------

Example

0E-8PRTMAN(config-if)# description desc_word

0E-8PRTMAN(config-if)# no description

0E-8PRTMAN(config-if)#

4-1.10.4 dos

Per port DoS-related function configuration

Syntax

dos

no dos

Parameter

dos	Enable per port DoS function
no dos	Disable per port DoS function

Example

0E-8PRTMAN(config-if)# dos

0E-8PRTMAN(config-if)# no dos

0E-8PRTMAN(config-if)#

4-1.10.5 do

To run exec commands in current mode

Syntax

do <sequence>

Parameter

sequence	Exec Command
-----------------	--------------

Example

```
0E-8PRTMAN(config-if)# do show info
System Name      : 0E-8PRTMAN
System Location  :
System Contact   :
MAC Address      : 38:73:EA:A0:58:77
IP Address       : 192.168.11.199
Subnet Mask      : 255.255.255.0
Loader Version   : 2.0.0.1
Loader Date      : Jan 11 2022 - 13:46:46
Firmware Version : 2.0.1.3_vk
Firmware Date    : Jan 11 2022 - 13:52:13
System Object ID : 1.3.6.1.4.1.27282.3.2.10
System Up Time   : 0 days, 0 hours, 40 mins, 3 secs
0E-8PRTMAN(config-if)#
```

4-1.10.6 duplex

Per Port duplex configuration

Syntax

Duplex {<auto>|<full>|<half>}

Parameter

auto	Enable auto duplex configuration
full	Force full duplex operation
half	Force half duplex operation

Example


```
0E-8PRTMAN(config-if)# duplex auto
0E-8PRTMAN(config-if)#
```

4-1.10.7 eee

Per port EEE configuration

Syntax

eee

no eee

Parameter

eee	Enable per port EEE function
no eee	Disable per port EEE function

Example

```
0E-8PRTMAN(config-if)# eee
0E-8PRTMAN(config-if)# no eee
0E-8PRTMAN(config-if)#
```

4-1.10.8 end

End current mode and change to enable mode

Syntax

end

Example

```
0E-8PRTMAN(config-if)# end
0E-8PRTMAN#
```

4-1.10.9 exit

Exit from current mode

Syntax

exit

Example

```
0E-8PRTMAN(config-if)# exit
0E-8PRTMAN(config)#
```

4-1.10.10 flowcontrol

Per port flow control configuration

Syntax

flowcontrol {<auto>|<off>|<on>}

Parameter

auto	Enable per port auto mode flow control
off	Disable per port flow control function
on	Force on per port flow control function

Example

```
0E-8PRTMAN(config-if)# flowcontrol auto
0E-8PRTMAN(config-if)#
```

4-1.10.11 ip

Per port IP information.

Syntax

ip igmp filter <1-128>

ip igmp max-groups <0-256>

ip igmp max-groups action {<deny>|<replace>}

Parameter

filter	IPv4 filter	
	<1-128>	IPv4 filter profile index
max-groups	IGMP snooping max group number 0~256	
	deny	IGMP max-group action deny
	replace	IGMP max-group action replace

Example

```
0E-8PRTMAN(config-if)# ip igmp filter 1
```

```
0E-8PRTMAN(config-if)#
```

4-1.10.12 lacp

Per port LACP-related function configuration

Syntax

lacp priority <1-65535>

lacp timeout {<fast>|<slow>}

no lacp priority

no lacp timeout

Parameter

priority	IEEE 802.3 link aggregation port priority	
	<1-65535>	Port-priority value
timeout	IEEE 802.3 link aggregation port timeout	
	fast	Long timeout value
	slow	Short timeout value

Example

```
0E-8PRTMAN(config-if)# lacp timeout slow
0E-8PRTMAN(config-if)#
```

4-1.10.13 lag

Per port link aggregation group configuration.

Syntax

```
lag <lag-id> lacp {<active>|<passive>}
```

```
lag <lag-id> mode static
```

```
no lag
```

Parameter

<lag-id>	configure port as LAG <lag-id> member port		
	mode	Set LAG mode	
		static	Enable Static Only
	lacp	LACP Configuration	
		active	active mode
		passive	passive mode

Example

```
0E-8PRTMAN(config-if)# lag 1 lacp active
0E-8PRTMAN(config-if)#
```

4-1.10.14 lldp

Per port LLDP function configuration

Syntax

```
lldp rx
```

```
lldp tlv-select {<TLV>|pvid {<enable>|<disable>}}vlan-name {add <VLAN-LIST>|remove <VLAN-LIST>}}
```

```
lldp tx
```

no lldp rx

no tlv-select

no tlv-select pvid

no lldp tx

Parameter

rx	Enable LLDP reception on interface			
tlv-select	Selection of LLDP TLVs to send			
	TLV	LLDP optional TLV, pick from: port-desc, sys-name, sys-desc, sys-cap, mac-phy, lag, max-frame-size, management-addr		
	pvid	disable	Disable Tx optional-TLV 802.1 PVID	
		enable	Enable Tx optional-TLV 802.1 PVID	
	vlan-name	Add/remove VLAN for advertise		
		add	<VLAN_LIST>	VLAN List (e.g. 3,6-8): The range of VLAN ID is 0 to 4095
remove		<VLAN_LIST>	VLAN List (e.g. 3,6-8): The range of VLAN ID is 0 to 4095	
tx	Enable LLDP transmission on interface			

Example

```
0E-8PRTMAN(config-if)# lldp tx
```

```
0E-8PRTMAN(config-if)#
```

4-1.10.15 mac

Per port mac address table configuration

Syntax

mac address-table learn {<auto>|<disable>|<secure>}

Parameter

auto	Learning is done automatically
disable	No learning

secure	Only static MAC entries are learned, all other frames are dropped.
---------------	--

Example

```
0E-8PRTMAN(config-if)# mac address-table learn secure
0E-8PRTMAN(config-if)#
```

4-1.10.16 no

Negate command

Table : configure – no Commands

Command	Function
back-pressure	Enable back-pressure
custom	Custom Module configuration
description	Interface specific description
dos	DoS information
eee	EEE configuration
flowcontrol	Configure flow-control mode
ip	IP information
lacp	LACP Configuration
Lag	Link Aggregation Group Configuration
lldp	Lldp configuration
port-security	Port Security
power	Power-over-Ethernet Configuration
protected	Configure an interface to be a protected port
qos	QoS configuration
rate-limit	Rate limit configuration of the specified incoming traffic
shutdown	Shutdown the selected interface
spanning-tree	Spanning-tree configuration
storm-control	Storm control configuration
switchport	Set switching mode characteristics

4-1.10.17 port-security

Per port port-security function configuration.

Syntax

port-security {<cr>|<address-limit>|<mac-address>|<violation>}

no port-security {<cr>|<address-limit>|<mac-address>|<violation>}

Parameter

address-limit	MAC address limitation
mac_address	Sticky MAC address
violation	Action to be taken when limitation is reached

Example

```
0E-8PRTMAN(config-if)# port-security
```

```
0E-8PRTMAN(config-if)#
```

4-1.10.18 power

Per port power over ethernet (PoE) configuration.

Syntax

power inline auto

power inline auto-check {<action>|<interval>|<ip>|<reboot-max>|<reboot-time>|<retry>|<start-time>}

power inline delay initial {<cr>|<0-300>}

power inline bt

power inline poh

power inline force

power inline limit <0-30000>

power inline never

power inline priority {<critical>|<high>|<low>}

power inline schedule <schedule_profile_number>

no power inline {<delay>|<limit>|<schedule>}

Parameter

auto	Turns on the device discovery protocol and applies power to the device.	
auto_check	Auto check function	
	action	ilpower port auto check action
	interval	ilpower port auto check interval
	ip	ilpower port auto check ip
	reboot-max	ilpower port auto check maximum reboot times
	reboot-time	ilpower port auto check reboot time
	retry	ilpower port auto check retry times
	start-time	ilpower port auto check start time
delay	initial	Initial power enable
		<0-300>
force	The switch port will power up the linked PD without any detect/negotiate mechanism	
bt	BT Mode	
poh	POH Mode	
limit	The port limit of the interface from the point of view of inline power management	
	<0-30000>	Specify the port limit in milliwatt
never	Turns off the device discovery protocol and stops supplying power to the device	
priority	ilpower port priority	
	critical	Specifies that the powered device operation is critical
	high	Specifies that the powered device operation is high
	low	Specifies that the powered device operation is low
schedule	Schedule Profile Configuration	
	<1-10>	Schedule Profile number

Example

```
0E-8PRTMAN(config-if)# power inline schedule 1
```

```
0E-8PRTMAN(config-if)#
```


4-1.10.19 protected

Per port protected function configuration.

Syntax

protected

no protected

Example

```
0E-8PRTMAN(config-if)# protected
```

```
0E-8PRTMAN(config-if)#
```

4-1.10.20 qos

Per port QoS-related configuration

Syntax

qos {<cos>|<queue>|<remark>|<schedule>|<trust>}

Parameter

cos	Configure the default CoS value for a port. Use the no form of the command to return to the default setting.
queue	Queue configuration
remark	Configure remarking state of each port
schedule	QoS scheduling algorithm
trust	Configure each port to trust state while the system is in basic mode. Use the no form of the command to disable trust state on each port

Example

```
0E-8PRTMAN(config-if)# qos schedule wfq
```

```
0E-8PRTMAN(config-if)#
```

4-1.10.21 rate-limit

Per port rate limit configuration

Syntax

rate-limit egress <16-1000000>

rate-limit egress queue <queue_id> <16-1000000>

rate-limit ingress <16-1000000>

no rate-limit egress queue <queue_id>

no rate-limit ingress

Parameter

egress	Rate limit args egress configuration		
	<16-1000000>	The average traffic rate in Kbps, must be a multiple of 16	
	queue	queue configuration	
		<queue_id>	queue id
	<16-1000000>	The average traffic rate in Kbps, must be a multiple of 16	
ingress	Rate limit args ingress configuration		
	<16-1000000>	The average traffic rate in Kbps, must be a multiple of 16	

Example

```
0E-8PRTMAN(config-if)# rate-limit ingress 16000
```

```
0E-8PRTMAN(config-if)#
```

4-1.10.22 shutdown

Shutdown the selected interface

Syntax

shutdown

no shutdown

Parameter

shutdown	shutdown the interface
no shutdown	turn on the interface

Example

```
0E-8PRTMAN(config-if)# shutdown
0E-8PRTMAN(config-if)#
```

4-1.10.23 spanning-tree

Per port spanning tree configuration

Syntax

spanning-tree

spanning-tree bpdu-filter

spanning-tree bpdu-guard

spanning-tree cost <0-200000000>

spanning-tree edge

spanning-tree link-type {<point-to-point>|<shared>}

spanning-tree mcheck

spanning-tree mst <0-15> **cost** <0-200000000>

spanning-tree mst <0-15> **port-priority** <0-240>

spanning-tree port-priority <0-240>

Parameter

bpdu-filter	Sets the BPDU-Filter for specified port	
bpdu-guard	Sets the BPDU-Guard for specified port	
cost	Change an interface's spanning tree path cost	
	<0-200000000>	The value of external path cost (0 = Auto)
edge	Sets the edge-port for specified port	

link-type	Specify a link type for spanning tree protocol use		
	<point-to-point>	Consider the interface as point-to-point	
	<shared>	Consider the interface as shared	
mcheck	Set the mcheck for specified port to migrate		
mst	Sets spanning-tree parameters of instance		
	<0-15>	Instance ID (0~15)	
	cost	Sets the internal path cost for specified instance	
		<0-200000000>	The value of internal path cost (0 = Auto)
	port-priority	Sets the priority for specified instance	
<0-240>		Priority (0~240)	
port-priority	Sets the priority for specified instance		
	<0-240>	Priority (0~240)	

Example

```
0E-8PRTMAN(config-if)# spanning-tree link-type point-to-point
0E-8PRTMAN(config-if)#
```

4-1.10.24 speed

Per port speed configuration

Syntax

```
speed {10|100|1000|auto}
```

Parameter

Example

```
0E-8PRTMAN(config-if)# speed 1000
0E-8PRTMAN(config-if)#
```

4-1.10.25 storm-control

Per port storm-control configuration

Syntax

storm-control {<cr>|<action>|<broadcast>|<unknown-multicast>|<unknown-unicast>}

no storm-control {<cr>|<action>|<broadcast>|<unknown-multicast>|<unknown-unicast>}

Parameter

action	Storm control action after exceed threshold
broadcast	Broadcast storm control
unknown-multicast	Unknown-multicast storm control
unknown-unicast	Unknown-unicast storm control

Example

```
0E-8PRTMAN(config-if)# storm-control
```

```
0E-8PRTMAN(config-if)#
```

4-1.10.26 switchport

Set per port switching mode characteristics.

Syntax

switchport {<access>|<default-vlan>|<forbidden>|<hybrid>|<mode>|<trunk>}

no switchport {<access>|<default-vlan>|<forbidden>|<hybrid>|<mode>|<trunk>}

Parameter

access	Vlan aware port
default-vlan	Default VLAN
forbidden	Forbidden VLAN
hybrid	Configure switchport in hybrid mode
mode	VLAN mode
trunk	Vlan aware port

Example

```
0E-8PRTMAN(config-if)# switchport mode access
0E-8PRTMAN(config-if)#
```

4-1.11 ip

Internet Protocol.

Syntax

```
ip address <ipv4_addr> {<cr>|mask <ipv4_mask>}
ip default-gateway <ipv4_addr>
ip dhcp
ip dhcp server
ip dhcp server dhcp-range <pool_start_ipv4_addr> <pool_end_ipv4_addr>
ip dhcp server lease-time <0-864000000>
ip dns <ipv4_addr>
ip http
ip http port <1-65535>
ip http session-timeout <0-65535>
ip https
ip https port <1-65535>
ip https session-timeout <0-65535>
ip igmp profile <1-128>
ip igmp snooping {<cr>|<forward-method>|<report-suppression>|<unknown-multicast>|<version>|<vlan>}
```

Parameter

address	IPv4 Address				
	A.B.C.D	IP Address format is A.B.C.D where (A/B/C/D = 0 ~ 255)			
		mask	A.B.C.D		
default-gateway	Set default gateway IP address				
	A.B.C.D	Default gateway IP address			
dhcp	DHCP configuration				
	server	dhcp server configuration			
		dhcp-range	IPv4 range		
			A.B.C.D	IPv4 start address	A.B.C.D
	lease-time	lease time			
<0-864000000>		0-864000000 seconds (0: infinite)			
dns	DNS				
	A.B.C.D	IP Address format is A.B.C.D where (A/B/C/D = 0 ~ 255)			
http	HTTP server configuration				
	port	Configure port			
		<1-65535>	port number		
	session-timeout	Session timeout configuration			
<0-65535>		Timeout after specified minutes (0 means no timeout)			
https	HTTPS server configuration				
	port	Configure port			
		<1-65535>	port number		
	session-timeout	Session timeout configuration			
		<0-65535>	Timeout after specified minutes (0 means no timeout)		
igmp	IGMP Configuration				
	profile	IGMP profile			
		<1-128>	Profile index		
	snooping	IGMP Snooping Configuration			
		forward-method	Forward method		
			dip	DIP method	
			mac	MAC method	
		report-suppression	IGMP v1/v2 report suppression		
		unknown-multicast	Unknown multicast		
			action	Action on receiving unknown multicast packets	
drop				Drop the packets	
flood	Flood the packets				
router-port	Forward to router ports				

	version	IGMP Snooping Operation Version		
		2	IGMP Operation Version is v2	
		3	IGMP Operation Version is v3	
	vlan	VLAN configuration		
		VLAN-LIST	VLAN List (e.g. 3,6-8): The range of VLAN ID is 1 to 4094	
			forbidden-port	IPv4 forbidden port configuration
			forbidden-router-port	Forbidden mrouter port configuration
			immediate-leave	IGMP snooping immediate-leave function
			last-member-query-count	Last Member Query Count
			last-member-query-interval	Last Member Query Interval
			querier	IGMP snooping querier function
			query-interval	Query Interval
			response-time	Response Time
			robustness-variable	Robustness Variable
			router	IGMP snooping router
static-group	Static group configuration			
static-port	IPv4 static port configuration			
static-router-port	Static mrouter port configuration			
ssh	SSH daemon configuration			
	port	Configure port		
		<1-65535>	port number	
telnet	Telnet daemon configuration			
	port	Configure port		
		<1-65535>	port number	

Example

```

0E-8PRTMAN(config)# ip address 192.168.11.1
0E-8PRTMAN(config)# ip dhcp server dhcp-range 192.168.11.100 192.168.11.200
0E-8PRTMAN(config)# ip dhcp server
0E-8PRTMAN(config)# ip dns_address 8.8.8.8
0E-8PRTMAN(config)#

```

4-1.12 ipv6

IPv6 configuration commands.

Syntax

IPv6

ipv6 address <ipv6_address> prefix <0-128>

ipv6 default-gateway <ipv6_address>

ipv6 dhcp

Parameter

address	Set IPv6 address and prefix		
	<ipv6_addr>	prefix	prefix length
			<0-128> length value
autoconfig	Enable Ipv6 auto-configuration		
default-gateway	Set IPv6 gateway		
	<ipv6_addr>	IPv6 gateway	
dhcp	Set IPv6 DHCP Client		

Example

```
0E-8PRTMAN(config)# ipv6 address FC00:: prefix 8
```

```
0E-8PRTMAN(config)#
```

4-1.13 jumbo-frame

Jumbo frame configuration.

Syntax

jumbo-frame {<cr>|<1518-10000>}

Example

```
0E-8PRTMAN(config)# jumbo-frame
0E-8PRTMAN(config)#
```

4-1.14 lacp

Lacp system configuration.

Syntax

```
lacp sys-priority <1-65535>
```

Parameter

sys-priority	LACP priority for the system	
	<1-65535>	Priority value

Example

```
0E-8PRTMAN(config)# lacp sys-priority 1
0E-8PRTMAN(config)#
```

4-1.15 lag

Link aggregation group configuration.

Syntax

```
lacp load-balance {<src-dst-mac>|<src-dst-mac-ip>}
```

Parameter

load-balance	Configure load balancing policy of the trunk	
	src-dst-mac	LAG load balancing is based on source and destination MAC address
	src-dst-mac-ip	LAG load balancing is based on source and destination of

		MAC and IP address
--	--	--------------------

Example

```
0E-8PRTMAN(config)# lag load-balance src-dst-mac
0E-8PRTMAN(config)#
```

4-1.16 line

To identify a specific line for configuration.

Syntax

```
line {<console>|<ssh>|<telnet>}
```

Parameter

console	Console terminal line
ssh	Virtual terminal for secured remote console access (SSH)
telnet	Virtual terminal for remote console access (Telnet)

Example

```
0E-8PRTMAN(config)# line console
0E-8PRTMAN(config)#
```

4-1.17 lldp

LLDP configuration.

Syntax

```
lldp holdtime-multiplier <2-10>
```

```
lldp lldpdu {<filtering>|<bridging>|<flooding>}
```

lldp reinit-delay <1-10>

lldp tx-delay <1-8192>

lldp tx-interval <5-32767>

Parameter

holdtime-multiplier	Configuration of multiplier used for calculating the LLDP discovery packet hold time	
	<2-10>	Multiplier used for calculating the LLDP discovery packet hold time
lldpdu	Configure the action on LLDPDU upon disabled LLDP	
	bridging	Bridging LLDP PDU to VLAN member ports
	filtering	Drop LLDP PDU
	flooding	Flooding LLDP PDU to all ports (VLAN unawared)
reinit-delay	Delay (in sec) for LLDP initialization on any interface	
	<1-10>	Specify the delay (in secs) for LLDP to initialize
tx-delay	Delay between successive LLDP frame transmission	
	<1-8192>	LLDP Tx-delay time in seconds
tx-interval	Specify the rate at which LLDP packets are sent (in sec)	
	<5-32768>	Rate at which LLDP packets are sent (in sec)

Example

```
0E-8PRTMAN(config)# lldp holdtime-multiplier 5
```

```
0E-8PRTMAN(config)# lldp tx-delay 1
```

```
0E-8PRTMAN(config)# lldp tx-interval 5
```

```
0E-8PRTMAN(config)#
```

4-1.18 logging

Log Configuration.

Syntax

logging {<cr>|<buffered>|<console>|<file>} severity <0-7>

logging host

logging host {<ipv4_addr>|<hostname>|<ipv6_addr>} facility <local0-local7>

logging host {<ipv4_addr>|<hostname>|<ipv6_addr>} port <1-65535>

logging host {<ipv4_addr>|<hostname>|<ipv6_addr>} port <1-65535> facility <local0-local7>

logging host {<ipv4_addr>|<hostname>|<ipv6_addr>} port <1-65535> severity <0-7>

logging host {<ipv4_addr>|<hostname>|<ipv6_addr>} port <1-65535> severity <0-7> facility <local0-local7>

logging class (auth-failed|cold-start|di|do|linkUpDown|poe-Fail|poe-OnOff|warm-start)

Parameter

buffered / console / file	Buffered logging / Console logging / File logging		
	severity	Specify logging level	
	<0-7>	Minimum severity <0-7> (EMEGR-DEBUG)	
host	Remote syslog host		
	<ipv4_addr> / Hostname / <ipv6_addr>	Valid IP v4 Address / Host name / Valid IP v6 Address	
		facility	Specify facility parameter for syslog messages
		port	Remote server port, default 514
severity	Specify logging level		
class	Logging event class setting		
	auth-failed	Set logging authentication failure event	
	cold-start	Set logging bootup cold start-up event	
	di	Set logging DI event	
	do	Set logging DO event	
	linkUpDown	Set logging link up and down event	
	poe-Fail	Set logging PoE failure event	
	poe-OnOff	Set logging PoE on/off event	
	warm-start	Set logging bootup warm start-up event	

Example

```
0E-8PRTMAN(config)# logging host 10.10.10.1 facility local7
```

```
0E-8PRTMAN(config)# logging console severity 5
```

```
0E-8PRTMAN(config)#
```

4-1.19 loop-prevention

Loop prevention configuration.

Syntax

loop-prevention

Example

```
0E-8PRTMAN(config)# loop-prevention
0E-8PRTMAN(config)#
```

4-1.20 mac

MAC address table configuration.

Syntax

mac address-table {<aging>|<aging-time>|<static>}

Parameter

aging	aging state	
aging-time	aging time of the address table	
	<10-630>	Aging-time range in seconds indicating how long an entry remain in mac address table
static	Static MAC address	

Example

```
0E-8PRTMAN(config)# mac address-table aging
0E-8PRTMAN(config)#
```

4-1.21 management vlan

Management VLAN configuration.

Syntax

```
management-vlan vlan <1-4094>
```

Parameter

<1-4094>	VLAN ID
----------	---------

Example

```
0E-8PRTMAN(config)# management-vlan vlan 1
0E-8PRTMAN(config)#
```

4-1.22 mirror

Mirror configuration.

Syntax

```
mirror session <1-4> source interface GigabitEthernet <port_id> {<both>|<tx>|<rx>}
```

```
mirror session <1-4> source interface LAG <lag_id> {<both>|<tx>|<rx>}
```

```
mirror session <1-4> destination interface GigabitEthernet <port_id> {<cr>|<allow-ingress>}
```

Parameter

session	Mirror Session configuration		
	<1-4>	Session ID (e.g. 1-4)configuraton	
	destination	Mirror destination configuration	
	source	Mirror Source configuration	

Example

```
0E-8PRTMAN(config)# mirror session 1 destination interface GigabitEthernet 1 allow-ingress
0E-8PRTMAN(config)#
```


4-1.23 no

Negate command

Table : configure – no Commands

Command	Function
clock	Manage the system clock
custom	Custom Module configuration
dos	DoS information
errdisable	Error Disable
ip	IP information
ipv6	IPv6 information
jumbo-frame	Jumbo Frame configuration
lacp	LACP Configuration
lag	Link Aggregation Group Configuration
lldp	Global LLDP configuration subcommands
logging	Log Configuration
loop-prevention	Loop-prevention configuration
mac	MAC configuration
management-vlan	Management VLAN configuration
mirror	Mirror configuration
ntp	Network Time Protocol
port-security	Port Security
power	Power-over-Ethernet Configuration
qos	QoS configuration
smtp	SMTP Configuration
snmp	SNMP information
spanning-tree	Spanning-tree configuration
username	Local User
vlan	VLAN configuration

4-1.24 ntp

Configure NTP.

Syntax

ntp host {<ip_address>|<hostname>} port <1-65535>

Parameter

ip_address	Valid IP v4 address
hostname	Host name

Example

```
0E-8PRTMAN(config)# ntp host 118.163.81.61 port 123
0E-8PRTMAN(config)#
```

4-1.25 port-security

Port security configuration.

Syntax

port-security

port-security rate-limit <1-600>

Parameter

rate-limit	Rate limiter to protect the CPU against excessive load	
	<1-600>	Rate in packet per second (pps)

Example

```
0E-8PRTMAN(config)# port-security rate-limit 300
0E-8PRTMAN(config)#
```

4-1.26 power

Power over Ethernet (PoE) configuration.

Syntax

power inline auto-check

power inline force-mode {<disable>|<enable>}

power inline limit-mode {<class>|<port>}

power inline schedule <1-10> name <profile_name>

power inline schedule <1-10> weekday <1-7> {<start>|<end>} hour <0-23> minute <0-59>

Parameter

auto-check	The auto refresh function of the interface from the point of view of inline power management	
force-mode	PoE power force mode of the rtk system	
	disable	The power force mode disable
	enable	The power force mode enable
limit-mode	PoE power limit mode of the system	
	class	The power limit of a port is fixed regardless of the class of the discovered PD
	port	The power limit of a port is based on the class of the PD as detected during the classification process
schedule	Schedule Profile Configuration	

Example

```
0E-8PRTMAN(config)# power inline limit-mode class
```

```
0E-8PRTMAN(config)#
```

4-1.27 qos

Quality of Service.

Syntax

qos

```
qos map {<cos-queue>|<dscp-queue>|<precedence-queue>|<queue-cos>|<queue-dscp>|  
<queue-precedence>}
```

```
qos queue strict-priority-num <0-8>
```

```
qos queue weight <1-8>
```

qos trust {<cos>|<cos-dscp>|<dscp>|<precedence>}

Parameter

map	Configure the QoS maps	
	cos-queue	Map assigned CoS values to select an egress queue. Use the command no form to return to the default values.
	dscp-queue	Modify the DSCP to queue map.
	precedence-queue	Modify the IP Precedence to queue map.
	queue-cos	Modify the queue to CoS map.
	queue-dscp	Modify the queue to DSCP map.
	queue-precedence	Modify the queue to ip precedence map.
queue	Queue configuration	
	strict-priority-num	Configure the number of strict priority queues
	weight	Configure weights to egress queues. Use no form to return to default values
trust	Configure the global trust mode . Use the no form to return untrusted state.	
	cos	Specify trust mode cos.
	cos-dscp	Specify trust mode Cos-DSCP.
	dscp	Specify trust mode DSCP.
	precedence	Specify trust mode precedence

Example

```
0E-8PRTMAN(config)# qos
```

```
0E-8PRTMAN(config)#
```

4-1.28 smtp

Simple Mail Transfer Protocol(SMTP) configuration.

Syntax

smtp

smtp class (auth-failed|cold-start|di|do|linkUpDown|poe-Fail|poe-OnOff|warm-start)

smtp {<email_1>|< email_2>|< email_3>|< email_4>|< email_5>|<

email_6>|<mail-server>|<password>|<return-path>|<sender>|<username>} WORD<0-48>

Parameter

email_1	Set SMTP email 1 address	WORD<0-48>
email_2	Set SMTP email 2 address	
email_3	Set SMTP email 3 address	
email_4	Set SMTP email 4 address	
email_5	Set SMTP email 5 address	
email_6	Set SMTP email 6 address	
mail-server	Set SMTP mail server address	
password	Set SMTP password	
return-path	Set SMTP return address	
sender	Set SMTP sender address	
username	Set SMTP user name	
class	SMTP event class setting	
	auth-failed	Set SMTP authentication failure event
	cold-start	Set SMTP bootup cold start-up event
	di	Set SMTP DI event
	do	Set SMTP DO event
	linkUpDown	Set SMTP link up and down event
	poe-Fail	Set SMTP PoE failure event
	poe-OnOff	Set SMTP PoE on/off event
	warm-start	Set SMTP bootup warm start-up event

Example

```
0E-8PRTMAN(config)# smtp class auth-failed
0E-8PRTMAN(config)#
```

4-1.29 snmp

SNMP server's configuration.

Syntax

snmp

snmp community <community_string> (address[group|ro|rw])

snmp engineid ENGINEID

snmp engineid default

snmp engineid remote {<A.B.C.D>|<HOSTNAME>|<X::X:X>}

snmp group NAME version (1|2c|3) noauth read-view NAME write-view NAME

snmp host {<ipv4_addr>|<hostname>|<ipv6_addr>}

snmp trap (auth-failed|cold-start|di|do|linkUpDown|poe-Fail|poe-OnOff|warm-start)

snmp user USER_NAME group GROUP_NAME auth (md5|sha) AUTHPASSWD priv (aes|des) PRIVPASSWD
(ro|rw)

snmp view VIEW_NAME subtree Subtree_OID viewtype (excluded|included)

Parameter

community	Set community or security name string		
	<community_string>	Community name (maximum length is 20 characters)	
		ro	Set community access read_only
		rw	Set community access read_write
host	Trap or inform host		
engineid	SNMP engine id setting		
group	Set access group string		
user	Set user Settings		
view	Set view string		
trap	SNMP class trap setting		
	auth	Set snmp authentication failure trap	
	cold-start	Set snmp bootup cold start-up trap	
	linkUpDown	Set snmp link up and down trap	
	warm-start	Set snmp bootup warm start-up trap	
	di	Set SNMP DI event trap	
	do	Set SNMP DO event trap	
	poe-Fail	Set SNMP PoE Failure event trap	
poe-OnOff	Set SNMP PoE On/Off event trap		

Example

```

0E-8PRTMAN(config)# snmp
0E-8PRTMAN(config)# snmp community private rw
0E-8PRTMAN(config)#

```

4-1.30 spanning-tree

Spanning Tree protocol.

Table : configure –spanning-tree Commands

Command	Function
mst configuration	Enter MST configuration submode

Syntax

spanning-tree

spanning-tree bpdu (filtering|flooding)

spanning-tree forward-delay <4-30>

spanning-tree hello-time <1-10>

spanning-tree max-hops <1-40>

spanning-tree maximum-age <6-40>

spanning-tree mode (stp|rstp|mstp)

spanning-tree mst <0-15> priority <0-61440>

spanning-tree pathcost method (long|short)

spanning-tree priority <0-61440>

spanning-tree tx-hold-count <1-10>

Parameter

bpdu Configure default bpdu action.

filtering BPDU packets are filtered on STP-disable ports.

flooding BPDU packets are flooding to all ports when STP-disable.

forward-delay	Configure forward-delay parameter.
<4-30>	Forward-delay time in seconds.
hello-time	Configure hello-time parameter.
<1-10>	Configure hello time in seconds.
max-hops	Configure MSTP bridge max hop count.
<1-40>	Configure maximum number of hops.
maximum-age	Configure the age time for receiving control packet from root switch.
<6-40>	Age time of control packet from root switch.
mode	Spanning tree protocol type
mst	MSTP bridge instance
<0-15>	MST instance ID , 0 is for CIST (0..15)
priority	Priority of the instance
spanning-tree	Enable spanning-tree protocol.
tx-hold-count	Configure tx-hold-count in seconds.
<1-10>	Tx-hold counts.

Example

```
0E-8PRTMAN(config)# spanning-tree mode stp
0E-8PRTMAN(config)#
```

4-1.30.1 mst configuration

STP bridge instance configuration submenu.

Syntax

spanning-tree mst configuration

instance <0-15> vlan <vlan_list>

name <word32>

revision <0-65535>

Parameter

mst configuration	Enter MST configuration submode.
Instance	Sets spanning-tree parameters of instances.
<0-15>	MST instance ID , 0 is for CIST (0..15)
vlan	Add the MSTI-to-VLAN mapping.
<vlan_list>	List of VLAN numbers, 1~4094.
name	Name keyword
<word32>	Name of the bridge (word32)
revision	Set revision level.
<0-65535>	Revision level (0..65535)

Example

```
0E-8PRTMAN(config)# spanning-tree mst 7 vlan 10
0E-8PRTMAN(config)#
```

4-1.31 system

Set the system information configuration.

Syntax

system contact <word255>

system location <word255>

system name <word32>

Parameter

contact	Set host contact	
	<word255>	contact string (word255)
location	Set host location	
	<word255>	location string (word255)

name	Set host name	
	<word32>	name string (word32)

Example

```
0E-8PRTMAN(config)# system contact "Contact here"
0E-8PRTMAN(config)#
```

4-1.32 username

Enable telnet server.

Syntax

```
username WORD<0-32> {<encrypted>|<password>} <PASSWORD>
```

Example

```
0E-8PRTMAN(config)# username "user_1" password "pwd_1"
0E-8PRTMAN(config)#
```

4-1.33 vlan

VLAN configuration.

Syntax

```
vlan <vlan_list>
```

Parameter

<vlan_list>	VLAN List (e.g. 3,6-8): The range of VLAN ID is 1 to 4094
--------------------------	---

Example

Chapter 5 COPY Commands of CLI

Copy from source to destination.

Syntax

copy backup-config {<running-config>|<startup-config>|<tftp://server/path-to-file>}

copy flash:image {<flash:image>|<tftp://server/path-to-file>}

copy running-config {< backup-config>|<startup-config>|<tftp://server/path-to-file>}

copy startup-config {<running-config>|<backup-config>|<tftp://server/path-to-file>}

copy tftp://server/path-to-file {<backup-config>|<flash:image>|<running-config>|<startup-config>|<tftp://server/path-to-file>}

Parameter

backup-config	Backup configuration.
flash:image	Copy from flash: file system
running-config	Running configuration
startup-config	Startup configuration
tftp://server/path-to-file	Copy from tftp: file system

Example

```
0E-8PRTMAN# copy tftp://192.168.137.100/vmlinux.bix flash://image
Downloading file. Please wait...
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
Correct FW[0E-8PRTMAN_v1.2.3.7] for model[0E-8PRTMAN]
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
Upgrade firmware success. Do you want to reboot now? (y/n)y
```

Chapter 6 DEBUG of CLI

Table : DEBUG Commands

Command	Function
acl	acl
igmp	igmp
l2	l2
lag	lag
lldp	lldp
platform	platform
power	power-over-ethernet configuration
psecure	port security
spanning-tree	spanning-tree configuration
time	time
vlan	vlan

Chapter 7 DELETE Commands of CLI

Delete a file from the flash file system.

Syntax

delete {<backup-config>|<flash:image>|<startup-config>|<system>}

Parameter

backup-config	Backup configuration.	
flash:image	Delete a file from the flash file system	
startup-config	Startup configuration	
system	Run time firmware image	
	image0	Runtime image 0
	image1	Runtime image 1

Example

```
0E-8PRTMAN# delete flash://startup-config
Delete flash://startup-config [y/n] y
*Dec 04 2020 11:10:35: %SYSTEM-5: System restore to default
Do you want to reload the system to take effect? [y/n]
```

Chapter 8 DISABLE of CLI

Turn off privileged mode command.

Syntax

disable

Example

```
0E-8PRTMAN# disable
```

Chapter 9 END of CLI

End current mode and change to enable mode.

Syntax

```
end
```

Example

```
0E-8PRTMAN# end
```

Chapter 10 EXIT of CLI

Exit current mode and back to previous mode.

Syntax

`exit`

Parameter

Example

```
0E-8PRTMAN# exit
```


Chapter 11 NO of CLI

Turn off debug mode.

Syntax

no debug {<acl>|<igmp>|<l2>|<lag>|<lldp>|<platform>|<power>|<psecure>|<spanning-tree>|<time>|<vlan>}

Parameter

Table : DEBUG Commands

Command	Function
acl	acl
igmp	igmp
l2	l2
lag	lag
lldp	lldp
platform	platform
psecure	port security
spanning-tree	spanning-tree configuration
time	time
vlan	vlan

Example

```
0E-8PRTMAN# no debug l2
```

Chapter 12 PING Commands of CLI

Send ICMP ECHO_REQUEST to network hosts

Syntax

```
ping {<ipv4_addr>|<HOSTNAME>|<ipv6_addr>} {<cr>|<count>} <1-65535>
```

Parameter

<ipv4_addr>	Valid ipv4 address.
HOSTNAME	Host name
<ipv6_addr>	Valid ipv6 address.

Example

```
0E-8PRTMAN# ping 1.1.1.1 count 2
PING 1.1.1.1 (1.1.1.1): 56 data bytes
64 bytes from 1.1.1.1: icmp_seq=0 ttl=54 time=20.0 ms
64 bytes from 1.1.1.1: icmp_seq=1 ttl=54 time=10.0 ms

--- 1.1.1.1 ping statistics ---
2 packets transmitted, 2 packets received, 0% packet loss
round-trip min/avg/max = 10.0/15.0/20.0 ms
0E-8PRTMAN#
```

Chapter 13 REBOOT Commands of CLI

Halt and perform a warm restart.

Syntax

```
reboot
```

Example

```
0E-8PRTMAN# reboot
```

```
*Dec 04 2020 14:11:15: %SYSTEM-4: System reboot
```

Chapter 14 RESTORE-DEFAULTS Commands of CLI

Restore to default.

Syntax

restore-defaults

restore-defaults keep ip

Parameter

keep	Keep configuration options	
	ip	IP Configuration

Example

```
0E-8PRTMAN# restore-defaults
```

```
*Dec 04 2020 14:12:25: %SYSTEM-5: System restore to default
```

```
System: restore factory defaults. Do you want to reboot now? (y/n)y
```

```
Rebooting now...
```

Chapter 15 SAVE of CLI

Save running configuration to flash.

Syntax

save

Example

```
0E-8PRTMAN# save
```

Chapter 16 Show Commands of CLI

Table : SHOW Commands

Command	Function
backup-config	Backup configuration
bootvar	Show boot attributes
cable-diag	Cable Diagnostics
clock	Display the time and date from the system clock
cpu	Displays information about the system CPU utilization
custom	Custom Module configuration
debugging	Debugging information
dos	DoS information
errdisable	Error Disable
fiber-transceiver	Fiber ports diagnostics
flash	Flash Operations
history	List the last several history commands
info	Basic information
interfaces	Interface status and configuration
ip	IP information
ipv6	IPv6 information
lACP	LACP Configuration
lag	Link Aggregation Group Configuration
line	To identify a specific line for configuration
lldp	LLDP information
logging	Log Configuration
loop-prevention	Loop-prevention configuration
mac	MAC configuration
management-vlan	Management VLAN configuration
memory	Memory statistics
mirror	Mirror configuration
ntp	Simple Network Time Protocol (NTP) information
port-security	Port Security
power	Power-over-Ethernet Configuration
qos	QoS configuration

running-config	Running configuration
smtp	SMTP information
snmp	SNMP information
spanning-tree	Show spanning tree information
startup-config	Startup configuration
storm-control	Storm control configuration
username	Local User
users	Display information about users
version	System hardware and software status
vlan	VLAN configuration

16-1 backup-config

Backup configuration

Syntax

```
show backup-config
```

Example

```
0E-8PRTMAN# show backup-config
```

16-2 bootvar

Boot attributes.

Syntax

```
show bootvar
```

Example

```
0E-8PRTMAN# show bootvar
```

Image	Version	Date	Status	File Name
0	0E-8PRTMAN_v2.0.1.3_vk	2022-01-11 13:52:13	Active*	
1	0E-8PRTMAN_v2.0.1.3_vk	2022-01-11 13:52:13	Not active	

"*" designates that the image was selected for the next boot

```
0E-8PRTMAN#
```

16-3 cable-diag

Cable Diagnostics.

Syntax

```
show cable-diag interfaces GigabitEthernet <port_list>
```

Parameter

interfaces	Interface status and configuration		
	GigabitEthernet	Gigabit ethernet interface to configure	
		<port_list>	Port List X-Y,Z

Example

```
0E-8PRTMAN# show cable-diag interfaces GigabitEthernet 1
```

Port	Speed	Local pair	Pair length	Pair status
gi1	auto	Pair A	0.52	Open
		Pair B	0.50	Open
		Pair C	0.51	Open
		Pair D	0.51	Open

```
0E-8PRTMAN#
```


16-4 clock

The time and date from the system clock.

Syntax

```
show clock [<cr>|<detail>]
```

Parameter

detail	Show timezone and summertime configuration
---------------	--

Example

```
0E-8PRTMAN# show clock
2022-01-01 08:35:52
Time set manually
0E-8PRTMAN# show clock detail
2022-01-01 08:35:59
Time set manually
Time zone:
Acronym is
Offset is UTC+8
0E-8PRTMAN#
```

16-5 cpu

CPU information.

Syntax

```
show cpu input rate
```

```
show cpu utilization
```

Parameter

input	Show rate of input frames to CPU.	
	rate	Show rate of input frames to CPU
utilization	Displays information about the system CPU utilization	

Example

```
0E-8PRTMAN# show cpu input rate
Input Rate to CPU is 0 pps
0E-8PRTMAN# show cpu utilization
CPU utilization
-----
Current: 53%
0E-8PRTMAN#
```

16-6 custom

Custom Module configuration.

Syntax

```
show custom enable
show custom enable interface GigabitEthernet <port_list>
show custom enable interface LAG <lag_list>
```

Parameter

interfaces	Interface status and configuration		
	GigabitEthernet	Gigabit ethernet interface to configure	
		<port_list>	Port List X-Y,Z
	LAG	IEEE 802.3 Link Aggregation interface	
<lag_list>		LAG List X-Y,Z	

Example

```
0E-8PRTMAN# show custom enable interfaces GigabitEthernet 3,6-8
```

```
Port | Status
-----+-----
    gi3 | disabled
    gi6 | disabled
    gi7 | disabled
    gi8 | disabled
0E-8PRTMAN#
```

16-7 debugging

Debugging information.

Syntax

```
show debugging
```

Example

```
0E-8PRTMAN# show debugging
0E-8PRTMAN#
```

16-8 dos

DoS information.

Syntax

```
show dos
```

```
show dos interface GigabitEthernet <port_list>
```

```
show dos interface LAG <lag_list>
```

Parameter

interfaces	Interface status and configuration		
	GigabitEthernet	Gigabit ethernet interface to configure	
		<port_list>	Port List X-Y,Z
	LAG	IEEE 802.3 Link Aggregation interface	
		<lag_list>	LAG List X-Y,Z

Example

0E-8PRTMAN# show dos

```

Type                               | State (Length)
-----+-----
DMAC equal to SMAC                 | enabled
Land (DIP = SIP)                   | enabled
UDP Blat (DPORT = SPORT)          | enabled
TCP Blat (DPORT = SPORT)           | enabled
POD (Ping of Death)                | enabled
IPv6 Min Fragment Size              | enabled (1240 Bytes)
ICMP Fragment Packets              | enabled
IPv4 Ping Max Packet Size          | enabled (512 Bytes)
IPv6 Ping Max Packet Size          | enabled (512 Bytes)
Smurf Attack                        | enabled (Netmask Length: 0)
TCP Min Header Length               | enabled (20 Bytes)
TCP Syn (SPORT < 1024)             | enabled
Null Scan Attack                   | enabled
X-Mas Scan Attack                  | enabled
TCP SYN-FIN Attack                 | enabled
TCP SYN-RST Attack                 | enabled
TCP Fragment (Offset = 1)         | enabled
0E-8PRTMAN#

```

16-9 errdisable

Error Disable.

Syntax

show errdisable recovery

Example

```
0E-8PRTMAN# show errdisable recovery
```

```
ErrDisable Reason      | Timer Status
```

```
-----+-----
```

```
    bpduguard | disabled
```

```
    selfloop  | disabled
```

```
 broadcast-flood | disabled
```

```
 unknown-multicast-flood | disabled
```

```
  unicast-flood | disabled
```

```
    acl | disabled
```

```
 psecure-violation | disabled
```

```
 dhcp-rate-limit | disabled
```

```
 arp-inspection | disabled
```

```
Timer Interval : 300 seconds
```

```
Interfaces that will be enabled at the next timeout:
```

```
Port | Error Disable Reason | Time Left
```

```
----+-----+-----
```

```
0E-8PRTMAN#
```

16-10 fiber-transceiver

Fiber ports diagnostics.

Syntax

```
show fiber-transceiver interfaces GigabitEthernet <port_list>
```

Parameter

interfaces	Interface status and configuration		
	GigabitEthernet	Gigabit ethernet interface to configure	
		<port_list>	Port List X-Y,Z

Example

```
0E-8PRTMAN# show fiber-transceiver interfaces GigabitEthernet 1-5
```

Port	Temperature	Voltage	Current	Output power	Input power	OE-Present	LOS
	[C]	[Volt]	[mA]	[mWatt]	[mWatt]		

```
=====
```

```
gi1 |
gi2 |
gi3 |
gi4 |
gi5 |
```

Temp - Internally measured transceiver temperature

Voltage - Internally measured supply voltage

Current - Measured TX bias current

Output Power - Measured TX output power in milliWatts

Input Power - Measured RX received power in milliWatts

OE-Present - SFP Present or Not Present

LOS - Loss of signal

N/A - Not Available, N/S - Not Supported, W - Warning, E - Error

```
0E-8PRTMAN#
```

16-11 flash

Flash Operations.

Syntax

```
show flash
```

Example

```
0E-8PRTMAN# show flash
```

File Name	File Size	Modified
-----	-----	-----
startup-config	948	2022-01-01 00:08:49
ssl_cert	1277	2022-01-01 00:00:59
image0 (active)	10448078	2022-01-11 13:52:13
image1 (backup)	10448078	2022-01-11 13:52:13

```
0E-8PRTMAN#
```

16-12 history

Show CLI command history.

Syntax

```
show history
```

Example

```
0E-8PRTMAN# show history
```

```
Maximun History Count: 128
```

```
-----  
1. conf
```

```
0E-8PRTMAN#
```

16-13 info

Basic information.

Syntax

```
show info
```

Example

```

0E-8PRTMAN# show info
System Name      : 0E-8PRTMAN
System Location  :
System Contact   :
MAC Address      : 68:8D:B6:01:02:03
IP Address       : 192.168.11.59
Subnet Mask      : 255.255.255.0
Loader Version   : 2.0.0.1
Loader Date      : Sep 27 2022 - 14:14:01
Firmware Version : 2.03.04
Firmware Date    : Jan 10 2023 - 03:46:30
System Object ID : 1.3.6.1.4.1.58360.100.10
System Up Time   : 0 days, 2 hours, 5 mins, 50 secs
0E-8PRTMAN#

```

16-14 interface

Interface status and configuration.

Syntax

```
show interfaces GigabitEthernet <port_list> {<cr>|<protected>|<status>}
```

```
show interfaces LAG <lag_list> {<cr>|<protected>|<status>}
```

```
show interfaces switchport GigabitEthernet <port_list>
```

```
show interfaces switchport LAG <lag_list>
```

Parameter

interfaces	Interface status and configuration			
	GigabitEthernet	Gigabit ethernet interface to configure		
		<port_list>	Port List X-Y,Z	
			protected	Configure an interface to be a protected port
			status	Port status information
LAG	IEEE 802.3 Link Aggregation interface			

		<lag_list>	LAG List X-Y,Z		
			protected	Configure an interface to be a protected port	
			status	Port status information	
	switchport	Set switching mode characteristics			
		GigabitEthernet	Gigabit ethernet interface to configure		
			<port_list>	Port List X-Y,Z	
		LAG	IEEE 802.3 Link Aggregation interface		
	<lag_list>		LAG List X-Y,Z		

Example

```
0E-8PRTMAN# show interfaces GigabitEthernet 2-3 status
```

```
Port Status Duplex Speed Type
gi2 notconnect auto auto Copper
gi3 notconnect auto auto Copper
```

```
0E-8PRTMAN#
```

16-15 ip

Internet Protocol.

Syntax

```
show ip
```

```
show ip dhcp {<cr>|<server>}
```

```
show ip http
```

```
show ip https
```

```
show ip igmp filter
```

```
show ip igmp filter interfaces GigabitEthernet <port_list>
```

```
show ip igmp filter interfaces LAG <lag_list>
```

```
show ip igmp max-group
```

```
show ip igmp max-group action {<cr>|interfaces GigabitEthernet <port_list>|interfaces LAG <lag_list>}
```

show ip igmp max-group interfaces GigabitEthernet <port_list>

show ip igmp max-group interfaces LAG <lag_list>

show ip igmp profile {<cr>|<1-128>}

show ip igmp snooping {<cr>|<forward-all>|<groups>|<querier>|<router>|<vlan>}

Parameter

dhcp	DHCP information		
	server	DHCP Server	
http	HTTP server configuration		
https	HTTPS server configuration		
igmp	Interface status and configuration		
	filter	IGMP port filter	
	max-group	IGMP port group limit num	
	profile	IGMP profile configuration	
	snooping	IGMP Snooping Configuration	
		<forward-all>	IPv4 forward all
		<groups>	IPv4 multicast groups
		<querier>	Querier information
		<router>	IPv4 multicast routers
<vlan>		VLAN configuration	

Example

```
0E-8PRTMAN# show ip dhcp server
DHCP Server State : disabled
Start IPv4 Address: 0.0.0.0
End   IPv4 Address: 0.0.0.0
Client Lease Time : 86400 seconds
0E-8PRTMAN#
```

16-16 ipv6

IPv6 configuration commands.

Syntax

```
show ipv6
```

Example

```
0E-8PRTMAN# show ipv6
##### Config #####
    State: enabled
    Auto Config: enabled
    DHCPv6: disabled
    Gateway: ::

##### Status #####
    IP Address: fe80::6a8d:b6ff:fe00:0/64
    Default Gateway: ::
0E-8PRTMAN#
```

16-17 lacp

Lacp configuration.

Syntax

```
show lacp
```

Example

```
0E-8PRTMAN# show lacp
```

```
Status: C - current, E - expired, D - defaulted
```

```
      a - attached, d - detached
```

```
State: A - activity, T - timeout(fast), G - aggregation
```

```
      S - synchronized, C - collecting, D - distributing
```

```
      F - defaulted, E - expired
```

```
LAG Port  Status      Sys ID      Port ID Sys Pri Port Pri Key      State
```

```
-----
```

```
0E-8PRTMAN#
```

16-18 lag

Link Aggregation Group Configuration.

Syntax

```
show lag
```

Example

```
0E-8PRTMAN# show lag
```

```
Load Balancing: src-dst-mac.
```

```
Group ID | Type | Ports
```

```
-----+-----+-----
```

```
1      | ---- |
```

```
2      | ---- |
```

```
3      | ---- |
```

```
4      | ---- |
```

```
5      | ---- |
```

```
6      | ---- |
```

```
7      | ---- |
```

```
8      | ---- |
```

```
0E-8PRTMAN#
```

16-19 line

A specific line for configuration.

Syntax

```
show line {<cr>|<console>|<ssh>|<telnet>}
```

Parameter

console	Access CLI from console
ssh	Access CLI from ssh
telnet	Access CLI from telnet

Example

```
0E-8PRTMAN# show line
Console =====
  Session Timeout : 10 (minutes)
  History Count   : 128
  Password Retry  : 3
  Silent Time     : 0 (seconds)
Telnet =====
  Telnet Server   : disabled (23)
  Session Timeout : 10 (minutes)
  History Count   : 128
  Password Retry  : 3
  Silent Time     : 0 (seconds)
SSH =====
  SSH Server      : disabled (22)
  Session Timeout : 0 (minutes)
  History Count   : 128
  Password Retry  : 0
  Silent Time     : 0 (seconds)
0E-8PRTMAN#
```

16-20 lldp

show lldp configuration.

Syntax

show lldp

show lldp interface GigabitEthernet <port_list>

show lldp interface GigabitEthernet <port_list> {<local-device>|<neighbor>|<statistics>|<tlvs-overloading>}

show lldp local-device

show lldp neighbor

show lldp statistics

Parameter

interfaces	Interface status and configuration			
	GigabitEthernet	Gigabit ethernet interface to configure		
		<port_list>	Port List X-Y,Z	
			local-device	LLDP information that is advertised from a specific port
			neighbor	Information about neighboring devices discovered using Link Layer Discovery Protocol
			statistics	LLDP Statistics information
tlvs-overloading	LLDP TLVs overloading information			
local-device	LLDP information that is advertised from a specific port			
neighbor	Information about neighboring devices discovered using Link Layer Discovery Protocol			
statistics	LLDP Statistics information			

Example

```
0E-8PRTMAN# show lldp neighbor
```

```
Port | Device ID | Port ID | SysName | Capabilities | TTL
---+-----+-----+-----+-----+---
gi8 | 00:68:8D:B6:51:04 | 6 | H51-044-90-250 | Bridge | 117
0E-8PRTMAN#
```

16-21 logging

Log Configuration.

Syntax

```
show logging
```

```
show logging {<buffered>|<file>|<event>}
```

Parameter

buffered	Buffered logging
file	File logging
event	Display syslog class of event enable or disable

Example

```
0E-8PRTMAN# show logging
```

```
Logging service is enabled
```

```
Console Logging: level notice
```

```
Buffer Logging : level notice
```

```
File Logging : disabled
```

```
Buffer Logging
```

```
-----
```

```
*Jan 01 2000 00:00:31: SYSTEM-5: New console connection for user admin, source async
```

```
ACCEPTED
```

```
*Jan 01 2000 00:00:26: PORT-5: Interface GigabitEthernet10 link up
```

```
*Jan 01 2000 00:00:15: PORT-5: Interface GigabitEthernet9 link up
```

```
*Jan 01 2000 00:00:13: SYSTEM-5: Cold startup
```

```
0E-8PRTMAN#
```

16-22 loop-prevention

Show loop prevention

Syntax

```
show loop-prevention
```

```
show loop-prevention interfaces GigabitEthernet <port_list>
```

```
show loop-prevention interfaces LAG <lag_list>
```

Parameter

interfaces	Interface status and configuration		
	GigabitEthernet	Gigabit ethernet interface to configure	
		<port_list>	Port List X-Y,Z
	LAG	IEEE 802.3 Link Aggregation interface	
<lag_list>		LAG List X-Y,Z	

Example

```
0E-8PRTMAN# show loop-prevention
Loop Prevention:                Disabled
Loop Prevention Tx Interval:    2
Loop Prevention Recovery Interval: 16
Loop Prevention switch_priority: 0x800000
Loop Prevention hop cnt max:    10
Loop Prevention is root:       Ture
Loop Prevention Root Port:     N/A

0E-8PRTMAN#
```

16-23 mac

Mac Address Table information.

Syntax

```
show mac address-table {<cr>|<aging-time>|<counters>|<dynamic>|<static>}
```

```
show mac address-table interface (GigabitEthernet <port_list> | LAG <lag_list>)
```

```
show mac address-table vlan <vlan_id>
```

```
show mac address-table vlan <vlan_id> interface (GigabitEthernet <port_list> | LAG <lag_list>)
```

Parameter

interfaces	Interface status and configuration		
	GigabitEthernet	Gigabit ethernet interface to configure	
		<port_list>	Port List X-Y,Z
	LAG	IEEE 802.3 Link Aggregation interface	
		<lag_list>	LAG List X-Y,Z

Example

```

0E-8PRTMAN# show mac address-table
VID | MAC Address      | Type          | Ports
-----+-----+-----+-----
  1 | 38:73:EA:A0:58:77 | Management    | CPU
  1 | 00:33:33:33:33:33 | Dynamic       | gi15
  1 | 94:C6:91:FA:13:05 | Dynamic       | gi11
  1 | F0:2F:74:0A:D8:CC | Dynamic       | gi11

```

Total number of entries: 4

0E-8PRTMAN#

16-24 management-vlan

Management VLAN configuration.

Syntax

```
show management-vlan
```

Example

```

0E-8PRTMAN# show management-vlan
  Management VLAN-ID : default(1)
0E-8PRTMAN#

```

16-25 memory

Memory statistics

Syntax

```
show memory statistics
```

Parameter

statistics	Memory statistics
-------------------	-------------------

Example

```
0E-8PRTMAN# show memory statistics
```

	total(KB)	used(KB)	free(KB)	shared(KB)	buffer(KB)	cache(KB)
Mem:	125836	43608	82228		0	0
-/+ buffers/cache:		43608	82228			
Swap:	0	0	0			

```
0E-8PRTMAN#
```

16-26 mirror

Show mirror configuration

Syntax

```
show mirror
```

```
show mirror session <1-4>
```

Example

```
0E-8PRTMAN# show mirror
```

Session 1 Configuration

```
Mirrored source : Not Config
```

```
Destination port : Not Config
```

Session 2 Configuration

```
Mirrored source : Not Config
```

```
Destination port : Not Config
```

Session 3 Configuration

```
Mirrored source : Not Config
```

```
Destination port : Not Config
```

Session 4 Configuration

```
Mirrored source : Not Config
```

```
Destination port : Not Config
```

```
0E-8PRTMAN#
```

16-27 ntp

Simple Network Time Protocol (NTP) information.

Syntax

```
show ntp
```

Example

```
0E-8PRTMAN# show ntp
```

```
NTP is Disabled
```

```
NTP Server address:
```

```
NTP Server port: 123
```

```
0E-8PRTMAN#
```

16-28 port-security

show port security.

Syntax

```
show port-security {<cr>|<address>|interface GigabitEthernet <port _list>}
```

Parameter

address	All port security related MAC addresses		
interfaces	Interface status and configuration		
	GigabitEthernet	Gigabit ethernet interface to configure	
	<port_list>	Port List X-Y,Z	

Example

```
0E-8PRTMAN# show port-security
Port Security: Disabled
Rate Limit: 100 pps
0E-8PRTMAN#
```

16-29 power

Power over Ethernet (PoE) configuration.

Syntax

```
show power inline
```

```
show power inline consumption
```

```
show power inline consumption interface GigabitEthernet <port_list>
```

```
show power inline interface GigabitEthernet <port_list>
```

Parameter

inline	Inline Power				
	consumption	Power consumption			
		interfaces	Interface status and configuration		
			GigabitEthernet	Gigabit ethernet interface to configure	
	<port_list>	Port List X-Y,Z			
	interfaces	Interface status and configuration			
GigabitEthernet		Gigabit ethernet interface to configure			
<port_list>		Port List X-Y,Z			

Example

```

0E-8PRTMAN# show power inline interfaces GigabitEthernet 1
Port State Status      Priority Class   Max.Power (Admin) Device
                                   (mW)
-----
gi1  Auto  searching high    class0  30000 (30000)   N/A

Port Overload      Short Current  Power Denied  MPS Absent  Invalid Sig.
-----
gi1  0          0              0              0              0
0E-8PRTMAN#

```

16-30 qos

Show Quality of Service configuration.

Syntax

show qos

show qos interface GigabitEthernet <port_list>

show qos interfaces LAG <lag_list>

show qos map {<cr>|<cos-queue>|<dscp-queue>|<precedence-queue>|

<queue-cos>|<queue-dscp>|<queue-precedence>}

show qos queueing

Parameter

interfaces	Interface status and configuration	
	GigabitEthernet	Gigabit ethernet interface to configure
		<port_list> Port List X-Y,Z
	LAG	IEEE 802.3 Link Aggregation interface
<lag_list> LAG List X-Y,Z		
map	Configure the QoS maps	
	cos-queue	CoS to Queue mapping
	dscp-queue	DSCP to Queue mapping
	precedence-queue	IP Precedence to Queue mapping
	queue-cos	Queue to CoS mapping
	queue-dscp	Queue to DSCP mapping
	queue-precedence	Queue to IP Precedence mapping
queueing	Display quality of service (QoS) queuing information	

Example

```
0E-8PRTMAN# show qos
QQoS Mode: basic
Basic trust: cos
0E-8PRTMAN#
```

16-31 running-config

Running configuration.

Syntax

```
show running-config
```

```
show running-config interface GigabitEthernet <port_list>
```

```
show running-config interface LAG <lag_list>
```

Example

```
0E-8PRTMAN# show running-config
SYSTEM CONFIG FILE ::= BEGIN
! System Description: ADI PoE SW 0E-8PRTMAN Switch
! System Version: v2.0.1.3_vk
! System Name: 0E-8PRTMAN
! System Up Time: 0 days, 5 hours, 40 mins, 32 secs
!
!
!
system name "0E-8PRTMAN"
ip address 192.168.11.199 mask 255.255.255.0
ip default-gateway 192.168.11.1
username "admin" encrypted password
MjEyMzJmMjk3YTU3YTVhNzQzODk0YTBINGE4MDFmYzM=
!
!
!
!
!
!
spanning-tree mst configuration
  name "38:73:EA:A0:58:77"
!
!
!
!
--More--
0E-8PRTMAN#
```

16-32 smtp

Display SMTP configurations.

Syntax

```
show smtp
```


show smtp event

Parameter

event	Display smtp class of event enable or disable
--------------	---

Example

```
0E-8PRTMAN# show smtp event
SMTP auth failed event : Enable
SMTP linkUpDown event : Enable
SMTP cold-start event : Enable
SMTP warm-start event : Enable
SMTP D/I event : Enable
SMTP D/O event : Enable
SMTP PoE PD On/Off event: Enable
SMTP PoE PD Fault event : Enable
0E-8PRTMAN#
```

16-33 snmp

Display SNMP configurations.

Syntax

show snmp

show snmp {<community>|<engineid>|<group>|<host>|<trap>|<user>|<view>}

Parameter

community	Display snmp class of trap enable or disable
engineid	Display snmp class of trap enable or disable
group	Display snmp class of trap enable or disable
host	Display snmp class of trap enable or disable
trap	Display snmp class of trap enable or disable
user	Display snmp class of trap enable or disable

view	Display snmp class of trap enable or disable
-------------	--

Example

```
0E-8PRTMAN# show snmp
```

```
SNMP is disabled.
```

```
Community Name      Access Right
```

```
-----
```

```
Total Community Entries: 0
```

```
Server              Community Name  Notification Version  Notification Type
```

```
-----
```

```
Total Trap Entries: 0
```

```
0E-8PRTMAN#
```

16-34 spanning-tree

Show spanning tree protocol configuration.

Syntax

```
show spanning-tree
```

```
show spanning-tree brief
```

```
show spanning-tree interface {GigabitEthernet <port_list> | LAG <lag_list>}
```

```
show spanning-tree interface {GigabitEthernet <port_list> | LAG <lag_list>} statistics
```

```
show spanning-tree mst <0-15>
```

```
show spanning-tree mst <0-15> interface {GigabitEthernet <port_list> | LAG <lag_list>}
```

```
show spanning-tree mst configuration
```

Parameter

brief	Displays spanning-tree brief information
interfaces	Interface status and configuration

	GigabitEthernet	Gigabit ethernet interface to configure			
		<port_list>	Port List X-Y,Z		
			statistics	Statistics for specified ports	
	LAG	IEEE 802.3 Link Aggregation interface			
<lag_list>		LAG List X-Y,Z			
		statistics	Statistics for specified ports		
mst	Multiple spanning trees				
	<0-15>	Instance ID (0~15)			
		interfaces	Interface status and configuration		
			GigabitEthernet	Gigabit ethernet interface to configure	
				<port_list>	Port List X-Y,Z
			LAG	IEEE 802.3 Link Aggregation interface	
				<lag_list>	LAG List X-Y,Z
configuration	MST current region configuration				

Example

```

0E-8PRTMAN# show spanning-tree
Spanning tree enabled mode MSTP
Default port cost method: long
Gathering information .....
##### MST 0 Vlans Mapped:
CST Root ID   Priority   32768
              Address    00:68:8d:b6:51:08
              This switch is root for CST and IST master
              Hello Time  2 sec   Max Age 20 sec   Forward Delay 15 sec
              Max hops   20
Name          State    Prio.Nbr  Cost    Sts    Role EdgePort    Type
-----
##### MST 1 Vlans Mapped: 1-4094
Root ID       Priority   32768
              Address    00:68:8d:b6:51:08
              This switch is the regional Root

Interfaces
Name          State    Prio.Nbr  Cost    Sts    Role EdgePort    Type
-----

```

```
gi7      enabled  128.7    20000    Frw  Desg  No      P2P Intr
gi8      enabled  128.8    20000    Blk  Bckp  No      P2P Intr
```

```
0E-8PRTMAN# show spanning-tree mst 1 interfaces GigabitEthernet 2
```

```
MST Port Information
```

```
=====
```

```
Instance Type : MSTI (1)
```

```
-----
```

```
Port Identifier : 128/2
```

```
Internal Path-Cost : 0      /20000
```

```
-----
```

```
Regional Root Bridge : 0/00:00:00:00:00:00
```

```
Internal Root Cost : 0
```

```
Designated Bridge : 0/00:00:00:00:00:00
```

```
Internal Port Path Cost : 20000
```

```
Port Role : Disabled
```

```
Port State : Disabled
```

```
-----
```

```
0E-8PRTMAN#
```

16-35 startup-config

Startup configuration.

Syntax

```
show startup-config
```

Example

```
0E-8PRTMAN# show startup-config
SYSTEM CONFIG FILE ::= BEGIN
! System Description: ADI PoE SW 0E-8PRTMAN Switch
! System Version: v2.03.04cu
! System Name: 0E-8PRTMAN
! System Up Time: 0 days, 0 hours, 1 mins, 54 secs
```

```

!
!
!
system name "0E-8PRTMAN"
ip address 192.168.11.59 mask 255.255.255.0
ip default-gateway 192.168.11.254
ip dhcp server lease-time 0
username "admin" encrypted password OGM5NzY3N2U3Y2YyNWMwNzVkNWewZjhjOTA3ZGFhY2E=
!
!
!
!
!
!
power inline force-mode disable
spanning-tree mst configuration
  name "38:73:EA:A0:58:77"
!
!
!
--More--
0E-8PRTMAN#

```

16-36 storm-control

show storm-control configuration.

Syntax

show storm-control

show storm-control interfaces GigabitEthernet <port_list>

Parameter

interfaces	Interface status and configuration		
	GigabitEthernet	Gigabit ethernet interface to configure	
		<port_list>	Port List X-Y,Z

Example

0E-8PRTMAN# show storm-control interfaces GigabitEthernet 1-5

Port	State	Broadcast	Unkown-Multicast	Unknown-Unicast	Action
		kbps	kbps	kbps	
gi1	disable	Off(10000)	Off(10000)	Off(10000)	Drop
gi2	disable	Off(10000)	Off(10000)	Off(10000)	Drop
gi3	disable	Off(10000)	Off(10000)	Off(10000)	Drop
gi4	disable	Off(10000)	Off(10000)	Off(10000)	Drop
gi5	disable	Off(10000)	Off(10000)	Off(10000)	Drop

0E-8PRTMAN#

16-37 username

Local user information.

Syntax

show username

Example

0E-8PRTMAN# show username

Priv	Type	User Name	Password
admin	secret	admin	MjEyMzJmMjk3YTU3YTVhNzQzODk0YTBINGE4MDFmYzM=

0E-8PRTMAN#

16-38 users

Information about users.

Syntax

show users

Example

```
0E-8PRTMAN# show users
  Username      Protocol      Location
-----
      admin      console      0.0.0.0
0E-8PRTMAN#
```

16-39 version

System hardware and software status.

Syntax

show version

Example

```
0E-8PRTMAN# show version
Loader Version   : 2.0.0.1
Loader Date      : Sep 27 2022 - 14:14:01
Firmware Version : 2.03.04
Firmware Date    : Jan 10 2023 - 03:46:30
0E-8PRTMAN#
```

16-40 vlan

VLAN information.

Syntax

show vlan

show vlan <VLAN-LIST>

show vlan <VLAN-LIST> interfaces GigabitEthernet <port_list> membership

show vlan <VLAN-LIST> interfaces LAG <lag_list> membership

show vlan dynamic

show vlan static

Parameter

interfaces	Interface status and configuration		
	GigabitEthernet	Gigabit ethernet interface to configure	
		<port_list>	Port List X-Y,Z
	LAG	IEEE 802.3 Link Aggregation interface	
<lag_list>		LAG List X-Y,Z	
dynamic	Display dynamic entries		
static	Display static entries		

Example

```
0E-8PRTMAN# show vlan
```

```
  VID | VLAN Name |  Untagged Ports | Tagged Ports | Type
-----+-----+-----+-----+-----
    1 | default |  gi1-28,lag1-8 |           | --- | Default
0E-8PRTMAN#
```


Chapter 17 SSL of CLI

Setup SSL host keys.

Syntax

ssl

Parameter

Example

```
0E-8PRTMAN# ssl
Generating a RSA private key
.....+++++
.....+++++
writing new private key to '/mnt/ssh/ssl_key.pem_tmp'
-----
0E-8PRTMAN#
```

Chapter 18 TERMINAL Commands of CLI

Terminal configuration.

Syntax

terminal length <0-24>

Parameter

length	Terminal length	
	<0-24>	Length value. 0 means no limit

Example

0E-8PRTMAN# terminal length 24

Chapter 19 TRACEROUTE of CLI

Trace route to network hosts.

Syntax

traceroute <hostname>

traceroute <hostname> max_hop <2-255>

Parameter

hostname	The IP address or hostname address to trace		
	max_hop	The number of maximum hop.(Default:30)	
	<2-255>	Maximum hop range	

Example

```
0E-8PRTMAN# traceroute 1.1.1.1 max_hop 2
traceroute to 1.1.1.1 (1.1.1.1), 2 hops max, 38 byte packets
 1 192.168.11.1 (192.168.11.1) 0.000 ms 0.000 ms 0.000 ms
 2 10.135.91.1 (10.135.91.1) 0.000 ms 0.000 ms 0.000 ms
0E-8PRTMAN#
```