Quick Start Guide

OSD2512

MANAGED 12 x 10/100/1000BASE-T (RJ45)

AND 2 x 1G (SFP) ETHERNET SWITCH

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1 INTRODUCTION

Thank you for choosing the OSD2512 14-Port Gigabit Managed Ethernet Switch. This Quick Start Guide is designed to guide you through the installation and basic software function.

2 INSTALLATION

ELECTROMAGNETIC COMPATIBILITY

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

OPTICAL OUTPUT OPERATION

WARNING: Laser Safety: Class 1 Laser Product (SFP) per IEC 60825-1:2014 standard.

Class 1
The OSD2512 is a Class 1 laser product.
CLASS 1 LASER PRODUCT

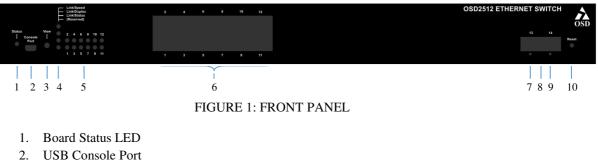
PRECAUTIONS

- ▲ All service personnel should be provided training as to the hazards of direct viewing of laser radiation and of the precautionary measures during servicing of equipment
- ▲ Areas where laser products are installed should be restricted in access to trained service personnel only and appropriate warning signs posted in the work area.
- ▲ All laser apertures should be covered by protective covers when not connected to optical fibers. Never leave outputs uncovered.
- ▲ Laser equipment should be positioned above or below eye level where possible. Apertures should be positioned away from personnel.
- ▲ Protective eyewear should be worn in the vicinity of laser equipment.

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3 OSD2512 FRONT AND REAR PANELS

3.1 FRONT PANEL



- 3. View LED Mode Button
- 4. View Mode LEDs Indicators
- 5. Copper Port Status LEDs
- 6. RJ45 Copper Ports
- 7. SFP Fiber LED
- 8. SFP Fiber Ports
- 9. SFP Fiber LED
- 10. Reset Button

3.2 REAR PANEL



- 12. Power 1 LED
- 13. Dual Redundant Power Input
- 14. Power 2 LED

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4 Power Supply Connections

Connect the dual redundant power to the 4-way terminal block located on the rear of the unit. The OSD2512 requires external +10 to $+36V_{DC}$ @ 40VA Max power.





TABLE 1: DC POWER CONNECTION

External Power Pin	Specification
Pin 1, Pin 3	0V (Ground Isolated)
Pin 2, Pin 4	+10 to +36V _{DC} @ 40VA max

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5 LED Indicators

	Function							
Board Status LED	Green – Normal status							
	Red Blinking – Internal Warning							
View Mode LED	Controlled by View LED Mode Button. Pressing the Mode button cycles							
Indicators	the Copper Port Status LED indication.							
Connor Dort	Speed Mode \rightarrow Duplex Mode \rightarrow Status Mode \rightarrow Reserved \rightarrow .							
Copper Port Status LED	The Copper Port Status LED will indicate different information. Speed Mode:							
	• Green – 1Gbps							
	• Yellow – 100MBps							
	Off – No Connection							
	Blinking - Traffic							
	Duplex Mode:							
	• Green – Full Duplex							
	Yellow – Half Duplex							
	Off – No Connection							
	Blinking - Traffic							
	Status Mode:							
	Green – Connection good							
	Off – No Connection							
Fiber Port Status LED	• Green – 1Gbps							
	Off – No Connection							
	Blinking - Traffic							

TABLE 2: LED FUNCTION

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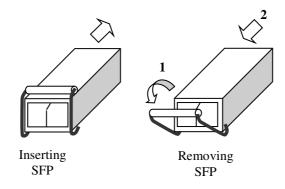
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6 Fitting SFP Connectors

Care should be taken when inserting/removing the SFP connectors from the SFP port as SFP modules are Electrostatic (ES) sensitive and Electrostatic Discharge (ESD) precautions should be taken when installing. Ensure that the SFP is fully engaged and latched into position.

Inserting SFP – Ensure that the SFP lever is in the locked position and insert into appropriate SFP port. Gently push the SFP until it locks into place. Remove plastic/rubber dust cap and fit appropriate fiber cable.

Removing SFP – Remove fiber connector. Pull the SFP lever down to unlock SFP from housing. Using the lever, gently pull the SFP out.



Fiber SFP

FIGURE 4: FITTING/REMOVING SFP CONNECTORS

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7 CLI OVERVIEW

7.1 CONNECT TO CLI

The Silicon Laboratories CP210x VCP Drivers is needed to be installed on the PC before connecting the switch.

Open File - Security Warning The publisher could not be verified. Are you sure you want to run this software? Image: CP210x_VCP_Win_XP_S2K3_Vista_7.exe Publisher: Unknown Publisher Type: Application From: C:\Allan\Products\2244 Run Cancel Always ask before opening this file Image: You should only run software from publishers you trust. How can I decide what software to run?	Silicon Laboratories CP210x VCP Drivers for Windows XP/2003 Server/Vi Welcome to the InstallShield Wizard for Silicon Laboratories CP210x VCP Drivers for Windows XP/2003 Server/Vista/7 v6.1.00 The InstallShield Wizard will copy Silicon Laboratories CP210k VCP Drivers for Windows XP/2003 Server/Vista/7 v6.1.00 onto your computer. To continue, click Next.
Silicon Laboratories CP210x VCP Drivers for Windows XP/2003 Server/Vi Choose Destination Location Select folder where setup will install files. Setup will install Silicon Laboratories CP210x VCP Drivers for Windows XP/2003 Server/Vista/7 v6.1.00 in the following folder. To install to this folder, click Next. To install to a different folder, click Browse and select another folder. Destination Folder c:\MCU\CP210x\Windows_XP_S2K3_Vista_7 Browse InstallShield Cancel	Silicon Laboratories CP210x VCP Drivers for Windows XP/2003 Server/Vi License Agreement Please read the following license agreement carefully. END-USER LICENSE AGREEMENT IMPORTANT: READ CAREFULLY BEFORE AGREEINS TO TERMS SILICON LABORATORIES INC., SILICON LABORATORIES INTERNATIONAL PTE. LTD., AND THEIR AFFILIATES (COLLECTIVELY, "SILICON LABORATORIES INTERNATIONAL PTE. LTD., AND THEIR AFFILIATES (COLLECTIVELY, "SILICON LABORATORIES INTERNATIONAL PTE. LTD., AND THEIR AFFILIATES (COLLECTIVELY, "SILICON LABORATORIES INTERNATIONAL PTE. LTD., AND THEIR AFFILIATES (COLLECTIVELY, "SILICON LABORATORIES INTERNATIONAL PTE. LTD., AND THEIR AFFILIATES (COLLECTIVELY, "SILICON LABORATORIES INTERNATIONAL PTE. LTD., AND THEIR AFFILIATES (COLLECTIVELY, "SILICON LABORATORIES INTERNATIONAL PTE. LTD., AND THEIR AFFILIATES (COLLECTIVELY, "SILICON LABORATORIES INTERNATIONAL PTE. LTD., AND THEIR AFFILIATES (COLLECTIVELY, "SILICON LABORATORIES INTERNATIONAL PTE. THE DEVELOPE OF CERTAIN MATERIALS, IC. DEVELOPMENT TOOLS, EXAMPLE CODE, EMBEDDABLE CODE, DLL, SOFTWARE/COMPUTER PROGRAMS AND OTHER THE LICENSED MATERIALS, IS SUBJECT TO THIS END-USER LICENSE I accept the terms of the license agreement I do not accept the terms of the license agreement InstallShield Cancel
Silicon Laboratories CP210x VCP Drivers for Windows XP/2003 Server/Vi Choose Destination Location Select folder where setup will install files. Setup will install Silicon Laboratories CP210x VCP Drivers for Windows XP/2003 Setup will install Silicon Laboratories CP210x VCP Drivers for Windows XP/2003 Setup will install Silicon Laboratories CP210x VCP Drivers for Windows XP/2003 Setup will install Silicon Laboratories CP210x VCP Drivers for Windows XP/2003 Setup will install Solicon Laboratories CP210x VCP Drivers for Windows XP/2003 Setup will install Solicon Laboratories CP210x VCP Drivers for Windows XP/2003 Setup will install Solicon Laboratories CP210x VCP Drivers for Windows XP/2003 Setup will install Solicon Laboratories CP210x VCP Drivers for Windows XP/2003 Setup will install to this folder, click Next. To install to a different folder, click Browse and select another folder. Destination Folder et MCHVP210e/Windows XP S2K3 Vieta 7	Silicon Laboratories CP210x VCP Drivers for Windows XP/2003 Server/Vista/ Silicon Laboratories CP210x VCP Drivers for Windows XP/2003 Server/Vista/ InstallShield Wizard has successfully copied the Silicon Laboratories CP210x VCP Drivers for Windows XP/2003 Server/Vista/7 v6.1.00 to your hard drive. The driver installer listed below should be executed in order to install drivers or update an existing driver. Image: Windows VCP Driver Installer. Click Finish to complete the Silicon Laboratories CP210x VCP Drivers for Windows XP/2003 Server/Vista/7 v6.1.00 setup.

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K Back Finish Cancel

DOC ID: 10116701

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n Laboratories CP210x VCP Drivers for Windows XP/2003 Server/Vista/ InstallShield Wizard Complete	Silicon Laboratories CP210x VCP Drivers for Windows XP/2003 Server/Vis
Silicon Laboratories CP210x USB to UART Bridge Driver Installer Silicon Laboratories Silicon Laboratories CP210x USB to UART Bridge Installation Location: Driver Version 6.1 C:\Program Files\Silabs\MCU\CP210x\	Silicon Laboratories CP210x USB to UART Bridge Driver Installer
Change Install Location Install Cancel	Change Install Location Install Cancel
< <u>Back</u> Finish Cancel	KBack Finish Cance

- 1. Connect the Console Port on UUT to PC with USB cable (Type A to Type B).
- 2. Using HyperTerminal to set up the following parameters.
 - Baud Rate: 115200
 - Data Bits: 8
 - Parity: None
 - Stop Bits: 1
 - Flow Control: None
- 3. Check the link by pressing <ENTER>. The line should jump to the next line.
- 4. Using the Username and password to login the switch
 - Default Username: admin
 - Default Password: (None)

7.2 CLI COMMAND FOR IP CONFIGURATION

- *show ip interface brief*: Display the current IP address and subnet mask.
- *configure terminal -> interface vlan 1 -> ip address <IP address > (subnet mask)*: Setup the switch IP address.
- *copy running-config startup- config*: Save the current configuration to start-up configuration.

PS: All configuration changes must be saved otherwise all the changes will be lost after rebooting!

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8 GUI Overview

8.1 DEFAULT SETTING

- IP Address: 192.168.0.99
- Subnet Mask: 255.255.255.0
- Gateway: 192.168.0.1
- User Name: admin
- Password: (None)

8.2 LOG INTO THE SWITCH

- Connect a switch port to a PC, Change the PC's network IP address to connect to the switch (i.e.: 192.168.0.2).
- In a web browser, enter the URL 192.168.0.99.
- Enter the username and password.

8.3 IP CONFIGURATION

In the treemap on the left, expand the Configuration -> System -> IP.

▼ Sys ■ Ir ■ IF ■ N	nformation D ITP ime og		
Mode	Host V		
DNS Server 0	No DNS server	۲	
DNS Server 1	No DNS server	۲	
DNS Server 2	No DNS server	۲	
DNS Server 3	No DNS server	۲	
DNS Proxy			
ID Interferen			

IP Interfaces

Delete	VLAN		DHCPv4	1	IPv4				DHCPv6		IPv6	
Delete	VLAN	Enable	Fallback	Current Lease	Address	Ma	sk Length	Enable	Rapid Commit	Current Lease	Address	Mask Length
	1		0		192.168.0.99		24					

Add Interface

Delete Network Mask Length Gateway Next Hop VLAN

Add Route

Save Reset

Enter the IPv4 address and Mask Length in the table.

Choose the management VLAN ID to access that IP in VLAN table if VLAN function is required.

If the multiple IP addresses are required, click Add Interface to add more IP interface.

Click **Save** to save the configuration.

Use new IP address to access the switch.

PS: All configuration changes must be saved otherwise all the changes will be lost after rebooting!

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8.4 USERS AUTHENTICATION

In the tree map on the left, expand the Configuration -> Security-> Switch-> Users



Users Configuration

User Name	Privilege Level
admin	15
Add New User	•

Click admin to change the current admin account setting.

Edit User

User Settings				
User Name	admin			
Password				
Password (again)				
Privilege Level	15 🔹			

Save Reset Cancel

If multiple users are required, click Add New User

Add User

User Settings	
User Name	
Password	
Password (again)	
Privilege Level	0 🔹

Save Reset Cancel

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PS: All configuration changes must be saved otherwise all the changes will be lost after rebooting!

8.5 SAVE CONFIGURATION TO START-UP

In the treemap below, expand the **Maintenance** and expand **Configuration**, then select Save startupconfig

 Maintenance 	
Restart Device	
Factory Defaults	
Software	
 Configuration 	
Save startup-conf	ig
Download	
 Upload 	
 Activate 	
 Delete 	

Save Running Configuration to startup-config

Please note: The generation of the configuration file may be time consuming, depending on the amount of non-default configuration.

Save Configuration

Click Save Configuration to save the configuration on start-up.

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9 WARRANTY

Thank you for purchasing equipment designed, manufactured and serviced by Optical Systems Design (OSD). OSD warrants that at the time of shipment, its products are free from defects in material and workmanship and conforms to specifications. Our Warranty conditions are outlined below:

9.1 WARRANTY PERIOD

For warranty period, please call your local OSD distributor.

9.2 REPAIRS

Optical Systems Design reserves the right to repair or replace faulty modules/units. Please obtain a "Return Material Authorisation" (RMA) form and number before returning goods. Goods must be returned in adequate packing material to Optical Systems Design, Warriewood or its nominated authorised representative, for all repairs.

9.2.1 WARRANTY REPAIRS

Return shipments to OSD shall be at customer's expense and freight back to the customer will be at OSD expense.

9.2.2 OUT-OF-WARRANTY REPAIRS

OSD reserves the right to repair or replace any faulty goods. Freight costs and insurance for both journeys are met by the user. All equipment repaired by OSD will have a 3-Month Warranty from the date of dispatch.

9.2.3 SITE REPAIRS

By agreement site repairs may be undertaken for which out of pocket, hotel and travel expenses will be charged.

9.2.4 EXCLUSIONS

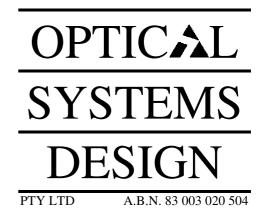
This warranty does not apply to defects caused by unauthorized modifications, misuse, abuse or transport damage to the equipment. All modifications to OSD's standard product will need written authorization and will be charged at normal repair rates. All modifications are to be carried out by OSD Technicians. Warranty is void if unauthorized removal and/or tampering with serial number and/or repair labels is evident.

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