



Switch Web GUI Quick Configuration Guide for

**SSE-G48-TG4
SSE-G24-TG4
SSE-X24S
SSE-X24SR
SSE-X3348S
SSE-X3348SR
SSE-X3348T
SSE-X3348TR
SBM-GEM-X2C
SBM-GEM-X2C+
SBM-GEM-X3S+
SBM-XEM-X10SM**

Supermicro Switch Web GUI Quick Configuration Guide

The information in this User's Manual has been carefully reviewed and is believed to be accurate. The vendor assumes no responsibility for any inaccuracies that may be contained in this document, makes no commitment to update or to keep current the information in this manual, or to notify any person or organization of the updates. **Please Note: For the most up-to-date version of this manual, please see our web site at www.supermicro.com.**

Super Micro Computer, Inc. ("Supermicro") reserves the right to make changes to the product described in this manual at any time and without notice. This product, including software and documentation, is the property of Supermicro and/or its licensors, and is supplied only under a license. Any use or reproduction of this product is not allowed, except as expressly permitted by the terms of said license.

IN NO EVENT WILL SUPERMICRO BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, SPECULATIVE OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OR INABILITY TO USE THIS PRODUCT OR DOCUMENTATION, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN PARTICULAR, SUPERMICRO SHALL NOT HAVE LIABILITY FOR ANY HARDWARE, SOFTWARE, OR DATA STORED OR USED WITH THE PRODUCT, INCLUDING THE COSTS OF REPAIRING, REPLACING, INTEGRATING, INSTALLING OR RECOVERING SUCH HARDWARE, SOFTWARE, OR DATA.

Any disputes arising between manufacturer and customer shall be governed by the laws of Santa Clara County in the State of California, USA. The State of California, County of Santa Clara shall be the exclusive venue for the resolution of any such disputes. Super Micro's total liability for all claims will not exceed the price paid for the hardware product.

Manual Revision 1.0c
Release Date: March 13, 2013

Unless you request and receive written permission from SUPER MICRO COMPUTER, you may not copy any part of this document.

Copyright © 2013 by SUPER MICRO COMPUTER INC.
All rights reserved.

Printed in the United States of America

Contents

1	Introduction.....	5
2	Basic Configurations.....	6
2.1	Login Page	6
2.2	Home page	6
2.2.1	Page Top Links	7
2.2.2	Page Top LED Display	8
2.2.3	Left Side Tree	9
2.2.4	Middle Configuration Link Table.....	9
2.3	Management IP Address	10
2.3.1	Changing the Management IP Address & Gateway	11
2.4	User Accounts	12
2.5	Interface MTU and Jumbo Frames	13
2.6	Interface Description.....	13
2.7	Stacking.....	15
2.8	Tracking Uplink Failure.....	16
2.9	Saving Configurations	18
2.10	Upgrading Firmware.....	19
2.11	Resetting to Factory Defaults.....	20
3	VLAN Configurations	21
4	Link Aggregation.....	23
4.1	Enabling LA Status	23
4.2	Creating a Port Channel.....	24
4.3	Associating a Port Channel with Ports.....	26
4.4	Configuring Port Channel Parameters	27

1 Introduction

This document is designed to provide Supermicro switch users with the information required to configure the basic functionalities on the switch through its Web graphical user interface (GUI).

Supermicro Switch products can be configured through Web browsers like Internet Explorer or Mozilla Firefox. To manage a switch through a web browser, type in the management IP address in the web browser address bar. This will allow you to start accessing the switch. For example, if the management IP address of the switch is 192.168.100.102, the switch can be accessed through the Web browser by typing **http://192.168.100.102** in the address bar of the web browser.

Note:

Most of the contents of this manual apply to these switch products:

SSE-G48-TG4
SSE-G24-TG4
SSE-X24S
SSE-X24SR
SSE-X3348S
SSE-X3348SR
SSE-X3348T
SSE-X3348TR
SBM-GEM-X2C
SBM-GEM-X2C+
SBM-GEM-X3S+
SBM-XEM-X10SM

In a few sections the contents differ for these products. In those specific places, the applicable product is clearly identified. So if any particular product is not mentioned, you can assume that the contents are valid for all six switch products.

2 Basic Configurations

2.1 Login Page

When you type the switch IP address into the browser, the following **Login** page appears.

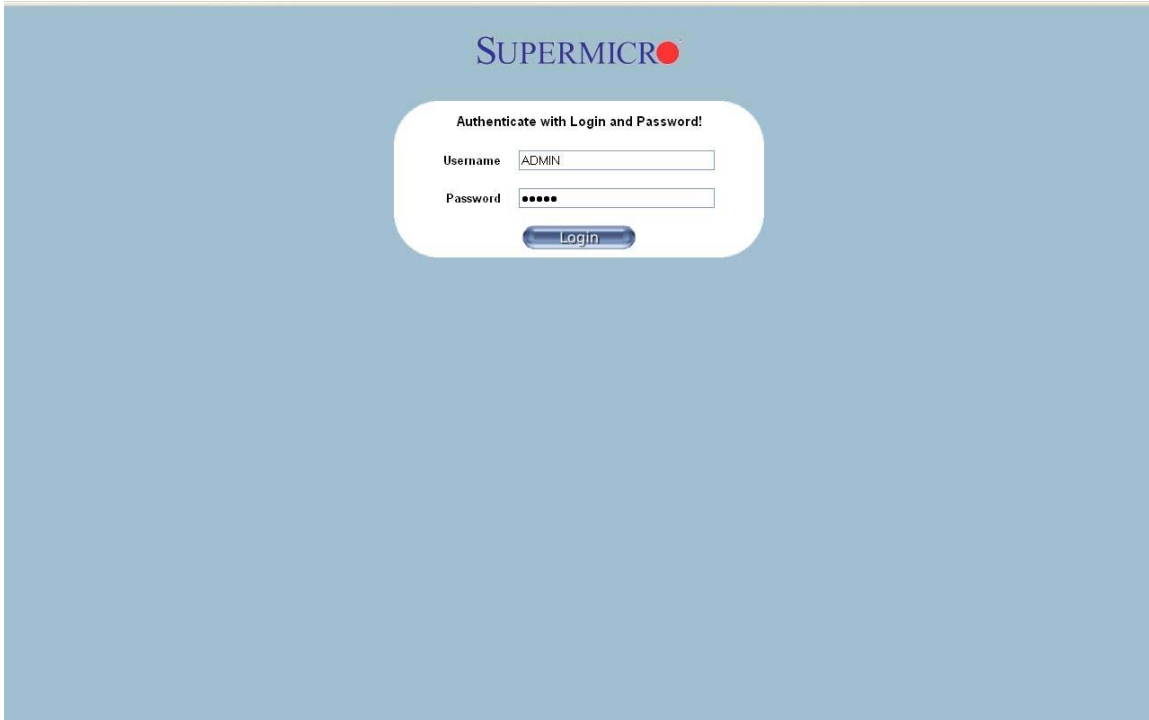


Fig 1: Login page

Enter the **User Name** and **Password** and click on the **Login** button. This **User Name** and **Password** are both used for accessing the switch through the web for switch configuration. The user name and password entered are validated by the switch. The default user name is ADMIN and the default password is ADMIN.

2.2 Home page

The **Home** page is displayed upon successful validation of the user name and password. This page presents links to configurations of all the features of the switch. It has the following main components.

- ❖ Page Top Links
- ❖ Page Top LED Display
- ❖ Left Side Tree

Supermicro Switch Web GUI Quick Configuration Guide

❖ Middle Configuration Links Table

Except for the Page Top LED Display section, the **Home** page is same for all the switch products **SSE-G48-TG4, SSE-G24-TG4, SSE-X24S, SSE-X24SR, SSE-X3348S, SSE-X3348SR, SSE-X3348T, SSE-X3348TR, SBM-GEM-X2C, SBM-GEM-X2C+, SBM-GEM-X3S+ and SBM-XEM-X10SM.**

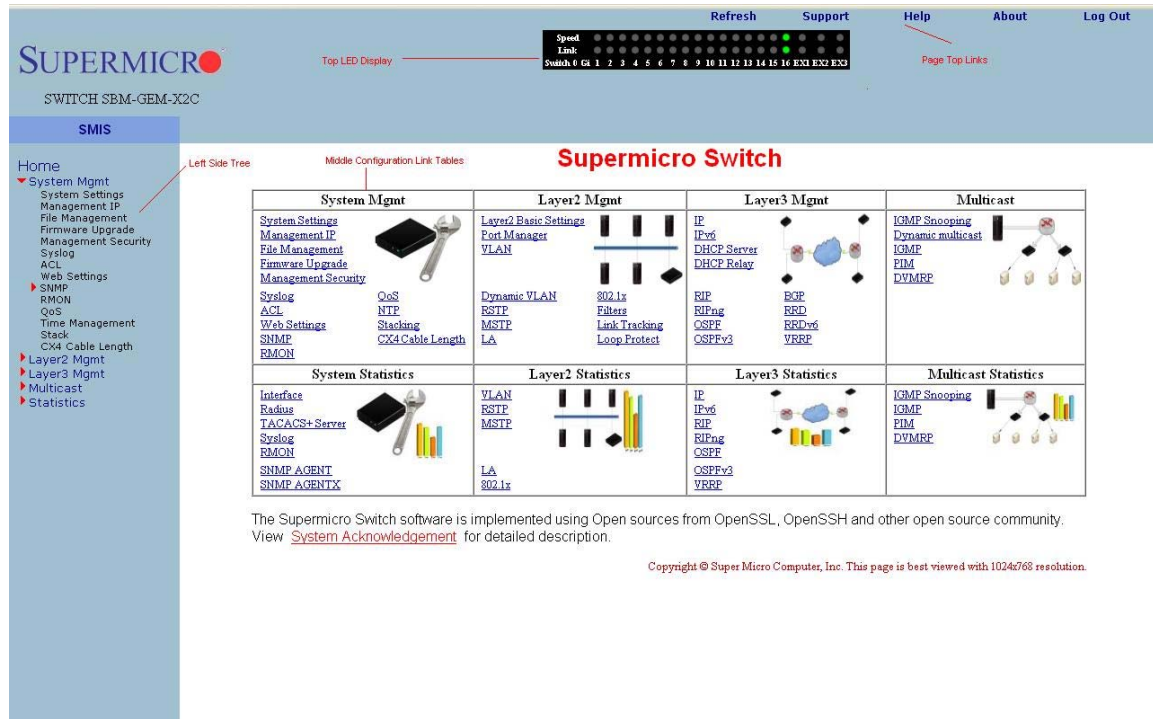


Fig 2: Home Page

2.2.1 Page Top Links

This section provides the following links:

- ❖ Refresh
- ❖ Support
- ❖ Help
- ❖ About
- ❖ Logout

The Refresh link refreshes the contents of the page. Unlike the browser provided refresh button, this link refreshes only the contents of the section in the middle of the page which has active data.

The Support link provides a link to the customer support group at Supermicro.

The Help link provides context specific help text. This link opens a new help text page relevant to the configuration page currently being displayed.

The About link provides information about the switch itself and the firmware versions supported.

The [Logout](#) link provides a means of signing out of the management web application. It returns to the login screen requesting a user name and password for login.

2.2.2 Page Top LED Display

This part of the screen displays the port status of the switch. It displays Speed and Link status for every port. Since the number of ports is different in each of the switches, this displays a different number of ports for each type of switch.

For SSE-G48-TG4, it displays 48 Gigabit Ethernet ports and four 10-Gigabit Extreme Ethernet ports.

For SSE-G24-TG4, it displays 24 Gigabit Ethernet ports and four 10-Gb Extreme Ethernet ports.

For SSE-X24S and SSE-X24SR, it displays 24 10-Gb Extreme Ethernet ports and one Gigabit Ethernet Port.

For SSE-X3348S and SSE-X3348SR it displays two 1-Gb ports, 48 10-Gb Extreme Ethernet ports and four 40-Gb (QX) Ethernet ports.

For SSE-X3348T and SSE-X3348TR it displays two 1-Gb ports, 48 10-Gb Extreme Ethernet ports and four 40-Gb (QX) Ethernet ports.

For SBM-GEM-X2C, it displays 16 Gigabit Ethernet ports and three 10-Gb Extreme Ethernet ports.

For SBM-GEM-X2C+, it displays 22 Gigabit Ethernet ports and three 10-Gb Extreme Ethernet ports.

For SBM-GEM-X3S+, it displays 24 Gigabit Ethernet ports and three 10-Gb Extreme Ethernet ports.

For SBM-XEM-X10SM, it displays 24 10-Gb Extreme Ethernet ports and one Gigabit Ethernet port.

Note:

Ex ports configured as stacking ports will not be displayed in this LED display. The link status of stacking ports is displayed on the stacking pages.

In stacking, a switch identifier will be displayed on top of this LED display. You can select the stack member switch of interest in order to view the LED display for that corresponding switch.

2.2.3 Left Side Tree

The Left Side Tree display on the left side of the page provides quick access to configuration pages. This tree is organized based on the features supported in the switch. The main features are categorized as follows:

- ❖ System Management – System based configurations
- ❖ Layer 2 Management – Layer 2 Protocols including VLAN, RSTP, MSTP ...
- ❖ Layer 3 Management – Layer 3 Protocols including – IP, RIP, OSPF
- ❖ Multicast Management – Multicast Protocols including IGMP, PIM ...
- ❖ Statistics – Statistics and Counters for all the features.

This tree is displayed on the left panel on all configuration pages. This allows you to choose any configuration page directly without requiring a return to the home page.

2.2.4 Middle Configuration Link Table

This section of the page displays a table of links to all major configurations. This table provides links similar to those of the Left Side Tree. The configuration links are categorized based on features of switch.

2.3 Management IP Address

Note: The default management IP address for all Supermicro switch products is: **192.168.100.102**.

Switch	Management IP Interface
SSE-G24-TG4 SSE-G48-TG4	<p>The management IP address is configured for VLAN 1. All front 1-Gb ports and back 10Gb ports are configured as untagged member ports of VLAN 1 by default.</p> <p>You can connect to any of the front panel 1Gb ports or back panel 10-Gb ports to manage the switch using the management IP address.</p>
SSE-X24S SSE-X24SR SSE-X3348S SSE-X3348SR SSE-X3348T SSE-X3348TR	<p>The management IP address is configured for a 1Gb management Ethernet port. You can connect to this management IP address through the 1-Gb Ethernet port.</p> <p>If you prefer to manage through the 10-Gb ports, then you can assign the desired management IP address to VLAN 1. Alternatively, you can create any layer 3 VLAN to manage the switch through its 10-Gb ports.</p>
SBM-GEM-X2C SBM-GEM-X2C+ SBM-GEM-X3S+ SBM-XEM-X10SM	<p>Blade switches can be managed with the default IP address through the CMM Ethernet connection. The internal management Ethernet ports of the blade switches are connected with the CMM Ethernet ports internally.</p> <p>If you prefer to manage through the front panel Ethernet ports, then you can assign the desired management IP address to VLAN 1.</p> <p>Alternatively, you can create any layer 3 VLAN and manage the switch through its front Ethernet ports.</p>

2.3.1 Changing the Management IP Address & Gateway

The management IP address and default gateway can be configured in the **System Mgmt** → **Management IP** page.

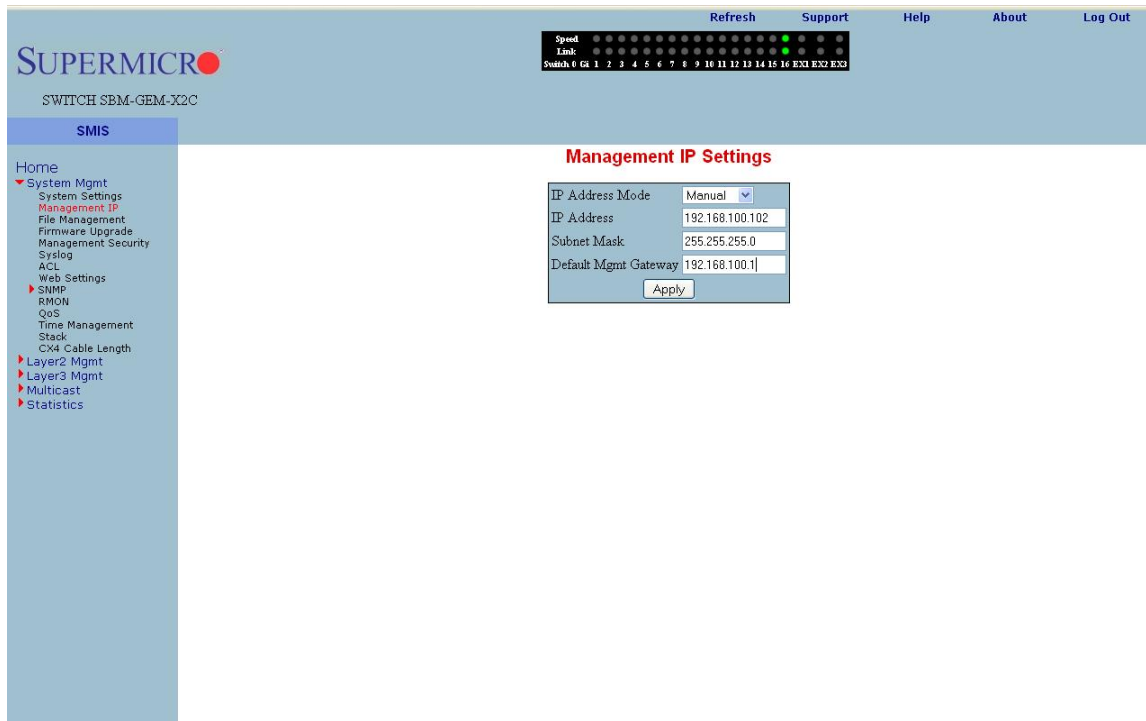


Fig 3: Management IP Page

- ❖ IP Address Mode – For a static IP addresses use the Manual mode. To get an IP address through DHCP, use the Dynamic mode.
- ❖ IP Address – Use this setting to configure the IP address for static manual mode.
- ❖ Subnet Mask – Use this setting to configure the subnet mask for the static manual mode.
- ❖ Default Mgmt Gateway – The default gateway can be configured only for the SBM-GEM-X2C, SBM-GEM-X2C+, SBM-GEM-X3S+, SBM-XEM-X10SM, SSE-X24S, SSE-X24SR, SSE-X3348S, SSE-X3348SR, SSE-X3348T and SSE-X3348TR switches.

Note:

For the blade switches SBM-GEM-X2C, SBM-GEM-X2C+, SBM-GEM-X3S+ and SBM-XEM-X10SM the management IP address and default gateway can also be configured from the CMM management interface.

The management IP address and gateway of the switch are saved automatically into switch NVRAM. Hence it is not required to *save configuration* in order to save the management IP and gateway address.

2.4 User Accounts

The default administrative user name for all Supermicro switches is ADMIN and the password for all these switches is also ADMIN. The password for this ADMIN user can be changed in the page **System Mgmt → Management Security → Local Users**.

New users can be created with different privilege levels. Fifteen is the highest privilege – it equals the ADMIN user. One is the lowest privilege – it only allows the user to view the configurations; the user may not modify them. The default privilege is at least one.

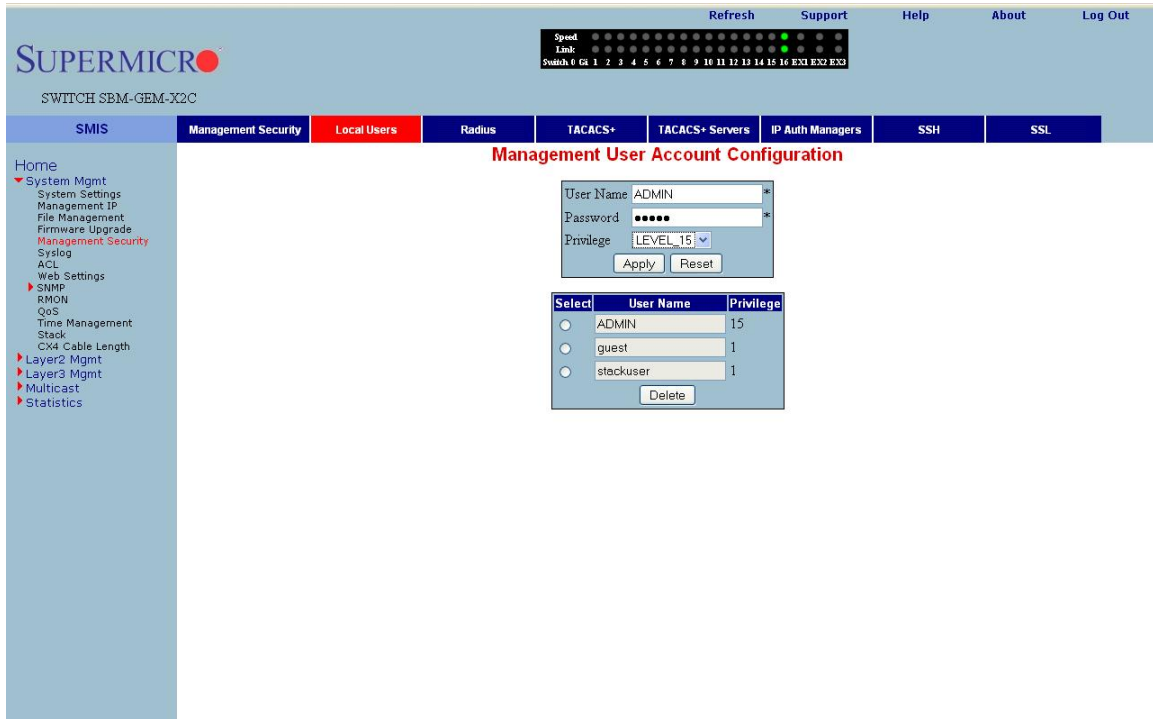


Fig 4: User Accounts Page

To change the password for the ADMIN user, choose ADMIN for the **User Name** and type the new password in the **Password** text box. Then make sure to set the **Privilege** as LEVEL_15 for an ADMIN user.

2.5 Interface MTU and Jumbo Frames

The interface MTU can be changed in **Layer2 Mgmt → Port Manager → Basic Settings** page. The default MTU is 1500 bytes. The maximum MTU supported is 9202.

The Supermicro switch MTU refers only to the layer 2 payload size. Hence the MTU of 9202 means a total “in-wire” MTU of 9220 (14 bytes Ethernet Header plus 4 bytes FCS are added).

To configure the MTU for any interface, the interface must be administratively brought down first by changing the Admin State to *Down*.

The screenshot shows the 'Port Basic Settings' page for interface **Gi0/1-Ex0/3**. The table below represents the data shown in the interface:

ALL	Port	Link Status	Admin State	Default User Priority	Switch Port	Switch Port Mode	MTU	Link Up/Down Trap	Description
<input checked="" type="checkbox"/>	Gi0/1	Up	Up	0	Yes	Hybrid	9000	Enabled	
<input type="checkbox"/>	Gi0/2	Up	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	Gi0/3	Up	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	Gi0/4	Up	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	Gi0/5	Up	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	Gi0/6	Up	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	Gi0/7	Up	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	Gi0/8	Up	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	Gi0/9	Up	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	Gi0/10	Up	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	Gi0/11	Up	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	Gi0/12	Up	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	Gi0/13	Up	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	Gi0/14	Up	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	Gi0/15	Up	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	Gi0/16	Up	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	Ex0/1	Up	Up	0	Yes	Hybrid	16338	Enabled	
<input type="checkbox"/>	Ex0/2	Up	Up	0	Yes	Hybrid	16338	Enabled	
<input type="checkbox"/>	Ex0/3	Up	Up	0	Yes	Hybrid	16338	Enabled	

Fig 5: Interface MTU Page

Configure jumbo frame support by setting the MTU as 9200 bytes (or any other preferred jumbo frame size up to 9202 bytes).

Note:

The check box on the first column needs to be checked for all of the interfaces that need to be configured. Multiple check boxes can be checked to configure more than one interface at a time. Use the **Apply** button at the end of the page to apply the changed configurations.

2.6 Interface Description

Supermicro Switch Web GUI Quick Configuration Guide

Interfaces can be given a description or name in text. This helps users to identify or remember the interface connections with other components on the network. The interface description can be configured in **Layer2 Mgmt → Port Manager → Basic Settings** page.

The screenshot displays the Supermicro Switch Web GUI interface. At the top, there are navigation links for Refresh, Support, Help, About, and Log Out. Below this is a status bar showing Speed and Link indicators for Switch 0, with ports 1 through 16 and EX1, EX2, EX3. The main navigation menu includes SMIS, Basic Settings (highlighted), Port Monitoring, Traffic Class, Port Control, and Rate Limiting. The left sidebar contains a tree view of configuration options, with Layer2 Mgmt expanded to show Port Manager, which is further expanded to show Basic Settings. The main content area is titled 'Port Basic Settings' and shows a table for interface G10/1-EX0/3. The table has columns for Port, Link Status, Admin State, Default User Priority, Switch Port, Switch Port Mode, MTU, Link Up/Down Trap, and Description. The first row shows G10/1 with a description of 'BLD1_SW1_Connection'.

ALL	Port	Link Status	Admin State	Default User Priority	Switch Port	Switch Port Mode	MTU	Link Up/Down Trap	Description
<input checked="" type="checkbox"/>	G10/1	▼	Up	0	Yes	Hybrid	9000	Enabled	BLD1_SW1_Connection
<input type="checkbox"/>	G10/2	▼	Up	0	Yes	Hybrid	1500	Enabled	BLD2_Server3
<input type="checkbox"/>	G10/3	▼	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	G10/4	▼	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	G10/5	▼	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	G10/6	▼	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	G10/7	▼	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	G10/8	▼	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	G10/9	▼	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	G10/10	▼	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	G10/11	▼	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	G10/12	▼	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	G10/13	▼	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	G10/14	▼	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	G10/15	▼	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	G10/16	▲	Up	0	Yes	Hybrid	1500	Enabled	
<input type="checkbox"/>	Ex0/1	▼	Up	0	Yes	Hybrid	16338	Enabled	
<input type="checkbox"/>	Ex0/2	▼	Up	0	Yes	Hybrid	16338	Enabled	
<input type="checkbox"/>	Ex0/3	▼	Up	0	Yes	Hybrid	16338	Enabled	

Fig 6: Interface Description Page

2.7 Stacking

The SSE-G24-TG4 and SSE-G48-TG4 switches support stacking of up to 16 switches. SBM-GEM-X2C, SBM-GEM-X2C+ support stacking of up to 8 switches.

Stacking can be configured from the *System Mgmt* → *Stack* → *Stack Settings* page.

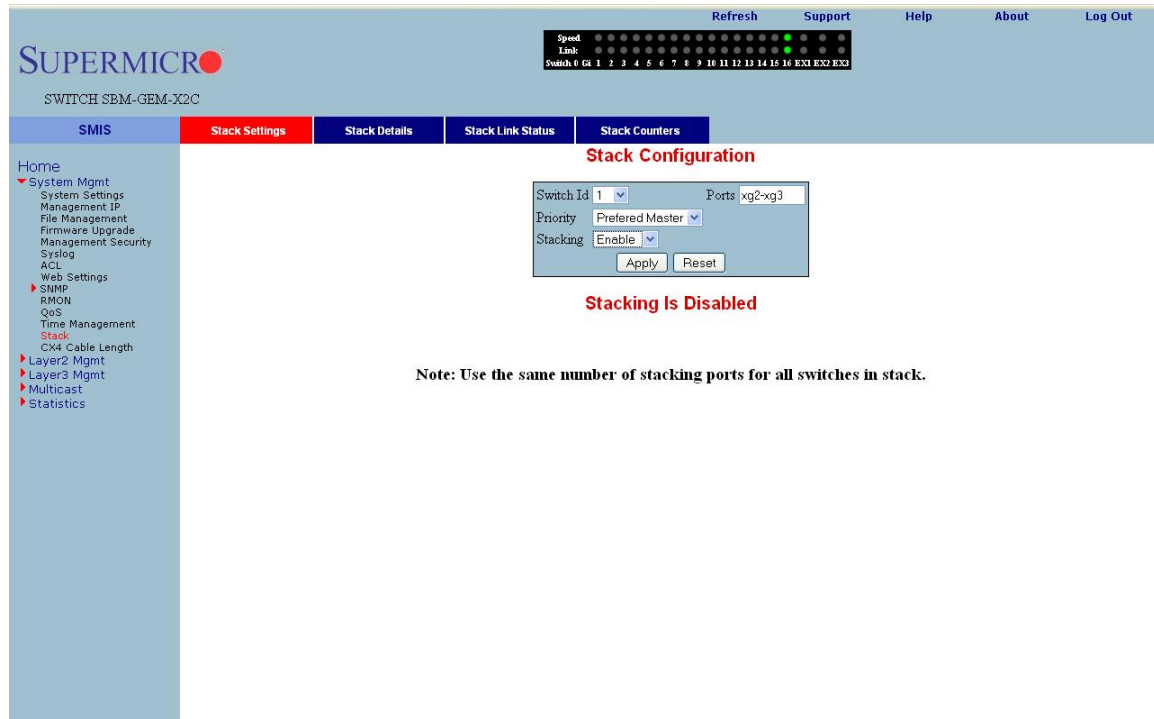


Fig 7: Stacking Page

In the **Ports** field, list the stacking ports as comma separated without space characters. Stacking ports are named as **xg1**, **xg2**, **xg3** and **xg4**. So if you choose ports xg1 and xg2 as stacking ports, configure the ports field as either “xg1,xg2” or as “xg1-2”.

To connect switches in stacking mode follow the steps below:

- Configure the stacking **Switch ID**, **Ports**, and **Priority**. Then *Enable* for **Stacking** in all switches. Make sure to configure the priority as PM (preferred master) for the switch you intend to be master.
- Connect the stacking ports through CX4 cables (stacking cable lengths must not exceed 3 meters).
- Restart all switches
- Manage the stack through the master switch IP address.

Note:

1. Do not use the same switch ID for multiple switches on the stack.
2. All switches in the stack can only be configured through the master switch.
3. Make sure all stacked switches run the *same version of firmware!*
4. Only the same switch models can be stacked together. For example, the SSE-G24-TG4 switch can only be stacked with other SSE-G24-TG4 switches.
5. Use the same stacking ports configuration across all the switches in stack. For example, if xg1 and xg2 is used for stacking, all switches in the stack should have the same port numbers as stacking ports.

2.8 Tracking Uplink Failure

The Uplink Failure Tracking Feature (ULFT) is useful for blade switches (SBM-GEM-X2C, SBM-GEM-X2C+, SBM-GEM-X3S+ and SBM-XEM-X10SM). This helps blade servers to move to redundant Ethernet ports in case any blade switch uplink fails.

The user can configure one or more groups for ULFT. Each group can have one or more uplinks and one or more downstream ports.

Link tracking can be configured from the *Layer2 Mgmt* → *Link Tracking* page.



Fig 8: Link Tracking Page

In the **Upstream Interfaces** field and **Downstream Interfaces** fields, list the ports as comma separated without space characters. For example to choose ports gi0/1 to gi0/5 and gi0/10 as downstream ports, configure the Downstream Interfaces field as "gi0/1-5,gi0/10".

For example if it is desired to bring down all fourteen ports from gi 0/1 to gi 0/14 when uplink interface gi 0/15 goes down, configure the following:

- Enable Link Status Tracking – Choose *Enable* and click on the **Apply** button on the left panel.
- Configure the **Group ID** as 1
- Configure the **Upstream Interfaces** as gi0/15
- Configure the **Downstream Interfaces** as gi0/1-14
- Click on the **Add Group** button.

Note:

If more than one uplink port is configured, all downstream ports will be brought down only when all upstream ports are down.

2.9 Saving Configurations

Switch configurations can be saved on the **System Mgmt → File Management** page.

You can save a currently running switch configuration in one of three ways.

- **Save Startup Config** – This option saves the current running configuration in local flash with the file name configured as “startup configuration” file. This configuration will be loaded automatically every time the switch reboots.
- **Save Flash File** – This option saves the current running configuration in local flash with a user-specified file name.
- **Save Remotely** – This option saves the current running configuration in a remote TFTP server. For this option you will need to provide the IP address and file name of the TFTP server.

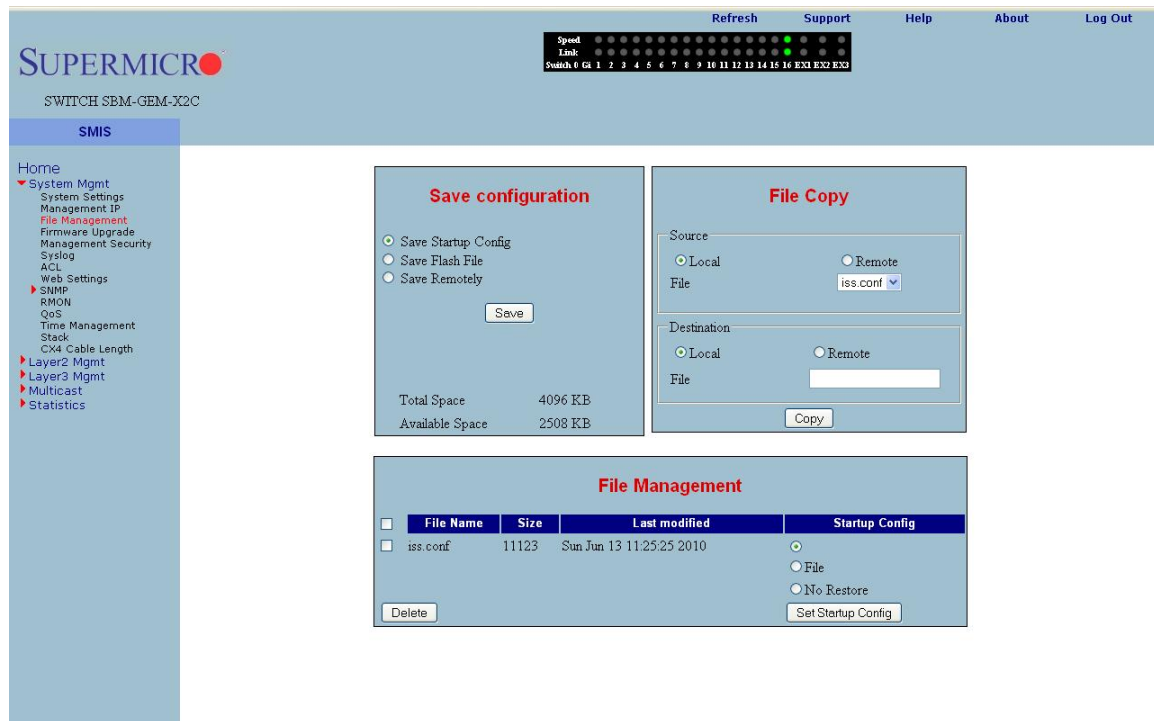


Fig 9: File Management Page

2.10 Upgrading Firmware

Switch firmware can be upgraded in the **System Mgmt → Firmware Upgrade** page.

Flash Area – The default selection is *Normal* to upgrade firmware in normal flash area. To upgrade firmware in the fallback flash area, choose *Flash Area as the Fallback*.

File Name – Use the **Browse** button to select the switch firmware from local computer.

When switches are in the stacking mode, it is only necessary to upgrade the firmware of one switch – firmware will be upgraded in all other stack members automatically.

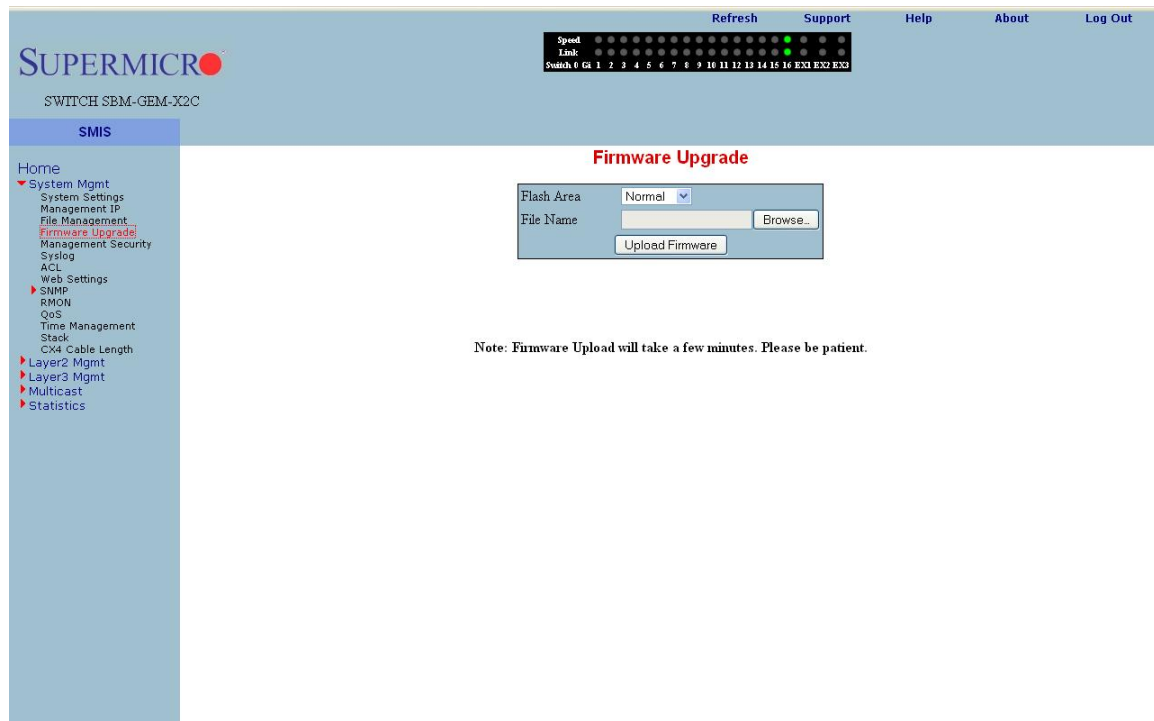


Fig 10: Firmware Upgrade Page

2.11 Resetting to Factory Defaults

Supermicro switches can be reset to factory defaults in the **System Mgmt → System Settings** page.

This page has a button that you can press to allow a “Reset To Factory Defaults”. This will clear all information about switch configurations and local user accounts. Make sure to have all necessary configurations backed up before doing “Reset To Factory Defaults” in external computers. This reset requires a reboot of the switch.

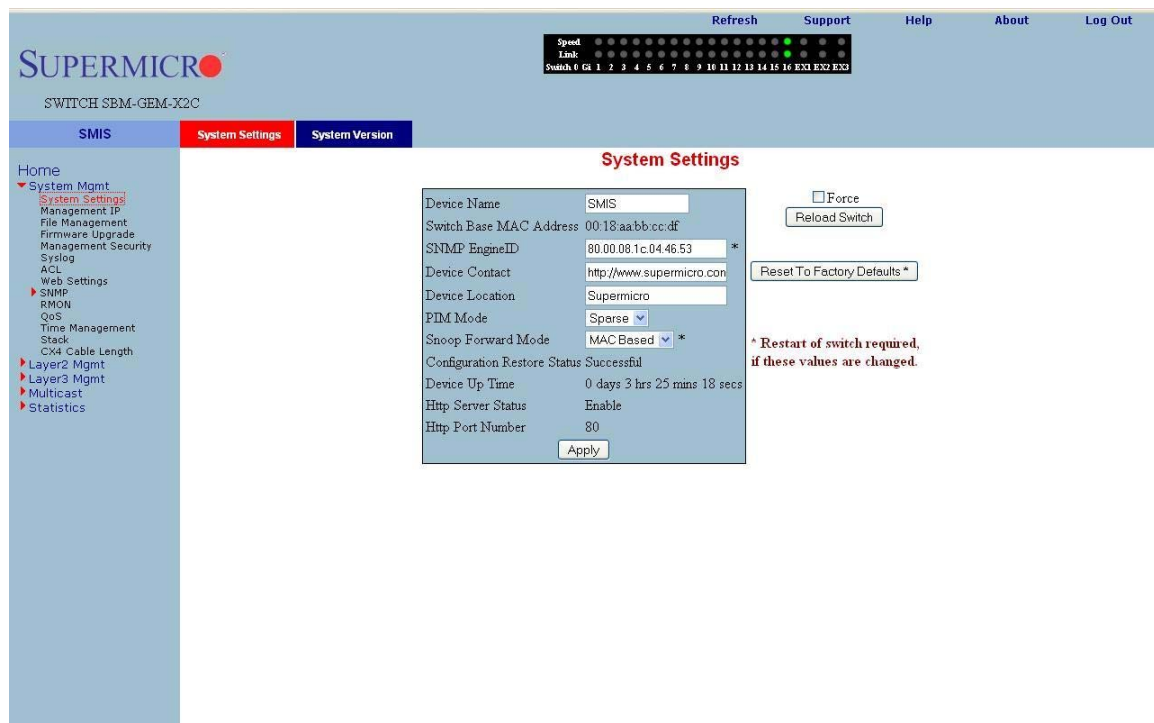


Fig 11: System Settings Page

3 VLAN Configurations

The SSE-G24-TG4, SSE-G48-TG4, SBM-GEM-X2C, SBM-GEM-X2C+ and SBM-GEM-X3S+ switches support 1024 static VLANs. The SSE-X24S, SSE-X24SR, SSE-X3348S, SSE-X3348SR, SSE-X3348T, SSE-X3348TR and SBM-XEM-X10SM switches support 4K static VLANs.

VLANs can be configured in *Layer2 Mgmt* → *VLAN* → *Static VLANs* page.

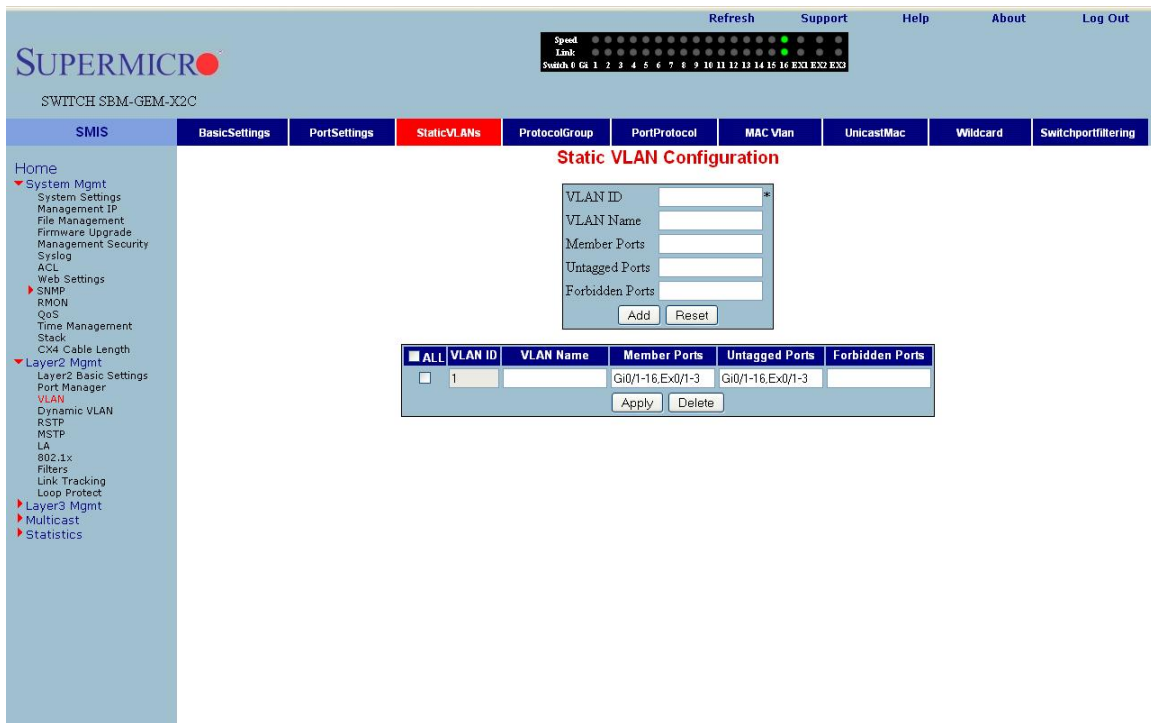


Fig 12: VLAN Page

In the **Member Ports**, **Untagged Ports**, and **Forbidden Ports** fields, list the ports as comma separated without space characters. While configuring continuous ports use “-“ for port ranges. For example to configure ports gi 0/1 to gi0/10 and gi0/15 and gi0/20 as member ports, enter the Member Ports field as “gi0/1-10,gi0/15,gi0/20”.

The following parameters can be configured in this page.

- VLAN ID - This is a VLAN identifier number. It is mandatory to set this parameter in order to create a VLAN.
- VLAN Name – Optional name or description to associate with this VLAN.

- Member Ports – Provide all the member ports of this VLAN *including tagged and untagged* member ports.
- Untagged Ports – These are the member ports that need to be configured as untagged ports. If all the ports of this VLAN are untagged, member ports and untagged ports will be same.
- Forbidden Ports – This is a list of any ports that need to be forbidden from this VLAN.

Note: PVID

Supernano switches associate all received untagged packets as destined for VLAN 1. This happens irrespective of the VLANs which are associated with the received ports. Therefore if you need untagged packets to be associated with a particular VLAN, it is necessary to configure a **pvid** for those ports. The PVID can be configured in the **Layer2 Mgmt → VLAN → Port Settings** page.

4 Link Aggregation (LA)

Link Aggregation (LA) is a method of combining multiple parallel physical connections into a single logical connection(trunk), thus allowing increased bandwidth for a particular network path beyond what a single connection could sustain. By taking multiple LAN connections and treating them as a unified, aggregated link, practical benefits in many applications can be achieved. For example, link aggregation provides redundancy in case one of the links fails. Link Aggregation also provides load balancing so that processing and communication activity is distributed across several links in a trunk ensuring that no single link is overwhelmed.

Other terms often used to describe this Link Aggregation method include **port trunking, link bundling, bonding, or teaming**. These umbrella terms encompass industry standards such as **IEEE 802.1ax** Link Aggregation Control Protocol (LACP) for wired Ethernet, or the previous **IEEE 802.3ad**, as well as various proprietary solutions. In this manual we will also refer to a particular group of aggregated links as a **Port Channel**.

Supermicro switches support both static link aggregation and dynamic link aggregation using IEEE 802.3ad and LACP. Up to 24 Port Channels can be configured on an individual switch and each Port Channel can contain up to 8 members.

Configure port channel or link aggregation as follows:

- Enable LA Status
- Create a port channel
- Associate the port channel you have created with the required ports
- Configure any port-channel-specific parameters

4.1 Enabling LA Status

LA status can be enabled in **Layer2 Mgmt → LA → Basic Settings** page.

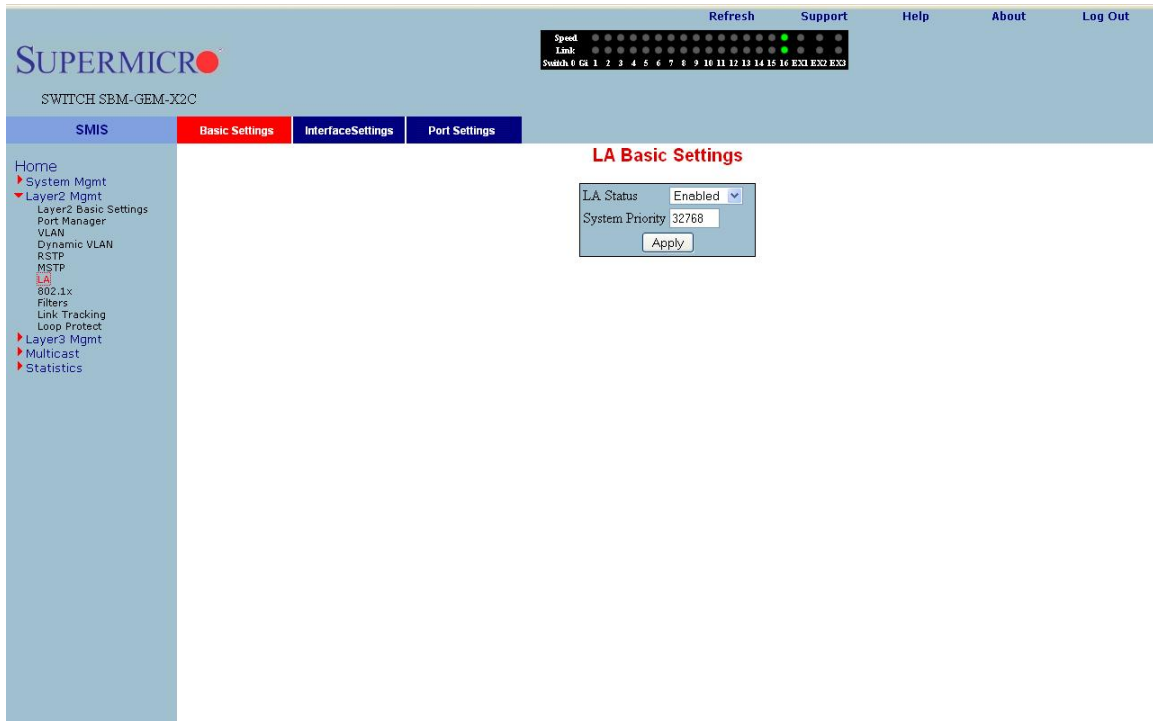


Fig 13: LA Status Page

4.2 Creating a Port Channel

A port channel can be created in the **Layer2 Mgmt** → **LA** → **Interface Settings** page.

Supermicro Switch Web GUI Quick Configuration Guide

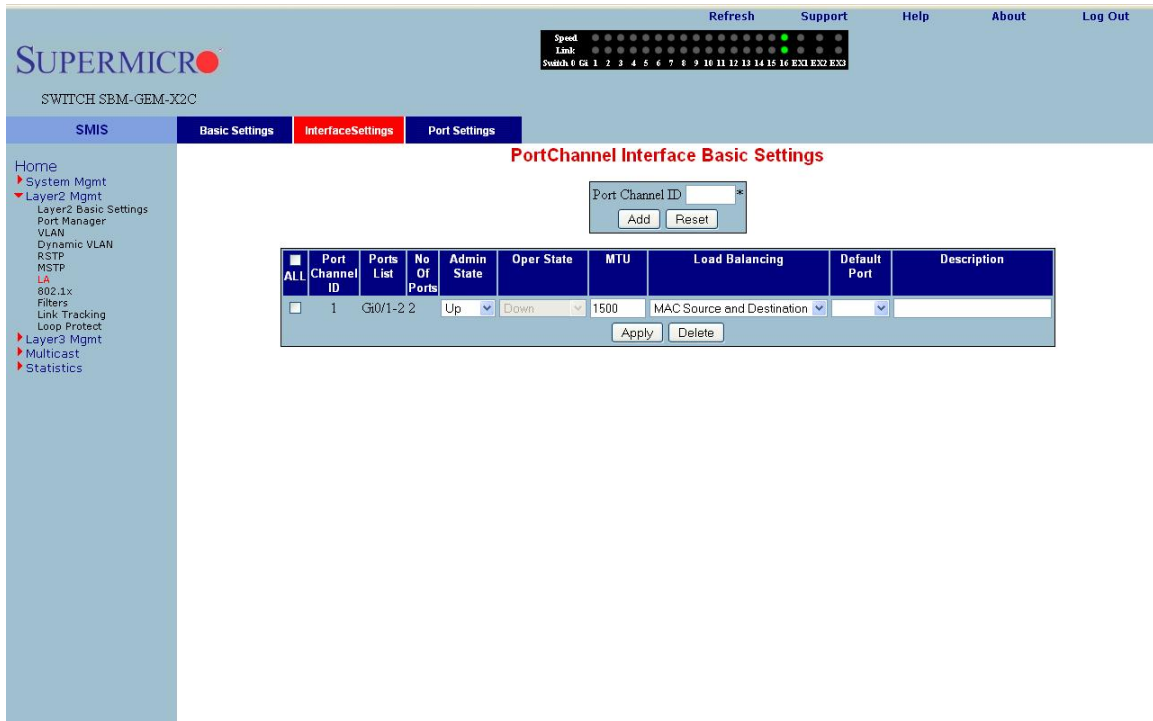


Fig 14: Port Channel Page

To create any port channel, enter the **Port Channel ID** in the page-top dialog box and click **Add**.

4.3 Associating a Port Channel with Ports

Once a port channel is created in the port channel page, it can be associated with the required physical ports. This can be done in the **Layer2 Mgmt → LA → Port Settings** page.

Configure **Port Channel** and **Mode** for the required physical ports.

Use the mode “ON” for static port channels. Use the mode as “ACTIVE” or “PASSIVE” for LACP port channels.

The screenshot shows the 'LA Port Settings' page for port channel 'G10/1-Ex0/3'. The page includes a navigation menu on the left and a table of port configurations. The table has the following columns: Port, Port Channel, Mode, Admin Key, Port Priority, Timeout, Wait Time (s), Port State, and Aggregation State.

Port	Port Channel	Mode	Admin Key	Port Priority	Timeout	Wait Time (s)	Port State	Aggregation State
<input type="checkbox"/> Gi0/1	po1	On	Not Configured	128	Long	2	Down, Not in Bundle	Agg. Default
<input type="checkbox"/> Gi0/2	po1	On	Not Configured	128	Long	2	Down, Not in Bundle	Agg. Default
<input type="checkbox"/> Gi0/3	Not Configured		Not Configured	128	Long	2	Down, Not in Bundle	
<input type="checkbox"/> Gi0/4	Not Configured		Not Configured	128	Long	2	Down, Not in Bundle	
<input type="checkbox"/> Gi0/5	Not Configured		Not Configured	128	Long	2	Down, Not in Bundle	
<input type="checkbox"/> Gi0/6	Not Configured		Not Configured	128	Long	2	Down, Not in Bundle	
<input type="checkbox"/> Gi0/7	Not Configured		Not Configured	128	Long	2	Down, Not in Bundle	
<input type="checkbox"/> Gi0/8	Not Configured		Not Configured	128	Long	2	Down, Not in Bundle	
<input type="checkbox"/> Gi0/9	Not Configured		Not Configured	128	Long	2	Down, Not in Bundle	
<input type="checkbox"/> Gi0/10	Not Configured		Not Configured	128	Long	2	Down, Not in Bundle	
<input type="checkbox"/> Gi0/11	Not Configured		Not Configured	128	Long	2	Down, Not in Bundle	
<input type="checkbox"/> Gi0/12	Not Configured		Not Configured	128	Long	2	Down, Not in Bundle	
<input type="checkbox"/> Gi0/13	Not Configured		Not Configured	128	Long	2	Down, Not in Bundle	
<input type="checkbox"/> Gi0/14	Not Configured		Not Configured	128	Long	2	Down, Not in Bundle	
<input type="checkbox"/> Gi0/15	Not Configured		Not Configured	128	Long	2	Down, Not in Bundle	
<input type="checkbox"/> Gi0/16	Not Configured		Not Configured	128	Long	2	Up, Independent	
<input type="checkbox"/> Ex0/1	Not Configured		Not Configured	128	Long	2	Down, Not in Bundle	
<input type="checkbox"/> Ex0/2	Not Configured		Not Configured	128	Long	2	Down, Not in Bundle	
<input type="checkbox"/> Ex0/3	Not Configured		Not Configured	128	Long	2	Down, Not in Bundle	

Fig 15: Port Channel Ports Page

For example to configure the ports gi 0/15 and gi 0/16 with static port channel 10, do the following steps.

- Check the check box for the port gi 0/15 and gi 0/16.
- Choose the port channel as po10 for both port gi 0/15 and gi 0/16.
- Choose the mode as “On” for both ports gi 0/15 and gi 0/16.
- Click on **Apply** button.

4.4 Configuring Port Channel Parameters

Once a port channel is created and associated with the required ports, you can configure the port channel parameters.

If necessary configure the MTU of the port channel in the Port Channel page (Fig 14). The default value is 1500.

If necessary configure the name or description of the port channel in the Port Channel page (Fig 14).

Make the port channel **Admin Status** as "UP" in the Port Channel page (Fig 14).

Add the port channel to any required vlans in the VLAN page (Fig 12).