

# Configuring STP Interface Settings on the SG350XG and SG550XG

## Objective

Spanning Tree Protocol (STP) is a network protocol that prevents the occurrence of loops in the topology. These loops cause switches to forward traffic an infinite amount of times. This causes the network to flood and use its resources which reduces network efficiency.

STP interface settings are used to increase efficiency of STP on a per port basis. Using the edge port function, fast link increases the speed of STP convergence by setting a port to a forwarding state when a device is connected. The Root Guard and Bridge Protocol Data Unit (BPDU) Guard are used to control the STP topology. This extra control in the topology prevents any occurrence of bridge loops.

The objective of this document is to show you how to configure STP Interface Settings on the SG350XG and SG550XG.

**Note:** The steps in this document are performed under the Advanced Display Mode. To change to the Advanced Display Mode, go to the top right corner and select **Advanced** in the *Display Mode* drop-down list.

## Applicable Devices

- SG350XG
- SG550XG

## Software Version

- SG350XG – v2.0.0.73
- SG550XG – v2.0.0.73

## Configuring STP Interface Settings

Step 1. Log in to the web configuration utility and choose **Spanning Tree > STP Interface Settings**. The *STP Interface Settings* page opens:

STP Interface Settings

STP Interface Setting Table Showing 1-48 of 48 All per p

Filter: Interface Type equals to Port of Unit 1

Entry No.	Interface	STP	Edge Port	Root Guard	BPDU Guard	BPDU Handling	Port Role	Path Cost	Priority	Port State	Designated Bridge ID	Designated Port ID	Designated Cost	Forward Transitions	LAG
<input type="radio"/>	1 XG1	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	2 XG2	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	3 XG3	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	4 XG4	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	5 XG5	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	6 XG6	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	7 XG7	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	8 XG8	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	9 XG9	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	10 XG10	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	11 XG11	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	12 XG12	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	13 XG13	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	14 XG14	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	15 XG15	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	16 XG16	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	17 XG17	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	18 XG18	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	19 XG19	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	20 XG20	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	21 XG21	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	22 XG22	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	23 XG23	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	24 XG24	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
<input type="radio"/>	25 XG25	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	

Step 2. In the *Filter: Interface Type equals to* drop-down list, select the desired **Port of Unit** or **LAG**. Then click **Go**.

STP Interface Settings

STP Interface Setting Table Showing 1-48 of 48 All per p

Filter: Interface Type equals to **Port of Unit 1**

Entry No.	Interface	LAG	Root Guard	BPDU Guard	BPDU Handling	Port Role	Path Cost	Priority	Port State	Designated Bridge ID	Designated Port ID	Designated Cost	Forward Transitions	LAG
<input type="radio"/>	1 XG1	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	2 XG2	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	3 XG3	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	4 XG4	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	5 XG5	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	6 XG6	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	7 XG7	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	8 XG8	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	9 XG9	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	10 XG10	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	11 XG11	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	12 XG12	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	13 XG13	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	14 XG14	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	15 XG15	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	16 XG16	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	17 XG17	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	18 XG18	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	19 XG19	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	20 XG20	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	21 XG21	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	22 XG22	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	23 XG23	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	24 XG24	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	
<input type="radio"/>	25 XG25	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	

**Note:** You will have more options (e.g. **Port of Unit 2**) if there are more units in the stack.

Step 3. The STP Interface Setting Table displays information of all the interfaces currently configured on the switch. Select a radio button and click **Edit...** to edit its settings in the *Edit STP Interface Setting* window that appears.

## STP Interface Settings

STP Interface Setting Table

Filter: *Interface Type* equals to

	Entry No.	Interface	STP	Edge Port	Root Guard	BPDU Guard	BPDU Handling	Port Role	Path
<input checked="" type="radio"/>	1	XG1	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	2	XG2	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	3	XG3	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	4	XG4	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	5	XG5	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	6	XG6	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	7	XG7	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	8	XG8	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	9	XG9	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	10	XG10	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	11	XG11	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	12	XG12	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	13	XG13	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	14	XG14	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	15	XG15	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	16	XG16	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	17	XG17	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	18	XG18	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	19	XG19	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	20	XG20	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	21	XG21	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	22	XG22	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	23	XG23	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	24	XG24	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	25	XG25	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	26	XG26	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	27	XG27	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	28	XG28	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input checked="" type="radio"/>	29	XG29	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	30	XG30	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	31	XG31	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	32	XG32	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	33	XG33	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	34	XG34	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	35	XG35	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	36	XG36	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	37	XG37	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	38	XG38	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	39	XG39	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	40	XG40	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	41	XG41	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	42	XG42	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	43	XG43	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	44	XG44	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	45	XG45	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	46	XG46	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	47	XG47	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	48	XG48	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200

Copy Settings...

Edit...

[Step 4](#). In the *Interface* field, select a radio button. You can choose either *Unit* and *Port* or *LAG*. If you chose *LAG*, then skip to [Step 7](#).

The image shows a configuration window for a network interface. At the top, the 'Interface' section has three radio buttons: 'Unit' (selected), 'Port', and 'LAG'. Each radio button is followed by a dropdown menu. The 'Unit' dropdown is set to '1', the 'Port' dropdown is set to 'XG1', and the 'LAG' dropdown is set to '1'. A red box highlights these three options. Below this, there are several checkboxes and radio buttons for other settings: 'STP' is checked 'Enable'; 'Edge Port' has 'Auto' selected; 'Root Guard' and 'BPDU Guard' are unchecked 'Enable'; 'BPDU Handling' has 'Use Global Settings' selected; 'Path Cost' has 'Use Default' selected; and 'Priority' is set to '128'. Below these are several status fields: 'Port State' is 'Disabled', 'Designated Bridge ID', 'Designated Port ID', 'Designated Cost', and 'Forward Transitions' are all 'N/A'. At the bottom, there are 'Apply' and 'Close' buttons.

Step 5. In the *Unit* drop-down list, select the unit you want to configure.

Interface:	<input checked="" type="radio"/> Unit <b>1</b> Port <b>XG1</b> <input type="radio"/> LAG <b>1</b>
STP:	<input checked="" type="checkbox"/> Enable
Edge Port:	<input type="radio"/> Enable <input checked="" type="radio"/> Auto <input type="radio"/> Disable
Root Guard:	<input type="checkbox"/> Enable
BPDU Guard:	<input type="checkbox"/> Enable
BPDU Handling:	<input checked="" type="radio"/> Use Global Settings <input type="radio"/> Filtering <input type="radio"/> Flooding
Path Cost:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined <input type="text" value="2000000"/> (Range: 1 - 200000000)
Priority:	<input type="text" value="128"/>
<hr/>	
Port State:	Disabled
Designated Bridge ID:	N/A
Designated Port ID:	N/A
Designated Cost:	N/A
Forward Transitions:	N/A
<hr/>	
Speed:	10G
LAG:	N/A

Step 6. In the *Port* drop-down list, select the port you want to configure, then skip to [Step 8](#).

Interface:	<input checked="" type="radio"/> Unit <input type="radio"/> LAG	Unit <input type="text" value="1"/> Port <input type="text" value="XG1"/>	LAG <input type="text" value="1"/>
STP:	<input checked="" type="checkbox"/> Enable	<div style="border: 1px solid red; padding: 2px;"><ul style="list-style-type: none"><li>XG1</li><li>XG2</li><li>XG3</li><li>XG4</li><li>XG5</li><li>XG6</li><li>XG7</li><li>XG8</li><li>XG9</li><li>XG10</li><li>XG11</li><li>XG12</li><li>XG13</li><li>XG14</li><li>XG15</li><li>XG16</li><li>XG17</li><li>XG18</li><li>XG19</li><li>XG20</li></ul></div>	
Edge Port:	<input type="radio"/> Enable <input checked="" type="radio"/> Auto <input type="radio"/> Disable		
Root Guard:	<input type="checkbox"/> Enable		
BPDU Guard:	<input type="checkbox"/> Enable		
BPDU Handling:	<input checked="" type="radio"/> Use Global Setting <input type="radio"/> Filtering <input type="radio"/> Flooding		
Path Cost:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined	<input type="text" value="200"/>	(Range: 1 - 200000000)
Priority:	<input type="text" value="128"/>		
Port State:	Disabled		
Designated Bridge ID:	N/A		
Designated Port ID:	N/A		
Designated Cost:	N/A		
Forward Transitions:	N/A		
Speed:	10G		
LAG:	N/A		

**Step 7.** If you have chosen *LAG* in [step 4](#), select the desired *LAG* port that you want to configure.

Interface:	<input type="radio"/> Unit <input type="text" value="1"/> Port <input type="text" value="XG1"/> <input checked="" type="radio"/> LAG <input type="text" value="1"/>
STP:	<input checked="" type="checkbox"/> Enable
Edge Port:	<input type="radio"/> Enable <input checked="" type="radio"/> Auto <input type="radio"/> Disable
Root Guard:	<input type="checkbox"/> Enable
BPDU Guard:	<input type="checkbox"/> Enable
BPDU Handling:	<input checked="" type="radio"/> Use Global Settings <input type="radio"/> Filtering <input type="radio"/> Flooding
Path Cost:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined <input type="text" value="20000"/> (Range: 1 - 200000000)
Priority:	<input type="text" value="128"/>
<hr/>	
Port State:	Disabled
Designated Bridge ID:	N/A
Designated Port ID:	N/A
Designated Cost:	N/A
Forward Transitions:	N/A

[Step 8](#). In the *STP* field, check the **Enable** box if you want to enable STP on the port. This is checked by default.

Interface:	<input checked="" type="radio"/> Unit <input type="text" value="1"/> Port <input type="text" value="XG1"/> <input type="radio"/> LAG <input type="text" value="1"/>
STP:	<input checked="" type="checkbox"/> Enable
Edge Port:	<input type="radio"/> Enable <input checked="" type="radio"/> Auto <input type="radio"/> Disable
Root Guard:	<input type="checkbox"/> Enable
BPDU Guard:	<input type="checkbox"/> Enable
BPDU Handling:	<input checked="" type="radio"/> Use Global Settings <input type="radio"/> Filtering <input type="radio"/> Flooding
Path Cost:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined <input type="text" value="2000000"/> (Range: 1 - 200000000)
Priority:	<input type="text" value="128"/>
<hr/>	
Port State:	Disabled
Designated Bridge ID:	N/A
Designated Port ID:	N/A
Designated Cost:	N/A
Forward Transitions:	N/A
<hr/>	
Speed:	10G
LAG:	N/A

Step 9. In the *Edge Port* field, you can choose either **Enable**, **Auto**, or **Disable**. If Fast Link mode is enabled on a port, the port is automatically set to Forwarding state when the port link is up. Fast Link is also known as port-fast. STP works by “listening” for about 30-45 seconds. With Fast Link enabled, it only listens for about 5 seconds before transitioning into forwarding state.



Interface:	<input checked="" type="radio"/> Unit <input type="text" value="1"/> Port <input type="text" value="XG1"/> <input type="radio"/> LAG <input type="text" value="1"/>
STP:	<input checked="" type="checkbox"/> Enable
Edge Port:	<input type="radio"/> Enable <input checked="" type="radio"/> Auto <input type="radio"/> Disable
Root Guard:	<input type="checkbox"/> Enable
BPDU Guard:	<input type="checkbox"/> Enable
BPDU Handling:	<input checked="" type="radio"/> Use Global Settings <input type="radio"/> Filtering <input type="radio"/> Flooding
Path Cost:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined <input type="text" value="2000000"/> (Range: 1 - 200000000)
Priority:	<input type="text" value="128"/>
<hr/>	
Port State:	Disabled
Designated Bridge ID:	N/A
Designated Port ID:	N/A
Designated Cost:	N/A
Forward Transitions:	N/A
<hr/>	
Speed:	10G
LAG:	N/A

The options are defined as:

- Enable – Enables Fast Link immediately.
- Auto – Enables Fast Link a few seconds after the interface becomes active. This allows STP to resolve loops before enabling Fast Link.
- Disable – Disables Fast Link.

Step 10. Root Guard option provides a way to enforce the root bridge placement in the network. Check the **Enable** box if you want to enable Root Guard.

Interface:	<input checked="" type="radio"/> Unit <input type="text" value="1"/> <input type="text" value="Port XG1"/> <input type="radio"/> LAG <input type="text" value="1"/>
STP:	<input checked="" type="checkbox"/> Enable
Edge Port:	<input type="radio"/> Enable <input checked="" type="radio"/> Auto <input type="radio"/> Disable
Root Guard:	<input checked="" type="checkbox"/> Enable
BPDU Guard:	<input type="checkbox"/> Enable
BPDU Handling:	<input checked="" type="radio"/> Use Global Settings <input type="radio"/> Filtering <input type="radio"/> Flooding
✱ Path Cost:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined <input type="text" value="2000000"/> (Range: 1 - 200000000)
Priority:	<input type="text" value="128"/>
<hr/>	
Port State:	Disabled
Designated Bridge ID:	N/A
Designated Port ID:	N/A
Designated Cost:	N/A
Forward Transitions:	N/A
<hr/>	
Speed:	10G
LAG:	N/A

Step 11. Bridge Protocol Data Units (BPDUs) are exchanged across bridges to detect loops in a network topology. The BPDU Guard enables you to enforce the STP domain borders and keep the active topology predictable. The devices behind the ports that have BPDU Guard enabled cannot influence the STP topology. At the reception of BPDUs, the BPDU guard operation disables the port that has BPDU configured. In this case, a BPDU message is received and an appropriate SNMP trap is generated. Check the **Enable** box if you want to enable BPDU Guard.

Interface:	<input checked="" type="radio"/> Unit <input type="text" value="1"/> Port <input type="text" value="XG1"/> <input type="radio"/> LAG <input type="text" value="1"/>
STP:	<input checked="" type="checkbox"/> Enable
Edge Port:	<input type="radio"/> Enable <input checked="" type="radio"/> Auto <input type="radio"/> Disable
Root Guard:	<input checked="" type="checkbox"/> Enable
BPDU Guard:	<input checked="" type="checkbox"/> Enable
BPDU Handling:	<input checked="" type="radio"/> Use Global Settings <input type="radio"/> Filtering <input type="radio"/> Flooding
✱ Path Cost:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined <input type="text" value="2000000"/> (Range: 1 - 200000000)
Priority:	<input type="text" value="128"/>
<hr/>	
Port State:	Disabled
Designated Bridge ID:	N/A
Designated Port ID:	N/A
Designated Cost:	N/A
Forward Transitions:	N/A
<hr/>	
Speed:	10G
LAG:	N/A

Step 12. In the *BPDU Handling* field, select how BPDU packets are managed when STP is disabled on the port or the device. BPDUs are used to transmit spanning tree information.

Interface:	<input checked="" type="radio"/> Unit <input type="text" value="1"/> Port <input type="text" value="XG1"/> <input type="radio"/> LAG <input type="text" value="1"/>
STP:	<input checked="" type="checkbox"/> Enable
Edge Port:	<input type="radio"/> Enable <input checked="" type="radio"/> Auto <input type="radio"/> Disable
Root Guard:	<input checked="" type="checkbox"/> Enable
BPDU Guard:	<input checked="" type="checkbox"/> Enable
BPDU Handling:	<input checked="" type="radio"/> Use Global Settings <input type="radio"/> Filtering <input type="radio"/> Flooding
✱ Path Cost:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined <input type="text" value="2000000"/> (Range: 1 - 200000000)
Priority:	<input type="text" value="128"/>
<hr/>	
Port State:	Disabled
Designated Bridge ID:	N/A
Designated Port ID:	N/A
Designated Cost:	N/A
Forward Transitions:	N/A
<hr/>	
Speed:	10G
LAG:	N/A

The available options are:

- Use Global Settings – Select to use the settings defined in the
- [STP Status and Global Settings on the SG350XG and SG550XG](#) page.
- Filtering – Filters BPDU packets when Spanning Tree is disabled on an interface.
- Flooding – Floods BPDU packets when Spanning Tree is disabled on an interface.

Step 13. In the *Path Cost* field, select either **Use Default** which uses the default cost generated by the system or **User Defined** which set the port contribution to the root path cost.

Interface:	<input checked="" type="radio"/> Unit <input type="text" value="1"/> Port <input type="text" value="XG1"/> <input type="radio"/> LAG <input type="text" value="1"/>
STP:	<input checked="" type="checkbox"/> Enable
Edge Port:	<input type="radio"/> Enable <input checked="" type="radio"/> Auto <input type="radio"/> Disable
Root Guard:	<input checked="" type="checkbox"/> Enable
BPDU Guard:	<input checked="" type="checkbox"/> Enable
BPDU Handling:	<input checked="" type="radio"/> Use Global Settings <input type="radio"/> Filtering <input type="radio"/> Flooding
✱ Path Cost:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined <input type="text" value="2000000"/> (Range: 1 - 200000000)
Priority:	<input type="text" value="128"/>
<hr/>	
Port State:	Disabled
Designated Bridge ID:	N/A
Designated Port ID:	N/A
Designated Cost:	N/A
Forward Transitions:	N/A
<hr/>	
Speed:	10G
LAG:	N/A

Step 14. In the *Priority* field, set the priority value of the port. The priority value influences the port choice when a bridge has two ports connected in a loop. The priority is a value from 0 – 240, set in increments of 16. The lowest priority is 0 and the highest priority is 240.

Interface:  Unit  Port  LAG

STP:  Enable

Edge Port:  Enable  
 Auto  
 Disable

Root Guard:  Enable

BPDU Guard:  Enable

BPDU Handling:  Use Global Settings  
 Filtering  
 Flooding

✱ Path Cost:  Use Default  
 User Defined  (Range: 1 - 200000000)

Priority:  ▼

Port State: 0

Designated Bridge ID: 16

Designated Port ID: 32

Designated Cost: 48

Forward Transitions: 64

Speed: 80

LAG: 96

112

128

144

160

176

192

208

224

240

The *Port State* displays the current STP state of a port.

Interface:	<input checked="" type="radio"/> Unit <input type="text" value="1"/> <input type="text" value="Port"/> <input type="text" value="XG1"/> <input type="radio"/> LAG <input type="text" value="1"/>
STP:	<input checked="" type="checkbox"/> Enable
Edge Port:	<input type="radio"/> Enable <input checked="" type="radio"/> Auto <input type="radio"/> Disable
Root Guard:	<input checked="" type="checkbox"/> Enable
BPDU Guard:	<input checked="" type="checkbox"/> Enable
BPDU Handling:	<input checked="" type="radio"/> Use Global Settings <input type="radio"/> Filtering <input type="radio"/> Flooding
✱ Path Cost:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined <input type="text" value="2000000"/> (Range: 1 - 200000000)
Priority:	<input type="text" value="128"/>
<hr/>	
Port State:	<b>Disabled</b>
Designated Bridge ID:	N/A
Designated Port ID:	N/A
Designated Cost:	N/A
Forward Transitions:	N/A
<hr/>	
Speed:	10G
LAG:	N/A

The states are defined as:

- Disabled – STP is currently disabled on the port. The port forwards traffic while learning MAC addresses.
- Blocking – The port is currently blocked and cannot forward traffic (with the exception of BPDU data) or learn MAC addresses.
- Listening – The port is in listening mode. The port cannot forward traffic and cannot learn MAC addresses.
- Learning – The port is in learning mode. The port cannot forward traffic, but it can learn new MAC addresses.
- Forwarding – The port is in forwarding mode. The port can forward traffic and learn new MAC addresses.

The *Designated Bridge ID* displays the bridge priority and the MAC address of the designated bridge.

Interface:	<input checked="" type="radio"/> Unit <input type="text" value="1"/> <input type="text" value="▼"/> Port <input type="text" value="XG1"/> <input type="text" value="▼"/> <input type="radio"/> LAG <input type="text" value="1"/> <input type="text" value="▼"/>
STP:	<input checked="" type="checkbox"/> Enable
Edge Port:	<input type="radio"/> Enable <input checked="" type="radio"/> Auto <input type="radio"/> Disable
Root Guard:	<input checked="" type="checkbox"/> Enable
BPDU Guard:	<input checked="" type="checkbox"/> Enable
BPDU Handling:	<input checked="" type="radio"/> Use Global Settings <input type="radio"/> Filtering <input type="radio"/> Flooding
✱ Path Cost:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined <input type="text" value="2000000"/> (Range: 1 - 200000000)
Priority:	<input type="text" value="128"/> <input type="text" value="▼"/>
<hr/>	
Port State:	Disabled
Designated Bridge ID:	N/A
Designated Port ID:	N/A
Designated Cost:	N/A
Forward Transitions:	N/A
<hr/>	
Speed:	10G
LAG:	N/A

The *Designated Port ID* displays the priority and interface of the selected port.



Interface:	<input checked="" type="radio"/> Unit <input type="text" value="1"/> <input type="text" value="Port"/> <input type="text" value="XG1"/> <input type="radio"/> LAG <input type="text" value="1"/>
STP:	<input checked="" type="checkbox"/> Enable
Edge Port:	<input type="radio"/> Enable <input checked="" type="radio"/> Auto <input type="radio"/> Disable
Root Guard:	<input checked="" type="checkbox"/> Enable
BPDU Guard:	<input checked="" type="checkbox"/> Enable
BPDU Handling:	<input checked="" type="radio"/> Use Global Settings <input type="radio"/> Filtering <input type="radio"/> Flooding
✱ Path Cost:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined <input type="text" value="2000000"/> (Range: 1 - 200000000)
Priority:	<input type="text" value="128"/>
<hr/>	
Port State:	Disabled
Designated Bridge ID:	N/A
Designated Port ID:	<b>N/A</b>
Designated Cost:	N/A
Forward Transitions:	N/A
<hr/>	
Speed:	10G
LAG:	N/A

The *Designated Cost* displays the cost of the port participating in the STP topology. Ports with a lower cost are less likely to be blocked if STP detects loops.

Interface:	<input checked="" type="radio"/> Unit <input type="text" value="1"/> <input type="text" value="Port XG1"/> <input type="radio"/> LAG <input type="text" value="1"/>
STP:	<input checked="" type="checkbox"/> Enable
Edge Port:	<input type="radio"/> Enable <input checked="" type="radio"/> Auto <input type="radio"/> Disable
Root Guard:	<input checked="" type="checkbox"/> Enable
BPDU Guard:	<input checked="" type="checkbox"/> Enable
BPDU Handling:	<input checked="" type="radio"/> Use Global Settings <input type="radio"/> Filtering <input type="radio"/> Flooding
✦ Path Cost:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined <input type="text" value="2000000"/> (Range: 1 - 200000000)
Priority:	<input type="text" value="128"/>
<hr/>	
Port State:	Disabled
Designated Bridge ID:	N/A
Designated Port ID:	N/A
Designated Cost:	<b>N/A</b>
Forward Transitions:	N/A
<hr/>	
Speed:	10G
LAG:	N/A

The *Forward Transitions* displays the number of times the port has changed from the Blocking state to Forwarding state.

Interface:	<input checked="" type="radio"/> Unit <input type="text" value="1"/> <input type="text" value="▼"/> Port <input type="text" value="XG1"/> <input type="text" value="▼"/> <input type="radio"/> LAG <input type="text" value="1"/> <input type="text" value="▼"/>
STP:	<input checked="" type="checkbox"/> Enable
Edge Port:	<input type="radio"/> Enable <input checked="" type="radio"/> Auto <input type="radio"/> Disable
Root Guard:	<input checked="" type="checkbox"/> Enable
BPDU Guard:	<input checked="" type="checkbox"/> Enable
BPDU Handling:	<input checked="" type="radio"/> Use Global Settings <input type="radio"/> Filtering <input type="radio"/> Flooding
✱ Path Cost:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined <input type="text" value="2000000"/> (Range: 1 - 200000000)
Priority:	<input type="text" value="128"/> <input type="text" value="▼"/>
<hr/>	
Port State:	Disabled
Designated Bridge ID:	N/A
Designated Port ID:	N/A
Designated Cost:	N/A
Forward Transitions:	<b>N/A</b>
<hr/>	
Speed:	10G
LAG:	N/A

The *Speed* displays the speed of the port.

Interface:	<input checked="" type="radio"/> Unit	1	Port	XG1	<input type="radio"/> LAG	1
STP:	<input checked="" type="checkbox"/>	Enable				
Edge Port:	<input type="radio"/> Enable	<input checked="" type="radio"/> Auto	<input type="radio"/> Disable			
Root Guard:	<input checked="" type="checkbox"/>	Enable				
BPDU Guard:	<input checked="" type="checkbox"/>	Enable				
BPDU Handling:	<input checked="" type="radio"/> Use Global Settings	<input type="radio"/> Filtering	<input type="radio"/> Flooding			
✦ Path Cost:	<input checked="" type="radio"/> Use Default	<input type="radio"/> User Defined	2000000	(Range: 1 - 200000000)		
Priority:	128					
<hr/>						
Port State:	Disabled					
Designated Bridge ID:	N/A					
Designated Port ID:	N/A					
Designated Cost:	N/A					
Forward Transitions:	N/A					
<hr/>						
Speed:	10G					
LAG:	N/A					

**Note:** This is not available if you have chosen *LAG* in [Step 4](#).

The *LAG* displays the LAG to which the port belongs. If a port is a member of a LAG, the LAG settings override the port settings.

Interface:	<input checked="" type="radio"/> Unit <input type="text" value="1"/> <input type="text" value="Port XG1"/> <input type="radio"/> LAG <input type="text" value="1"/>
STP:	<input checked="" type="checkbox"/> Enable
Edge Port:	<input type="radio"/> Enable <input checked="" type="radio"/> Auto <input type="radio"/> Disable
Root Guard:	<input checked="" type="checkbox"/> Enable
BPDU Guard:	<input checked="" type="checkbox"/> Enable
BPDU Handling:	<input checked="" type="radio"/> Use Global Settings <input type="radio"/> Filtering <input type="radio"/> Flooding
⚙️ Path Cost:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined <input type="text" value="2000000"/> (Range: 1 - 200000000)
Priority:	<input type="text" value="128"/>
<hr/>	
Port State:	Disabled
Designated Bridge ID:	N/A
Designated Port ID:	N/A
Designated Cost:	N/A
Forward Transitions:	N/A
<hr/>	
Speed:	10G
LAG:	<input type="text" value="N/A"/>

**Note:** This is not available if you have chosen LAG in [Step 4](#).

Step 15. Click **Apply**. The interface settings are written to the Running Configuration file.

Interface:	<input checked="" type="radio"/> Unit <input type="text" value="1"/> Port <input type="text" value="XG1"/> <input type="radio"/> LAG <input type="text" value="1"/>
STP:	<input checked="" type="checkbox"/> Enable
Edge Port:	<input type="radio"/> Enable <input checked="" type="radio"/> Auto <input type="radio"/> Disable
Root Guard:	<input checked="" type="checkbox"/> Enable
BPDU Guard:	<input checked="" type="checkbox"/> Enable
BPDU Handling:	<input checked="" type="radio"/> Use Global Settings <input type="radio"/> Filtering <input type="radio"/> Flooding
✱ Path Cost:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined <input type="text" value="2000000"/> (Range: 1 - 200000000)
Priority:	<input type="text" value="128"/>
<hr/>	
Port State:	Disabled
Designated Bridge ID:	N/A
Designated Port ID:	N/A
Designated Cost:	N/A
Forward Transitions:	N/A
<hr/>	
Speed:	10G
LAG:	N/A
<hr/>	
<input checked="" type="button" value="Apply"/>	<input type="button" value="Close"/>

Step 16. If you want to quickly copy a port's settings to another port or group of ports, select its radio button in the *STP Interface Settings* and click the **Copy Settings...** button.

## STP Interface Settings

STP Interface Setting Table

Filter: *Interface Type* equals to

	Entry No.	Interface	STP	Edge Port	Root Guard	BPDU Guard	BPDU Handling	Port Role	Path
<input checked="" type="radio"/>	1	XG1	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	2	XG2	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	3	XG3	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	4	XG4	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	5	XG5	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	6	XG6	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	7	XG7	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	8	XG8	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	9	XG9	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	10	XG10	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	11	XG11	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	12	XG12	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	13	XG13	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	14	XG14	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	15	XG15	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	16	XG16	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	17	XG17	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	18	XG18	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	19	XG19	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	20	XG20	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	21	XG21	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	22	XG22	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	23	XG23	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	24	XG24	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	25	XG25	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	26	XG26	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	27	XG27	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	28	XG28	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input checked="" type="radio"/>	29	XG29	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	30	XG30	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	31	XG31	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	32	XG32	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	33	XG33	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	34	XG34	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	35	XG35	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	36	XG36	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	37	XG37	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	38	XG38	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	39	XG39	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	40	XG40	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	41	XG41	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	42	XG42	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	43	XG43	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	44	XG44	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	45	XG45	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	46	XG46	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	47	XG47	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200
<input type="radio"/>	48	XG48	Enabled	Disabled	Disabled	Disabled	STP	Disabled	200

Step 17. In the *Copy Settings* window, enter the port(s) that you want to copy to in the text field. You can specify multiple ports, separated by commas, or a range of ports.

Copy configuration from entry 1 (XG1)

to:  (Example: 1,3,5-10 or: XG1,XG3-XG5)

Step 18. Click **Apply**. The settings are copied.

Copy configuration from entry 1 (XG1)

to:  (Example: 1,3,5-10 or: XG1,XG3-XG5)