

# SG350XG 및 SG550XG에서 STP 인터페이스 설정 구성

## 목표

STP(Spanning Tree Protocol)는 토폴로지에서 루프가 발생하지 않도록 방지하는 네트워크 프로토콜입니다. 이러한 루프는 스위치가 트래픽을 무한대로 전달하도록 합니다. 이로 인해 네트워크가 플래딩되어 리소스를 사용하므로 네트워크 효율성이 줄어듭니다.

STP 인터페이스 설정은 포트별로 STP의 효율성을 높이는 데 사용됩니다. 에지 포트 기능을 사용하여 고속 링크는 디바이스가 연결될 때 포트를 전달 상태로 설정하여 STP 컨버전스의 속도를 높입니다. Root Guard 및 BPDU(Bridge Protocol Data Unit) Guard는 STP 토폴로지를 제어하는 데 사용됩니다. 토폴로지의 이 추가 제어는 브리지 루프가 발생하는 것을 방지합니다.

이 문서의 목적은 SG350XG 및 SG550XG에서 STP 인터페이스 설정을 구성하는 방법을 보여 주는 것입니다.

**참고:** 이 문서의 단계는 고급 표시 모드에서 수행됩니다. 고급 디스플레이 모드로 변경하려면 오른쪽 상단 모서리로 이동하여 *디스플레이 모드* 드롭다운 목록에서 **고급**을 선택합니다.

## 적용 가능한 디바이스

- SG350XG
- SG550XG

## 소프트웨어 버전

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

## STP 인터페이스 설정 구성

1단계. 웹 구성 유틸리티에 로그인하고 **Spanning Tree(스패닝 트리) > STP Interface Settings(STP 인터페이스 설정)**를 선택합니다. *STP Interface Settings* 페이지가 열립니다.

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
1	XG1	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
2	XG2	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
3	XG3	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
4	XG4	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
5	XG5	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
6	XG6	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
7	XG7	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
8	XG8	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
9	XG9	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
10	XG10	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
11	XG11	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
12	XG12	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
13	XG13	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
14	XG14	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
15	XG15	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
16	XG16	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
17	XG17	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
18	XG18	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
19	XG19	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
20	XG20	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
21	XG21	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
22	XG22	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
23	XG23	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
24	XG24	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
25	XG25	Enabled	Disabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	

2단계. 필터:Interface Type equals to 드롭다운 목록에서 원하는 Port of Unit 또는 LAG를 선택합니다.그런 다음 이동을 클릭합니다.

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
1	XG1	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
2	XG2	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
3	XG3	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
4	XG4	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
5	XG5	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
6	XG6	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
7	XG7	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
8	XG8	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
9	XG9	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
10	XG10	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
11	XG11	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
12	XG12	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
13	XG13	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
14	XG14	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
15	XG15	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
16	XG16	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
17	XG17	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
18	XG18	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
19	XG19	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
20	XG20	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
21	XG21	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
22	XG22	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
23	XG23	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
24	XG24	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	
25	XG25	Enabled	Disabled	Disabled	STP	Disabled	2000000	128	Disabled	N/A	N/A	N/A	N/A	

참고:스택에 더 많은 유닛이 있는 경우 더 많은 옵션(예: Port of Unit 2)이 제공됩니다.

3단계. STP Interface Setting Table(STP 인터페이스 설정 테이블)에는 스위치에 현재 구성된 모든 인터페이스의 정보가 표시됩니다.라디오 버튼을 선택하고 편집...을 클릭하여 나타나는 STP 인터페이스 설정 편집 창에서 해당 설정을 편집합니다.

## 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...

4단계. 인터페이스 필드에서 라디오 버튼을 선택합니다. Unit 및 Port 또는 LAG 중 하나를 선택할 수 있습니다. LAG를 선택한 경우 7단계로 건너뛴니다.

The image shows a configuration window for a network interface. At the top, the 'Interface:' field has three radio buttons: 'Unit' (selected), 'Port', and 'LAG'. Each radio button is followed by a dropdown menu showing '1', 'XG1', and '1' respectively. A red box highlights this entire section. Below this, there are several configuration options:

- 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 (with a text input field containing '2000000' and '(Range: 1 - 200000000)')
- Priority:  (dropdown arrow)

---

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

At the bottom, there are two buttons: 'Apply' and 'Close'.

5단계. Unit 드롭다운 목록에서 구성할 유닛을 선택합니다.

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

6단계. Port 드롭다운 목록에서 구성할 포트를 선택한 다음 [8단계](#)로 건너뛵니다.

Interface:	<input checked="" type="radio"/> Unit <input type="radio"/> LAG	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 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"/>	<input type="text" value=""/> (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		

[7단계](#). [4단계](#)에서 LAG를 선택한 경우, 구성하려는 LAG 포트를 선택합니다.

Interface:	<input type="radio"/> Unit <input type="radio"/> Port <input checked="" type="radio"/> LAG	1	XG1	1
STP:	<input checked="" type="checkbox"/> Enable			1
Edge Port:	<input type="radio"/> Enable			2
	<input checked="" type="radio"/> Auto			3
	<input type="radio"/> Disable			4
Root Guard:	<input type="checkbox"/> Enable			5
BPDU Guard:	<input type="checkbox"/> Enable			6
BPDU Handling:	<input checked="" type="radio"/> Use Global Settings			7
	<input type="radio"/> Filtering			8
	<input type="radio"/> Flooding			9
Path Cost:	<input checked="" type="radio"/> Use Default			10
	<input type="radio"/> User Defined	20000	(0 - 200000000)	11
Priority:		128		12
Port State:	Disabled			13
Designated Bridge ID:	N/A			14
Designated Port ID:	N/A			15
Designated Cost:	N/A			16
Forward Transitions:	N/A			17
				18
				19
				20

**8단계.** STP 필드에서 포트에서 STP를 활성화하려면 Enable 확인란을 선택합니다.기본적으로 선택되어 있습니다.

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

9단계. *Edge Port* 필드에서 **Enable**, Auto 또는 Disable을 선택할 수 있습니다. 포트에서 Fast Link 모드가 활성화된 경우 포트 링크가 작동하면 포트가 자동으로 Forwarding(전달) 상태로 설정됩니다. Fast Link는 port-fast라고도 합니다. STP는 약 30-45초 동안 "수신 대기"를 통해 작동합니다. Fast Link를 활성화하면 포워딩 상태로 전환하기 전에 약 5초 동안만 수신 대기합니다.

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	
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	

옵션은 다음과 같이 정의됩니다.

- Enable(활성화) - 빠른 링크를 즉시 활성화합니다.
- Auto(자동) - 인터페이스가 활성화되면 몇 초 후에 Fast Link(빠른 링크)를 활성화합니다.이렇게 하면 STP에서 빠른 링크를 활성화하기 전에 루프를 확인할 수 있습니다.
- Disable(비활성화) - 빠른 링크를 비활성화합니다.

10단계. Root Guard 옵션은 네트워크에서 루트 브리지 배치를 적용하는 방법을 제공합니다.  
.Root **Guard**를 활성화하려면 Enable(활성화) 상자를 선택합니다.

Interface:	<input checked="" type="radio"/> Unit <input type="radio"/> Port <input type="radio"/> LAG
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

11단계. BPDU(Bridge Protocol Data Units)는 네트워크 토폴로지의 루프를 탐지하기 위해 브리지 간에 교환됩니다. BPDU Guard를 사용하면 STP 도메인 경계를 적용하고 활성 토폴로지를 예측 가능하게 유지할 수 있습니다. BPDU Guard가 활성화된 포트 뒤에 있는 디바이스는 STP 토폴로지에 영향을 줄 수 없습니다. BPDU가 수신될 때 BPDU 가드 작업은 BPDU가 구성된 포트를 비활성화합니다. 이 경우 BPDU 메시지가 수신되고 적절한 SNMP 트랩이 생성됩니다. BPDU Guard를 활성화하려면 Enable(활성화) 상자를 선택합니다.

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

12단계. BPDUHandling 필드에서 포트 또는 디바이스에서 STP가 비활성화된 경우 BPDU 패킷이 관리되는 방법을 선택합니다. BPDU는 스페닝 트리 정보를 전송하는 데 사용됩니다.

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	
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	

사용 가능한 옵션은 다음과 같습니다.

- 전역 설정 사용 - 예 정의된 설정을 사용하려면 선택합니다.
- [SG350XG 및 SG550XG](#) 페이지의 [STP 상태 및 전역 설정](#)
- Filtering(필터링) - 인터페이스에서 Spanning Tree(스패닝 트리)가 비활성화된 경우 BPDU 패킷을 필터링합니다.
- 플러딩 - 스패닝 트리가 인터페이스에서 비활성화된 경우 BPDU 패킷을 플러딩합니다.

13단계. *Path Cost* 필드에서 시스템에서 생성한 기본 비용을 사용하는 **Use Default** 또는 포트 기여도를 루트 경로 비용에 설정하는 **User Defined**를 선택합니다.

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	
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	

14단계. *Priority*(우선순위) 필드에서 포트의 우선순위 값을 설정합니다. 우선 순위 값은 브리지에 루프에 두 개의 포트가 연결된 경우 포트 선택에 영향을 줍니다. 우선순위는 0~240의 값이며 16씩 증가합니다. 가장 낮은 우선순위는 0이고 가장 높은 우선순위는 240입니다.

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

Port State(포트 상태)는 포트의 현재 STP 상태를 표시합니다.

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	
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"/>	
Port State:	<input checked="" type="radio"/> Disabled	
Designated Bridge ID:	N/A	
Designated Port ID:	N/A	
Designated Cost:	N/A	
Forward Transitions:	N/A	
Speed:	10G	
LAG:	N/A	

상태는 다음과 같이 정의됩니다.

- Disabled(비활성화됨) - STP가 현재 포트에서 비활성화되어 있습니다.포트는 MAC 주소를 학습하는 동안 트래픽을 전달합니다.
- Blocking(차단) - 포트가 현재 차단되어 있으며 트래픽을 전달할 수 없습니다(BPDU 데이터 제외). 또는 MAC 주소를 학습할 수 없습니다.
- 수신 대기 - 포트가 수신 대기 모드입니다.포트는 트래픽을 전달할 수 없으며 MAC 주소를 알 수 없습니다.
- 학습 - 포트가 학습 모드입니다.포트는 트래픽을 전달할 수 없지만 새 MAC 주소를 학습할 수 있습니다.
- 포워딩 - 포트가 포워딩 모드에 있습니다.포트는 트래픽을 전달하고 새 MAC 주소를 학습할 수 있습니다.

Designated *Bridge ID*(지정된 브리지 ID)는 브리지 우선 순위와 지정된 브리지의 MAC 주소를 표시합니다.

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
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	

Designated *Port ID*(지정 포트 ID)에는 선택한 포트의 우선 순위 및 인터페이스가 표시됩니다.

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:	<b>N/A</b>
Designated Cost:	N/A
Forward Transitions:	N/A
<hr/>	
Speed:	10G
LAG:	N/A

Designated Cost는 STP 토폴로지에 참여하는 포트의 비용을 표시합니다. STP에서 루프를 탐지할 경우 비용이 낮은 포트가 차단될 가능성이 낮습니다.

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:	<b>N/A</b>
Forward Transitions:	N/A
<hr/>	
Speed:	10G
LAG:	N/A

Forward *Transitions*는 포트가 차단 상태에서 전달 상태로 변경된 횟수를 표시합니다.

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:	<b>N/A</b>
<hr/>	
Speed:	10G
LAG:	N/A

Speed(속도)는 포트의 속도를 표시합니다.

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	
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:	<b>10G</b>	
LAG:	N/A	

**참고:** [4단계](#)에서 LAG를 선택한 경우 이를 사용할 수 없습니다.

LAG는 포트가 속한 LAG를 표시합니다. 포트가 LAG의 멤버인 경우 LAG 설정이 포트 설정을 재정의합니다.

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	
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 checked="" type="radio"/> N/A	

**참고:** [4단계](#)에서 LAG를 선택한 경우에는 이 옵션을 사용할 수 없습니다.

15단계. 적용을 누릅니다. 인터페이스 설정은 실행 중인 구성 파일에 기록됩니다.

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
<input checked="" type="button" value="Apply"/> <input type="button" value="Close"/>	

16단계. 포트의 설정을 다른 포트 또는 포트 그룹에 빠르게 복사하려면 STP *Interface Settings*(STP 인터페이스 설정)에서 해당 라디오 버튼을 선택하고 **Copy Settings**(설정 복사...) 버튼을 클릭합니다.

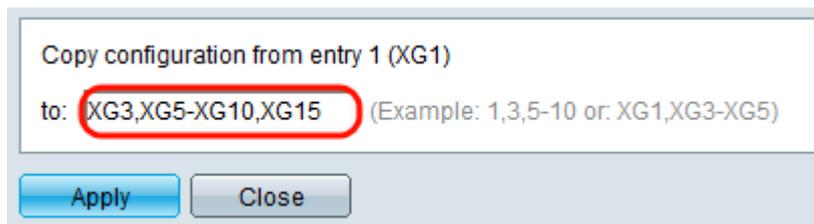
# STP Interface Settings

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

17단계. *Copy Settings*(설정 복사) 창에 복사할 포트를 텍스트 필드에 입력합니다.여러 포트를 쉼표로 구분하거나 포트 범위를 지정할 수 있습니다.

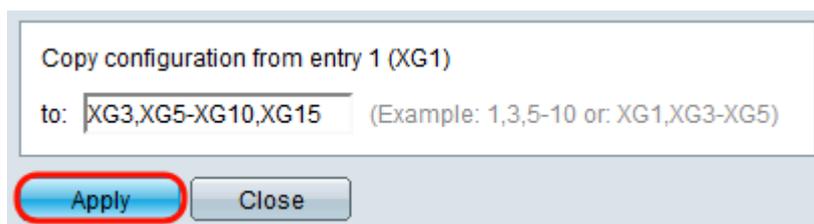


Copy configuration from entry 1 (XG1)

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

Apply Close

18단계. 적용을 누릅니다.설정이 복사됩니다.



Copy configuration from entry 1 (XG1)

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

Apply Close