

Broadcast Storm Protection

A broadcast storm occurs when a network is overwhelmed by continuous multicast or broadcast traffic typically caused by loops in the network. A severe broadcast storm can block all other network traffic. Stratix® 2000 switches provide protection against broadcast storms. When the broadcast storm protection feature is enabled, the switch drops incoming broadcast traffic if the traffic exceeds a certain threshold.

Stratix 2000 switches use two methods to determine the threshold for incoming broadcast traffic, depending on the switch catalog number:

- **Packet-based threshold**—The switch counts the number of broadcast packets received within a time cycle. Once the number of broadcast packets reaches the maximum number of packets in the time cycle, the port drops any excess broadcast packets. For threshold values based on packet number, see [Table 1](#).
- **Rate-based threshold**—The switch tracks the bandwidth of each port based on a maximum bit rate. Once a port reaches the maximum bit rate, the port drops any excess broadcast packets. For threshold values based on rate, see [Table 2](#).

Table 1 - Packet-based Thresholds

Cat. No.	Broadcast Storm Threshold (Packets per Second)
1783-US5T	20 pps for 10 Mbps per port; 200 pps for 100 Mbps per port
1783-US4T1F	20 pps for 10 Mbps per port; 200 pps for 100 Mbps per port
1783-US4T1H	20 pps for 10 Mbps per port; 200 pps for 100 Mbps per port
1783-US8T	20 pps for 10 Mbps per port; 200 pps for 100 Mbps per port
1783-US6T2F	20 pps for 10 Mbps per port; 200 pps for 100 Mbps per port
1783-US6T2H	20 pps for 10 Mbps per port; 200 pps for 100 Mbps per port
1783-US7T1F	20 pps for 10 Mbps per port; 200 pps for 100 Mbps per port
1783-US7T1H	20 pps for 10 Mbps per port; 200 pps for 100 Mbps per port
1783-US6T2TG2F	128 pps for 10/100/1000 Mbps
1783-US6T2TG2H	128 pps for 10/100/1000 Mbps
1783-US8TG2GX	128 pps for 10/100/1000 Mbps

Table 2 - Rate-based Thresholds

Cat. No.	Broadcast Storm Threshold
1783-US16T	10 Mbps per port
1783-US16T2S	10 Mbps per port
1783-US5TG	25 Mbps per port

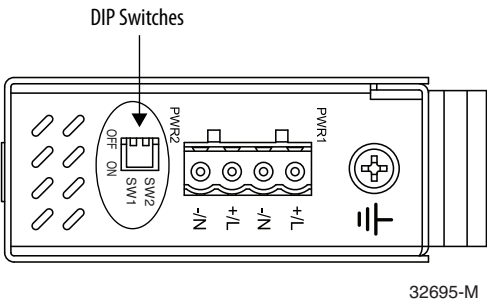
You can enable or disable broadcast storm protection by using DIP switch SW1 on the top panel of the switch:

- To enable the feature, set SW1 to the On position and restart the switch.
- To disable the feature, set SW1 to the Off position. By default, the feature is disabled.

DIP Switches

There are two DIP switches on the top panel of the switches. Each switch has On and Off states.

IMPORTANT To activate DIP switch settings, you must restart the switch.



The function of the DIP switches varies by catalog number.

Cat. No.	DIP Switch	Status	Description	Default
1783-US5T, 1783-US4T1F, 1783-US4T1H, 1783-US8T, 1783-US6T2F, 1783-US6T2H, 1783-US7T1F, 1783-US7T1H, 1783-US16T, 1783-US16T2S	SW1	On	Enables broadcast storm protection.	Off
		Off	Disables broadcast storm protection.	
	SW2	Reserved		Off
1783-US6T2TG2F 1783-US6T2TG2H	SW1	On	Enables broadcast storm protection.	Off
		Off	Disables broadcast storm protection.	
	SW2	On	Sets the SFP fiber port speed to 100 Mbps (100Base-FX). SW2 must remain in the On position.	On
		Off	Reserved	
1783-US5TG 1783-US8TG2GX	SW1	On	Enables broadcast storm protection.	Off
		Off	Disables broadcast storm protection.	
	SW2	On	Transmits jumbo frames up to 10 KB on the 1783-US5TG switch and up to 9.6 KB on the 1783-US8TG2GX switch.	Off
		Off	Drops jumbo frames.	

Status Indicators

The status indicators on the switches indicate the following:

- Status of each power supply
- Status of port speed
- Status of network connection or activity

The function of the status indicators varies by catalog number:

- [5- and 8-port Fast Ethernet Switches on page 5](#)
- [10-port Fast Ethernet Switches on page 6](#)
- [16- and 18-port Fast Ethernet Switches on page 7](#)
- [5- and 10-port Gigabit Ethernet Switches on page 8](#)