SN65LVCP408 Pin Function

Revision 1.0

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Document Revision History

Release	Date	Who	Changes
1.0	9/4/2019	Lee Sledjeski	Initial draft

Introduction

This document details the operation of the SWT pin on the SN65LVCP408. This configuration pin is designed to allow the 8x8 cross-point switch to cycle between two different mux configurations for each output port. Using the SWT I2C or pin option to change configurations will result in a momentary disruption of the data on Port 7

Switching Options

For each output port, users can select two possible input port selection profiles (i.e. sources that indicate which input port to use for the output). Switching between the active output port configuration and the secondary output port configuration is accomplished in two ways.

1. The switch event can be triggered using an I2C register bit.
2. A faster method to trigger the switch event is the SWT pin. Changing the logic state of the SWT pin causes the port configurations to move between the two options programmed into the SN65LVCP408 registers.

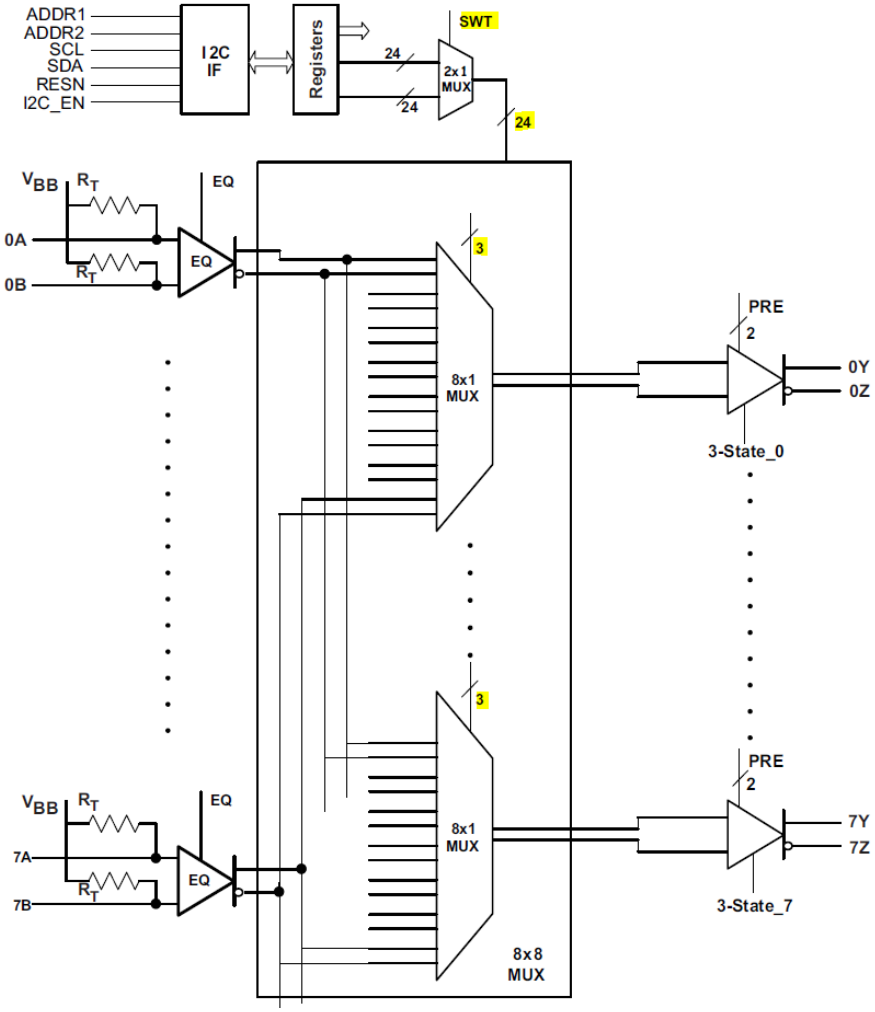

Figure 1: SWT internal design connections

SWT Response

The output configurations during an SWT event are correct except for a momentary glitch on Port 7. The timing of this glitch is shown in the oscilloscope waveform below. This occurs only on the rising edge of SWT, but can also be observed when using the register bit to switch port configurations.

Figure 2: SWT Event on Port 7