

PI5V330 in Video Pixel-Rate Switch Applications

Introduction

The PI5V330 is well suited for video applications when switching composite or RGB analog. A picture-in-picture application will be described in this brief.

Picture-In-Picture

The pixel-rate switch creates video overlays so 2 or more pictures can be viewed at the same time. An inexpensive NTSC titler can be implemented by superimposing the output of a character generator on a standard composite video background. Figure 1 shows the circuit using 1/4 of the PI5V330 video switch. It is possible to use 3/4 of the PI5V330 for RGB switching. Figures 2 and 3 show switch timing. It takes 2.5ns to enable the switch and 1.1ns to disable.

The pixel level used here is 0.7V peak. Measurements were taken at 90% of the pixel amplitude.

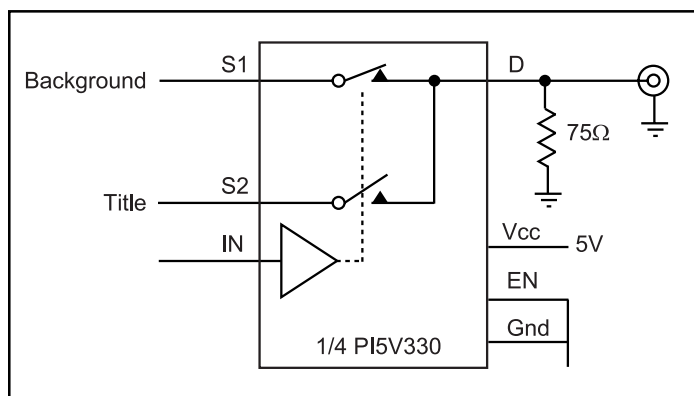


Figure 1. Picture-In-Picture Switch

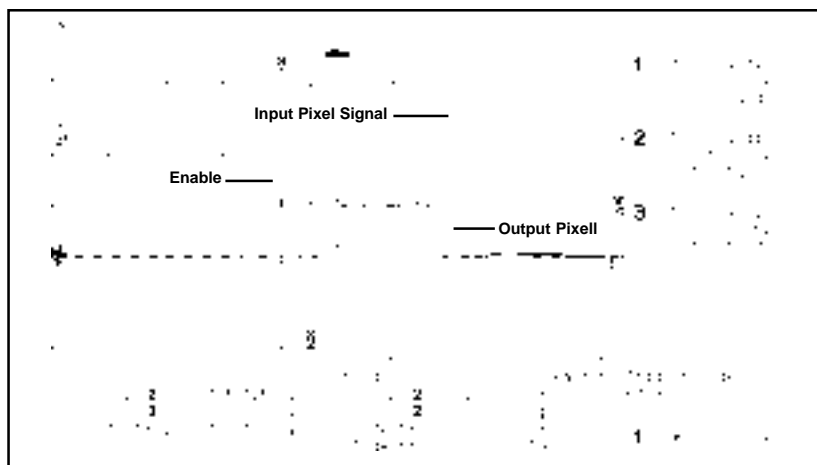


Figure 2. Enable Time with $R_L = 75\Omega$, $C_L = 20\text{pF}$

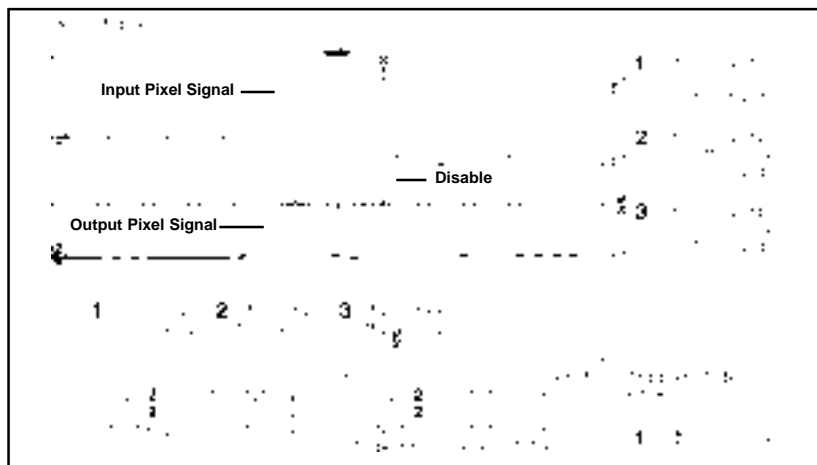


Figure 3. Disable Time with $R_L = 75\Omega$, $C_L = 20\text{pF}$

