

# Channel Link Error

A special program is loaded into the Virtex which shifts patterns through the channel link to the motherboard fifo.

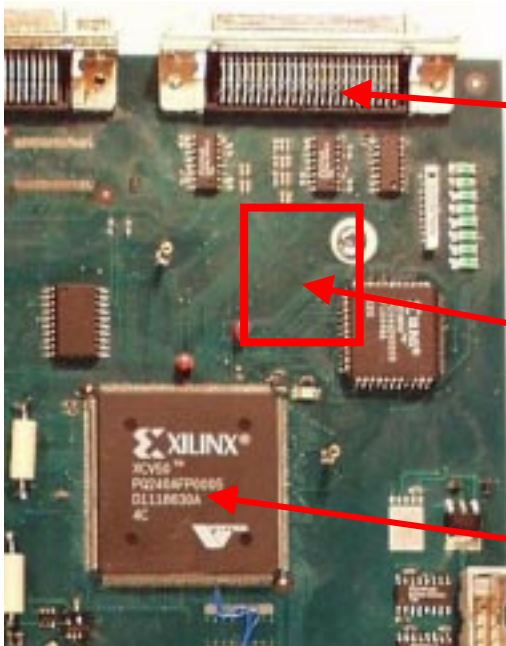
## ERROR File

The file below represents the results of the shift. The first number is a memory counter. The second is what was read back at that memory location. The third is what one expected to be read back, and the fourth gives the cumulative bits that are bad.

```
CHANNEL LINK SHIFT
0 0000 0000 0000
1 0101 0101 0000
2 0202 0202 0000
3 0303 0303 0000
4 0404 0404 0000
5 0505 0505 0000
6 0606 0606 0000
7 0707 0707 0000
8 0808 0808 0000
9 0909 0909 0000
10 0a0a 0a0a 0000
```

For instance if the third column read 0103 that means there is a problem with bits 1,2 and 9. These are the bits that need to be debugged.

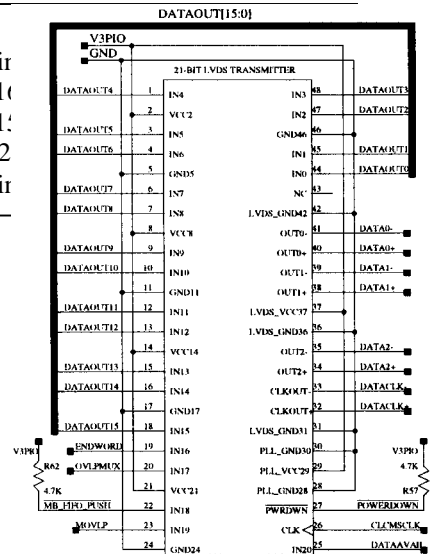
## Scope Debugging



Connector  
 DATACLK+ pin 39 DATACLK- pin 40  
 DATA0+ pin 49 DATA0- pin 50  
 DATA1+ pin 45 DATA1- pin 46  
 DATA2+ pin 43 DATA2- pin 44

Channel Link (opposite side)  
 Schematic below

VIRTEX  
 DATAOUTX Pir  
 0-162 1-161 2-160  
 5-154 6-153 7-152  
 10-146 11-144 12-143  
 DATAAVAIL pir



1) Trace missing bits to channel link.