
Subject: 74LS688 vs 74LS521

Posted by [lynchaj](#) on Sun, 27 Feb 2022 13:49:18 GMT

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Hi

Are the 74LS521 and 74LS688 equivalent? They sure seem similar when reading and comparing the datasheets. My chip tester detects 74LS688s as 74LS521s. They are both 8 bit comparators and appear to have identical pin outs. What is the difference if any?

I have a bunch of 74LS521s that never seem to get used so if these are close enough to 74LS688s I may start substituting them just to use them up.

Thoughts? Discussion? Thanks, Andrew Lynch

Subject: Re: 74LS688 vs 74LS521

Posted by [monahan](#) on Sun, 27 Feb 2022 18:08:37 GMT

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Andrew I may be wrong but I seem to remember the 521's need a resistor pull-down on the second row of inputs while the 688's have that built in
John

Subject: Re: 74LS688 vs 74LS521

Posted by [lynchaj](#) on Sun, 27 Feb 2022 21:26:06 GMT

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Hi John

OK, Thanks! Not quite drop-in replacement but close.

Andrew Lynch

Subject: Re: 74LS688 vs 74LS521

Posted by [etchedpixels](#) on Tue, 01 Mar 2022 00:45:13 GMT

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Not sure they can be very different. The tube of 74HC ones I have are stamped with both 74HCT688 and 74HCT521 on each chip.

Subject: Re: 74LS688 vs 74LS521

Posted by [mrgcms](#) on Tue, 01 Mar 2022 03:29:30 GMT

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Yeah - I looked at the datasheets and they seem to be equivalent. I was going to just drop one into one of my boards to see if it worked then remembered I hadn't used sockets for any of these boards!

Subject: Re: 74LS688 vs 74LS521

Posted by [Sergey](#) on Wed, 09 Mar 2022 19:31:01 GMT

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I haven't seen 74LS521, there are some 74F521, 74ALS521, 74HC521 and 74HCT521
The pinout of these parts is the same as that of 74LS688
AMD AM25LS2521PC is also compatible with 74LS688

Subject: Re: 74LS688 vs 74LS521

Posted by [lynchaj](#) on Wed, 09 Mar 2022 19:33:52 GMT

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Hi Sergey

Yes, I re-checked my parts and they're 74F521s. I had them confused with something else but the question is still valid. It looks like I can substitute the 74F521s for 74LS688s. I'll try it with a known working board and check if it causes any issues.

Thanks, Andrew Lynch
