

7400 Series Digital ICs in the Lab

(most are type 74LSxxx)

Part	Function	Features
<u>00</u>	4x 2-in NAND	
<u>02</u>	4x 2-in NOR	
<u>03</u>	4x 2-in NAND	Open collector
<u>04</u>	6x Inverter	
<u>05</u>	6x Inverter	Open collector
<u>07</u>	6x Buffer	Open collector; 30V, 40mA
<u>08</u>	4x 2-in AND	
<u>09</u>	4x 2-in AND	Open collector
<u>11</u>	3x 3-in AND	
<u>14</u>	6x Inverter	Schmitt inputs
<u>21</u>	2x 4-in AND	
<u>27</u>	3x 3-in NOR	
<u>28</u>	4x 2-in NOR	Buffer
<u>32</u>	4x 2-in OR	
<u>37</u>	4x 2-in NAND	Buffer
<u>38</u>	4x 2-in NAND	Buffer, Open Collector
<u>42</u>	BCD Decoder	BCD in; 10-line, active low out
<u>47</u>	BCD to 7 Segment	Open collector
<u>73</u>	2x JK-FF	Neg edge, clear input
<u>74</u>	2x D-FF	Pos edge, set and clear inputs
<u>75</u>	4x D Latch	Enable Hi to track; Q, ^Q outputs
<u>85</u>	4-bit Comparator	Cascadable; A<B, A=B, A>B outs
<u>86</u>	4x 2-in XOR	
<u>92</u>	÷12 Counter	÷2, ÷6 Counters w/ clear
<u>112</u>	2x JK-FF	Neg edge, set and clear inputs
<u>121</u>	Monostable	Retriggerable; Q, ^Q outputs
<u>122</u>	Monostable	Retriggerable; Q, ^Q outputs
<u>123</u>	2x Monostable	Retriggerable; Q, ^Q outputs
<u>124</u>	2x VCO	1Hz - 60MHz
<u>128</u>	4x 2-in NOR	50Ω Line Driver
<u>132</u>	4x 2-in NAND	Schmitt inputs
<u>138</u>	8:1 Demux	3-bit select, multiple enables
<u>139</u>	2x 4:1 Demux	Independent 2-bit selects
<u>158</u>	4x 2:1 Mux	Inverted
<u>161</u>	4-bit Counter	Binary, carry out, settable
<u>163</u>	4-bit Counter	Binary, carry out, synchr, settable
<u>164</u>	8-bit Shift Register	Serial in, Parallel out
<u>174</u>	6x D-FF	Pos edge, clear input
<u>191</u>	4-bit up/down ctr	
<u>194</u>	4-bit Universal SR	Bidirectional, loadable
<u>240</u>	8x Inv Buffer	Schmitt inputs, Tri-state outputs
<u>244</u>	8x Buffer	Schmitt inputs, Tri-state outputs
<u>245</u>	8x Bus Xcvr	Schmitt inputs, 2-way bus comm

266	4x 2-in XOR	Open collector
273	8x D-FF	Pos edge, clear input
283	4-bit Adder	Full adder with carry in/out
373	8x D-FF	Pos edge, Tri-state outputs
541	8x Buffer	Schmitt inputs, Tri-state outputs

74 series grouped by Type/Function

Gates, Buffers, Line drivers

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<u>38</u>	4x 2-in NAND	Buffer, Open Collector
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<u>132</u>	4x 2-in NAND	Schmitt inputs
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<u>266</u>	4x 2-in XOR	Open collector
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Flip-flops, Latches, Counters, Shift registers

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<u>191</u>	4-bit up/down ctr	
<u>194</u>	4-bit Universal SR	Bidirectional, loadable
<u>273</u>	8x D-FF	Pos edge, clear input
<u>373</u>	8x D-FF	Pos edge, Tri-state outputs

Multiplexers, Demultiplexers, Arithmetic, Miscellaneous

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121	Monostable	Retriggerable; Q, ^Q outputs
122	Monostable	Retriggerable; Q, ^Q outputs
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124	2x VCO	1Hz - 60MHz
138	8:1 Demux	3-bit select, multiple enables
139	2x 4:1 Demux	Independent 2-bit selects
158	4x 2:1 Mux	Inverted
283	4-bit Adder	Full adder with carry in/out