| Output | Input |  | Logic Functions of Gate Terminals |
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1. This LUT Circuit is faster than the traditional LUT circuit because the signal only passes through two stages instead of three, so there's less impedance before the output.
2. The disadvantage of this LUT circuit, compared to the traditional LUT circuit, is an increase in size since we need to implement the logic of (p,q,r,s,t,u,v,w) via (a,b) prior to entering the LUT.