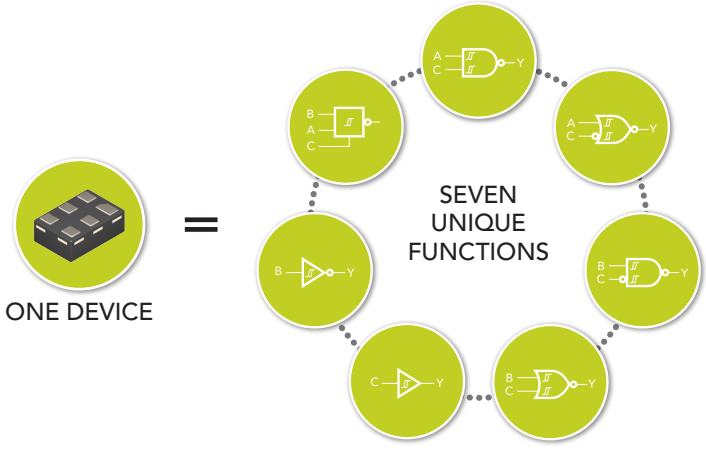
DO MORE WITH LESS—PCB CONFIGURABLE LOGIC



WHAT IS CONFIGURABLE LOGIC?

PCB Configurable Logic places seven logic functions into a single package.

HOW?

Each function (i.e. inverter, buffer, AND gate, etc.) is constructed based on how the input, V_{CC}, and GND pins are configured on the PCB.

WHAT ARE THE BENEFITS?

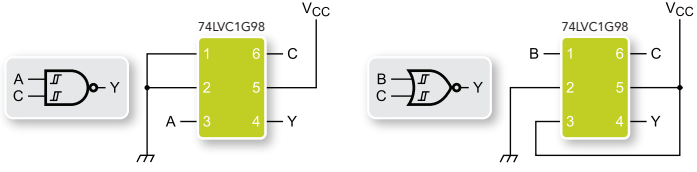
Reduces cost through...

- Increased manufacturing efficiency
  - During manufacturing, it requires only one tape and reel position in the pick and place machine not seven
- Simplified inventory control
  - Replaces seven individual components on the BOM
- Reduces qualification effort
  - Qualify only one device instead of seven

KEY FEATURES

- Low power consumption
- Integrated level shifter (available in the AUP family)
- Low propagation delay

Example of a 74LVC1G98 configured as a NAND or NOR gate



Configured as a 2-input NAND Gate	Configured as a 2-input NOR Gate
Pins 3 & 6 are selected as inputs Pin 4 is selected as output Pins 1 & 2 are tied to GND Pin 5 is tied to V_{CC}	Pins 1 & 6 are selected as inputs Pin 4 is selected as output Pin 2 is tied to GND Pins 3 & 5 are tied to V_{CC}

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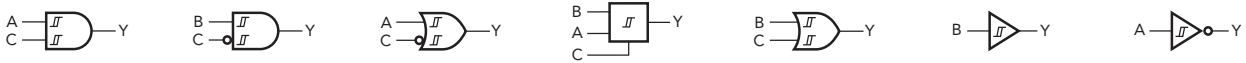
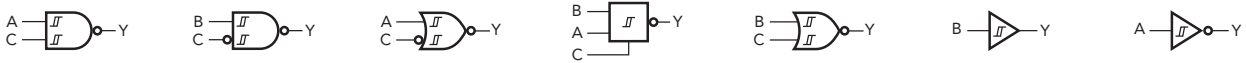
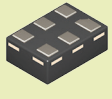
Available Families - PCB Configurable Logic is available in the LVC, AUP, and AXP families

Part number	Available functions
74LVC1G57 74AUP1G57* 74AXP1G57	
74LVC1G58 74AUP1G58* 74AXP1G58	
74LVC1G97 74AUP1G97* 74AXP1G97	
74LVC1G98 74AUP1G98* 74AXP1G98	

* Available with an integrated level shifter.

Package suffix	GX	GS	GM	GW
	6-pin (X2SON6)	6-pin (XSON6)	6-pin (XSON6)	6-pin (TSSOP)
				
Package	SOT1255	SOT1202	SOT886	SOT363
W x L x H, min pin spacing [pitch] (in mm)	1.0 x 0.8 x 0.35, 0.4	1.0 x 1.0 x 0.35, 0.35	1.0 x 1.45 x 0.5, 0.5	2.1 x 2.0 x 1.0, 0.65

For product datasheets, additional information, and the latest list of released functions please visit:
www.nxp.com/products/logic/gates/configurable_multiple_function_gates/