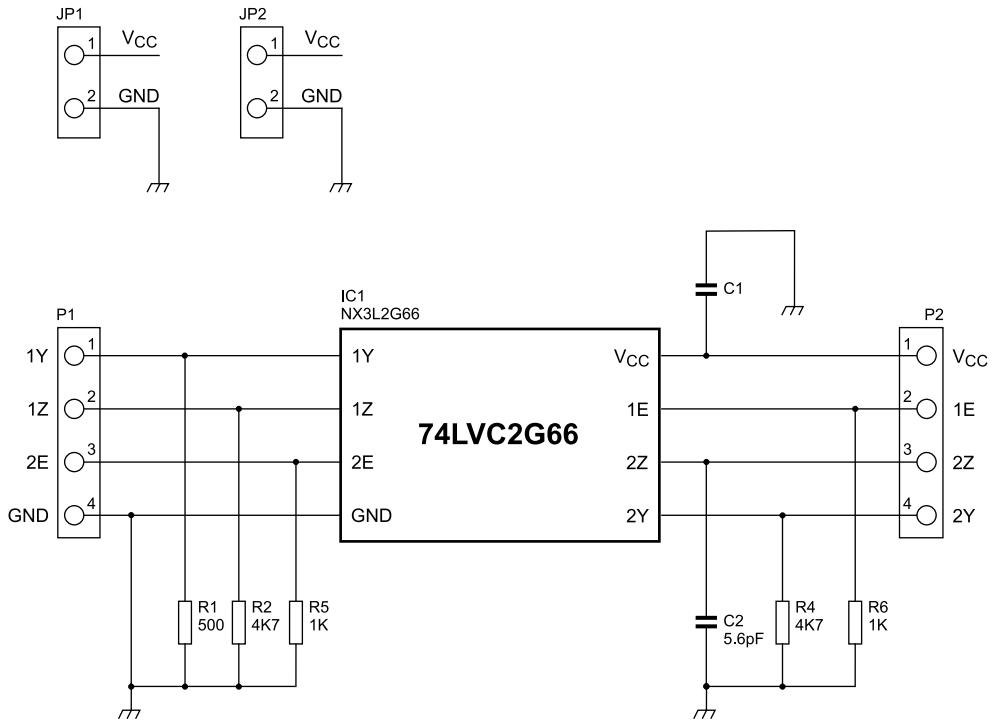




To turn a switch ON (close the contact), a logic HIGH signal needs to be connected to the respective Enable pin. To connect the Enable pins and GND leads of an oscilloscope probe to the board, additional connectors

(JP1 and JP2) with VCC and GND pins are provided. Also, loads of  $R1 = 500 \Omega$ ,  $R2 = R4 = 4.7 \text{ k}\Omega$  and  $C2 = 5.6 \text{ pF}$  are provided so designers can see variations in the output rise and fall times at resistive and capacitive loads.



Circuit schematic of 74LVC2G66 demo board

## Test results

Results of testing done on the 74LVC2G66 evaluation board are shown in the figures below. In Figure 1, the purple waveform is a 500 kHz square wave input with an amplitude of 3 V applied at the 1Z pin, and the green waveform is the switch output at the 1Y pin with a load of 500  $\Omega$  when the Enable pin (1E) is pulled high to 3 V and the switch is ON. The supply voltage  $V_{CC}$  for the switch is 3 V. In Figure 2, the green waveform shows the output at the 1Y pin when Enable pin (1E) is connected to GND and the switch is OFF. The supply voltage

$V_{CC}$  for the switch is still 3 V, and the purple input signal at the 1Z pin is 3 V. In Figure 3, the purple waveform shows a 5 MHz input signal of 3 V at the 1Z input, and the green waveform is the output of approx. 2.84 V at the 1Y output when the supply voltage  $V_{CC}$  is 3 V and the 1E pin is at a logic HIGH level of 3 V. In Figure 4, the purple waveform is a 3 V input signal with a 5 MHz frequency at the 1Z input of the switch, and the green waveform is an approx. 97 mV signal at the 1Y output when the  $V_{CC}$  is 3 V and the 1E pin is pulled LOW to GND.

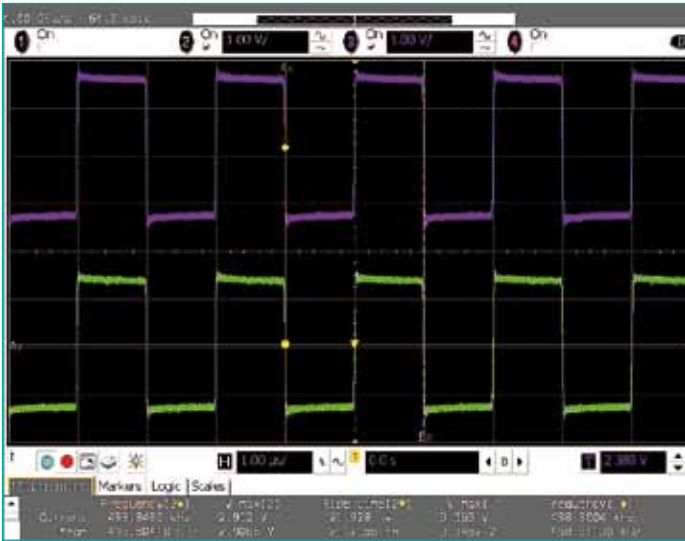


Figure 1

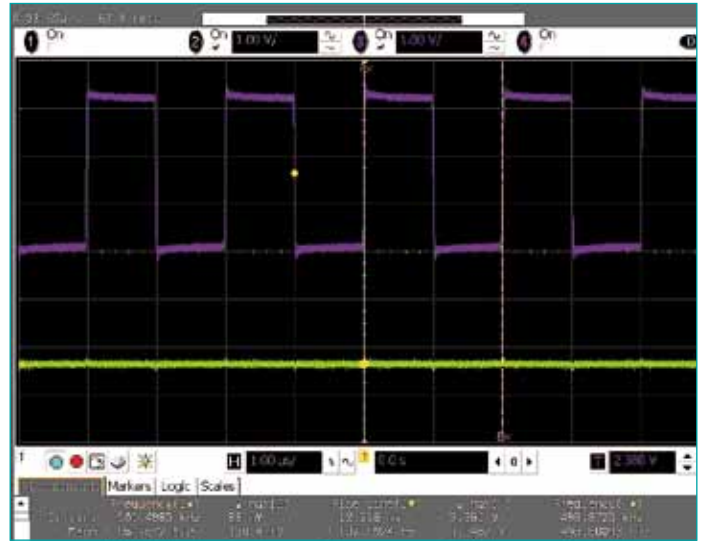


Figure 2








Figure 3



Figure 4

## Packages

The 74LVC2G66 is available in leadless 8-pin XSON, XSONU, and XQFN packages and in standard 8-pin TSSOP and VSSOP packages.

Package suffix	DP	GD	GT	GM	DC
					
	SOT505-2	SOT996-2	SOT833-1	SOT902-1	SOT765-1
	8-pin	8-pin	8-pin	8-pin	8-pin
Width (mm)	3	2	2	1.65	2
Length (mm)	3	3	1.05	1.65	2.3
Height (mm)	1.1	0.5	0.5	0.5	1
Pitch (mm)	0.65	0.5	0.5	0.5	0.5

## Ordering information

Part number	Package				
	Temp. range	Name	Type	Marking	Material
74LVC2G66DP	-40 to 125 °C	TSSOP8	Thin shrink small outline package	V66	Plastic
74LVC2G66GD	-40 to 125 °C	XSON8U	Extremely thin small outline package; no leads	V66	Plastic
74LVC2G66DC	-40 to 125 °C	VSSOP8	Very thin shrink small outline package	V66	Plastic
74LVC2G66GT	-40 to 125 °C	XSON8	Extremely thin small outline package; no leads	V66	Plastic
74LVC2G66GM	-40 to 125 °C	XQFN8U	Extremely thin quad flat package; no leads	V66	Plastic