

74LVC1G14 – single Schmitt inverter (MIDI thru buffer)

generic logic · SOT-23-5 · single gate · ~\$0.1

WHAT IT IS

One logic gate in a tiny 5-pin package: a Schmitt-trigger inverter (output = NOT input, with clean hysteresis on the edges). The "1G" single-gate family lets you drop exactly one gate where you need it.

KEY SPECS (what matters to us)

One Schmitt inverter · 1.65–5.5 V · fast · 5 V-tolerant inputs

SIGNALS / PINS WE USE

A = in (the recovered MIDI signal) · Y = out (→ thru DIN-5) · VCC/GND

ELECTRICAL · GOTCHAS

Polarity: count your inversions (opto already inverts once) so MIDI THRU comes out the right way up. Runs on 3.3 V → ~4 mA thru loop (the modern 3.3 V MIDI spec).

WHY IT'S IN OUR SYSTEM

MIDI THRU needs to re-buffer the recovered input and drive a second DIN-5 current loop. One tiny single-gate Schmitt does exactly that job – cheap, small, and re-sharpens the edges on the way out.