

ADG451/ADG452/ADG453 Threshold Voltage Versus Digital Supply, V_L

By Catherine Redmond

GENERAL DESCRIPTION

The ADG451, ADG452, and ADG453 are monolithic CMOS devices comprised of four independently selectable switches. They are designed on an enhanced LC²MOS process that provides low power dissipation yet gives high switching speed and low on resistance.

These devices operate from a triple supply, V_{DD} , V_{SS} , and V_L . V_L is the supply for the internal digital logic. The voltage applied to this pin sets up the digital input threshold levels, ensuring TTL/CMOS compatibility when 5 V is applied to V_L . Compatibility with other logic interface standards is possible with lower V_L supply voltages.

Figure 1 shows the typical expected threshold voltage as a function of digital supply voltage, V_L .

Figure 2 shows the different logic levels associated with logic standards TTL, LVTTTL, CMOS, and low voltage 1.8 V levels as indicated by JEDEC/EIAJ standards.

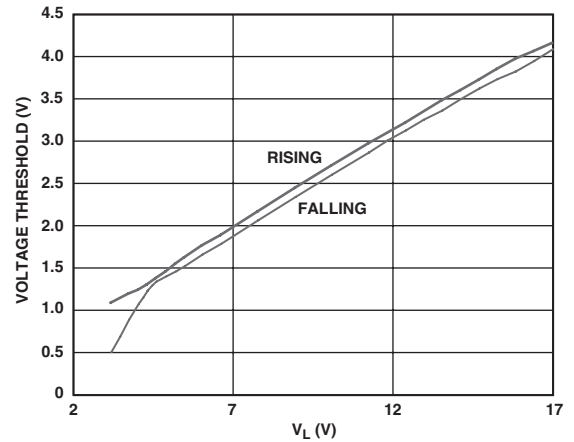


Figure 1. Threshold Voltage vs. Digital Supply Voltage, V_L

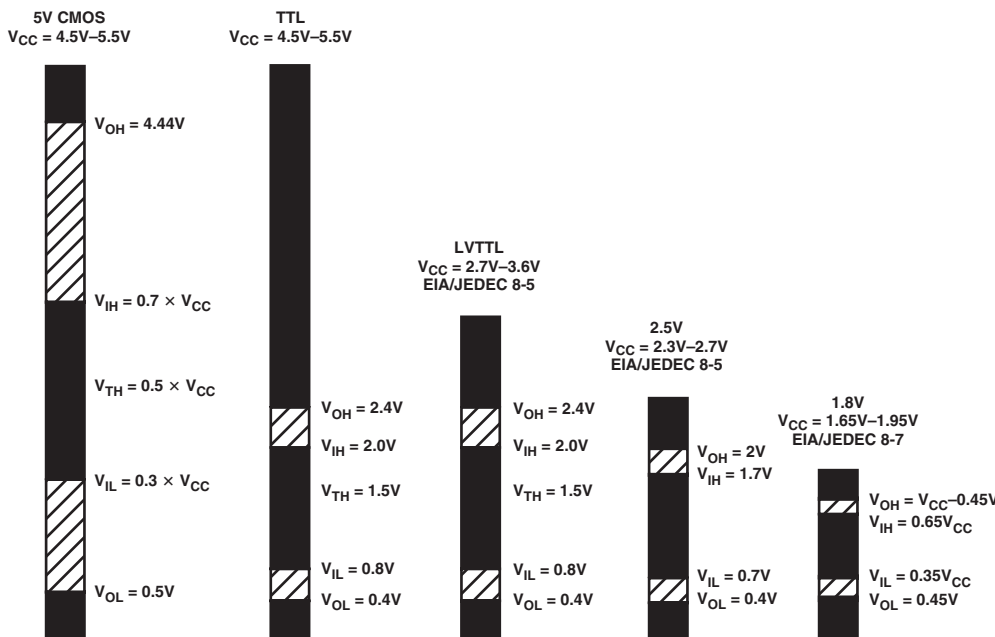


Figure 2. Logic Interface JEDEC/EIAJ Standards

