# Low Voltage SPDT 0.8Ω Analog Switch

## Features

- CMOS Technology for Bus and Analog Applications
- Low On-Resistance: 0.8Ω at 3.0V
- Wide $V_{CC}$ Range: 1.65V to 5.5V
- Rail-to-Rail Signal Range
- Control Input Overvoltage Tolerance: 5.5V(Min)
- Fast Transition Speed: 12ns at 5.0V
- High Bandwidth: 150 MHz
- Extended Industrial Temperature Range: -40°C to 85°C
- Packaging (Pb-free & Green):
  - -6-pin SOT23
  - -6-pin SC70
  - -6-Pin UDFN 1mm×1mm

## Applications

- Cell Phones
- PDAs
- Portable Instrumentation
- Battery powered Communications
- Computer Peripherals

## Description

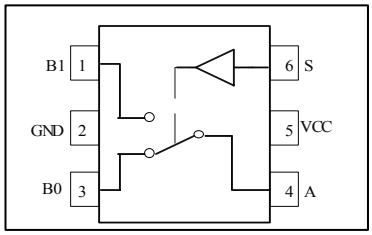
The PI5A4157 is a high-bandwidth, fast single-pole double-throw (SPDT) CMOS switch. It can be used as an analog switch or as a low-delay bus switch. The device features ultra low RON of 0.8Ω typical at 3.0V VCC and will operate over the wide VCC range of 1.65V to 5.5V.

The PI5A4157 features very low quiescent current even when the control voltage is lower than the VCC supply. This feature services the mobile handset applications very well by allowing direct interface with baseband processor general purpose I/Os.

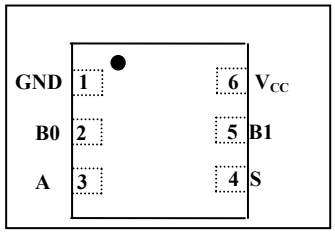
Break-before-make switching prevents both switches being enabled simultaneously. This eliminates signal disruption during switching.

The control input, S, is independent of supply voltage.

## Pin Assignment




SOT23-6 and SC70-6(Top View)




UDFN-6 1×1 (Top View)

### Pin Description

| Pin No | | Pin Name | Description |
|---|---|---|---|
| SOT23-6 SC70-6 | UDFN-6 1×1 | | |
| 1 | 5 | B1 | Data Port |
| 2 | 1 | GND | Ground |
| 3 | 2 | B0 | Data Port (Normally connected) |
| 4 | 3 | A | Common Output/Data Port |
| 5 | 6 | $V_{CC}$ | Positive Power Supply |
| 6 | 4 | S | Logic control |

### Logic Function Table

| Logic Inputs(S) | Function |
|---|---|
| 0 | $B_0$ connect to A |
| 1 | $B_1$ connect to A |