

## Low Voltage Dual SPDT Analog Switch 2:1 Mux/Demux Bus Switch

### Features

- CMOS Technology for Bus and Analog Applications
- Low On-Resistance: 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: 2ns at 5.0V
- High Off Isolation: -63dB @ 10MHz
- Break-Before-Make Switching
- High Bandwidth: 350MHz
- Extended Industrial Temperature Range:  
-40°C to 85°C
- Packaging (Lead Free & Green): 12-pin TDFN

### Description

The PI5A3158B is a dual 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. Specified over a wide operating power supply voltage range, 1.65V to 5.5V, the PI5A3158B has a maximum ON resistance of 12-ohms at 1.65V, 9-ohms at 2.3V & 6-ohms at 4.5V.

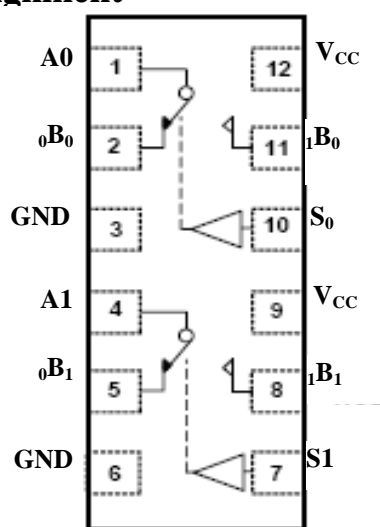
Break-before-make switching prevents both switches being enabled simultaneously. This eliminates signal disruption during switching.

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

### Applications

- Cell Phones
- PDAs
- MP3 Players
- Portable Instrumentation
- Battery powered Communications
- Computer Peripherals

### Pin Assignment



TDFN-12

### Pin Description

Pin No	Name	Description
8, 11	$iB_X$	Data Port (Normally open)
3, 6	GND	Ground
2, 5	$0B_X$	Data Port (Normally closed)
1, 4	$A_X$	Common Output / Data Port
9, 12	$V_{CC}$	Positive Power Supply
7, 10	$S_X$	Logic Control

### Logic Function Table

Logic Input ( $IN_X$ )	Function
0	$0B_X$ Connected to $A_X$
1	$iB_X$ Connected to $A_X$

Note: x = 1 or 2