



3.3 V, Two Differential Channel, 2-1 Multiplexer/Demultiplexer Switch

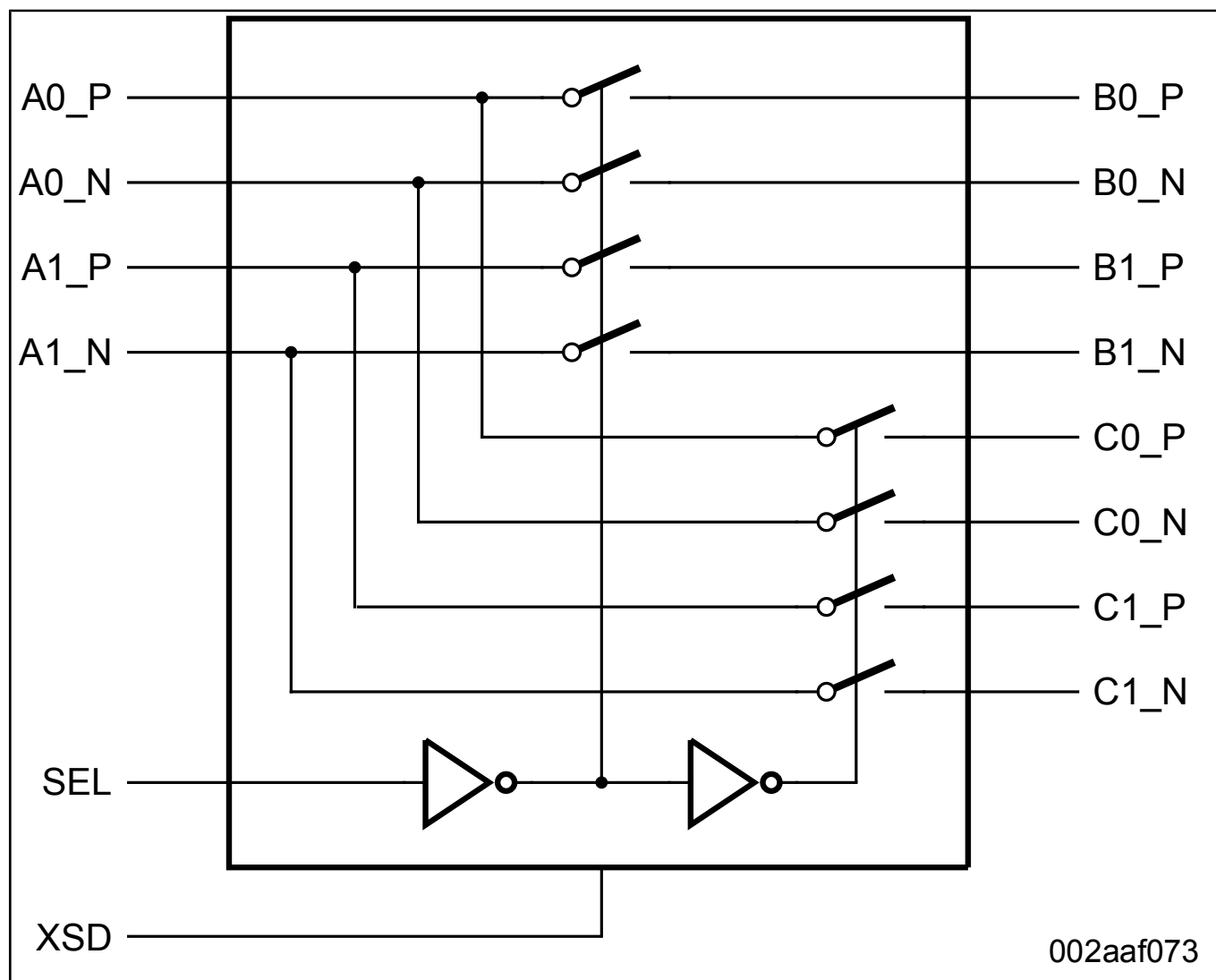
CBTL02043A_CBTL02043B

Last Updated: Dec 23, 2025

CBTL02043A/B is a 2 differential channel, 2-to-1 multiplexer/demultiplexer switch for USB 3.1, PCI Express Generation 3, or other high-speed serial interface applications. The CBTL02043A/B can switch two differential signals to one of two locations. Using a design technique, NXP has minimized the impedance of the switch such that the attenuation observed through the switch is negligible, and also minimized the channel-to-channel skew as well as channel-to-channel crosstalk, as required by the high-speed serial interface. CBTL02043A/B allows expansion of existing high-speed ports for extremely low power.

The device's pinouts are optimized to match different application layouts. CBTL02043A has input and output pins on the opposite of the package, and is suitable for edge connector(s) with different signal sources on the motherboard. CBTL02043B has outputs on both sides of the package, and the device can be placed between two connectors to multiplex differential signals from a controller. Please refer to Section 8 for layout examples.

CBTL02043A_CBTL02043B Block Diagram Block Diagram



View additional information for [3.3 V, Two Differential Channel, 2-1 Multiplexer/Demultiplexer Switch](#).

Note: The information on this document is subject to change without notice.

www.nxp.com

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2026 NXP B.V.