

A2B BUS FEATURES

Line topology

- Single master, multiple slave
- Up to 10 meters between nodes
- Up to 40 meters overall cable length

Communication over distance

- Synchronous data
- Multichannel I²S/TDM to I²S/TDM
- Clock synchronous, phase aligned in all nodes
- Control and status Information
- I²C to I²C

Phantom power or local power slave nodes

Configurable with SigmaStudio[™] graphical software tool

ADDITIONAL AD2410 TRANSCEIVER FEATURES

Configurable as A²B bus master or slave

I²C Interface

8-bit to 32-bit multichannel I²S/TDM interface

Up to 32 upstream channels or combination with up to 32 downstream channels

I²S/TDM or PDM Microphone inputs

Qualified for automotive applications

APPLICATIONS

Automotive audio communication link

Communication network for:

- Microphones/speakers
- Sensor/actuator
- I²C Peripherals

GENERAL DESCRIPTION

The Automotive Audio Bus (A²B[™]) provides a multi-channel, I²S/TDM link over distances of up to 10 meters between nodes. It embeds bi-directional synchronous data (for example digital audio), clock and synchronization signals onto a single differential wire pair. A²B supports a direct point-to-point connection and allows multiple, daisy chained nodes at different locations to contribute or consume time division multiplexed channel content. A²B is a single-master, multiple-slave system where the transceiver chip at the host controller is the master. It generates clock, synchronization and framing for all slave nodes. The master A²B chip is programmable over a control bus (I²C) for configuration and read back. An extension of this control bus is embedded in the A²B data stream allowing direct access of registers and status information on slave transceivers as well as I²C-to-I²C communication over distance.

Complete technical specifications are available for the A²B transceiver. Contact your nearest Analog Devices sales office to complete the Non-Disclosure Agreement (NDA) required to receive additional AD2410W technical information.

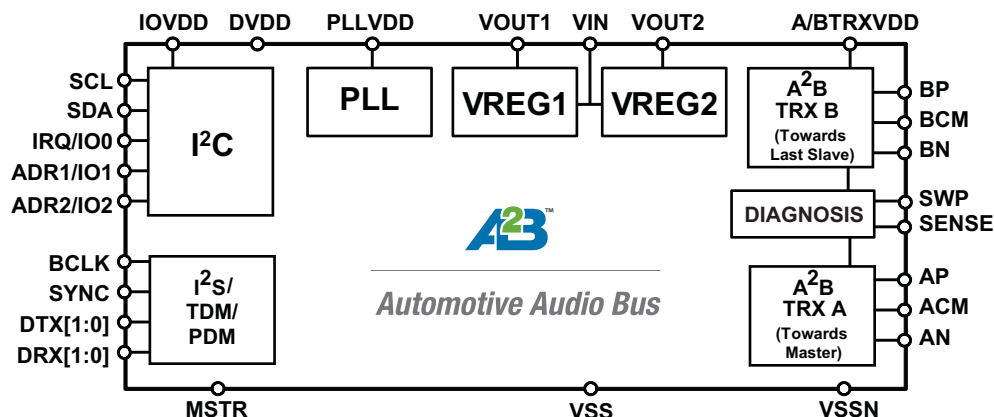


Figure 1. AD2410W Block Diagram

A²B and the A²B logo are trademarks of Analog Devices, Inc.

Rev. Sp0

[Document Feedback](#)

Information furnished by Analog Devices is believed to be accurate and reliable. However, no responsibility is assumed by Analog Devices for its use, nor for any infringements of patents or other rights of third parties that may result from its use. Specifications subject to change without notice. No license is granted by implication or otherwise under any patent or patent rights of Analog Devices. Trademarks and registered trademarks are the property of their respective owners.

One Technology Way, P.O. Box 9106, Norwood, MA 02062-9106 U.S.A.
Tel: 781.329.4700 ©2014 Analog Devices, Inc. All rights reserved.
[Technical Support](#) www.analog.com

AD2410W* PRODUCT PAGE QUICK LINKS

Last Content Update: 02/23/2017

COMPARABLE PARTS

View a parametric search of comparable parts.

DOCUMENTATION

Data Sheet

- AD2401/AD2402/AD2403/AD2410: Automotive Audio Bus A²B Transceiver Data Sheet

Product Highlight

- AD2401/AD2402/AD2410 - Automotive Audio Bus Transceivers

REFERENCE MATERIALS

Press

- Automotive Bus Technology Delivers Superior Digital Audio Quality
- Ford Motor Company Selects Analog Devices' Automotive Audio Bus™ for its Next-Generation Infotainment Systems

Technical Articles

- New Digital Bus Architecture Reduces Audio System Costs

DESIGN RESOURCES

- AD2410W Material Declaration
- PCN-PDN Information
- Quality And Reliability
- Symbols and Footprints

DISCUSSIONS

View all AD2410W EngineerZone Discussions.

SAMPLE AND BUY

Visit the product page to see pricing options.

TECHNICAL SUPPORT

Submit a technical question or find your regional support number.

DOCUMENT FEEDBACK

Submit feedback for this data sheet.

AD2410W