

ITD 1024

# A<sup>2</sup>B<sup>®</sup> INFOTAINMENT TEST DEVICE

AUTOMOTIVE AUDIO BUS<sup>®</sup> (A<sup>2</sup>B<sup>®</sup>) TRANSCEIVER



## PRODUCT

**Application Areas:** R&D, Production, Test, Validation and Screening



**Automotive  
Audio Bus**



**NOFFZ  
TECHNOLOGIES**

ITD 1024 is an off-the-shelf solution for A<sup>2</sup>B<sup>®</sup>, an emerging automotive audio bus. In combination with a comprehensive set of software tools, ITD 1024 allows for rapid testing of various A<sup>2</sup>B<sup>®</sup> components such as audio speakers, amplifiers, microphone arrays, sensors, and actuators.

### ITD 1024 FEATURES

- › Master or Slave node simulation
- › AD2433 chipset
- › Compatible with AD240x, AD241x, AD242x, and AD243x standard power transceivers
- › 44.1 kHz and 48 kHz sampling rate
- › Local and phantom power support for slave nodes
- › Configurable phantom power voltage level
- › Integrated A<sup>2</sup>B<sup>®</sup> bus voltage and current monitor
- › Node-level I<sup>2</sup>C device handling, interrupts processing, GPIO handling
- › A<sup>2</sup>B<sup>®</sup> diagnostics and error management support
- › Selectable audio interface: Internal TDM interface, Analog audio or External audio
- › Flexible audio channel routing
- › Galvanic isolated A<sup>2</sup>B<sup>®</sup> network

### INTERNAL TDM INTERFACE FEATURES

- › 32-bit programmable TDM generator/recorder
- › 16 input channels, 16 output channels
- › Signal generation with programmable waveform
- › Digital file playback
- › Continuous data record and playback to and from PC
- › Simultaneous recording of all channels to a memory
- › Hardware trigger input for synchronization

### ANALOG AUDIO INTERFACE FEATURES

- › 24-bit audio codec
- › 8 input channels, 8 output channels

### DSIO (EXTERNAL AUDIO) INTERFACE FEATURES

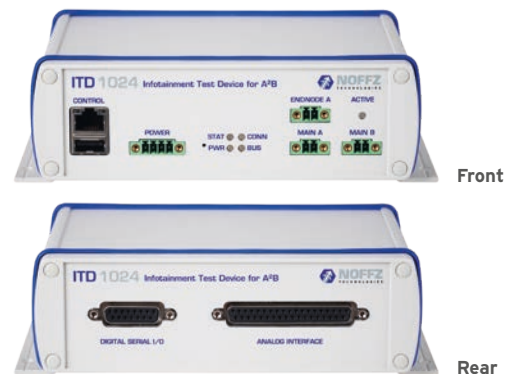
- › Multichannel TDM interface
- › Designed for connecting external digital audio devices

### SOFTWARE FEATURES (SDK)

- › SCPI protocol for external device control
- › .NET Framework DLL for Windows
- › NI LabVIEW API for automated test integration
- › Quick and easy A<sup>2</sup>B<sup>®</sup> network configuration with AD SigmaStudio™, examples and templates
- › ITD 1024 Management Utility for device configuration
- › ITD Studio Application for interactive bus operation and control

### INTEGRATED END NODE SLAVE

- › 2<sup>nd</sup> integrated A<sup>2</sup>B<sup>®</sup> chipset for end node simulation
- › Designed for testing the Port B of a slave A<sup>2</sup>B<sup>®</sup> DUT
- › AD2433 chipset
- › Integrated I<sup>2</sup>C peripheral devices and IOs
- › It is possible to measure the phantom power from the previous device in the A<sup>2</sup>B<sup>®</sup> chain



### TECHNICAL DATA

#### Interfaces

<b>A<sup>2</sup>B<sup>®</sup> Main Node</b>	AD2433, Port A and Port B, industrial grade connectors
<b>A<sup>2</sup>B<sup>®</sup> End Node Slave</b>	AD2433, Port A, industrial grade connectors
<b>Communication Interface</b>	Ethernet (RJ-45) USB
<b>Analog Audio</b>	D-sub 37 8 differential analog outputs 8 single-ended analog inputs
<b>External DSIO</b>	D-sub 15 External digital audio devices Trigger Input

#### Power Requirements

<b>Voltage</b>	10 - 36 VDC
<b>Current (max.)</b>	1.25 A at 12 V
<b>Power Supply (included)</b>	100 - 240 VAC/50 - 60 Hz

#### Physical Specifications

<b>Dimensions</b>	190 x 55 x 121 mm (W x H x D)
<b>Weight</b>	865 g

