

# LINE TEST BOX LTB 1024

FOR A<sup>2</sup>B<sup>®</sup> AUDIO BUS NETWORKS



## PRODUCT

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



FAST › FLEXIBLE › FOCUSED



**Automotive  
Audio Bus**



**NOFFZ  
TECHNOLOGIES**

The LTB 1024 device is a line test and measurement box specifically designed for A<sup>2</sup>B<sup>®</sup> technology, an emerging automotive audio bus.

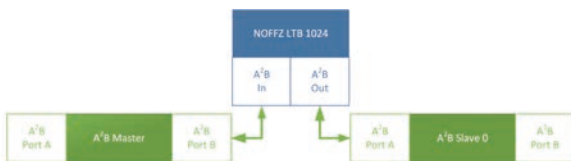
The device can measure the bus voltage and the bus current between A<sup>2</sup>B<sup>®</sup> nodes during the bus operation, simulate fault insertion on both A<sup>2</sup>B<sup>®</sup> lines and provide a load simulation.

Bus voltage and current can be monitored independently to A<sup>2</sup>B<sup>®</sup> line status and activity. The measurement device is capable of sampling both values up to 12 bit resolution.

The fault insertion part can provide shorts to a reference supply (e. g. to a DUT supply to simulate a fault) or a short between both A<sup>2</sup>B<sup>®</sup> lines to interrupt the bus operation and to test the bus diagnostic feature.

A third function is the load simulation, which can be implemented by connecting an external user selectable resistive load to the LTB 1024.

All simulation modes are performed with non-mechanical switches to have no influence on the A<sup>2</sup>B<sup>®</sup> lines in normal operation and to offer a long service life with no loss of performance.



**Voltage and current measurement using one LTB in a simple A<sup>2</sup>B<sup>®</sup> network containing one master and one slave device**

## LTB 1024 FEATURES

- › Voltage, current and power measurement between nodes on the A<sup>2</sup>B<sup>®</sup> bus
- › Short-circuit fault insertion for testing the A<sup>2</sup>B<sup>®</sup>-transmitters diagnostic functions
- › External load connection for simulating passive A<sup>2</sup>B<sup>®</sup> nodes and testing phantom power feature
- › Device can be placed anywhere on the A<sup>2</sup>B<sup>®</sup> bus, no extra bus configuration is needed
- › Compatible with AD240x, AD241x and AD242x, AD2433 transceivers
- › Industrial grade connectors for the A<sup>2</sup>B<sup>®</sup> bus compatible with NOFFZ Infotainment Test Device, ITD 1024, or with other A<sup>2</sup>B<sup>®</sup> bus test devices

## SOFTWARE FEATURES (SDK)

- › LTB 1024 Test Panel Application for initial setup into operation and laboratory setup
- › .NET Framework API DLL (32 & 64 bit)
- › NI LabVIEW API (32 & 64 bit, LabVIEW 2012 and higher)
- › NI TestStand API (32 & 64 bit, TestStand 2012 and higher)

**NOFFZ** Technologies GmbH

Tempelsweg 24a · 47918 Toennisvorst · Germany · Phone +49 2151-99878-0 · Fax +49 2151-99878-88 · info@noffz.com · noffz.com

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## TECHNICAL DATA

### LTB 1024

#### Interfaces

<b>A<sup>2</sup>B<sup>®</sup> Interface - Input</b>	1, in direction to a master
<b>A<sup>2</sup>B<sup>®</sup> Interface - Output</b>	1, in direction to slaves
<b>PC Communication</b>	RS232 interface
<b>Daisy Chain</b>	RS485 interface, up to 16 devices in chain

#### Measurement

<b>Voltage Range</b>	Up to 32 V
<b>Current Range</b>	Up to 0.5 A
<b>Resolution</b>	1 mA; 1 mV

#### External Load

<b>Current</b>	Up to 400 mA in total
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#### Fault modes

<b>Fault Insertion Cases on the A<sup>2</sup>B<sup>®</sup> lines</b>	Short of Wires Positive/negative wire shorted to ground Positive/negative wire shorted to VBAT
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#### Power Requirements

<b>Voltage</b>	12 VDC
<b>Current</b>	0.5 A (max.)
<b>Power Supply</b>	Included, 100 - 240 VAC/50 - 60 Hz

#### Physical Specifications

<b>Dimensions</b>	130 x 36.5 x 90 mm (W x H x D)
<b>Weight</b>	225 g