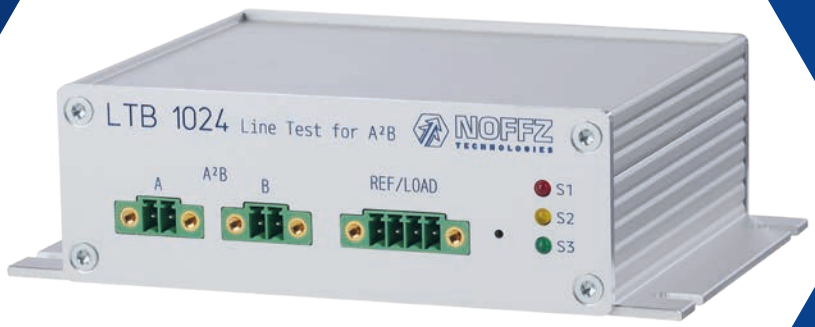
NOFFZ TECHNOLOGIES

LTB 1024

LINE TEST BOX

FOR A²B® AUDIO BUS NETWORKS



PRODUCT

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

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Automotive Audio Bus

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The LTB 1024 device is a line test and measurement box specifically designed for A²B® technology, an emerging automotive audio bus.

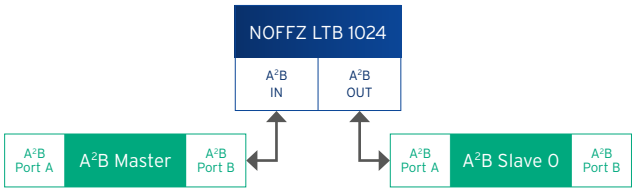
The device can measure the bus voltage and the bus current between A²B® nodes during the bus operation, simulate fault insertion on both A²B® lines and provide a load simulation.

Bus voltage and current can be monitored independently to A²B® 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 A²B® 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 A²B® 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 A²B® network containing one master and one slave device

Front

Rear

LTB 1024 FEATURES

- Voltage, current and power measurement between nodes on the A²B® bus
- Short-circuit fault insertion for testing the A²B®-transmitters diagnostic functions
- External load connection for simulating passive A²B® nodes and testing phantom power feature
- Device can be placed anywhere on the A²B® bus, no extra bus configuration is needed
- Compatible with AD240x, AD241x and AD242x, AD2433 transceivers
- Industrial grade connectors for the A²B® bus compatible with NOFFZ Infotainment Test Device, ITD 1024, or with other A²B® 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)

TECHNICAL DATA

Interfaces	
A²B® Interface – Input	1, in direction to a master
A²B® Interface – Output	1, in direction to slaves
PC Communication	RS232 interface
Daisy Chain	RS485 interface, up to 16 devices in chain
Measurement	
Voltage Range	Up to 32 V
Current Range	Up to 0.5 A
Resolution	1 mA; 1 mV
External Load	
Current	Up to 400 mA in total
Fault modes	
Fault Insertion Cases on the A²B® lines	Short of Wires Positive/negative wire shorted to ground Positive/negative wire shorted to VBAT
Power Requirements	
Voltage	12 VDC
Current	0.5 A (max.)
Power Supply	Included, 100 – 240 VAC / 50 – 60 Hz
Physical Specifications	
Dimensions	130 x 36.5 x 90 mm (W x H x D)
Weight	225 g

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