

Tanto2 Multibus Analyzer and Recorder

For FlexRay, CAN, LIN

A large, detailed image of a circuit board, likely a Multibus board, with various components and labels. The board is shown at an angle, highlighting its complex layout and components.

Embedding Software Quality

No.	Time	ID	Protocol	Channel	Cycle Class	Frame Type	ChC Size	Tagger
1	0 us	0-00000003	FlexRay	FlexRay 1		FlexRay frame	3000	
2	132 us	0-00000005	FlexRay	FlexRay 1		FlexRay frame	132	
3	2989 us	0-00000003	FlexRay	FlexRay 1		FlexRay frame	3000	
4	132 us	0-00000005	FlexRay	FlexRay 1		FlexRay frame	132	
5	3000 us	0-00000003	FlexRay	FlexRay 1		FlexRay frame	3000	
6	132 us	0-00000005	FlexRay	FlexRay 1		FlexRay frame	132	

System	View	Capture	Help
System	View	Capture	Help

Advanced support for FlexRay and CAN



Adapter and Application Program

The Tanto2 system includes a standard bus adapter with DSUB-9 connectors for one FlexRay-bus (A and B channel) and two CAN buses.

A comfortable application program with intuitive user interface allows the setup and configuration of the Tanto2-BUS unit, the setup of trigger, filter and symbolic substitution conditions and the generation of different views. This application program can be operated in offline mode with data file or in online mode with connection to the Tanto2-BUS unit.

New Product Family

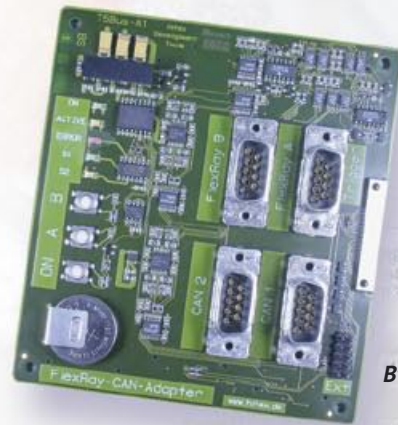
Hitex in cooperation with Mixed Mode is offering a new product family of bus-analyzers for automotive applications.

The first product for recording and analyzing of CAN- and FlexRay bus signals, the Tanto2 Multibus tool, supports one FlexRay bus (with A and B channel) and two CAN buses. The bus signals are captured with a passive adapter and buffered in a frame memory up to 1 GByte.

The Multibus tool can be operated in various modes allowing the bus signal recording together with time stamp information for each data frame to support timing analysis of data messages on different buses.



Tanto2-BUS



Bus adapter

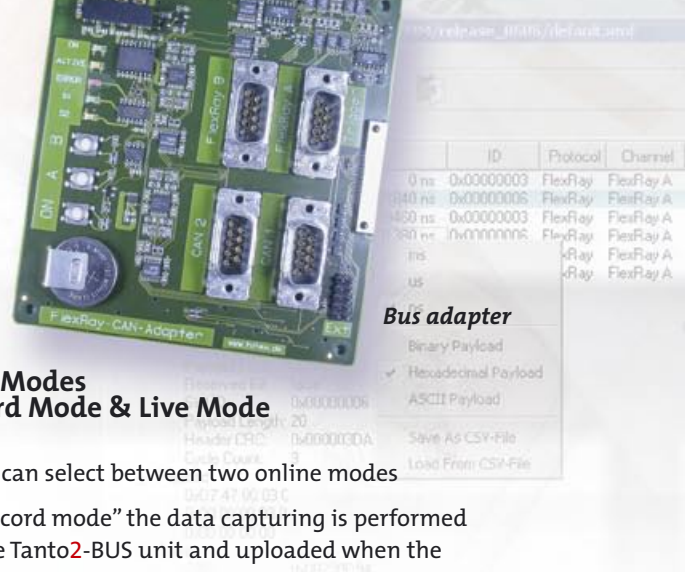
Online Modes – Record Mode & Live Mode

The user can select between two online modes

- > in “record mode” the data capturing is performed in the Tanto2-BUS unit and uploaded when the recording is finished
- > in “live mode” the captured data are continuously uploaded, recorded and displayed in the trace window

Offline Mode

In offline mode the captured data or data from file are viewed and filtered. This mode does not require an active connection to the Tanto2-BUS unit.



Comfortable and intuitive user interface

Tanto2

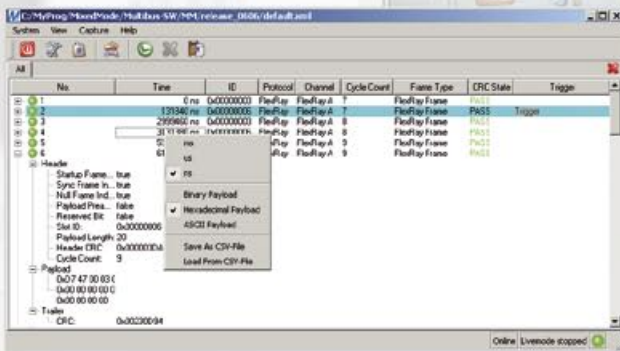
The package includes:

- > Tanto2 base module with 256MByte buffer memory
- > Standard bus target adapter for 2 CAN and 1 FlexRay (A+B)
- > CD with software, example and user manual
- > Power supply
- > USB, LAN and power cables
- > Hitex support
- > Product license key on CD

Multibus

Trace View

The “trace view” window displays the bus data or the filtered bus data. The view includes entries like time stamp information, header ID and address, protocol type, bus channel, cycle counter, CRC status and trigger information. The view can be customized to the user requirements and can be saved into a data file or loaded from data file.



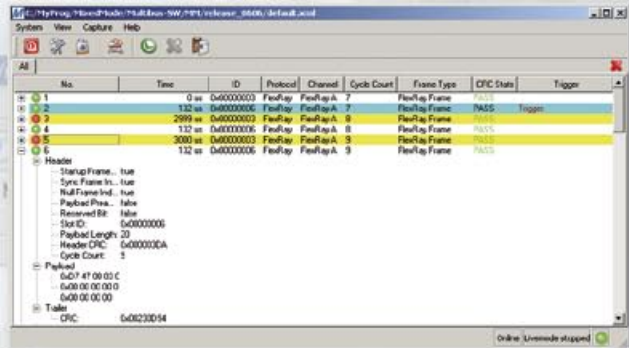
Trace view

Trigger Definition

A flexible triggering scheme allows various sources to be used: external signals, user activated via button or message activated. The trigger position can be selected to specify the amount of captured data before and after the trigger occurrence.

Time Measurement

Time measurement is performed by simply clicking on the data frames to add time markers. The time difference between data frames is automatically calculated and displayed.

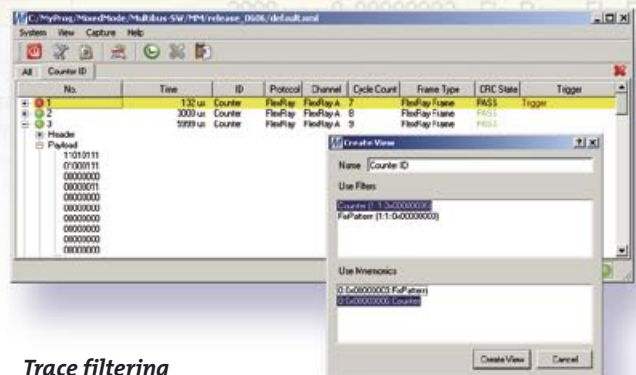


Time measurement

Trace Filtering

The trace data are filtered by applying filter settings in combination with symbolic substitution for bus data items and values.

This generates new windows and views which can be analyzed and saved into files or loaded from file. By applying markers to the data frames time measurements can be performed.



Trace filtering

Technical data

The following table lists the preliminary technical data for the Tanto2 multibus analyzer and recorder.

supported bus protocols	FlexRay V2.1 – up to 10MBit/s	
	CAN V2.0B – up to 1MBit/s	
	(supporting HS-CAN, FT-CAN, SW-CAN)	
	LIN V2.0 - up to 20kBit/s*	
bus adapter module	standard	passive bus coupling 2x DSUB-9 female connector FlexRay 2x DSUB-9 female connector CAN
	flexible*	6x DSUB-9 female connector configurable protocol
memory	internal	256MByte (standard), up to 1GByte
	external*	extendable via USB2.0 host interface with hard disk drive or memory stick
connection interfaces	to host	10/100MBit LAN (with DHCP and fixed IP support)
	to device	USB2.0 high-speed USB2.0 OTG (supports external devices)
operating modes	recorder	recording of bus signals with offline view
	live capture	recording and real-time view
	offline	offline analysis of data files and captured data
	standalone*	recording in standalone mode (without host system)
host platforms	Windows (2000, XP), Linux*, MAC*	
application GUI	setup file	Fibex 2.0 support; xml setup file
	identifier	value substitutions with symbolic names
	trace view	filtered views (ID, CRC status, etc.) continuous or cyclic* update time marker support time stamp (10ns resolution) in ns, µs, ms
	trace filter	pre-filter during data recording* post-filtering of recorded data
	trigger	manual trigger via button external trigger via 8 signals message trigger (ID, payload)
	status	bus load and statistic, Tanto2-BUS status
	power supply	100-240V AC max. 45W

* available on request or in future versions



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