



PCAN_Diag FD

The PCAN-Diag FD is a handheld device for diagnosis of the communication on a CAN bus. Possibilities for diagnosis are available on the protocol layer by handling CAN 2.0 and CAN FD messages as well as on the physical layer by using the oscilloscope function and further measuring functions for voltage and resistance.

The oscilloscope function is used for a qualitative assessment of the signal course on the CAN bus. Two independent measuring channels sample both lines CAN-High and CAN-Low with up to 100 MHz. Based on the signal course, the PCAN-Diag FD decodes CAN frames and shows their elements in the scope graphics.

On the protocol layer, the incoming CAN traffic is shown in a list, optionally with symbolic representation for better interpretability. For future analysis, a tracer is implemented that records the CAN traffic. On the outgoing direction, single CAN messages or even full sequences of CAN messages can be transmitted on the connected CAN bus, e.g. in order to request diagnostic data. Recorded CAN traces can also be played back. All functions on the protocol layer are available for CAN 2.0 as well as CAN FD.

The new CAN FD standard (CAN with Flexible Data rate) is primarily characterized by higher bandwidth for data transfer. The maximum of 64 data bytes per CAN FD frame (instead of 8 so far) can be transmitted with bit rates up to 12 Mbit/s. CAN FD is downward-compatible to the CAN 2.0 A/B standard, thus CAN FD nodes can be used in existing CAN networks. However, in this case the CAN FD extensions are not applicable.





CAN Data/Receive Messages TR 10 24

Exit Help Reset Tx Settings

ID	Len	Data 0...N	Count	T.Diff.
435	00		1558	30 us
456	08	72 34 89 23 69 00 D8 FF	623	100 us
457	02	23 AA	1558	30 us
653	20	ABDD000023221C07 22AADF0765114000 000035FF	1558	30 us
04032215	64	11576DF000243311 EE910A576572206B 616E6E2064696573 656E205465787420 656E747A69666665 726E3FFD87BB0005 077234FEDCBA9876 5432100123456789	623	100 us
18F00300	08	00AF000000000000	2633	20 us
18F00400	08	0000003F84000000	6583	10 us
18FDD100	08	0000020501000000	13	1000 us
18FE6C00	08	0210000000003775	2633	20 us
18FEC000	08	00807D0000000000	131	100 us
18FEC100	08	D403000000000000	131	100 us
18FEE500	08	0200000000000000	131	100 us
18FEE900	08	0000000001000000	131	100 us
18FEEA00	08	32581B0000000000	263	50 us
18FEEC00	08	56656869636C6531	13	1000 us
18FEEE00	08	5000000000000000	131	100 us
18FEF100	08	0037750100000000	1317	30 us

