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HARDWARE AND SOFTWARE TOOLS FOR TESTING AND VALIDATING AUTOMOTIVE NETWORKS

CAPTURE MODULES

Capture and log messages from a variety of bus topologies are captured, timestamped (the same timestamp across different bus systems) offers five variants to cover Automotive Ethernet (100BASE-T1, 1000BASE-T1 and 2.5/5/10/10GBASE-T1), as well as common IVN technologies (CAN, CAN-FD, FlexRay, LIN)

CM MULTIGIGABIT

CAPTURE YOUR AUTOMOTIVE MULTIGIGABIT TRAFFIC IN THE CAR WITHOUT INTERFERING THE ORIGINAL NETWORK

The **CM MultiGigabit**, enabled through new PHY technology, can be set to log three different data rates:

2.5 Gbit/s (2.5 GBASE-T1)
5 Gbit/s (5 GBASE-T1)
10 Gbit/s (10 GBASE-T1)

CM CAN COMBO

CAPTURE RELIABLY ALL RELEVANT IN-VEHICLE-NETWORK (IVN) TRAFFIC FROM DIFFERENT COMMUNICATION TECHNOLOGIES INSIDE THE VEHICLE

The CM CAN COMBO can capture traffic from the conventional CAN buses, as well as CAN-FD, FlexRay, and RS-232 can be captured without interfering with the original networks

6x CAN/ CAN-FD	1x FLEXRAY 2x RS232/TTL	1x GIGABIT ETHERNET (RJ-45)	1x SYSTEM CONNECTOR

MEDIA CONVERTORS

Establish a physical layer conversion between Automotive Ethernet connections (100BASE-T1, 1000BASE-T1, 2.5/5/10GBASE-T1, 10BASE-T1S) and any device with a standard Ethernet Network Interface Card (NIC) with an RJ-45 connector

MEDIA CONVERTOR 1000BASE-T1 MATENET/H-MTD

Converts between 100/1000BASE-T1 Automotive Ethernet and 100BASE-TX /1000BASE-T Standard Ethernet

NETWORK INTERFACER 10BASE-T1S

Acts as a communication hub, seamlessly routing data between 10BASE-T1S and point-to-point ports

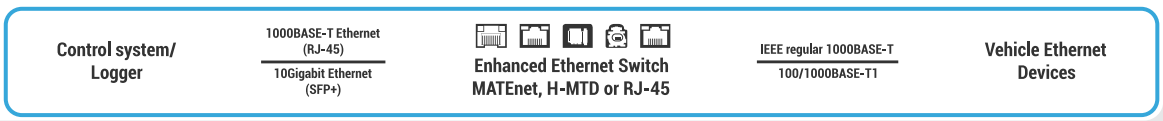
SWITCH-BASED PRODUCTS

Allow for a managed, multi-directional exchange of Ethernet messages

ENHANCED ETHERNET SWITCH MACSEC HYBRID

AUTOMOTIVE ETHERNET SWITCH WITH AVB/TSN CAPABILITIES TO TEST AND ANALYZE VEHICLE NETWORKS

- 4x 100/1000BASE-T1, 4x 10/100/1000BASE-T, 2x SFP+ slots supporting up to 10 Gbits
- Provides a reliable gPTP/802.1AS-2011 automotive profile stack
- MACsec Feature Package supports the MKA (MACsec Key Agreement) protocol
- Selectable connector interface between MATEnet, H-MTD, or RJ-45 connector, depending on the intended customer use case



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EMBEDDED SYSTEMS SOLUTIONS

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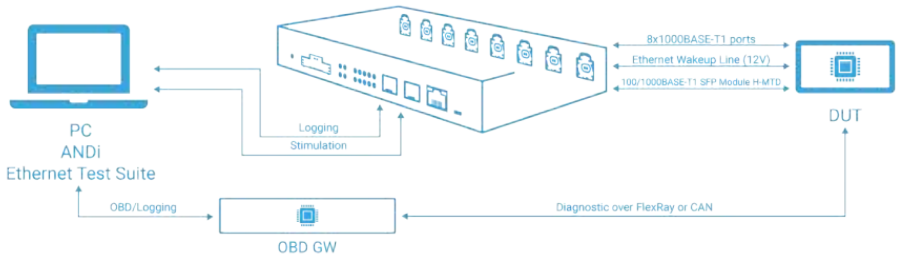
ANDI PREMIUM

ANDI (Automotive Network Diagnoser) is a testing and analysis tool which is used for Automotive software in every development phase. The tool is designed to simulate electronic networks, test components, and to analyze test results effortlessly. The major strength of the ANDi tool, is in depth network analysis and testing activities of Automotive Networks.



SUPPORTED HARDWARE

TECHNICA'S HARDWARE

Captures Modules:

- CAN COMBO
  - CM LIN COMBO
  - CM Ethernet COMBO
  - CM 100 High
  - CM 1000 High
- MediaGateway
- Enhanced Ethernet Switches (EES)
- BTS EVO

3RD PARTY HARDWARE

MAIN FUNCTIONALITIES

CREATING TEST CASES

- Easy-to-learn test case creation in Python
- Large number of convenience functions and extensions
- High data rates supported for load tests
- Extensive and efficient API interfaces to import any .NET extensions

RESIDUAL BUS SIMULATION (RBS)

- User-friendly drag and drop functions for creating simulation nodes
- Extending and customizing of the generated simulation nodes with Python Scripts

TRAFFIC VIEWER

- Advanced Filtering
- Fixed functionality
- Database Mapping

MULTIPLE CHANNELS

- Specify several channels and record all the traffic they receive in one window, respecting time synchronization

MATH FUNCTION

- Display signals by a simple specification of its mathematical equation, automatically completed by the Rest Bus Simulation and Traffic Generator

IMPROVED PCAP RECORDER

- Record the entire traffic or just a part of it by defining one or multiple Start/Stop conditions
- Scroll back to view and capture past packets

GRAPHICAL PANELS

- Create your own design with use cases and test scenarios
- Visualize and modify signals and global variables by using a set of toolbox items
- Show a different image for each value of the signal by triggering messages and scripts via the transmit button

SCRIPT DEBUGGING

- Enable debugging of the test scripts and setting of breakpoints in the test script editor

SIGNAL GRAPHICS

- Generate a time-correlated graphical representation of different signals on multiple buses
- Analyze data logging into trace files

PCAP PLAYER

- Replay data from a PCAP file as live traffic to a chosen adaptertime synchronization

FILE CONVERTER

- Convert a PCAP or PCAPNG file with a gateway header to a new PCAP or PCAPNG file without a gateway header

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