



Mobil Motor Test Bench

Testing motors and electronics made simple and compact



Mobil MTB

The compact way of testing motors and electronics.

In the development of motor applications, **flexible adaptation** to the control and measurement options are essential due to dynamic changes in conditions. The mobile Motor Test Bench (mMTB) is a compact test bench designed to assist developers **debug** and **verify** their software and hardware for embedded motor control applications in a standardized and functionally **safe environment**.



Width: 529.0 mm
Length: 926.0 mm
Height: 543.0 mm

One mMTB for various use cases:

Use of customized Motor and Electronic Control Unit with the dynamic load



With its mechanical modules and diverse load profiles, the mMTB allows for quick setup and development of custom motor applications across various motor types. The mMTB has a power supply capable of voltages up to 60 VDC and currents up to 50 A, suitable for test objects up to 1 kW. Additionally, it provides up to 768 W of continuous power for the load motor.

Rapid verification of motor control algorithms & signal analysis



Flexible data management ensures result-oriented analysis. The acquisition and processing of controller-internal data takes place time-synchronously and with high real-time capability.

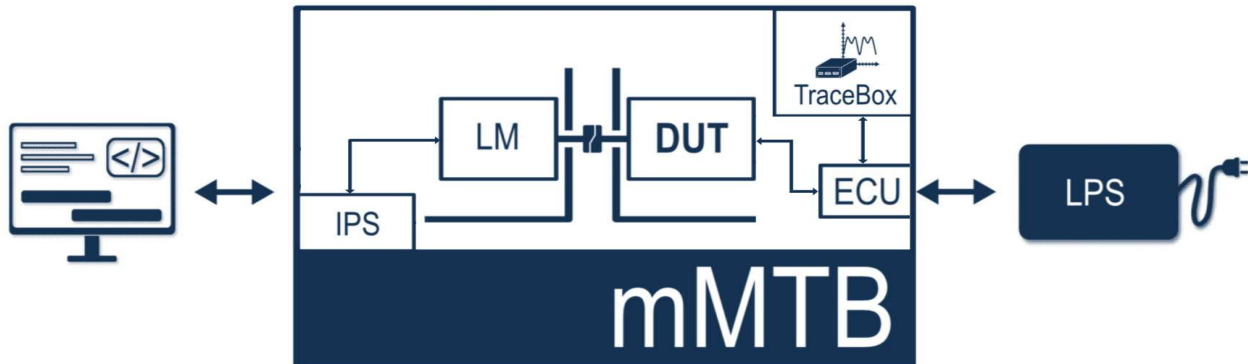
Specifically designed for office use



By using the mMTB at the developer's workstation, the developer has the opportunity to receive permanent feedback about his/her modifications and improvements, which accelerates the development process. Thanks to its compact and robust design, the mMTB conforms to the required safety standards and upgrades the development workspace to the next level.

mMTB Setup

The mMTB is connected with the PC and combines the Tracebox, load motor (LM) and integrated power supply (IPS) in a safe development environment to test the device under test (DUT). This latter includes the motor and the electronic control unit (ECU). The mMTB is attached to an external load power supply (LPS) as well.



Key applications

- High functionality of control and measurement options
- Flexible data management ensures focus-specific result analysis
- Time synchronization via EtherCAT

Key features

- Load structure (one motor with one ECU)
- DC voltage up to 60 VDC and current up to 50 A with a max power of 1 kW for test objects
- Flexible data management enabling the focus on specific aspects of the development process
- Torque up to 1 Nm (peak 2.5 Nm) and speed up to 10,000 rpm

Parametrics

Supply voltage Mobile MTB	230 VAC (max. 16 A)
Supply voltage DUT	Max. 60 VDC (max. 50 A continuous, 100 A peak, max. 1,000 W)
Shaft speed	Max. 10,000 rpm
Operating temperature	15 ... 40 °C
Acoustic pressure level	Max. 80 dB (A) on heavy load
Continuous power for load motor	Up to 768 W

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