



RIDESHARING: TEST DRIVING BUSES IN BERLIN

Bus manufacturer VDL tests instrumented city buses on the streets of Berlin

TEST BUSES IN GERMANY'S CAPITAL

Berlin has more than 1300 city buses that carry passengers daily from one point to another. It is no longer a secret that you can simply board the bus lines 100 or 200 to take a tour along the major sights for little money. It's no wonder then that city buses are quite popular with tourists and locals alike. However, with such a high frequency of passengers, it is important that the vehicles are put through their paces and tested in real operating conditions.

For the fleet to live up to a high standard, new vehicles must undergo extensive road testing – as with the new buses ordered by the BVG from the Dutch manufacturer VDL. When it comes to equipping their buses with test and measurement systems for road testing, VDL relies on imc. Mobile data acquisition on the VDL city buses is performed using the imc BUSDAQ-2-ET as well as imc CANSAS-INC and -SCI systems.



MOBILE DATA ACQUISITION

Who really cares for passengers will gladly perform a curtsy: this is what the VDL Citea LLE buses do. With a small hiss, the bus will lower down to meet its passengers. Instead of just tilting to the right, the entire bus will lower evenly for the entering and exiting guests. For elderly passengers, the boarding process is now a cinch. In addition, thanks to lighter floor and roof panels, the twelve meter long bus consumes significantly less fuel as before.

At the moment, two Citea LLE city buses, as well as a double-decker Citea DLF are now equipped with imc measurement devices and are tested during running operations. With the acquired measurement data, VDL can continuously optimize their vehicles. The compact and robust imc BUSDAQ-2-ET measurement devices capture data from the engine, transmission, air suspension system, brake system and dashboard – all via CAN bus.

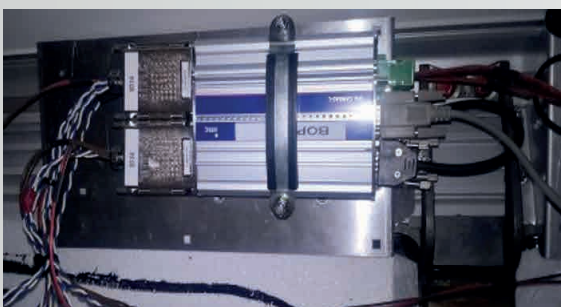
The imc BUSDAQ series enables timesynchronous acquisition of measurement information from vehicle buses such as CAN or LIN. These compact systems are far more than a simple logger: they offer real-time calculation and trigger options. In addition, the imc BUSDAQ supports a variety of protocols, such as SAE J1939, which describes the CAN bus communication in commercial vehicles for transmission of diagnostic data (e.g., engine speed, temperature, error codes) and control information.



Due to its signal-controlled sleep mode, the imc BUSDAQ is particularly well-suited for fleet trials, especially with a start-up time of only 200 ms. imc BUSDAQ not only allows for the connection of vehicle buses, but also bus components such as sensors, measurement amplifier modules (e.g., imc CANSAS) or control devices. Measurement data, status information, etc. can be read with the imc BUSDAQ. For road testing, having GPS capability and remote access to measurement data were an important feature.

Just like all imc devices, the imc BUSDAQ is supported with the imc STUDIO software platform. This enables complete manual and automatic adjustment of the measurement parameters, real-time functions, triggers and storage modes. Curve window displays and documentation created in the Report Generator are an integral part of the software. In addition, modules for capturing frequency, rotation, position and angle are in operation:

imc CANSAS-INC and -SCI modules for isolated recording of voltage, current and temperature. They detect signals such as generator current and voltage, pulse width modulation, air compressor pressure and the status of the air conditioner.



BIAS Mühendislik

BIAS Mühendislik / Haluk Türksöy Arka Sok. 12/2
Altunizade, Üsküdar 34662, İstanbul, Türkiye

Mobile: +90 216 474 57 01
E-mail: info@bias.com.tr
Internet: www.bias.com.tr

BIAS Engineering, established in 1997, is one of Türkiye well-established engineering companies, offering advanced engineering solutions in the field of mechanical engineering. Its core activities include mechanical design product development (R&D), analysis/simulation, design verification and testing services, engineering software (CAE), sales of test and measurement systems, and pre- and post-sales services.

BIAS Engineering is the sole authorized representative of imc Test & Measurement in Türkiye.

imc Test & Measurement GmbH

Voltastr. 5, 13355 Berlin, Germany

Website: www.imc-tm.com

IMC Test & Measurement GmbH, based in Germany, is a technology company that produces customized solutions in the field of data acquisition systems, sensors, telemetry, test bench systems, etc. IMC products have been preferred in Turkey for many years in various sectors, including automotive, defense, aviation, rail systems, energy, white goods, and construction.

“Yenilikçiler için Çözümler
Solutions for Innovators”