

HORIBA

RDE



RDE+ CHASSIS

This application links road-based RDE tests to the chassis lab.

RDE+ CHASSIS delivers time and cost savings by reducing vehicle prototypes, road testing and seasonal delays.

Using HORIBA STARS automation software and VULCAN chassis-dyno hardware, whole-vehicle RDE tests can be replicated accurately with superior repeatability.

RDE tests can be faithfully emulated, enabling rapid development and validation of whole-vehicle systems and calibrations. This approach eliminates the need for seasonally dependent environmental testing.

Hardware-in-the-loop (HiL) approaches allow virtually generated RDE scenarios to be driven by whole vehicles.

SMART SOLUTIONS FOR CLEANER AIR

BENEFITS

Cost and Operational Benefits of Torque-Matching Method

- » No need to take complex vehicle measurements over RDE test
- » Lower cost, efficient replication of RDE tests
- » Easy RDE emulation for vehicle development and validation

Advantages for Vehicle Emissions Development

- » Rapid generation of rig-based RDE tests for prototype vehicles
- » Shortened development and validation timescales
- » Accelerated durability/degradation test deterioration factors from real-world driving
- » Highly repeatable real-world testing with altitude and environment in the lab

Reduced Requirement for In-field Environmental Testing

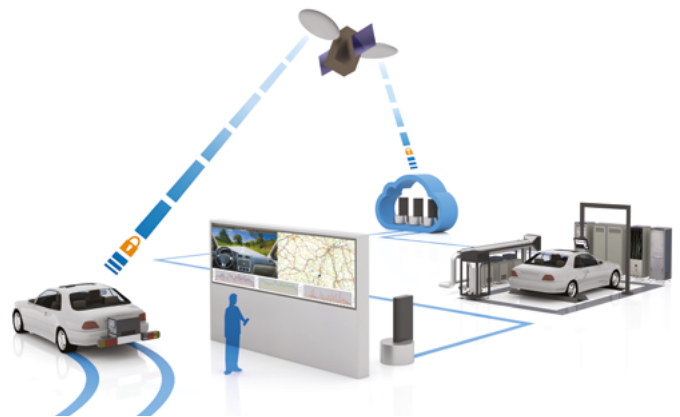
- » Reduced cost of road trips, travel and transportation
- » Reduced number of prototype vehicles required
- » De-coupling of the development testing programme from seasonal timing
- » Repeatable environmental testing in the lab

EASY ROAD-TO-RIG

HORIBA's "Torque Matching" App (Patent Pending)
Simple and easy RDE route capture with novel chassis-dyno control, delivers high fidelity replication of the RDE test.

Seamless Data Capture and Transfer

STARS Enterprise cloud-based applications enable automated data capture from the HORIBA OBS-ONE PEMS, post-processing and transmission to STARS VETS for immediate RDE replication on the VULCAN chassis-dyno.



ACCURATE REPEATABLE RDE REPLICATION

HORIBA's ADS EVO Automatic Driving System

To reliably develop and validate vehicle systems and calibrations, the matching of pedal positions and vehicle speed over the full RDE test is achieved by the ADS EVO time after time.

Complete RDE Environment Replication

The HORIBA Multi-Functional Dynamic Altitude Simulator (MEDAS) system instantaneously supplies the correct atmospheric conditions to the vehicle under the control of STARS VETS.