

# Brake Test and Engineering

Brake performance and testing, brake durability, and brake NVH and problem-solving.



**Brake Performance and Testing:** Applus IDIADA Braking Systems department has over 20 years' experience in brake testing. A multi-national team of engineers and brake technicians can manage any kind of testing and validation activity related with the braking system. State-of-the-art instrumentation is currently available, including brake robot actuators, several wheel torque transducers and DTV capacitive sensors for both static and dynamic testing.

Take a look to the following articles, published by the brakes IDIADA team, at [The Break Report Magazine](#):

- [TBR Technical Corner: Disc Thickness Variation Measurement under Operational Cold and Hot Brake Judder Conditions \(Part 1 of 4\)](#)
- [TBR Technical Corner: Disc Thickness Variation Measurement under Operational Cold and Hot Brake Judder Conditions \(Part 2 of 4\)](#)
- [TBR Technical Corner: Disc Thickness Variation Measurement under Operational Cold and Hot Brake Judder Conditions \(Part 3 of 4\)](#)
- [TBR Technical Corner: Disc Thickness Variation Measurement under Operational Cold and Hot Brake Judder Conditions \(Part 4 of 4\)](#)

**Brake durability:** With over 12 years' experience in open-road testing, more than 5 million km accumulated worldwide and more than 350 tested vehicles, the brake durability team is currently performing testing in several permanent bases in Spain (Mojacar, Barcelona), Germany, Italy, China, Brazil, India and the US. A secure web



platform has been developed by our software engineers in order to allow real-time data reporting.

Take a look to the following articles, published by the brakes IDIADA team, at [The Break Report Magazine](#):

- [TBR Technical Corner: Disc Thickness Variation Measurement under Operational Cold and Hot Brake Judder Conditions \(Part 1 of 4\)](#)
- [TBR Technical Corner: Disc Thickness Variation Measurement under Operational Cold and Hot Brake Judder Conditions \(Part 2 of 4\)](#)
- [TBR Technical Corner: Disc Thickness Variation Measurement under Operational Cold and Hot Brake Judder Conditions \(Part 3 of 4\)](#)
- [TBR Technical Corner: Disc Thickness Variation Measurement under Operational Cold and Hot Brake Judder Conditions \(Part 4 of 4\)](#)

**Brake NVH and Problem Solving:** With over 25 years' experience in NVH engineering and investigation, advanced noise and vibration analysis techniques are used to support our customers in brake development and problem solving. Extensive experience in low-frequency noise (groan, moan, ...) as well as high-frequency brake noise (squeal) and vibrations (judder) can be put in place in order to tackle any kind of NVH issue.

Take a look to the following articles, published by the brakes IDIADA team, at [The Break Report Magazine](#):

- [TBR Technical Corner: Effect of Sub-Frame Boundary Conditions on Vehicle Judder Performance \(Part 1 out of 3\)](#)
- [TBR Technical Corner: Effect of Sub-Frame Boundary Conditions on Vehicle Judder Performance \(Part 2 out of 3\)](#)
- [TBR Technical Corner: Effect of Sub-Frame Boundary Conditions on Vehicle Judder Performance \(Part 3 out of 3\)](#)

## Remote witness for brake NVH durability tests: Live streaming services

Applus IDIADA offers **remote witness streaming services**, a cost and time-effective solution that allows our clients to be **virtually present during brake NVH durability testing sessions** and follow up the milestones of their testing projects.



Our real-time streaming sessions provide an optimal virtual experience and allow attendants to **witness and validate testing results and subjective ratings** and to **interact with our engineers and technicians**. Our clients are in control of the whole testing process, ensuring all procedures are accomplished as requested.

As usual, we are fully committed to our clients' **confidentiality** requirements and all online communications concerning on-going projects will be provided through secured means.

Our real-time broadcast allows you to:

- Listen to brake noises live
- Evaluate vehicle maneuvers
- Observe the DAU (dbBrake) screen
- Interact with IDIADA staff during the streaming session
- Record sessions (if required)

To make this possible, IDIADA has put in place **communication and secure data-transfer tools** to keep a constant communication flow between you and your IDIADA team.