AB DYNAMICS™ Product Specification

The essential tool for vehicle-to-vehicle ADAS tests

GST™ 100 Plus

The GST 100 Plus is AB Dynamics' enhanced Guided Soft Target™ (GST) platform, developed for vehicle-to-vehicle ADAS testing at speeds of up to 100 km/h with extended battery capacity to support uptime at the track.

Building on the original GST 100 design trusted by Euro NCAP, the new GST 100 Plus introduces a 33% larger battery, enabling longer test sessions and fewer interruptions. Its 100 km/h capability addresses the requirements of Euro NCAP standard scenarios with ease but also allows the exploration of extended scenarios.

- Low height aluminum chassis with retracting wheels
- Euro NCAP-approved platform
- 4 disc hydraulic braking system with fail safe emergency braking
- Inertial Navigation System with GNSS correction
- Synchro software allows coordinated motion with other vehicles
- 100 km/h top speed addresses standard Euro NCAP test scenarios
- 4.8kWh LiFePO4 battery delivering more power and longer uninterupted testing
- ABS braking to prevent wheel lock and optimise deceleration control
- Fully integrated AB Dynamics path-following and speed control
- New Remote RC interface streamlines user experience

How GST 100 Plus supports your testing

The GST 100 Plus enables realistic vehicle-to-vehicle collision and close-passing tests while protecting the subject vehicle. When combined with the Soft Car 360™ (creating the harmonised Global Vehicle Target, GVT), the Soft Car 360 separates into lightweight components on impact, and the GST's ultra-low 100 mm platform allows the test vehicle to safely drive over the GST with minimal suspension shock.

Accurate, repeatable, synchronised

Using a GNSS-corrected inertial navigation system, the GST 100 Plus delivers precise path-following and speed control that meets Euro NCAP accuracy requirements. Millisecond-level synchronisation ensures consistent, repeatable crash and avoidance scenarios across every test run.

Working within our track test product ecosystem

Part of our track test ecosystem, the GST 100 Plus integrates seamlessly with your existing AB Dynamics equipment – driving robots, ADAS targets and platforms, and software – helping you to create and manage complex scenarios efficiently.

Specifications

Typical maximum speed	100 km/h+ (fitted with Soft Car 360 GVT)
Maximum acceleration	0.28 g (fitted with Soft Car 360 GVT)
Maximum deceleration	0.8 g (with ABS)
Maximum lateral acceleration	0.4 – 0.5 g
GST Platform length	3160 mm
GST Platform width	1680 mm
GST Platform height (suspension retracted into chassis)	100 mm
GST Platform wheelbase	1670 mm
GST Platform front track	790 mm
Max ground clearance, set to max ride height	20 mm
Edge detail	22deg edge for minimal radar reflection
Testing duration	Full day (typical)
Battery capacity	4.8 kWh (removeable for shipping)
Path-following accuracy	Meets Euro NCAP requirements of +/-0.1m Note: Measurement accuracy dependent upon motion pack (2cm 1SD RMS typical maximum). Compatible with OxTS and GeneSys products
Over-run capacity	Up to 1000 kg per wheel (500kg with ultra-low-profile top plate). Optional HD version 9000 kg/axle

About AB Dynamics

AB Dynamics is a leading global provider of automotive test and verification solutions that facilitate the development of vehicles that are safer, more efficient and sustainable. As part of the AB Dynamics Group of companies we enable customers to develop and test in virtual environments, validate on the track and then evaluate vehicles on public roads.

For more information:
www.abdynamics.com
info@abdynamics.com

PS-G100-04/26-ROW

SP64 Issue 2

© 2022-2026 AB Dynamics. All Rights Reserved. AB Dynamics®, Guided Soft Target™, GST™ and Soft Car 360™ are trademarks and the property of AB Dynamics plc or its subsidiaries in the United Kingdom and elsewhere. Systems, components, methodologies and software supplied may be the subject of patent and design rights. Whilst this information is provided in good faith, no warranty or representation is given concerning such information, which must not be taken as establishing any contractual or other commitment binding upon AB Dynamics plc or any of its subsidiaries.