

AUTOMOTIVE ENGINEERING AND TESTING SERVICES

FACT SHEET Automotive Engineering Services (AES)

Primatec designs and engineers test environment solutions and performs ECU testing services in the automotive industry.

The culture of delivering excellence in services performance and commitment to customer satisfaction allows Primatec to work with clients in a close partnership to provide IT services for software engineering, development, test and validation, maintenance and technical support that help develop and grow their business.

Primatec vision is to continue thriving excellence in ECU testing by applying AI and ML technologies in intelligent testing and automation services.

TOP-LINE BENEFITS

- > In-depth testing across all phases of the product lifecycle from Unit Testing to System Testing across all test management phases to ensure high quality software.
- > High test automation level supporting continuous integration software development.
- > Generic reusable test suites for different automotive technologies and standards such as Autosar and Automotive Ethernet.

AREA OF EXPERTISE



Vehicle Body and Comfort Electronics Testing

- > Car Access
- > Car sharing
- > Comfort functions
- > Entertainment
- > Interior and exterior Light
- > Energy management



In-Vehicle Networks Testing

- > Gateways
- > LIN
- > Automotive Ethernet
- > FlexRay
- > CAN/CAN FD



Functional Safety and Security Testing

- > Hazard analysis and risk assessment - ASIL ratings
- > Technical Safety Requirement analysis and testing
- > Safety processes and documentation management in compliance with ISO-26262 standard

Why PRIMATEC ?

✔ Shortening Time to Market

Primatec relieve OEM and Tier I customers from hectic and time-consuming automotive testing activities, and delivers end to end testing solutions from concept to delivery.

✔ Proven Expertise

Partnering with Primatec provide customers with cutting edge practices and expertise in ECU testing earned from working on projects for Premium OEMs like BMW, Audi, ..

✔ Innovation

Primatec is working on innovative projects to meet the increasing demand of development and testing for autonomous driving and electric vehicle

✔ Competitive Pricing

Primatec offers highly competitive and attractive pricing level

✔ Experienced & Stable Staff

Primatec offers highly skilled software developer and tester professionals, we invest in continuous learning and effective HR management strategy that guarantee to maintain a low attrition rate.

CAPABILITIES

AUTOMOTIVE TESTING SERVICES

We support our customers and ensure complete responsibility of automotive ECU testing across all phase of the product lifecycle from unit testing to acceptance testing.

Component Test

Test Level

Grey-box Testing
Functional Testing

Test Environment

SIL and HIL
FuSa, Autosar

- > Unit tests automation
- > Statement and branch coverage testing
- > Static code review and analysis

Software Integration Testing

Test Level

Black box testing
Grey box testing

Test Environment

HIL

- > Testing various component interfaces communication
- > Testing software subsystems
- > Validating the integrated software to ensure proper interaction with all existing interfaces

System Integration Testing

Test Level

Black box testing

Test Environment

DUT
HIL

- > Analyzing system architecture and integration strategy
- > Validating integration of software and hardware environment
- > Validating low level hardware interactions

System Test

Test Level

Black box testing
Functional testing
non-functional testing

Test Environment

HIL

- > Testing complex real ECUs
- > Exploratory testing based on historical test results
- > Validating all features of the complete system
- > Testing the whole integrated system

System Acceptance Test

Test Level

Black box testing
Manual testing

Test Environment

Test on Vehicle prototype

- > Performing beta testing on production environment by different stakeholders
- > Continuously collecting and analyzing feedbacks gathered during acceptance testing.
- > Validate newly implemented corrections and improvements

CONTINUOUS TEST AND VALIDATION ENVIRONMENT

Driven by AI and ML technologies, our intelligent testing and automation frameworks provide a prescriptive analytics approach for test-case generation and optimization, improving code quality and test coverage, and reducing defects and accelerating their detection through the exploitation of the risk assessment results in the selection of the tests to be executed during the continuous validation cycle.

- 1 Right defects at the right time
- 2 Technical and emotional confidence of our customers, based on history and trust
- 3 Right feedback at the right time
- 4 Technical excellence based on experience with many generations of products



PRIMATEC AT A GLANCE

+ 10 years

Experience of Engineering



+ 250

Employing Engineers



+ 40 000 k

covered customer requirements



+ 100 000 k

automated test scenarios



SUCCESS STORIES

BODY	CARSHARING	AUTONOMOUS VEHICLE	CONNECTIVITY	SECURITY
BMW BDC18, BMW BCP21, ENS21 System and Pre Integration Test	DriveNow 3/4/5 Component and Integration Test	BMW xPAD autonomous driving Integration and ECU System Test, Platform Test	Gateways System and Prototype Test	Security, Ethernet Test Suite, Products Etc.



PARTNER WITH AN INDUSTRY EXPERT



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