



EXSEL DYTECNA
ENGINEERING

Automatic Test Equipment

The Exsel Dytecna facility based at Welshpool, Powys, UK is the group centre of excellence for design, manufacture and testing of software and electronic systems.

Exsel Dytecna offers proven expertise in Systems Engineering.



Overview

Exsel Dytecna Systems Engineering expertise has been applied to the design and development of Automatic Test Equipment (ATE) – devices designed to radically reduce production testing times of hardware and software while maintaining test accuracy.

Exsel Dytecna ATE has been designed for equipment that includes a large number of build variations or has complex functionality that delivers a crucial service. Exsel Dytecna ATE solutions automatically test for a large number of variations in build requirement, correct installation against the build specification and correct operation of the device under test.

Encompassing all stages of the project from requirements capture, through design and development to manufacture, test and certification, Exsel Dytecna provides customers with a low risk high quality approach to ATE engineering.

Complementary technical expertise includes machine to machine (M2M) communication devices, condition monitoring systems and power distribution & management solutions.

Key Customer Benefits

Exsel Dytecna ATE is designed to comprehensively test each article such that 100% accuracy and sampling is achieved. Solutions include:

- Design and manufacture for new test requirements
- Portable or fixed position solutions
- Modification, upgrade and remanufacture of legacy ATE
- Through life support and obsolescence management

**Exsel Dytecna is a member
of the Electronic and
Software Technologies
Network for Wales**





ATE Supply Activities

- System analysis; requirements, mechanical & electrical analysis
- System specification
- Instrumentation and data acquisition
- Unit under test stimulation
- In house design of embedded software
- Cabinet wiring and build
- Digital electronic design and implementation
- Create bespoke test reporting:
 - Pass/fail; Self diagnostics; Power up; Statistics; etc.
- Factory installation and commissioning
- Operator training
- Through life support



Typical Applications

Vehicle production door line test facility – automatically tested configuration and operation of fitted components (electric windows, mirrors, lights, locking, alarm components, etc.).

Production line test devices for military control units – designed to be used by unskilled operators, eliminate human error and accelerate testing of volume manufacture product. The ATE provided the operator with unambiguous instructions and was used to monitor and test multiple I/O ports and present a clear pass or fail rate.

Vehicle production infotainment test rig – able to test individual components or a complete installed vehicle information and entertainment systems. Manufactured in partnership with Cleve Technology for Jaguar Land Rover Limited.

Data acquisition & logging system – a portable military trials device to collect specific data together with associated time and GPS co-ordinate information.

