ABI Electronics

Test & Measurement Systems

EXTENDING THE LIFE OF YOUR PCBs SINCE 1983

WELCOME TO ABI

ABI Electronics offers unique time-saving and flexible products which are used by companies operating in a wide range of sectors. ABI's fully integrated hardware and software solutions allow our customers to take control over their electronic maintenance requirements, automate quality tests on new products and generate schematics for legacy equipment.
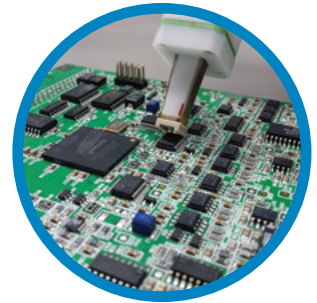
MANUFACTURING

MASS TRANSIT

ARMED FORCES

MAINTENANCE

AEROSPACE

OIL & GAS

AUTOMOTIVE

EDUCATION

ABOUT US

ABI Electronics has designed and manufactured high quality test, diagnostic and measurement instrumentation in the UK since 1983. ABI's range of products are commonly used in the test and maintenance of highly complex systems across a variety of industries and applications worldwide. Customers choose ABI products for their flexibility, affordability and time-saving features.

The company founders developed the world's first low cost test solution for integrated circuits that turned into a great success amongst engineers in the UK and abroad.

ABI has now over 40 years experience of developing the highest quality testing and fault-finding equipment, backed by a global reputation for quality and service. It is also certified in accordance with ISO 9001-2018.

Over all these years, ABI has remained loyal to its principle of full design and build high quality products in the UK.

CHANGING VALUES & BEHAVIOUR IN THE INDUSTRY

Created in 2015, ABI's initiative 'Repair, don't waste' has become a global movement aimed at increasing awareness to the benefits of industrial electronics repair over replace across the business spectrum. The "Repair, don't waste" movement has reduced waste, downtime and created quality job opportunities around the world.

WHAT CUSTOMERS SAY

"We are proud to join the #RepairDontWaste community." The whole world stands to profit massively from industrial electronics being kept going for longer.

Join the **#RepairDontWaste** community and keep up to date with our latest news.

Find out more at **RepairDontWaste.com**

SYSTEM 8 | **ADVANCED TEST MODULE (ATM)**

IN-CIRCUIT/OUT-OF-CIRCUIT FUNCTIONAL TESTER

KEY FEATURES

• LIBRARY DRIVEN, IN-CIRCUIT COMPONENT TESTING

• BOARD LEVEL FUNCTIONAL TESTING

• AUTOMATIC TEST SEQUENCES

• LOGGING AND REPORTING FACILITIES

The ATM is a solution designed for the test and diagnostics of all digital ICs and PCBs from all logic families, including TTL, CMOS, LVTTL and ECL. The module offers **power on** and **power off** tests, either in or out of circuit. With high specifications and up to 2,048 channels, the module is ideal for both component and PCB testing.

IN-CIRCUIT FUNCTIONAL TESTER

The ATM offers the most complete set of test methods to ensure components are assessed thoroughly and potential faults are identified quickly. The extensive library of components makes in-circuit testing easy by simply entering the part number of the device.

under test (**DUT**). The following tests are selectable with the ATM :

- **Functional** checks that the device is working as per the datasheet
- **Connection** checks the way the component is wired in-circuit
- **Voltage** checks the voltage on each pin of the device
- **Thermal** checks the relative temperature of the component
- **VI** checks the internal structure of the device

The ATM is suitable for all logic families including **TTL, CMOS, LVTTL, ECL, DTL, LSI, RTL, PECL, LVPECL.**

OUT-OF-CIRCUIT FUNCTIONAL TESTER

Use the out-of-circuit adapter to isolate the component and to run tests outside the board environment.
This is useful to further diagnose a suspect device, to remove the influence of other components or to check a new device before it is placed in-circuit.

PROVEN BENEFITS

REDUCE FAULT-FINDING TIME BY TESTING IN-CIRCUIT WITH NO SCHEMATICS

LOWER CAPITAL EXPENDITURE WITH ONE SOLUTION FOR ALL APPLICATIONS

BECOME SELF-DEPENDENT FOR ALL TEST AND REPAIR NEEDS

IMPROVE DATA TRACEABILITY AND INTEGRATION OF YOUR SETUP

INTRODUCE BOARD LEVEL TESTING CAPABILITIES INTO YOUR BUSINESS

FREE UP ENGINEERS TIME BY IMPLEMENTING AUTOMATED TEST PROCEDURES

INCREASE RELIABILITY BY TESTING AT COMPONENT AND BOARD LEVEL

REDUCE SETUP TIMES BY USING A PRACTICAL SOFTWARE

FUNCTIONAL BOARD LEVEL TESTING
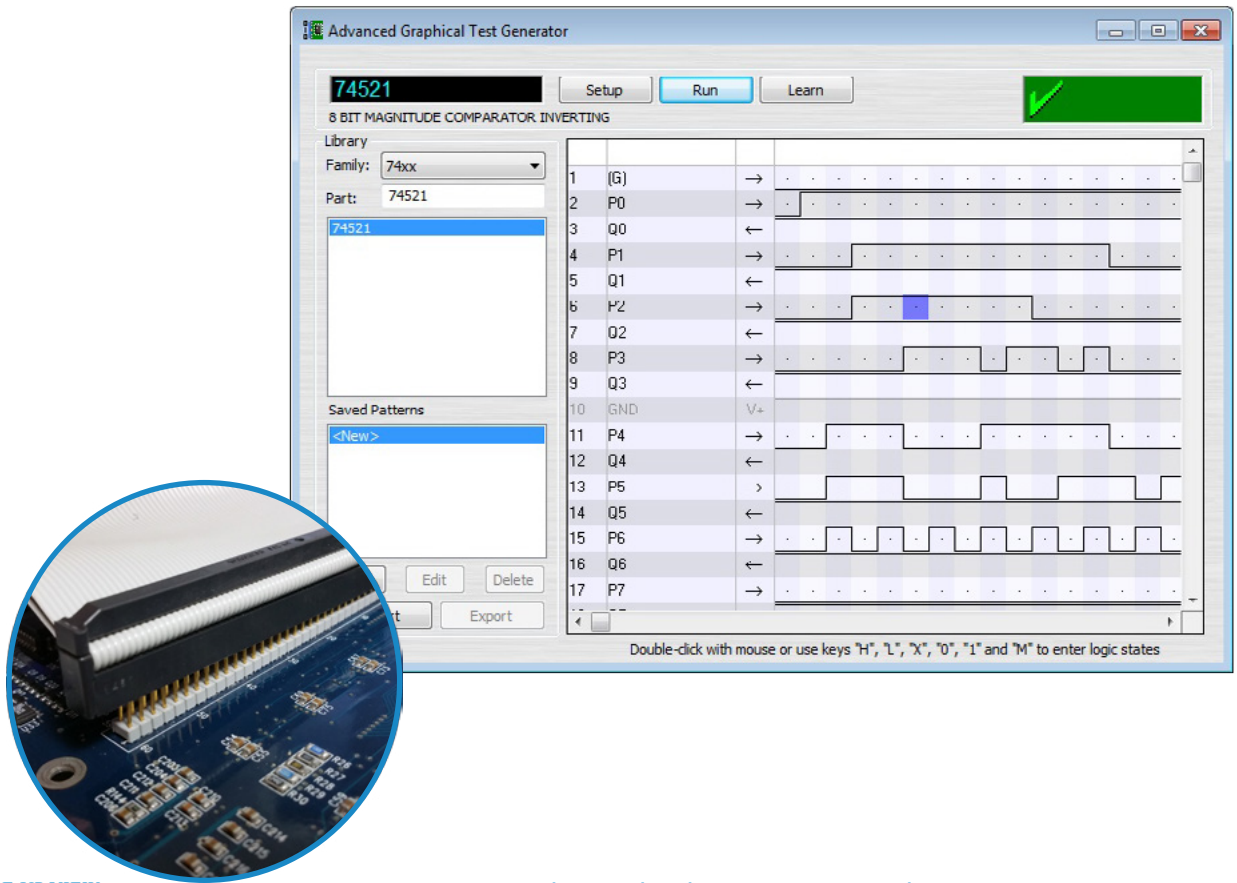
CLOSE-UP VIEW.
Board Level Test.

The graphical test generator is the easiest way to create test patterns for individual devices and complete PCB assemblies. Each channel of the ATM can be individually selected to be an input, an output or both (bidirectional). A logic pattern (test vector) can quickly be generated with the use of the mouse.

The output response of the unit under test can be learnt automatically or compared with preset vectors. The patterns and responses can be saved in the software for repetitive use (production environment) or when a similar board is received (repair shop).

Number of I/O channels	64 per module - expandable to 2,048 channels
Number of guard outputs	8 per module
Drive output voltage	+/- 10 V
Drive output resolution	20 mV
Drive output current	600 mA
Compatibility standard	DEF 00-53 (defence standard)
Drive slew rate	>100V/µs
Sense input voltage	+/- 20 V
Sense input resolution	10 mV
Sense input detection	Actual voltage measurement
Sense input thresholds Fully programmable Input impedance	10k
Channel termination	·Programmable for tri-state, pull up and pull down ·Fully bi-directional
Memory per channel	Unlimited
Circuit modes	In-circuit, out-of-circuit (with adapter), board level (with test fixture)
Automated functions	·Auto clip positioning ·Automatic circuit compensation ·Automatic drive level offset compensation

TECHNICAL

DATASHEET

Test modes

Single	Single test
Loop	Unconditional cycle
True Loop	Cycle as long as test passes
False Loop	Cycle as long as test fails
Auto (swept)	Finds tightest valid thresholds Test types

Test libraries

Library classes	All logic families including TTL, CMOS, LVTTL, ECL, DTL, LSI, RTL, PECL, LVPECL, Memory, Microprocessor
Package types	DIL, SOIC, PLCC, QFP
Connector types	D Type, Edge, PCMCIA, SCSI, DIN, Header, IEEE

Test types

Loop Truth table (functional)	Library based functional test
Connections (MDA)	·Short circuit detection ·Floating input detection ·Open circuit detection ·Linked pin detection
Voltage	Logic state detection with programmable thresholds
VI signature analysis	·Sweep ranges -10V to +10V (programmable) ·Maximum test current 1mA ·Multi-plot with single waveform zoom
Thermal	Indication of pin temperature

Accessories

Advanced Test module cable set consisting of

Standard	1 x 64 way test cable 1 x BDO cable 1 x Short Locator cable assembly 1 x Ground clip 1 x 64 way split test cable 1 x 4mm Ground cable

*The ABI development team strive continually to improve their products for the benefit of the customer. The specification of current products may therefore vary from that described in this flyer.

OUR
CLIENTS

ABI products are used all over the world by companies operating from railway, automotive, aerospace and heavy industry to armed forces, industrial maintenance and education.

SUPPORT

We are here to help!

Customer service is part of our commitment to continued quality and product development. We always strive to provide quick and efficient support to our customers worldwide. Service, maintenance and upgrades are available for our range of products as well as customised solutions to suit special requirements.

Tech Support

Direct access available to technical support from ABI's engineering team based in the UK and from our global distributors.

Upgrades

Stay current with free upgrades to software and maintenance releases.

Global reputation for quality and service

ABI Electronics is certified in accordance with ISO 9001-2018. The system is based on an ongoing commitment to quality, professional fulfillment of duties and constant expansion and development.

Certificate nº: 3133

ABI Training and Certification

We are also committed to meeting every customer's training needs. We offer a range of training courses, complete with hands-on opportunities, which can be delivered in house or on-site.

CONTACT US!

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