Advanced Component Testing

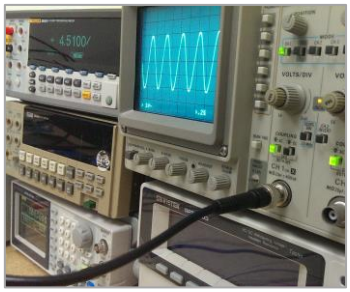
ELECTRICAL TESTING
AUTHENTICITY INSPECTION
MATERIAL ANALYSIS
ENGINEERING SERVICES
LOGISTICS SERVICES

ISO 17025 ACCREDITED LABORATORY

U.S. DLA QTSL Audited & Assessed

COMPANY OVERVIEW

Advanced Component Testing (ACT) is a highly accredited electrical test laboratory offering a wide range of testing, inspection and engineering services—and one of a select few ISO17025-accredited labs performing electrical testing *and* counterfeit detection. Having undergone a rigorous audit, ACT has also earned Lab Suitability accreditation as a test facility from the Defense Logistics Agency. At ACT, our testing and supporting processes meet the highest standards of consistency and reliability.


ACT provides comprehensive services for companies and government agencies in the military/aerospace sector requiring MIL-SPEC electrical testing and AS6171-based authenticity inspection; commercial and industrial OEMs needing independent quality testing of electronic components prior to use in manufacture; and electronics distributors seeking advanced authenticity inspection and testing.

At Advanced Component Testing we thoroughly test, analyze and inspect a wide variety of new and legacy devices and packages to MilSpec test methods, key industry standards, and specific customer requirements.

Electrical Testing

- AC/DC Characteristics
- Functional
- Parametric
- Group A, B, C
- V-I Curve Trace
- Up Screening
- Burn-In
- Life Testing
- Failure Analysis
- At High/Low Temperatures: Ambient, Commercial, Industrial, Military

Authenticity Inspection & Testing

- Physical Dimension
- External Visual
- Component Surface
- Lead Condition Inspection
- Marking Permanency
- Blacktopping (resistance to solvents)
- Mechanical Scrape Test
- Internal Visual Die (DPA)
- X-Ray Die Bond/Frame Inspection
- Visual Testing via SEM
- IC Decapsulation/De-lidding
- HST Testing
- BGA Inspection
- Proprietary OCM Database Comparison

DEVICES

PASSIVE
Capacitors
Inductors
Resistors

DISCRETE SEMIS
Arrays
Diodes
Rectifiers/SCRs
Transistors
TRIACs

LINEAR
ADCs, DACs
Analog Switches
Op-Amps
Opto Couplers
Voltage Regulators

DIGITAL
CMOS, ECL, TTL

MEMORY
DRAM, SRAM, EEPROM, EPROM, Flash

MICROPROCESSORS

And more: mixed signal + non-discrete

PACKAGES

Axial Leaded
DIP
DPAC
PLCC
QFP
Radial Leaded
SOIC
SOP
SOTxx
TOxx
TSOP
And More…

Material Analyses

- XRF Metal Composition
- RoHS Compliance
- MIL Lead Compliance
- Dye Penetration Inspection

Quality/Reliability Tests

- Fine/Gross Leak Testing
- Solderability Testing
- Temperature Cycling
- Coplanarity Inspection
- Die Shear Testing
- Bond Pull Testing

Other Engineering Services

- Up Screening
- Device Programming
- Blank Verification
- UV Erasure
- Bake/Dry Pack
- Tape/Reeling
- Engineering Review
- Comprehensive Report

Testing Plan Strategies

ACT engineers, programmers and technicians develop best-in-class, custom manual and automated test routines to test parts to the following standards:

- AS6171 Counterfeit Detection Testing Procedures
- AS6081 Counterfeit Avoidance Protocol
- DFARS Part 252.246-7007
- CCAP-101 for Counterfeit Components
- MIL-STD-750: Over 100 Test Methods
- MIL-STD-883: Over 50 Test Methods
- MIL-STD-202: 11 Test Methods
- IDEA-STD-1010 Visual Inspection Standard
- J-STD-002 Solderability Standard

Process Defined by TQM

ACT's total quality management program is focused on improving administrative and technical processes in order to maximize customer satisfaction and maintain competitive pricing. It begins with asking the right questions to provide a comprehensive quote for work that will fully satisfy all inspection and testing goals and flow-down requirements. The test routines ACT creates and executes to exacting standards are highly reliable and repeatable. The final report includes detailed results, full read-record or pass/fail data on electrical tests, color photos with authenticity inspection, and a parts history analysis.

IDEA-STD-1010B

ESD Association 20.20 Certified

Certified System Quality ISO 9001

GIDEP Government - Industry Data Exchange Program

SMTA Surface Mount Technology Association

erai Member