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SBA: Small Business
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 CT-11-820-0324
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- ✓ AS9100D
- ✓ ITAR Registered
- ✓ ANSI/ESD S20.20-2014 Certified
- ✓ J-STD-001 Certified
- ✓ FDA Registered
- ✓ NIST 800-171 Compliant
- ✓ Small Business
- ✓ SAM Registered

TEST/INSPECTION SERVICES & CAPABILITIES

At ACDi, we understand the importance of meeting the highest standards of quality for your electronics manufacturing project. We offer a full-range of testing services, to ensure our clients' success.

BOARD-LEVEL TESTING

Services

- Flying probe - Ideal for NPI testing
- In-circuit test (ICT) - Best suited for production/mature products

Equipment

- SPEA 4060 Flying Probe In-Circuit PCBA Tester
- HP SMT 3070 In-Circuit Test System
- Teradyne TS124 In-Circuit Test System

FUNCTIONAL TESTING

Basic Services

- Power-on test
- Customer supplied or developed by ACDi

À la carte Services

- Operational or complex testing
- Test fixture development
- In-circuit programming
- PCB to system level

Equipment

- Flash programmer – PM3 MPLAB Microchip Programmer
- Submersible Test Tank (10 ft. depth)

DESIGN & VERIFICATION TESTING (DVT)

Services

- Extensive electrical testing & characterization
- Stress testing
- In-house temperature testing
- Support for Mil-Spec environmental testing

Equipment

- Tenney T10C/T20C Temperature Chambers

INSPECTION

Services

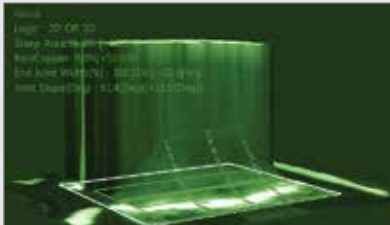
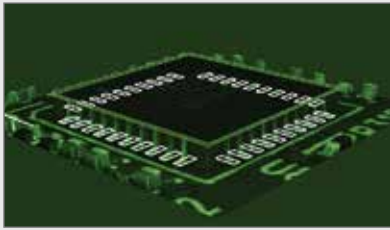
- Automated optical inspection (AOI)
- SPI
- X-RAY
- Final QC inspection

Equipment

- Koh Young KY8030-3 3D Solder Paste Inspection
- YesTech BX Automated Optical Inspection (AOI) w/ 4 side angle camera
- CR Technologies CRX 2000 X-Ray
- Koh Young Zenith 3D Automated Optical Inspection
- YesTech YTX-3000-130 High Resolution X-Ray

ADDITIONAL EQUIPMENT

- Cirris Easy-Touch Pro w/HiPot up to 1500VDC
- Analog and RF Equipment



TEST/INSPECTION PAST PERFORMANCE

Premier Mobile VSAT Antenna Provider

Product : Satellite acquisition and precision antenna positioning module

- Receives, identifies and conditions satellite signal
- Sends satellite signal information to controller board to position antenna

Testing

- Testing process lost in transfer from initial contract manufacturer
- ACDi worked with customer to develop new testing procedures and processes
- Tests include signal strength, filter selection (center frequency and offsets), attenuator selection operation and beacon test
- ACDi testing feedback helped customer to identify timing and tolerance issues in product (which was corrected)

RF Troubleshooting

- Trace RF path through board to find defects
- Set up controls to expected values (filter and attenuator) and check results

Solutions

- Typical RF component failures were Bias-T (broken connection) and low pass filter (degraded operation)
- Typical signaling issues were early manufacturing issues
- Improved the manufacturing process based on failure analysis to minimize future failures – improved first-time failures from > 50% to <1%

Background

Customer changed contract manufacturer of their antenna control system to ACDi, including production, programming, functional test and burn-in test.

Issues Resolved

- ACDi received an incomplete manufacturing package from the customer and reverse engineered as necessary to duplicate the package
- Early production issues included Bias-T and chip-on-chip integrated circuit issues; these led to a variety of issues from power supply shorts to degraded RF signals
 - Refined chip-on-chip SMT process
 - Troubleshot RF path identifying Bias-T as primary issue
 - Other typical production issues were identified and resolved
 - First pass yield improved dramatically
- Battery was shorting to chassis – added Kapton tape
- Test and setup documentation was incomplete – worked with the customer to refine process
- ACDi provided feedback to the customer for test graphical user interface improvements
 - Changes accepted improved test flow and consistency
 - Found beacon test tolerance issue
 - Greatly improved timing issue causing filter command to inconsistently work (test issue – not product issue)

Recommended changes, including averaging signal digital value for consistency and adding intelligence to burn-in test.