

BGA Test & Technology® | Headquarters | 116 Wilbur Place, Bohemia, NY 11716 Main 631-750-4600 | team@bgatechnology.com

# BGA TEST & TECHNOLOGY OVERVIEW

BGA Test & Technology is headquartered in Bohemia NY in a 100k sq.ft state of the art facility equipped for Re-balling, RoHS conversion, Re-tinning and Component Testing.

# **Our Services**

- •BGA Re-balling/Repair
- •RoHS conversions for all types of electronic components
- •Lead Tinning / Repair
- Inspection & Counterfeit Detection services
- •Electrical Testing & programming
- •Temperature Up-Screening
- •Warehouse & Fulfillment





### **BGA TEST & TECHNOLOGY CERTIFICATIONS**



#### **ESD CERTIFICATION**





**Pb-Free Electronics Risk Management** (PERM) Consortium





#### This is to certify that

BGA Test and Technology 116 Wilbur Place, Bohemia, New York 11716 USA

operates a

**Quality Management System** 

which complies with the requirements of

ISO 9001:2008 + AS9100C

for the following scope of registration

The testing, supply chain solutions, alterations and repair of microelectronic components including re-balling and conversion of Ball Grid Array (BGA) devices.

Certificate No.: CERT-0063068 File No. 1621043 August 1, 2012 ssue Date

QMI-SAI Canada Limited

Original Certification Date: July 26, 2011 Current Certification Date: July 30, 2012 Certificate Expiry Date: July 29, 2015



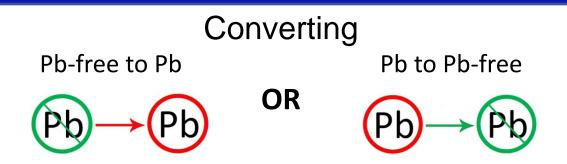
Guillaume Gignac, Ing.f Vice President, Corpor QMI-SAI Canada Limit ditation & Quality



SAI GLOBAL **Sichal Terms and Conditions for Cert** 

#### **AS9100C CERTIFICATION**

## **RE-BALLING / REPAIR & ROHS Conversions**



BGA Test & Technology continuously invests in state-of-the-art equipment and methods to ensure that we maintain the very highest quality service available for the Military, Aerospace and Commercial industries.

With our proprietary jig technology system we provide ball attach services capable of handling any lot size from prototype to production volumes. Extremely fast turnaround times, very low setup costs and an aerospace quality management system allow us to provide industry leading quality and service.



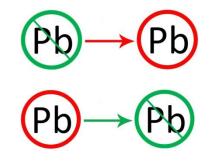


# LEAD TINNING / FINISHING & ROHS Conversions

We offer Re-Tinning, RoHS conversions, Lead Forming, Lead Straightening, Co-Planarity testing of devices across various packages like CERDIP's, DIP's, QFP's, PLCC's, PGA's, LCC's, CERPAK and many more.

The BGA system of re-tinning covers the following 5-Step process:

- 1. Preheat
- 2. Fluxing
- 3. Hot-Solder Dipping
- 4. Forced Air Cool Down
- 5. Hot DI Water Rinse



Solderability certifications available on all Refinishing services.





# **INSPECTION & COUNTERFEIT DETECTION**

BGA Test & Technology offers state of the art Inspection and Counterfeit Detection as per **SAE AS5553** standard including the following services below.

- 1. Comprehensive Visual & Microscopic Inspection including:
  - Resistance to Solvent Testing
  - Heated Solvent Testing
  - Scrape Testing
- 2. X-RAY Radiography Analysis
- 3. XRF Analysis
- 4. Chemical/Mechanical De-capsulation Analysis
- 5. Full functional and electrical testing
- 6. Temperature Up-screening
- 7. Solderability testing

We maintain an extensive device library of X-Ray, XRF & Die-marking for analysis. All processes include a detailed Certificate of Conformance/Engineering Report.







### ELECTRICAL TESTING & PROGRAMMING

Capable of testing & Programming following devices		
Diodes, Transistors	EEPROM's, OTP's, FPGA's	
Thyristors, SCR's , MCU's	SRAM's, NVRAM's, DRAM's	
Resistors, Capacitors	Inductors. Voltage regulators	
Analog and Digital Integrated circuits		

Utilizing ATV Digital Tester & PWS Analog Tester All processes are MIL STD/ SAE AS5553 compliant. All processes include a detailed Certificate of Conformance/Engineering Report.





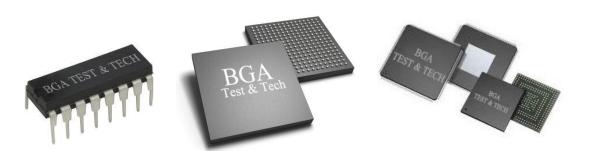
### TEMPERATURE UP-SCREENING & FULL-DATASHEET TESTING

Capable of Up-Screening all Components from	
Commercial Temp to Industrial/Military Temp	

Diodes , Transistors	EEPROM's, OTP's, FPGA's
Thyristors, SCR's , MCU's	SRAM's, NVRAM's, DRAM's
Resistors, Capacitors	Inductors. Voltage regulators
Flash memories, Analog and Digital Integrated circuits	



Capable of simulating up to +200°C and down to -75°C with multiple temperature chambers using the ATV digital tester & PWS analog tester. All processes are MIL STD/ SAE AS5553 compliant. All tests include a comprehensive Engineering Report.





BGA Test & Technology has developed a flexible, cost effective solution to meet individual customer needs of warehousing and fulfillment:

- •ESD Certified Warehouse
- •Temperature and Humidity controlled
- Secured/ Caged limited access warehouse
- •Custom Packaging development based on individual needs
- •Flexible shipment schedules
- •EDI capability being currently developed





#### CORPORATE HEADQUARTERS & TEST FACILITY

#### Corporate HQ





#### ANSI/ESD-S20.20-2007 Production Area



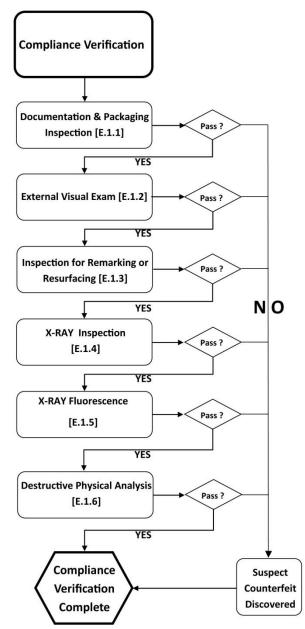




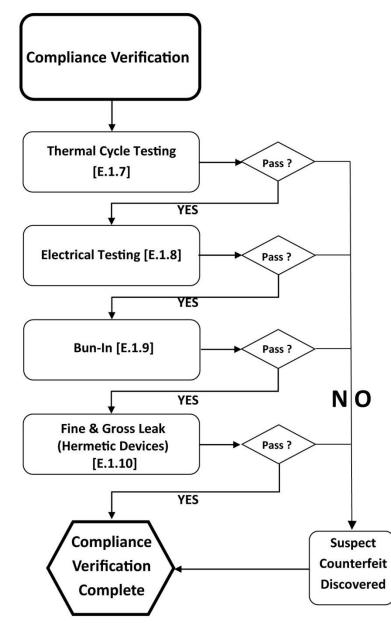


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#### **TESTING PER SAE AS5553**



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Note: The above flow chart is excerpted from SAE AS553 STD Page 24