

# Diagnostic Tool for Printed Circuit Boards

## Current Testing Methods for Printed Circuit Boards

### Manual Checking:

- Labor Intensive
- Inefficient
- Potential for human error
- Probe testing: Limited access



### Automatic Testing Equipment (ATE):

- Unique programming for each circuit board:
  - Time consuming/laborious
- Probe testing: Limited access

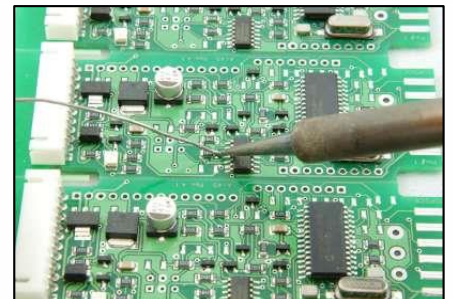


## Novelties of Diagnostic Tool for PCB Testing

- Uses high frequency signal added with specified noise signal for PCB testing
- Compares difference between output pattern of testing board and output pattern of golden unit
- Neither ATE design nor manual checking is involved using this approach

### Advantages:

- Decrease in man hours
- Reliability
- Ease-of-use
- Fast – no need to program
- Cost reduction
- Suitable for both large scale manufacture and small scale testing



Tech ID: 10-0019

### Contact:

Dr. Rick Swatloski  
Director  
(205) 348-8583  
RPSwatloski@ua.edu

### Status:

Seeking research &  
development and/or  
licensing partner

Patent Filed

### Inventor:

Dr. Bruce C. Kim

Associate Professor

Electrical and Computer  
Engineering

Authored over 100  
research papers

Center for Materials for  
Information Technology

[For More Information, Click to View YouTube Pitch](#)

THE UNIVERSITY OF  
ALABAMA



@uatechtransfer

