

# Counterfeit Component Photographic Poster Guide

The 28 page colour poster guide is available at ASKbobwillis.com and was originally produced to accompany the "Practical Failure Analysis Workshops" run jointly with ITRI in St Albans. The photographic guide is ideal as a reference source to reduce the impact of counterfeit components on your organisation and is provided as an Acrobat pdf file. The individual sheets can be printed as A4 for bench top reference or as A3 colour posters for reference at goods receipt inspection. Each page features three images illustrating points to examine or steps in the inspection process. Currently the guide features 18 individual pages for on site printing and display.

A practical onsite Counterfeit Components Workshop is also available to train staff on testing and identification of counterfeit parts, which is becoming a significant threat to the reliability and profitability of the electronics industry. The colour guide covers many of the following topics

- Optical Inspection
- Solvent Testing
- Lead Inspection
- Component Packaging & Labelling
- Marking Durability
- X-Ray Analysis
- XRF Inspection
- Encapsulation



A copy of the guide is available at £45 plus VAT and provided for on site printing and display from a pdf file. To order a copy simply complete the following and fax your order to **(+44) 01245 496123**

Company VAT number (for EEC countries outside the UK) \_\_\_\_\_

Name: \_\_\_\_\_ Job Title: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Country: \_\_\_\_\_ Postcode: \_\_\_\_\_

Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

To pay by Visa/Mastercard please also complete the following and fax booking form to **(+44) 01245 496123**  
Please ensure all sections are completed fully in order to comply with credit card companies' requirements to validate transactions

Visa/Mastercard no; \_\_\_\_\_ Card expiry date: \_\_\_\_\_

Card security code (3 digits printed on card signature strip): \_\_\_\_\_

Name (as printed on card): \_\_\_\_\_ Signature: \_\_\_\_\_

Cardholder's statement address: \_\_\_\_\_

Country: \_\_\_\_\_ Postcode: \_\_\_\_\_

## Counterfeit Component - Causes and Cures Workshop

Bob Willis ASKbobwillis.com

### Workshop Introduction:

Quality, purchasing, design and production engineers need to review the growing commercial and technical issues surrounding counterfeit electronic components. They can look right, solder to the PCB but just fail to function. A typical first assumption by test engineering, it's a component failed due to the assembly process, but it's what's inside the package that counts, sometimes it's nothing at all.

Rather than making complicated copies of parts the simplest thing is to remark the packaging or the component body. Remarking the packaging is simple and quick, provided the component identification is not checked all the parts would be placed and soldered to the board before the problem was identified. AOI should find incorrectly marked or variations on the parts but the level of sophistication in marking is now becoming very sophisticated.

The workshop will not only illustrate the problems raised by counterfeit components within the electronics industry but it will also show you some of the different test methods that can be used to confirm the integrity of the components. Failure analysis techniques are now frequently being used to see if components are what they say they are rather than finding failure modes. Regular workshops with ITRI innovation in the UK show that counterfeiting is on the increase, we can find them, there is no hiding place!

### Who should attend?

This workshop is designed for design, process and quality engineers responsible for introducing products containing LGA/QFN. Much of the material presented is extremely visual and practical making it ideal for manufacturing staff, like all the instructors workshops it not just theory, it's a **"How to Do It Session"**

### Workshop Topics Included:

- Component trends in industry
- Counterfeit Avoidance strategy
- Component Identification Checksheet
- Component obsolescence
- Impact of lead-free on component availability
- Typical examples of component counterfeits
- Guidelines on reducing the possibility of counterfeits
- The different types of counterfeit
- Mechanical testing component packaging
  - Destructive and non-destructive
- Electrical testing of components
- Visual & microscopic inspection
- Solvent testing
- XRF techniques
- X-ray inspection of passive and active parts
- Practical examples of counterfeit components found
- Using Free On Line Defect Database

For further details and to arrange an on site workshop email Bob Willis at [bob@ASKbobwillis.com](mailto:bob@ASKbobwillis.com)