

9th CMSE Europe Conference

Components for Military and Space Electronics Conference & Workshop

**10th - 12th June 2008
Marriott Hotel, Portsmouth, UK**

Advance Program & Registration

**The Premier Conference on the Engineering, Design, and
Use of COTS Electronics in Military & Space Systems**

Organized by:

**Components Technology Institute Inc
and TMT Associates Ltd**

In cooperation with:

COG - Component Obsolescence Group

Media Sponsors:

**CIE Components in Electronics
Military Embedded Systems
VME and Critical Systems**

www.cmse-eur.com

Components for Military and Space Electronics Conference & Workshop

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10th - 12th June 2008

Organised by engineers for engineers and engineering management, this is the premier conference for military and space electronics issues. This 9th Conference addresses systems, subsystems, circuit boards and components, and specialises in COTS equipment and mil spec components while also emphasizing new technology, processes and design practices.

CONFERENCE

Learn when and how to operate safely and competitively with COTS electronics in the changing military and aerospace market place. The Technical Sessions will provide recent data and case studies of the practices, problems and experiences encountered in the use of COTS electronics, and commercial components in military and space systems. The Conference has a keynote presentation, four Technical Sessions and a Workshop on avoiding counterfeit components. The presentations provide excellent technical data on parts selection, applications, impact of Pb free solder on reliability, radiation hardness, reliability and case studies on the use of COTS electronics.

CMSE Europe reserves the right to make changes in the Final Programme.

WORKSHOP

The Workshop on Tuesday will address specific practices for detecting and preventing the acceptance of counterfeit components. Counterfeit components have become a major problem when purchasing from Independent Distributors and Brokers because of obsolescence, long delivery times and need to drive down the typical price.

EXHIBITION

The Exhibition area will be open from Wednesday morning, to Thursday at 14.00 hours. The buffet lunch and evening reception will be held in the Exhibition area. Don't miss this opportunity to speak with suppliers directing the development of new technology for military and space systems. This is the opportunity to create one-on-one relationships with your potential suppliers. There is no charge to visit the exhibition.

REGISTRATION

Registration for the Workshop on Tuesday is limited by the meeting room space. Advance registration is strongly recommended. At the door registration will only be allowed if space permits. The Workshop only registration includes the presentations, a copy of the notes, lunch, and refreshment breaks. See the Registration Form for fees.

The full Conference registration fee includes the Workshop, Technical Sessions, Conference Notes, refreshment breaks, buffet lunches, and reception on Wednesday and the Exhibition. Advance registration is recommended and provides a discount. All advance registration fees must be paid when submitted. Registration will not be accepted without payment. See the Registration Form for fees (you can also register online at www.cmse-eur.com). All company Purchase Orders will be charged a £25 processing fee. The Advance Registration cutoff is 14th May and refunds will not be given after this date for cancellations. Substitutions can be made.

HOTEL ACCOMMODATIONS

A special rate has been arranged with the Marriott Hotel. This is inclusive of Bed and Breakfast including VAT. Single occupancy is £130 and double occupancy is £140. Cutoff date for this rate is 14 May. The Marriott Hotel is in north Portsmouth close to the M27 Motorway

TRANSPORTATION TO HOTEL

Travel by Car from London (Heathrow) Airport is via the M3 and M27 motorways. The nearest railway station is Cosham which is a 5 minute taxi ride or a 15 minute walk. Alternatively you can travel to Portsmouth Harbour station which is a 20 minute taxi ride away.

CCAW - Europe

Counterfeit Components Avoidance Workshop

Tuesday 9:00 - 17:00

Counterfeit electronic components entering the supply chain are causing a huge economic impact in the electronics industry. This Workshop discusses avoidance practices to combat this problem through case histories, contributing causes, procurement issues, inspection & testing techniques and the prevention actions that should be taken.

- *Counterfeit components are causing a major catastrophe in the electronics industry*
- *The problem grew over 20% in 2006*
- *The impact is affecting military automotive, computer, consumer, telecom & medical space electronics*
- *Urgent action is required to reduce manufacturing yield loss, safety risks, plus improve reliability and customer satisfaction.*

This Workshop is a modified version of the highly successful workshops that were presented in Huntsville, Austin, NASA Houston, Los Angeles, Boston, San Diego & Orlando.

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Workshop Topics

These topics will be presented by experienced component engineers well versed in the detection of counterfeit components:

1. *Introduction & Scope* - Leon Hamiter, CTI, Inc
2. *Case Histories on Detection of Counterfeits* - Tom Lee, Jabil
3. *Mitigation of Counterfeit Components in the Supply Chain*- Ben Carter, General Dynamics
4. *Counterfeit Components - Imitation is the Greatest Form of Flattery* - Lloyd Francis, Alter Technology
5. *Detection Methods and Tools for Counterfeit Components* - Tom Lee, Jabil
6. *Data Sources to Detect Counterfeits* - Leon Hamiter, CTI, Inc.
7. *Mission: Imposter - Counterfeit Components Product Inspection Program* - Joseph G Federico, NJ MET
8. *A Supplier's Program to Detect & Eliminate Counterfeit Components* - Rob Cohen, Crestwood Tech.
9. *Counterfeit Avoidance Practices - Procurement, Inspection & Test* - Leon Hamiter & Tom Lee

Attendees will receive a Certificate of Attendance

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The workshop is designed for:

Original Equipment Manufacturers (OEMs)
Original Component Manufacturers (OCMs)
Contract Manufactures (CMs)
Independent Distributors (IDs)
Brokers

Goal

Provide awareness and training in the techniques and practices required to detect and avoid counterfeit components and the costs and risks associated with them.

Factors contributing to counterfeit components!

- **Obsolescence** - The component is no longer manufactured or available from OCM/FD
- **Availability** - Poor planning for typical delivery time or emergency needs
- **Prices** - Searching for prices below the manufacturer's price
- **Trust** - Belief that trusted suppliers provide immunity from counterfeits

Conference Schedule

Tuesday, 10th June

08:00 - 17:00 Registration

09:00 - 17:00 Workshop: *Counterfeit Components Avoidance Workshop (CCAW)*

Wednesday, 11th June

09:00 - 09:45

Keynote: *Utilising COTS Technologies to produce viable robust components for military and industrial use.*

Prof. John Roulston, CEO, Scimus Solutions Ltd.

09:45 - 12:00

Session 1: *Impact of Pb Free Solder on Reliability I*

Chairman: Lloyd Francis, Alter Technology Group UK

1.1 *Lead-free Control Plans for Electronic Equipment*

Intended for Aerospace & High Reliability Applications;

Robert Gregory, Rolls-Royce

1.2 *Reliability Issues with IC's & Pb Free Electronics;*

Doug Patterson, Aitech Defense Systems, Inc.

12:00 - 14:00 - Lunch with Exhibits

14:00 - 15:45

Session 2: *Impact of Pb Free Solder on Reliability II*

Chairman: Brian Porter, Rolls Royce Submarines

2.1 *RoHS Components in a Tin/Lead Solder Process;*

Lloyd Francis, Alter Technology

2.2 *Lead Free Initiatives - A New Look at Tin Whiskers & How Packaging Material Selection Can Help;*

Keith W. Donaldson, Engineering Materials, Inc.

2.3 *Effect of Lead-free Solder on Reliability of Electronic Circuits;* Ling Zou, National Physical Laboratory

2.4 *Impact of Pb Free Solder in Harsh Environments;*

O. Gaillard, E2V Semiconductors

2.5 Discussion Group

16:00 - 16:45

Session 3: *European Military Electronics*

Chairman: Ian Blackman, Selex S & AS

3.1 *Components Technology Development Within Europe;*

Rob Coleman, Semelab Plc

3.2 *An Introduction to Export Compliance & Design for Compliance;* Nathan Robinson, IHS

16:45 - 17:15 - Exhibitor Previews

17:30 - 19:00 - Exhibits and Reception

Thursday, 12th June

08:45 - 12:00

Session 4: *Reliability Improvements & Rad Hard Data*

Chairman: Alun Jones, TS2 Micro

4.1 *Semiconductor Reliability: The Effects of Shrinking Geometries;* Hugh De Lacy, TS2 Micro

4.2 *A Guide to COTS Qualification & Safe Usage;* Ron Fidler, Alter Technology

4.3 *Dielectric Quality with Step Surge Stress Testing (SSST), Scintillation Testing, & Proofing;*

Paul Staubli, KEMET Electronics SA

4.4 *Established Reliability Tantalum Chips for Maximum Payload Advantage;* Bill Millman, Chris Reynolds, AVX

4.5 *Characterising the Effects of Low Dose Rate Gamma Radiation on Bipolar Semiconductors;*

Steve Munns, Linear Technology Corp.

4.6 *Radiation Sensitivity Characterization of Silicon Devices for Military & Aerospace Applications;*

Ahmed Iftikhar, Bernd Tabbert, Alexander Goushcha Semicoa

4.7 *Single-Event Upset and Soft Error Rate in Microprocessors;* Dominique Bellin, E2V Semiconductors

12:00 - 13:00 - Lunch with Exhibits

13:00 - 16:00

Session 5: *COTS Approaches & Experience*

Chairman: Mikko Nikulainen, ESTEC/ESA

5.1 *MOTS/COTS Risk Assessment for Electromagnetic Compatibility in Defence Projects;*

Peter Dorey, TUV Product Service

5.2 *High Density, High Efficiency, Light Weight MIL-COTS DC-DC Solutions;*

Arthur Jordan, Vicor

5.3 *Using COTS DIE in High Reliability Applications;*

Roger Buckley, Lloyd Francis Alter Technology Group UK

5.4 *Commercial Hi-Rel Tantalum Capacitors: Combining Reliability Performance with the Latest in Capacitor Technology;*

Charles Pothier, Vishay Intertechnology, Inc.

5.5 *An Architectural Approach to SEFI Mitigation for COTS-Based Spacecrafts Data Handling Systems;*

Dr. Craig Underwood, University of Surrey

5.6 Discussion Group

Close of CMSE-Europe

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Programme Committee

CONFERENCE CHAIRMAN

Michael Trenchard TMT Associates Ltd

TECHNICAL CHAIRMAN

Leon Hamiter Components Technology Institute, Inc.

COMMITTEE

Ian Blackman	Selex S & AS
Alan Dedden	Flight Refuelling Limited
Ron Fidler	Alter Technology Group UK
Lloyd Francis	Alter Technology Group UK
Dan Friedlander	Israeli Aircraft Industries
Alun Jones	TS2Micro
Peter Marston	Rochester Electronics
Alain Mouton	Astrium EADS
Mikko Nikulainen	ESTEC/ESA
Yves Oustin	IXL Labs
Brian Porter	Rolls Royce Submarines

CONTACT

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REGISTRATION FORM
**Components for Military and Space Electronics
Conference and Workshop**

Last Name _____ First Name _____

Title/Position _____

Company _____

Address _____

E-mail _____

Tel _____ Fax _____

Please register me for the following:

		After 14th May
<input type="checkbox"/> Conference & Workshop (10-12 June):	£595	£695 _____
<input type="checkbox"/> Workshop (CCAW only) (10 June):	£310	£360 _____
<input type="checkbox"/> Conference Sessions only (11 - 12 June):	£495	£595 _____
<input type="checkbox"/> Conference Speakers & Chairmen* (11 - 12 June):	£375	£425 _____
* For Workshop add:	£100	£120 _____
Add VAT (17.5%)		_____

Please charge my: AMEX Visa MasterCard **Total** _____

Credit Card No. _____ Exp. _____

CCC Security No. _____ Signature _____

Cheque/purchase order _____

Cheques must be drawn on a UK clearing bank and made payable to TMT Associates Ltd.

For bank transfers (£'s only) contact TMT Associates office.

Delegate fees are non-refundable after 14 May, substitutions can be made.

There is a £25 handling fee for purchase orders not accompanied by payment.

TMT Associates Ltd VAT Reg. No. GB 697 2519 87

Mail to: TMT Associates Ltd., Clare Lodge, 41 Holly Bush Lane, Harpenden, Herts AL5 4AY, UK

or fax to : +44 (0) 1582 461928

HOTEL RESERVATION FORM

**Components for Military and Space Electronics
Conference and Workshop**

**SEND TO HOTEL
By 14th MAY**

Marriott Hotel, Portsmouth, Southampton Road, Portsmouth, Hampshire PO6 4SH UK

Tel: +44 (0) 23 9238 3151 Fax: +44 (0) 23 9238 8701

When making reservation, please mention the booking reference T09

Bed and Breakfast per night including VAT

Single Occupancy £130 - Double Occupancy £140

Please reserve room(s) for single occupancy and/or room(s) for double occupancy

Name _____ Company _____

Address _____

Credit Card No. _____ Exp. _____

Signature _____ Phone _____

Reservation Dates: Arrival _____ Departure _____

Rates in UK £ and include VAT

Make your reservation early and direct with the Hotel. **Cutoff date for the room block is 14th May.**

Rooms to be guaranteed by credit card.