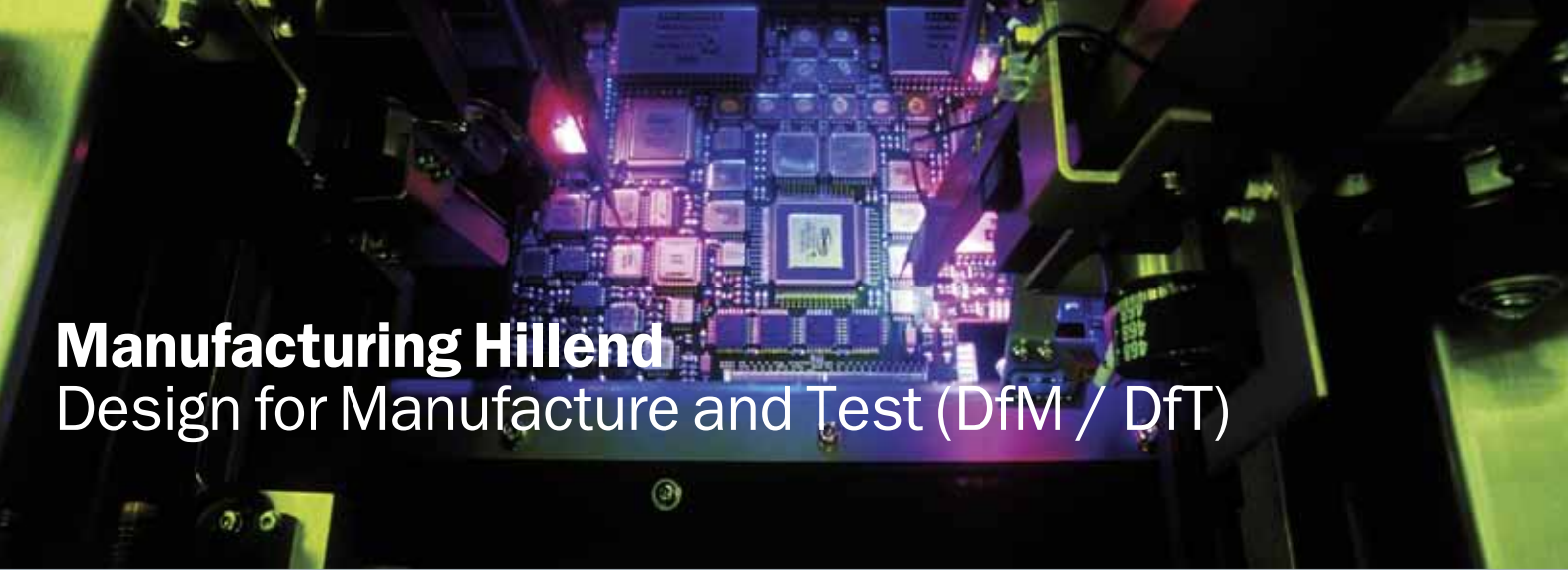


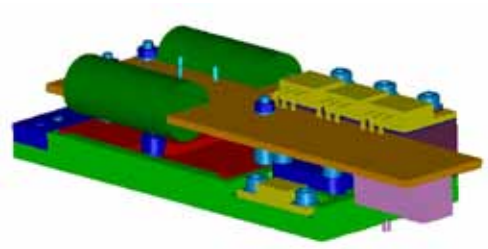
Manufacturing Hillend
Design for Manufacture and Test (DfM / DfT)

A trusted partner

Manufacturing Hillend, part of BAE Systems Maritime Services, delivers world class electronic services and complete manufacturing solutions for complex, robust, high density electronic systems.

BAE Systems has identified customer cost savings through early involvement in Design for Manufacture and Test DfM / DfT. Additional benefits realised are projects delivered ahead of time, under budget and with no design changes during early production.

Through close involvement with customer project teams over the last twelve years, we have identified areas where major cost drivers have been removed from designs, realising cost-effective solutions.



We have used expertise gained over a number of years to develop a suite of unique tools to assist you in your design phase. The team uses Design for Six Sigma practices during their extensive reviews of your design, passing on skills and knowledge through close working relationships with your engineering teams. You not only benefit from the teams' knowledge base but are also able to develop your own internal skills during the process.

Full involvement at the design phase, by dovetailing our group into your project team, improves the overall manufacturability of the end product, integrates the full test plan as early as possible and, most importantly, reduces costs.

The team also provides overview courses in DfM / DfT techniques; allowing your design engineering team to understand the manufacturing and test processes from project start-up to design completion. This has been proven to aid the decision making process during the design planning stage.

"We have identified potential cost savings in excess of £42M, over 25 major projects"

BAE SYSTEMS

We have developed a DfM / DfT checklist formatted into a traffic light reporting system identifies “Preferred”, “Acceptable” and “Reduced Producibility”, with scoring to categorize key areas which affect the manufacturability and testability of the design.

Sheet Name	Score	Traffic Light Report
Printed Circuit Boards (PCBs)	32	
Components	8	
Board Layout	74	
Cad Output / Marking	7	
Assembly Process	18	
Test	26	
Overall Grading Score	165	

Our ‘through life’ concept demonstrates:

- reduced costs, lead times and part count
- improved reliability and yield
- increase profits and productivity
- enhance producibility, testability and functionality
- avoid re-design delays and warranty claims
- improved reliability and suitability
- developed stronger working relationships

If you wish to discuss this service further, please contact Alan Colquhoun, who will be pleased to arrange an initial consultation to assess your requirements. Following this, we are able to provide resources as an on-going service or define and support fixed price packages of work.

BENEFITS

Fully defined and understood hardware requirement specification

All project cost considerations made apparent earlier in programme

Common componentry – reducing cost, lead time and part count

Defines the suitability of the process

ROM priced advanced parts lists

Test philosophy verifies fault coverage

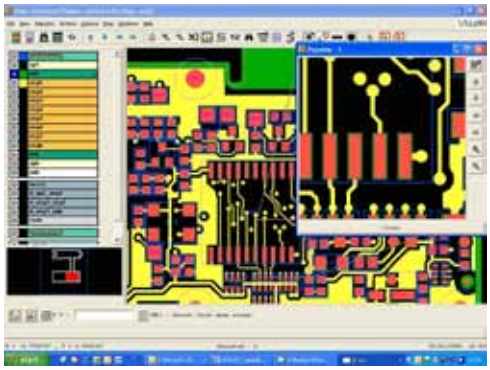
PAS (Production Acceptance Specification) written earlier in process

Provides verification support, robustness testing and ruggedisation of hardware

Web based producibility checklist for categorising the key areas likely to affect manufacture and test

Six Sigma scorecard allowing comprehensive yield evaluations to be made

Testability guidelines defining ways in which test can be incorporated into designs



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