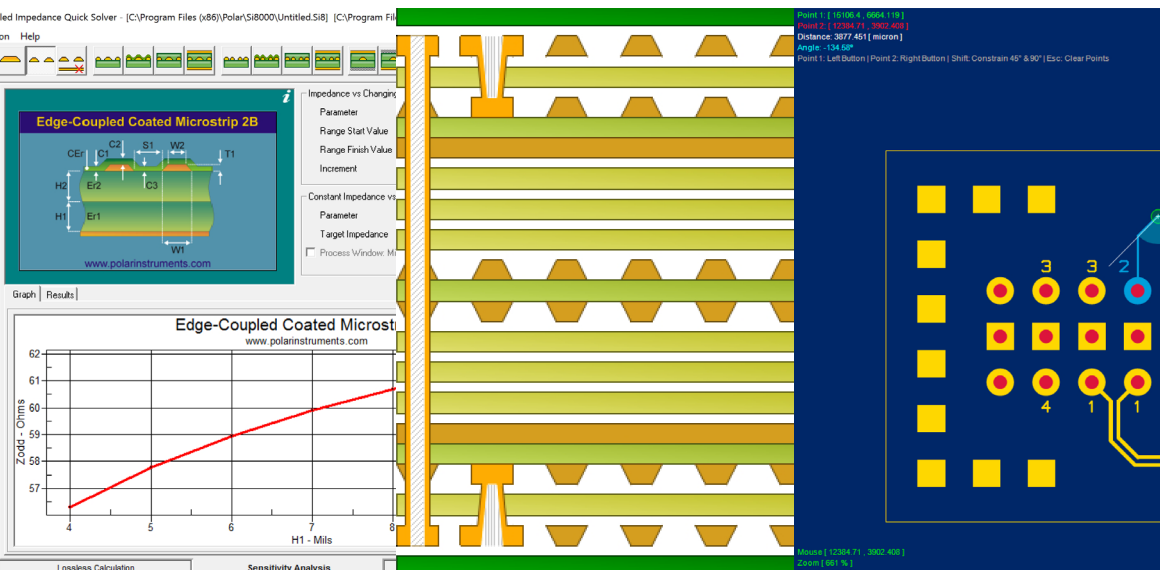


# Interconnected impedance tools work seamlessly



- ✓ Improve communication efficiency
- ✓ Resolve problems quickly
- ✓ Support throughout supply chain

Speedstack PCB

Si8000m

CGen PCB  
impedance coupon  
generator

CITS controlled  
impedance test  
system

Polarcare

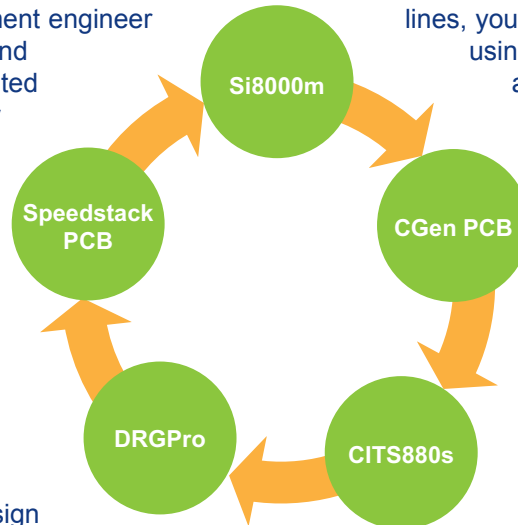


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# Design, specification and test of impedance controlled PCBs

As a PCB technologist, procurement engineer or fabricator needing to specify and design impedance controlled printed circuit boards, you can benefit by deploying Polar interconnected tools for design, documentation, specification and test of impedance controlled PCBs. This Polar toolset is a popular solution for this task throughout the electronics supply chain – from prelayout stackup design, through to final impedance end of line test.

Starting with the Si8000m field solving controlled impedance design system to model your transmission

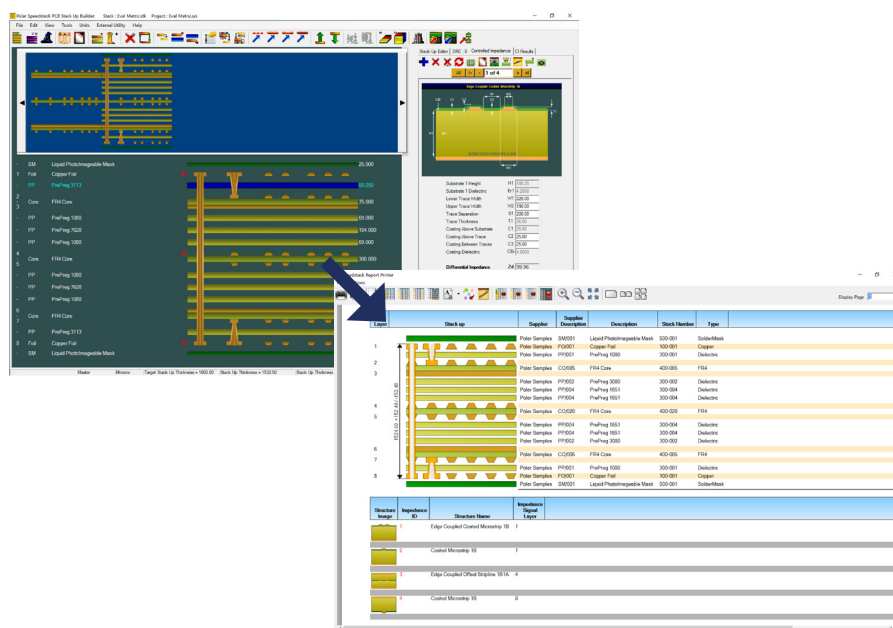


lines, you can specify and document these using Speedstack PCB; in addition, artwork for test coupons is then accurately generated with CGen. Speedstack also directly outputs test files for use in the CITS controlled impedance test system so it is easy for you to implement end of line impedance test.

By selecting this suite of products throughout the supply chain you ease the communication from design through to fabrication – vitally important now that supply chains are now so extended.

## Speedstack PCB

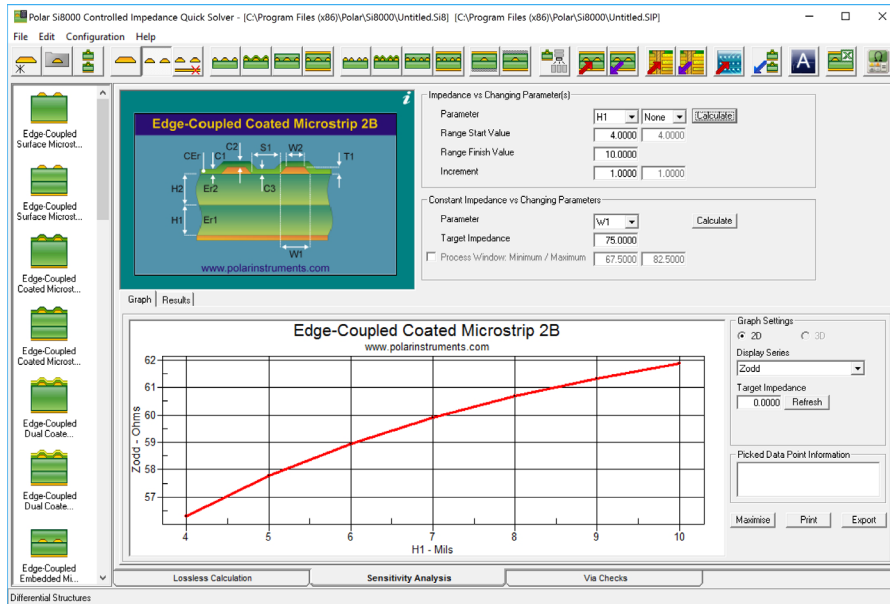
Design and professionally document your PCB layer stackup



Speedstack PCB gives the PCB technologist and fabricator a comprehensive suite of design and documentation tools to accurately realise even the most complex PCB layer stackups. Options further extend the capability to include HDI and flex and flex-rigid constructions, and interface with high end CAD systems. The standard edition of Speedstack links seamlessly with Si8000m, CITS and CGen impedance coupon generator.

# Si8000m

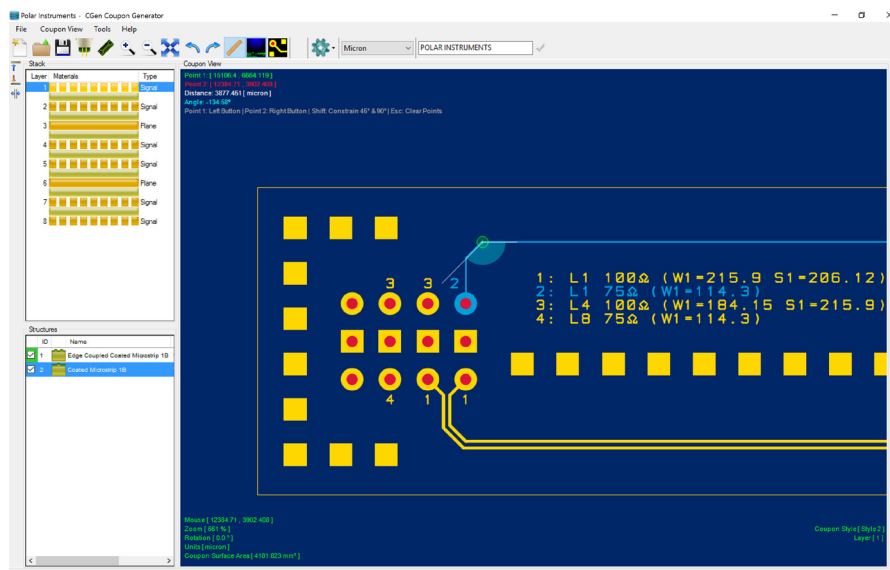
## Controlled Impedance Design System for Single and Multiple Dielectric PCBs



The Si8000m controlled impedance design system offers advanced field solving methods to model most track designs and is the natural partner of the Polar CITS controlled impedance test system. Si8000m allows fabricators and designers to explore transmission line design space before committing to build and document the full stackup with Speedstack. To assist the designer or fabricator new to impedance control, Polar's website is packed with informative application notes.

# CGen PCB impedance coupon generator

## Precision design of impedance control test coupons



CGen is not only a stand alone coupon generator, but comes into its own when used alongside Speedstack PCB. CGen can directly import impedance controlled stackups and create the appropriate test coupon gerber files for your CAM department. By selecting coupons with Polar preferred footprints you minimise your need to invest in bespoke test probes for impedance test.



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## CITS

Controlled impedance test system – robust and traceable

Polar CITS controlled impedance test systems are the PCB industry's most widely trusted impedance test solution. Each new generation of CITS brings user requested enhancements and capabilities. Increasingly, PCB transmission lines are being fabricated on finer lines and thinner copper layers – this has led to techniques such as launch point extrapolation (LPE) which can accurately measure the impedance on fine lines. The optional professional Datalog Report Generator delivers clear and concise customer conformance reporting.



## Polarcare

Software maintenance and technical support



With interconnected tools that link not only with each other but also to 3rd party industry standard CAD and CAM systems, Polarcare gives you the peace of mind that your software is updated and secured as technology advances; our experienced staff are proficient at analysing a whole host of PCB transmission line measurement and simulation questions.

### About Polar Instruments

Polar Instruments is a market leader in designing and manufacturing tools to simplify and enhance the design, fabrication and testing of printed circuit boards (PCBs). Their innovative tools include the industry-standard Controlled Impedance Test System (CITS) which provides the global PCB industry with an easy-to-use test system for high-speed digital and RF boards, as well as class-leading tools for fast and accurate design and testing of controlled impedance in PCBs. Polar also leads the industry in tools for automated PCB layer stackup design and documentation. Polar Instruments was established in 1976 and has operations and channel partners in the US, UK, Europe and Asia Pacific. The Polar logo and pixelated strip are copyright Polar Instruments Ltd.

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