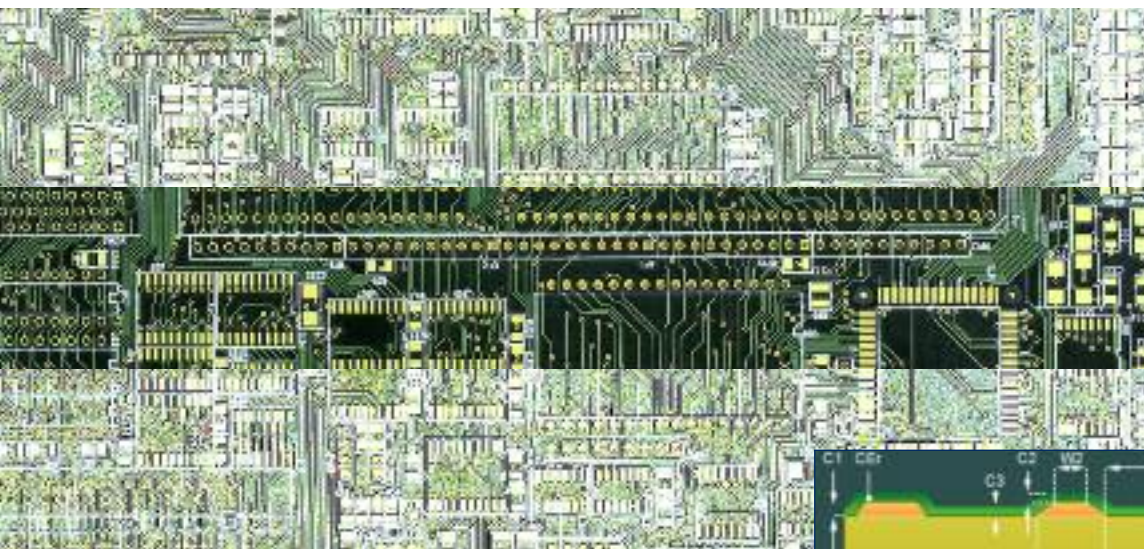


Automatic Impedance Coupon Generator



*Replaces time consuming manual or
scripted coupon creation*
CGen 2010

*Automatic standalone
impedance coupon generator*

*Real-time editing with easy
graphical displays*

*Significantly reduces cost,
time and errors*

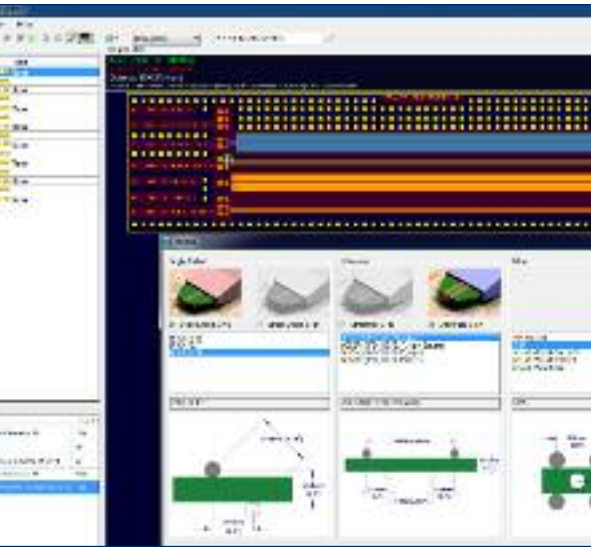
*Speeds front-end coupon
photo-tooling*

*Creates and exports Gerber
RS274X and NC drill files*



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Accurate impedance coupon generation has always demanded time and skill. Until now.



Polar Instruments reduces the time-consuming process of manually creating impedance coupons to minutes and adds powerful new features which take coupon generation to new levels of control and flexibility.

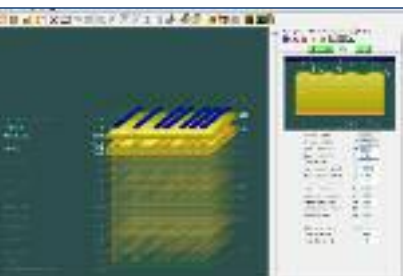
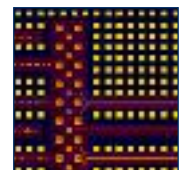
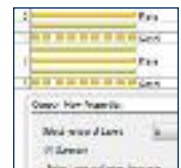
Powerful new features

Through a series of easy stages CGen 2010 presents a choice of coupon styles and impedance probes and allows coupons to be edited in real-time before automatically creating and exporting a complete set of Gerber files. This makes front-end generation of CAM photo tools for PCB fabrication faster, more cost-effective and significantly reduces errors during preparation and test. Enhanced real-time editing and generation routines, as well as a new copper-thieving algorithm, ensure greater control and accuracy.

Easy import of stackup data

Impedance-controlled layer stackup designs can be entered manually or imported directly into CGen 2010 from industry-standard stackup tools. Power users familiar with scripting can also import third party XML stack files.

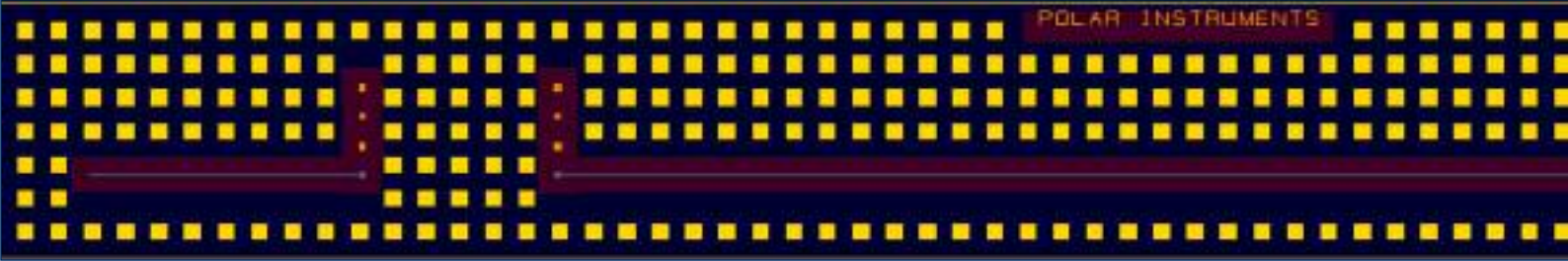
Although CGen 2010 is a standalone system for coupon generation, it is fully compatible with industry-standard layer stackup and Polar Si8000m impedance solver and Si9000e lossy-line GHz field solver tools. This creates a comprehensive and seamless process from automated layer stackup with impedance and transmission line calculations to coupon generation. The coupon design can be shared between different companies within the PCB fabrication process, increasing the speed and minimising the risk of human error and mis-communication.



- Seamless integration from stackup design to coupon generation and panelisation
- Supports manual, scripted or imported files
- Imports third party XML stack files
- Direct import from industry-standard layer stackup tools
- Compatible with Polar impedance and field solver tools

Coupon style and test probe selection

Once the stackup and impedance structures requirements have been defined CGen 2010 offers a series of impedance coupon styles to support a variety of test probe selections. By optimising the structure positioning CGen 2010 reduces coupon real-estate during panelisation. CGen 2010 Plus will introduce new single-ended and differential insertion loss coupon styles to support the increasing demand for loss-testing of PCBs.



Extensive suite of editing tools

Extensive editing features for the stackup and structures allow changes to be made and displayed in real time providing greater control over different elements within the coupon build. Coupon properties such as signal-pad, anti-pad ground and hole sizes can also be edited. CGen 2010 also supports copper pours and fills as well as dynamic adjustment of copper thieving.

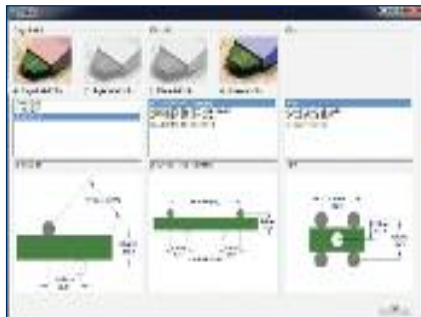
Any errors on impedance coupons are highlighted, allowing the operator to correct potential problems before panelisation.

File creation and export

Once the layer stackup for the coupon has been finalised, CGen 2010 creates and exports Gerber RS274X files and an NC drill file. The extended Gerber RS274X files enhance precise positioning of the photo-plot and ensure that comprehensive stack data is passed seamlessly and accurately to industry-standard CAD/CAM software for the panelisation process.

Save money on testing with preferred probes

Minimise your IP probe costs by ensuring your coupons are designed for testing with Polar preferred probes. For a full list of probe footprints please refer to Application Note AP146 on the Polar website.



- Choice of single-ended and differential-loss coupon styles
- Choice of test-probe footprints
- Add, remove or replace layers
- Preview edits in real-time
- Track changes and highlight errors
- Dynamically adjust copper thieving
- Automatically engineer test probe interconnects



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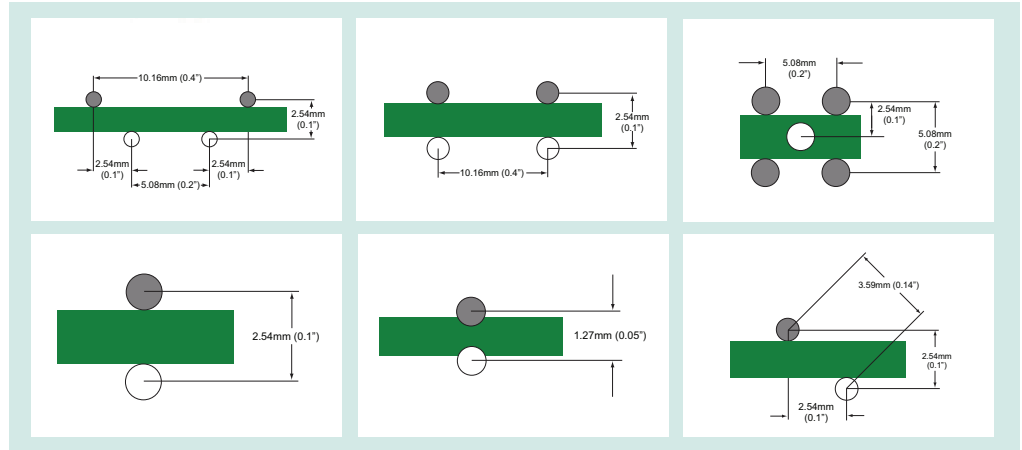
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Probe footprints



Specifications

Import

Speedstack stackup

Si8000/Si9000 impedance structure

XML coupon file

Export

Gerber RS274X(A), Gerber RS274X(B),
NC Drill, CITS 900 test file

Layer count

Unlimited

Coupon styles

CGen – 7 impedance styles

CGen Plus – 7 impedance styles, 4 loss styles

Computer

PC compatible

Processor

2GHz Intel Pentium 4 or better

Operating system

Windows XP, Windows Vista, Windows 7

.NET Framework

Microsoft .NET 2.0 Framework

System memory

1GB minimum recommended

Hard disk space

50MB space required

Video

SXGA (1280 x 800) or higher

2 screens recommended when used with

Si8000/Si9000

About Polar Instruments

Polar provides innovative and easy to use measurement, test, design tools and utilities for the PCB fabrication industry and related disciplines. Polar is best known for CITS and RITS controlled impedance test systems and professional impedance calculation tools.

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