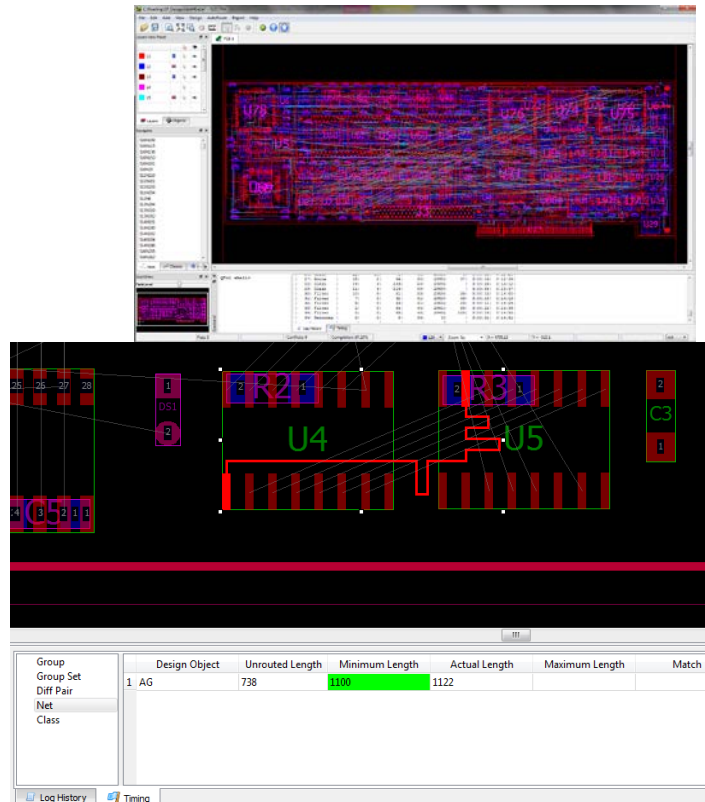


# ELECTRA Product Datasheet

- Adaptive Multi-pass conflict reduction technology
- Advanced Constraints Editor
- Automatic definition and Routing of Differential Pairs
- Automatic lengthening and length matching by meandering
- Real-time Verification of DFM and High speed constraints
- Active flow: Edit Constraints, AutoRoute & Retry on preselected interconnects
- PCB CAD plug-in, Specctra® DSN format support
- Reasonable Cost of ownership



## Adaptive Autorouting Technology

ELECTRA™ is a new generation of Shape-Based Autorouting software for PC boards.

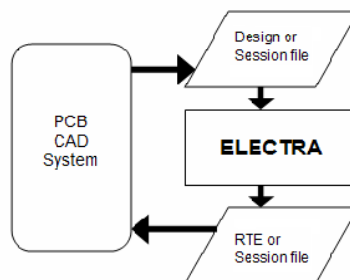
By contrast with traditional gridded maze autorouters, a shape-based approach allows for more efficient use of routing area and is more suited to handle complex design rules requirements of high density SMD or through holes boards and achieve the highest route completion rates.

ELECTRA uses an effective multi-pass cost-based conflict reduction algorithm to find a routing solution adapting to the natural flow of the nets. Adaptive routing algorithm is the only proven approach to

reach high completion rate on today's complex PCBs. ELECTRA provides immediate feedback on the routing progress and conflict reduction rate.

## CAD System Plug-in

ELECTRA supports industry standard format by reading



design file (Specctra DSN). Routing results are saved into

standard route file format (RTE) or session file (SES). ELECTRA is designed to plug into an existing PCB CAD system environment that is supporting DSN file format such as Altium, Pulsonix, CADInt, TargetPCB, SeeTrax, DipTrace, DEX, CadSoft Eagle and other popular PCB CAD systems.

## Main Features

- AutoRouting of up to 256 layers
- Automatic Differential pairs routing
- Automatic Lengthening to reach minimum length
- Automatic Matching to target length
- Constraint Editing with Ease

- Wiring and Clearance rule by layer, net classes and inter-classes
- Via and use\_layer rule by net class
- AutoRouting by polygonal fence
- Area rules
- SMD escape fanout control
- Routes SMDs on both sides
- Blind and buried vias support
- Split Power/Ground Planes support
- Customizable cost factors
- Post-route cleanup optimization
- Real-time display of routing progress
- Anti-aliased rendering
- Fade view on selection
- DRC Violation browser
- Dockable Navigation Panels

- Preview DO file
- Batch routing option
- TCL Scriptable routing strategy (DO file)

### Advanced Rules Support

ELECTRA is driven by DFM and high speed layout rules. Each interconnect object can have its own minimum clearance and wiring constraints. The autorouter combines the rules of all design objects based on their precedence in the hierarchy. Net classes and group of connections can be constrained to be routed on specific layers (impedance control) and use different rules for each of the layers. Different via type can be assigned to each interconnect, these could be used for example for power and ground

current carrying requirements. The autorouter finds a solution that simultaneously respects all the user defined rules constraints.

### Product Configurations

ELECTRA is available and upgradable in four different configurations with unlimited number of pins:

- ELECTRA 2L - for single and double sided boards
- ELECTRA 4L - for designs having a maximum of four signal layers
- ELECTRA 6L - for designs having a maximum of six signal layers
- ELECTRA UL - for designs having a maximum of 256 layers.

