Micro-via and Layer Span Technology

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Within the powerful Pulsonix environment, advanced Micro-via technologies are easily created for everyday design engineers.

Constraints Rules Driven

Constraints rules are created for Micro-vias using the Net Class and Net Styles mechanism. This enables specific Micro-via sizes and styles to be used from layers which require this specialised technology.

Micro-via Entry Pads

Pad styles for Micro-via use can be created using the normal pad styles dialog. However, from within this, special pad styles can be specified for Micro-via Entry Pads and Micro-via Stop Pads on different layers where the landing layer for the laser drill is to be a solid pad. The technique enables stacked Micro-vias to be created where multi-drilling for stacked layers is used.

Y	Via (60)		Round	1.5240	0.8128
Y	Via 400 120		Round	0.4000	0.1200
		Micro-via Entry Pad	Round	0.4000	
		Micro-via Stop Pad	Round	0.3000	
Y	Via 500		Round	0.5000	0.2000

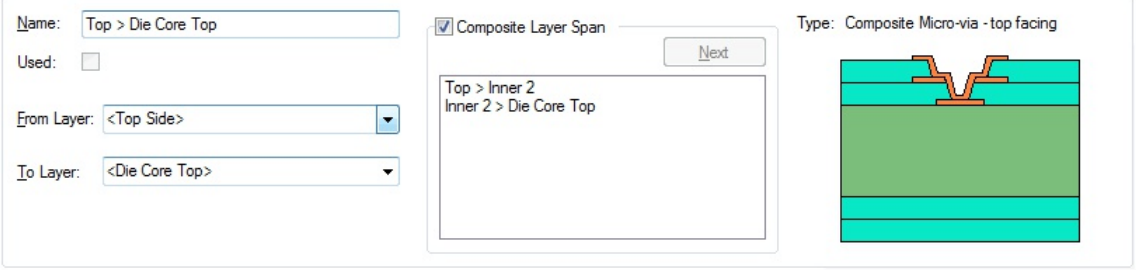
Micro-via Entry Pads and Micro-via Stop Pads on specific layers allow advanced technology features to be created

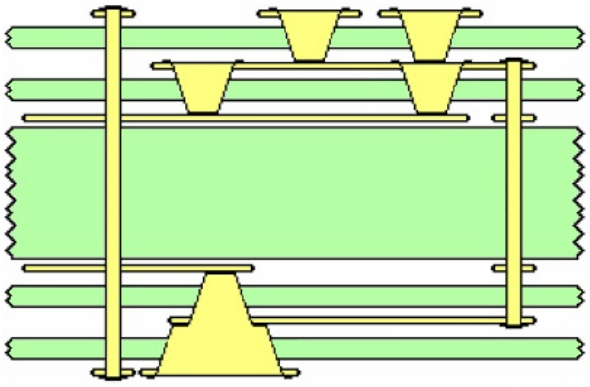
Composite Micro-vias

Composite Micro-via creation allows individual Micro-vias to be stacked at coincident points through the board and then moved as one via 'unit'.

	Name	From Layer	To Layer	Type
	<Through Hole>	<Top Side>	<Bottom Side>	Through Hole
Y	Top > Die Core Top	<Top Side>	<Die Core Top>	Composite Micro-via - top facing
Y	Top > Inner 2	<Top Side>	<Inner 2>	Micro-via - top facing
Y	Inner 2 > Die Core Top	<Inner 2>	<Die Core Top>	Micro-via - top facing
Y	Die Core Top > Die Core Bottom	<Die Core Top>	<Die Core Bottom>	Buried

Complex layer spans for Micro-vias are quickly created





Advanced technology catering for normal, stacked, tapered and composite Micro-via styles is easily achievable in Pulsonix

Manufacturing Outputs

Outputs for via location by layer are available in NC Drill and report format thus ensuring your manufacturing export integrity is maintained right through to the final board production. Drill sets for laser drilling can be output based on layer class and drill type rules.

Feature Summary:

- Micro-via styles supported for:
  - Standard Micro-vias
  - Stacked Micro-vias
  - Tapered Micro-vias
  - Stacked/Tapered Micro-vias
  - Composite Micro-vias
- Constraint base rules
- Advanced intelligent Layer definition
- Micro-via Entry Pads and Micro-via Stop Pads
- Manufacturing outputs based on via type and layer

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