



# THIN FILM CONCEPTS, INC.

Electronic, Optical, Semiconductor & Microelectronics Industry

## DESIGN RULES / THIN FILM CIRCUITS



Conductors	Minimum line width	small as 2 microns for specials
	Minimum space width	0.0005" usual lines as small as 2 microns for specials
	Line & space tolerance	0.0001" (Ion-milled)
Metallized Holes	Minimum aspect ratio	1:1, 1:2 for specials
	Minimum separation from edge	Thickness of substrate
	Minimum tolerance	+/- 0.001"
	Minimum location tolerance	+/-0.0005"
	Minimum pad size around via	0.015" + via diameter
Resistors	Normal sheet resistance	30-100 ohms/square
	Tolerance with laser trim	0.1%
	Pre-trim design value	-(15%-20%)
	Minimum conductor overlap	0.002"
	Minimum spacing between resistors	0.005"
	Minimum pad size	0.005"
Substrates	Minimum length & width tolerance	0.001"
	Surface finish, microinch (CLA)	0.2 to 10 depending on material
	Chamber and thickness tolerances	depend on material
Data Format	DXF, DWG	

For additional design specifications  
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