



The Global Leader in
High Frequency Thin Film Solutions

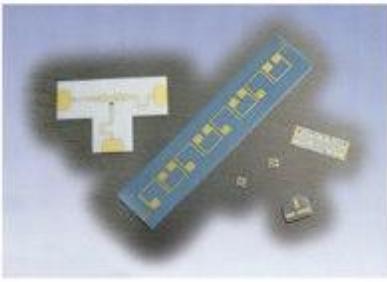
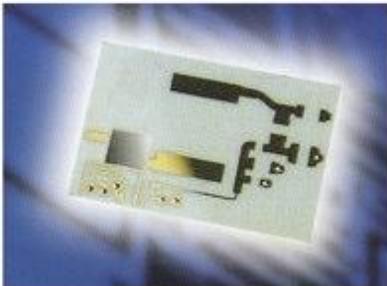


DIELECTRIC LABORATORIES

Build-to-Print
Thin Film Technology

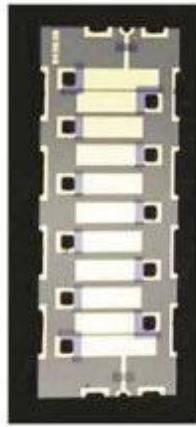
With over three decades of material science formulation and development, Dielectric Labs is the pre-eminent ceramic component manufacturer in the industry. DLI now offers build-to-print services for thin film product design, manufacturing, and testing. DLI offers circuit integration from simple conductors and plated vias to integration of passive components and multi-level circuits on either DLI hi-performance ceramics or industry standard materials such as Alumina and AlN.

Thin Film Build-to-Print



Ceramic Filters

Dielectric Labs can supply filters on Alumina or DLI's high-K high-Q stable dielectrics for smaller high performance filters.



Click here to see the entire [Filter Library](#).

Also see the [Filter Packaging and Shielding App Note](#) and the [Mounting App Note](#) for more details.

Build-to-Print Reference Guide

Metal Coatings:

- ◆ Gold (Au)
- ◆ Nickel (Ni)
- ◆ Titanium Tungsten (TiW)
- ◆ Platinum (Pt)
- ◆ Titanium (Ti)
- ◆ Copper (Cu)
- ◆ Nickel Vanadium (NiV)
- ◆ Gold Tin (AuSn)
- ◆ Tantalum Nitride (TaN)

Lithography:

- | ◆ Conductor Thickness | Width /Spacing |
|-------------------------|------------------------|
| Gold $\leq 150 \mu''$ | $\leq 0.5 \pm 0.1$ mil |
| Gold 150 - 300 μ'' | 1.0 \pm 0.2 mil |
| Copper 50 - 600 μ'' | 3.0 \pm 0.4 mil |
| Nickel 50 - 125 μ'' | 3.0 \pm 0.4 mil |

Laser Drilling:

- ◆ Features as small as 0.003" diameter
- ◆ Drill features in high K dielectrics

Other Options:

- ◆ Edge wrap metallization
- ◆ Castellated Vias
- ◆ Gold filled Vias
- ◆ Spiral Inductors
- ◆ Interdigitated Capacitors
- ◆ Lange couplers
- ◆ Resistors
- ◆ Solder dam
- ◆ Polyimide
- ◆ RF Test to 67 GHz
- ◆ Contoured surfaces
- ◆ Selective Metallization

Build-to-Print or Build-to-Performance — You make the Choice!