



*The Global Leader in
High Frequency Thin Film Solutions*

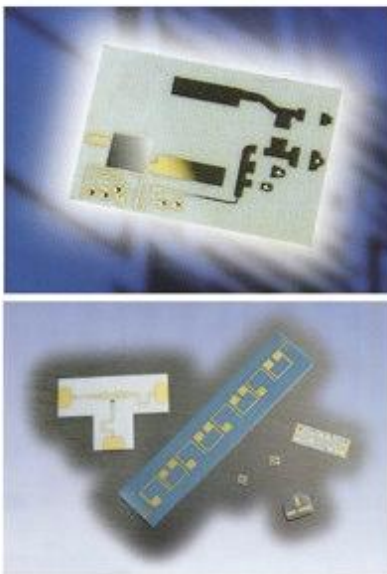


DIELECTRIC LABORATORIES

Build-to-Print
Thin Film Technology

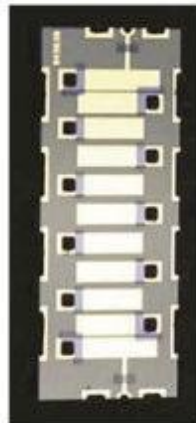
With over three decades of material science formulation and development, Dielectric Labs is the pre-eminent ceramic component manufacturer in the industry. DLI now offers build-to-print services for thin film product design, manufacturing, and testing. DLI offers circuit integration from simple conductors 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 ± 0.2 mil |
| Copper 50 - 600 μ " | 3.0 ± 0.4 mil |
| Nickel 50 - 125 μ " | 3.0 ± 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
- ♦ Polymide
- ♦ RF Test to 67 GHz
- ♦ Contoured surfaces
- ♦ Selective Metallization

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