Thin Film Semi Substrates

Thin Film Circuits
- Metal Deposition
- Photolithography

Semiconductor circuitized substrates used in a wide variety of applications (Power, MWave, RF)

LMJ used for:
- Drilling via holes in ceramic substrates
- Circuit Singulation

Small Hole-Drilling in ceramic materials at high speed

Repeatable and High-Speed process to drill holes and to singulate substrates without damaging the circuit

Main processing criteria:
- Small hole sizes (250 microns)
- Improved Cost of Ownership versus CO2 lasers
- No chipping
- Vertical walls / Tight Tolerances

Machining technologies able to reach these criteria:
- CO2 Lasers
- Laser MicroJet (LMJ) - water jet guided laser technology with breakthrough sensing

Higher quality, enables new applications, better ROI

LMJ advantages versus CO2:
- Enables processing post
- Lower setup
- Eliminates hole-cleaning step
- Repeatability

Installed machine type:
- 1 x LCS 150
- 100 W green laser