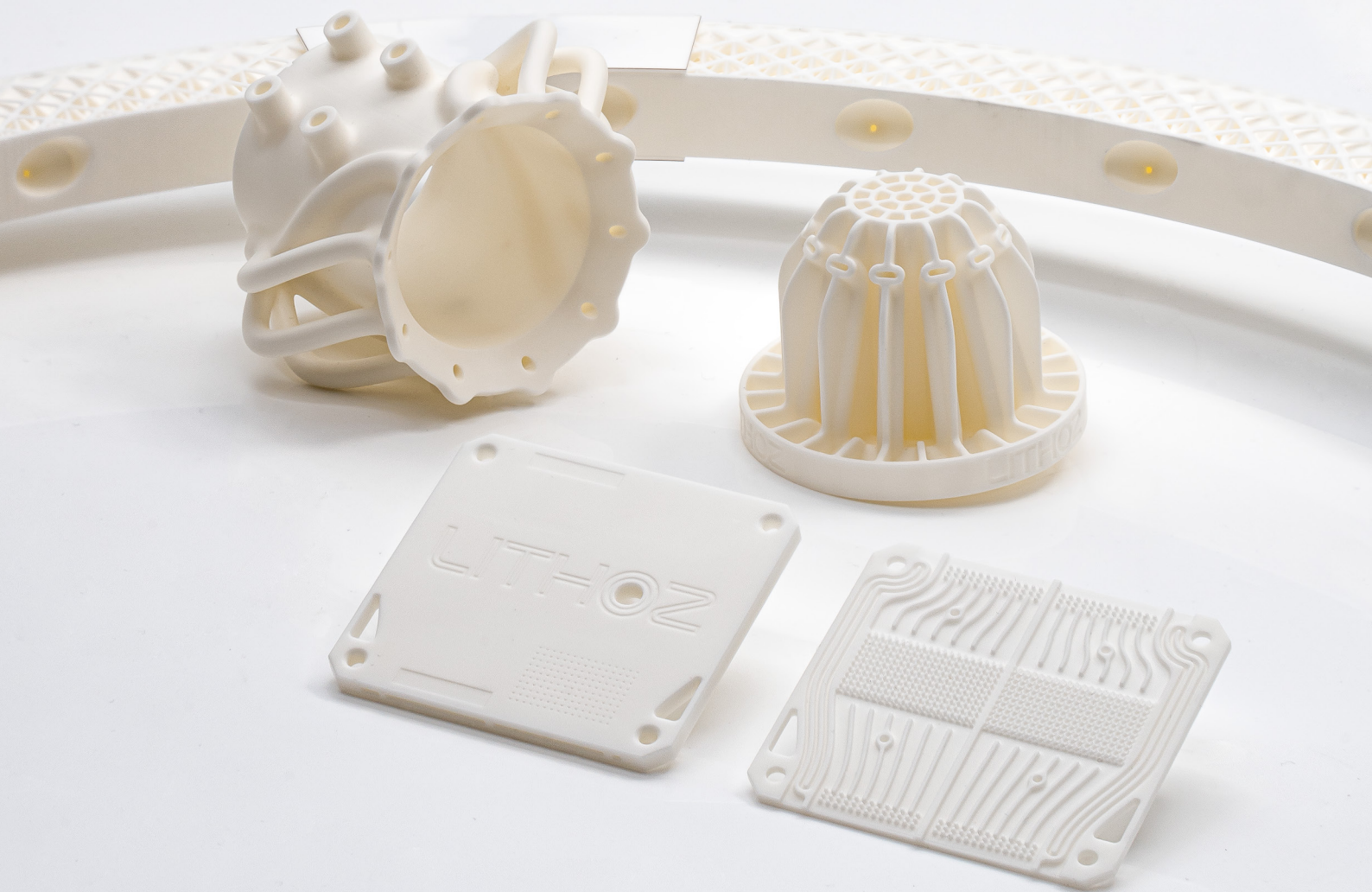


LITHOZ[®]

We are ceramic 3D printing.

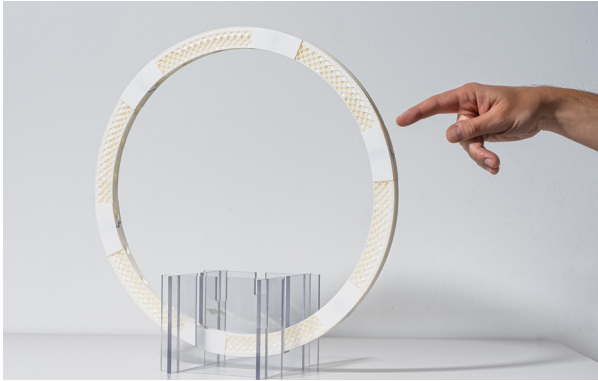
Ceramic 3D Printing of Gas Flow and Thermal Parts in Semiconductor Industry



Your system provider for the 3D printing
of high-performance ceramics.

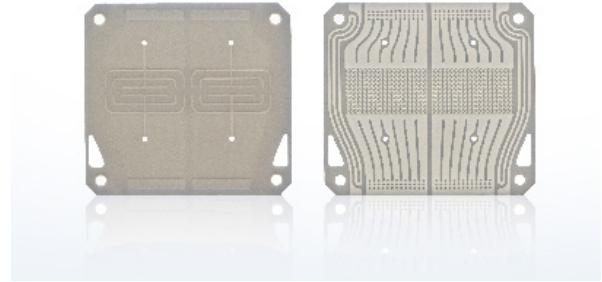
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15" Alumina ALD Ring for Optimised Gas Flow

This atomic layer deposition ring is made from high-performance alumina using Lithoz's LCM technology. Featuring optimised flow paths, it delivers 3-fold throughput, ensures highest degrees of uniformity, and an extended operational uptime of up to 9 months. Designed by Plasway. Printed by Alumina System.



Aluminium Nitride Cooling Plates for Superior Thermal Management

3D-printed via Lithoz LCM, aluminium nitride cooling plates combine outstanding thermal conductivity and supreme mechanical stability with precise geometry. Significantly thinner and more complex channel systems provide optimised flow and heat transfer, creating unparalleled heat management in semiconductor processes.



Alumina Gas Equalizer

Uniquely combining the outstanding chemical and thermal resistance of aluminium oxide, this component enables perfectly smooth surfaces within its channels, leading to uniform, stable gas flow and maximum process stability. This results in a significantly extended lifetime of this critical spare part.



Yttria Gas Flow Nozzle

Yttria is the ideal protection shield against plasma erosion, extreme heat and corrosive gases. Gas flow nozzles entirely made from yttria ensure precise gas distribution, superb chemical resistance, and long-term dimensional stability in semicon applications.

Ceramic Materials for Semicon - Key Properties

Alumina (Al₂O₃)

- High purity (99.99 %)
- High dielectric strength
- Mechanical strength up to 450 MPa
- Resilient to chemical and abrasive stress

Aluminium Nitride (AlN)

- Superior thermal conductivity (211W/mK)
- Low thermal expansion (close to silicon)
- High mechanical stability
- Features both a wide and direct band gap

Yttria (Y₂O₃)

- Excellent plasma erosion resistance
- Enduring resistance to chemical corrosion
- Outstanding heat stress protection



Contact Us

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