



PolarOnyx

- Capable of printing in more than a dozen alloys and ceramics, including tungsten and ceramic materials.
- Robust manufacturing floor platform
- Exceptional surface finish and resolution
- Excellent accuracy and repeatability
- Fully dense parts with superior mechanical properties
- Applications in Aerospace, defense and medical technology

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Research-LAM



PolarOnyx introduces a cost effective research grade LAM (Laser Additive Manufacturing). It is a powder-bed based additive manufacturing system, with flexible setup and software enabling customers to tune on demand. It also provides customers with flexibility to equip with any types of lasers, such as CW and pulsed lasers (from nanosecond to femtosecond).

System Specifications

Laser	Fiber laser with centered wavelength at 1030-1080 nm
Laser power	Customer select from 50W-1kW
Pulse Energy	Selected by customer
Build envelop volume size (Max)	200x200x200mm
Layer thickness	> 5 μ m
Operational beam focus	>20 μ m
Scan speed	Up to 2 m/s
Processing environment	Inert gas
CAD read format	STL
Control software	PolarOnyx developed
Total dimension	TBD
Materials	Tungsten, Ceramic, Stainless steel, Tool steel, Titanium, Aluminum, Inconel, Super alloys
Power consumption	10 kVA – 220 V
Enclosure	Class I