

LUXBEAM® LRS-MCX NIR

Speed, resolution and build area for powder bed fusion

The LUXBEAM® Rapid System LRS-MCx NIR removes the traditional limitations of polymer-based powder bed fusion — high-throughput, high-resolution PBF with unprecedented near-infrared power and flexible static or scrolling arrangements.

≤ 100 W**NIR OUTPUT · 1064
NM****1280 × 800****NATIVE WXGA PIXELS****> 99%****POWER UNIFORMITY****NEOS****SHARED PLATFORM**

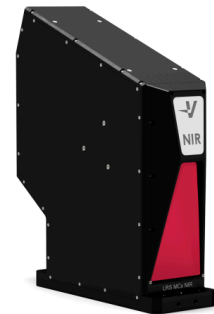
LUXBEAM® LRS-MCX NIR

Maximum throughput in powder bed fusion

Where selective laser sintering heats the polymer point by point and layer by layer, the LRS-MCx NIR rationalizes toward a pure layer-by-layer approach with instant 2D imaging — a path toward high-productivity systems for polymer-based powder bed fusion.

RECOMMENDED USE

- ✓ Multihead scrolling systems
- ✓ Static systems



Full specification

IMAGING	
DMD Type	DLP650LNIR 0,65" WXGA (NIR)
Resolution	1280 × 800 px
Pixel pitch	20–175 µm
Image size	25.6–224 × 16–140 mm
Image plane	410–31360 mm ²
Operation Mode	Native pixel mode, scrolling / Subpixelation SPX mode (requires LAMA Pro)
Power Uniformity	> 99% after Software Correction

LIGHT & POWER	
Projector Output Power	Up to 100 Watts
Wavelength	1060–1070 nm
Power density	0.32–9.77 W/cm ²
LED Options	1064nm (LASER)
LED Driver	IgnitIR
Power consumption	Max 1000 Watts
Power supply	12 V DC

MECHANICAL & THERMAL	
Dimensions w/o lens	305 mm (H) x 92 mm (W) x 240 mm (L)
Total weight w/o PSU	5 kg (w/o lens)
Cooling system	Liquid cooling
Frame Sync	External Frame Synchronization

PLATFORM & SOFTWARE	
Software	Complete API (Windows, Linux), platform-independent web interface; Advanced Control SW package (optional)
Image Data	Pattern Streaming with LAMA
Communication	Ethernet
UV / IR Safety	LED Safety Switch (enable/disable)

ADDITIONAL SPECS	
Features	NEOS, PPC (LAMA STD), SSw

Lens options

PL NIR lens options for the MCx NIR — working distance, mounting distance, pixel pitch and native image size.				
LENS MODEL	WORKING DIST.	MOUNTING DIST.	PIXEL PITCH	NATIVE IMAGE

LENS MODEL	WORKING DIST.	MOUNTING DIST.	PIXEL PITCH	NATIVE IMAGE
PL NIR 1.85	—	—	20 μm	25.6 $\times$ 16 mm ²
PL NIR 3.7	—	—	40 μm	51.2 $\times$ 32 mm ²
PL NIR 7.0	—	—	75 μm	96 $\times$ 60 mm ²
PL NIR 16.0	—	—	175 μm	224 $\times$ 140 mm ²

Working and mounting distances are nominal; consult the datasheet for tolerances under your configuration.