

LUXBEAM® LRS-MCX 4K

An industrial productivity revolution in true 4K

The first light engine with true native 4K resolution for scrolling additive manufacturing — nearly nine million pixels, Gen 5 LED and the proprietary Bifrost™ source.

8.85 MP

TRUE-4K PIXELS

≤ 11 W

UV OUTPUT · 405 NM

99%

POWER UNIFORMITY

NEOS

SHARED PLATFORM

LUXBEAM® LRS-MCX 4K

Built for high-volume additive manufacturing

Scrollable and stackable: build multihead scrolling systems or a high-power static configuration on the shared NEOS platform. Nine million native pixels and unprecedented UV power output, driven by the Gen-5 Bifrost™ source.

RECOMMENDED USE

- ✓ Multihead scrolling systems
- ✓ High-power static configuration
- ✓ Scrolling additive manufacturing



Full specification

IMAGING	
DMD Type	0,98" TRUE 4K
Resolution	4096 × 2160 px · 4K
Pixel pitch	1.4–100 µm
Image size	5.7–410 × 3–216 mm
Image plane	17–88474 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 11 W (405 nm), 10 W (385 nm)
Wavelength	385–405 nm
LED Options	405 nm / 385 nm
LED Driver	Bifrost LRS; Constant flux with Optical Feedback
Power consumption	Max 300 W
Power supply	48 V DC

MECHANICAL & THERMAL	
Dimensions w/o lens	274 mm (H) x 98 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	LAMA Standard (included)
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

LRS-MCX UV series — working distance, mounting distance, pixel pitch and native image size.				
LENS MODEL	WORKING DIST.	MOUNTING DIST.	PIXEL PITCH	NATIVE IMAGE
PL LRS 0.3 HC 405nm	16 mm	268 mm	1.9 µm	4.9 × 3 mm ²

LENS MODEL	WORKING DIST.	MOUNTING DIST.	PIXEL PITCH	NATIVE IMAGE
PL LRS 0.5 HC	50 mm	268 mm	2.7 μm	11.1 $\times$ 5.8 mm ²
PL LRS 1.0 HC	71 mm	268 mm	5.4 μm	22.1 $\times$ 11.7 mm ²
PL LRS 2.0 HC	90 mm	269 mm	10.8 μm	44.2 $\times$ 23.3 mm ²
PL LRS 4K 4.6	123 mm	282 mm	17.7 μm	102.4 $\times$ 54 mm ²
PL LRS 3.6	148 mm	239 mm	28 μm	71.7 $\times$ 44.8 mm ²
PL LRS 4.6	178 mm	279 mm	35 μm	89.6 $\times$ 56 mm ²
PL LRS 4K 9.3	319 mm	494 mm	35.4 μm	204.8 $\times$ 108 mm ²
PL LRS 4K 13.9	470 mm	634 mm	53 μm	307.2 $\times$ 162 mm ²
PL LRS 8.3	375 mm	463 mm	63 μm	161.3 $\times$ 100.8 mm ²
PL LRS 9.9	493 mm	263 mm	75 μm	192 $\times$ 120 mm ²
PL LRS 11.7	575 mm	667 mm	90 μm	230.4 $\times$ 144 mm ²
PL LRS 17.2	884 mm	975 mm	130 μm	332.8 $\times$ 208 mm ²

Lens data for the LRS-MCX UV series. Working and mounting distances are nominal; consult the datasheet for tolerances under your configuration.