



LUXBEAM® RAPID SYSTEM – LRS-MC_x

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Highest productivity through scrolling

Offering the same performance as the LRS-HD light engines, the LUXBEAM® Rapid System LRS-MC_x offers stackability of modules for stitched images down to 50 micron pixel pitch in image. This allows for highest manufacturing throughput with single pass linear motion systems. Special alignment features grant pixel precise alignment of the modules and features the same robust and reliable high resolution DLP9500/DLP9500 UV chipset. The water-cooled modules offers long lifetime and ultimate performance.

STACKED HEADS FOR BEST PRODUCTIVITY

The LRS-MC_x is a stackable configurable system specifically designed for static and scrolling multi-head implementations in 3D Print systems. A typical implementation comprises at least two projection modules on a linear stage system. Standard configurations include LEDBEAM™ UV LED light source, multi-LED light sources are considerable. The UV-optimized optical system provides optimized power output for N-UV light sources. Multiple lens options support a wide scalability.



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Recommended implementation

- Multihead scrolling systems

Resolution

- 1920 x 1080, (UV/VIS)
- 1920 x 1200 WUXGA (VIS)

LED Wavelengths

- R, G, B
- 405 nm / 380 nm / 365 nm

Optical Power Output

- up to 8 Watts (depending on LED selection)

Projection Lens Options

- 0.3x, 0.5x, 1.0x, 2.0x
- 4.6x, 5.6x, 8.3x
- 9.9x, 11.7x, 17.3x
- 5.3x (VIS only)

Electronics

- LUXBEAM™ LB4600

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Properties	
DMD Type	DLP9500 0,95" 1080p HD
Resolution	1920 x 1080 px
Projector Output Power	Up to 8 W depending on LED selection
LED Options	R, G, B, 405 nm, 380 nm, 365 nm
LED Driver	Constant flux with Optical Feedback or Fixed Current
Power Uniformity	> 90% native
Dimensions w/o lens	270 mm (H) x 94 mm (W) x 230 mm (L)
Total weight w/o PSU	4 kg
Power consumption	250 W (per module)
Cooling system	Liquid cooling (water)
Software	Complete API (Windows, Linux), platform independent web interface

Electrical connections	Signal
Power supply	12 V DC
Gigabit Ethernet	1000BASE-T (IEEE 802.3)
Communication	Ethernet (platform independent web interface)
LED Safety Switch	LED enable/disable
Electrical Sync I/O	RS 485
Optical sync I/O	820 nm multimode fiber

Lens Options	Magnification	Working Distance Pixel [mm]	Pixel Pitch in Image [µm]	Native Image Size [mm ²]	
				W x H [HD]	W x H [WU]
LRS-03 UV	0.25 : 1	16.0	2.7	5.2 x 2.9	5.2 x 3.2
LRS-05 UV	0.5 : 1	50.0	5.4	10.4 x 5.8	10.4 x 6.5
LRS-10 UV	1.0 : 1	71.0	10.8	20.8 x 11.7	20.8 x 13.0
LRS-20 UV	2.0 : 1	90.0	21.6	41.5 x 23.3	41.5 x 25.9
LRS-50 UV	4.6 : 1	177.8	50	96 x 54	96 x 60
LRS-90n UV	8.3 : 1	375.0	90	172 x 97	172 x 108
LRS-107 UV	9.9 : 1	493.0	107	206 x 116	206 x 129
LRS-126n UV	11.7 : 1	575.0	126	242 x 136	242 x 151
LRS-187 UV	17.3 : 1	884.0	187	359 x 202	359 x 224
LRS-57 VIS	5.3 : 1	161.0	57	109 x 62	109 x 68