Satellite Titan Modular Laser System 4K-UHD
Specification

Satellite MLS is a (r)evolution in projection technology.

Totally configurable to overcome traditional installation challenges.

Simple building blocks for complex applications.

Satellite TITAN MLS 4K-UHD

8,600 to 26,000 Lumens @ 4K-UHD | 9,500 to 29,000 Lumens @ WUXGA
Contrast Ratio: 2,000:1

Key Features:

Satellite TITAN Head
Display Resolution 3840 x 2160
Separate Head - compact, lightweight & low noise
Sealed Optics
Near Maintenance free

Modular Light Source
RGB Laser Modular Light source
Near BT2020 colour space
Rack mountable · Fully Interlocked
Interconnection - Satellite Link Cable available in various lengths
Use a combination of 10K, 20K or 30K Modular Light Sources to achieve the desired brightness to a maximum of 29,000 Lumens or share one or more sources to multiple heads

Key Specifications:

Colour System:	RGB Laser
Display Type:	3 x 0.96" DarkChip™ DMD™
DMD Specification:	4K-UHD (3840x2160), WUXGA (1920x1200) Native. Fast Transit pixels for smooth greyscale.
Aspect Ratio:	16:9 (4K-UHD), 16:10 (WUXGA)
Video & Graphics processing	Up to 120 fps 1920 x 1200 pixels sequential input via single DisplayPort or HDMI input. Up to 4K-UHD 60Hz compatibility. Smear reduction in WUXGA mode.
Colour adjustments	Up to 10 bits per colour (RGB) processing (depending on source and input type). Degamma table maps input to 16 bit palette (R, G & B) for display. Degamma selection from a list. Individual R, G & B lift and gain. Black and White level adjustment via Brightness & Contrast control.
ColorMax™	Accurate colour matching of projectors in tiled or blended applications. User selection and storage of primary and secondary user defined color targets up to 7 points.
Control	On-board keypad. Remote control - IR. Network control via RJ45. Tablet and smart phone control via served web page. PC control application.
Mounting	**Head mounting** Fixing points on Top/Bottom and Sides. Additional front fixing for third party attachments e.g. optical blenders. **MLS Mounting** 19" 3U (10K MLS) and 19" 4U (20K 30K MLS) rack mounting **SCM Mounting** 19" 3U (10K MLS) and 19" 4U (20K 30K MLS) rack mounting
Lens Features	Robust lens mount with memorised position, zoom and focus. Extensive lens shift encompassing all lens capabilities. High quality, sharp lenses with wide focal ranges.
Source Compatibility	2D Graphics standards up to 4K-UHD (3840x2160) at 60Hz via HDMI 2.0 and DisplayPort. HDBaseT up to 30Hz. WUXGA (1920 x 1200) up to 120Hz. WUXGA mode - 2D sources up to WUXGA 120Hz and 4K-UHD 60Hz can be displayed and scaled to fit WUXGA. 4K-UHD mode - 2D sources up to 4K-UHD 60Hz will be scaled to fit 4K-UHD.

Inputs/Outputs						
	Video & Computer			Communication & Control		
	DisplayPort 1.2	DisplayPort	1	5V/2A	USB Type A	1
	HDMI 2.0a	HDMI	1	Ethernet	RJ45	1
	HDBaseT	RJ45	1	Ethernet/Art-Net	Ethercon	1
				Service	Mini USB	1

Formats Supported	3840 x 2160p (24, 25, 30, 50, 60 Hz)
	1080p/WUXGA (24, 25, 29.97, 30, 50, 59.94, 60 Hz) (Up to 120 Hz)
Computer Compatibility	Up to 3840 x 2160
Projector Head Control	IR remote control & on-board keypad with OSD
Automation Control	LAN
Colour Temperature	User selectable from 3300 to 10000K
illumination Type	RGB Laser Light Source
Typical illumination Life	> 20,000 Hours

Lenses

Lens	Part No.	Lens Shift (Frame)
0.37:1 (Right Angled)	120-510	Ver: 0.6 (U) 0.6 (D) frame, Hor: 0.3 (L) 0.3 (R)
0.65-0.85:1 (Right Angled)	120-511	Ver: 0.5 (U) 0.5 (D) frame, Hor: 0.2 (L) 0.2 (R)
0.8-1.16:1 (inc support bracket)	120-827	Ver: 0.4 (U) 0.4 (D) frame, Hor: 0.19 (L) 0.19 (R)
1.16 - 1.49:1 zoom HB	109-236	Ver: 0.44 (U) 0.44 (D) frame, Hor: 0.188 (L) 0.188 (R)
1.39 - 1.87:1 zoom HB	105-610	Ver: 0.629 (U) 0.5 (D) frame, Hor: 0.188 (L) 0.188 (R)
1.87 - 2.56:1 zoom HB	105-611	Ver: 0.629 (U) 0.5 (D) frame, Hor: 0.188 (L) 0.188 (R)
2.56 - 4.16:1 zoom HB	105-612	Ver: 0.629 (U) 0.5 (D) frame, Hor: 0.188 (L) 0.188 (R)
4.16 - 6.96:1 zoom HB	105-613	Ver: 0.629 (U) 0.5 (D) frame, Hor: 0.188 (L) 0.188 (R)
6.92 - 10.36:1 zoom HB	109-235	Ver: 0.629 (U) 0.5 (D) frame, Hor: 0.188 (L) 0.188 (R)

* Lens focal ranges above are the optimised distances but are likely to focus further, please contact your RSM for more details. Lens ratio tolerances: Titan Series: +/-2%.

Lens Mount	Motorised shift, zoom and focus. Intelligent Lens Memory with user-definable preset positions.
Mechanical Mounting	Front/Rear Table. Front/Rear Ceiling . Adjustable Front/Rear Feet.
Orientation	Table Top or Inverted:. Pointing Up. Pointing Down. Roll (Portrait)
Power Requirements	**Head, MLS & SCM** 100 - 240VAC 50/60Hz single phase
Power Consumption	**Head** From 80W to 200W, depending on number of Modular Light Sources connected
	10K MLS 1000W **20K MLS** 1633W **30K MLS** 2488W **SCM** 25W
Thermal Dissipation	**Head** From 800 to 2500 BTU/Hr, depending on number of Modular Light Sources connected
	10K MLS 2500 BTU/hr **20K MLS** 5572 BTU/hr **30K MLS** 8489 BTU/hr **SCM** 85 BTU/hr
Fan Noise	**Head** From 37 dBA to 42 dBA, depending on number of Modular Light Sources connected
	10K MLS 45 dBA, **20K MLS** 54 dBA, **30K MLS** 58 dBA, **SCM** 30 dBA
Operating/Storage Temperature	Operating: 0 to 40C (32 to 104F) Storage: -20 to 60C (-4 to 140F) (Over 35C Eco Mode)
Operating Humidity	20 to 80% non-condensing
Weight	**Head:** 34.5 Kg / 76 lbs **10K MLS** 17Kg / 37 lbs **20K MLS** 28Kg / 62 lbs **30K MLS** 29Kg / 64 lbs **SCM:** 6.5 Kg / 14 lbs
Dimensions	**Head** H: 35.5 cm / 14 in W: 45 cm / 17.7 in L: 49.4 cm / 19.5 in
	Modular Light Source (MLS) 10K 19" 3U rack unit 50cm / 19.6 in deep
	Modular Light Source (MLS) 20K/30K 19" 4U rack unit 75cm / 29.5 in deep
	Satellite Control Module (SCM) 19" 3U rack unit 27cm / 10.6 in deep
Part Numbers	Satellite Titan Head 4K-UHD 122-234, MLS 10000 122-004, MLS 20000 123-445,
	MLS 30000 123-799, SCM 122-143,
	for full details on the Satellite Link Cable please contact your local sales representative.

TITAN Satellite Head | **Modular Light Source (MLS)** | **Satellite Link Cable (SLC)** | **System Control Module (SCM)**

Laser class Statement: Class 1 RG3 Laser Product. No direct exposure to the beam shall be permitted, RG3 IEC 62471-5:2015. Operators shall control access to the beam within the hazard distance or install the product at a height that will prevent exposure of the spectator's eyes within the hazard distance

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