Overview

Digital Projection International presents a revolution in advanced 3-chip DLP displays with the new TITAN 800 product line. Incredibly compact and efficient for its lumen performance, the TITAN 800 series incorporates DPI's advanced image Warp and Blend, Intelligent Lens Mount, ColorMax calibration technology, optional active 3D connectivity, and a host of vital professional features to suit almost any commercial installation or staging application imaginable.

As efficient as they are capable, the introduction of the 12,000 lumen TITAN 800 lineup marks another milestone in high brightness, in a chassis size more akin to lower-lumen displays. The new TITAN 800 projectors are available in SX+, 1080p and WUXGA native resolution, and include powerful DPI innovations such as FastFrame, Dual-Flash Processing and CoolTek Engineering. The TITAN 800 extends DPI's powerful TITAN product line, the most powerful and efficient displays available.

Utilizing DPI's new, advanced electronics, all TITAN 800 models provide the user with advanced Warp and Blend capabilities, including the ability to make extensive geometric warp correction for screens with complex geometry. Superbly capable edge blending and multi-projector tiling is provided by way of high bit depth processing that ensures a seamless, contiguous image can be created from multiple projectors. Additionally, end users can choose to utilize the TITAN 800's onboard tiling function by assigning each projector a position within an image matrix. The video processing then automatically extracts the appropriate segment of the input image and enables blending for the appropriate edges.
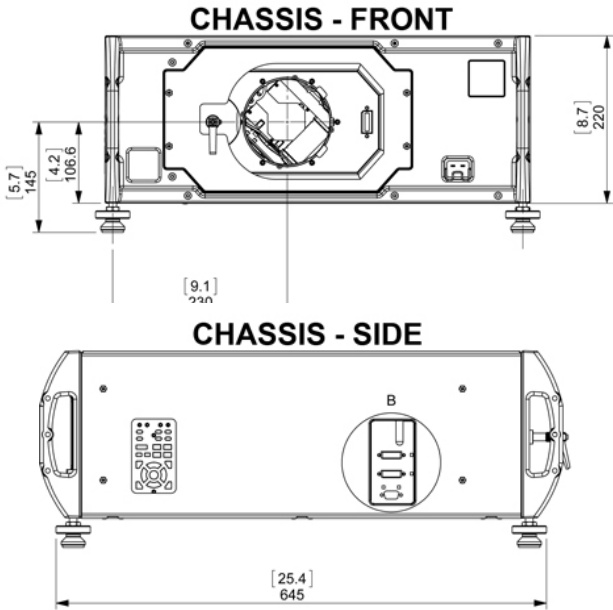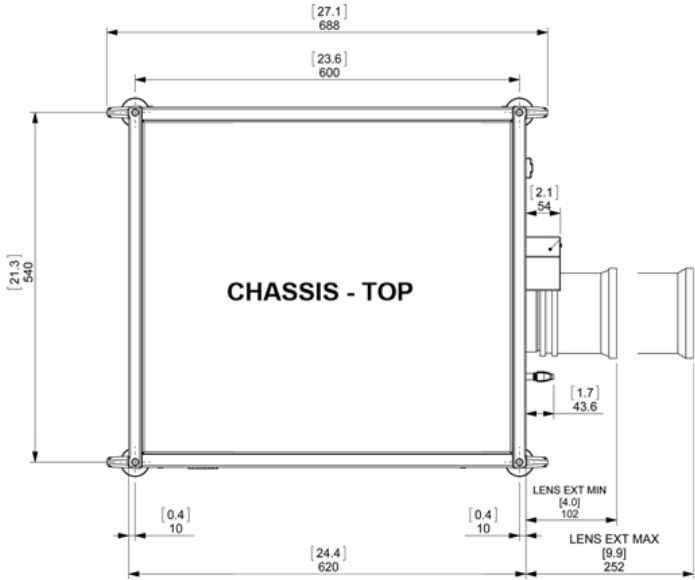
Also included in the 3D-capable TITAN 800s are DPI's exclusive 3D advances that further extend the remarkable flexibility engineered within each TITAN 800 display. Applications with 120 Hz native sources utilize the High Bandwidth Input, eliminating the need for frame doubling. For 60 Hz 3D applications, DPI's built-in Dual Flash Processing™ enables distribution of 3D content via 60 Hz formats by frame-doubling the signal within the projector, producing the low flicker image characteristics of a native 120 Hz source without the infrastructure costs associated with distributing and switching ultra-high bandwidth signals.

As is the case with all Digital Projection displays, our careful engineering guarantees TITAN projectors provide remarkable resolution, color saturation and light output for years to come. Equally important, DPI's legacy in providing superior customer and technical services assures our experienced support staff is always available to address your needs.

PERFORMANCE SPECIFICATIONS

Brightness (±10%)
SX+, 1080p & WUXGA: 12,000 ANSI Lumens

Contrast Ratio (±10%)
2000:1 Full White/Black

Display Type
SX+: .95" Darkchip DMD
1080p: .95" Darkchip DMD
WUXGA: .97" Darkchip DMD

DMD Specification
SX+: 1400 x 1050 pixels native, +/- 12 deg tilt angle
1080p: 1920 x 1080 pixels native, +/-12 deg tilt angle
WUXGA: 1920 x 1080 pixels native, +/-12 deg tilt angle
Fast transit Pixels for smooth greyscale and improved contrast.

Fill Factor
87%

Sealed Optics at DMD™ Interface
Protects DMD's™ from optical contamination

Source Compatibility
Advanced Front End Processor:
- 3GSDI including 1080p 60fps, 24p (4:4:4 and 4:2:2) and 1080i.
- HDMI including Deep Color processing.
- Graphics standards up to 1920 x 1200 resolution at 60fps via DVI or VGA.
- Component video (SD and HD) via YPr Pb, RGB, or RGBS.
- S-Video (PAL, NTSC & SECAM)
- Composite Video (PAL, NTSC & SECAM).

High bandwidth, pixel mapped path:
- Dual DVI accepts graphics standards up to 1920 x1200@120fps.
- HDMI 1.4 including 3D Standards
- Dual Pipe (2 x DVI or HDMI)

High Bandwidth Input
- 3D capable (option available)
- Pixel Mapped - with low latency
- FastFrame™ Motion Blur Reduction
- 120 Hz with no frame doubling

3D Sync (for 3D-capable models)
Sync In - External lock
Sync Out - Shutter glass control

Network Connection
IR handset with wired option via 3.5mm jack (with loop through).
LAN Via RJ45 with full feature set via protocol.
Duplication of OSD served from projector controller via RJ45.
RS232 Via 9 Pin connector.

Lamp Type
Two x 400W High Intensity Discharge

Lamp Life (typical)[1]
Full Power: 1500 hrs (up to 3000 hrs in lamp sequential mode)
Eco Mode : 2000 hrs (up to 4000 hrs in lamp sequential mode)

Intelligent Lens Mount
Motorised and programmable Focus, Zoom, and Vertical and Horizontal offsets with ten positional memory banks.

Lens Shift (maximum)
sx+ models:
0.73:1 lens – Vert: +/- 0.11 frame; Hor: +/-0.07 frame
1.26-1.61:1 lens - Vert: +/- 0.36 frame; Hor: +/-0.2 frame
1.2:1 and other zoom lenses - Vert: +0.5, -0.4 frame;
Hor: +/-0.2 frame

1080p and WUXGA models:
0.67:1 lens – Vert: +/- 0.1 frame; Hor: +/-0.1 frame
1.16-1.49:1 lens - Vert: +/- 0.5 frame; Hor: +/-0.18 frame
1.12:1 and other zoom lenses - Vert: +0.7, -0.5 frame;
Hor: +/-0.18 frame

Lens Options

0.73	:1 fixed	2.02-2.77	:1 zoom
1.2	:1 fixed	2.77-4.51	:1 zoom
1.26-1.61	:1 zoom	4.51-7.53	:1 zoom
1.5-2.02	:1 zoom	7.5-11.2	:1 zoom

- 1.2:1 Lenses include manual aperture
- High-contrast lenses available for 0.73:1 and all zoom lenses

Mechanical Mounting
- Front or rear table; Front or rear ceiling (ceiling mount optional)
- Rugged, staging tolerant chassis with integrated handles
- Optional RapidRig™ frame with integrated pitch, roll and yaw adjustments

Weight (chassis only)
39 kg, 86 lbs

Video Processing: Advanced Front End processor:
- Advanced geometry correction:
  o Accurate warp map generation by adjustment of an interpolated grid array of up to 16 x 16 nodes. Up to eight maps can be generated, downloaded and stored on the projector for selection via the OSD or control application.
  o On board implementation of Pincushion & Barrel, Cornerstone, Vertical & Horizontal Keystone, and Image Rotation.
- High Quality Edge Blending & Multi Projector Tiling
  o High bit depth processing in blend region to ensure smooth image.
  o Adjustable S-Curve Parameter and degamma functions.
  o Black Level Uplift to ensure uniformity across blend in dark images.
  o Correction of black level uplift to compensate for non-active pixels at the edge of the DMD.
  o The user can choose to assign the projector a position within an image matrix. The video processing can automatically extract the appropriate segment of the input image and enable blending for the appropriate edges.
- Single Stage Scaling
  o Resizing and Warp functions are carried out in a single stage process maximizing the clarity of the resulting image. When operating Blend in conjunction with Warp the processing will automatically superimpose the warped-blend map, onto the geometrically corrected image.
  o The user can switch between different sources and input aspect ratios, yet retain the accuracy of the geometrically corrected output.
- PIP/POP/PAP
  o User's choice between inputs for the main and sub images (Picture in Picture or PIP). The processing additionally offers the option to display two sources, side-by side, scaled to the vertical size of the panel Picture and Picture or PAP), or alternatively maintaining their original aspect ratios (Picture Opposite Picture or POP).
- ColorMax
  o Each projector is accurately calibrated at the factory with its native primary colors and white point being stored in the on-board memory. User's choice to employ the external control application to download his own measured color space, as specific to the operating environment, and also his preferred Target color space for primary and secondary colors. Not only is this the most flexible color management technology available, but it also enables accurate matching of projectors in tiled or blended applications.
- Dual Flash Processing can be used to multiply the displayed frame rate for 3D sources.
- FastFrame motion blur reduction.
- Dual Pipe processing allows the delivery of two sources in parallel, typically one for the Left Eye and the other for the Right.
- De-interlacing, Video enhancement and Frame Delay
The projector automatically detects interlaced video and implements 3:2 or 2:2 extraction as appropriate, with pixel based, motion adaptive interpolation and auto cadence correction.

INPUT CAPABILITIES

Type	Connector	Quantity
Composite	BNC	1
S-Video	4-pin mini DIN	1
HDMI (HDCP compliant)	HDMI 1.4	2
Component Interlaced/Std def Y, Cr/Pr, Cb/Pb, S	BNCx4	1
Graphics Progressive RGB/Progressive Interlaced Hi def Y, Cr/Pr, Cb/PB	BNCx5	1
RGBHV (Progressive)	D sub (15-pin)	1
Digital RGB	DVI	1
Serial Digital SD/HD-SDI (SMPTE 259M/292M)	BNC	1
DVI - High bandwidth Dual - main	DVI	1
Dual - sub	DVI	1

*The main & sub dual DVI inputs can be used in parallel to support dual-pipe 3D connectivity

CHASSIS - TOP

[27.1] / 688
[23.6] / 600
[21.3] / 540
[2.1] / 54
[1.7] / 43.6
[0.4] / 10
[0.4] / 10
[24.4] / 620
LENS EXT MIN [4.0] / 102
LENS EXT MAX [9.9] / 252

CHASSIS - FRONT

[8.7] / 220
[5.7] / 145
[4.2] / 106.6
[9.1] / 230

CHASSIS - SIDE

B
[25.4] / 645

Projector Dimensions

Projector dimensions (in)	Projector dimensions (mm)
L1 24.4 W1 21.3 H1 10.2	L1 620 W1 540 H1 258

shown with optional rigging frame

ADVANCED TECHNICAL SPECIFICATIONS

PARAMETERS	TITAN 800 sx+	TITAN 800 1080p	TITAN 800 WUXGA
Native Color Temperature	Native Color Temperature: User Selectable from 3200K, to 10000K		
HDTV Formats Supported	Signal formats 480i, 576i 480p, 576p, 720p, 1080i (50, 59.94 and 60Hz) and 1080p (23.98, 24, 25, 29.97 and 30Hz).		
Scan Rates Supported	The 3GSDI Input supports SD-SDI, HD-SDI and 3G-SDI YCbCr 4:2:2 serial digital component video. SMPTE 292M, SMPTE 259M-C and SMPTE 424M compliant. Accepts 484i, 576i, 720p, 1080i and 1080p Single link formats at 270Mb, 1.485Gb or 2.97Gb rates. Stream A & Stream B-switchable. HDMI & DVI Inputs - HDMI 1.3 with or without HDCP, 36 bit video compatible. DVI-D input with or without HDCP.		
Remote Control	Addressable IP remote control, wireless and wired with loop through. On Board keypad.		
Automation Control	LAN connection via RJ45/RS232 9 pin D Type.		
Operating/Storage Temperature	Operating 0-40C. Storage -10 to +50C		
Operating Humidity	20 to 80% non-condensing		
Thermal Dissipation	7161 BTU/hr		
Fan Noise	TBA		
Power Requirements	200-265VAC 50/60Hz Single Phase.		
Power Consumption	TBA		

Projectors

	Part #
TITAN 800 sx+	TBA
TITAN 800 1080p	TBA
TITAN 800 WUXGA	TBA

Accessories

	Part #
TITAN 800 Lamp & Housing* (2 required)	TBA
RapidRig™ Frame	TBA
TITAN 800 Series Adjustable Ceiling Mount	TBA
Infrared Remote (Replacement)	105-023

* Includes high-performance replacement air filter(s)

1 Based on 4-6 hour/day operational profile. Venue and application conditions may impact actual lamp life.
See Digital Projection's Product Warranty Statement for details on lamp warranty.
Installations requiring horizontal or vertical tilt orientations greater than 15 degrees may reduce the actual operational hours of one of the two lamps.

SX+ Lenses	HB Part #	HC Part #
0.73:1	105-607	107-195
1.2:1	105-608	105-608
1.2:1 (short)	105-609	105-609
1.26 – 1.61:1	109-236	109-359
1.5 – 2.02:1	105-610	107-196
2.02 – 2.77:1	105-611	107-197
2.77 – 4.51:1	105-612	107-198
4.51 – 7.53:1	105-613	107-199
7.5 – 11.2:1	109-235	109-358

1080p & WUXGA Lenses	HB Part #	HC Part #
0.67:1	105-607	107-195
1.12:1	105-608	105-608
1.16 – 1.49:1	109-236	109-359
1.39 – 1.87:1	105-610	107-196
1.87 – 2.56:1	105-611	107-197
2.56 – 4.16:1	105-612	107-198
4.16 – 6.96:1	105-613	107-199
6.92 – 10.36:1	109-235	109-358

FAST FRAME   ColorMAX   CoolTek ENGINEERING   DLP