







TITAN Nuad 2000 Series

TITAN SX+ Quad 2000 3D • TITAN 1080p Quad 2000 3D • TITAN WUXGA Quad 2000 3D



PERFORMANCE SPECIFICATIONS

Brightness (±10%) TITAN Quad 2000 SX+, 1080p & WUXGA: 20,000 ANSI Lumens

Contrast Ratio (±10%)

Display Type SX+: .95" Darkchip DMD

DMD Specification

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

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

Source Compatibility

vanced Front End P 3GSDI including 10

- valueu Front E18 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
- 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)

- 3D capable
 Pixel Mapped with low latency
 FastFrame™ Motion Blur Reduction
 120 Hz with no frame doubling

3D Sync Sync In - External lock 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
Four x 450W High Intensity Discharge

Lamp Life (typical)1

1500 hrs (up to 3000 hrs in lamp sequential mode) Eco Mode : 2000 hrs (up to 4000 hrs in lamp sequential mode)

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;

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

Leris 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

- (ceiling mount optional)
- Rugged, staging tolerant chassis with
- Optional RapidRig™ frame with integrated pitch, roll and yaw adjustments

Weight (chassis only)

Video Processing: Advanced Front End processor:

 Advanced geometry correction:

 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 Adjustable S-Curve Parameter and degamma

o Black Level Uplift to ensure uniformity across

blend in dark images.
o Correction of black level uplift to compensate for

o Correction or 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 appropri-

Single Stage Scaling o Resizing and Warp functions are carried out in o Hesizing 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 processi 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

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 being stored in the orrivoud thermory, user's clinice to employ the external control application to download his own measured color space, as specific to the oper-ating 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 pro

- 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 surces in parallel, typically one for the Left Eye and
- the other for the Right.

 De-interlacing, Video enhancement and Frame

The projector automatically detects interlaced video and implements 3:2 or 2:2 extraction as appropriate. with pixel based, motion adaptive interpolation and

Digital Projection International announces the evolution of its popular 16,000 lumen TITAN Quad projectors to the new 20,000 lumen Quad 2000 series. Incredibly compact for their brilliant lumen performance, the TITAN Quad 2000 platform incorporates the latest evolution of high efficiency, long-life lamps along with innovative optical enhancements to deliver an uncompromised 20,000 lumens of full-spectrum light for the most demanding projection applications. TITAN Quad 2000 series models are available in 1080p, WUXGA and SX+ resolution, and each model includes DP's active 3D connectivity, advanced image Warp and Blend capabilities, 3G-SDI input connectivity and a host of professional features to suit almost any commercial or staging application imaginable. As efficient as they are powerful, the introduction of TITAN Quad 2000 range marks the world's first projectors, capable of this brightness, in a chassis with such a small and quiet form factor. Furthermore, the new TITAN Quad 2000 projectors include DP's exclusive Intelligent Lens Mount, ColorMax, FastFrame and Dual Flash technologies.

The new TITAN Quad 2000 models feature DPI's latest NextGen advanced electronics, providing the user with the ability to make extensive geometric warp correction via the adjustment of an interpolated grid array of up to 16 x 16 nodes. Furthermore, up to eight warp maps can be generated, downloaded and stored within the projector's electronics. Resizing and Warp functions are carried out in a single stage process, maximizing the clarity and accuracy of the resulting image. On board adjustments for Pincushion, Barrel, Cornerstone, Vertical and Horizontal Keystone, and even Image Rotation, are also standard in the new TITAN Quad 2000 displays.

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. Black Level Uplift in all non-blend areas guarantees uniformity across the screen, even when dark image content is displayed. Additionally, end users can choose to utilize the TITAN Quad 2000'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.

With over five years of experience manufacturing, distributing and supporting powerful 3D projectors, DPI has developed exclusive 3D advances that further extend the remarkable flexibility found within each TITAN Quad display. FastFrame motion blur reduction reduces motion artifacts associated with rapidly moving content, such as what may be seen when viewing sporting events, participating in video games or in fast jet simulation. DPI's Dual-Flash Processing allows 60 Hz 3D sources to be frame doubled and displayed at 120 Hz on screen, or 24 Hz 3D sources to be frame tripled and displayed at 144 Hz. Additionally, Dual-Pipe Connectivity allows the delivery of two sources in parallel, typically one for left eye and one for right. Digital Projection's Dual DVI input also enables the direct display of sequential sources of frame rates up to 144fps.

The powerful new capabilities perfectly complement other legacy characteristics that have made DPI's precision displays the go-to standard for every commercial venue for almost 15 years. With a superior light output of 20,000 lumens, the new TITAN Quad 2000 projectors employ four 450 watt high intensity discharge lamps to produce incredibly bright, color saturated and high contrast imagery, making them suitable for a wide variety of demanding medium and large venue applications.

INPUT CAPABILITIES

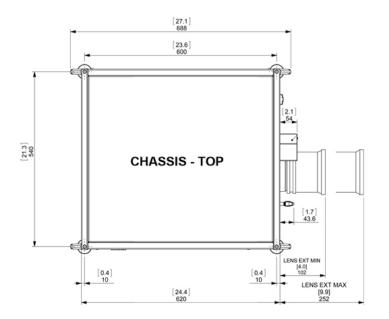
Type	Connector	Quantity
Composite	BNC	1
S-Video	4-pin mini DIN	1
HDMI (HDCP compliant)	HDMI 1.4	2
Component Interlaced/Std def Y, Cr/Pr, Cb/Pb, S	BNCx4	1
RGBHV (Progressive)	D sub (15-pin)	1
Digital RGB	DVI	1
Serial Digital SD/HD-SDI (SMPTE 259M/292M)	BNC	1
DVI - High bandwidth Dual - main Dual - sub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

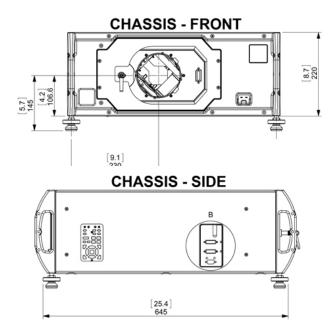
*The main & sub dual DVI inputs can be used in parallel to support dual-pipe 3D connectivity

PRELIMINARY

TITAN Quad 2000 Series







Projector Dimensions

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



ADVANCED TECHNICAL SPECIFICATIONS

PARAMETERS	TITAN Cluad sx-30 TITAN Cluad wuxsa-30 Wuxsa-30				
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	7843 BTU/hr				
Fan Noise	48 dBA				
Power Requirements	200-265VAC 50/60Hz Single Phase				
Power Consumption	2300 Watts				

Projectors TITAN sx+ Quad 2000 3D TITAN 1080p Quad 2000 3D TITAN WUXGA Quad 2000 3D	Part # 113-102 113-103 113-104	SX+ Lenses 0.73:1 1.2:1 1.2:1 (short) 1.26 - 1.61:1 1.5 - 2.02:1	HB Part # 105-607 105-608 105-609 109-236 105-610	HC Part # 107-195 105-608 105-609 109-359 107-196
Accessories TITAN 450W Lamp and Housing* (4 required) RapidRig™ Frame TITAN Quad 3D Series Adjustable Ceiling Mount	Part # 113-105 111-265A 111-897A	2.02 - 2.77:1 2.77 - 4.51:1 4.51 - 7.53:1 7.5 - 11.2:1	105-611 105-612 105-613 109-235	107-197 107-198 107-199 109-358
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.		1080p & WUXGA Lenses 0.67:1 1.12:1 1.16 - 1.49:1 1.39 - 1.87:1	HB Part # 105-607 105-608 109-236 105-610	HC Part # 107-195 105-608 109-359 107-196
FRAME COLOR DIGITAL PLOTAL PROPERTY DIGITAL PROPERTY DIGI	TION DEP	1.87 - 2.56:1 2.56 - 4.16:1 4.16 - 6.96:1 6.92 - 10.36:1	105-611 105-612 105-613 109-235	107-197 107-198 107-199 109-358