



TITAN 3D Pro Series II

TITAN sx+ 3D-L • TITAN sx+ 3D-P • TITAN sx+ 3D-L UC • TITAN sx+ 3D-P UC • TITAN sx+ Dual 3D • TITAN sx+ Dual 3D Ultra Contrast



PERFORMANCE SPECIFICATIONS

Brightness (±10%)

sx+ 3D L & P: 6,000 ANSI Lumens
sx+ 3D L & P *Ultra Contrast*: 3,000 ANSI Lumens
sx+ Dual 3D: 11,000 ANSI Lumens
sx+ Dual 3D *Ultra Contrast*: 5,500 ANSI Lumens

Mechanical Orientation

- "P" models support portrait and 360° of roll
- "L" models support 360° of pitch (lens up/down)

Contrast Ratio (±10%)

Standard Models - 2000:1
Ultra Contrast Models - 4000:1

Display Type

3 x .95" Dark Chip 1080p with Fast Transit Pixels for smooth greyscale and improved contrast

DMD Specification

1400 x 1050 pixels native, 12° tilt angle

Fill Factor

90%

Sealed Optics at DMD™ Interface

Protects DMD's™ from optical contamination

Source Compatibility

- Composite, s-video, and color difference video standards up to 1080i
- RGB graphics standards up to 1920 x 1080
- DVI standards
- High definition RGB and color difference standards
- High definition / standard definition serial digital formats (SD/HD-SDI)

Video Processing

- Enhanced 7 point color correction
- Dual Flash Processing™ increases 60 Hz inputs to 120 Hz displayed output
- FastFrame™ Motion Blur Reduction
- Xenon Color Mode - User selectable notch filter and xenon-color mode processing, enable the projector to replicate xenon lamp spectral performance
- Class leading Video de-interlacing/processing of SD and HD sources using auto 3:2 and 2:2 extraction, ruggedized for editing discontinuities
- Pixel-based motion adaptive interpolation
- User selectable preset, parametric de-gamma and user downloadable de-gamma
- Frame Delay: as low as 1 frame, source dependant
- Auto mode selection - plug and play setup

High Bandwidth Input

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

3D Sync

Sync In - External lock
Sync Out - Shutter glass control

Network Connection

LAN via RJ 45, Wireless 802.11b, full protocol feature set

Lamp Type

Single or Dual High Intensity Discharge module

Lamp Life (typical)

2000 hours per lamp, dual lamp models provide 4000 hours sequential lamp operation, lamp low provides extended lamp life

Lens Mount

Zoom Lenses: Motorized horizontal and vertical lens shift, zoom and focus
Fixed Lenses: Manual Focus

Lens Shift (maximum)

Fixed 1.2:1 and Zoom Lenses:
• Vert: +0.5, -0.4 frame; Hor: ±0.2 frame
0.73 Fixed lens:
• Vert: ±0.11 frame; Hor: ±0.07 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)

68 lbs (31 kg)

Overview

Digital Projection International (DPI), Texas Instruments' first DLP™ partner and the original innovator of the 3-chip DLP™ projector, proudly introduces the TITAN sx+ 3D family.

Weighing in at just 31 kgs/68 lbs, every TITAN 3D display employs the latest in sx+ dark chip, 3-chip DLP™ technology to deliver up to 11,000 ANSI lumens and up to 4000:1 contrast. This award-winning compact chassis now includes six sx+ active 3D models. All robustly built and extremely quiet, TITAN 3D projectors are the perfect imaging solution for vital immersive applications including: military simulation, scientific visualization, medical and geological research, product engineering, commercial cinema and theme park attractions.

In addition to the active 3D capability, TITAN 3D models also include DP's new *FastFrame™* technology, a revolutionary combination of hardware and firmware that reduces the artifacts and image blur typically associated with rapidly moving displayed content. The benefits of *FastFrame™* are especially important for simulation environments such as commercial and military flight training, and other applications where maintaining the visual integrity of high-speed imagery is vital.

For challenging 3D venues that require extreme mechanical rigging or precise mechanical alignment, the TITAN 3D products can be ordered with DP's *RapidRig™* flying and stacking frame. The *RapidRig™* frames provide integrated pitch, roll and yaw adjustments, simplifying installation and alignment accuracy. TITAN 3D models utilize the same lenses employed across the rest of DPI's TITAN and LIGHTNING product range, so optical accuracy is always ensured.

Other key benefits of the TITAN sx+ 3D models include:

- High bandwidth input >120Hz active stereoscopic DVI with no need for frame doubling. This capability extends the dynamic range up to 16 bit for improved contrast and color gamut. Both single-pipe and dual-pipe 3D sources are supported.
- Dual Flash Processing™ (DFP) – Enables distribution of 3D content via 60 Hz formats by providing the option to frame-double the signal within the projector. When this option is selected, the input signal, having been processed and re-sized to map to the native resolution of the projector, will also be frame-doubled to 120 Hz, and the doubled frames interleaved. This produces imagery with the low flicker characteristics of a native 120 Hz source, but without the infrastructure costs associated with distributing and switching ultra-high bandwidth signals.
- Projector electronics which provide an interface to drive an infrared transmitter to synchronize switching glasses with active displayed frames. The user can elect either to pass through an external sync pulse, or to use the reference generated internally by the projector. Adjustments are provided to accommodate the phase and dead time characteristics of different switching glasses.
- *FastFrame™* technology, a revolutionary combination of hardware and firmware that provides user adjustments to vastly reduce the artifacts and image blur typically associated with rapidly moving display content.
- Minimal video delay from input to screen - as low as 1 frame.
- Eight user-selectable inputs, including HDCP-compliant DVI plus SD/HD-SDI.
- High bandwidth DVI inputs offer Single, Twin, Dual & Dual Twin DVI connectivity.
- Up to 16 Bit color for breathtaking image reproduction.
- DPI's *ColorMax™* calibration capabilities including enhanced seven-point color correction for broader color space and precise color alignment.
- DPI's *CoolTek™* engineering, delivers the highest lumen performance with the lowest power consumption, thermal (BTU) and noise level (dBA) output.
- *MultiBlend™* – an advanced soft-edge capability for seamlessly meshing arrays of projectors to create displays with ultra-high resolution or unusual aspect ratios.
- *Intelligent Lens Mount (ILM)* - provides the ability for the user to program up to 10 distinct presets for lens zoom, focus and shift. The ILM presets can be assigned and automatically recalled, by source and input.

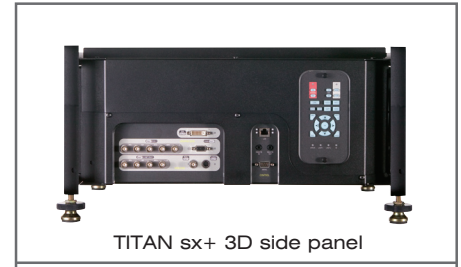
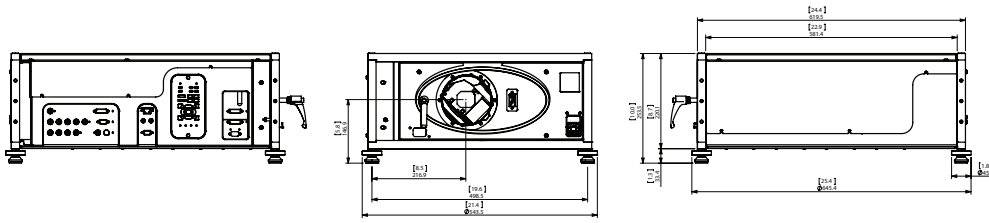
TITAN sx+ 3D Pro Series II displays - powerful tools for immersive large screen applications - bringing the precision of Digital Projection to your venue.

INPUT CAPABILITIES

Type	Connector	Quantity
Composite	BNC	1
S-Video	4-pin mini DIN	1
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

TITAN sx+ 3D Pro Series II



TITAN sx+ 3D side panel









shown with optional rigging frame

Projector Dimensions

Projector dimensions (in)
L1 25.4 W1 21.4 H1 10

Projector dimensions (mm)
L1 645.4 W1 543.5 H1 253.5

ADVANCED TECHNICAL SPECIFICATIONS

PARAMETERS	  (Single Lamp Models)		 		  (Dual Lamp Models)	
	Native Color Temperature	6500°K ±1000°K; white balance-adjustment: 3000°K to 10000°K User selectable Xenon-like colorimetry using dynamic optical and electronic enhancement.				
HDTV Formats Supported	1080i (50Hz, 60Hz), 1080p (24Hz, 25Hz, 30Hz, 50Hz, 60Hz), 1080 24sf, 720p (50, 60Hz), 480i, 480p					
Scan Rates Supported	Inputs 1-7: Horizontal: 15kHz to 100kHz / Vertical: 24Hz to 85Hz - Input 8: 3D progressive 576p up to 1080p @ 120Hz					
Remote Control	Addressable IR remote control, wireless and wired with loop-through / On board invertable keypad					
Automation Control	LAN connection via RJ45 / RS232 9-pin D type					
Operating/Storage Temperature	Operating: 0 to 40°C / Storage: -10 to 50°C /					
Operating Humidity	20 to 80% non-condensing					
Thermal Dissipation	1,770 BTU/hr		2,777 BTU/hr			
Fan Noise	Less than 42dBA {400}		Less than 45dBA {500}			
Power Requirements	100-240 VAC ±10%, 50/60Hz single phase					
Power Consumption	580 watts maximum		910 watts maximum			

Projectors

TITAN sx+ 3D-L	110-402
TITAN sx+ 3D-P	109-340
TITAN sx+ 3D-L Ultra Contrast	110-656
TITAN sx+ 3D-P Ultra Contrast	109-341
TITAN sx+ Dual 3D	109-334
TITAN sx+ Dual 3D Ultra Contrast	109-335

Part

110-402
109-340
110-656
109-341
109-334
109-335

Accessories

Single TITAN 3D Lamp & Housing* (2 required)
RapidRig™ Frame
TITAN sx+ 3D Series Adjustable Ceiling Mount
Infrared Remote (Replacement)
* Includes high-performance replacement air filter(s)

Part

109-319
107-956
108-499
105-023

Lenses

0.73:1
1.2:1
1.2:1 (short)
1.26 - 1.61:1
1.5 - 2.02:1
2.02 - 2.77:1
2.77 - 4.51:1
4.51 - 7.53:1
7.5 - 11.2:1

HB Part

105-607
105-608
105-609
109-236
105-610
105-611
105-612
105-613
109-235

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.

