LIGHTNING 28sx

16,000 ANSI Lumens | 1280 x 1024 pixels

With a single objective in mind...

Digital Projection is revolutionising the large screen projector market. In developing the range of LIGHTNING Displays it has integrated remarkable technologies to create large-screen digital projectors which combine exceptional imaging capabilities with truly operational simplicity.

Perfectly suited for entertainment, business, education, simulation, religion, command and control, broadcast, cinema & staging and rental environments, no other light valve technology approaches the visual beauty and operational simplicity of a Digital Projection LIGHTNING Display. Within the range, there is a model suited to every application.

At 16,000 ANSI lumens, the LIGHTNING 28sx is the most compact and lightweight projector in the Lightning Chassis range. The astonishing brightness of this compact projector is complemented by a palette of more than 1 billion colours, absolute greyscale tracking and luminance uniformity greater than 85%. The on-screen results are stunning video images, HDTV and computer projection with a real 'FILM LOOK' quality, drawing the viewer in with the beauty of the pictures.

Drawing expert technology together...

The miracle of the DMD by Texas Instruments: A 3-chip Digital Micromirror Device™ (DMD) is the image modulator at the heart of every LIGHTNING Display. Digital Projection selected this imaging technology back in 1989, after our extensive analysis demonstrated the DMD's potential to accurately reflect individual pixels of light. Since then, Digital Projection engineers have worked closely with Texas Instruments, solving the challenges of the DMD and magnifying its performance for large screen projection applications.

Legendary Video Decoding by Faroudja Laboratories: although composite video is typically the lowest quality video signal available, it is likely to be among the most commonly utilized sources.

Recognising the importance of managing "real world" sources with the same artfulness we apply to the highest quality signals, Digital Projection partnered with Faroudja Laboratories, who developed advanced video decoding technology with exceptional colour processing and artifact reduction, which has been specifically integrated in LIGHTNING Displays. Sampling of computer images is carried out with resizing, where necessary, allowing complete flexibility in displaying the widest range of computer input standards.

No manufacturer provides you with more DLP solutions or technology options than Digital Projection.

The LIGHTNING 28sx delivers these outstanding performance benefits:

- Super-high-brightness of 16000 ANSI lumens, bright enough for any application.
- 450:1 on to off Contrast, produces deep blacks and rich detail.
- Greater than 90% luminance uniformity for consistent imagery with no hot-spots.
- High native resolution of 1280 x 1024 for exceptional on-screen detail.
- 1600 x 1200 source compatibility.
- State-of-the-art composite video decoding technology by Faroudja Laboratories.
- Advanced signal processing and image resizing.
- Solid state digital stability and factory preset convergence for fast and simple alignment.
- Motorised lens mount with horizontal and vertical shift for rapid set-up and easy stacking/ installation.
- Dynamic HDTV compatibility including 1080i, 720p and 480p for advanced standards display.
- Integrated light shutter.
- PalmPilot™ hardwired control system.
- Pre-targeted xenon bubble lamps for fast and easy replacement.
- SD-SDI Standard Definition Serial Digital Interface for high quality video with minimised cabling. HD-SDI High Definition is available as an option.

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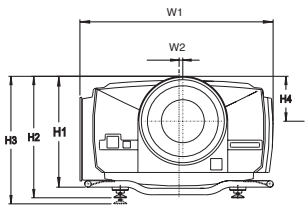
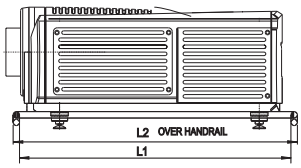
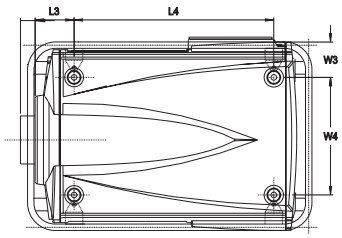
DIGITAL PROJECTION







Projector dimensions (mm)

L1 1035	H1 438	W1 764
L2 1125	H2 481	W2 15
L3 154	H3 505	W3 140
L4 790	H4 178	W4 465

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Technical Specification

Brightness
16,000 ANSI Lumens (±10%)

Brightness Linearity
90% edge to centre (±10%)

Colour Temperature
3000°K - 9300°K Adjustable

Contrast Ratio
275:1 ANSI Checkerboard (±10%)
450:1 Full Field (±10%)

Display Type
3 x DMD (one per R, G & B)

DMD Specification
1280 x 1024 pixel
16.3µm x 16.3µm pixel size
17µm x 17µm pixel pitch
21.8mm x 17.4mm DMD size

Fill Factor
92% pixel fill factor

Input Specification
3 independently configurable inputs - selectable via remote control. BNC connectors. 525/60, 625/50, PAL,NTSC, HDTV, VGA, SVGA, XGA, SXGA & MAC Serial Digital Input (standard)

Digitl I/O
Serial Digital Input (SD-SDi) SMPTE 259M Level C, 4:2:2 525/625 component

HD-SDI SMPTE 292 optional

RGBS
RGB = 700mV/75, S=0.7V-5V, Sync on G separate H & V Composite Sync Auto Select

Component Video
Y=700mV +300mV/75
Pr, Pb=700mVp-p/75

Y/C (S video)
Y=700mV + 300mV/75
C=300mV p-p/75

Composite
1Vp-p/75 Advanced video decoding by Faroudja Laboratories

Computer
H = 15kHz to 90kHz
V = 24Hz to 100Hz

Remote Control
IR Receivers front and rear. Hard wire link to handset 3 Pin XLR type connector

Automation
RS232 input/output loop-through, 9 pin D type

Fan Noise
59dB

Operating Temperature
40C max

Switcher
Video switcher output-RS232
9 Pin D type

Lamp Type
Xenon Arc, Bubble

Mounting
Floor Mount (standard)
Flying Frame (optional)
Rigging Frame (optional)
Stacking Frame (optional)

Lens Mount
Motorised and programmable focus, zoom (lens dependent), horizontal and vertical lens shift accessed via remote control, light shutter

Lens Options
SX Lens
1.2:1 Fixed
1.5 - 2.0:1 Zoom
2.0 - 2.5:1 Zoom
2.5 - 4.0:1 Zoom
4.0 - 7.0:1 Zoom

Physical Dimensions
481mm (19") height
764mm (29") width
1125mm (44") length

Weight
(Chassis Only) 110kg

Power Requirements
208-264 V ac 50-60 Hz, 4200 watts, BTU/hour 14,322

Design flexibility in, complexity out...

To allow maximum flexibility, whatever the application, Digital Projection developed a Motorised Lens Mount, capable of providing extensive vertical and horizontal lens shift. When combined with our broad and flexible range of lens options and system accessories, LIGHTNING Displays can be mechanically integrated into virtually any application.

Design simplicity is underlined by the remarkable alignment stability of LIGHTNING Displays. Factory preset convergence, exacting and stable colour reproduction, digitally accurate image uniformity and user friendly on-screen menus ensure simple and confident setup and minimal maintenance, for even the most challenging large-screen applications.

Seeing is Believing...

Specifications and descriptions, however, cannot tell the full story. The only way to appreciate the marvellous image quality of a LIGHTNING Display is to see one in action; the only way to appreciate its flexibility, stability and ease of use is to experience one performing in your application. Whatever your display requirements. By providing a combination of stunning imagery, installation flexibility and the highest levels of customer service, Digital Projection puts the power in your hands.

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DLP™ A TEXAS INSTRUMENTS TECHNOLOGY

MILLENNIUM PRODUCTS

1998 Emmy Award Technical Achievement in Engineering Development

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