PRELIMINARY

DIGITAL PROJECTION
Precision Displays for Every Venue

HIGHlite Cine 1080p 660 3D

PERFORMANCE SPECIFICATIONS

Brightness (±10%)
8,000 ANSI Lumens

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

Display Type
1080p: .65" Darkchip DMD

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

Fill Factor
84%

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

Source Compatibility
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)

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
Dual 330W 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)

Lens Shift (maximum)
120% vertical, 30% horizontal

Lens Options
0.77:1 Fixed
1.16:1 Fixed
1.45-1.74:1 Zoom
1.74-2.17:1 Zoom
2,17-2.90:1 Zoom
2.90-4.34:1 Zoom
4.34-6.76:1 Zoom

Mechanical Mounting
Front or rear table, front or rear ceiling
Optional rigging/stacking frame with integrated pitch, roll and yaw adjustments

Weight (chassis only)
33 kg, 72.8 lbs

Video Processing: Advanced Front End processor:
• ColorMax:
- Each Projector is accurately calibrated at the factory with its native primary colors and white point being stored in the on board memory. The ColorMax processor applies this data to achieve a number of stored targets, applicable to filmic, graphic and video / HD imagery. Additionally the data is used to enable tracking of the Black Body curve for a wide range of color temperatures. The user may choose to use the external control application to download their own measured color space, as specific to the operating environment, and also their 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. In addition to the ColorMax calibration of the projector, RGB trim is available to allow for front end correction of imbalanced sources of analog distribution systems.

•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. The input sync is generally phase locked to the displayed frame rate. MPEG noise reduction and sharpening techniques are available to improve image quality from lower bandwidth sources. For applications that require the lowest latency possible, the user can elect to switch off many of these functions to achieve minimal frame delay.

HIGHlite 660 displays also contain the following capabilities for specialized applications:
• 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
• On board implementation of Pincushion & Barrel, Cornerstone, Vertical & Horizontal Keystone, and Image Rotation
• High Quality Edge Blending & Multi Projector Tiling:
- High bit depth processing in blend region to ensure smooth image
- Adjustable S-Curve Parameter and degamma functions
- Black Level Uplift in non blend area to ensure uniformity across
blend in dark images
- Correction of black level uplift to compensate for non-active pixels at the edge of the DMD
- The user can choose to assign the projector a position within an image matrix. The video processing automatically extracts the appropriate segment of the input image and enables blending for the appropriate edges
• Single Stage Scaling:
- 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
- The user can switch between different sources and input aspect ratios while retaining accuracy of the geometrically corrected output
• PIP/POP/PAP:
- The user has a 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).

Overview

Digital Projection, Texas Instruments' first DLP partner and the original innovator of the 3-chip DLP projector, has developed this new, compact platform, with built in Blend and Warp capabilities, native 1920 x 1080 (1080p) or 1920 x 1200 (WUXGA) resolution, bright, sharp optics and a host of professional features to suit a wide range of entertainment and commercial applications.

The HIGHlite 1080p 660-3D projector is constructed from high quality, rugged materials, suited to support widely varying environments. Carefully designed air filtration ensures protection of internal components, while thermal management has been engineered to allow the HIGHlite 660's to respond to rigorous projection applications while minimizing audible noise.
The high lumen output and rich contrast allow HIGHlite 660-3D projectors to thrive on screens 12' wide and beyond, as well as in outdoor spaces, media rooms and other unconventional locations. The sleek and quiet chassis, 1080p and WUXGA resolution, integrated electronics and straightforward user interface make the HIGHlite 660-3D displays viable solutions for installations where simplicity, low entry cost and imaging quality are paramount.

For venues using curved screens, HIGHlite 660-3D models provide the user with advanced Warp and Blend capabilities, including the ability to make extensive geometric warp correction for screens with complex geometry.

Providing a bright, saturated image from a small-form 3-chip display, the HIGHlite 660-3D models represent powerful yet remarkably affordable solutions for a variety of applications, including:

Rental and Staging
Large-screen home entertainment
Boardrooms and Conference centers
Retail and entertainment
Digital media / advertising and hospitality
Training and education
Visualization / simulation environments
Broadcast sets and events
Houses of Worship
3D mapping
Post production and Digital film screening

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

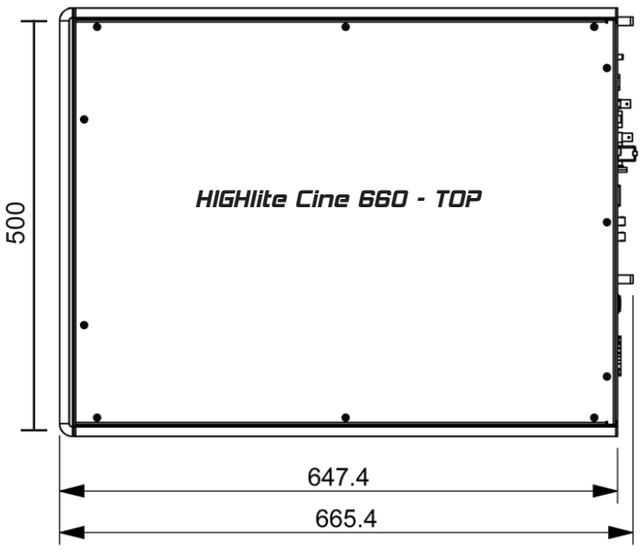
INPUT / OUTPUT CAPABILITIES

Input*	Connector	Quantity
DVI-D / DVI-A	DVI-I	1
HDMI 1.3	HDMI	1
3G-SDI	BNC	1
HDBaseT	RJ45	1
VGA / Analog RGB	15-pin D-Sub	1
Component Video	4 x BNC	1
S-Video	4-pin Mini DIN	1
Composite Video	RCA	1
Composite Video	BNC	1
Dual Pipe	DVI-I	1
HDMI 1.4	HDMI	2

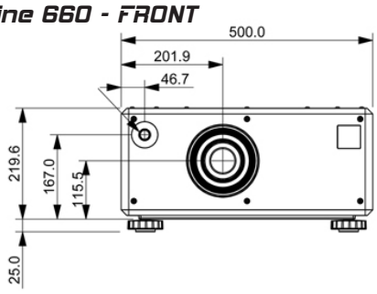
PRELIMINARY

HIGHlite Cine 1080p 660 3D

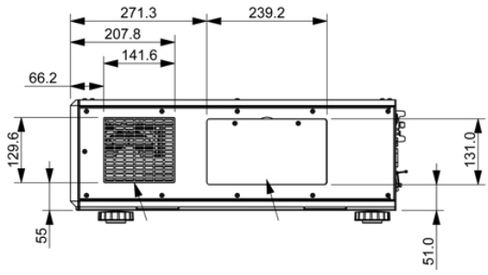
DIGITAL PROJECTION



HIGHlite Cine 660 - FRONT



HIGHlite Cine 660 - SIDE



Projector Dimensions

Projector dimensions (in)
L1 26.2 W1 19.7 H1 8.65

Projector dimensions (mm)
L1 665.4 W1 500 H1 219.6

ADVANCED TECHNICAL SPECIFICATIONS

PARAMETERS	HIGHlite 1080p 660 3D
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. 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 -20 to +60C
Operating Humidity	20 to 90% non-condensing
Thermal Dissipation	2866 BTU
Fan Noise	39 dBA
Power Requirements	90-240 VAC
Power Consumption	840W

Projectors	**Part #**
HIGHlite Cine 1080p-660 3D	113-136

Accessories	**Part #**
HIGHlite 330 Lamp & Housing* (2 required)	111-100
HIGHlite Cine Adjustable Ceiling Mount	111-182
Infrared Remote (Replacement)	105-023

* Includes high-performance replacement air filter(s)

1080p & WUXGA Lenses	**HB Part #**	**HC Part #**
0.77:1	110-808	110-022
1.16:1	110-809	110-023
1.45 - 1.74:1	110-803	110-017
1.74 - 2.17:1	110-804	110-018
2.17 - 2.90:1	110-805	110-019
2.90 - 4.34:1	110-806	110-020
4.34 - 6.76:1	110-807	110-021

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.

ColorMAX CORE TECHNOLOGY · CoolTek ENGINEERING · DP RAPID · DLP TEXAS INSTRUMENTS

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