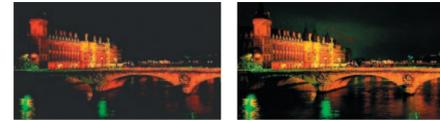


# Dynamic Range of 2600:1 High Contrast and High Level of Colour Purity — Highly Advanced Digital Technology Reproduces Optical Performance in the Most Efficient Way

## 2600:1 High Contrast and Black Reproduction

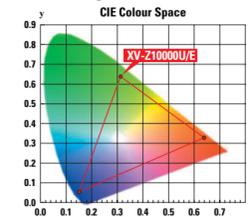
DMD™ is a reflective device which can prevent light from coming through by controlling mirror angles. Making good use of this DMD™ feature plus employing a thoroughly developed optical engine, the XV-Z10000U/E provides sharper blacks in black parts and a higher contrast ratio of 2600:1. Real blacks and clearly reproduced subtle colours provide impressively beautiful pictures.



Conventional XV-Z10000U/E

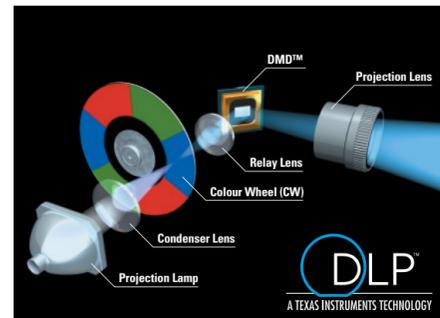
## Natural Colour Reproductivity

With the development of an advanced optical engine including Primary Colour Wheels, the XV-Z10000U/E provides high-grade colour reproduction.



Conventional XV-Z10000U/E

## Cutting-Edge Optical Technology Achieves High Quality Images Nearly Equivalent to Movie Film



by enhancing other colours to reach a bright white level and a deterioration of black level because of white light straying onto DMD™ chips. The XV-Z10000U/E uses a 3-Colour CW with only red, green and blue primary colours, achieving high reproduction of pure colours and high-contrast pictures.

	Current	XV-Z10000U/E
Colour Wheel		
Structure	RGBW	RGB Only
Brightness	Brighter	Normal
Colour Reproduction	Poor	Excellent
Black Level	Low (obscured)	High (real black)

## World's First 6x\* Speed Engine

Single DLP™ projectors employ a time sequential CW system in which RGB images projected on the screen sequentially are mixed and recognized as one image from the afterimage effects on human eyes. But this causes a phenomenon called "Colour Breaking". And since projection time for each colour is relatively long with the 1x and 2x engine, remaining afterimages appear on the image for some time like a RGB rainbow. For a theatre projector, this is a major weak point because mainly moving images are projected. With the world's first use of a 6x\* Speed Colour Wheel in front DLP™ projectors, the XV-Z10000U/E achieves a projection time 1/6 that of a 1x engine and improves colour breaking up to a degree virtually invisible.

(\* 5x speed with NTSC system)

	Conventional	Current	XV-Z10000U/E
Colour Wheel			
Structure	3 Segments (1x RGB)	3 Segments (1x RGB)	6 Segments (2x RGB)
Rotation	60 r.p.s. (1x)	120 r.p.s. (2x)	180 r.p.s. (3x)
System Speed	(1x)→1x	(1x)→2x	(2x)→6x
Projection Time per Colour	1/180 sec	1/360 sec	1/1080 sec

## Optimization of the Optical Engine

From the onset of XV-Z10000U/E development, all optical parts have been thoroughly analyzed and experimented on in order to search for higher contrast ratio. This brings anti-reflective coating for every optical part, optimization of light insertion into DMD™ pixels, and a shutter in front of the projection lens. As a result, backlight from diffused reflection in the optical engine and light leaking from light reflection from objects other than DMD™ mirrors have been dramatically reduced to achieve higher contrast ratio.

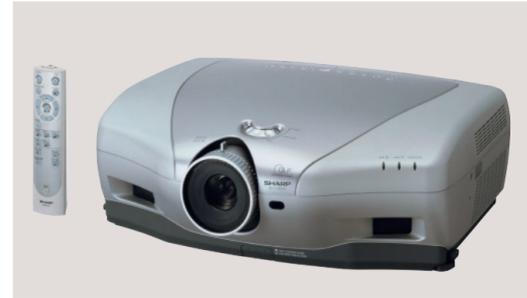
## 270W SHP Lamp System

The 270W SHP lamp affords rich light quantity and adjusts spectral characteristics, resulting in high luminance and high colour reproduction, especially for reds, which remains a task very difficult for conventional models.

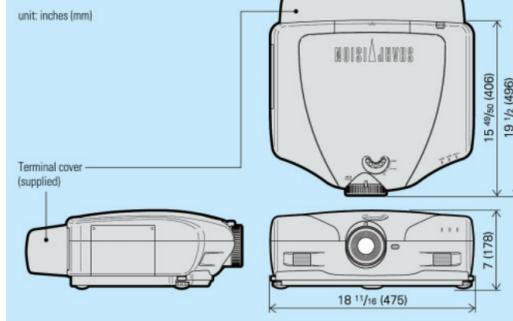
## Three Primary Colour Wheel (CW)

Current DLP™ projectors employ a 4-colour (RGB and white) colour wheel in order to increase white luminance and picture brightness. However, this causes a debasement of colour balance

## XV-Z10000U/E

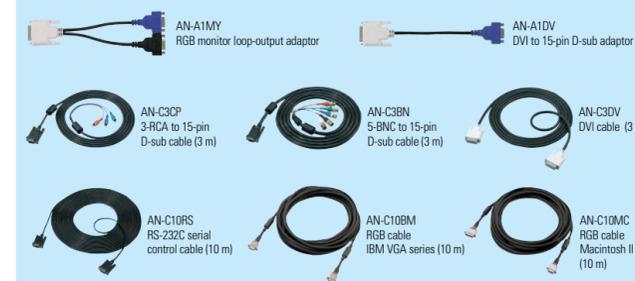


### (Dimensional Drawings)



### Optional Accessories

#### Cables



#### Ceiling Mounts



### Specifications

Model	XV-Z10000U	XV-Z10000E
DMD™ chip	0.8" (2.0cm) 1280 x 720 dots DDR 12° Digital Micromirror Device™ (DMD™) x 1 by Texas Instruments	
Number of pixels	921,600 pixels	
Resolution	520 TV lines, 960 dots x 720 lines (computer data)	
HDTV compatibility*1	1080i (in advanced intelligent compression), 720p, 480i/p	
Computer RGB input signals	SXGA, XGA, Mac 21", 19" (in advanced intelligent compression), SVGA, VGA, VESA, Mac 16"/13" 15-91 kHz (horizontal), 43-85 Hz (vertical), 12-135 MHz (pixel clock) (plug & play VESA; DDC 1/2B)	
Video colour systems	NTSC/NTSC 4.43/PAL/PAL (60Hz)/PAL-M/PAL-N/SECAM	
Lens	1:1.35 manual zoom and focus	
Lens shift	Manual optical lens shift	
Projection size	25" - 300"	
Projection distance	40" (102cm): 5'3" - 7'1" (1.6 - 2.2m), 100" (252cm): 13'2" - 17'9" (4.0 - 5.5m), 200" (504cm): 26'7" - 36" (8.1 - 11.0m)	
Luminance	800 ANSI Lumen in High Brightness Mode (500 ANSI Lumen in High Contrast Mode)	
Contrast ratio	2600:1 (High Contrast Mode) / 1900:1 (High Brightness Mode)	
Input terminals	Component / RGB x 2 (5RCA), video x 1 (RCA), S-video x 1, DVI-I / HDCP (component and digital) / analogue RGB) x 1, wired remote control x 1	
Output terminals	DC 12V x 1	
Control terminals	Wired remote control x 1, RS232C x 1	
Power source	100-240V AC, 50/60Hz (Multi-Voltage)	
Power consumption	365W (0.2W standby power)	
Projection lamp	270W SHP	
Lamp life	2000 hours	
Dimensions (W x H x D)	18.7" x 7" x 16" (475 x 178 x 406mm) (including an adjuster leg) 18.7" x 6.8" x 15.6" (475 x 172.5 x 396.5mm) (main body only)	
Weight	20.7 lbs. (9.4kg)	
Supplied accessories	Remote control, two AA-size batteries, terminal cover, lens cap, CD-ROM (SharpVision Manager), projector operation manual, SharpVision Manager operation manual Power cord Power cord (for Europe/UK/Hong Kong and Singapore), computer RGB cable, 21-pin RCA conversion adaptor, AV cable	

Design and specifications are current as of January 2003, but are subject to change without prior notice.

\*1 High Definition Television (HDTV) Monitor: Defined by CEA (Consumer Electronics Association, USA) to designate a 16:9 aspect ratio monitor or display with active vertical scanning lines of 720 progressive (720p) and higher.

\* Digital Light Processing, DLP, Digital Micromirror Device and DMD are trademarks of Texas Instruments.

**SHARP**  
SHARP CORPORATION OSAKA, JAPAN  
URL <http://www.sharp-world.com/>

**SHARP**

XV-Z10000U/E  
High-Resolution  
HDTV Compatible  
Video/Data Projector

2.10000



Blacker Blacks —  
The Key to Unbeatable Colour Quality in Home Theatre

**SHARP VISION**