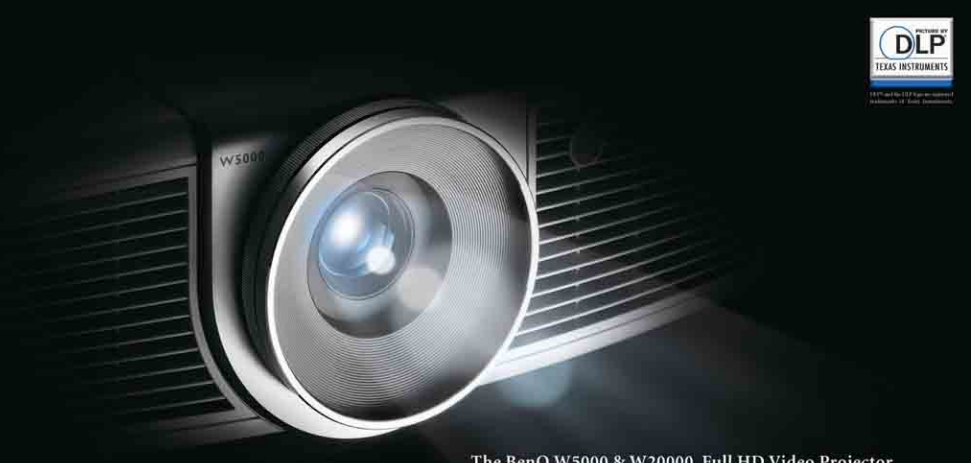
BenQ
Enjoyment Matters



The BenQ W5000 & W20000 Full HD Video Projector

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Dealer's Stamp

BenQ
Enjoyment Matters

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Specifications subject to change without notice. Doc. No: PEI-W5000-W20000-BR-EN0710-V1

Full HD 1080p · Dual IRIS · Contrast 100000:1 W5000 · Contrast 200000:1 W20000 · 1,200 ANSI Lumens · Dual HDMI · 1080P/24fps · isf · Panamorph · HQV

BenQ
Enjoyment Matters

Nothing is Invisible
Ultra High Contrast for Cinema Class Performance

Turn it on and your home becomes a cinema.

Most home projectors can't give a crisp image when the scene turns overly dark or overly bright. That's because they have a limited contrast ratio. The BenQ W5000 & W20000 is different. Built to deliver ultra-high contrast, this projector allows you to see visuals on-screen just as you would see them in real life. Because connoisseurs know the difference, this projector is built to world-class specifications.

Because Enjoyment Matters.

The BenQ W5000 & W20000 with Senseye technology brings you the best picture quality in 1080p Full HD, ultra-high contrast ratio, smooth video stream performance and HQV (Hollywood Quality Video) that renders standard definition material in Full HD-like video quality, and much more.

senseye
Human vision technology

Contrast Enhancement

A Unique, Two-Step Image Enhancement Process: BenQ's Dual Iris Technology

When you are watching a really great movie, there are certain times when high contrast ratio can make all the difference, places like: the darkest reaches of outer-space, the skies high above the battlefield, a haunted house or inside an Egyptian pyramid. With high contrast ratio, everything is clear. You can see all of the details. Without it, you're just in the dark.

In order to provide you with the most detailed image possible, the BenQ W5000 & W20000 enhances image contrast via its Dual Iris technology so that bright images become brighter and dark images become darker - both with more detailed and refined gradients between them. High contrast ratio means a higher level of viewing enjoyment. Here's how dual iris technology works:

Step One: Advanced Continuous Electronic Iris - An Electronic Iris with Different Preset Modes

For optimal viewing, the BenQ W5000 & W20000 comes with 4 viewing modes (Cinema, Dynamic, Standard, and Photo) that you can select, plus 3 memory slots that you can calibrate to your own preferred settings.

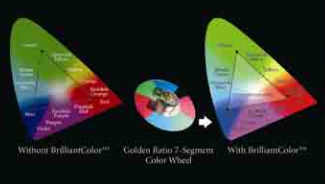
The advanced continuous electronic iris works like your own eye. It widens and narrows, letting out as much light as necessary to match the selected contrast range.

Step Two: DynamicBlack™

Together with Texas Instruments' DynamicBlack™, BenQ contrast technology provides a second level of Iris control that enhances contrast based on the exact image being shown. Darkened scenes! No problem. DynamicBlack™ digitally examines source video to determine the appropriate iris aperture for the level of light present in a given scene and open and close the projector iris accordingly. When it's darker, the iris closes to boost contrast. When it's lighter, the iris will open. So, you'll see everything.

Color Enhancement
Enjoy True Colors, Even the Subtlest Hues

We built this projector for AV Connoisseurs. Through our partnership with Texas Instruments and Philips, we have created the truest colors and best viewing experience possible.



BrilliantColor™ Performance

BenQ's high-speed, 7-segment color wheel delivers the best balance between optimal brightness and color, while BrilliantColor™ technology boosts mid-tone colors to increase overall brightness to produce a more life-like picture.

VIDI Lighting Technology Adjusts Light More Effectively

Traditional projectors are weak on color performance for red & blue. Not so for the BenQ W5000 & W20000. It uses the VIDI technology to produce more brightness by delivering more lumens on screen than competing systems and normal lamps. It also increases brightness by 15% for red & blue. With VIDI lighting, we can boost specific colors in different application modes for a stunning picture.

Enhancing Red & Blue Colors

Full 4:4:4 Color Sampling. No Compression on the Video Source

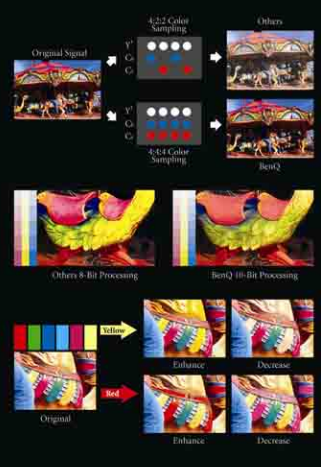
BenQ achieves greater color accuracy by handling each color signal in the video input individually, applying its brightness value directly in rendering the video. In contrast, regular projectors use a sampling process, which inevitably results in a loss of information about specific color signals and color distortion in the final projection image.

True 10-bit Processing for Image Intensity and Rich Gradation of Color

10-bit color processing allows us to distinguish and display more than 1 billion colors. This results in dramatically greater color precision and a more life-like picture than is possible with 8-bit technology, which produces only 16 million colors.

Independent Color Management Puts You in Control

Videophiles know what they want. The BenQ W5000 & W20000 allows you to independently adjust six different colors. Change one color, and the rest remain as before.



HQV

Clarity Enhancement
The BenQ W5000 & W20000 Can Project Standard Definition Video in Full HD Clarity

When you want to view images that are below the 1080p HD standard - such as analog, 480i, 480p, 720i or 720p, our projector converts this content to deliver Full HD - like performance, ensuring that you get the best viewing experience possible.

Bringing Out all the Details

This projector can almost magically enhance video quality by meticulously analyzing and adjusting pixels one-at-a-time. It's a process similar to that used by Hollywood studios to bring out details.

1024 Tap Scaling

When a standard image becomes HD, each pixel on the screen needs to be adjusted and compared to its neighbors. With competitive projectors, each pixel is compared with 16 adjacent pixels. BenQ uses HQV technology, meaning that each and every pixel projected by the W5000 & W20000 is compared to the surrounding 1024 pixels to provide the best image quality.

Regular SD to HD (16 pixels) · Senseye SD to HD (1024 pixels)

Mosquito Noise Reduction

Others · BenQ

Noise Reduction

Random noise, also known as picture grain, is an inherent problem with all recorded visual material. The W5000/W20000 effectively deals with systematic video noise and can also eliminate random noise presented in the source video by examining multiple frames simultaneously to identify individual pixels that are incorrectly displayed.

Random Noise Reduction

Others · BenQ

Block Noise Reduction

Others · BenQ

Premium Full HD Home Cinema Projector

The BenQ W5000 & W20000 offers the highest standard of cinema class viewing. It supports multiple video formats including 480p, 576p, 720p, 1080i and 1080p. From HDTV or blu-ray DVD to video games such as Xbox or PS3, you can enjoy the latest video formats in Full HD, the new standard of video performance. HD isn't just the latest thing. It's the only thing. 1080p Full HD delivers 5x more detailed than traditional 480p projectors.

Motion Optimization
An Ultra Smooth Video Stream

Smooth Image

The BenQ W5000 & W20000 uses Senseye de-interlacing to analyze both previous and current frame pixel data - twice as much visual data per pixel as competing 'motion adaptive de-interlacing' systems.

Caused by improper handling of motion · BenQ

Elimates 'Jaggies'

Regular projectors show blurs along edges, called 'jaggies', that lay along the angles of moving objects. BenQ's advanced filtering technology can effectively handle this annoying artifact, even those lying at shallow angles of 5° to 7°. Regular filtering technology can only adjust angles larger than 30° to 45°.

Others · BenQ

Thoughtful Design
Every Detail Considered

Superior Connectivity

The W5000 & W20000 is thoughtfully designed with two HDMI slots so that you won't have to swap cables each time you want to view digital content from a second source. When your movie is over, and you and your guests want to view something else, the transition from one enjoyment to the next will be effortless.

Whisper Silent Design

At only 25dB, we let you enjoy your visual experience without any distracting projector noise.

Front Vent Exhaust

The front outlet provides more options when installing the projector in your home theater and no hot air blasts to interfere with your viewing pleasure.

Zero Light Leakage

Triple protection in the light path totally prevents leakage from within the projector.

Premium Features
Satisfying the Demands of AV Connoisseurs

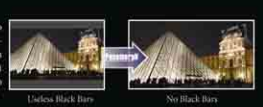
ISFccc Compliant - Professional Optimization

The W5000 & W20000 builds in optimized presets developed by the Imaging Science Foundation (ISF). The acclaimed ISF Certified Calibration Controls (ISFccc) make obtaining a projection image which is adjusted to the lighting conditions of your home cinema virtually instantaneous.

Panamorph

See Movies in Full Screen

Panamorph™ lenses allow you to show 2.35:1 aspect format video - such as major studio movies - in their original widescreen format at maximum resolution with no image distortion or letterboxing.



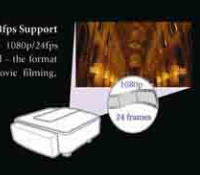
Useless Black Bars · No Black Bars

Powered Vertical Lens Shift

Trouble free vertical lens adjustment at the touch of a button.

Enjoy Professional Quality Video 1080p/24fps Support

The W5000 & W20000 fully supports the 1080p/24fps standard for HD video at 24 frames per second - the format for Blu-ray disc players and professional movie filming, production and editing.



BenQ Digital Projector

W5000 Specifications

Native Resolution	1080p (1920 x 1080)
Projection System	DLP®
Brightness	1200 ANSI lumens
Lamp	200W, 2000/3000 hours (Normal/Economic mode)
Contrast Ratio (FOFO)	100000:1
Weight	6.6kg (21 lbs)
Noise Level	28/25 dB (Normal/Economic mode)
Resolution Support	480p, 720p, 1080i, 1080p
Dimension (W×H×D)	492 x 180 x 420 mm (19.4 x 7.1 x 16.5 inches)
Image Size	40.1" to 300"
Throw Ratio	98"@4m (98"@13.12 feet)
Throw Distance	Min: 2.00m; Max: 8.00m
Zoom Ratio	1.2 : 1
Lens	F=2.4-2.7 f=30.9 mm (wide) - 46.6 mm (tele)
Color	Full 1.07 billion color palette
Aspect Ratio	4native/4by3/ 4:3/ 16:9/ Letter Box/ Real Screen Selectable
Horizontal Frequency	15-70 KHz
Vertical Scan Rate	50-85 Hz
Projection Position	Front/Rear, Table/Ceiling
Input Terminals	Analog RGB (BNC x 3 (shared))
	Digital: HDMI (with HDCP) x 2
	Composite Video: RCA x 1
	S-Video: Mini DIN 4 pin x 1
	Component Video 1: RCA x 3
	Component Video 2: BNC x 3 (shared)
Output Terminals	12V Out x 1
Control Terminals	RS232, 8 pin MINI DIN x 1
Video Compatibility	NTSC/PAL/SECAM
Auto Switching Power Supply	100 to 240 VAC, 50 to 60 Hz
Power Consumption	Max 340W
On Screen Display Language	English/French/German/Italian/Spanish/Japanese/Russian/ Dutch/Simplified Chinese/Traditional Chinese
Preset Modes/Application Modes	Cinema/ Dynamic/ Standard/ User 1/ User 2/ User 3
Functions	Full HD 1080p Resolution
	Dual by Pixel Processing
	BenQ Senseye® technology
	Motion Adaptive De-interlacing
	Dynamic Black™
	Noise Reduction
	Hollywood Quality Video
	Independent Color Control
	Powered Vertical Lens Shift
	ISFccc
	Motorized IRIS adjustment
	Panamorph Compatible
	Dust Proof with Air Filter
Accessories (Standard)	User Manual
	Micro Dust Filter
	Safety Manual
	Power Cords
	Remote Control / Robustus / Component Cable
Accessories (Optional)	Ceiling Mounting Kit
	Spare Lamp Kit
	Micro Dust Filter

W20000 Specifications

Native Resolution	1080p (1920 x 1080)
Projection System	DLP®
Brightness	1200 ANSI lumens
Lamp	200W, 2000/3000 hours (Normal/Economic mode)
Contrast Ratio (FOFO)	200000:1
Weight	6.6kg (21 lbs)
Noise Level	28/25 dB (Normal/Economic mode)
Resolution Support	480p, 720p, 1080i, 1080p
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Accessories (Optional)	Ceiling Mounting Kit
	Spare Lamp Kit
	Micro Dust Filter

Accessories (Optional)

Ceiling mounting kit · Spare lamp kit · Micro dust filter · Remote control

Projection Size

Projection Size (inch)	80"	100"	120"	150"	150"
Projection Distance (m)	3.3 - 4.0	4.1 - 4.9	4.9 - 5.9	5.5 - 6.4	6.4 - 7.3