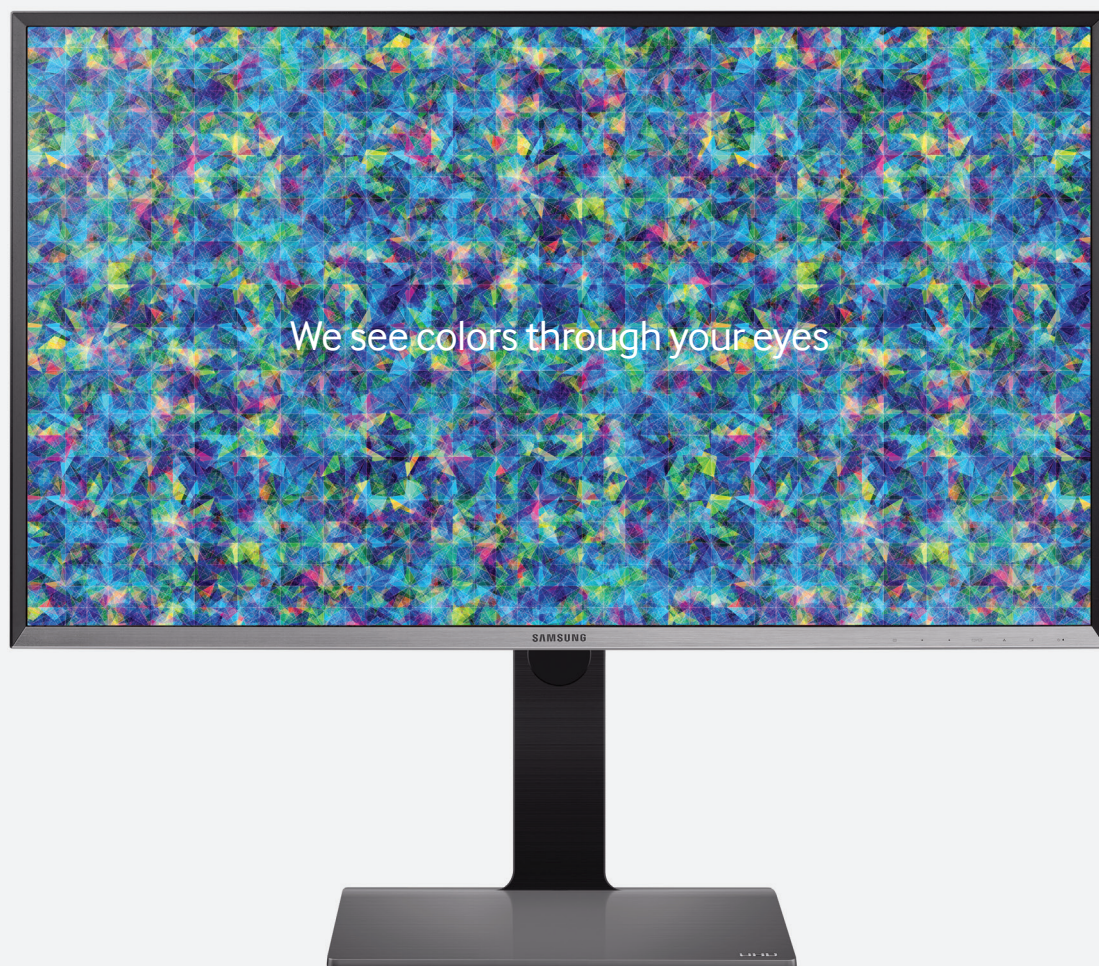


Samsung Professional UHD Monitor UD970

Color accuracy and ultimate picture quality in a highly professional monitor



Create professional content of needs with high quality images and superb color accuracy

Highlights



Provide accurate color presentation with meticulously factory calibrated professional monitor



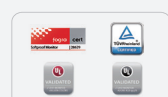
Present wide color gamut with Adobe RGB 99.5% coverage and True 10-bit color support.



Meet a broad range of professional work by supporting 8 different pre-set color modes and dual color mode



Easily modify colors to custom settings using bundled color management software, NCE (Natural Color Expert) 4.0



Reassure high quality output and verified accurate color presentation with print and picture quality certification

- Enhance professional work productivity by observing detailed images more clearly through UHD resolution
- Create a professional impression with a distinctive and ergonomic design
- Access with greater flexibility through various connectivity options

Leverage a professional monitor that is meticulously factory calibrated for accurate color presentation

Professional content creators need a monitor that delivers accurate color presentation. Samsung developed and introduced a professional monitor that can enhance the work efficiency of professionals such as photographers, graphic designers, content editors, publisher, healthcare workers and so on, who require accurate and precise color with their professional work.

Through meticulous factory calibration of each individual unit, the Samsung UD970 monitor provides uniform color presentation across the entire screen, even in the corners of the display area, eliminating darker colors appearing around the screen's periphery.

In addition to the meticulous factory calibration, professionals can also self-calibrate UD970 with Samsung's bundled color management software.

And, with the Adobe RGB 99.5% coverage, professionals can create and view printed materials with minimal color disparities. UD970 offers all this capability in a superb and ergonomic design that enhances the user's professional business image.



Discover smoother, more precise color through meticulous and individual factory hardware calibration

Elevate content creation and results with a highly accurate, individually calibrated monitor

UD970 delivers uniform color across the entire screen, clear color in grayscale from white to black, and white balance with meticulous factory calibration.

Begin using the factory calibrated monitor immediately after taking it out of the box

The embedded Samsung-developed calibration chipset and 16-bit look-up table (LUT) give the UD970 the ability to present accurate color for a range of professional work needs.

A calibration report direct from the factory for each individual monitor is included within the box, so that professionals who purchase UD970 can confirm the monitor's color accuracy with actual data. Listed data include measurement condition and result of uniformity, gamma and grayscale.

Observe near-perfect uniformity across the entire screen

For uniformity correction, each monitor is individually calibrated by splitting the entire display screen into 25 sections (5 x 5), and then adjusting the brightness of individual sections uniformly with the calibrator. This process results in center and peripheral areas that maintain an amazing calibration accuracy of $\Delta E < 3$. Before the calibration, uniformity is typically 75%, however, with Samsung's advanced hardware calibration engine and precise tuning, the monitor performs at over 90% uniformity, delivering near-perfect uniformity values across the entire screen.



Figure 1. Pre-calibration process

Present accurate and precise color without smudging in grayscale

After categorizing the grayscale from 0 to 255, UD970 is carefully calibrated with Gamma Curve and Grayscale Correction. This gamma correction process results in a grayscale of $\Delta E < 1$ and ensures clear color even in the grayscale from white to black color. By viewing more accurate and precise color in grayscale, content creation and editing difficulties can be significantly reduced.



Figure 2. Gamma Correction for clear color

View accurate and stunning images through white balance

By meticulously adjusting temperatures through white balance within a range spanning 4,000K to 10,000K degrees in 100K degree, professionals can view perfectly precise white color for accurate and stunning images. This white balance process results in a white balance of $\Delta E < 1$.

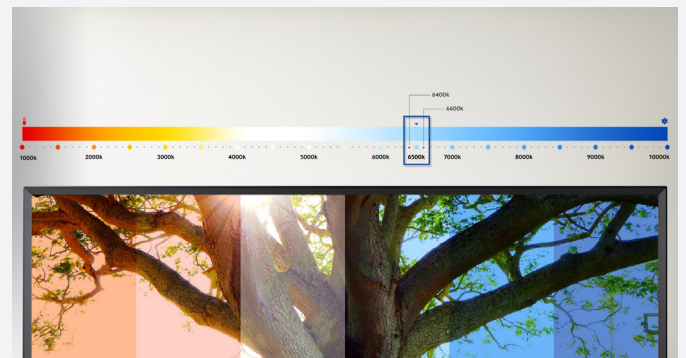


Figure 3. White balance correction

Observe minimized color disparity and exact color representation

Experience vibrant color with Adobe RGB and True 10-bit color support

UD970's expanded Adobe RGB color support through Samsung-developed BLU technology and True 10-bit input provide color that is as real as possible.

Minimize color disparity with the Adobe RGB 99.5% LED monitor

UD970 is the best-in-class LED monitor which supports Adobe RGB 99.5% coverage through Samsung-developed BLU technology. Adobe RGB 99.5% is based on the CIE 1931 standard colorimetric system, and is measured through CS2000, which is a universally-used equipment measurement for Adobe RGB. With Adobe RGB 99.5% support, color disparity is minimized when printing, output color errors are decreased and the color displayed on the monitor is practically almost the same as the printed color. Users who switch from CCFL displays to UD970 LED monitors are typically highly satisfied with the difference in color presentation.

Get exact color representation with True 10-bit input

UD970 provides 1.07 Billion colors with ultimate picture quality. Using the 10-bit supported panel, 10-bit input signals are transmitted and processed through a 16-bit LUT, enabling true 1.07 billion colors to be presented.



Figure 4. True 10 Bits and Adobe RGB

Present detailed images more vividly through UHD resolution to enhance professional work efficiency

Professional content creators can achieve the ultimate picture quality with UHD, which is four times the resolution of FHD for lifelike detail. UHD supports 3,840 x 2,160 resolution, so more detailed images can be presented. In the course of their work, professionals must frequently zoom in on content and scroll for color adjustments. UHD resolution effectively reduces such excessive zooming and scrolling while supporting detailed content editing.

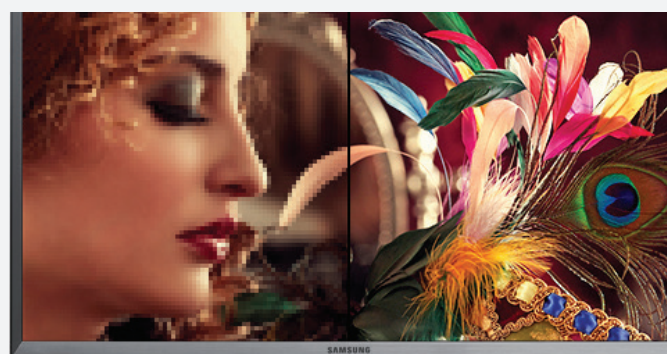


Figure 5. UHD resolution

UD970 employs Plane to Line Switching (PLS) technology in its panel, which delivers a 178° wide viewing angle horizontally and vertically for the optimal viewing experience from any position or angle. And, the UD970's non-glare panel enables content to be viewed clearly without distortion.

An ergonomic monitor optimized for every vertical-usage

Leverage a range of preset color modes to suit virtually any professional need

A total of eight different preset color modes are supported to meet the various vertical demands of any professional project.

- **Adobe RGB** is a special mode for the printing and publishing industries that eliminates loss of colors through the green and blue ranges.
- **sRGB** mode offers standard color presentation for the monitor and printer for typical PC users.
- **High Brightness** maximizes Brightness mode, especially for gaming and bright room environments.
- **EBU** is standardized by the European Broadcasting Union color space.
- **BT.709** delivers the HD TV broadcast standard color space.
- **SMPTE-C** provides analog (SD) TV broadcast standard color space.
- **Digital Cinema Initiatives (DCI)** offers consistent and repeatable standards for obtaining color image quality.
- **Digital Image Communication in Medicine (DICOM)** mode is designed for medical digital imaging and communications standards.

Easily adjust colors to custom settings with bundled color management software

A professional can customize the monitor's color beyond the factory calibration after the product is purchased with easy-to-use, bundled color management software: Natural Color Expert 4.0. Using the software, along with an included software wizard, professionals can easily self-calibrate the monitor and save up to three color modes or profiles. Professionals can self-calibrate uniformity, gamma, and white balance, and easily verify the color values. This self-calibration capability is helpful if the color is distorted after a period of usage, or if different color values are needed. In addition, the bundled software is highly compatible with third-party calibrators.

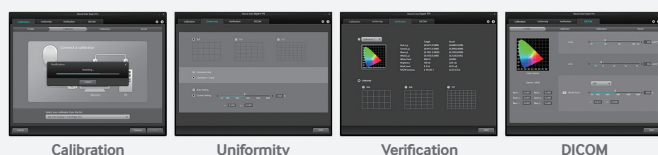


Figure 6. Natural Color Expert 4.0

Choose an ergonomic monitor for a distinguished and lasting impression

UD970's professional, ergonomic design makes any office more elegant, and luxuriously enhances the company's image or the user's professional appearance. Its sophisticated profile with unparalleled back side and dark silver metal body convey a lasting impression for professionals who use a specialty monitor for client-facing meetings. A clean cable arrangement and easy, intuitive interface hub complete the professional look.

The monitor's ergonomic functionality includes a 130-mm HAS (height-adjustable stand), 30-degree left-right swivel capability, tilt and pivot with 90-degree rotation. When the monitor is pivoted to portrait mode, the OSD menu automatically pivots, too. The swivel, tilt and pivot capability enables the user to adjust the monitor to perfectly match the eye level and offers hassle-free screen adjustment for working in a group and changing perspective. UD970 also features an available VESA 100 by 100 (or 200 by 200) bracket.

Compare images with ease

UD970 supports Dual Color Mode, displaying two distinct single-color modes in one screen. Also known as Picture-by-Picture (PBP) or Picture-in-Picture (PIP), this mode enables easy color comparison of two images simultaneously, regardless of the image sources. The color mode can be changed freely on each side of the screen, with seven standard colors and personal settings.



Figure 7. Side-by-side comparison of image colors

Achieve outstanding results with a highly professional monitor

Experience freedom and flexibility with myriad connectivity options

UD970 offers multiple connectivity options for greater user flexibility, including: two DP 1.2 ports, a HDMI port, a Mini DP to DP Gender port, two USB 3.0 ports and two supercharging USB 3.0 ports.

Rest assured of verified color representation by print, picture qualification and reliability with safety qualification

Gain assurance of print quality with printing certification

UD970 features G7 and PSD (Fogra) print certificate master qualification that verifies its color certification by the printing industry.

Validate picture quality with master certification

The UD970 monitor's image quality performance is substantiated by TUV picture quality master certification with validation of Adobe RGB 99.5% and 1 Billion Colors. In addition, UD970 carries a UL listed mark confirming as a UHD monitor with Adobe RGB 99.5% and 1 Billion Colors.

Ensure product reliability with safety certification

The UD970 monitor features GS mark that certifies electrical safety by fulfilling the quality and safety standards specified by the German Equipment and Product Safety Act.

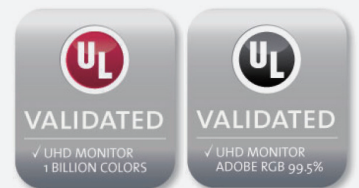
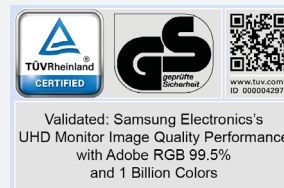
Features and benefits

	Benefit
Accurate color presentation thru a factory calibration.	- Embedded calibration chipset and 16bit LUT (Look-Up Table) - Adobe RGB 99.5% coverage (typical) - True 10-bit input (1.07 Billion colors) 8 pre-set color modes 3 user calibration modes
UHD resolution and non-glare panel	- UHD resolution - Wide viewing angle with PLS Panel
Professional Look and functionality	- Ergonomic design (HAS, swivel, tilt, pivot, VESA®) - Solid and professional appearance - Non-glare, dark silver finish
Multi-tasking Functionality	- Dual-Color Mode - Quad Windows PBP and Dual Windows PBP - PIP 2.0 - USB 3.0 Hub (1 up / 4 down) - Supercharging USB 3.0 (2 ports)
Certification	- Print certificate: FOGRA - Eco qualification: TCO 6.0, ENERGY STAR® - Safety and quality certification: GS - Picture quality certificate: TUV, UL

Print Certificate



Picture Quality Certificate



Safety Certificate



Eco Qualification



Figure 8. Quality certifications for UD970

Samsung UD970

Specifications

		U32D970
Design		
Display	Size	31.5"
	Resolution	3,840 x 2,160 (16:9)
	Panel Type	PLS
	Color Support	10 bit (1 Billion)
	Color Gamut	Adobe® RGB 99.5% (Typical)
	Contrast Ratio	1,000:1 (Typical)
	Response Time	8 ms (GTG)
	Brightness	350 cd/m ² (Typical)
Calibration	Factory Calibration	O (w/report)
	Calibration Accuracy	ΔE<1
	Calibration Engine	O
	Look-Up Table	O (16 Bits LUT)
	Calibration S/W (CMS)	O (Natural Color Export)
Infrastructure	Video Input	DisplayPort® 1.2 x 2, HDMI® 1.4 x 1
	USB	USB 3.0 (1 up, 4 down)
	Audio Out	O
Ergonomics		Tilt, HAS, Pivot, Swivel, VESA 100 x 100 (200 x 200 Bracket)
Additional Features	Color Modes	Custom, Adobe RGB, sRGB, BT.709 High-Brightness, EBU, SMPTE-C, DCI, DICOM, Calibration 1/2/3
	Dual Color Mode	O
	Dual Windows PBP	O
	Quad Windows PBP	O
	PIP	O
	Super Charging	2EA

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For more information

For more information about Samsung UD970, visit www.samsung.com/business or www.samsung.com/displaysolutions.

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Samsung Electronics Co., Ltd.
129 Samsung-ro,
Yeongtong-gu,
Suwon-si, Gyeonggi-do 443-742,
Korea

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