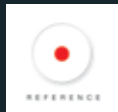


NEC Colour Critical Reference Displays

# SPECTRAVIEW® SERIES

Featuring SpectraView Reference 241 | 271 | 301

When Colour is Critical



FOGRA PRECERT CLASS A  
IF DESIGN AWARD 2010

WHEN COLOUR IS CRITICAL

# SPECTRAVIEW® SERIES

## THE SPECTRAVIEW ADVANTAGE

Whether you use a Mac or PC, SpectraView® is the only name you need to know. A range of Reference displays combining the very highest standards of Japanese colour technology and panel expertise, tailored for the demanding creative professional and business conscious prepress printer.

SpectraView® displays offer calibrated colour accuracy with long term colour and uniformity consistency. A choice of displays with screen sizes from 23 to 30 inches and resolutions up to 2560 x 1600 pixels all backed by the NEC 3 year on-site warranty extendable up to 5 years.

### CREATE AND PRINT WITH CONFIDENCE

A display is the most vital component in the creative or pre-production process. Don't compromise your output, or generate unnecessary printing costs with a lower standard product. SpectraView® displays guarantee the highest standards of colour replication and will quickly repay their original investment cost.



REFERENCE

The NEC REFERENCE designation is awarded to our products and solutions which through their performance and benefits we consider to be the market benchmark for our customers. The logo is a tangible reminder of our high quality, performance-driven Japanese heritage, our focus on award-winning design flair and our passion for state of the art leadership in innovation.

**SpectraView®**



DISPLAYPORT  
**10 BIT**  
INPUT

HARDWARE  
**42 BIT**  
RGB LUT

BACKLIGHT  
**AGEING**  
COMPENSATION

LOOK  
**3D**  
UP TABLES

16 BIT  
**ICC**  
PROFILING

10 BIT  
**p-IPS**  
PANEL

OVER  
**1 Bn**  
COLOURS

ZERO  
**PIXEL**  
DEFECT

FIRST 6 MONTHS

## PERFORMANCE AND PRECISION

The demands on the creative industry have changed considerably in recent years, with an increasing recognition and protective attitude of leading corporates towards their brand colours, such that no serious graphic designer can afford to not have a colour flow and colour handling process.

Creative workers need to check their work in real time and must be able to rely on absolute colour fidelity during image processing. The most critical device in the handling process of colours within the colour flow is the monitor.

NEC Display Solutions meet the challenge with the SpectraView® range of monitors. With an impressively wide colour space, superb brightness, colour uniformity and colour accuracy and the dedicated use of advanced IPS panels, with L\*ab calibration, the SpectraView® models Reference 241, 271 and 301 guarantee optimum professional colour with superb ergonomics and build quality.

A professional photographer relies on the most advanced and precise camera, lenses and accessories to do the best job. A significant amount of research, testing and evaluation will take place before a photographer takes the plunge and invests in the best quality photographic equipment. There is no room for compromise when capturing the perfect image or moment in time. A SpectraView® monitor is the perfect partner for professional photographic equipment as well as the core element of any professional colour flow.

Within the work flow there are many stages at which colour, contrast errors and compromises can be introduced. The SpectraView® Reference display monitors have many in-built features and technologies which ensure the most consistent visual performance to the most uncompromising quality standards. As well as satisfying the tough Fogra PreCert Class A requirements, NEC SpectraView® models can be used in systems to satisfy the strict ISO 3664 and 12646 standards.



## REFERENCE STANDARD BENEFITS

### 10-BIT P-IPS PANEL UP TO 2560 x 1600 RESOLUTION

#### 1 BILLION COLOURS

#### 10-BIT DISPLAYPORT INPUT

WIDE COLOUR SPACE (107% ADOBE RGB)

3D COLOUR EMULATION LOOK UP TABLE

IMAGE UNIFORMITY CONTROL

BACKLIGHT AGEING CORRECTION

L\*AB SPECTRAVIEW PROFILER SOFTWARE

ADVANCED FUTURE READY CONNECTIVITY

DISPLAYSYNC PRO USB MANAGEMENT

PIP COMBINATIONS FOR MULTIPLE SOURCE

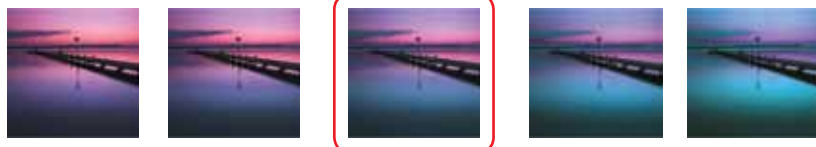
MULTIPLE INPUT SOURCE MANAGEMENT

SIMULTANEOUS COLOUR SPACE VIEWING

14-BIT LUT HARDWARE CALIBRATION

ZERO PIXEL DEFECT WARRANTY (6 MONTHS)

IF DESIGN AWARD ADVANCED ERGONOMICS



With SpectraView®, the colour you see is the colour you get throughout the product's reasonable life cycle. Take advantage of initial and on-going calibration to make pre-production and printing a process of confidence.

## 10 BIT P-IPS PERFORMANCE

IPS (In Plane Switching) panel technology is at the heart of the SpectraView® design. With their superior quality, IPS panels are ideally suited for professional colour critical industries such as soft proofing, pre-press, graphic design, photo and video editing.

The wide viewing angle with vastly reduced colour shift means that image data is accurately and reliably communicated to all viewing positions. Additionally IPS LCD colour reproduction offers a depth and realism of colour reproduction, in which all nuances can be appreciated. The latest 10-bit P-IPS panel offers the ultimate image quality and represents the cutting-edge of today's professional imaging technology.

The P-IPS version is a member of H-IPS technology grouping, in which the light transmittance (high aperture ratio) of the semiconductor transistor pattern has been improved. This improves specified contrast levels, as well as offering an opportunity for energy savings. More importantly the P-IPS version also offers an improved wider colour gamut performance. This wider colour gamut



is possible through the use of improved colour filters and stabilised spectral backlighting technologies.

The SpectraView® Reference Series employs the latest 10-bit (or 8-bit + FRC) grayscale control and processing electronics, which, when aligned with the wide colour gamut RGB colour filters, allows over a billion individual colours to be displayed. This 10-bit colour capability is best taken advantage of when using the latest DisplayPort video connector which support 10-bit input digital signals.

### OVER A BILLION COLOURS

The 14-bit LUT loaded with a calibrated monitor profile ensures a smooth and accurate grade of colour and gray scale spectral distributions. Enjoy linear colour gradation with the 10-bit panel offering 1024 grayscales per RGB channel generating 1.073 billion possible colours, instead of the conventional 16.7 million colours associated with 8-bit technology.

**P-IPS PANEL TECHNOLOGY:** Delivers genuine 10-Bit high quality performance, utilising a DisplayPort 10-Bit input combined with 10-Bit P-IPS display technology. With 10-Bit/ per channel SpectraView delivers a combined 30-Bit Colour Gamut.





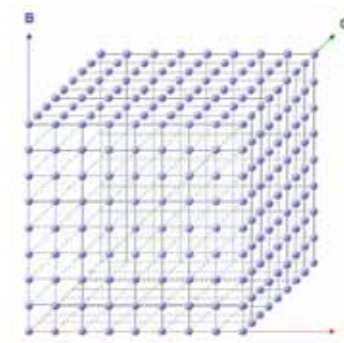
## ADVANCED COLOUR REPRODUCTION

### WIDE COLOUR GAMUT

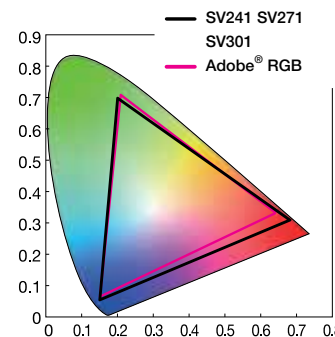
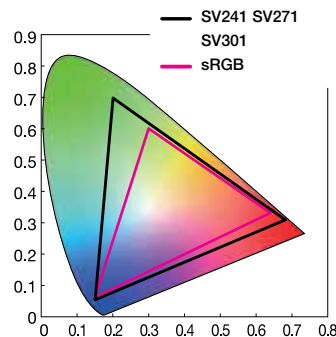
Experience the very best in colour image quality with the latest generation of state of the art 10-bit P-IPS technology, with exceptionally wide viewing angle, widest colour gamut available (107% AdobeRGB colour space) and absence of colour shift. The true benefit of a wide colour gamut display is particularly visible when combined with 10-bit panel, since potential colour banding or visible gray scale steps are eliminated.

### 3D LOOK UP TABLES

The integrated 3D LUT with colour emulation preset within the SpectraView® 231 and Reference 241, 271 or 301, can be used to transform the colour space of the monitor to emulate that of the printer, or other colour workflow device. The 3D LUT is a three dimensional table that maps colours into a different colour space. The Colour Processing Engine in SpectraView monitors allows complex colour gamuts such as those of colour printers to be emulated on the monitor directly. This allows print previews to be performed with applications that do not support this feature directly. The MultiProfiler application can easily load ICC Profiles into the 3D Look Up Tables.



3D LUT Ideal for any Colour Users who require the best Colour Replication and Previewing across alternate ICC Profiles



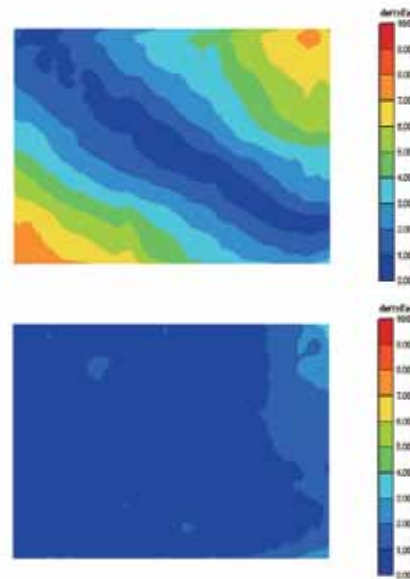


ADVANCED TECHNOLOGY  
On -Board Digital Uniformity Control

## LONG TERM CONSISTENCY

### IMAGE UNIFORMITY CONTROL

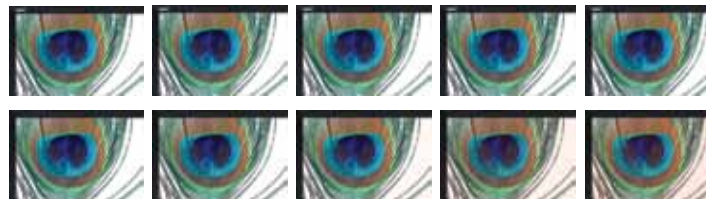
For many professional applications, a homogeneous distribution of brightness and colour across the entire image area is an essential basis for decision making. A fine matrix, together with high-precision sensor electronics measure, at the factory, individual irregularities in brightness, colour and gamma values for each individual display. The in built Digital Uniformity Compensation (ColorComp) dynamically compensates and levels out all picture corruptions using the RGB channels and tailored correction profiles loaded in the 14 BIT LUT. At the same time, various parameters such as temperature, operating time and even the alignment of the monitor are taken into account.



DIGITAL UNIFORMITY CONTROL  
Before Digital Uniformity Control is applied (Top)  
After Digital Uniformity Control is applied (Bottom)

### BACKLIGHT AGEING CORRECTION

The Backlight Ageing Correction function is an additional feature to assure stable colour reproduction and luminance during the warm-up phase, as well as over the lifetime of the product. An internal electronic back light compensation system assesses the luminance of the back light, corrects and stabilises it during its warm up phase. Additionally as the backlight ages the white point temperature shifts to yellow, which can be periodically compensated through an ageing estimate to appropriately modify the RGB filter gains.



CONSISTENT WHITE POINT  
Illustration of screen white point drift over time with Backlight Ageing Compensation on above and without Backlight Ageing Correction below.



SpectraView Backlight Ageing Correction and Uniformity Control can maintain a consistent white point over the long term, whether the target white point is D50 or D65.

## RECOGNISED CONFORMANCE

### L\*AB CONFORMANCE

The L\*ab system defines the colour space with a dimension 'L' for lightness and 'A' and 'B' for the colour dimensions, based on non-linearly compressed CIE XYZ colour space coordinates.

The advantage of such a system is that changes in colours are similar to human visual perception abilities. L\*ab is often used as an informal abbreviation for the CIE 1976 (L\*, a\*, b\*) colour space (also called CIELAB). Other systems, such as the "master" space CIE 1931 XYZ colour space, help predict which spectral power distributions will be perceived as the same colour (see metamerism), but are not particularly perceptually uniform.

Another advantage of the L\*ab system is that it allows more precise Table Profiling and colour reproduction closer to the original, as against conventional 'Matrix' based profiling, and is perfectly suited to the exceptionally accurate 14-bit LUT hardware calibration capability of the SpectraView® series.

### SOFTPROOF WITH CONFIDENCE

Within the work flow there are many stages at which colour, contrast errors and compromises can be introduced. The SpectraView® Reference display monitors have many in-built features and technologies which ensure the most consistent visual performance to the most uncompromising quality standards.

As well as satisfying the print industry benchmark Fogra PreCert requirements, SpectraView® displays can also be used as part of ISO approved prepress or soft proof system. Two ISO standards have emerged to serve the soft proof industry in comparing colour proofs. Firstly ISO 3664:1996 defines the viewing conditions and environment for making visual print decisions, and is associated with viewing hardcopy colour prints with standardised environmental lighting. Secondly, ISO 12646:2008 defines the actual

equipment, such as hardware calibrated displays, to allow on-screen colour images to be viewed objectively and consistently compared with hardcopy prints viewed under ISO 3664 conditions.

By following ISO standards, these characteristics can be consistently controlled and become less likely to unduly interfere with accurate colour perception: Chromaticity; metamerism; illuminance and lighting homogeneity; neutral background and diffuse surface reflectance.

### ECIREGB\_v2

Working colour spaces, profiles such as ISOcoated\_V2 as a CMYK working colour space and ECI RGB as a general RGB working colour space. These colour management settings are normally set in a way that profile mismatches are significantly reduced and the number of colour transformations are minimised.

### FOGRA

SpectraView® award-winning models have recently added FOGRA PRECERT Class A approval to their many accolades. SpectraView® 231, Reference 241, 271 and 301 meet head on the challenging requirements of the FOGRA PRECERT soft-proofing system.

Mitglied der | Member of



## SPECTRAVIEW PROFILER



### STATE OF THE ART 14 BIT HARDWARE CALIBRATION

Colour critical applications can only be a complete success when the process runs hand in hand with comprehensive hardware calibration. The bundled calibration and profiling software package, SpectraView® Profiler, allows precise and straightforward 14-bit per RGB channel, calibration of brightness, white point and luminance and the creation of 16-bit ICC profiles for Apple and Windows systems.

With 16384 tonal values per colour, the Profiler enables an almost step-less and, in turn, considerably more precise gradation adjustment than is the case with conventional 8-bit or 10-bit graphic card colour palettes (software calibration). The finest gradations and greyscales can be displayed with extraordinary precision and clarity. This ensures that the colours seen on the screen match the printer.

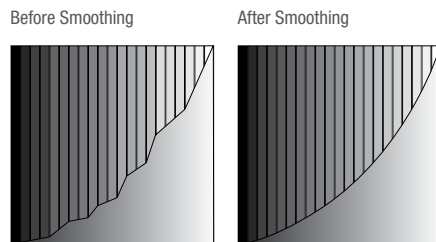
For colour-critical applications, a homogeneous distribution of brightness and colour across the entire image area is essential. Fine matrix and high-precision sensing electronics at the factory stage, measure individual irregularities in brightness, colour and gamma values for each individual display. Digital Uniformity Compensation determines variations and optimises millions of pixels – pixel by pixel – to ensure a uniform image with regard to brightness distribution and colour re-production. At the same time, various parameters such as temperature, operating time and even the alignment of the monitor are taken into account.

A default setting for this process may be stored in the OSD of SpectraView® models. However, the intensity of the compensation applied may be individually adjusted and stored at any time.

The result: a colour reproduction that precisely represents subsequent processing and print output quality. Thanks to its clearly structured user interface, SpectraView® Profiler Software is simple and fast to use. Default settings enable express calibration with just one click of the mouse – without restricting any of the user options for setting personalised profiles. SpectraView® Profiler supports all current systems.

### SpectraView® Profiler Software Key Features

- L\*-calibration (CIE-LAB L\* colour space), alternative calibration with gamma 1.8 or 2.2 or user-specified gamma values, sRGB or CIECAM02 calibration
- Creation of LUT-based 16-bit ICC and Table Profiles
- Iterative calibration process
- Manual white point and calibration curve editing
- White and black luminance adjustment (or contrast range)
- Supports prominent brands of colorimeters and spectral photometer sensors
- Profile validation for fast checking of calibration profiles
- Evaluation of workplace ambient light and viewing conditions in accordance with ISO 3664 and 12646
- Automatic hardware adjustment of JUST Normlicht lightbox by software
- Chromatic adaptation



A 14-bit internal look up table combined with 16-bit processing to ensure smooth gamma output



## IMPROVING PRODUCTIVITY

### MULTI-PICTURE OPTIONS

The powerful Picture-in-Picture or Picture-by-Picture feature of the SpectraView® Series allows two different platforms or images to be simultaneously viewed, with a single mouse and keyboard being switched between active operating systems (DisplaySync Pro). Many colour managed workflow applications will benefit from the time saving through automatic and real-time conversion of colours consistent with ICC profiles or colour gamut emulation.

A SpectraView® Series monitor can be used in a colour managed workflow (meaning all of the applications being used are colour managed, for instance 'ICC profiled'), with the monitor being setup to use its full (native) colour gamut. This will provide the maximum possible colour gamut and not be artificially limited by using a set colour space such as AdobeRGB or sRGB. The colour management within the applications being used will automatically convert colours as necessary by using the ICC/ColorSync profile for example from MultiProfiler.

A Sound Investment. All Creative Workers are judged against their results, an investment in the very best viewing equipment is investing in yourself and ensuring your work is viewed in its best light every time.

### ENHANCED WORKFLOW

Two picture modes can be created, one for normal viewing, and one for the print emulation preview. The two modes can be simply toggled using the monitor's OSD controls. Each of the picture modes have an assigned colour gamut, brightness setting and white point temperature. Hence a photographer can take photographs under D50 conditions, and view the results in a raw format. However, a second picture mode, visible in real-time with the Picture-in-Picture mode can show the same image with a reduced sRGB colour gamut, and with alternative D50 or D65 white points and brightness setting for web design. Alternatively the second picture mode can be configured to show the same photograph when printed out on standard ISOCoated V2 or eciRGB\_v2 offset printing data as CMYK image.



#### REFERENCE

**PICTURE BY PICTURE**  
Make a simultaneous comparison between colour profiles for accurate virtual analysis of various RGB or CMYK outputs



## COLOUR WORKFLOW

### CONSISTENCY WHATEVER THE SOURCE

The SpectraView® Series lends itself powerfully to a variety of situations in which a colour workflow is required to ensure consistent colour representation from source, through to processing, editing and the final hard copy result. The industry standard ICC (Internal Colour Consortium) profile can be assigned to a variety of devices (e.g. digital camera, video camera, printer, digital cinema projector) to define the colour properties so that colour information can be consistently defined and communicated through the workflow.

The 3D LUT Colour Emulation feature of the SpectraView® Series can take the ICC profile of any device, e.g. printer, and through uploading via the MultiProfiler software application, define the monitor gamut to that specific ICC profile. Some typical workflow examples, making use of the programmable 3D LUT include:

A web designer working with the sRGB colour gamut can set the SpectraView® monitor to display only the sRGB colour gamut, and therefore have full confidence what the internet users will see. A television video editor can define the SpectraView® monitor, via the 3D LUT, to show only REC-BT.709 (the standard governing HDTV) so that image material will be edited and displayed only in the gamut of a HDTV television set. This ensures that the final result, as seen on a tv set, will not have any colour surprises.

A digital photographer can upload the ICC profile of their printer into the 3D LUT, so that the monitor only displays those CMYK colours which can be physically printed. At the same time paper standards, such as eciRGB\_v2 can be emulated. This avoids unnecessary printing costs, and assists getting the right result first time.

### MANAGEABLE ICC PROFILES



### NEC MULTIPROFILER



Loads the appropriate ICC Profile into the 3D LUT.

### ACCURATE COLOUR DISPLAY



Resulting in accurate colours reproduced in the colour space intended by the application



## NEXT GENERATION ERGONOMICS

### VISUAL COMFORT ERGONOMICS

Especially in the world of publishing and media, professionals cannot afford to make mistakes. An inappropriate or inconsistent choice of marketing colour can negatively impact a brand identity. The SpectraView® Series offers a range of features to guarantee outstanding image quality and levels of ergonomic comfort which allow for accurate, fatigue-free working to minimise human error.

Lighting conditions vary during the course of a working day. The user hood provides additional protection from unwanted light interference. With its precise image, wide screen format and exceptional viewing angles, tired or over-strained eyes are a thing of the past with the NEC SpectraView® Series.

### PHYSICAL MOTION ERGONOMICS

Our monitors are designed for the people who work with them, and for their environment. If you spend the whole day working in front of a monitor, every ill-fitting millimetre will make itself felt. That is why our displays have ErgoDesign® with height-adjustment up to 150 mm, swivel through +/-45° degrees and easy adjustment to different tilt angles. Many small details make up a large ergonomic package. Design means more than just looking

good. The NEC SpectraView® Series is conceived to combine elegance with maximum functionality in daily use by professionals.

The monitor stand Quick-Release mechanism is extremely easy to use and saves precious installation time with large roll-outs. To attach the monitor to a monitor arm or wall bracket, the stand can quickly and easily be removed without any tools. Smart details for professional use.

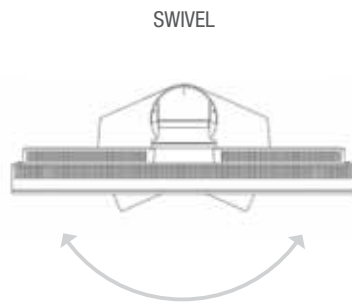
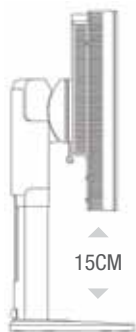
#### SUPERIOR IMAGE SUPERIOR WORKING SET UP

Optimising user comfort during examinations creates a proactive, satisfying and therefore more productive working environment

10 Bit P-IPS Image for Smoother and Wider Angle Viewing

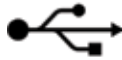
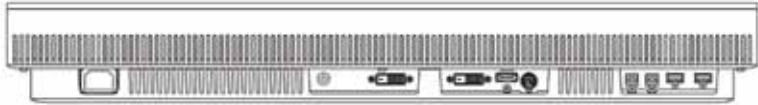
15cm Height Adjust and Quick Release Head

Tilt, Swivel and Rotate Functionality



ROTATE





1 HUB

USB CONNECTORS

2

3

4

5

DISPLAYPORT

DVI CONNECTORS

1

2

DC OUT

D-SUB (SELECTED MODELS)

## ADVANCED CONNECTIVITY

### ADVANCED CONNECTIVITY

Experience time saving and reduced hardware requirements through easy multi-platform support (Windows, Mac, Linux) and input following USB hub (DisplaySync Pro) all on one display.

### DISPLAYPORT

The DisplayPort connector is compact and features an in-built locking mechanism, which can be disengaged with a simple button press, giving you hassle-free installation. Longer cable lengths and 10-bit colour support ensure that you enjoy greater installation flexibility as well as an enhanced viewing experience with future-proof peace of mind.

### MULTI-PLATFORM

You will have less desk clutter and easier multi-platform working with the integrated USB hub (2 up; 3 down) for attaching USB peripherals such as mouse and keyboard. The 2 upstream USB ports can be assigned to different video inputs. This is most advantageous when feeding the Picture-in-Picture feature with two independent video signals from different platforms (Windows, Mac, Linux etc.), since a single mouse and keyboard can be used to drive both platforms. The thin bezel design and compact form factor ensure clean desktop look.

### FUTURE READY CONNECTIVITY

Including all the Connectivity for today and tomorrow means a safe investment and peace of mind for the future

# SpectraView® Colour Critical Displays

23" Wide to 30" Wide Reference Models



SpectraView®  
Reference 241

SpectraView®  
Reference 301

\*Selected models and terms of reasonable usage apply.

## UP TO 70" CALIBRATED COLOUR VIEWING

### THE IDEAL COLLABORATIVE VIEWING MEDIUM FOR YOUR PUBLISHING CONCEPTS

Our professional, heavy duty cycle, colour critical large format displays are ideal for both reviewing designs in process in agency offices and also ensuring that corporate, brand and campaign colouring and 'look and feel', are applied consistently, locally or nationally.

With 10-bits LUT hardware calibration, you can get a large size colour accurate 'showcase' version of your work to share with colleagues or clients.

### CALIBRATED VIDEO WALL SOLUTIONS

NEC video walls provide the perfect medium for fixed mass marketing in busy locations with captivating, larger than life, LAN deliverable, content the norm. Their ultra narrow bezels, their advanced LCD panel technology and their modular design allow the building of very large display walls to satisfy any project requirements. In addition, NEC simple to operate, cross wall, calibration solutions and proprietary Edgecomp maximise uniformity across the wall even in tricky screen edge regions. You can expect unrivalled consistency for your digital publications over an entire wall of up to 60 square metres in size, where irregularities commonly associated with lower quality displays can look extremely unsightly.

NEC Digital Signage Solutions with their dynamic content and easy remote management via RS232, SNMP or LAN, also feature a slot option bay to accommodate state of the art PC Boards, TV tuners, CAT5 receivers and HDSDI boards for broadcasting. Digital signage offers a 'try it and see' capability that means content can be enhanced live as campaigns are tested for effectiveness, whilst being a more ecological solution avoiding the traditional waste involved with fixed print.



<b>MODELS</b>	CALIBRATABLE LARGE FORMAT DISPLAYS
P SERIES	40 - 70" PD REFERENCE DISPLAYS
X SERIES	46 AND 55" VIDEO WALL ULTRA-THIN BEZEL DISPLAYS



## SPECIFICATIONS

### DISPLAY

Panel Technology  
Screen size  
Aspect ratio  
Pixel Pitch  
Brightness (typical)  
Contrast (typical)  
Viewing Angle  
Response Time (typical)  
Colours  
Colour Gamuts (Size comparison, typ.)

### SYNCHRONIZATION RANGE

Horizontal Analog; Digital  
Vertical

### RESOLUTION

Native  
Supported

### INPUTS

Digital  
Analog

### POWER CONSUMPTION

Typical  
Eco Mode ON  
Power Savings Mode  
Power Supply

### ENVIRONMENTAL

Operating Temperature  
Operating Humidity  
Storage Temperature  
Storage Humidity

### ERGONOMICS

Height adjustable Stand  
Screen Tilt  
Screen Swivel  
Screen Rotate

### BEZEL WIDTH

Bezel Width

### DIMENSIONS

W x H x D

### WEIGHT

With stand (net)  
Without stand (net)

### COLOUR VERSIONS

Bezel/ Cabinet Colour Combinations

### OTHERS

Cable Management  
Slot for Kensington Lock  
VESA Mounting  
Plug & Play  
Audio Option:  
Adjust functions:

Shipping Content

### SAFETY AND ERGONOMICS

Safety and Ergonomics

### WARRANTY

Warranty

## SPECTRAVIEW® 231

<b>IPS TFT</b> <b>23.0 inch / 58.4 cm</b> <b>16:9</b> <b>0.265 mm</b> <b>270 cd/m2</b> <b>1000:1</b> <b>178 horizontal / 178 vertical (typ. at contrast ratio 10:1)</b> <b>8ms (grey-to-grey), 14ms (8 white / black; 6 black / white)</b> <b>16.77 Million (8-bit per colour)</b> <b>75% coverage AdobeRGB</b>
31.5 - 83 kHz 50.0 - 85.0 Hz
1920 x 1080 at 60 Hz 1920 x 1080p; 1280 x 1024; 1280 x 960; 1280 x 720p; 1200 x 1920; 1152 x 870; 1152 x 864; 1024 x 768; 832 x 624; 800 x 600; 720 x 576p; 720 x 480p; 720 x 400; 640 x 480p; 640 x 480
1 x Display Port, 2 x DVI-D 1 x D-sub 15 pin, 1 x USB Hub
46 W (max.) 40 W 1 W 100-240 V; 0.79 A/0.33 A; integrated power supply
+5 to +35° C 30 to 80 % -10° to +60°C +10% to +85%
150 mm (Landscape mode) -5 to +30° -45 to +45° 0 to 90° (landscape to portrait mode)
16.2 mm
With stand (net) 543.6 x 337.4 - 487.4 x 227.6 mm (landscape mode) Without stand (net) 543.6 x 322.4 x 74.0 mm
10.2 kg 7.0 kg
Black Front Bezel, Black Back Cabinet (Order Code 60002930)
Yes Yes 200 x 100 (5 points); 100 x 100 (4 points) VESA DDC/CI; EDID Standard; VESA DDC2B MultiSync® Soundbar 90 Advanced NTAA; Advanced User Menu; Contrast; Expansion Mode; Auto Adjust; Black Level; Brightness / Colour Temperature Control; Fine Adjust (analog); Hotkeys; Intelligent Power Management; Language Select; Monitor Information; OmniColor™: sRGB and 6-axis-colour-control; OSD lock-out; PIP; Sharpness; USB; Backlight Ageing Correction; Digital Uniformity Control Monitor; Power Cable; Signal Cable DVI-D - DVI-D; Signal Cable VGA - VGA; DisplayPort Cable; CD-ROM; Sales Office List; User Manual; SpectraView Profiler
CE; TCO 5.0; ERP; TÜV Ergonomics; TÜV GS; C-tick; FCC Class B; PCT/ Gost; UL/C-UL or CSA; CCC; ISO 9241-307 (pixel failure class I); MPR III; PCBC/B-mark; PSB; RoHS, Energy Star 5.0
3 years warranty including backlight, optional extension to 5 years.

## SPECTRAVIEW® REFERENCE 241

<b>P-IPS TFT</b> <b>24.1 inch / 61.1 cm</b> <b>16:10</b> <b>0.270 mm</b> <b>360 cd/m2</b> <b>1000:1</b> <b>178 horizontal / 178 vertical (typ. at contrast ratio 10:1)</b> <b>8ms (grey-to-grey), 16ms (8 white / black; 8 black / white)</b> <b>1.073 (10-bit per colour)</b> <b>107% size; 98% coverage AdobeRGB</b>
31.5 - 93.8 and 118.4 kHz; 31.5 - 91.1 and 118.4 kHz 50.0 - 85.0 Hz
1920 x 1200 at 60 Hz 1920 x 1080p; 1280 x 720p, 1024 x 768, 720 x 480p, 1600 x 1200, 1200 x 1920, 832 x 624, 720 x 400, 1280 x 1024, 1152 x 870, 800 x 600, 640 x 480, 1280 x 960, 1152 x 864, 720 x 576p, 640 x 480p
1 x Display Port, 2 x DVI-D 1 x D-sub 15 pin, 1 x USB Hub
95 W (max.) 59 W 1 W 100-240 V; 1.38 A/0.56 A; integrated power supply
+5 to +35° C 30 to 80 % -10° to +60°C +10% to +85%
150 mm (Landscape mode) -5 to +30° -45 to +45° 0 to 90° (landscape to portrait mode)
18.2 mm
With stand (net) 556.8 x 378 - 528 x 227.6 mm (landscape mode) Without stand (net) 556.8 x 362.4 x 85.0 mm
10.6 kg 7.4 kg
Black Front Bezel, Black Back Cabinet (Order Code 60002993)
Yes Yes 200 x 100 (5 points); 100 x 100 (4 points) VESA DDC/CI; EDID Standard; VESA DDC2B MultiSync® Soundbar 90 Advanced NTAA (Advanced Non-Touch-Auto-Adjustment); Advanced User Menu; Auto Adjust; Black Level; Brightness and Colour Temperature Control; Contrast; Expansion Mode; Fine Adjust (analog); Hotkeys; Intelligent Power Management; Language Select; Monitor Information; OmniColor™: sRGB and 6-axis-colour-control; On-Screen-Display (OSD) lock-out; Sharpness; USB Monitor; Power Cable; Signal Cable DVI-D - DVI-D; Signal Cable VGA - VGA; DisplayPort Cable; CD-ROM; Sales Office List; User Manual, Light Protection Hood; SpectraView Profiler
CE; TCO 5.0; TÜV Ergonomics; TÜV GS; C-tick; FCC Class B; PCT/Gost; UL/C-UL or CSA; CCC; ISO 9241-307 (pixel failure class I); MPR II/ MPR III; PCBC/Bmark; PSB; RoHS
3 years warranty including backlight, zero pixel defects (first 6 months). Optional warranty extension to 5 years.

## SPECTRAVIEW® REFERENCE 271

<b>P-IPS TFT</b> <b>27 inch / 68.5 cm</b> <b>16:9</b> <b>0.233 mm</b> <b>300 cd/m2</b> <b>1000:1</b> <b>178 horizontal / 178 vertical (typ. at contrast ratio 10:1)</b> <b>7ms (grey-to-grey), 12ms (7 white / black; 5 black / white)</b> <b>1.073 (10-bit per colour)</b> <b>107% size; 97% coverage AdobeRGB</b>
No Analogue; 31.5 - 93.9 kHz 50.0 - 87.0 Hz
2560 x 1440 at 60 Hz 1920 x 1200, 1280 x 960, 1024 x 768, 720 x 480p, 1920 x 1080p, 1280 x 720p, 832 x 624, 720 x 400, 1600 x 1200, 1152 x 870, 800 x 600, 640 x 480, 1280 x 1024, 1152 x 864, 720 x 576p
1 x Display Port, 2 x DVI-D 1 x USB Hub
117 W (max.) 75 W < 1.4 W 100-240 V; 1.6 A / 0.65 A; integrated power supply
+5 to +35° C 30 to 80 % -10° to +60°C +10% to +85%
150 mm (Landscape mode) -5 to +30° -45 to +45° 0 to 90° (landscape to portrait mode)
20.3 mm
With stand (net) 640.4 x 396.2 x 235.5 mm (landscape mode) Without stand (net) 640.4 x 378.6 x 85.0 mm
13.6 kg 9.6 kg
Black Front Bezel, Black Back Cabinet (Order Code 60002992)
Yes Yes 200 x 100 (5 points); 100 x 100 (4 points) VESA DDC/CI; EDID Standard; VESA DDC2B MultiSync® Soundbar 90 Advanced User Menu; Black Level; Brightness and Colour Temperature Control; Contrast; Expansion Mode; Hotkeys; Intelligent Power Management; Language Select; Monitor Information; OmniColor™: sRGB and 6-axis-colour-control; On-Screen-Display (OSD) lock-out; USB Monitor; Power Cable; Signal Cable DVI-D - DVI-D; DisplayPort Cable; CD-ROM; Sales Office List; User Manual, Light Protection Hood; SpectraView Profiler
CE; TCO 03; TÜV Ergonomics; TÜV GS; C-tick; FCC Class B; PCT/Gost; UL/C-UL or CSA; CCC; ISO 9241-307 (pixel failure class I); MPR II/ MPR III; PCBC/Bmark; PSB; RoHS
3 years warranty including backlight, zero pixel defects (first 6 months). Optional warranty extension to 5 years.

## SPECTRAVIEW® REFERENCE 301

<b>P-IPS TFT</b> <b>29.8 inch / 75.6 cm</b> <b>16:10</b> <b>0.251 mm</b> <b>350 cd/m2</b> <b>1000:1</b> <b>178 horizontal / 178 vertical (typ. at contrast ratio 10:1)</b> <b>6ms (grey-to-grey), 12ms (6 white / black; 6 black / white)</b> <b>1.073 Billion (10-bit per colour)</b> <b>107% size; 98% coverage AdobeRGB</b>
No Analogue; 31.5 - 98.7 kHz 30.0 - 87.0 Hz
2560 x 1600 at 60 Hz 800 x 600; 720 x 400; 832 x 624; 1280 x 960; 2048 x 1536; 640 x 480; 1280 x 1024; 1600 x 1200; 1200 x 1920; 1152 x 870; 1152 x 864; 1024 x 768; 1920 x 1080p; 1280 x 720p; 720 x 576p; 640 x 480p; 720 x 480p
2 x Display Port, 2 x DVI-D 1 x USB Hub
155 W (max.) ON 90 W < - W 100-240 V; 1.9 A / 0.7 A; integrated power supply
+5 to +35° C 30 to 80 % -10° to +60°C +10% to +85%
150 mm (Landscape mode) -5 to +30° -45 to +45° 0 to 90° (landscape to portrait mode)
22.3 mm
With stand (net) 688 x 466 x 302 mm (landscape mode) Without stand (net) 688 x 557 x 125 mm
18.8 kg 12.5 kg
Black Front Bezel, Black Back Cabinet (Order Code 60002929)
Yes Yes 200 x 100 (5 points); 100 x 100 (4 points) VESA DDC/CI; EDID Standard; VESA DDC2B None Advanced User Menu; Black Level; Brightness and Colour Temperature Control; Contrast; Expansion Mode; Hotkeys; Intelligent Power Management; Language Select; Monitor Information; OmniColor™: sRGB and 6-axis- colour-control; On-Screen-Display (OSD) lock-out; USB; Backlight Ageing Correction; Digital Uniformity Control Monitor; Power Cable; Signal Cable DVI-D - DVI-D; DisplayPort Cable; CD-ROM; Sales Office List; User Manual, Light Protection Hood; SpectraView Profiler
CE; TCO 03; TÜV Ergonomics; TÜV GS; C-tick; FCC Class B; PCT/Gost; UL/C-UL or CSA; CCC; ISO 9241-307 (pixel failure class I); MPR II/ MPR III; PCBC/Bmark; PSB; RoHS
3 years warranty including backlight, zero pixel defects (first 6 months). Optional warranty extension to 5 years.



## NEC Colour Critical Reference Displays

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