

# TECH GUIDE LCD Desktop Displays NEC MultiSync® P221W

Technical Innovations and Features





## Innovating Your Success

NEC Display Solutions offers total display solutions for applications across the globe. As a primary interface between users and innovative technology, display solutions are crucial in all aspects of contemporary living and working life. With its comprehensive product portfolio of desktop and large format LCDs as well as projectors, combined with uncompromising quality and a breadth of experience across the most diverse of industry sectors, NEC Display Solutions is unique in its ability to meet the challenge of innovative display solutions.

We're opening up crystal-clear opportunities in visualising the new digital world. see more.

### Content

- **3** NEC MultiSync<sup>®</sup> P Series -Professional LCD Desktop Displays
- 4 Visual Performance
- 5 Colour Management
- 5/6 Ergonomics / User-Friendliness
  - 7 NEC Green IT Concept
  - 8 Technical Specifications



## NEC MultiSync<sup>®</sup> P Series Professional LCD Desktop Displays

Outstanding technologies that exhibit the perfect combination of product quality and efficiency whilst also demonstrating high environmental sustainability are becoming an ever more important aspect for manufacturers as well as endusers.

With the LCD desktop displays of its new P series, NEC Display Solutions is now filling the gap between the high-performance displays of its MultiSync<sup>®</sup> 90 series and the recently introduced commercial displays of the NEC MultiSync<sup>®</sup> EA series.

With its first-class picture quality including programmable 10-bit LUT, numerous ergonomic and environmentally friendly features, as well as flexible connectors, the innovative "Professional" (P) series helps users to achieve a comfortable working style with significantly improved efficiency in office and document management as well as standard graphics applications.

Small to large businesses within the most varied of sectors will continue to enjoy the high degree of flexibility and future-proofing offered by the displays of the NEC MultiSync<sup>®</sup> P series.

#### The NEC MultiSync® P221W

The MultiSync<sup>®</sup> P221W is the first model in the P series of NEC Display Solutions, and apart from its outstanding picture quality, ergonomics and flexibility of connectors for a 16:10 wide-format display, it also offers evident improvement in workplace productivity.

With up to a third more active screen area as compared to an equivalent conventional 4:3 or 5:4 display, the 22-inch P221W monitor offers an enhanced overview for standard and specialised applications, for example, the ability to position additional toolbars or application windows alongside the main application window. The best possible successor model for current users of 19-inch displays.

Independent studies have proven that workplace efficiency is significantly increased when wide-format displays are employed.





### **Visual Performance**

### S-PVA Panel Technology

With its 8-bit colour depth for each RGB channel, S-PVA technology is in a superior class amongst panel technologies. The liquid crystal at each individual subpixel is divided into four domains, in which the liquid crystal automatically align themselves perpendicularly to the glass coating – without any rotating, nematic effects. This effectively allows particularly wide viewing angles as well as giving the display a large contrast ratio.

The integrated S-PVA panel of the NEC MultiSync<sup>®</sup> P221W allows 16.7 million reproducible colours covering 92% of the NTSC colour space, with a superb resolution of 1680 x 1050 enabling outstanding image representation. The high quality of the colour representation is also supported by a high blackness value as well as a high contrast ratio of 1,000:1.

S-PVA panels are especially suitable for applications featuring particularly high picture and colour quality requirements, such as those found in CAD/CAM and 3D applications. The panels are also frequently deployed in wide-format form.

#### Viewing Angles

The S-PVA panel features especially high horizontal and vertical viewing angles of 178 degrees – at a contrast ratio of 10:1 and 5:1, respectively. This is mainly achieved by a doubling of the number of subpixel domains with each domain consisting of liquid crystals aligned at different angles.

High viewing angles are especially advantageous for multi-display use, for example, in office or document management applications.

#### Superb Brightness

The Professional LCD display has a brightness of 300 cd/m<sup>2</sup>, with a response time of 6 ms.

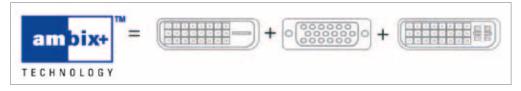
#### **Pixel** Pitch

The pixel pitch of 0.282 mm is considered particularly easy on the eyes and so greatly increases the efficiency performance of users in office tasks such as text and spreadsheet applications.

#### Analogue / Digital Interfaces

Flexibility and future-proofing are particularly important aspects of the MultiSync® P221W:

ambix<sup>™</sup> technology allows the display to possess two analogue connectors as well as a single digital connector providing a choice between different signal sources, whilst also supporting HDCP.



### Colour Management

Thanks to their excellent colour management and superb hardware calibration capability, the displays in the NEC MultiSync<sup>®</sup> Professional series guarantee an outstanding picture quality with reliable and faithful colour reproduction.

### Programmable 10-bit LUT

The MultiSync<sup>®</sup> P221W is supplied as standard with a programmable 10-bit look-up table (LUT). This enables exact hardware calibration for each colour channel of the RGB (red, green and blue) signal.

Even the most subtle of hues and colour differences can be reproduced with an almost completely natural precision and sharpness.

The MultiSync<sup>®</sup> P221W is therefore suitable for deployment in sectors requiring high colour accuracy, such as, for example, some applications in the DTP sector as well as in image and video processing.

### Ergonomics / User-Friendliness

NEC Display Solutions has included a range of ergonomic and functional features for its desktop displays in the MultiSync<sup>®</sup> P series, so creating a comfortable working environment and enhancing productivity at the workplace.

#### Height Adjustability

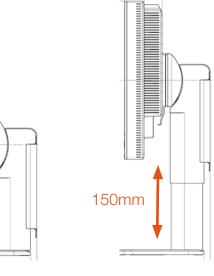
ErgoDesign<sup>®</sup>: The P221W panel can be height adjusted using its pedestal by up to 150 mm so that it can be adapted to the requirements of each individual user. Note: When used in portrait mode the adjustable height range is somewhat reduced.

#### Colour Temperature Control

The P221W has been equipped with colour temperature control that can be activated using the On Screen Display (OSD).

#### NTAA (Non-Touch-Auto-Adjustment)

As soon as the display is connected to a new signal source, or the frequency or resolution is changed, the Non-Touch Auto-Adjustment (NTAA) function automatically controls and optimises the current imaging settings. This guarantees excellent and consistent picture and colour quality right from the word go.



#### Tilting / Swivelling / ToroDesign™

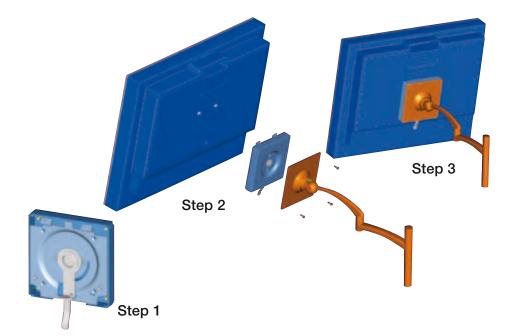
Tilting to an inclination of 5 to 30 degrees and horizontal swivelling of up to 170 degrees to the right or left allow the user to view screen content from a range of different positions.



The display panel can be vertically rotated by 90 degrees from a landscape orientation into portrait mode. The viewing and processing of data in portrait mode format, for example, can be made significantly more convenient and comfortable.

#### Quick Release Stand

Special mounting technology for simple and quick installation onto a wall or an external monitor arm. The standard VESA mount (100 mm x 100 mm) means that installation can be performed without requiring any additional tools.



#### On Screen Display

All monitor settings can be adjusted using the On Screen Display (OSD). The OSD is particularly user-friendly and intuitive, and can be operated using the elegant OSD control buttons (MENU, Left, Right, Up, Down) that have been discreetly integrated within the display bezel. So as to avoid accidental or unauthorised changes to the monitor settings, the On Screen Display is also lockable.

#### Narrow Bezel Design

The MultiSync<sup>®</sup> P221W has been equipped with an extremely narrow bezel of only 15 mm. This means that screen content, whether it's a multimedia presentation or a spreadsheet analysis, always enjoys the best possible presentation.

With the option of two different colour variants – black or silver/white – as well as their timeless and modern design, the displays will always perfectly fit into the most diverse of architectural and interior-designed surroundings.

#### Multi-Display Capability

Multi-monitor applications are becoming ever more popular within the modern office environment – from the more administrative sections through to multimedia divisions. With its narrow cabinet and bezel design as well as elegant OSD control buttons integrated within the display, the NEC P221W allows a topquality overall appearance to multi-display solutions. The extremely narrow bezel also means that distracting transitions between the monitors are reduced to a minimum, so that users can enjoy an overview of the complete display area with a minimum of visual impairment.

## NEC Green IT Concept ECO Green IT



Climate change and our responsibility for its effects on the global ecological equilibrium has become a central issue in today's society. High energy efficiency, improved recycling, avoiding the use of hazardous materials and an environmentally-conscious company philosophy are core to NEC Display Solutions' values, and an important objective of NEC is also to become carbon neutral. To this end, the CO<sub>2</sub> emissions of NEC and its customers are being balanced by a corresponding reduction in environmental impact - e.g. through the use of innovative technologies.



#### Carbon Footprint Meter

Activating the Eco Mode function allows the CO<sub>2</sub> emissions of the monitor to be substantially reduced by reducing the brightness of the display or running it in Power Save Mode. Just using the display in Eco Mode already reduces energy consumption by at least 20%

and hence also CO<sub>2</sub> emissions. The Carbon Footprint Meter that has been integrated into the P221W informs users in real time the actual and cumulated savings in carbon dioxide that have been achieved by the display, as compared to running the display at 100% brightness.

The Carbon Footprint Meter is simply called up using the On Screen Display (OSD) and acts as an additional device motivating users to employ the monitor in an efficient and ecologically-optimised fashion.

Note: The meter only serves as an indicator of the CO<sub>2</sub> emissions. Savings are not achieved simply by calling up the function.

#### Power-Off Timer

The Power-Off timer allows the display to switch itself off at any time determined by the user so that additional, unnecessary energy consumption is avoided and  $CO_2$  emissions reduced.

#### AmbiBright

Using a sensor that measures ambient light levels, the AmbiBright function monitors the local lighting conditions and automatically adapts the brightness of the display accordingly. Not only does this help protect the eyes of the user, but also helps in reducing power consumption.





The MultiSync® P221W has achieved the "Silver" EPEAT environmental certification that recognises particularly environmentallyconscious products. The environmental protection certficate of the American EPA (Environmental Protection Agency) compares PCs, notebooks and monitors using 51 environmental criteria.



### **Technical Specifications**

Screen Size (indu/cm)     22.0 / 55.9       Pixel Pitch [mm]     0.282       Viewing Angle [*]     178 horizontal / 178 vertical (typ. at CR 10.1), 178 horizontal / 178 vertical (typ. at CR 5.1)       Contrast Ratio (typ.)     1.000:1       Brightness (typ.) [ms]     300       Response Time (typ.) [ms]     16 (7 white/black; 9 black/white)       Colours     16 (7 white/black; 9 black/white)       Supported Resolution     160 x 1050 x 160 h /2       Supported Resolutions     146 x 900; 1400 x 1060; 1300 x 768; 1280 x 1024; 1280 x 960; 1152 x 870; 1024 x 768; 832 x 624; 800 x 600; 720 x 400; 640 x 480       Connectors     Digital: 1 x DV-I; Analog: 1 x mit D-sub 15 pin       Plug & Play     VESA DDC(X) DDC2P/281; EDID Standard       Adjust Functions     NTAA Nov-Touch-Aude-Adjustemer); Auk Adjust; Brightness; Colour Temperature Control; Contrast; Fine Adjust (analog); Language Select; Monitor Information; Dn Soreen Display (OSD) tock out; Power-OH Time; Programmable 10-b LUT; 9K68       Safety and Ergonomics     100 × 100       Power Suppl     100-120 V / 2	Panel Technology	S-PVA TFT
Viewing Argle [*]178 horizontal / 178 vertical (typ. at CR 10:1), 178 horizontal / 178 vertical (typ. at CR 5:1)Contrast Ratio (typ.)1.000:1Brightness (typ.) [od/m]300Response Time (typ.) [ms]16 (7 white/black; 9 black/white)Colors16.7 Mio.Horizontal / Vertical Frequeny [kHz]31.5 - 83.0 / 60.0 - 75.0Optimum Resolution1680 x 1050 at 60 HzSupported Resolution1640 x 300; 1300 x 768; 1280 x 1024; 1280 x 960; 1152 x 870; 1024 x 768; 832 x 624; 800 x 600; 720 x 400; 640 x 480ConnectorsDigital : 1 x DVH; Analog: 1 x min D-sub 15 pinPlug & PlayVESA DDC/CI; DDC28/28; EDID StandardAdjust FunctionsVirta (Non-Touch-Auto-Adjustment); Auto Adjust; Brightness; Colour Temperature Control; Contrast, Fine Adjust (analog); Language Select: Monitor Information; On Screen Display (0SD) lock-out; Power-Off Timer; Programmable 10-bit LUT; SRGBPower Consumption on Mode [V]2Power Consumption Power-Saving Mode [V]2Power Consumption Power-Saving Mode [V]2Power Consumption Power-Saving Mode [V]20 to 80Power Consumption Power [V]5 to + 35Anbient Humidity (operating [VS]500 to 500 / 0.4 A; integrated power supplyAmbient Temperature (operating [VS]500 to 80.9 (Portralt) / 340Eage With I mang150.9 (Eage Maid I mangale 10-bit UT; SRGBScheer Tilt [1 / Pivot [1 / Swive] [Y]5 to 10.4 (Language Select: Monitor Information; DataBazel Width Imm]50.6 (Eage Maid Select) Monitor Select)Color Less Sing Mode [V]5 to 150.7 (Language Select)Pister Dister Sin		22.0 / 55.9
Contrast Ratio (typ.)1,000:1Brightness (typ.) [cd/m²]300Response Time (typ.) [ms]16 (7 white/black; 9 black/white)Colours16.7 Mio.Horizontal / Vertical Frequency [kHz]31.5 - 83.0 / 56.0 - 75.0Optimum Resolution1680 x 1050 at 60 HzSupported Resolutions1/40 x 900; 1400 x 1050; 1360 x 768; 1280 x 1024; 1280 x 960; 1152 x 870; 1024 x 768; 832 x 624; 800 x 600; 720 x 400; 640 x 480ConnectorsDigital: 1 x DV-I; Analog: 1 x mini D-sub 15 pinPlug & PlayVESA DDC/Cl; DDC2B/2B1; EDID StandardAdjust FunctionsDigital: NUM-F, Analog: 1 x mini D-sub 15 pinPlug & PlayVESA DDC/Cl; DDC2B/2B1; EDID StandardAdjust FunctionsCertor 0.3; TÜV Ergonomics; TÜV GS; Energy Star; FCC Class B; PCT/Gost; UU/C-UL or CSA; CCC; ISO 13406-2 (pikel failure class II); MMPR II/MPR II; RoHSPower Consumption on Mode [W]62 (typ.); 50 (Eco Mode)Power Consumption Power-Saving Mode [W]2Power Supply100-120 V / 220 - 240 V; 0.95 A / 0.4 A; integrated power supplyAmbient Temperature (operating) [%]20 to 80VESA Mounting [mm]100 x 100ErgoDesign®: Height adjustable stand [mm]15.0Goneating [mm]15.0Cale ManagementyesKensington LockyesBenefits15.0 (10 wide format; AmbBright; Carbon Footprint Meter; NaviSet Administrator compatible; Rapid Response TechnologyColour Versions15.0 (Set are 21; White Back Cabinet Black Front Bezel; Wate Back Cabinet	Pixel Pitch [mm]	0.282
Brightness (typ.) [od/m?]300Response Time (typ.) [ms]16 (7 white/black; 9 black/white)Colours16.7 Mio.Horizontal / Vertical Frequency [kHz]31.5 · 83.0 / 56.0 · 75.0Optimum Resolution1680 × 1050 at 60 HzSupported Resolutions1440 x 900; 1400 × 1050; 1360 × 768; 1280 × 1024; 1280 × 960; 1152 × 870; 1024 × 768; 832 × 824; 800 × 600; 720 × 400; 640 × 480ConnectorsDigital: 1 x DV-I; Analog: 1 x mini D-sub 15 pinPlug & PlayVESA DDC/C; DDC2B/2Bi; EDID StandardAdjust FunctionsOctrast: Fine Adjust canadig, in zanguage Select, Monifor Information; On Screen Display (OSD) lock-out; Power-Off Timer; Programmable 10-bit LUT; sRGBSafety and ErgonomicsCE: TCO 03; TÜV Ergonomics; TÜV GS; Energy Star; FCC Class B; PCT/Gost; UL/-U or CSA; CCC; ISO 13406-2 (pixel failure class li); MPR II/MPR III; ReHSPower Consumption on Mode [W]62 (20p.); S0 (Eco Mode)Power Supply100-120 V / 220 - 240 V; 0.95 A / 0.4 A; integrated power supplyAmbient Temperature (operating) [%]20 to 80VESA Mounting [mm]100 x 100Ergolegin*: Height dijustable stand [mm]15.0Bacel Width [mm]5.0Bacel Width [mm]5.0Bacel Midth [mm]15.0ChalementyesKrasington LockyesBacel Midth [mm]5.0ChalementyesChalementyesChalementyesBacel Width [mm]5.0Bacel Width [mm]5.0ChalementSing Gal (200 / 200 / 200 / 200 / 200 / 200 / 200 / 200 / 200 / 200 / 200 / 200 /	Viewing Angle [°]	178 horizontal / 178 vertical (typ. at CR 10:1), 178 horizontal / 178 vertical (typ. at CR 5:1)
Response Time (typ.) [ms]16 (7 white/black; 9 black/white)Colours16.7 Mio.Horizontal / Vertical Frequency [KHz]31.5 - 83.0 / 56.0 - 75.0Optimum Resolution1680 x 1050 at 60 HzSupported Resolutions1440 x 900; 1400 x 1050; 1360 x 768; 1280 x 1024; 1280 x 960; 1152 x 870; 1024 x 768; 832 x 624; 800 x 600; 720 x 400; 640 x 480ConnectorsDigital: 1 x DVH; Analog: 1 x mini D-sub 15 pinPlug & PlayVESA DDC/Ct; DDC2B/2B; EDD StandardAdjust FunctionsNTAA (Non-Touch-Auto-Adjust; Brightness; Colour Temperature Control; Contrast, Fine Adjust (analog); Language Select; Monitor Information; on Screen Display (OSD) lock-out; Power-Off Timer, Programmable 10-bit LUT; SRGBSafety and ErgonomicsCE: TOO 037: TUV Ergonomics: TUV SS; Energy Star: FCC Class B; PCT/Gost; UL/C-UL or CSA; CCC; ISO 13406-2 (pixel failure class II); MPR II/MPR III; RoHSPower Consumption on Mode [M]62 (typ.); 50 (Eco Mode)Power Consumption Power-Saving Mode [M]2Power Supply100-120 V / 220 - 240 V; 0.95 A / 0.4 A; integrated power supplyAmbient Temperature (operating) [°C]+5 to +35Ambient Signations (W x H x D) [mm]506.4 x 410.0 x 247.3Bezel Width [mm]15.0Cable ManagementyesKensington LockyesBenefits16.10 wide format; AmblBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response TechnologyBibar Front Bezel; Black Kront Bezel; Black Back Cabinet Black Front Bezel; Black Rack Cabinet	Contrast Ratio (typ.)	1,000:1
Colours16.7 Mo.Horizontal / Vertical Frequency [kHz]31.5 - 83.0 / 56.0 - 75.0Optimum Resolution1680 x 1050 at 60 HzSupported Resolutions1440 x 900; 1400 x 1050; 1360 x 768; 1280 x 1024; 1280 x 960; 1152 x 870; 1024 x 768; 832 x 624; 800 x 600; 720 x 400; 640 x 480ConnectorsDigital: 1 x DV-I; Analog: 1 x min D-sub 15 pinPlug & PlayVESA DDC/CI; DDC2B/2B; EDID StandardAdjust FunctionsNTAA (Non-Touch-Auto-Adjust; Brightness; Colour Temperature Control; Contrast; Fine Adjust (analog); Language Select; Monitor Information; On Screen Display (OSD) lock-out; Power-Off Timer; Programmable 10-bit LUT; sRGBSafety and ErgonomicsCE; TCO 03; TÜV Ergonomics; TÜV GS; Energy Star; FCC Class B; PCT/Gost; uL/C-UL or CSA; CC; ISO 13406-2 (pixel failure class B); MPR II/MPR III; RoHSPower Consumption on Mode [W]62 (bp.); 50 (Eco Mode)Power Supply100-120 V / 220 - 240 V; 0.95 A / 0.4 A; integrated power supplyAmbient Temperature (operating) [°G]45 to +35Ambient Humidity (operating) [%]20 to 80VESA Mounting [mm]150Soreen Titt [°] / Pivot [°] / Swivel [°]506.4 x 410.0 x 247.3Bezel Width [mm]15.0Cable ManagementyesKensington LockyesBenefitsCillo wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Responses TechnologyColur VersionsSilver Front Bezel; White Back Cabinet Black Front Bezel; Black Back Cabinet	Brightness (typ.) [cd/m <sup>2</sup> ]	300
Horizontal / Vertical Frequency [KHz]31.5 - 83.0 / 56.0 - 75.0Optimum Resolution1680 x 1050 at 60 HzSupported Resolutions1440 x 900; 1400 x 1050; 1360 x 768; 1280 x 1024; 1280 x 960; 1152 x 870; 1024 x 768; 832 x 624; 800 x 600; 720 x 400; 640 x 480ConnectorsDigital 1 x DVI-I; Analog: 1 x mini D-sub 15 pinPlug & PlayVESA DDC/Cl; DDC2B/2B; EDID StandardAdjust FunctionsCE: TOO 03; TÜV Ergonomics; TÜV GS; Energy Star; FDC Class B; PCT/Gost; U/C-UL or CSX: CC; ISO 13406-2 (pixel failure class II); MPR II/MPR III; RoHSPower Consumption on Mode [W]62 (piy); 50 (Eco Mode)Power Consumption Power-Saving Mode [W]20Power Consumption Power-Saving Mode [M]20 to 80Adhient Humidity (operating) [*C]-5 to +330 / 0° (Landscape) to 90° (Portrait) / 340ErgoDesign®: Height adjustable stand [m]50.64 x 410.0 x 247.3BeaefitsyesBeaefitsSile of format, AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response TechnologyClaur VersionsSile of Front Bezet; White Back Cabinet Black Front Bezet; Black Back Cabinet	Response Time (typ.) [ms]	16 (7 white/black; 9 black/white)
Optimum Resolution1680 x 1050 at 60 HzSupported Resolutions1440 x 900; 1400 x 1050; 1360 x 768; 1280 x 1024; 1280 x 960; 1152 x 870; 1024 x 768; 832 x 624; 800 x 600; 720 x 400; 640 x 480ConnectorsDigital: 1 x DVI-I; Analog: 1 x min D-sub 15 pinPlug & PlayVESA DDC/Cl; DDC2B/2BI; EDID StandardAdjust FunctionsCointrast; Fine Adjust (analog); Language Select; Monitor Information; no Screen Display (OSD) tock-out; Power-Off Timer; Programmabile 10-bit LUT; sRGBSafety and ErgonomicsCE; TCO 03; TÜV Ergonomics; TÜV GS; Energy Star; FCC Class B; PCT/Gost; UL/C-UL or CSA; CCC; ISO 13406-2 (pixel failure class II); MPR II/MPR III; RoHSPower Consumption on Mode [W]62 (typ.); 50 (Eco Mode)Power Consumption Power-Saving Mode [W]2Power Consumption Power-Saving Mode [W]2Power Supply100-120 V / 220 - 240 V; 0.95 A / 0.4 A; integrated power supplyAmbient Temperature (operating) [°C]45 to +35Ambient Humidity (operating) [°C]50 for 30 / 0° (Landscape) to 90° (Portrait) / 340Staren Tilt [°] / Pivot [°] / Swivel [°]50 for 3.0 / 0° (Landscape) to 90° (Portrait) / 340Dimensions (W x H x D Jinm]50.64 x 410.0 x 247.3Bezel Width [mn]15.0Cable ManagementyesRendition LockyesBenefitsGil 10 wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response TechnologyBibar Korne Bezel; White Back Cabinet Black Fort Bezel; Black Back Cabinet	Colours	16.7 Mio.
Supported Resolutions1440 x 900; 1400 x 1050; 1360 x 768; 1280 x 1024; 1280 x 960; 1152 x 870; 1024 x 768; 832 x 624; 800 x 600; 720 x 400; 640 x 480ConnectorsDigital: 1 x DVI-I; Analog: 1 x min D-sub 15 pinPlug & PlayVESA DDC/CI; DDC2B/2Bi; EDID StandardAdjust FunctionsNTAA (Non-Touch-Auto-Adjustment); Auto Adjust; Brightness; Colour Temperature Control: contrast; Fine Adjust (analog); Language Select, Monitor Information; On Screen Display (OSD) lock-out; Power-Off Timer; Programmable 10-bit LUT; 8R0BSafety and ErgonomicsCE; TCO 03; TÜV Ergonomics; TÜV GS; Energy Star; FCC Class B; PCT/Gost; UL/C-UL or CSA; CCC; ISO 13406-2 (pixel failure class II); MPR II/MPR III; RoHSPower Consumption on Mode [VI]62 (typ.); 50 (Eco Mode)Power Consumption Power-Saving Mode [VI]2Power Supply100-120 V / 220 - 240 V; 0.95 A / 0.4 A; integrated power supplyAmbient Temperature (operating) [°G]45 to +35Ambient Humidity (operating) [°G]50 to 80VESA Mounting [mm]100 x 100ErgoDesign®: Height adjustable stand [mm]506.4 x 410.0 x 247.3Bezel Width [mm]50.6 4 x 410.0 x 247.3Bezel Width [mm]15.0Cable ManagementyesKensington LockyesBenefitsCi-10 wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response TechnologyBurk Front Bezel; White Back CabinetBiack Front Bezel; White Back Cabinet	Horizontal / Vertical Frequency [kHz]	31.5 - 83.0 / 56.0 - 75.0
Supported Resolutions1024 x 768; 832 x 624; 800 x 600; 720 x 400; 640 x 480ConnectorsDigital: 1 x DV-I; Analog: 1 x mini D-sub 15 pinPlug & PlayVESA DDC/Cl; DDC2B/2Bi; EDID StandardAdjust FunctionsNTAA (Non-Touch-Auto-Adjustment); Auto Adjust; Brightness; Colour Temperature Control; Contrast; Fine Adjust (analog); Language Select; Monitor Information; On Screen Display (OSD) lock-out; Power-Off Timer; Programmable 10-bit LUT; sRGBSafety and ErgonomicsCE; TCO 03; TÜV Ergonomics; TÜV GS; Energy Star; FCC Class B; PCT/Gost; LUC-LU or CSA; CCC; ISO 13406-2 (pixel failure class II); MPR II/MPR III; RoHSPower Consumption on Mode [W]62 (typ.); 50 (Eco Mode)Power Consumption Power-Saving Mode [W]2Power Supply100-120 V / 220 - 240 V; 0.95 A / 0.4 A; integrated power supplyAmbient Temperature (operating) [°C]+5 to +35Ambient Temperature (operating) [°C]-5 to +30 / 0° (Landscape) to 90° (Portrait) / 340Screen Tilt [°] / Pivot [°] / Swivel [°]506.4 x 410.0 x 247.3Bezel Width [mm]15.0Cable ManagementyesKensington LookyesBenefitsCi:10 wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response TechnologyColour VersionsSilver Front Bezel; White Back Cabinet Black Rack Cabinet	Optimum Resolution	1680 x 1050 at 60 Hz
Plug & Play   VESA DDC/Cl; DDC2B/2Bi; EDID Standard     Adjust Functions   NTAA (Non-Touch-Auto-Adjustment); Auto Adjust; Brightness; Colour Temperature Control; Contrast; Fine Adjust (analog); Language Select; Monitor Information; On Screen Display (OSD) lock-out; Power-Off Timer; Programmable 10-bit LUT; SRGB     Safety and Ergonomics   CE; TCO 03; TÜV Ergonomics; TÜV GS; Energy Star; FCC Class B; PCT/Gost; UL/C-UL or CSA; CCC; ISO 13406-2 (pixel failure class II); MPR II/MPR III; RoHS     Power Consumption on Mode [VJ]   62 (typ.); 50 (Eco Mode)     Power Consumption Power-Saving Mode [VJ]   2     Power Supply   100-120 V / 220 - 240 V; 0.95 A / 0.4 A; integrated power supply     Ambient Temperature (operating) [°C]   +5 to +35     Ambient Humidity (operating) [%]   20 to 80     VESA Mounting [mm]   100 x 100     ErgoDesign®: Height adjustable stand [mm]   150     Screen Tilt [°] / Pivot [°] / Swivel [°]   -5 to +30 / 0° (Landscape) to 90° (Portrait) / 340     Dimensions (W x H x D) [mm]   506.4 x 410.0 x 247.3     Bezel Width [mm]   15.0     Cable Management   yes     Kensington Lock   yes     Benefits   0i:10 wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response Technology     Colour Versions   Silver Front Bezel; White Back Cabinet	Supported Resolutions	
Adjust FunctionsNTAA (Non-Touch-Auto-Adjustment); Auto Adjust; Brightness; Colour Temperature Control; Contrast; Fine Adjust (analog); Language Select; Monitor Information; On Screen Display (OSD) lock-out; Power-Off Timer; Programmable 10-bit LUT; sRGBSafety and ErgonomicsCE; TOO 03; TÜV Ergonomics; TÜV GS; Energy Star; FCC Class B; PCT/Gost; UL/C-UL or CSA; CCC; ISO 13406-2 (pixel failure class II); MPR II/MPR III; RoHSPower Consumption on Mode [W]62 (typ.); 50 (Eco Mode)Power Consumption Power-Saving Mode [W]2Power Supply100-120 V / 220 - 240 V; 0.95 A / 0.4 A; integrated power supplyAmbient Temperature (operating) [°C]+5 to +35Ambient Humidity (operating) [%]20 to 80VESA Mounting [mm]100 x 100ErgoDesign®: Height adjustable stand [mm]150Screen Tilt [°] / Pivot [°] / Swivel [°]-5 to +30 / 0° (Landscape) to 90° (Portrait) / 340Dimensions (W x H x D) [mm]15.0Cable ManagementyesKensington LockyesBenefits16:10 wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response TecnnologyColour VersionsSilver Front Bezel; White Back Cabinet Black Kront Bezel; Black Back Cabinet	Connectors	Digital: 1 x DVI-I; Analog: 1 x mini D-sub 15 pin
Adjust FunctionsContrast; Fine Adjust (analog); Language Select; Monitor Information; On Screen Display (OSD) lock-out; Power-Off Timer; Programmable 10-bit LUT; sRGBSafety and ErgonomicsCE; TCO 03; TÜV Ergonomics; TÜV GS; Energy Star; FCC Class B; PCT/Gost; UL/C-UL or CSA; CCC; ISO 13406-2 (pixel failure class II); MPR II/MPR III; RoHSPower Consumption on Mode [W]62 (typ.); 50 (Eco Mode)Power Consumption Power-Saving Mode [M]2Power Supply100-120 V / 220 - 240 V; 0.95 A / 0.4 A; integrated power supplyAmbient Temperature (operating) [°C]+5 to +35Ambient Temperature (operating) [°C]20 to 80VESA Mounting [mm]100 x 100ErgoDesign®: Height adjustable stand [mm]150Screen Tilt [°] / Pivot [°] / Swivel [°]-5 to +30 / 0° (Landscape) to 90° (Portrait) / 340Dimensions (W x H x D) [mm]15.0Beael Width [mm]15.0Cable ManagementyesKensington LockyesBenefits16:10 wide format; ArmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response TechnologyColour VersionsSilver Front Bezel; White Back Cabinet Black Front Bezel; Black Back Cabinet	Plug & Play	VESA DDC/CI; DDC2B/2Bi; EDID Standard
Sarety and ErgonomicsUL/C-UL or CSA; CCC; ISO 13406-2 (pixel failure class II); MPR II/MPR III; RoHSPower Consumption on Mode [W]62 (typ.); 50 (Eco Mode)Power Consumption Power-Saving Mode [W]2Power Supply100-120 V / 220 - 240 V; 0.95 A / 0.4 A; integrated power supplyAmbient Temperature (operating) [°C]+5 to +35Ambient Humidity (operating) [%]20 to 80VESA Mounting [mm]100 x 100ErgoDesign®: Height adjustable stand [mm]150Screen Tilt [°] / Pivot [°] / Swivel [°]-5 to +30 / 0° (Landscape) to 90° (Portrait) / 340Dimensions (W x H x D) [mm]506.4 x 410.0 x 247.3Bezel Width [mm]15.0Cable ManagementyesKensington LockyesBenefits16:10 wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response TechnologyColour VersionsSilver Front Bezel; White Back Cabinet Black Front Bezel; Black Back Cabinet	Adjust Functions	Contrast; Fine Adjust (analog); Language Select; Monitor Information; On Screen Display (OSD)
Power Consumption Power-Saving Mode [W]2Power Supply100-120 V / 220 - 240 V; 0.95 A / 0.4 A; integrated power supplyAmbient Temperature (operating) [°C]+5 to +35Ambient Humidity (operating) [°A]20 to 80VESA Mounting [mm]100 x 100ErgoDesign®: Height adjustable stand [mm]150Screen Tilt [°] / Pivot [°] / Swivel [°]-5 to +30 / 0° (Landscape) to 90° (Portrait) / 340Dimensions (W x H x D) [mm]506.4 x 410.0 x 247.3Bezel Width [mm]15.0Cable ManagementyesKensington LockyesBenefits16:10 wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response TechnologyColour VersionsSilver Front Bezel; White Back Cabinet Black Front Bezel; Black Back Cabinet	Safety and Ergonomics	5 · · · · · · · · · · · · · · · · · · ·
Power Supply100-120 V / 220 - 240 V; 0.95 A / 0.4 A; integrated power supplyAmbient Temperature (operating) [%]+5 to +35Ambient Humidity (operating) [%]20 to 80VESA Mounting [mm]100 x 100ErgoDesign®: Height adjustable stand [mm]150Screen Tilt [°] / Pivot [°] / Swivel [°]-5 to +30 / 0° (Landscape) to 90° (Portrait) / 340Dimensions (W x H x D) [mm]506.4 x 410.0 x 247.3Bezel Width [mm]15.0Cable ManagementyesKensington LockyesBenefits16:10 wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response TechnologyColour VersionsSilver Front Bezel; White Back Cabinet Black Front Bezel; Black Back Cabinet	Power Consumption on Mode [W]	62 (typ.); 50 (Eco Mode)
Ambient Temperature (operating) [°C]+5 to +35Ambient Humidity (operating) [%]20 to 80VESA Mounting [mm]100 x 100ErgoDesign®: Height adjustable stand [mm]150Screen Titt [°] / Pivot [°] / Swivel [°]-5 to +30 / 0° (Landscape) to 90° (Portrait) / 340Dimensions (W x H x D) [mm]506.4 x 410.0 x 247.3Bezel Width [mm]15.0Cable ManagementyesKensington LockyesBenefits16:10 wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response TechnologyColour VersionsSilver Front Bezel; White Back Cabinet Black Front Bezel; Black Back Cabinet	Power Consumption Power-Saving Mode [W]	2
Ambient Humidity (operating) [%]20 to 80VESA Mounting [mm]100 x 100ErgoDesign®: Height adjustable stand [mm]150Screen Tilt [°] / Pivot [°] / Swivel [°]-5 to +30 / 0° (Landscape) to 90° (Portrait) / 340Dimensions (W x H x D) [mm]506.4 x 410.0 x 247.3Bezel Width [mm]15.0Cable ManagementyesKensington LockyesBenefits16:10 wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response TechnologyColour VersionsSilver Front Bezel; White Back Cabinet Black Front Bezel; Black Back Cabinet	Power Supply	100-120 V / 220 - 240 V; 0.95 A / 0.4 A; integrated power supply
VESA Mounting [mm] 100 x 100   ErgoDesign®: Height adjustable stand [mm] 150   Screen Tilt [°] / Pivot [°] / Swivel [°] -5 to +30 / 0° (Landscape) to 90° (Portrait) / 340   Dimensions (W x H x D) [mm] 506.4 x 410.0 x 247.3   Bezel Width [mm] 15.0   Cable Management yes   Kensington Lock yes   Benefits 16:10 wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response Technology   Colour Versions Silver Front Bezel; White Back Cabinet Black Front Bezel; Black Back Cabinet	Ambient Temperature (operating) [°C]	+5 to +35
ErgoDesign®: Height adjustable stand [mm]   150     Screen Tilt [°] / Pivot [°] / Swivel [°]   -5 to +30 / 0° (Landscape) to 90° (Portrait) / 340     Dimensions (W x H x D) [mm]   506.4 x 410.0 x 247.3     Bezel Width [mm]   15.0     Cable Management   yes     Kensington Lock   yes     Benefits   16:10 wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response Technology     Colour Versions   Silver Front Bezel; White Back Cabinet Black Front Bezel; Black Back Cabinet	Ambient Humidity (operating) [%]	20 to 80
Screen Tilt [°] / Pivot [°] / Swivel [°]   -5 to +30 / 0° (Landscape) to 90° (Portrait) / 340     Dimensions (W x H x D) [mm]   506.4 x 410.0 x 247.3     Bezel Width [mm]   15.0     Cable Management   yes     Kensington Lock   yes     Benefits   16:10 wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response Technology     Colour Versions   Silver Front Bezel; White Back Cabinet Black Front Bezel; Black Back Cabinet	VESA Mounting [mm]	100 x 100
Dimensions (W x H x D) [mm]   506.4 x 410.0 x 247.3     Bezel Width [mm]   15.0     Cable Management   yes     Kensington Lock   yes     Benefits   16:10 wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response Technology     Colour Versions   Silver Front Bezel; White Back Cabinet Black Front Bezel; Black Back Cabinet	ErgoDesign®: Height adjustable stand [mm]	150
Bezel Width [mm]   15.0     Cable Management   yes     Kensington Lock   yes     Benefits   16:10 wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response Technology     Colour Versions   Silver Front Bezel; White Back Cabinet Black Front Bezel; Black Back Cabinet	Screen Tilt [°] / Pivot [°] / Swivel [°]	-5 to +30 / 0° (Landscape) to 90° (Portrait) / 340
Cable Management yes   Kensington Lock yes   Benefits 16:10 wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response Technology   Colour Versions Silver Front Bezel; White Back Cabinet Black Front Bezel; Black Back Cabinet	Dimensions (W x H x D) [mm]	506.4 x 410.0 x 247.3
Kensington Lock   yes     Benefits   16:10 wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response Technology     Colour Versions   Silver Front Bezel; White Back Cabinet Black Front Bezel; Black Back Cabinet	Bezel Width [mm]	15.0
Benefits   16:10 wide format; AmbiBright; Carbon Footprint Meter; NaviSet® and NaviSet Administrator compatible; Rapid Response Technology     Colour Versions   Silver Front Bezel; White Back Cabinet Black Front Bezel; Black Back Cabinet	Cable Management	yes
Benefits compatible; Rapid Response Technology   Colour Versions Silver Front Bezel; White Back Cabinet Black Front Bezel; Black Back Cabinet	Kensington Lock	yes
Colour versions     Black Front Bezel; Black Back Cabinet	Benefits	
Warranty 3 years incl. backlight	Colour Versions	
	Warranty	3 years incl. backlight

#### www.nec-display-solutions.com

NEC Display Solutions Europe GmbH Landshuter Allee 12-14, 80637 Munich, Germany, Tel. +49 (0)89 99699-0, Fax +49 (0)89 99699-500

All hardware and software names are brand names and/or registered trademarks of the respective manufactures. All rights reserved. All specifictions are subject to change without notice. March 2009.

Empowered by Innovation

