NEC MultiSync® Information Display Series

32" (31.5" VIS), 40", 46", 52", 57" and 65" LCD displays
ideal for digital signage applications

Airports/flight and baggage information

DSTS
Digital Signage
Technology Suite

Digital merchandising

Corporate

Also serving markets such as...

Restaurants   Medical   Financial   Theaters   Tradeshows   Broadcasting

NEC

Expanding information display options with

SUPERIOR

screen performance.

Providing visual display solutions to a wide variety of users for many years, NEC LCD monitors have consistently set the standard for flat-panel technology and continue to offer new ways to enhance visual experiences. Our visual solutions provide users with a diverse range of options to help them see their digital world more clearly and support them in achieving their goals.

Building on this tradition of quality and innovation, NEC's 32"–65" MultiSync Information Display Series models feature the next generation of LCD technologies and create new options for those in the information display market. The exclusive Digital Signage Technology Suite (DSTS), which was developed based on feedback from our customers, further sets these displays apart with nearly 30 advanced features that take screen performance to uncharted levels.

These models include all of the benefits users have come to value in NEC's smaller-sized LCD monitors, and now they can be enjoyed in a variety of information display applications, including airports, retail merchandising, conference rooms, financial exchanges, broadcasting environments and tradeshow exhibits.

The screen performance of the MultiSync Information Display Series brings ideas to life, capturing the attention and imagination of viewers and ensuring that messages reach audiences with maximum clarity and impact.

All models (except the LCD6520L/P) are available in both standard and IT versions to best meet your display requirements. The value-driven IT version features only PC inputs, while the standard version includes audio and video inputs for a broader set of AV applications.

Sized to please. With their spacious screens, MultiSync Information Display LCDs are ideal for applications that require precise readability and clarity from a distance, such as airports and financial institutions. The LCD6520L/P touts the largest screen size LCD that NEC has offered to date. The LCD3210, which fills the gap between flat panels designed for the desktop and those intended for larger venues, offers digital signage markets a lower-priced option for a variety of visual display needs. The ultra-thin bezels of the LCD4020, LCD4620 and LCD5220, with widths as thin as one-fifth of the industry norm for 40" and 46" displays, provide ideal solutions for tiled video walls.

Superior screen performance. MultiSync Information Display LCDs take advantage of the many display technologies that have made LCD monitors so popular over the years, and deliver them through expansive screens featuring a wide aspect ratio. Their 1366 x 768

(WXGA) resolution (1920 x 1080 on the LCD5220, LCD5710 and LCD6520L/P), which provides a true 16:9 aspect ratio, optimizes on-screen text, images and video with remarkable precision and clarity, allowing onlookers to clearly view presentations, charts, advertisements, pricing and other public display information. Further, applications can be viewed simultaneously, utilizing the displays' picture-in-picture capability when using the defined combination of video inputs (see User's Manual).

In applications where spectators are situated at various angles in front of the screen or where they are passing by the display, the monitors provide an undistorted view of the screen. Using XtraView wide-angle viewing technology, the displays deliver flexible horizontal and vertical viewing angles (up to 178°; 89° up, down, left and right) with less glare, reflection and distortion.

With brightness adjustable to 700 cd/m^2, these displays stand out in a crowd, allowing onlookers to view text and graphics with ease and comfort. Exceptional contrast ratios help the displays deliver amazingly vivid colors, while automatic black level adjustment regulates grayscale images for optimal picture quality. A 10-bit gamma lookup table (LUT) (available on the MultiSync LCD4020, LCD4620, LCD5220 and LCD6520L/P) allows the display of 16.7 million colors out of a palette of 68.5 billion, while providing for more finely detailed, high-definition rendering of color images and crisper display of even the most delicate shadings and color differences. Further, Rapid Response technology allows for virtually undistorted viewing of high-speed, full-motion video without ghosting or image trailing.

Avoid image persistence. With some screen technologies, leaving the display on for a long period of time would permanently burn the image into the screen. As can be noted with phosphor-based public displays, the image would remain permanently "engraved" into the display, rendering it useless. It is important to understand that LCD technology may experience phenomena known as image persistence, which occurs when a residual or "ghost" image of a previously displayed image remains visible on the screen. Unlike CRT or other phosphor-based monitors, LCD monitors' image persistence is not permanent; however, constant images being displayed for a long period of time should be avoided. To alleviate image persistence and promote a longer lifecycle, NEC Display Solutions developed an exclusive panel design with thermal barrier layers and employs many advanced technologies for

its MultiSync Information Display LCDs. Some of these technologies include a screen saver function, a power-save function that puts the display in power management mode when a sync or input signal is lost, a side color function that adjusts black bars in 4:3 mode, a real-time clock for content scheduling and sleep/wake management and an image mover function.

Take control of your monitor. To make remote control and diagnostics easier, MultiSync Information Display LCDs provide three different methods to manipulate the display—an RS-232 connector, an advanced remote diagnostics and remote control capabilities of the Display Data Channel/ Command Interface (DDC/CI), and a handheld IR remote control. By utilizing the inherent power of the PC (a typical source for the display), DDC/CI allows control commands to be sent directly to the monitor through a standard PC system or remotely over an existing network (LAN) by a system administrator. A wide range of DDC/CI-based graphics cards allow for easy control through a Windows 2000/XP/Vista interface.

Another control capability is daisy-chaining, which links monitors to one another to display the same content and deliver the same audio—all from a single source. This helps avoid the hassle and extra costs of using splitters or connecting monitors to multiple sources.

With an eye toward the future, NEC engineers designed the LCD4020, LCD4620, LCD5220 and LCD6520L/P with a built-in expansion slot, making them ready to welcome components that are not yet available. Instead of having to replace their display down the road, users will be able to upgrade its technology for innovations such as small form factor PCs. Users currently have the option of connecting a digital tuner to these three displays, expanding their capabilities as high-definition televisions for your favorite broadcasts.

Achieve consistent, long-distance signals. NEC Display Solutions' exclusive CableComp technology (featured on the

LCD4020, LCD4620, LCD5220, LCD5710 and LCD6520L/P) enables users to realize the advantages of long monitor cable lengths without the difficulties and costs normally associated with this type of configuration. In environments such as trading floors, call centers and public signage venues, longer cables enable systems to be centrally located in control rooms far away from displays (up to 326 feet/100 meters; 98 feet/30 meters with digital DVI cables), allowing upgrades, service and repairs to be accomplished without interrupting the work or display environment.

CableComp technology solves signal and blurred image dilemmas by using a digitized signal delay circuit to automatically compensate for each red, green and blue cable's length and video signal delay, ensuring sharp image reproduction. CableComp also boosts the digital/analog video signal to prevent blurred images without the need for costly repeaters. A new feature of this technology is its ability to equalize the video signal to eliminate color halos on long cable runs.

Get connected. MultiSync Information Display LCDs feature a number of input connections for maximum compatibility (Fig. 1). Both versions include a DVI-D connector for digital video signal adapters and a traditional 15-pin mini D-sub connector that is configured for IBM® VGA-compatible adapters. This wide compatibility makes it possible to upgrade adapters or software without having to purchase a new monitor. By accepting analog signal inputs, the monitors can display more than 16 million colors, depending on the graphics card and software being used. The standard version display also features BNC VGA, composite video, component video, and an S-Video connector, allowing you to run numerous peripheral devices, including DVD players and media PCs. The LCD4020, LCD4620, LCD5220 and LCD6520L/P take your connectivity even further with an HDMI input for high-definition set-top boxes, DVD players and video games. HDCP support provides copy protection for high-definition content via this input as well as the DVI input.

The ultra-thin-bezel design of the MultiSync LCD4020 (15.5mm) and LCD4620 (16.5mm left/right, 17mm top/bottom) helps to create near-seamless video walls using TileMatrix and TileComp. These technologies allow the displays to be tiled in various configurations (up to 5 x 5), equalling up to 20 feet diagonally.
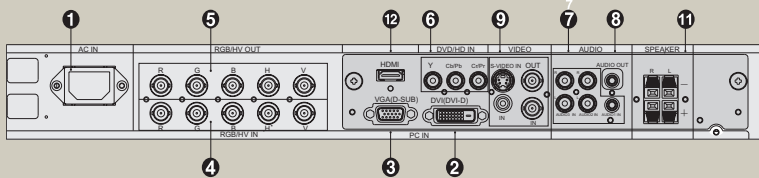
User-friendly, efficient design. As ease of installation is a main concern for the information display market, these displays were designed with light weight in mind, making them simple to transport and install wherever necessary. In addition, NEC is on the forefront of mounting technology as the displays' cabinets were designed to meet currently proposed VESA mounting standards for larger-sized public displays, which will be required of all manufacturers in the future. Their ability to be mounted in either portrait or landscape orientation further adds to your flexibility. With a uniformly thin frame, the displays' designs are ideal for multi-screen construction for virtually seamless video walls.

Simplified control of screen settings. For quick and easy setups, a multitude of presets, including automatic image adjust and automatic input detect, make MultiSync Information Display LCDs ready to go right out of the box. Their factory reset feature even allows you to return to the display's original settings if desired.
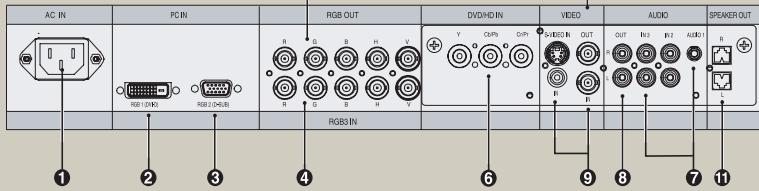
Intelligent power management ensures a smart investment. Utilizing energy-efficient technologies in their design, these displays reduce power consumption and significantly lower your total cost of ownership (TCO). The high-efficiency backlight reduces not only the power consumption but also the heat generation at the front of the screen, while the real-time clock's sleep/wake management scheduler improves energy savings and extends display life. In addition, the MultiSync LCD4020, LCD4620, LCD5220 and LCD6520L/P have been designed with two thermally controlled fans. Based on default temperature set points (or user-defined settings), sensors continuously monitor the interior temperature of the display. When the set temperature level is reached, the fans cool the display to the desired level. In cases in which the fans are unable to cool down the display, the backlights are dimmed or, as a last resort, the display is automatically shut down.
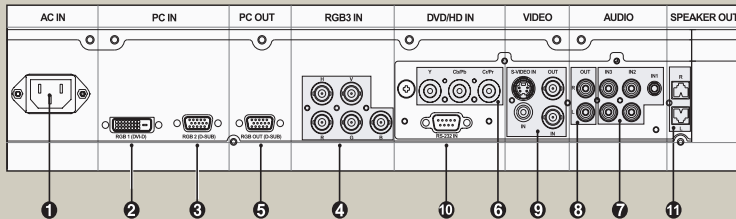
Figure 1

LCD4020/LCD4620/LCD5220/LCD6520L/P

LCD5710

LCD3210

MultiSync Information Display Series LCDs feature a number of input connectors for maximum compatibility. This makes it possible to upgrade adapters or software without having to purchase a new display.
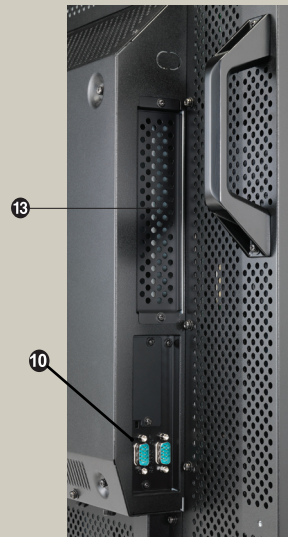
1. **AC IN connector** *Connects with the supplied power cord.*
2. **RGB 1 IN (DVI-D)** *To input digital RGB signals from a computer**
   * This connector does not support analog input.
3. **RGB 2 IN (mini D-Sub 15 pin)** *To input analog RGB signals from a personal computer or other RGB equipment.*
4. **RGB 3 DVD/HD [R, G, B, H, V] (BNC)** *To input the analog RGB signals or signals from other RGB equipment. A Sync-on-Green signal can be connected to the G connector.*
5. **RGB OUT connector (mini D-Sub 15 pin)** *To output the signal from the RGB 2 or 3 IN connector.*
6. **DVD/HD CONNECTOR (BNC)** *Connecting equipment such as a DVD player, HDTV device or laser disc player.* [AV]
7. **AUDIO IN 1,2,3** *Input audio signal from external equipment such as a computer, VCR or DVD player.* [AV]
8. **AUDIO OUT** *Output the audio signal from the selected AUDIO IN source.* [AV]

[AV] *Denotes an AV unit function.*
All AV functions are enabled when the AV unit is installed.

9. **VIDEO INPUT/OUTPUT CONNECTOR** [AV]
   VIDEO IN connector (BNC and RCA): *Input a composite video signal. BNC and RCA are not available at the same time. (Use only one input).*
   VIDEO OUT connector (BNC): *Output the composite video signal from the VIDEO IN source.*
   S-VIDEO IN connector (DIN 4 pin): *Input the S-video (Y/C separate signal).*
10. **EXTERNAL CONTROL (mini D-Sub 9 pin) RS-232C** *Input signal from control equipment such as a computer.*
    In connector: *Input signal from control equipment such as a computer or the output from a different MultiSync Information Display Series unit*
    Out connector: *To connect multiple MultiSync Information Display Series units (not available on the LCD3210)*
11. **EXTERNAL SPEAKER TERMINAL** *Outputs the audio signal from the selected audio source.* [AV]
12. **HDMI CONNECTOR** *To input digital HDMI signals.* [AV]
13. **EXPANSION SLOT** *To connect ATSC/NTSC/QAM tuner or other third-party components*

SERIES FEATURES AND BENEFITS

High brightness level and contrast ratio, measured according to VESA FPDM, enhance the visual experience

XtraView® technology allows for up 178° wide-angle viewing

User-friendly, efficient design features VESA-standard mounting and an overall lightweight construction for easy transport and installation

Automatic black level adjustment regulates grayscale images for optimal picture quality

Reduced reflection and glare in high ambient light environments provide you with a more comfortable view of the screen

Built-in expansion slot allows for seamless integration of future third-party components (LCD4020, LCD4620, LCD5220 and LCD6520L/P)

Optional detachable speakers deliver an enhanced multimedia experience with amazing sound quality (Onkyo® for LCD3210, NEC for LCD4020-2-AV/LCD4620-2-AV/LCD5220-AV and Innovox Audio for LCD5710)

Optional digital tuner expands the display's capabilities for high-definition television (LCD4020-2-AV, LCD4620-2-AV, LCD5220-AV and LCD6520L)

Optional stand provides opportunities for new applications and viewing options (LCD4020, LCD4620 and LCD5220)

Optional tilt wall mount kit (WMK3260-L) puts your display on center stage for optimal viewing (all models except LCD6520L/P)

Optional internal HD-SDI card (SB-L007KK) achieves broadcast-grade video without using additional space or power (all -IT and -AV models except LCD3210 and LCD5710)

Rapid Response™ technology delivers virtually uninterrupted, undistorted viewing of high-speed, full-motion video

Digital Signage Technology Suite Feature and Benefits

Improved screen performance	Lower total cost of ownership	Enhanced display management

Improved screen performance

- **1366 x 768 ultra-high resolution (1920 x 1080 for LCD5220, LCD5710 and LCD6520L/P)** for true 16:9 aspect ratio
- **High-definition capable display** supports 480i, 480p, 720p and 1080i (1080p for LCD4020, LCD4620, LCD5220, LCD5710 and LCD6520L/P)
- **New backlight system** leads to better brightness uniformity
- **Zoom mode** enables you to customize the screen size in three directions
- **TileMatrix™** allows you to build video walls (up to 25 displays in a 5x5 matrix [4x4 for LCD3210] equalling almost 20 ft. diagonal)
- **TileComp™** works in tandem with Tile-Matrix to compensate for the bezel width and create a more seamless video wall
- **Image flip** allows you to properly display content originally prepared for alternative display technologies such as rear projection (LCD4020, LCD4620, LCD5220, LCD5710 and LCD6520L/P)
- **Film mode** delivers a smoother image for DVD movies by bypassing frame buffer
- **Color temperature** adjustable from 2600K to 10,000K, allowing for perfect matching to input/output devices

Lower total cost of ownership

- **Exclusive panel design**, featuring thermal protection and a power-efficient backlight system, leads to less image persistence and a longer display life
- **Power save function** puts the display in power management mode when a sync or input signal is lost
- **Advanced screen saver function** reduces the risk of image persistence for extended display life
- **Gamma adjustment** reduces the effect of high contrast images on long-term image quality
- **Side color function** adjusts black bars in 4:3 mode to reduce the risk of image persistence with extended use
- **Real-time clock** allows for content scheduling and monitor sleep/wake management, improving energy savings and extending display life
- **Internal temperature sensors** control self-protective circuits to minimize heat damage (user-defined set points available with the LCD4020, LCD4620, LCD5220 and LCD6520L/P)
- **Self-diagnostic capabilities** help detect possible failure points via queries remotely through DDC/CI and RS-232C
- **Brightness control** reduces energy consumption and heat generation while extending display life

Enhanced display management

- **Improved CableComp™ technology** equalizes the video signal to eliminate color halos on long cable runs (LCD4020, LCD4620, LCD5220, LCD5710 and LCD6520L/P)
- **Video detect** automatically finds the first or last signal used for easy setup
- **Picture-in picture (PIP)** places a smaller video frame within the full-screen video frame
- **Picture-on-picture (POP)** places a smaller video frame next to the full-screen video frame (LCD4020, LCD4620, LCD5220, LCD5710 and LCD6520L/P)
- **Side-by-side view** places two video frames of equal size next to each other (LCD4020, LCD4620, LCD5220, LCD5710 and LCD6520L/P)
- **Gamma selection** lets you adjust the screen to your preferred settings (2.2, 2.4, S-Curve or native)
- **Black level expansion** improves image quality in shaded and darker images
- **DDC/CI** enables communication between the PC and monitor for display management, diagnostics and the remote control
- **Power-on delay** allows for multiple displays on a single electrical circuit
- **6-axis color control engine** allows for precise and simplified color, color temperature and saturation adjustment (LCD4020, LCD4620, LCD5220, LCD5710 and LCD6520L/P)
- **Daisy chain capability enabled through RS-232C** allows for individually addressable display control (LCD4020, LCD4620, LCD5220, LCD5710 and LCD6520L/P)

Model	LCD3210-BK (LCD3210-BK-IT)	LCD4020-2-AV (LCD4020-2-IT)	LCD4620-2-AV (LCD4620-2-IT)	LCD5220-AV (LCD5220-IT)	LCD5710-BK (LCD5710-BK-IT)	LCD6520L-BK-AV/LCD6520P-BK-AV
Display						
Viewable Size Image	31.5"	40"	46"	52"	57"	65"
Pixel Pitch	0.511	0.648mm	0.746mm	0.60mm	0.6525mm	0.744mm
Pixels Per Inch	50 @ native resolution	40 @ native resolution	34 @ native resolution	41 @ native resolution	39 @ native resolution	34 @ native resolution
Brightness (typical)	500 cd/m²	700 cd/m²	700 cd/m²	700 cd/m² (max)	450 cd/m²	450 cd/m²
Contrast Ratio (typical)	600:1	2000:1	1800:1	2000:1	900:1	2000:1
Viewing Angle (typical)	176° Vert., 176° Hor. (88U/88D/88L/88R) @ CR > 10	178° Vert., 178° Hor. (89U/89D/89L/89R) @ CR > 10	178° Vert., 178° Hor. (89U/89D/89L/89R) @ CR > 10	178° Vert., 178° Hor. (89U/89D/89L/89R) @ CR > 10	178° Vert., 178° Hor. (89U/89D/89L/89R) @ CR > 10	176° Vert., 176° Hor. (68U/88D/88L/88R) @ CR > 10
Response Time (typical)	Rapid Response (18ms)	Rapid Response (16ms)	Rapid Response (16ms)	Rapid Response (8ms G-to-G)	Rapid Response (16ms)	Rapid Response (6ms G-to-G)
Display Colors	256 RGB Level, more than 16 million	256 RGB Level, more than 16 million	256 RGB Level, more than 16 million	256 RGB Level, more than 16 million	256 RGB Level, more than 16 million	256 RGB Level, more than 16 million
Active Screen Area (W X H)	760 x 450mm	886.5 x 497.8mm	1018.5 x 574mm	1192 x 688mm	1252.8 x 704.7mm	1428.5 x 803.5mm
Bezel Width (L/R, T/B)	45.66mm, 43.372mm	15.5mm, 15.5mm	16.5mm, 17mm	19mm, 19mm	52.5mm, 44mm	68mm, 56.4mm
Screen Aspect Ratio	16:9	16:9	16:9	16:9	16:9	16:9
Synchronization Range						
Horizontal	15.625, 15.744, 31.5-91.1 KHz (Analog, LCD3210-BK)/-31.5-91.1 KHz (Analog, LCD3210-BK-IT)/-31.5-91.1 KHz (Digital)	15.625, 15.744, 31.5-91.1 KHz (Analog, LCD4020-BK-AV)/-31.5-91.1 KHz (Analog, LCD4020-BK-IT)/-31.5-91.1 KHz (Digital)	15.625, 15.744, 31.5-91.1 KHz (Analog, LCD4620-BK-AV)/-31.5-91.1 KHz (Analog, LCD4620-BK-IT)/-31.5-91.1 KHz (Digital)	15.625, 15.734 kHz, 31.5-91.1 kHz (Analog) / 31.5-91.1 kHz (Digital)	15.625, 15.744, 31.5-91.1 KHz (Analog, LCD5710-BK)/-31.5-91.1 KHz (Analog, LCD5710-BK-IT)/-31.5-91.1 KHz (Digital)	15.625, 15.744, 31.5-91.1 KHz (Analog, LCD4610-BK)/-31.5-91.1 KHz (Analog, LCD4610-BK-IT)/31.5-91.1 KHz (Digital)
Vertical	50-85 Hz Analog/Digital	50-85 Hz Analog/Digital	50-85 Hz Analog/Digital	50-85 Hz Analog/Digital	50-85 Hz Analog/Digital	50-85 Hz Analog/Digital
Input Signal						
Video	ANALOG RGB 0.7 Vp-p/75 Ohms	ANALOG RGB 0.7 Vp-p/75 Ohms	ANALOG RGB 0.7 Vp-p/75 Ohms	ANALOG RGB 0.7Vp-p/75 Ohms	ANALOG RGB 0.7 Vp-p/75 Ohms	ANALOG RGB 0.7 Vp-p/75 Ohms
Sync	Separate sync: TTL Level (Positive/Negative) Composite sync: TTL Level (Positive/Negative) Composite sync on green: (0.3Vp-p negative 0.7Vp-p positive)	Separate sync: TTL Level (Positive/Negative) Composite sync: TTL Level (Positive/Negative) Composite sync on green: (0.3Vp-p negative 0.7Vp-p positive)	Separate sync: TTL Level (Positive/Negative) Composite sync: TTL Level (Positive/Negative) Composite sync on green: (0.3Vp-p negative 0.7Vp-p positive)	Separate sync: TTL Level (Positive/Negative) Composite sync: TTL Level (Positive/Negative) Composite sync on green: (0.3Vp-p negative 0.7Vp-p positive)	Separate sync: TTL Level (Positive/Negative) Composite sync: TTL Level (Positive/Negative) Composite sync on green: (0.3Vp-p negative 0.7Vp-p positive)	Separate sync: TTL Level (Positive/Negative) Composite sync: TTL Level (Positive/Negative) Composite sync on green: (0.3Vp-p negative 0.7Vp-p positive)
Input						
RGB1	DVI-D	DVI-D	DVI-D	DVI-D	DVI-D	DVI-D
RGB2	Analog D-sub	Analog D-sub	Analog D-sub	Analog D-sub	Analog D-sub	Analog D-sub
RGB3	Analog BNC	Analog BNC	Analog BNC	Analog BNC	Analog BNC	Analog BNC
Video 1*	Composite RCA or S-Video	Composite (Shared RCA and BNC), S-Video, HDMI	Composite (Shared RCA and BNC), S-Video, HDMI	Composite (Shared RCA and BNC), S-Video, HDMI	Composite RCA or S-Video	Composite (Shared RCA and BNC), S-Video, HDMI
Component Video 1 (DVD/HD)*	Component BNC	Component (RCA)	Component (RCA)	Component RCA	Component BNC	Component (RCA)
Audio*	Audio 1 (minijack), Audio 2 and 3 Stereo (RCA)	Audio 1 (minijack), Audio 2 and 3 Stereo (RCA), HDMI	Audio 1 (minijack), Audio 2 and 3 Stereo (RCA), HDMI	Audio 1 (minijack), Audio 2 and 3 Stereo (RCA), HDMI	Audio 1 (minijack), Audio 2 and 3 Stereo (RCA)	Audio 1 (minijack), Audio 2 and 3 Stereo (RCA), HDMI
	Internal Speaker: None	Internal Speaker: None	Internal Speaker: None	Internal Speaker: None	Internal Speaker: None	Internal Speaker: None
External Control	RS-232, DDC/CI	RS-232, DDC/CI	RS-232, DDC/CI	RS-232, DDC/CI	RS-232, DDC/CI	RS-232, DDC/CI
Output						
RGB	Daisychain RGB3	Daisychain BNC - RGB3	Daisychain BNC - RGB3	Daisychain BNC - RGB3	Daisychain RGB2, RGB3	Daisychain RGB2, RGB3
Video*	Daisychain Video1	Daisychain BNC (Composite) - Video1	Daisychain BNC (Composite) - Video1	Daisychain BNC (Composite) - Video1	Daisychain Video1	Daisychain Video1
Audio*		Daisychain - Mini Pin Jack	Daisychain - Mini Pin Jack	Daisychain - Mini Pin Jack	Daisychain - Selected Audio in	Daisychain - Selected Audio in
Control	Daisychain - Selected Audio in RS-232 for multiple monitor control	RS-232 for multiple monitor control	RS-232 for multiple monitor control	RS-232 for multiple monitor control	RS-232 for multiple monitor control	RS-232 for multiple monitor control
Audio Amplifier*	7W x 7W	15W x 15W	15W x 15W	15W x 15W	7W x 7W	15W x 15W
Resolutions Supported	720 x 400 @ 70-85 Hz 640 x 480 @ 60-85 Hz 800 x 600 @ 50-85 Hz 832 x 624 @ 74.5 Hz 1024 x 768 @ 50-85 Hz 1280 x 1024 @ 50-85 Hz 1600 x 1200 @ 60 Hz (Compressed) 1280 x 768 @ 50-85 Hz 1360 x 768 @ 50-85 Hz NTSC/PAL, SECAM, 4.43 NTSC, Pal60 HDTV, 480i, 480p, 720p, 1080i (not available on LCD3210-BK-IT)	640 x 400 @ 56.2 Hz 720 x 400 @ 70-85 Hz 640 x 480 @ 50-85 Hz 800 x 600 @ 50-85Hz 832 x 624 @ 74.5 Hz 1024 x 768 @ 50-85 Hz 1152 x 870 1600 x 1200 @ 50-85 Hz 1280 x 768 @ 50-85 Hz 1360 x 768 @ 50-85 Hz 1920 x 1080 @ 60Hz (compressed) NTSC/PAL, SECAM, 4.43 NTSC, Pal60 HDTV, 480i, 480p, 720p, 1080i, 1080p (not available on LCD4020-BK-IT)	640 x 400 @ 56.2 Hz 720 x 400 @ 70-85 Hz 640 x 480 @ 50-85 Hz 800 x 600 @ 50-85 Hz 832 x 624 @ 74.5 Hz 1024 x 768 @ 50-85 Hz 1152 x 870 1600 x 1200 @ 50-85 Hz 1280 x 768 @ 50-85 Hz 1360 x 768 @ 50-85 Hz 1920 x 1080 @ 60 Hz (compressed) NTSC/PAL, SECAM, 4.43 NTSC, Pal60 HDTV, 480i, 480p, 720p, 1080i, 1080p (not available on LCD4620-BK-IT)	640 x 400 @ 56 Hz 640 x 480 @ 50 - 85 Hz 720 x 400 @ 70 - 85Hz 800 x 600 @ 50 - 85 Hz 832 x 624 @ 75 Hz 1024 x 768 @ 50 - 85 Hz 1280 x 1024 @ 50 - 85 Hz 1280 x 768 @ 50 - 85 Hz 1360 x 768 @ 50 - 85 Hz 1600 x 1200 @ 60 Hz 1920 x 1080 @ 60 Hz NTSC/PAL/SECAM/4.43NTSC/PAL60 HDTV: 1080p, 1080i, 720p, 480p, 480i (not available on LCD5220-IT)	720 x 400 @ 70-85 Hz 640 x 480 @ 60-85 Hz 800 x 600 @ 50-85 Hz 832 x 624 @ 74.5 Hz 1024 x 768 @ 50-85 Hz 1280 x 1024 @ 50-85 Hz 1600 x 1200 @ 60 Hz (Compressed) 1280 x 768 @ 50-85 Hz 1360 x 768 @ 50-85 Hz 1920 x 1080 % 50-60 Hz NTSC/PAL, SECAM, 4.43NTSC, Pal60 HDTV, 480i, 480p, 720p, 1080i (not available on LCD5710-BK-IT), 1080p	720 x 400 @ 70-85 Hz 640 x 480 @ 60-85 Hz 800 x 600 @ 50-85 Hz 832 x 624 @ 74.5 Hz 1024 x 768 @ 50-85 Hz 1280 x 1024 @ 50-85 Hz 1600 x 1200 @ 60 Hz (Compressed) 1280 x 768 @ 50-85 Hz 1360 x 768 @ 50-85 Hz 1920 x 1080 % 50-60 Hz NTSC/PAL, SECAM, 4.43NTSC, Pal60 HDTV, 480i, 480p, 720p, 1080i, 1080p
Native Resolution	1366 x 768	1366 x 768	1366 x 768	1920 x 1080	1920 x 1080	1920 x 1080 / 1080 x 1920
Recommended Resolution	1360 x 768 or 1366 x 768	1360 x 768 or 1366 x 768	1360 x 768 or 1366 x 768	1920 x 1080	1920 x 1080	1920 x 1080 / 1080 x 1920
Additional Features	Power Management, Plug and Play (DDC/CI, DDC2B), PIP (Remote), multi-level programmable zoom, TileMatrix, TileComp, screen saver, Rapid Response, Video Ready (no tuner), Infrared remote control included, removeable stand included, portrait-capable	Expansion slot, ultra-thin bezel, programable lookup tables, Plug and Play (DDC/CI, DDC2B), PIP (remote), POP, 6-axis color adjustment, multi-level programmable zoom, CableComp, TileMatrix (5x5), TileComp, video ready, scheduler (w/ RTC), sharpness/softness, off-timer (countdown), screen saver, vacation switch, 10-bit gamma, AutoBright (signal input), Windows Vista-certified, portrait-capable	Expansion slot, ultra-thin bezel, programable lookup tables, Plug and Play (DDC/CI, DDC2B), PIP (remote), POP, 6-axis color adjustment, multi-level programmable zoom, CableComp, TileMatrix (5x5), TileComp, video ready, scheduler (w/ RTC), sharpness/softness, off-timer (countdown), screen saver, vacation switch, 10-bit gamma, AutoBright (signal input), Windows Vista-certified, portrait-capable	Expansion slot, ultra-thin bezel, programable lookup tables, Plug and Play (DDC/CI, DDC2B), PIP (remote), POP, 6-axis color adjustment, multi-level programmable zoom, CableComp, TileMatrix (5x5), TileComp, video ready, scheduler (w/ RTC), sharpness/softness, off-timer (countdown), screen saver, vacation switch, 10-bit gamma, AutoBright (signal input), Windows Vista-certified, portrait-capable	Power Management, Plug and Play (DDC/CI, DDC2B), PIP (remote), multi-level programmable zoom, CableComp, TileMatrix, TileComp, Screen Saver, Rapid Response, Video Ready (no tuner), infrared remote control included, portrait-capable	Expansion slot, ultra-thin bezel, programable lookup tables, Plug and Play (DDC/CI, DDC2B), PIP (remote), POP, 6-axis color adjustment, multi-level programmable zoom, CableComp, TileMatrix (5x5), TileComp, video ready, scheduler (w/ RTC), sharpness/softness, off-timer (countdown), screen saver, vacation switch, 10-bit gamma, AutoBright (signal input), Windows Vista-certified, portrait-capable
Touch-Capable	Designed for integration	Designed for integration	Designed for integration	Designed for Integration	Designed for integration	Designed for integration
Voltage Rating	AC 100-120V/ AC 220-240V@50/60 Hz	AC 100-120V/ AC 220-240V@50/60 Hz	AC 100-120V/ AC 220-240V@50/60 Hz	AC 100-120V/ AC 220-240V@50/60 Hz	AC 100-120V/ AC 220-240V@50/60 Hz	AC 100-120V/ AC 220-240V@50/60 Hz
Power Consumption (typical)						
On	140W	240W	240W	390	350W	590W
Power Savings Mode	< 5W	< 5W	< 5W	< 5W	< 5W	< 7W
Dimensions (WxHxD)						
Net (with stand)	31.1 x 20.1 x 7.9 in. / 789 x 510.3 x 200mm	36.2 x 22.4 x 13 in. / 919.5 x 567 x 330mm**	41.6 x 25.4 x 13.8 in. / 1056.6 x 645.2 x 350.3mm**	47.2 x 28.8 x 15.7 in. / 1200 x 732.5 x 400mm**	53.5 x 32.5 x 19.4 in. / 1357.8 x 825.1 x 492mm	(L)61.8x38x19.7 in/1569.4x966x500mm (P)36.3x642x16.1 in/921x1631.8x410mm
Net (without stand)	31.1 x 18.9 x 5.5 in. / 789 x 479 x 140mm	36.2 x 21 x 5.5 in. / 919.5 x 533.4 x 140mm	41.6 x 24 x 5.5 in. / 1056.6 x 609.6 x 140mm	47.2 x 27.4 x 5.8 in. / 1200 x 696 x 147.5mm	53.5 x 31.2 x 6.5 in. / 1357.8 x 792.8 x 164mm	(L)61.8x38x8.7 in/1569.4x921x221.6mm (P)36.3x61.8x8.7 in/921x1569.4x221.6mm
Net Weight						
(with stand)	37.5 lbs. / 17 kg	68.6 lbs. / 31.1 kg	83.6 lbs. / 37.9 kg	102.5 lbs. / 46.5 kg	138.9 lbs. / 63 kg	194 lbs. / 88 kg
(without stand)	35.3 lbs. / 16 kg	64.8 lbs. / 29.4 kg	79.6 lbs. / 36.1 kg	97.7 lbs. / 44.3 kg	130.1 lbs. / 59 kg	183 lbs. / 83 kg
VESA Hole Configuration Specifications	200 x 200mm (8 hole) / 200 x 100mm (6 hole)	200 x 200mm (8 hole) / 200 x 100mm (6 hole)	200 x 200mm (8 hole) / 200 x 100mm (6 hole)	200 x 200mm (8 hole) / 200 x 100mm (6 hole)	200 x 200mm (8 hole) / 200 x 100mm (6 hole)	200 x 200mm (8 hole) / 200 x 100mm (6 hole)
Environmental Conditions						
Operating Temperature	5-40° C / 41-104° F	5-40° C / 41-104° F	5-40° C / 41-104° F	5-40° C / 41-104° F	5-40° C / 41-104° F	5-40° C / 41-104° F
Operating Humidity	20-80%	20-80%	20-80%	20-80%	20-80%	20-80%
Operating Altitude	4200m / 13,780 ft.	4200m / 13,780 ft.	4200m / 13,780 ft.	3000m / 9,843 ft.	4200m / 13,780 ft.	4200m / 13,780 ft.
Storage Temperature	-20-60° C / -4-140° F	-20-60° C / -4-140° F	-20-60° C / -4-140° F	-20-60° C / -4-140° F	-20-60° C / -4-140° F	-20-60° C / -4-140° F
Storage Humidity	10-90%	10-90%	10-90%	10-90%	10-90%	10-90%
Storage Altitude	12,000m / 39,370 ft.	12,000m / 39,370 ft.	12,000m / 39,370 ft.	12,000m / 39,370 ft.	12,000m / 39,370 ft.	12,000m / 39,370 ft.
Regulatory Approvals	UL 1950/CSA C22.2 No. 950/ TUV-GS/EN60950/FCC-B/DOC-B/ EN55022-B/EN55024/EN61000-3-2/EN1000-3-3/CE	UL 60950/CSA C22.2 No. 950/ TUV-GS/EN60950/FCC-B/DOC-B/ EN55022-B/EN55024/EN61000-3-2/EN1000-3-3/CE	UL 60950/CSA C22.2 No. 950/ TUV-GS/EN60950/FCC-B/DOC-B/ EN55022-B/EN55024/EN61000-3-2/EN1000-3-3/CE	UL 60950/CSA C22.2 No. 950/ TUV-GS/EN60950/FCC-B/DOC-B/ EN55022-B/EN55024/EN61000-3-2/EN1000-3-3/CE	UL 60950/CSA C22.2 No. 950/ TUV-GS/EN60950/FCC-B/DOC-B/ EN55022-B/EN55024/EN61000-3-2/EN1000-3-3/CE	UL 60950/CSA C22.2 No. 950/ TUV-GS/EN60950/FCC-B/DOC-B/ EN55022-B/EN55024/EN61000-3-2/EN1000-3-3/CE
Included Accessories	AC power cord, user manual, setup sheet, wireless remote control, batteries, 15-pin RGB cable, CD-ROM, stand	AC power cord, user manual, setup sheet, wireless remote control, batteries, 15-pin RGB cable, CD-ROM	AC power cord, user manual, setup sheet, wireless remote control, batteries, 15-pin RGB cable, CD-ROM	AC power cord, user manual, setup sheet, wireless remote control, batteries, 15-pin RGB cable, CD-ROM	AC power cord, user manual, wireless remote control, batteries, 15-pin RGB cable, CD-ROM, stand	AC power cord, user manual, wireless remote control, batteries, 15-pin RGB cable, CD-ROM, stand
Optional Accessories	External speakers, tilt wall mount kit (WMK3260-L)	External speakers (-AV only), digital tuner (-AV only), tilt wall mount kit (WMK3260-L), stand, internal SD-HDI card (SB-L007KK; -IT and -AV only)	External speakers (-AV only), digital tuner (-AV only), tilt wall mount kit (WMK3260-L), stand, internal SD-HDI card (SB-L007KK; -IT and -AV only)	External speakers (-AV only), digital tuner (-AV only), tilt wall mount kit (WMK3260-L), stand, internal SD-HDI card (SB-L007KK; -IT and -AV only)	External speakers, tilt wall mount kit (WMK3260-L)	External speakers, digital tuner, internal SD-HDI card (SB-L007KK; -IT and -AV only)
On-Site Limited Warranty	3 years parts and labor, including backlight	3 years parts and labor, including backlight	3 years parts and labor, including backlight	3 years parts and labor, including backlight	3 years parts and labor, including backlight	3 years parts and labor, including backlight
Technical Support	M - F (7am - 7pm CST)	M - F (7am - 7pm CST)	M - F (7am - 7pm CST)	M - F (7am - 7pm CST)	M - F (7am - 7pm CST)	M - F (7am - 7pm CST)

* not available on IT models
** optional stand available

NEC