Samsung large-sized LED displays (ME, ED Series)

Superb picture quality and touchscreen options with energy-efficient 65-inch and 75-inch screens

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Discover a flexible, cost-efficient alternative to standard projectors.

Upgrade presentations with LED LFDs that unite projector, screen and whiteboard functions

Businesses, professionals and educational institutions that use conventional projectors and screens are looking for a better, clearer way to present content. They want digital alternatives to traditional projectors, which present several obstacles to 21st century communication.

Because surrounding light dims the brightness of projected images, presentations using traditional projectors can be viewed best only in darkened rooms, which makes note-taking difficult. Projected images lose focus when the presenter touches the screen or changes the content source. Viewers and presenters also must contend with distractions from shadows, dazzling, dust, machine heat and fan noise.

Operating projectors can also be costly and inefficient:

- **Cumbersome installation.** Installing projectors and screens out of the way in ceilings requires specialized skills.
- **Unreliable operation.** The need to change projector lamps frequently, sometimes in the middle of a presentation, adds to costs and decreases efficiency.
- **Limited interactivity.** To make presentations interactive, presenters may also need to incorporate a whiteboard.
- **Lack of flexibility.** After the initial purchase and setup, users may find it difficult and expensive to change the configuration of a projector, screen and whiteboard.

Figure 1. Samsung LED LFDs provide high-performance messaging.

Deliver an immersive information experience with contemporary ambience

Large format displays (LFDs) are proliferating as a preferred way to communicate messages and create a seamless viewing experience. However, cold cathode fluorescent lamp (CCFL) LFDs and conventional video walls can present communication challenges:

- CCFL displays are typically heavy and thick, making them difficult to move and install.
- Conventional LFDs can require separate signal video distributors, additional media players and other devices that increase cables and room clutter.
- Installing multiple LFDs to improve the viewing experience increases expense and installation difficulties.
- Many conventional LFDs offer a monotonous design with thick bezels that distract viewers from the overall message and detract from a sophisticated business atmosphere.

Figure 2. Eye-catching large-sized LFDs capture attention in retail settings.

Bright, clear images help capture audience attention.

Samsung ME and ED Series 65-inch and 75-inch LFDs provide a superior alternative to traditional projectors and CCFL displays. These LED LFDs offer:

- **Large, clear, crisp displays.** Because LED LFDs provide the same amount of brightness regardless of surrounding light, viewers can see text, images and videos even in brightly lit rooms.
- **Improved energy use.** Samsung LED lamps require less electricity than conventional LFD technology, which increases energy efficiency.
- **Lower-temperature operation.** Samsung LED LFDs emit less heat than conventional LFDs, decreasing the need for costly air conditioning and reducing wear on the equipment.
- **Slim design for low-cost installation.** Thinner and lighter than conventional LFDs, these displays can be handled and installed without special tools even in tight places, reducing installation costs.
- **Flexible mounting options.** The slim displays are designed for easy mounting wherever they are needed, on walls or using movable stands, providing a more efficient use of space.
- **Built-in connectivity.** Samsung ME and ED Series LED LFDs include RJ45 and RS-232C connections that can be used simultaneously, avoiding the need for additional signal devices.
- **Samsung MagicInfo™ Lite included with ME Series.** Digital signage software with internal memory and an internal media player eliminates the need for an external PC.
- **Optional Plug-in Module (PIM).** The cableless PIM PC solution transfers power and signals internally to enable content customization.
- **Optional touchscreen overlay.** Presenters can transform screens into interactive whiteboards with drawing and writing capabilities using the touchscreen overlay.

Virtually all types of content, including videos, display better on LED screens.

Sharpen messages and pictures with advanced Samsung LED LFD models

Samsung ME and ED Series LED LFDs feature several innovations that optimize the impact of presenters' messages with brighter, clearer images.

Backlighting
LEDs are situated behind the panel for better picture quality, broader color contrast and added depth to blacks.

Enhanced readability
A glare-proof surface reduces light scatter and reflection and provides contrast ratio enhancement.

Super-bright displays
Nits that range from 400 to 550 enable easier reading, even in well-lit areas.

Rapid refresh rates
ED Series LFDs offer a refresh rate of 120 Hz and ME Series displays provide a rate of 240 Hz. These refresh rates convey sharp, smooth pictures, even when images move at top speeds, displaying movies, sports and games with less blur and visual distortion.

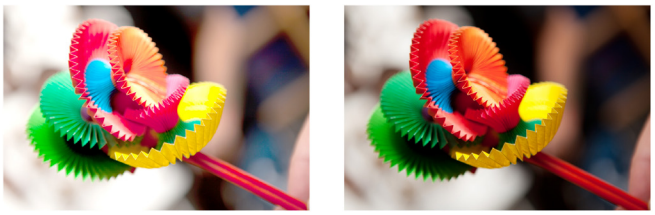


Figure 3. The glare-proof surface provides sharper images.

Samsung LED LFDs are designed to be eco-friendly and easy to handle.

Pioneering technology provides two options for crisp, clear backlighting

Samsung manufactures two types of LED LFDs based on two distinct types of advanced backlighting technology:

- **Edge-type technology.** ME Series 65-inch and 75-inch LFDs have LED BLUs (backlight units) arranged around the edges of the screen, creating a thin profile.
- **Direct-type technology.** ED Series and 65-inch and 75-inch LFDs array slim direct-type LED BLUs across the entire back of the display panel.

Figure 4. Samsung ME and ED Series backlighting improves picture quality.

Conserve energy with lower power use and cooler operating temperatures

Samsung LED LFDs offer several energy-reducing advantages over conventional projectors and CCFL displays. LED LFD technology:

- Requires less electricity to operate because of lower wattage needs
- Emits less carbon dioxide (CO_2)
- Radiates less heat, reducing energy costs by up to 35 percent according to Samsung internal testing
- Eliminates bothersome fan noise

Both ME and ED LFDs also feature Auto Brightness Sensors. These sensors detect the intensity of ambient light and adjust the light emitted by LED BLUs to save energy without dimming the presentation.

Samsung LED LFDs have been certified for safety and energy efficiency by several agencies around the world, including ENERGY STAR® certification in the United States.

Operating at lower temperatures also helps increase the screens' durability.

Less heat from panel

Less heat means lower room temperature so that cooling costs are reduced also.

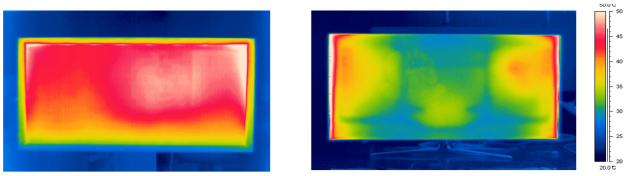


Figure 5. LED LFDs emit less heat than CCFL LFDs.

An optional PIM provides cableless access to media sources.

Simplify installation with slim, lightweight models

Unlike traditional projectors and screens, LED LFDs can be installed readily with no special equipment.

Both ME and ED Series LFDs are easier to handle than CCFL LFDs. LED LFDs weigh significantly less than CCFL LFDs—as little as 25.1 kg (55.3 lb).

The technology behind both the edge-type ME Series and slim direct-type ED Series also reduces the depth of the displays.

The LFDs include a pivot display that enables both portrait and landscape orientations and movable stands for flexible installation options.

Simplify installation with slim, lightweight models

Bezel widths on ME and ED Series LFDs are narrower than those on traditional LFDs. In the ME Series, for example, bezels are as narrow as 12.5 mm (0.49 in.) at the side and 15 mm (0.6 in.) at the bottom.

Narrow bezels reduce distractions for viewers and add sophistication to overall messaging.

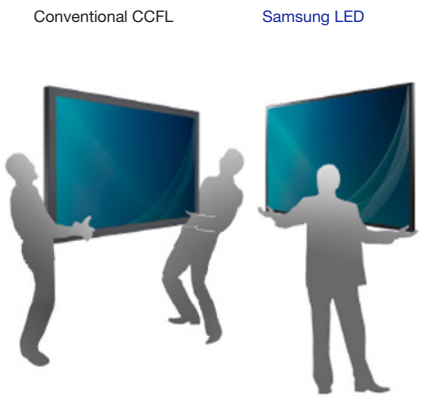


Figure 6. LED LFDs are easier to handle than CCFL LFDs.

Enhance content display with built-in connectivity

Samsung LED LFD displays offer powerful connectivity, with built-in RJ45 and RS-232C connections. Unlike many conventional LFDs, ME Series displays permit both network connections to be used simultaneously.

Using a Digital Visual Interface (DVI) loop out, a single display image can be shared with nearby displays. This innate connectivity eliminates the need to purchase separate video signal distributors for each display, reducing equipment costs.

These LED LFDs also have powerful built-in stereo speakers that enhance the impact of messages.

Optional PIM provides content customization features without adding bulk

The cableless PIM PC solution transfers power and signals internally and supports devices that are compatible with Intel® Open Pluggable Specification (OPS). The module eliminates the need for cables and reduces clutter while retaining a slim design. For example, the slender Samsung PIM adds only 34.4 mm (1.35 in.) of additional depth to the 65-inch and 75-inch ME models.

Users can choose from among three PIM models:

- Dual core, 2 GB of RAM, with Microsoft® Windows® Embedded Standard 7 (WES7), designed for signage with the included MagicInfo-i™ Premium software
- Quad core, 4 GB of RAM, with WES7, designed for signage with the included MagicInfo-i™ Premium software
- Quad core, 4 GB of RAM, 128 GB solid state drive (SSD) with Windows 7 Professional installed, designed for e-Board usage with the included MagicIWB™ (Interactive White Board) 2.0 Basic software

Viewers respond to the ability to write and draw on the touchscreen.

Figure 7. Optional PIM replaces multiple corded devices.

Boost versatility with Samsung MagicInfo™ Lite for ME Series LED LFDs

ME Series LED LFDs include Samsung MagicInfo™ Lite digital signage software, an all-in-one display solution with internal memory and an internal media player. These capabilities eliminate the need for an external PC. Using Samsung MagicInfo™ software, administrators can manage, organize and schedule content on multiple displays through a web-based interface.

MagicInfo™ Lite software connects to the MagicInfo™ Lite Server to control display functions without a Multi-Display Control (MDC) program. Content can be automatically played through the LFD internal memory or with a USB thumb drive Plug-and-Play (PNP) feature.

The application displays many types of content, from Microsoft PowerPoint® slides to Blu-ray Disc™ videos. The display can be split to show multiple messages from various sources.

Add interactive whiteboard functions with optional touchscreen

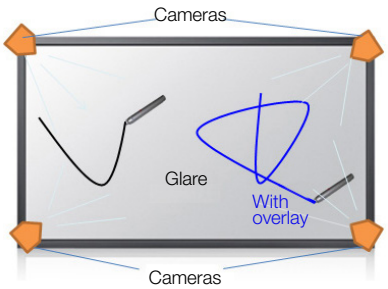
Both ME and ED Series LED LFDs can be transformed into e-Boards by installing an optional touchscreen overlay.

Special antiglare film covers the surface of the overlay for a smooth writing surface and a real handwriting feel. The touchscreen overlay includes two Touch Pens and Samsung MagicIWB™ (Interactive White Board) software. The touchscreen overlay features a pen tray that provides one upstream and two downstream USB ports.

The pens and touchscreen overlay enable smooth writing and drawing on the screen. The ME Series 65-inch touch accessory overlay uses four optical cameras located in each corner to provide a full dual-drawing experience. The ME Series 75-inch touch option overlay uses infrared (IR) touch technology built on six-point simultaneous touch technology.

Touchscreen installation is designed to be simple. The user places the overlay over the screen, pushes down the holders and turns a few screws.

• Touchscreen overlay
Add interactive whiteboard functionality



• Dual touch
Four optical cameras that are located in each corner of the display offer full dual-drawing perfomance

• Smooth writing surface
Special film covers the surface of the overlay for a real handwriting feel

• Antiglare film

Figure 8. ME Series 65-inch displays feature a touchscreen overlay that uses four cameras to provide writing and drawing capabilities.

Samsung LED LFDs present messages more clearly and flexibly than conventional projectors or CCFL displays

The advanced technology that supports Samsung ME and ED Series 65-inch and 75-inch LED LFDs offers several advantages over conventional projectors and CCFL displays:

- LED BLU screens display a wide range of messages with stereo audio and a sharp, clear picture, even in lighted rooms.
- The optional touchscreen overlay with Touch Pens and Samsung MagicIWB™ (Interactive White Board) software can transform an LED LFD into an interactive whiteboard.
- Viewers can concentrate on presentations better without being distracted by fan noise, dust, machine heat, shadows or changes in focus.
- Organizations can lower energy costs by up to 35 percent.
- Samsung LED LFDs are easier and less expensive to install, move and operate.
- Versatility features include MagicInfo™ Lite software, which eliminates the need for an external PC, and the optional PIM, which improves content customization and connectivity.

Audiences can absorb content better with interactivity options and free of distractions such as noise, dust, machine heat and shadows.

Features and benefits

Features	Benefits
Backlighting and a glare-proof surface	Brighter, clearer pictures, text and video
Low wattage and cooler operation	Decrease in energy costs of up to 35 percent
Slim, lightweight design	Simplified installation
Built-in RJ45 and RS-232C connections	Lowered equipment costs
Optional PIM	Internal transfer of power and signals that reduces cable clutter
Optional interactive touchscreen overlay	Ability to draw and write on screens

Specifications

Model			ME65B	ME75B
Panel	Diagonal size		65 in.	75 in.
	Type		Edge LED BLU (AMV3)	240 Hz LED BLU
	Resolution		1,920 x 1,080 (16:9)	
	Pixel pitch (H/V)		0.744 mm (H) x 0.744 mm (V) (0.03 in. x 0.03 in.)	0.287 mm (H) x 0.860 mm (V) (0.01 in. x 0.03 in.)
	Active display area (H/V)		1,428.5 mm (H) x 803.5 mm (V) (56.3 in. x 31.6 in.)	1,650.24 mm (H) x 928.26 mm (V) (64.97 in. x 36.55 in.)
	Brightness (typical.)		450 cd/m²	550 cd/m²
	Contrast ratio		5,000:1	
	Viewing angle (H/V)		178/178	
	Response time (G-to-G)		5.5 ms	4 ms (typical)
	Display colors		1.07 billion	10 bit dithering, 1.07 billion
	Color gamut		72%	
Display	Dynamic C/R		100,000:1 (AV Mode)	
	H-scanning frequency		30 – 81 kHZ	
	V-scanning frequency		56 – 75 HZ	
	Maximum pixel frequency		148.5 MHz	
Connectivity	Input	RGB	Analog D-sub, DVI-D, DisplayPort®	
		Video	Component (CVBS common), High-Definition Multimedia Interface® (HDMI®)	
		Audio	Stereo mini jack	
	Output	RGB	DVI-D	
		Audio	Stereo mini jack	
	External control		RS-232C (in/out) through stereo jack, RJ45	
	External sensor		IR, ambient light	
Power	Type		Internal	
	Power supply		AC 100 – 240 V (+/- 10 %), 50/60 Hz	
	Power consump-tion	Max (W/h)	290 W	375 W
		Typical (W/h)	W/O PIM: 180 W (W/W), 107W (N. America, Korea)	W/O PIM : 280 W (W/W), 120W (N. America, Korea)
		BTU (Max)	W/O PIM : 647.9W (All regions)	With PIM : 1278.75W (All regions)
		Sleep mode	Less than 1 W	
		Off mode	Less than 1 W	
Mechanical specifications	Dimensions	Set	1480.5 mm x 855.5 mm x 32.2 mm (58.3 in. x 33.7 in. x 1.27 in.)	1678.2 mm x 958.7 mm x 49.9 mm (66.1 in. x 37.7 in. x 2 in.)
		Package	1641 mm x 220 mm x 988 mm (64.6 in. x 8.7 in. x 38.9 in.)	1863.0 mm x 1173.0 mm x 473.0 mm (73.3 in. x 46.2 in. x 18.6 in.)
	Weight	Set	25.1 kg (55.3 lb)	44.1 kg (97.2 lb)
		Package	32.2 kg (80 lb)	69.7 kg (153.7 lb)
	VESA mount		400 mm x 400 mm (15.75 in. x 15.75 in.)	
	Protection Glass		TBD	N/A
	Stand type		Foot stand (optional)	Stand (optional)
	Media player option type		Embedded, PIM	
	Bezel width		21.5 mm (0.85 in.)	12.5 mm (0.49 in.) (Bottom ,15.0 mm) (0.59 in.)

Specifications, continued

Model			ME65B	ME75B
Operation	Operation temperature		0°C – 40°C (32°F – 104°F)	
	Humidity		10 – 80%	
Feature	Key		Slim and light LFD with built-in MagicInfo™ Lite	
	Internal player (embedded hardware)	Processor	ARM® Cortex™-A8 single core CPU with NEON™ Digital Signal Processing (DSP)	ARM Cortex-A8 single core CPU with NEON DSP
		On-chip cache memory	L1 (I/D): 32 KB / 32 KB; L2 (Unified): 512 KB	
		Clock speed	Up to 800 MHz	
		Main memory interface	Dual 32-bit DDR3-667 (1333 MHz)	
		Graphics	2-D and 3-D graphics engine - Up to 1,920 x 1,080, 32 bpp - Supports OpenGL® ES	
		Storage (FDM)	4 GB (1.2 GB occupied by O/S, 2.8 GB available)	
		Multimedia	Video decoder - MPEG-1/2, H.264/AVC (dual) - VC-1, JPEG, PNG, Audio DSP (decoder) - AC3 (DD), MPEG, DTS and more	
		Host bus	PCIE x 2.0	
		IO ports	USB 2.0	
		Operating system	Linux®	
Accessories	Input		Quick Setup Guide, warranty card, application CD, power cord, remote controller, batteries, D-sub cable, RS-232C to stereo gender in/out cable, external IR sensor	Quick Setup Guide, warranty card, application CD, power cord, remote controller, batteries, D-sub cable, RS-232C to stereo gender in/out cable
	Optional	Stand	STN-L4055AD	STN-L75D
		Mount	WMN4655MD, WMN4675MD	WMN4655MD (landscape only), WMN4675MD
		Specialty	TBD	N/A
Media player	CPU		SBB-A (optional), PIM (optional)	SBB-A (optional), PIM (optional)
	N/B			
	S/B			
	GPU			
	FDM/HDD			
	Memory			
	Ethernet			
	Connectivity	USB		
		Output		
		Others		

Specifications (optional ME65B and ME75B touchscreen overlay)

Model			CY-TM65	CY-TM75
General information	Product concept		Touchscreen overlay	
	Series		ME65B	ME75B
	Diagonal size		65 in.	75. in.
Mechanical specs	Dimensions	Set	1,501.0 mm x 882.0 mm x 62.6 mm (59.09 in. x 34.7 in. x 2.47 in.)	1,737.2 mm x 1015.5 mm x 25.5 mm (68.39 in. x 39.98 in. x 1 in.)
	Weight	Set	14.9 kg (32.85 lb)	21.1 kg (46.52 lb)
	Glass thickness		3.2 mm (0.126 in.)	
	Glass film		AG (front), PET (rear)	AG (front), PET (rear)
	Glass reflection rate		≤10%	
	Glass haze		≤15%	
	Frame material		Aluminum extrusion	
	Bezel width		30.0 mm (1.18 in.)	42.7 mm (1.68 in.)
Touch	Touch technology		Optical (4 ea. cameras)	IR
	Number of simultaneous touches		2 drawing for e-Board	6 point
Accessories	Included	Software	MagicIWB™ (Interactive White Board) 2.0 Basic (e-Board software)	
		Hardware	Pen tray (including USB hub with 1-up, 2-down), pen	

Specifications

Model			ED65C	ED75C
Panel	Diagonal size		65 in.	75 in.
	Type		60 Hz LED BLU	240 Hz LED BLU
	Resolution		1,920 × 1,080 (16:9)	
	Pixel pitch (H/V)		0.248 mm (H) x 0.744 mm (V) (0.009 in. x 0.029 in.)	0.287 mm (H) x 0.860 mm (V) (0.011 in. x 0.034 in.)
	Active display area (H/V)		1,428.48 mm (H) x 803.52 mm (V) (56.24 in. x 31.64 in.)	1,650.24 mm (H) × 928.26 mm (V) (64.97 in. x 36.55 in.)
	Brightness (typical)		320 nit	
	Contrast ratio		4,000:1	
	Viewing angle (H/V)		178:178	
	Response time (G-to-G)		6.5 ms	4 ms
	Display colors		10-bit dithering, 1.07 billion	10-bit dithering, 1.07 billion
	Color gamut		70%	
Connectivity	Input	RGB	Analog D-sub	
		Video	HDMI	
		Audio	Stereo mini jack	
	Optional	Audio	Stereo mini jack	
	External control		RS-232C (in/out) through stereo jack	
Power	Type		Internal	
	Power supply		AC 100 - 240 V (+/- 10 %), 50/60 Hz	
	Power consumption	Max (W/h)	290	360
		Typical (W/h)	180	247
		Sleep mode	Less than 1 W	
		Off mode	Less than 1 W	
Mechanical specifications	Dimension	Set	1467.4 x 848.0 x 64.9	1675.0 x 959.1 x 64.8
	Weight	Set	26.8	28.8
	VESA mount		400 mm x 400 mm (15.75 in. x 15.75 in.)	
	Stand type		Foot stand (optional)	
	Media player option type		PIM	
	Bezel width		18.0 mm(Bottom 23.5 mm)	10.9 mm(Bottom 16.9 mm)
Operation	Operating temperature		0°C – 40°C (32°F – 104°F)	
	Humidity		10 – 80%	
Feature	Key		LED LFD	
	Special		Built-in speaker (10 W + 10 W), PIP/PBP, narrow bezel, light weight, RS-232C In/Out, 1 D-sub and 1 HDMI	
Accessories	Included		Quick Setup Guide, warranty card, D-sub cable, power cord, remote controller, batteries	
	Optional	Stand	EN60950-1	
		Mount	Class A	
		Specialty	CML450D (ceiling mount)	

Legal and additional information

About Samsung Electronics Co., Ltd.

Samsung Electronics Co., Ltd. is a global leader in semiconductor, telecommunication, digital media and digital convergence technologies with 2011 consolidated sales of US$143.1 billion. Employing approximately 227,000 people in 197 offices across 75 countries, the company operates three separate organizations to coordinate its 10 independent business units: Consumer Electronics (CE), comprising Visual Display, Home Appliances, Printing Solution, and Health and Medical Equipment; Information Technology and Mobile Communications (IM), including Mobile Communications, Network, and Digital Imaging; and Device Solutions (DS), consisting of Memory, System LSI, and LED. Recognized for its industry-leading performance across a range of economic, environmental and social criteria, Samsung Electronics was named the world's most sustainable technology company in the 2011 Dow Jones Sustainability Index. For more information, please visit www.samsung.com.

For more information

For more information about the Samsung ME and ED Series large-sized LED displays, visit www.samsunglfd.com.

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2013-06