Stunning, high-performance displays that attract customers with highquality, ultra-bright images



#### **Highlights**

- Superb, ultra-bright image quality. Engage viewers with excellent image clarity and consistency through 700 nit High Brightness and low 2% haze, 5,000:1 contrast ratio, a picture quality setting that can be optimized for the environment, and detailed color temperature range control.
- **Durability and consistent high performance.** Rely on robust signage durability during continuous 24hours/7days operation to ensure that your business message is always conveyed brilliantly.
- Rich content delivery through a Quad Core processor. Easily manage a vast range of dynamic content with various content display options, 3rd Generation SSSP featuring a built-in media player and myriad connectivity options.
- Easy, efficient operation and maintenance. Conveniently and economically operate and maintain multiple displays with MagicInfo S3, Daisy Chain configuration capability, Magic Clone, Auto Source Switching and energy-efficient usage.
- **Stylish design.** Captivate audiences with sophisticated displays that feature ultra-slim bezels with built-in black hairline deco bezel and a tag-type logo

# Elevate your brand image through exquisite digital signage

Many businesses look to digital signage as an effective way to communicate with customers and promote products and branding messages. Smart managers know that business messages are more impactful when they are delivered through bright, immersive displays. However, today's companies also need digital signage that is cost-efficient, easy to install and control, and reliable during long, 24/7 operation.

Samsung DHE Series SMART Signage delivers superb performance and high-quality, ultra-bright images in a chic, captivating design. Businesses can customize the displays' appearance with attractive bezel color options and a flexible tag-style logo. And, when it comes to installation, operation and maintenance DHE Series displays offer myriad connection options, straightforward control and economical usage.

Reach customers 24 hours a day with reliable displays that project crystal-clear, highly legible images for an immersive viewing experience



# Deliver enriched digital messaging 24/7 with high brightness, visibility and premium picture quality

## Immerse audiences in business messaging with bright, excellent image quality

DHE Series displays mesmerize viewers with stunning images in high 700 nit brightness and an extremely high 5,000:1 contrast ratio. To focus viewers attention, the 2% haze panel for enhanced visibility on these vivid, crystal clear images presented in 700-nit brightness that are highly legible in various lighting conditions for an immersive viewing experience. In addition, Samsung's unique Picture Quality Enhancer function optimizes the color, detail, contrast and color temperature for each environment. DHE series displays can be adjusted to clearly display the business message in virtually any environment but is especially advantageous in high-end fashion retail shops, entertainment venues and malls that require 24/7 operation. Picture Quality Enhancer functionality includes detailed color temperature control with a wider range of color temperatures (from 2,800 to 16,000K) and finely tuned control (adjustable in steps of 500).

### Experience reliable 24/7 operation for continuous messaging delivery

DHE Series displays' 24/7 robust durability delivers uninterrupted and dependable operation for consistently compelling customer messaging. Luxury retailers, malls and entertainment venues that run 24 hours a day and must provide rich messaging stand to gain the most from these continuously running displays that deliver reliable messaging while lowering costs due to less downtime and equipment maintenance.



Figure 1. Samsung DHE Series SMART Signage delivers immersive and luxurious shopping experience



# Leverage streamlined display and content control for a highly efficient, no hassle operation

## Conveniently and simply manage a rich array of content with an advanced platform

DHE Series displays deliver myriad rich content with a built-in media player and simplified management.

#### 3<sup>rd</sup> Generation Samsung SMART Signage Platform (SSSP)

3rd Generation SSSP, an integrated hardware and software solution, features a media player embedded inside the display as a powerful Quad Core System on Chip (SoC). The powerful platform streamlines digital signage configuration and management by eliminating the need for an additional PC Unit. In addition, 3rd Generation SSSP features 8GB storage for flexibility and convenient, easy usage. The result is an uncluttered and simplified digital signage configuration that delivers rich, high-resolution media content smoothly, as well as enhanced operational efficiency and lower TCO.



Figure 2. Robust capabilities of Samsung SMART Signage Platform (SSSP)

## Conveniently and simply manage a rich array of content while reducing TCO

#### Streamlined display and content management

DHE Series 3rd Generation SSSP helps businesses boost revenues with professionally polished content created through an embedded content management solution, MagicInfo S3. Along with widgets and stickers, the solution provides six types of free fonts in 23 styles. New MagicInfo S3 eliminates single-font formatting limitations with the upgraded ability to select from various free fonts or add user-selected fonts. For convenient and straightforward content changes, users can deliver messages in a stamp format, along with preset or user-generated, text-editable stickers to update promotional information and price tags. Content can be enriched through eye-catching transitions with Dynamic Effect, a feature that enables slideshow-type effects, such as fade, fly-on and zoom. Plus, a drag-and-drop widget solution can be used to simply add widgets such as AccuWeather<sup>®</sup>, which displays 1-day and 1-week weather for the ultimate in professional content presentation.

#### Easy, economical startup and operation

A newly designed Home Menu UI displays frequently used functions in a new, large-button matrix design for heightened efficiency and productivity. Users can generate content more easily and conveniently than ever with the Home Menu's newly designed templates for various vertical markets including grocery stores, QSRs, terminals and lobbies. Businesses can leverage these sharp, professional template layouts to produce and design content in either portrait or landscape orientation. And, the Home Menu can transform into a touch-activated user experience with the addition of an optional Touch Overlay.

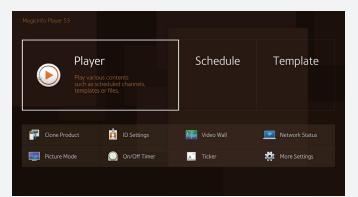


Figure 3. Easy and intuitive operation of MagicInfo S3

#### Auto Image Rotation

Auto Image Rotation eliminates the unnecessary time, expense and effort of initially creating content in portrait mode, and allows landscape content to be rotated at full ratio for portrait-oriented displays or multiple displays. This flexibility enhancing feature enables users to tailor content orientation more easily.

#### Optional Plug-in-Module (PIM) and Set-Back-Box (SBB)

An optional PIM and SBB expand content possibilities with external media player connectivity, enabling a broader range of digital content to be accessed.



### Elevate the display environment with a sleek, sophisticated design

#### Efficiently operate and control multiple displays

DHE Series displays provide effective, economical and convenient multi-display content management and artistic, dynamic multiple displays configurations.

#### Easy Initial Settings

DHE Series displays feature true plug-and-play capability, enabling users to simply power on the display and readily select initial settings, without having to explore a vast and complicated set of menus.

#### Artistic Daisy Chain for multiple displays

Businesses can enthrall audiences with unique, eye-catching content simultaneously on multiple displays with no hassle using Daisy Chain configuration capabilities. Up to 100 displays can be conveniently connected with a USB device through DP Loop Out to display identical content and engage a large number of viewers.

#### **Convenient Magic Clone**

The installation of multiple displays is greatly simplified with time-saving Magic Clone, which allows users to save setting information (such as brightness, contrast and so on) from one display and then replicate it to other displays with a USB device. Magic Clone also provides uniformity among the displays for a more polished, professional appearance.

#### Auto Source Switching

This function keeps the displays functioning when issues arise by automatically switching to alternate active sources when the currently active sources go offline.



Figure 4. Various bezel types for polished professional look

### Engage viewers with an attractive and decorative design that is optimized for the environment

DHE Series displays maintain the same slim and stunning design as previous Samsung D-Series SMART Signage for a consistent and captivating appearance. These beautiful displays feature slim and elegant 13.3 mm (0.52 in.) bezels with package-included black hairline deco-bezel or optional white deco-bezel to suit the installation environment and elevate the decor. Additionally, a flexible, tag-type spacer with a logo is designed for either portrait or landscape installations to create a polished professional look in any space.

## Lower costs through simplified management and energy-efficiency

Easy display operation through remote or USB devices, or through Wi-Fi, along with simplified maintenance to help conserve resources and provide a powerful means of reducing TCO. The displays can be conveniently and readily controlled from a Note PC, tablet or smartphone\* application\*\* with a Wi-Fi- connection. SoC players can be controlled in real-time through a network for efficient mobile management. Plus, reduced power consumption, minimal heat emission compared to the previous DMD Series, and an energy-efficient design make these displays cost-efficient for business use.

\*Compatible with - Mobile devices with Android™ (4.4.2 or above)

- Mobile devices with iOS® (8.0 or above)

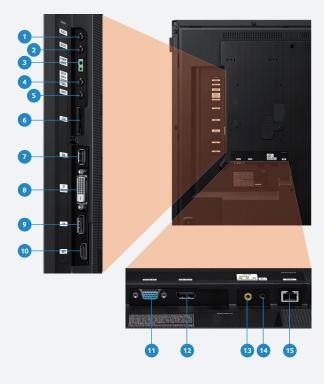
\*\* MagicInfo Express Content Creator 2.0
Downloadable in Google Play™ store and Apple App Store<sup>SM</sup>



DHE



**Connectors (Global)** 



**Connectors (North America, Korea)** 



- 1. RS232CIN
- 2. RS232C OUT
- 3. IR/AMBIENT SENSOR IN
- 4. RGB/DVI/HDMI/AV/ COMPONENT/AUDIO IN
- 5. AUDIO OUT
- 6. SD CARD
- 7. USB
- 8. DVI/MAGICINFO IN
- 9. DP IN
- 10. HDMI IN
- 11. RGB IN 12. DP OUT
- 13. VIDEO/COMPONENT IN 14. IR OUT
- 15. RJ45

- 1. RS232C IN
- 2. RS232C OUT
- 3. IR/AMBIENT SENSOR IN
- 4. RGB/DVI/HDMI/AV/ COMPONENT/AUDIO IN
- 5. AUDIO OUT
- 6. SD CARD
- 7. USB
- 8. DVI/MAGICINFO IN
- 9. DP IN 10. HDMI IN
- 11. RGB IN
- 12. DP OUT
- 13. ANT IN
- 14. VIDEO/COMPONENT IN
- 15. IR OUT
- 16. RJ45



### Specifications

			DH40E	DH48E	DH55E	
	Diagonal Size		40"	48"	55"	
Panel	Туре			60Hz D-LED BLU		
	Resolution		1,920 x 1,080 (16:9)			
	Pixel Pitch (mm/in.)		0.15 x 0.46 (0.006 x 0.018)	0.18 x 0.54 (0.007 x 0.021)	0.21 x 0.63 (0.008 x 0.024)	
	Active Display Area(mm)		885.6 x 498.1 (34.8 x 19.6)	1,054.0 x 592.9 (41.4 x 23.3)	1,209.6 x 680.4 (47.6 x 26.7	
	Brightness(Typ.)			700nit		
	Contrast Ratio(Typ.)		5000:1			
	Viewing Angle(H/V)		178:178			
	Response Time(G-to-G)		8ms 6ms			
	Display Colors		10bit Dithering - 1.07Billion			
	Color Gamut		72%			
	Dynamic C/R		50,000:1			
	H-Scanning Frequency		30,000.1 30 ~ 81kHZ			
Display	V-Scanning Frequency		30 ~ 61k⊓∠ 48 ~ 75HZ			
	Maximum Pixel Frequency		46 ~ 70HZ 148.5MHz			
Sound	Speaker Type		Built in Speaker (10W + 10W)			
	RGB		Analog D-SUB, DVI-D(HDMI <sup>®</sup> Common), DisplayPort <sup>®</sup> 1.2			
		VIDEO	HDMI1 Component(CVBS Common)			
Connectivity	INPUT	AUDIO	Stereo mini Jack			
		USB	USB 2.0 x 1			
		RGB				
		VIDEO	DP1.2(Loop-out) N/A			
	OUTPUT	AUDIO	Stereo mini Jack			
		Power Out	N/A			
	EXTERNAL CONTROL		RS232C(in/out) thru Stereo Jack, RJ45			
	EXTERNAL SENSOR		IR, Ambient Light			
	Туре		Internal			
	Power Supply		AC 100 - 240 V~ (+/- 10 %), 50/60 Hz			
		Max[W/h]	135	145	175	
Power	Power Consumption	Typical[W/h]	85(w/w), 48(us), 91(kor)	97(w/w), 44(us), 105(kor)	138(w/w), 70(us), 135(kor)	
		BTU(Max)	460.35	494.45	596.75	
		Sleep mode	less than 0.5W			
		Off mode	less than 0.5W			
	Dimonsion (mm/in)	Sot	913.2 x 531.3 x 52.4	1,081.7 x 626 x 52.4	1,237.2 x 713.5 x 52.4	
	Dimension (mm/in.)	Set	(35.9 x 20.9 x 2.0)	(42.5 x 24.6 x 2.0)	(48.7 x 28 x 2)	
		Package	1,062 x 600 x 115	1,257 x 720 x 130	1,418 x 810 x 130	
			(41.8 x 23.6 x 4.5) 906.6 x 524.7 x 49.9	(49.4 x 28.3 x 5.1) 1,075.1 x 619.4 x 49.9	(44.8 x 31.8 x 5.1) 1,230.6 x 706.9 x 49.9	
	w/o Deco Dimension (mm/in.)	Set	(35.6 x 20.6 x 1.9)	(42.3 x 24.3 x 1.9)	(48.4 x 27.8 x 1.9)	
	Maight (kg/lbs)	Set	8.6 (18.9)	12.2 (26.8)	17.1 (37.6)	
	Weight (kg/lbs)	Package	10.4 (22.9)	15.7 (34.6)	21.4 (47.1)	
Mechanical	w/o Deco Weight (kg/lbs)	Set	7.5 (16.5)	11.1 (24.4)	15.4 (33.9)	
Spec		Package	9.1 (20)	14 (30.8)	19.5 (42.9)	
	VESA Mount (mm)		200 x 200	400 x 400	400 x 400	
	Protection Glass		N/A			
	Stand Type		Foot Stand (Optional)			
	Media Player Option Type		Embedded, SBB(Attachable), PIM(Attachable)			
	Bezel Width (mm/in )		13.3 (0.5)			
	Bottom		18.8 (0.7)			
	w/o Deco Bezel Width	Тор	9.5 (0.3)			
	(mm/in.)	Bottom	15.0 (0.5)			



Specifications

			DH40E	DH48E	DH55E
<b>a</b>	Operating Temperature			0°C~ 40°C	
Operation	Humidity			10~80%	
	Key		Slim & Light SMART Signage with Built-in MagicInfo Player S3		
	Special	H/W	Super Clear Coating, Temperature Sensor, Video Wall(15x15), Pivot Display, Clock Battery (168hrs Clock Keeping), Built in Speaker(10W x 2), Wi-Fi Module Embedded, SD Card Slot, Tuner (only for NA, KR)		
		S/W	Magic Clone (to USB), Auto Source Switching & Recovery, RS232C/RJ45 MDC,Plug and Play (DDC2B), PIP/PBP, Image Rotation, Button Lock, DP 1.2 Digital Daisy Chain (HDCP Support), Buil In MagicInfo Player S3, Firmware Update by Network, SMART Signage New Home Screen, PC-les VideoWall, Predefined Template for Vertical Usage, Multi Channel, Mobile Control, Event Schedule Backup Player, PC-less Touch, MagicPresenter		
		Processor	Cortex <sup>®</sup> -A9 1GHz Quad Core CPU		
		On-Chip Cache	L1 (I/D) : 32KB / 32KB		
		Memory	L2 (Unified) : 1MB		
<b>F</b>		Clock Speed	1GHz CPU Quad		
Feature		Main Memory	1.5GB		
		Interface	Dual 48bit DDR3-933 (1866MHz)		
	Internal Player			2D & 3D Graphics Engine	
		Graphics	- Up to 1,920 x 1,080. 32bpp		
	(Embedded H/W)		- Supports OpenGL ES®		
	· · · · · ·	Storage (FDM)	8GB (2.65GB Occupied by O/S, 5.35GB Available)		/aliable)
				Video Decoder	
		Multimedia	- MPEG-1/2, H.264/AVC (Dual) - VC-1, JPEG, PNG,VP8		
		Wattimedia	Audio DSP (Decoder)		
			- AC3 (DD), MPEG, DTS and etc.		
		IO Ports	USB 2.0		
		Operating System	Linux®		
			(	CB (Europe) : IEC60950-1/EN60950-	1
	Safety		CCC (China) : GB4943.1-2011		
			PSB (Singapore) : PSB+IEC60950-1		
			NOM (Mexico): NOM-001-SCFI-1993		
			IRAM (Argentina) : IRAM+IEC60950-1		
			SASO (Saudi Arabia ) : SASO+IEC60950-1		
			BIS (India) : IEC60950-1 / IS13252		
			NOM (Mexico) : Tuner : NOM-001-SCFI-1993 / Tunerless : NOM-019-SCFI-1998 KC (Korea) : K 60950-1		
			EAC (Russia) : EAC+IEC60950-1		
			INMETRO (Brazil) : INMETRO+IEC60950-1		
			BSMI (Taiwan) : BSMI+IEC60950-1		
			RCM (Australia) : IEC60950-1/AS/NZS 60950-1		
Certification			UL (USA) : cUL60950-1		
			CSA (Canada) : cUL TUV (Germany) : CE		
				NEMKO (Norway) : CE	
			F	FCC (USA) Part 15, Subpart B Class	A
	EMC		CE (Europe) : EN55022:2006+A1:2007 / EN55024:1998+A1:2001+A2:2003		
			VCCI (Japan) : VCCI V-3 /2010.04 Class A		
			KCC/EK (Korea) : Tuner : KN13 / KN20 / Tunerless : KN22 / KN24		
			BSMI (Taiwan) : CNS13438 (ITE EMI) Class A /		
			CNS13439 (AV EMI) / CNS14409 (AV EMS) / CNS14972 (Digital)		
			C-Tick (Australia) : AS/NZS CISPR22:2009		
			CCC (China) :GB9254-2008 / GB17625.1-2012 GOST (Russia/CIS) : GOST R 51317 Series,GOST 22505-97, EN55022:2006+A1:2007,		
			EN55024:1998+A1:2001+A2:2003		
	Environment			ENERGY STAR <sup>®</sup> 6.0 (USA)	



Specifications

			DH40E	DH48E	DH55E	
	Included		Quick Setup Guide, Regulatory Guide , Warranty Card, D-Sub cable, Power Cord, Remote Controller, Batteries, RS232C(IN) adapter, Cover-Jack, Screw (M3L8, 1EA) (M4L8, 4EA)			
Accessories	Optional	Stand	STN-L4055AD, STN-L3240E	STN-L4055AD, STN-4655E		
		Mount	WMN4070SD WMN250MD WMN450MD	WMN4270SD WMN250MD WMN450MD WMN4675MD		
		Specialty	CML400D (Ceiling Mount)	CML450D (Ceili	ng Mount)	
Media Player	CPU N/B S/B GPU FDM/HDD Memory Ethernet					
				SBB, PIM (Optional)		
	Connectivity	USB				
		Output				
		Others				



### Legal and additional information

#### About Samsung Electronics Co., Ltd.

Samsung Electronics Co., Ltd. inspires the world and shapes the future with transformative ideas and technologies, redefining the worlds of TVs, smartphones, wearable devices, tablets, cameras, digital appliances, printers, medical equipment, network systems, and semiconductor and LED solutions. We are also leading in the Internet of Things space through, among others, our Smart Home and Digital Health initiatives. We employ 307,000 people across 84 countries with annual sales of US \$196 billion. To discover more, please visit our official website at www.samsung.com and our official blog at global.samsungtomorrow.com

#### For more information

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2015-04



Data Sheet

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