

# Samsung HB890 and 690 Series

Slim, adaptable, cost-effective displays designed for premium hospitality environments



## Highlights

- Create a sophisticated viewing environment with the premium luxury design of streamlined LED displays
- Offer an upgraded guest experience with wireless connection to personal devices
- Customize important hotel content using the Samsung LYNK™ SINC Internet Protocol (IP) network
- Protect content with Samsung LYNK™ Digital Rights Management (DRM) technology
- Offer a wide range of channel selections with the built-in DVB-T2/C/S2 tuner
- Control expenditures with energy-saving features

## Create an enhanced in-room entertainment experience

Owners and managers of premium hotels want to provide the superior-quality in-room experience that sophisticated travelers expect. Yet, the cost of IP-based equipment and interactive solutions can be prohibitive. In addition, many premium TVs on the market provide a varied selection of features, but include an interface that is difficult to use.

Samsung HB890 and 690 Series displays are integrated, high-performing TVs that include many desirable features and an interface designed for ease of use. These displays contribute to a pleasant room ambiance and superior viewing experience because of their slim, streamlined design. With smart connectivity features, the screens offer myriad entertainment options for guests. Hotel staff members can customize the welcome menu with a straightforward interface. Additionally, hotels can stay on budget with affordable content-streaming options and other cost-saving features.

## Upgrade premium hotel suites with superior display design

HB890 and 690 Series displays are designed especially for 5-star hotel suites. The displays feature a full metal frame and stand for an elevated level of sophistication to enhance the ambiance of high-end hotel rooms.

HB890 and 690 Series displays feature large format display (LFD) LED technology that yields an ultra-thin profile, at just 49.5 mm (1.95 in.) for the HB690 and 34.9 mm (1.37 in.) for the HB890. These displays are one-third the thickness of traditional cold cathode fluorescent lighting (CCFL) displays. The slim profile enables the displays to fit into tight hotel room spaces.

The displays also feature a narrow bezel. Without a cumbersome frame, the displays virtually blend into the background, allowing guests to focus on the images projected rather than the equipment delivering them.



Figure 1. HB890 design



Figure 2. HB690 design

# Wireless, information and channel options satisfy guest requirements.

## Expand flexibility with guest display options

HB890 and 690 Series displays transform a guest room TV into a multidevice entertainment hub with the following included applications:

### Soft AP

Soft AP provides a software access point (AP) or hot spot. Up to four devices can connect wirelessly to the AP, and guests can adjust the signal level and change channels to suit their needs.

### AllShare

AllShare technology, powered by Digital Living Network Alliance (DLNA), enables guests to play personal content through a wireless connection on their room TV. Content includes movies, photos and music.

### Smart View

Smart View software provides a ready connection for guests' mobile devices. The application allows TV screen mirroring technology with an application through Wi-Fi service. Using this application, guests can view content on the TV with their own mobile devices. Compatible devices now include the Samsung GALAXY S II. Future compatible devices are expected to include the GALAXY Tab 7.0 Plus and the Apple® iPhone® and iPad® with iOS v4, v5 and v6.

## Tailor a welcome screen to suit the hotel and its guests

With the LYNK™ SINC application, hotel staff can provide a customized display menu for guests. For example, the menu can offer Hotel Info, Hotel Services, Local Info and Events sections. LYNK™ SINC includes three user interface (UI) templates so hotel personnel can choose the one that works best for the hotel's clientele. The UI is highly flexible, with transparency and background images. The LYNK™ SINC application offers the following features:

- Customized service for groups or individuals
- TV monitoring and management
- Internet protocol TV (IPTV) live multicast

The application also supports Samsung Smart Hub, which enables hotels to download widgets and deliver customized content to guests.

LYNK™ SINC helps reduce total cost of ownership (TCO) because no set-top box (STB) is needed. Also, the solution is not dependent on a system integrator (SI). In addition, no maintenance fee is required and installation costs are low. Guests can use the simplified system to access tourist guidance, weather and other useful information. They can also access popular social media sites, such as Facebook™, Twitter™ and YouTube™.

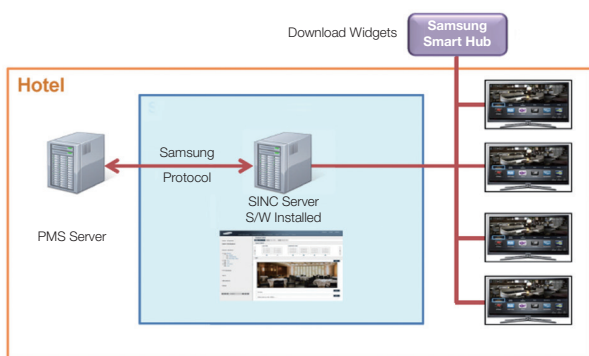


Figure 3. Samsung LYNK™ SINC is a well-organized solution for ordering and serving content to hotel room displays.

### SINC 2.1

#### - SINC Server provides Hotel Widgets

Enable TV installation without Internet Connection

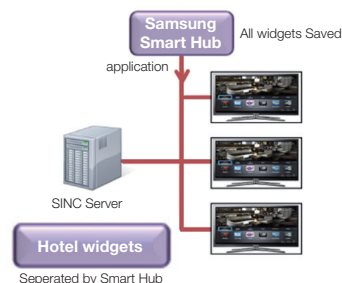


Figure 4. SINC 2.1 includes a library of widgets so users can choose and install applications without an Internet connection.

## Wireless, information and channel options satisfy guest requirements.

### Reduce costs and improve security with robust DRM technology

Samsung LYNK™ DRM technology provides hoteliers with a protected and cost-effective alternative to traditional hardware-based content protection systems. The solution allows encrypted content to pass safely and to display on hotel TVs.

A software-only implementation, LYNK™ DRM technology reduces the need for additional equipment and provides quicker recovery for Conditional Access System (CAS) problems. Enhanced functions include a support video on demand (VoD) system. To help ensure reliability of the system, coverage extends to the enlargement of head-end equipment for cable operators.

### Offer guests a wide variety of channel selections

The built-in DVB-T2/C/S2 tuner is a Quad tuner that delivers multiple channels directly to hotel TVs without the need for a head-end system. The displays also support multiple satellite inputs from Digital Satellite Equipment Control (DiSEqC). This system lowers TCO by eliminating the need to purchase head-end devices for satellite and terrestrial channels.

It also enhances the guest experience by enabling guests to enjoy a variable range of high-definition (HD) satellite and terrestrial TV channels.

### Improve the bottom line with energy-efficient features

Samsung HB890 and 690 Series offers many features to help businesses save energy and reduce costs. The LED displays are cost-effective because they use less energy, emit less carbon dioxide (CO<sub>2</sub>) and require less maintenance than conventional hospitality displays. Additionally, the displays are built with fewer harmful materials than cold-cathode fluorescent lamps (CCFLs), so manufacturing and recycling processes are more efficient and environmentally friendly.

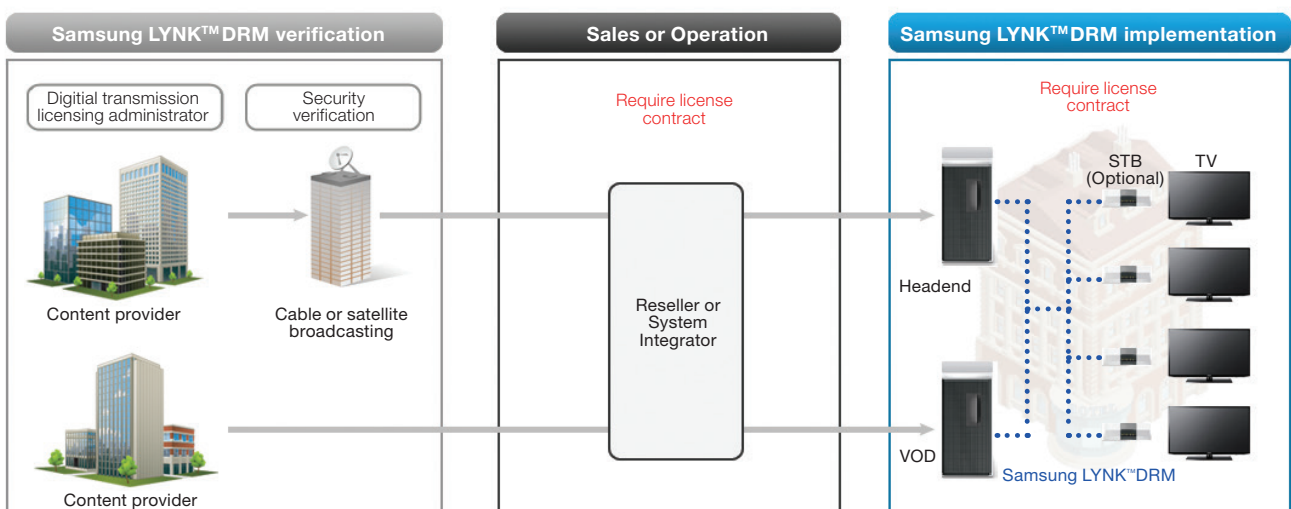


Figure 5. Samsung LYNK™ DRM provides powerful security functions with more flexibility.

# Samsung HB890 and 690 Series

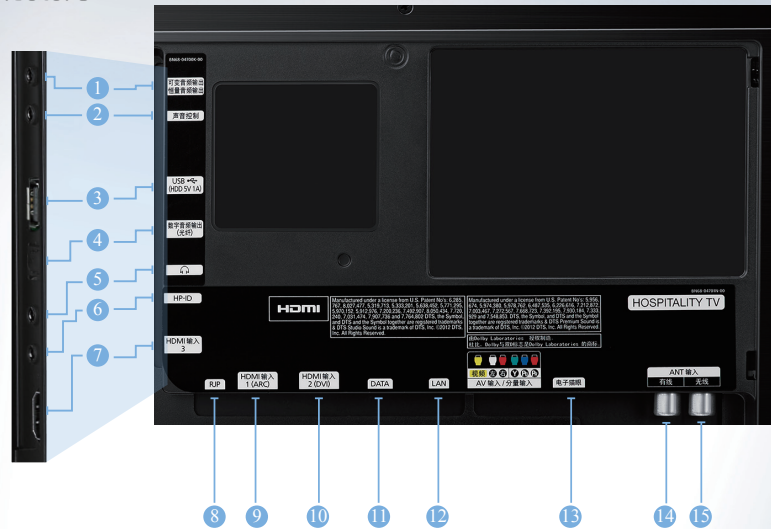
## HB890

55" / 65"



- HG55AB890XJ
- HG65AB890XJ

### Connectors



- |                               |                     |                       |
|-------------------------------|---------------------|-----------------------|
| 1. VARIABLE AUDIO OUT         | 6. HEADPHONE ID     | 11. DATA              |
| 2. VOL-CTRL                   | 7. HDMI IN 3        | 12. RJ45(LAN)         |
| 3. USB                        | 8. RJP              | 13. SCART             |
| 4. DIGITAL AUDIO OUT(OPTICAL) | 9. HDMI IN 1 (ARC)  | 14. ANT IN(SATELLITE) |
| 5. HEADPHONE OUT              | 10. HDMI IN 2 (DVI) | 15. ANT IN(AIR/CABLE) |

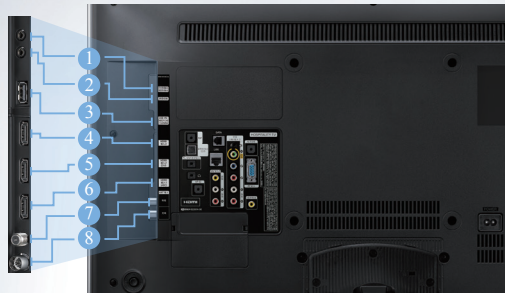
# HB690

40" / 46" / 55"



- HG40AB690QJ
- HG46AB690QJ
- HG55AB690QJ

## Connectors



1. VARIABLE AUDIO OUT
2. VOL-CTRL
3. USB
4. HDMI IN 3
5. HDMI IN 2 (DVI)
6. HDMI IN (ARC)
7. ANT IN(SATELLITE)
8. ANT IN(AIR/CABLE)
9. RJP
10. DIGITAL AUDIO OUT(OPTICAL)
11. PC/DVI AUDIO IN
12. RJ45(LAN)
13. HEADPHONE OUT
14. HEADPHONE ID
15. DATA
16. DOOR-EYE
17. PC IN
18. VIDEO OUT

65"

- HG65AB690QJ



# Samsung HB890 and 690 Series

## Specifications

		HB890	
Basic Info	Model Name	HG55AB890XJ	HG65AB890XJ
Display	Backlight	LED	
	Inch	55	65
	Resolution	1920 x 1080	
	HD/FHD	FHD	
	Ultra Clear Panel	Yes	
Video	Picture Engine	3D HyperReal Engine	
	Dynamic Contrast Ratio	Mega Contrast	
	Static Contrast Ratio	5000:1	5500:1
	Response Time	4ms	6.5ms
	Viewing angle (H/V)	178/178	
	Brightness	450 cd/m <sup>2</sup>	
	Micro Dimming	Micro Dimming	
	Wide Color Enhancer Plus	Yes	
	Auto Motion Plus 120/240Hz	240Hz	
	Film Mode	Yes	
Audio	Dolby	Dolby Digital Plus / Dolby Pulse	
	SRS / DnSe+	SRS TheaterSound HD	
	dts 2.0 + Digital Out	DTS Premium Audio	
	3D Sound	Yes	
	Speaker Type	Down Firing + Full Range	
	Sound Output (RMS)	40W(10x2, woofer 10x2)	
	Variable Speaker Output	4W (Mono, 8Ω)	
Feature	Smart Hub	Yes	
	Apps	Yes	
	Photos, Clip & Music	Yes	
	Samsung SMART View	Yes (Clone View only)	
	Web Browser	Yes	
	Hand Gesture Recognition	Ready	
	Voice Recognition	Yes	
	Samsung TV Apps supported	Yes	
	Samsung 3D	Yes	
	3D Converter	Yes	
	Smart Phone Remote Support	Yes	
	AllShare(Powered by DLNA)	Yes	
	AllShare Cast (Screen Mirroring)	Yes	
	ConnectShare™ (USB2.0)	Movie	
	Wireless LAN Built-in	Yes	
	BT HID Built-in	Yes	
	USB HID Support	Yes	
	Sound Share	Yes	
	OSD Language	Local Languages	
	Digital Noise Filter	Yes	
	HDMI 1.4 3D Auto Setting	Yes	
	HDMI 1.4 A /	Yes	
	Return Ch. Support (ARC)	Yes	
EPG	Yes		

## Samsung HB890 and 690 Series

### Specifications

		HB890	
Basic Info	Model Name	HG55AB890XJ	HG65AB890XJ
Feature	Anynet+ (HDMI-CEC)		Yes
	BD Wise Plus		Yes
	Auto Channel Search		Yes
	Auto Power Off		Yes
	Auto Volume Leveler		Yes
	Caption (Subtitle)		Yes
	Wake-up Timer		Yes
	Game Mode		Yes
	Picture-In-Picture		Yes
	Sleep Timer		Yes
Hospitality Feature	Channel Setup On/Off		Yes
	Hospitality Plug&Play(Easy Set-up)		Yes
	Music Mode (Input : PC/AV/Component)		Yes
	Music Mode BackLight on/off		Yes
	Audio Loop in (Headphone extension)		Yes
	RJ 12 / IR Pass Through		Yes
	External Clock Compatibility		No
	External Clock Dimming Control		No
	External Clock Backup supply		No
	Power on Status Setting (Keycard/Master power off)		Yes
	Jack Pack Compatibility (HD media hub)		Yes
	USB Cloning		Yes
	Bathroom Speaker Output		Yes
	Hotel Channel List		Yes
	Hotel Logo Display with Time out setting (BMP)		Yes
	Hotel Logo Display (Movie file)		Yes
	Welcome message		Yes
	Auto Source mode		Yes
	Energy saving mode(BLU control)		Yes
	Multi code remote control		Yes
	Screwed Remote battery cover		Yes
	Alarm Key		Yes
	Mixed channel list(DTV, Analog)		Yes
	Samsung LYNK™ REACH		Yes
	Samsung LYNK™ SINC Compatibility		Yes
	H-Browser Compatibility		Yes
	My channel		Yes
	Smovie		Yes
	Samsung LYNK™ REACH Server Compatibility		No
	Soft AP		Yes
	S/W Clock		No
	Sound bar compatibility		Yes
	On/Off Timer (Hospitality Factory Mode)		Yes

# Samsung HB890 and 690 Series

## Specifications

		HB890	
Basic Info	Model Name	HG55AB890XJ	HG65AB890XJ
Input & Output	HDMI (Side/Rear)		3/0
	USB (Side/Rear)		1/0
	Component In (Y/Pb/Pr) (Side/Rear)		1/0
	Composite In (AV) (Side/Rear)	1 (Common Use for Component Y)	
	RJ45 (LAN) (Side/Rear)		1/0
	Headphone (Side/Rear)		1/0
	Digital Audio Out (Optical) (Side/Rear)		1/0
	PC In (D-sub) (Side/Rear)		No
	PC Audio In (Mini Jack) (Side/Rear)		No
	DVI Audio In (Mini Jack) (Side/Rear)		No
	RF In (Terrestrial/Cable input) (Side/Rear)		2/0
	RS232C (AV CONTROL) (Side/Rear)	1 (Common Use for RJP)	
	Variable Audio Out		Yes
	VOL-CTRL		Yes
	Video Out		No
	RJ12		Yes
	Headphone ID		Yes
	RJP(For Remote Jackpack)		Yes
	Door-Eye		Yes
	System	DTV Tuner	DTMB
Analog Tuner		Yes	
Design	Front Color	Black	
	Stand Type	Arch	
	Swivel (Left/Right)	No	
Dimension (WxHxD)	Set Size with Stand (mm)	1224.2 * 741.9 * 310.3	1447.3 * 876.0 * 330.3
	Set Size without Stand (mm)	1224.2 * 707.2 * 34.9	1447.3 * 837.6 * 38.4
	Set Weight with Stand (kg)	18.3	26.9
	Set Weight without Stand (kg)	16.8	24.6
Vesa	Dimensions (mm)	400*400	
	Screw Size	M8	
Power	Power Supply (V)	AC100-240V 50/60Hz	
	Power Consumption (Rated) (Watts)	178W	203W
	Power Consumption (Stand-by) (Watts)	Under 0.3W	Under 0.3W
	Power Consumption (Typical) (Watts)	80W	100W
Eco	Eco Sensor	Yes	
Accessory	3D Active Glasses (Included)	Yes	
	Remote Controller Model	TM1390A + TM1240	
	Battery (for Remote Control)	Yes	
	Mini Wall Mount Support	Yes	
	Vesa Wall Mount Support	Yes	
	Slim Gender Cable	1AV, 1Component(AV share)	
	Power Cable	Yes	
	Quick Install Guide	Yes	
	Stand Mount Kit	No	



## Samsung HB890 and 690 Series

### Specifications

		HB690			
Basic Info	Model Name	HG40AB690QJ	HG46AB690QJ	HG55AB690QJ	HG65AB690QJ
Display	Backlight	LED			
	Inch	40	46	55	65
	Resolution	1920 x 1080			
	HD/FHD	FHD			
	Ultra Clear Panel	No			
Video	Picture Engine	3D HyperReal Engine			
	Dynamic Contrast Ratio	Mega Contrastga			
	Static Contrast Ratio	5000:1	5000:1	5000:1	4000:1
	Response Time	6ms	6ms	6ms	6.5ms
	Viewing angle (H/V)	178/178			
	Brightness	350 cd/m <sup>2</sup>			
	Micro Dimming	Micro Dimming			
	Wide Color Enhancer Plus	Yes			
	Auto Motion Plus 120/240Hz	120Hz			
	Film Mode	Yes			
Audio	Dolby	Dolby Digital Plus / Dolby Pulse			
	SRS / DNSe+	SRS TheaterSound HD			
	dts 2.0 + Digital Out	DTS Premium Audio			
	3D Sound	Yes			
	Speaker Type	Down Firing + Full Range			
	Sound Output (RMS)	10W x 2			
	Variable Speaker Output	4W (Mono, 8Ω)			
Feature	Smart Hub	Yes			
	Apps	Yes			
	Photos, Clip & Music	Yes			
	Samsung SMART View	Yes (Clone View only)			
	Web Browser	Yes			
	Hand Gesture Recognition	Ready			
	Voice Recognition	No			
	Samsung TV Apps supported	Yes			
	Samsung 3D	Yes			
	3D Converter	Yes			
	Smart Phone Remote Support	Yes			
	AllShare(Powered by DLNA)	Yes			
	AllShare Cast (Screen Mirroring)	Yes			
	ConnectShare™ (USB2.0)	Movie			
	Wireless LAN Built-in	Yes			
	BT HID Built-in	Yes			
	USB HID Support	Yes			
	Sound Share	Yes			
	OSD Language	Local Languages			
	Digital Noise Filter	Yes			
	HDMI 1.4 3D Auto Setting	Yes			
	HDMI 1.4 A / Return Ch. Support (ARC)	Yes			
EPG	Yes				

# Samsung HB890 and 690 Series

## Specifications

		HB690			
Basic Info	Model Name	HG40AB690QJ	HG46AB690QJ	HG55AB690QJ	HG65AB690QJ
Feature	Anynet+ (HDMI-CEC)			Yes	
	BD Wise Plus			Yes	
	Auto Channel Search			Yes	
	Auto Power Off			Yes	
	Auto Volume Leveler			Yes	
	Caption (Subtitle)			Yes	
	Wake-up Timer			Yes	
	Game Mode			Yes	
	Picture-In-Picture			Yes	
	Sleep Timer			Yes	
Hospitality Feature	Channel Setup On/Off			Yes	
	Hospitality Plug& Play(Easy Set-up)			Yes	
	Music Mode (Input : PC/AV/Component)			Yes	
	Music Mode BackLight on/off			Yes	
	Audio Loop in (Headphone extension)			Yes	
	RJ 12 / IR Pass Through			Yes	
	External Clock Compatibility			No	
	External Clock Dimming Control			No	
	External Clock Backup supply			No	
	Power on Status Setting (Keycard/Master power off)			Yes	
	Jack Pack Compatibility (HD media hub)			Yes	
	USB Cloning			Yes	
	Bathroom Speaker Output			Yes	
	Hotel Channel List			Yes	
	Hotel Logo Display with Time out setting (BMP)			Yes	
	Hotel Logo Display (Movie file)			Yes	
	Welcome message			Yes	
	Auto Source mode			Yes	
	Energy saving mode(BLU control)			Yes	
	Multi code remote control			Yes	
	Screwed Remote battery cover			Yes	
	Alarm Key			Yes	
	Mixed channel list(DTV, Analog)			Yes	
	Samsung LYNK™ REACH			Yes	
	Samsung LYNK™ SINC Compatibility			Yes	
	H-Browser Compatibility			Yes	
	My channel			Yes	
	Smooovie			Yes	
	Samsung LYNK™ REACH Server Compatibility			No	
	Sound bar compatibility			Yes	
	Soft			Yes	
	S/W Clock			No	
	On/Off Timer (Hospitality Factory Mode)			Yes	

# Samsung HB890 and 690 Series

## Specifications

		HB690			
Basic Info	Model Name	HG40AB690QJ	HG46AB690QJ	HG55AB690QJ	HG65AB690QJ
Input & Output	HDMI (Side/Rear)	3/0			
	USB (Side/Rear)	1/0			
	Component In (Y/Pb/Pr) (Side/Rear)	0/1			
	Composite In (AV) (Side/Rear)	0/2			
	RJ45 (LAN) (Side/Rear)	0/1			
	Headphone (Side/Rear)	0/1			
	Digital Audio Out (Optical) (Side/Rear)	0/1			
	PC In (D-sub) (Side/Rear)	0/1			
	PC Audio In (Mini Jack) (Side/Rear)	0/1			
	DVI Audio In (Mini Jack) (Side/Rear)	1 (Common Use for PC Audio in)			
	RF In (Terrestrial/Cable input) (Side/Rear)	2/0			
	RS232C (AV CONTROL) (Side/Rear)	1 (Common Use for RJP)			
	Variable Audio Out	Yes			
	VOL-CTRL	Yes			
	Video Out	0/1			
	RJ12	Yes			
	Headphone ID	Yes			
	RJP(For Remote Jackpack)	Yes			
	Door-Eye	Yes			
	System	DTV Tuner	DTMB		
Analog Tuner		Yes			
Design	Front Color	Black			
	Stand Type	Square			Quad
	Swivel (Left/Right)	90/90	90/90	90/90	No
Dimension (WxHxD)	Set Size with Stand (mm)	928.2 * 612.0 * 227.7	1059.8 * 686.0 * 227.7	1250.4 * 793.0 * 227.7	1470.1 * 935.8 * 375.3
	Set Size without Stand (mm)	928.2 * 543.8 * 49.6	1059.8 * 617.7 * 49.6	1250.4 * 724.6 * 48.8	1470.1 * 848.2 * 55.9
	Set Weight with Stand (kg)	12.2	14.7	20.1	29.5
	Set Weight without Stand (kg)	9.3	11.8	17.2	26.9
Vesa	Dimensions (mm)	200*200	400*400	400*400	400*400
	Screw Size	M8			
Power	Power Supply (V)	AC100-240V 50/60Hz			
	Power Consumption (Rated) (Watts)	126W	131W	153W	235W
	Power Consumption (Stand-by) (Watts)	Under 0.3W	Under 0.3W	Under 0.3W	Under 0.3W
	Power Consumption (Typical) (Watts)	65W	70W	85W	130W
Eco	Eco Sensor	Yes			
Accessory	3D Active Glasses (Included)	Yes			
	Remote Controller Model	TM1240			
	Battery (for Remote Control)	Yes			
	Mini Wall Mount Support	Yes			
	Vesa Wall Mount Support	Yes			
	Slim Gender Cable	No			
	Power Cable	Yes			
	Quick Install Guide	Yes			
	Stand Mount Kit	Yes	Yes	Yes	No

## Legal and additional information

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### 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](http://www.samsung.com)

### For more information

For more information about Samsung HB890 and 690 Series, visit [www.samsung.com](http://www.samsung.com)



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1. This feature is available only in the European HB765 model.
2. This feature is not available in the United States, China or Hong Kong.

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