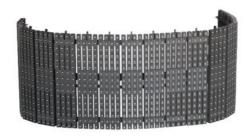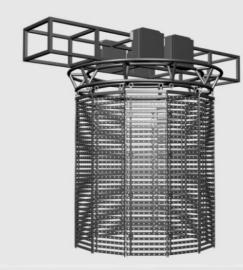# Synergy Video LED Displays - FlexCurtain Screen

Synergy FlexCurtain

- High resolution displays for spectacular close range viewing
- Integrated SMD LEDs allow for incredibly high resolutions
- Stunning picture quality, suitable for viewing distances as close as 2.5 metres
- Available with front or rear service access
- Small cabinet size allows flexibility to create display of any size or shape
- IP65 waterproof rating to withstand harshest of weather conditions
- Available in the following pixel pitches:
  5mm, **6mm**, **8mm**, **10mm**

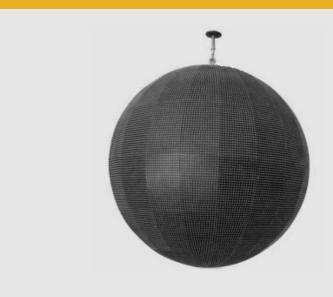| Model:	Synergy FlexCurtain 6	Synergy FlexCurtain 10	Synergy FlexCurtain 15	Synergy FlexCurtain 31
LED type	SMD LEDs	SMD LEDs	SMD LEDs	SMD LEDs
LED driving method	1/8 dynamic scan	1/8 dynamic scan	1/4 dynamic scan	Static
Pixel pitch	6 mm	10 mm	15.625 mm	31.25 mm
Pixel configuration	1 R 1G 1B	1 R 1G 1B	1 R 1G 1B	1 R 1G 1B
LED cabinet size	1152 x 384 x 33 mm	1280 x 320 x 28 mm	1000 x 250 x 30 mm	1000 x 250 x 30 mm
Pixels	192 x 64 (w x h)	128 x 32 (w x h)	64 x 16 (w x h)	32 x 8 (w x h)
Net weight	6 kg	5 kg	4 kg	3 kg
Power	AC220/110±10%,47 ˜ 63 Hz			
Waterproof	Front IP43 / Rear IP43			
Serviceability	Front / Rear Service			
Max power consumption	≤550 W/m^2	≤370 W/m^2	≤300 W/m^2	≤280 W/m^2
Avg. power consumption	≤450 W/m^2	≤300 W/m^2	≤230 W/m^2	≤230 W/m^2
Horizontal Viewing angle	140°			
Vertical viewing angle	140°			
Brightness	≥2,000 cd/m^2	≥1,500 cd/m^2	≥1,500 cd/m^2	≥1,000 cd/m^2
Pixel density	27,777 pixels/m^2	10,000 pixels/m^2	4,096 pixels/m^2	1,024 pixels/m^2
Certifications	UL, CE, ETL, ROHS, CCC			
Contrast ratio	1000:1			
Operation temperature	-20°C ˜ + 60°C			
Operation humidity	20% to 90%			
Lifetime (50% brightness)	100,000 hours			
Colour depth	16 bit	16 bit	16 bit	16 bit
Colours	281 trillion	281 trillion	281 trillion	281 trillion
Refresh rate	≥4,200 Hz	≥4,200 Hz	≥4,200 Hz	≥4,200 Hz
Frame rate	60fps			
Brightness level	Manually 100 levels, automatically 16 levels			

![LEDsynergy electronic displays logo]

Synergy Video LED Displays - LED Ball

Synergy LED Ball

- 4.8mm pixel pitch, specially designed for the video ball, extremely lightweight and compact
- Great visual performance, aluminium structure design, can be movable, either suspended or on a floor stand
- Standard ratio is applied to the visual images so the screen is not compressed, not stretched
- Excellent 800 to 1200 nits brightness adjustable by black SMD 2121 and colour uniformity
- Excellent cooling system design within the structure
- Available in the following diameter:
  1200mm, **1500mm**, **1800mm**, **3600mm**

Model:	Synergy LED Ball 12	Synergy LED Ball 15	Synergy LED Ball 18	Synergy LED Ball 36
LED type	3 in 1 SMD LEDs	3 in 1 SMD LEDs	3 in 1 SMD LEDs	3 in 1 SMD LEDs
LED driving method	1/15 scan	1/15 scan	1/15 scan	1/15 scan
Pixel pitch	4.8 mm	4.8 mm	4.8 mm	4.8 mm
Pixel configuration	1 R 1G 1B	1 R 1G 1B	1 R 1G 1B	1 R 1G 1B
LED diameter size	1200 mm	1500 mm	1800 mm	3600 mm
Net weight	100 kg	150 kg	175 kg	350 kg
Power	AC220/110±10%,47 ~ 63 Hz			
Waterproof	N/A			
Serviceability	Front Service			
Max power consumption	≤550 W/m^2	≤550 W/m^2	≤550 W/m^2	≤550 W/m^2
Avg. power consumption	≤200 W/m^2	≤200 W/m^2	≤200 W/m^2	≤200 W/m^2
Horizontal Viewing angle	140°			
Vertical viewing angle	140°			
Brightness	≥1,200 cd/m^2	≥1,200 cd/m^2	≥1,200 cd/m^2	≥1,200 cd/m^2
Pixel density	43,403 pixels/m^2	43,403 pixels/m^2	43,403 pixels/m^2	43,403 pixels/m^2
Certifications	UL, CE, ETL, ROHS, CCC			
Contrast ratio	4000:1			
Operation temperature	-20°C ~ + 60°C			
Operation humidity	20% to 90%			
Lifetime (50% brightness)	100,000 hours			
Colour depth	16 bit	16 bit	16 bit	16 bit
Colours	687 billion	687 billion	687 billion	687 billion
Refresh rate	≥4,200 Hz	≥4,200 Hz	≥4,200 Hz	≥4,200 Hz
Frame rate	60fps			
Brightness level	Manually 100 levels, automatically 16 levels			

- The visual impact of an LED video screen is determined by a variety of different factors, pixel pitch, display area, colour uniformity, grey levels, refresh rate, module and cabinet manufacture, LED degradation control, etc. Therefore, choosing the right technology and supplier can be a daunting task. We can help you to make the right decision to ensure that you have the correct solution not just for today but throughout the lifetime of the display. Based on our experience, continued innovation, military grade quality and reliability of the product and its longevity. We use European design and development coupled with the very best Chinese manufacturing to ensure the latest technologies at a cost effective price.

- With our extensive experience in the LED industry over the years, we have focused heavily on R and D analysing image quality, pixel configuration and contrast ratio as well as brightness levels, viewing angles and a higher contrast. By utilising smaller size LEDs and grouping the red, blue and green LEDs closer together this provides a better looking image with an improved colour mix, sharper lines, better images and more vivid colours.

- Many LED displays cannot operate at low brightness levels, such as at night, and still maintain an optimal number of colours and shades. If the grey scale is adjusted lower the screen will have a ripple. Our 16 bit LED drivers will display a wider colour spectrum at all levels of brightness. Other LED displays on the market often suffer from unsightly colour banding that at low brightness (such as night) can only display a few shades of a given colour. However, our 16 bit LED drivers output a greater variety of colours at all brightness levels for a uniformly smoother viewing experience.

- The LEDs are the most important component used in manufacture of an LED display, being approximately 60% of the total cost. Therefore you need to make sure of the uniformity of the LEDs. BINs are groups of LEDs with the same brightness and colour shade, the same batch you could say. Our LED screens are made up from the same bin LEDs keeping the same high quality of brightness and same colour uniformity negating the need for calibration of the screen. Calibration is necessary only when LED screen manufacturers use LEDs from different bin batches. When this is done the display is calibrated down to the brightness of the dimmest LEDs.

- Colour uniformity of the LEDs is of paramount importance to us which is why we use same bin LEDs. When LEDs are calibrated to the dimmest some of these LEDs are operating at higher power levels than others, causing a premature uneven illumination image of the screen. Therefore, these LEDs are also operating at a much higher temperature than others and heat is the leading cause of LED light degeneration over time. Our same bin LEDs do not require calibration to produce optimal images. They operate at a uniform power level, display cleanly at wider viewing angles and have more brilliance to them.

- The chip is a key factor in a small RGB LED lamp, it will directly affect the life span, brightness and viewing angle etc. We will always use a big chip for the LED displays to ensure the high quality. 12 mil is our minimum requirement for the LEDs. Often manufacturers use as little as 8mil to 9 mil, this reduces the cost of the display but will affect the quality and the brightness in a relatively short time period.

- The pure white LEDs are used as one of the leading standards to determine the quality of an LED screen. Our pure white LEDs are truly 'pure white' due to the fact that we use same bin LEDs and our big chip which means that we can achieve the same colour on the display with high brightness over time. A lower cost of LED display will be manufactured with different bin LEDs and different quality LEDs which makes it very difficult to produce a consistently pure white display.

- The modules have been fully bench tested, vibration tested and dark room tested to ensure the high quality of the screens. Our manufacturing criteria are better than industry standards so that we can supply the very best quality displays to you.