

Absen Optoelectronic Co.,Ltd
18-20F Building 3A, Cloud Park, Bantian Huawei Base,
Longgang District Shenzhen, 518129, P.R.China
T: +86-755-89747399 E: absen@absen.com
F: +86-755-89747599 W: www.absen.com

Absen Inc.
7120 Lake Ellenor Drive, Orlando,
Florida 32809, USA
T: +1-407-203-8870 E: info@usabsen.com
F: +1-407-203-8873 W: www.usabsen.com

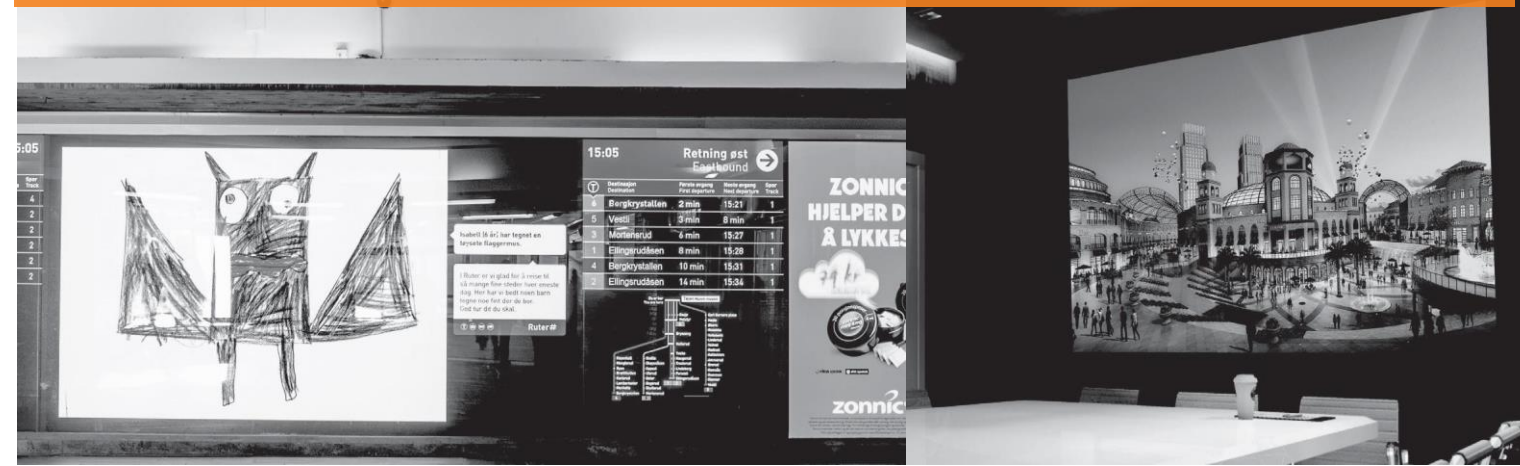
Absen GmbH
Eisenstraße 5, 65428 Rüsselsheim a.M.,
Germany
T: +49 (0) 6142 78935-0 E: europe@absen.com
F: +49 (0) 6142 78935-29 W: www.absen-europe.com

Item	HC 0.9	Unit
Technical Parameter		
Pixel Pitch	0.9375	mm
Brightness	600	nit
Refresh Rate	1920	Hz
Power Consumption (Max./Avg.)	720/240	W/sq.m
Viewing Angle (H/V)	160/125	deg.
Panel Parameter		
Panel Dimensions	600x337.5x50	mm
Module Dimensions	150x168.75	mm
Panel Weight	7.7/8.2	kg
Panel Material	Aluminum	--
Module Maintenance	Front	--
PSU Maintenance	Front/Rear	
Operating Temperature	-10 ~ +40	° C
Operating Humidity	10%~80%	RH

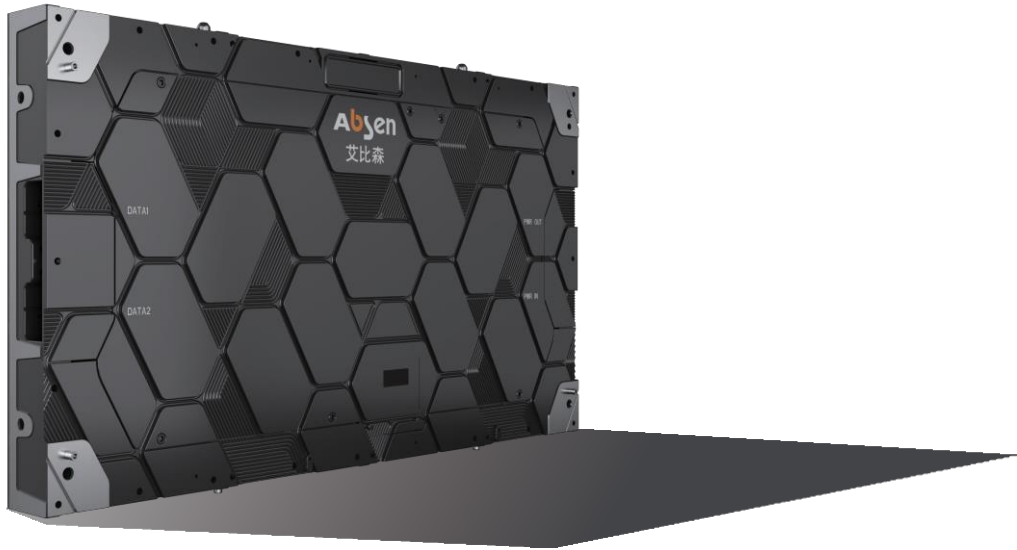


Fine Pixel Pitch LED Display for Control Room

HC series



HC series



600*337.5*50mm
Panel dimensions

8+kg
Panel weight

Die casting aluminum
Panel material

Brightness

LED displays boast higher level of brightness than LCD displays, largely immune to ambient light. LCD displays deliver weaker visual performance in high ambient light.

Gray Scale

LED displays boast higher level of gray scale than LCD displays. Compared with LCD displays, LED displays present more vivid images with more details and richer colors.

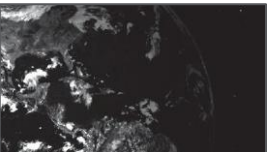
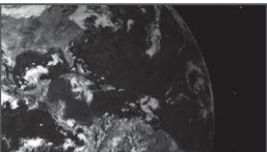
Ability to create seamless large-format display

LED displays are seamless.
The gap between LCD displays is over 3.5mm.

LED video wall

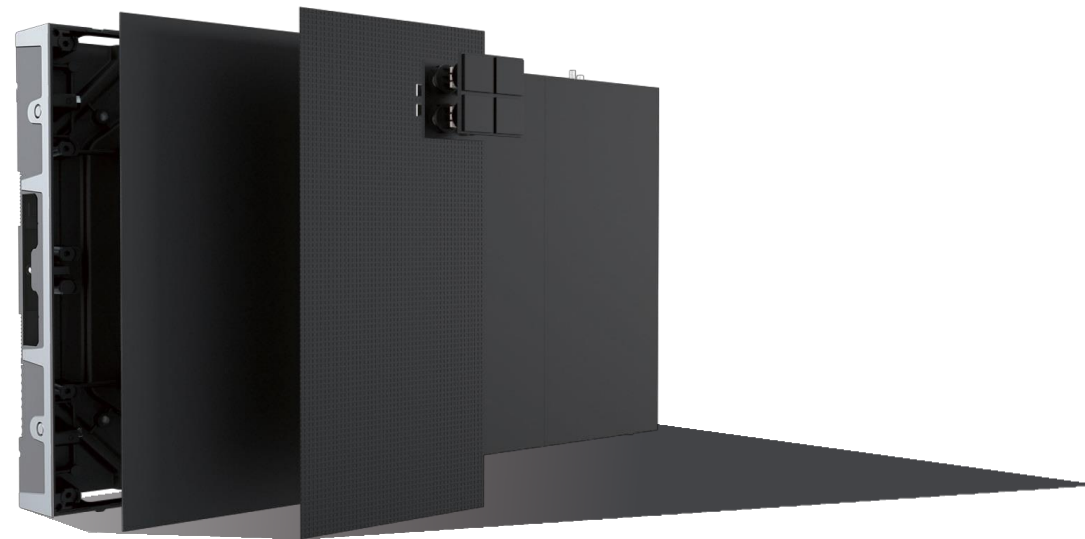


LCD video wall



4 in 1 Pixel Integration

Fine pixel display with better front maintenance



Standard 27" size
FHD/4K pixel-to-pixel resolution



Front install & maintenance



Thinner than 9cm after installation
EasyMount kit



Outstanding image quality
CrystalView Technology



IMD 4-in-1 technology

-IMD Integrated Packaging

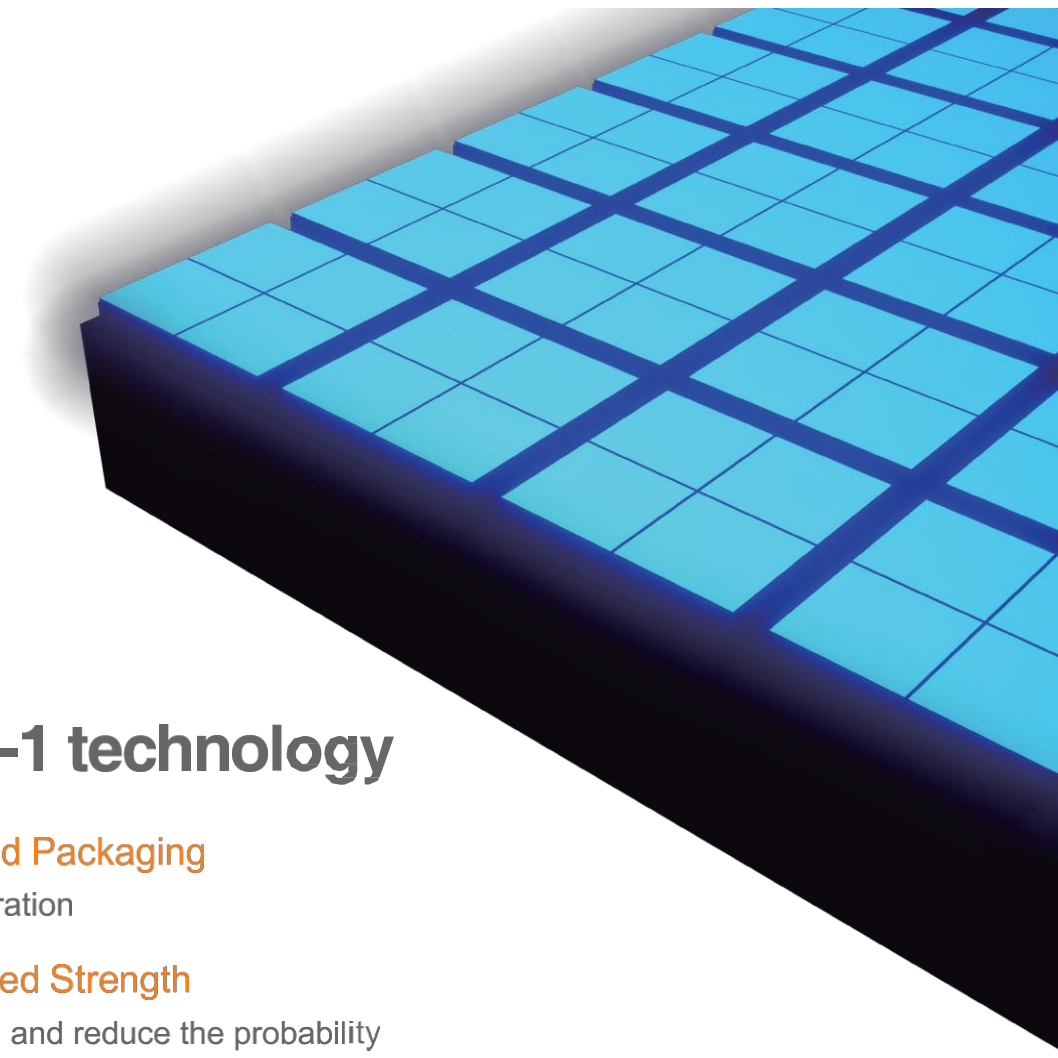
4 in 1 pixel integration

-Strong Mounted Strength

Improve strength and reduce the probability of knocking out LED

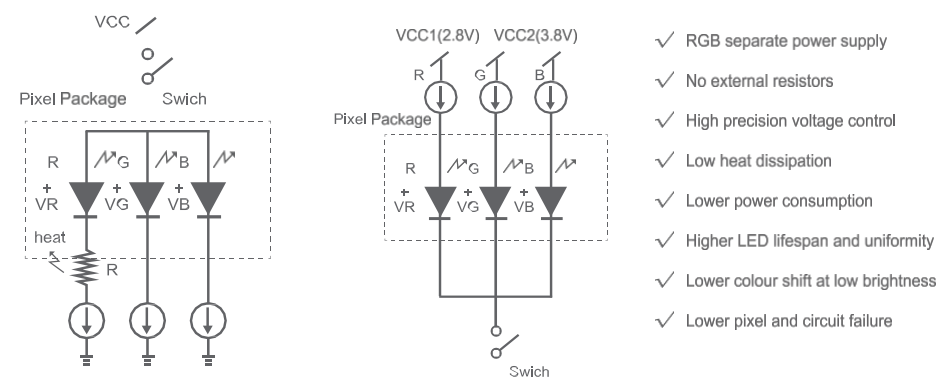
-Convenient Maintenance

PCB pad is large enough and fewer numbers for easy maintenance



Common Cathode Technology, Higher Brightness in Less Power Consumption

Common cathode technology increases brightness by 20% while reducing energy consumption by 20% with higher contrast ratio and better heat dissipation.



Traditional Common Anode

Common Cathode Technology



Traditional Common Anode



Common Cathode Technology

CrystalView Technology

CrystalView technology improves visual performance in the shadows with richer details, deeper DOF and increased sharpness. Thanks to this technology, seven major problems of LED displays like crossed dead pixels, lack of uniformity in low gray scale, line scan issues, color shift, dark lines, high-contrast interference and ghosting effect can be solved

High gray scale at low brightness levels

LED displays boast higher gray scale than LCD displays to deliver more vivid images with richer color. This is because LED displays can enrich the color layering to enhance the details.

CrystalView technology with SRAM can save data bandwidth and reach high gray scale in low data frequency.



Details lost in the shadows



Details still visible in the shadows

Traditionally, even on LED displays the decrease in brightness is paralleled by a decrease in the greyscale. The HC series uses a premium chip with PWM which can maintain every detail, allow a natural and smooth color gradient and achieve high greyscale even at low brightness levels.

As variation of grey occurs on an image, tradition chips struggle to create a smooth transition between color variation. The chip in HC series processes this variation smoothly so the shift in color is lifelike and without visual stutter.



Poor transition of gray scale



Smooth transition of gray scale

Ultra-High Refresh Rate

CrystalView uses Scrambled-PWM (S-PWM) to enhance the modulation on the pulse width and splits the turn-on time into several shorter ones, thus increasing the visual refresh rate. In addition, the GCLK frequency multiplication technology effectively improves the GCLK frequency to double its visual refresh rate.



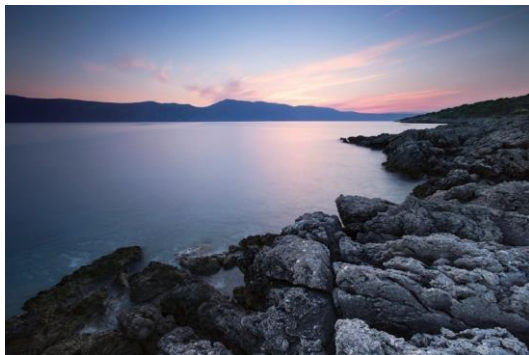
Slow response to moving objects, blurring images



Quick response to moving objects, clear images



Low refresh rate



High refresh rate

Sharper images

Image sharpening also enhances the contrast of the gray scale to make blurred images clearer. It can also help decrease the ghosting effect that can happen on text. Ghosting effect on text refers to blurry letter edges. The HC series can use its sharpening to improve details at the edge of objects so that the edges, outlines and image details are all clear.



Before sharpening



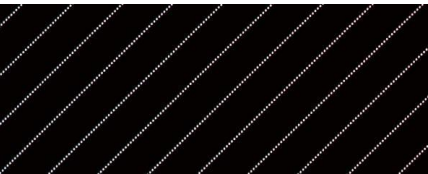
After sharpening



Before processing



After processing



Enhanced colors

By handling the white balance and color cast, the tint of the entire image conforms to the original color, so that the image can loyally display the material color to improve visual effects and image definition. On the other side, if colors in the area with low brightness are affected by the area with high brightness, HC series can take countermeasures to eliminate the high-contrast interference.

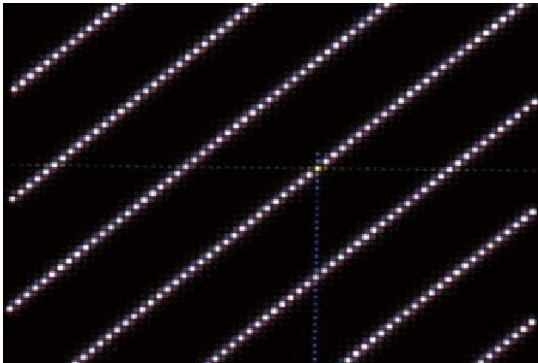


Display effect at low gray scale,
with color lumps and dead brightness zone

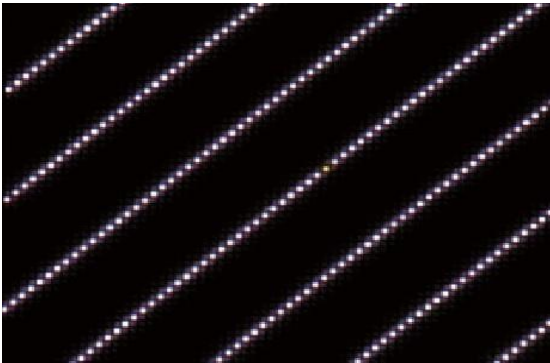


Display effect at high gray scale,
with natural color transition

When dead pixels do occur, HC series can weaken the area crossing the dead pixel to reduce the defect on a displayed image until that module can be replaced.



Before processing



After processing

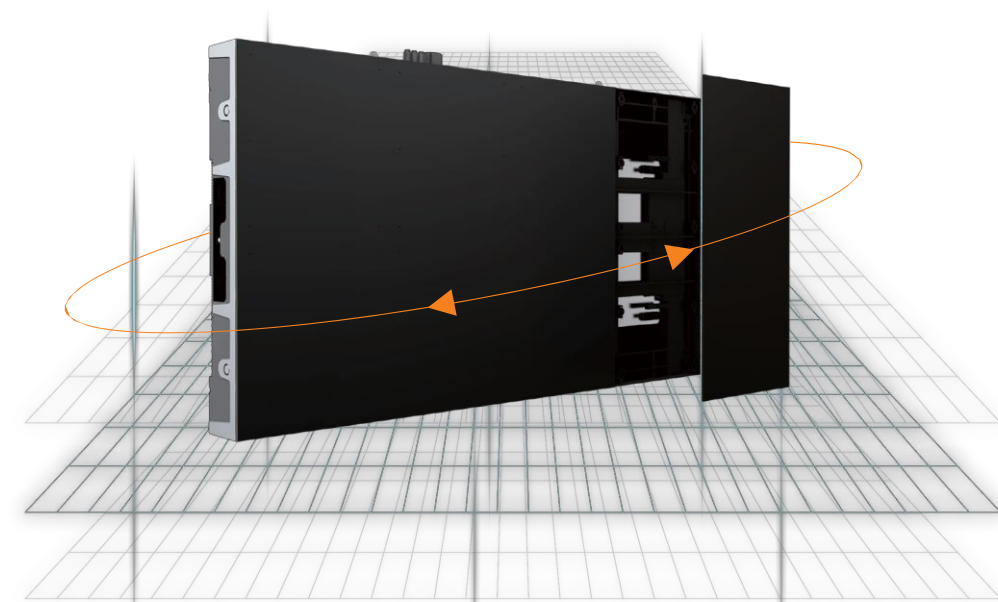
Extended Viewing Angle

HC series have a wide viewing angle of 160°. Image are clear and even when viewing images from even extreme side angles or from above or below the screen. Get the message on the screen out to the widest audience possible and make sure that they are seeing the content as intended without traditional LCD angle fade, color lumps or mosaics.

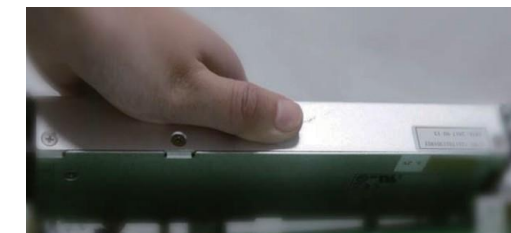


Simple and easy maintenance

Modular design makes maintenance efficient and easy.



Quick plug for easy maintenance

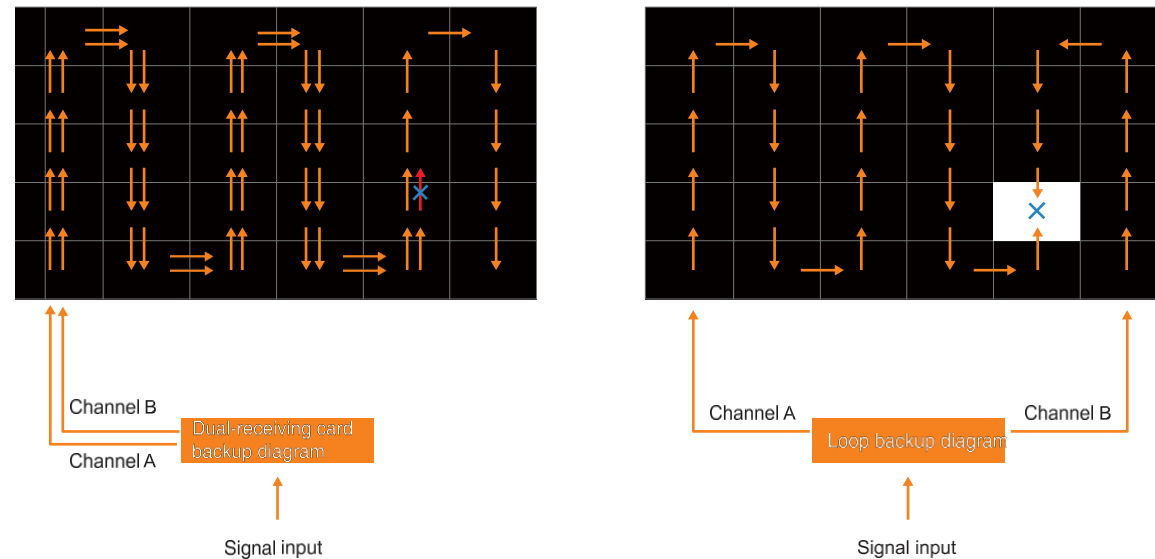


Power & Data Redundancy *Optional configuration per request

Dual Power: Two power boxes can be installed in each panel and work together with shared current. When one of the power boxes fails, the other ensures normal and stable operations.

Dual Receiving Cards: Two receiving cards can be installed with two input and two output interfaces on the panel for signal backup. When one receiving card is faulty, the other one starts to work to ensure uninterrupted signals.

In addition the entire data loop can be connected to controllers on both sides (since data runs both ways). When transmission fails in channel A, backup signal channel B automatically switches to transmission from the last panel for loop backup of signals.



Applications

