

What is

LED Pixel, LED Pitch & LED Matrix?

Explained



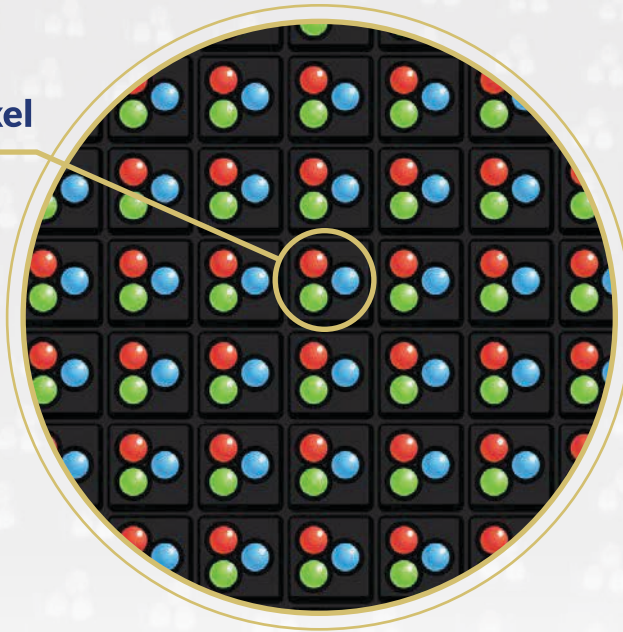
Great Signs. Great Service. Great Prices.

What is a Pixel?

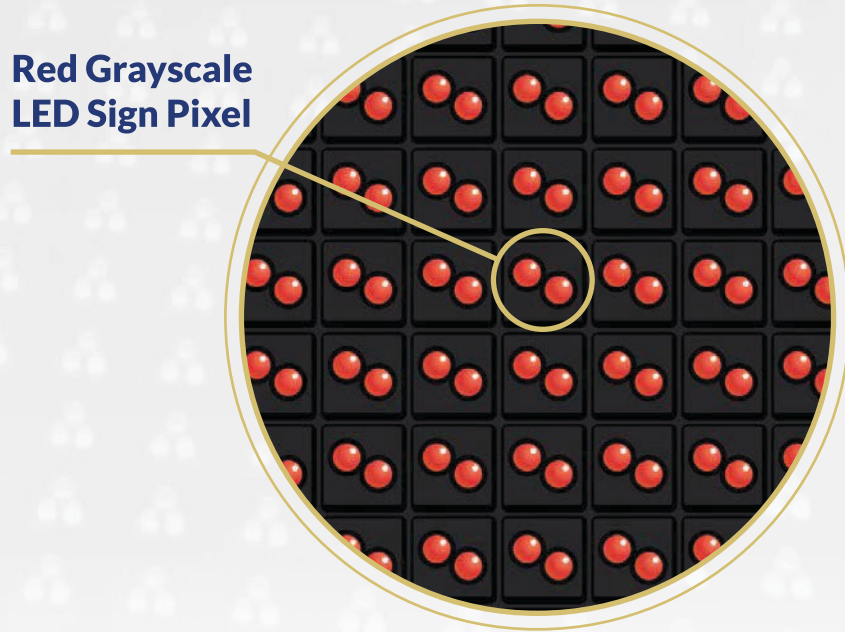
A pixel is a cluster of 1 or more LED's.

Monochrome and grayscale LED sign pixels have 1 or more LED's of either red or amber while full color pixels feature red, green and blue LED's.

**Full Color
LED Sign Pixel**



**Red Grayscale
LED Sign Pixel**



What is LED Sign Pitch?

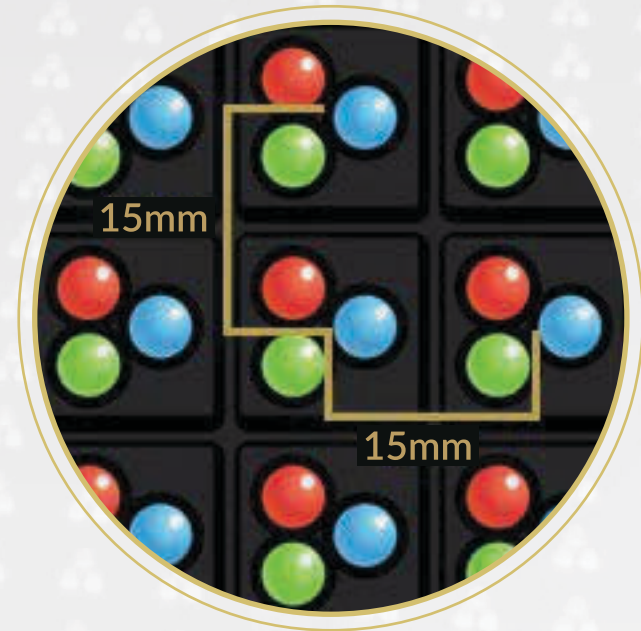
The pitch of an LED sign is the distance between each pixel.

If the specifications of a sign you are buying state that the Pitch (or resolution) is 20mm - this means there are twenty millimeters from the center of one pixel to the next.

The smaller the pitch the more LEDs per square-foot which means the resolution will be higher. A sign with a 15mm pitch can show more characters and the picture will be sharper than a sign of the same physical size with a pitch of 20mm.

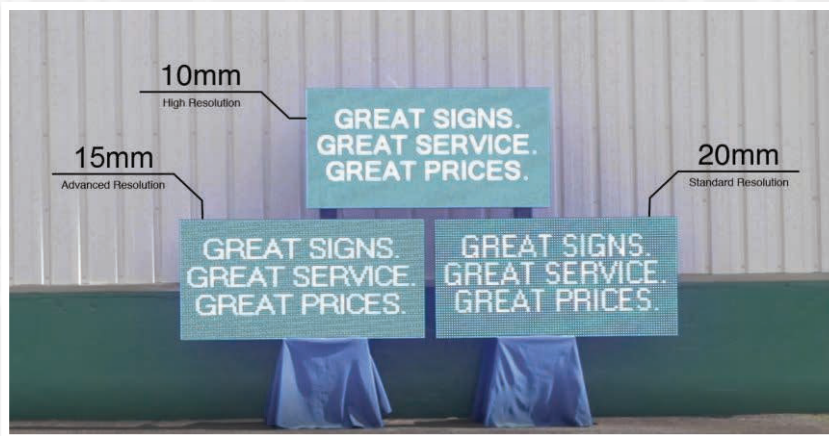
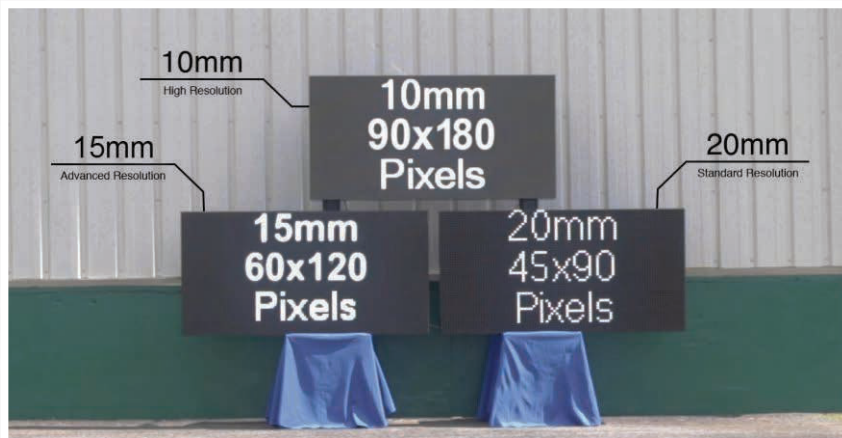
If you are displaying a lot of graphics and you want your images to look crisper and more realistic, the pixels should be located closer together.

If you are just running text without a lot of graphics or your sign is being viewed from farther away (100 ft +), you can go with a pitch where the pixels are located further apart such as 20mm.



15mm Full Color LED Sign Pitch

Difference between 10mm, 15mm and 20mm Pitch.



Physical size vs. Active Viewing Area

It's all about
the Matrix!



The Matrix of an LED sign simply represents how many pixels are on the display. For example a sign with a matrix of 30 x 105 is 30 pixels tall by 105 pixels wide.

A higher matrix on your LED sign will give you:

- ① **more lines of text,**
- ② **more character per line,**
- ③ **sharper images and video.**

If you are purchasing (for example) a 4' tall 8' long sign, selecting a smaller pitch will increase the matrix of the display which means better image quality.

Golden Rule Signs... More sign for your money!

All GRS LED Displays are produced with zero trim, which provides an active viewing area that takes up the entire physical size of the sign.



LED Sign with trim



GRS LED Sign - zero trim