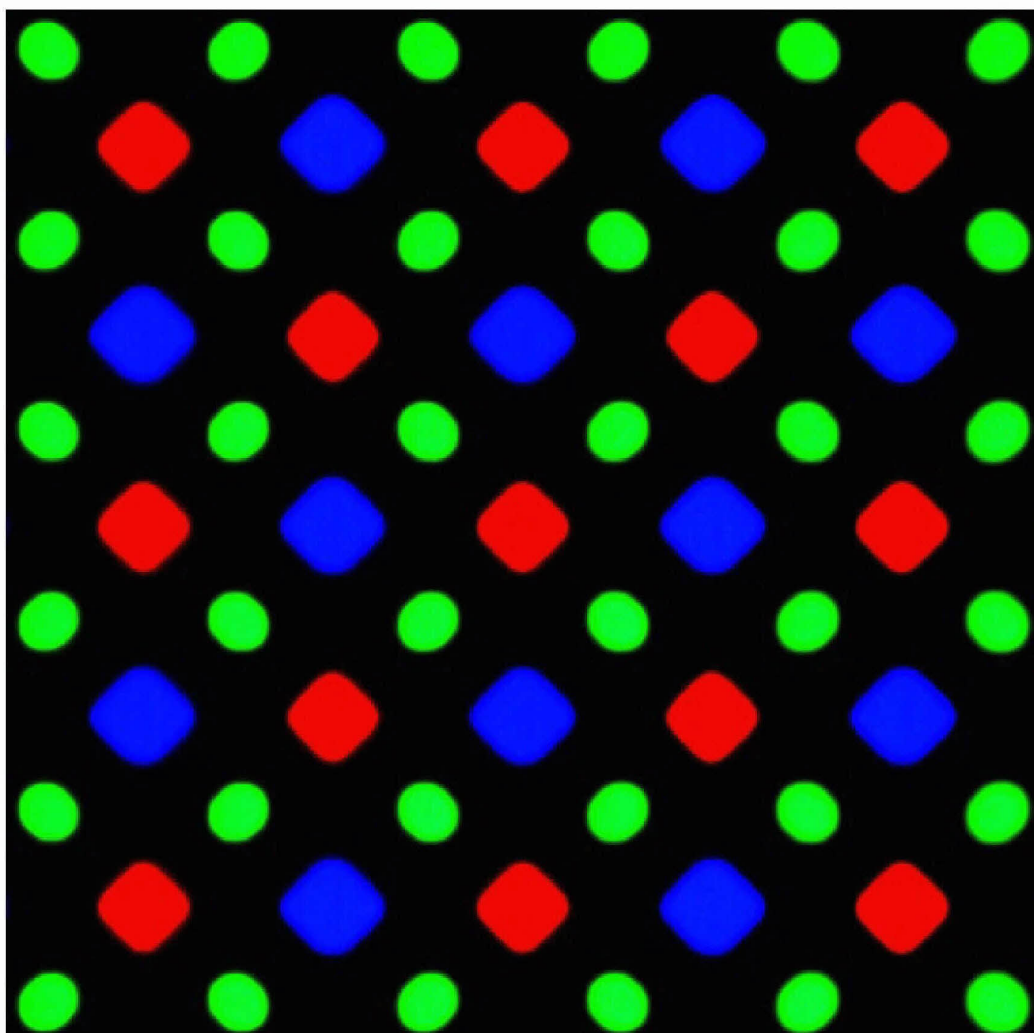


Samsung Diamond Pixels



A high resolution screen shot (provided by Samsung) shows an interesting design and sub-pixel arrangement, which Samsung calls Diamond Pixels. First of all, the Red, Green, and Blue sub-pixels have very different sizes - Blue is by far the largest because it has the lowest light emission efficiency, and Green is by far the smallest because it has the highest efficiency. The alternating Red and Blue sub-pixel arrangement leads to a 45 degree diagonal symmetry in the sub-pixel layout. This allows vertical, horizontal, and particularly diagonal line segments and vectors to be drawn with reduced aliasing and artifacts. In order to maximize the sub-pixel packing and achieve the highest possible pixels per inch (ppi), that leads to diamond rather than square or stripe shaped Red and Blue sub-pixels. But not for the Green sub-pixels, which are oval shaped because they are squeezed between two much larger and different sized Red and Blue sub-pixels. It's a form of high-tech display art...

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