

Active vs. Passive

- Q) What is the difference between active-matrix and passive-matrix driving methods?
- A) Passive-matrix driving involves a duty cycle. The display will physically scan voltage across segments and commons on the display panel. The display must rapidly scan the panel to maintain a clear and legible image. Active-matrix displays involve a direct drive at each pixel. Each pixel will maintain a charge that is controlled dynamically by display electronics.
- Q) What benefits does active-matrix technology offer to OLED technology?
- A) OLED already maintains lightning fast pixel response that is unachievable by LCD technology, so it already can produce high frame rates for animation and video. The benefit of active-matrix OLED (AMOLED) will result in benefits to power and panel degrade. Passive-matrix OLED (PMOLED) requires a duty cycle on the display. To offer a image, the pixels scanned much use higher voltage over a brief pulse as the display scans. AMOLED maintains a charge at each pixel, so the brightness is achieved at a much lower voltage.

