Make it with AgeNT™

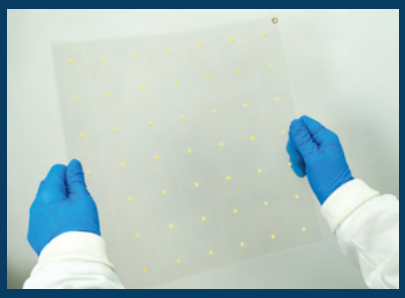
LED Lighting Circuits

LED lighting technology has evolved dramatically in recent years with continued improvements in brightness, packaging, and efficiency. These improvements have made possible not only the replacement of fluorescent and incandescent bulbs in virtually every existing application, but they have also made possible countless new ones. One only has to look at a new car to see this shift in action, with LEDs acting as primary and accent headlights, indicator lights for instrumentation and ambient lighting throughout the passenger compartment.

The increasing utilization of LED technology in different applications requires the embedding LEDs into more surfaces comprised of varying materials, all creating new challenges for engineers and manufacturers. In addition to mounting and physically integrating the chips into and onto surfaces, they have to be powered. Power circuits often have traditionally had to be creatively hidden to avoid compromising the aesthetics of the interior surfaces.

With new, higher conductivity transparent conductive films like CHASM's AgeNT it is possible to create innovative lighting solutions. Flexible transparent lighting films using surface mounted LEDs and transparent circuit traces enabled by AgeNT for lighter, thinner, clearer, and more versatile lighting systems for automotive, architectural, retail display, and white goods applications. For lighting solutions, CHASM offers AgeNT-1, performing at 1 ohm/sq and 94% VLT and AgeNT-10 performing at 10 ohm/sq and 90% VLT, making them ideal for applications in avionics, automotive, retail displays and more .

Examples of LED Lighting Circuits:



Benefits of CNT Hybrids for LED Lighting:

Flexible for wider range of product designs; integration curved plastic and glass surfaces

Transparent; no visible traces impacting design of architectural or display back lighting

Screen Printable: Quick turnaround on circuit design changes and prototypes; just-in-time production runs

Lower design cost and lower unit cost; no need for laser ablation, deposition and patterning