

Eastprint Inc. Printed Antennas: IoT/DAS/NFC

Optimizing antenna design isn't merely a function of achieving the desired frequency spectrum. Antenna shape, material composition, or placement within an enclosure can impact performance and ultimate success of the end device employing the antenna. Even the required frequency can present challenges for engineers to overcome. For example, the roll out of 5G wireless offers performance benefits for consumers but creates technical challenges for carriers. The same millimeter wave technology enabling higher frequencies also creates interference problems with obstacles such as buildings, trees, and even rain. More antennas closer to points of use are needed to ensure line of site connections to users. The unique properties of our AgeNT transparent CNT Hybrid material enabled a national wireless carrier to deploy municipal Wi-Fi using transparent 5G antennas that unobtrusively blend in with their surroundings.

Eastprint works with CHASM to design and integrate a functional antenna without it being obtrusive or sacrificing performance. Incorporate transparent, flexible antennas into appliances, lighting fixtures, and other home furnishings—even windows. Eastprint and AgeNT from CHASM Advanced Materials bridges the gap between technology and the human lifestyle.

Benefits of CNT Hybrids for Antennas:

- Sheet resistance 1 ohm/sq
- 90% transparent
- Flexible, thermoformable for wider range of product designs
- Screen Printable: Quick turnaround on design changes and prototypes; just-in-time production runs
- Lower design cost and lower unit cost, no need for laser ablation, deposition and patterning

Examples of CNT Hybrid Antennas

