



GRIDSMART.

**SMARTMOUNT
2025**

CASE STUDY

Athens, GA

Fiber vs. CAT5e

THE SETUP

The University of Georgia brings an influx of fans to Athens on game days. The Traffic Engineering Department of Athens manages fluctuating traffic demands with GRIDSMART, the world's first field-tested, single-sensor solution for actuation and data collection, but two intersections faced unique challenges with electromagnetic interference (EMI).

EMI is an electromagnetic disturbance that results in attenuation (loss of signal) which can affect the performance of a device. EMI is common and may be experienced in the form of digital noise on a cellphone call. Sources of EMI can vary and can be naturally occurring or man-made, making it difficult for some to mitigate its effects, but not GRIDSMART.

Prior to the installation of SMARTMOUNT2025, Athens used traditional CAT5e cable for infrastructure communication. Prince Avenue and Hawthorne Avenue, an odd shaped five-approach intersection, experienced EMI from high voltage power lines located five feet from their detection camera. South Lumpkin Street and South Milledge Avenue, a busy T-intersection with three lanes in all directions, also struggled with EMI. Two LED streetlight luminaires and high-voltage power lines near the GRIDSMART Bell Camera resulted in EMI. The intersection also required a repeater to manage the 400 feet of cable.

THE SOLUTION

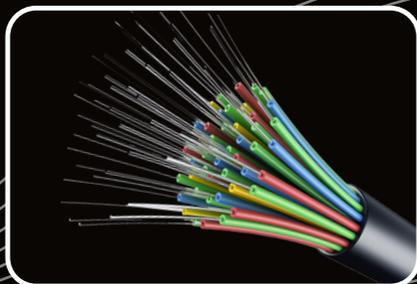
GRIDSMART deployed SMARTMOUNT2025, the industry's first fiber optic solution. As opposed to the traditional copper wire in CAT5e cable, fiber optic cables are made of glass, creating a stronger, faster signal that is impenetrable by EMI. SMARTMOUNT2025 allows for a greater range than traditional Power over Ethernet (PoE) methods, offering more than 2,000 feet of cable without the need for a repeater.

SMARTMOUNT2025 significantly improved camera connectivity at the Prince and Hawthorne intersection, eliminating EMI for flawless communication performance. SMARTMOUNT2025 also eliminated the need for repeaters at the South Lumpkin and South Milledge intersection.

Athens went the distance with SMARTMOUNT2025, will you?

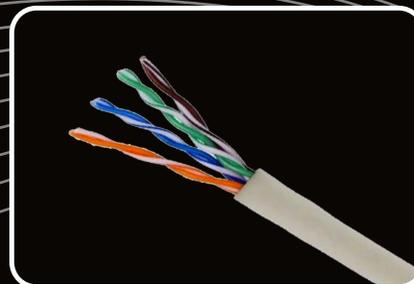
WHAT'S THE DIFFERENCE?

FIBER



- Carries signals through glass
- Transfers data up to 100 Gbps
- Eliminates EMI
- Extends 2,000 ft without repeaters
- Removes ground loops
- Involves tool kit for termination
- Requires training for installation

CAT5e



- Carries signals through copper
- Transfers data up to 100 Mbps
- Susceptible to EMI
- Requires repeater(s) beyond 300 ft
- Prone to ground loops