



"Working with Taoglas was a great experience! We had one point of contact, and the support we received was exceptional. Sam was always extremely helpful, and communication was open and efficient. Not only did Taoglas resolve Fotokite's initial coverage issues, but the decrease in the overall number of antennas used in the model also resulted in cost savings for Fotokite."

Alexander Tschesno, Embedded Systems Lead, Fotokite AG



Unmanned Aerial Vehicles (UAVs) have revolutionized how first responders and public safety teams operate in emergencies, significantly enhancing their efficiency, safety, coordination, and overall effectiveness.

Fotokite's Sigma tethered drones are designed with first responders in mind, allowing them to have a bird's eye view at the press of a single button. Unlike conventional battery-powered drones, Fotokite's Sigma can operate for an unlimited amount of time, and its robust construction allows it to withstand challenging weather conditions, enabling deployment in any situation.



The Challenge

Reliable communications are the cornerstone of emergency missions - timely and accurate information is paramount. First-responder teams need to trust their tools will not let them down when they need them most, and central to this is always-on connectivity.

During their initial tests, the Fotokite team discovered that the antennas used in their solution had significant Wi-Fi coverage issues. Additionally, with the space already at a premium, another two separate antennas for GPS (Global Positioning System) and LTE coverage were positioned incorrectly – leading to significant interference, signal loss and overall loss of antenna performance.

The Solution

With the stakes high and no time to lose, Fotokite turned to Taoglas for a trusted and rapid solution to the problem. To address the substantial coverage issue, Taoglas Engineers swapped out the numerous antennas for a single, compact antenna solution - a customized Colosseum MA850 5-in-1 Permanent Mount Antenna. Not only did this solution decrease the overall number of antennas needed on the platform from four to one, allowing for more space, but it also significantly decreased the number of failure points. Additionally, the Colosseum MA850 is a robust, heavy-duty, fully IP69K waterproof external antenna that is an ideal solution for hazardous weather conditions.



MA850.A.LBICG.001

2* 5G/4G MIMO 600~6000MHz 2* Wi-Fi MIMO 2.4GHz/5.8GHz 1* GPS-GLONASS-Galileo-BeiDou Antenna



Diameter 94.3mm, Height 57.4mm

Datasheet







The Outcome

Not only did Taoglas resolve Fotokite's initial coverage issues, a single point of contact with the Taoglas team, short lead times and the ability to quickly provide a customized antenna led to Fotokite's revised configuration being released within two months of their first contact with the Taoglas team. Additionally, the decrease in the overall number of antennas used in the model led to cost savings for Fotokite. As an additional benefit of choosing Taoglas, the assembly of the Fotokite's Sigma also improved with the availability of Taoglas' customizable lengths, styles, and types of cables and connectors.



