

“Taoglas’ plug-and-play design makes installation quick and easy. The ruggedized, waterproof design, combined with high performance, makes the Taoglas Pantheon MA710 the perfect match for our unique requirements.”

Sebastião Beirão

Head of Electrical Systems



Taoglas antenna soars with Técnico solar boat

About Técnico Solar Boat

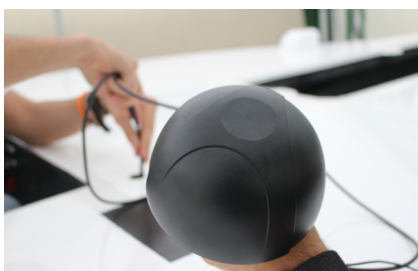
Técnico Solar Boat is a project by engineering students at Instituto Superior Técnico, University of Lisbon, where they design and build boats powered by renewable energy. Each year the team participates in worldwide engineering competitions organized by Solar Sport One and Yacht Club de Monaco, where they regularly get placed in second and first place. Their new boat features a unique dual-motor system with a peak power of 15 kW which can reach lightning fast speeds of over 50 km/h. The motors are powered by a 1.2 kWp solar array and a small 1.5 kWh LiPo battery that are paired with an electrical system designed to yield maximum efficiency.

The Challenge

The student team turned to Taoglas® for help adding 4G cellular for telematics applications and GPS for tracking the boat’s speed. In the initial setup, the cellular and GPS systems shared an external antenna: the Taoglas Olympian MA140, a high-performance combination LTE and GPS/GLONASS/Galileo screw mount antenna. The team later upgraded the boat’s communications systems, replacing cheap hotspots with a robust router, MikroTik WAP ac LTE6, designed to support two MIMO antennas. As a result, they needed a new, 3-in-1 antenna system that could be permanently mounted on the hull of the boat.

The Solution

The team replaced the Olympian with the Taoglas Pantheon MA710, which includes two powerful LTE MIMO antennas and one GPS/GLONASS/Galileo antenna. Ruggedized and waterproof, the MA710 is designed to provide high gain and high efficiency, with 20+ dB isolation between the antennas. The Pantheon also has its own internal ground plane and can radiate on any mounting environment — even the carbon fiber that the boat uses.



Pantheon MA710



The Outcome:

“This is our third year using antennas from Taoglas,” says Sebastião Beirão, Head of Electrical Systems. “Our experience has been consistently great. Taoglas’ plug-and-play design makes installation quick and easy. The ruggedized, waterproof design, combined with high performance, makes the Taoglas Pantheon MA710 the perfect match for our unique requirements.”

