

“Taoglas has always been open and responsive to our requirements, and keen to work with us as a partner. Our experience with the Taoglas team has been an extremely positive one and their global reach means it’s straightforward to meet stock requirements in the different regions we support, as a multinational business, with international customers.”

Nathan Sanders

Technical Director and Founder, Control



Taoglas drives enduring reliability for Control with flexible wideband antenna

About Control Telemetry Systems

Control is the leading cellular telemetry solution provider in Motorsport. They are used by leading private and manufacturer teams across some of the world’s biggest Motorsport championships including FIA World Endurance Championship, IMSA, European Le Mans Series, GT World Challenge Endurance Series and the Nurburgring Langstrecken Series. Control combines cutting edge hardware devices with advanced connectivity services and application-specific software to deliver the world’s leading cellular motorsport telemetry solution. Control’s customers include Bentley, Rowe Racing and Manthey Racing to name just a few. They regularly support customers to overall and class wins in major 24-hour events including the 2020 and 2021 24-hour races at Daytona, Le Mans, Nurburgring-Nordschleife and Spa-Francorchamps

The Challenge

In Motorsport, accuracy is everything. The margins are impossibly slim and the difference between winning and losing can come down to a few thousandths of a second. The harsh environment of racing vehicles also presents unique challenges such as heat and vibration, so when developing a telemetry solution, you’re straddling the boundaries of what is both technically and physically possible.

The TLM-P1 is Control’s flagship solution and is the most advanced Motorsport-specific cellular modem in the world. It features three simultaneous LTE connections, utilising Control’s SurePath™ technology to deliver live telemetry data to the garage using the best network available at any point on the track – seamlessly switching between three network connections. When developing the TLM-P1, the Control team searched for an antenna that could support a broad range of LTE bands to cope with the network switching and global coverage requirements.

Additionally, they required a solution that could handle the harsh requirements of the Motorsport industry. Endurance racing often takes place over 24-hour periods of time, so it’s essential that the antenna solution can withstand harsh conditions for long periods without its performance being affected. Furthermore, every last gram counts in Motorsport - the antenna needs to be extremely compact and lightweight so it doesn’t affect the overall weight of the vehicle.



The Solution

Following a series of field tests with several antenna suppliers, the Control team chose Taoglas as their trusted RF and antenna partner. The Maximus FXUB66 - a flexible wideband antenna designed to cover all working frequencies in the 600-6000 MHz spectrum, including all Cellular, NB-IoT, Cat-M, Wi-Fi, ISM and GNSS bands - was chosen, as they found it had the “most reliable performance”.

At just 120 × 50 × 0.2mm, the antenna is ultra-thin and weighs just 3.8g, making it extremely compact and suitably lightweight. Additionally, the antenna is assembled by a simple “peel and stick” process, attaching securely to non-metal surfaces via 3M adhesive - making it the ideal solution for a simple installation on the inside of a car’s windscreen.

“The results with the Taoglas Maximus FXUB66 were immediate and a significant step forwards in terms of antenna performance, allowing us to maximise coverage at race circuits,” said Nathan Sanders, Technical Director and Founder, Control. “Once installed correctly, antennas continue to work well in the long-term, almost becoming a “fit and forget” type of component. The Maximus FXUB66 has required no maintenance, allowing us to focus on other performance areas.”

For more information about the TLM-P1 solution visit: **TLM-P1 Telemetry Modem | Control - Race Winning Telemetry** and for more about Control see: **About | Control - Race Winning Telemetry**.

Featured Taoglas Product

FXUB66.54.0150C

Wide Band 5G/4G 600-6000MHz Flexible PCB Antenna

Dimensions: 120mm x 50mm x 0.2mm

[Click here for FXUB66.54.0150C datasheet](#)

