

*“We tested the antenna under a range of conditions, including below ground chambers in areas with very little network coverage. We have been impressed with the performance of the GSA.8835.”*

**Chris Fryatt**

Director of Product Management,  
Metasphere

## Taoglas helps Metasphere to drive sustainable use of the world’s natural resources

### About Metasphere:

Metasphere provides water, wastewater, environment, and gas companies worldwide with remote telemetry solutions for collecting, processing, visualizing and reporting data and other information. With operations in the UK and Australia, their core purpose is to use telemetry to drive sustainable use of the world’s natural resources. In January 2021, Metasphere launched ART Sewer, a cost-effective, all-in-one IoT Wastewater Level Monitoring solution that helps wastewater operators proactively identify blockages and protect the environment by preventing spills. It features Metasphere’s Analytical Remote Telemetry (ART) data analytics platform, which uses machine learning to provide network visibility, performance, and forecasting. By combining IoT sensor data with historic, current, and forecast rainfall data, ART Sewer gives utilities unprecedented network visibility to allow operators to take proactive steps to prevent wastewater spills and protect the natural environment.

### The Challenge:

Metasphere needed an antenna solution capable of providing wastewater operators with years of reliable connectivity. That’s a tall order. Most sewer infrastructures are buried deep underground, where soil, concrete, steel lids and other physical obstructions significantly attenuate cellular signals. The antenna and the IoT sensor, Sense Level are also subjected to corrosive gases, liquid, and other harsh environmental conditions 24/7; 365 days a year. There were also a host of business requirements. Metasphere needed an antenna solution that could support the two major 4G/5G LPWAN technologies — NB-IoT and LTE-M — over multiple bands and regions. This flexibility would enable Metasphere to market ART Sewer to wastewater operators around the world.

### The Solution:

Metasphere chose the Taoglas **GSA.8835**, an external, adhesive-mount antenna that supports all 2G, 3G, 4G and 5G cellular bands between 600 MHz and 6 GHz. They selected the antenna due to its IP rating and below ground performance when connecting to NB-IoT and LTE-M. The antenna is also fully waterproof, with an IP67 rating, as well as having customizable cable lengths and connector types.

The GSA.8835 has high gain and efficiency to ensure that the Sense Level always have a reliable connection even under the most challenging conditions. Additionally, the Sense Level is battery powered and good antenna performance is critical to achieve its long battery life.



### The Outcome:

“We put the Taoglas GSA.8835 through a rigorous set of evaluation criteria to ensure we selected the right option for our solution,” says Chris Fryatt, Director of Product Management at Metasphere. Metasphere also highlighted the close working relationship between the two companies while developing ART Sewer. “We reached out to half a dozen different antenna companies with a specification of what we were looking for,” Chris Fryatt, Director of Product Management at Metasphere says. “The sales team at Taoglas responded very positively with good technical knowledge about the solution we were looking for and the potential issues we would face. They addressed our concerns about performance under chamber lids, talked through technical issues and then recommended the GSA.8835 and provided samples for our evaluation.”

“We’ve been working with and using Taoglas antennas since 2013 on our products. This is the latest example of where we have seen good performance”.



### Featured Taoglas Product

#### GSA.8835

5G/4G wideband adhesive mount antenna

Dimensions: 105 x 30 x 8mm

 [Click here for GSA.8835 datasheet](#)

