

How MSL Circuits test 20.000 Eco-Tax navigation devices a month.

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Case Study: How MSL Circuits test 20,000 Eco-Tax navigation devices a month

More and more manufacturers are now using record and replay technology to test GNSS applications. Our mini case study series offers an insight into the experience of how companies are using LabSat to test their GPS products.

This case study features a unique application from French manufacturer MSL Circuits, who produce the Eco-Tax navigation device integrating GPS, GSM and DSRC technology.

What was the requirement for MSL Circuits?

Having developed electronic systems for the automotive industry for over 20 years from their location in the Loire Valley, MSL Circuits needed a simple but reliable production test for every Eco-Tax GPS device. With 20,000 units a month, the testing method needed to be quick and effective.



Cyril Parrot, Test Engineer, said: "To ensure the correct operation of each device we wanted to simulate a GPS signal from a single satellite. The challenge was in playing exactly the same signal for every single product to ensure consistency."

The testing solution

"When we searched the internet we found some products which could carry out these tests but they were all too expensive and complex," Parrot explained. "When we found the LabSat system we saw it could do everything we required at a better price".

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"The radio frequency (RF) tests are completed using an RF chamber to avoid external noise, while the LabSat is securely integrated within a semi-automatic tester to ensure accurate tests are carried out as quickly as possible."

He added, "LabSat allows us to consistently replay the same test scenario over and over again in order to provide our customers with reliable products. The tests are done using both an internal product antenna and an external antenna in conductive mode to ensure the Eco-Tax devices are tested to the highest levels."