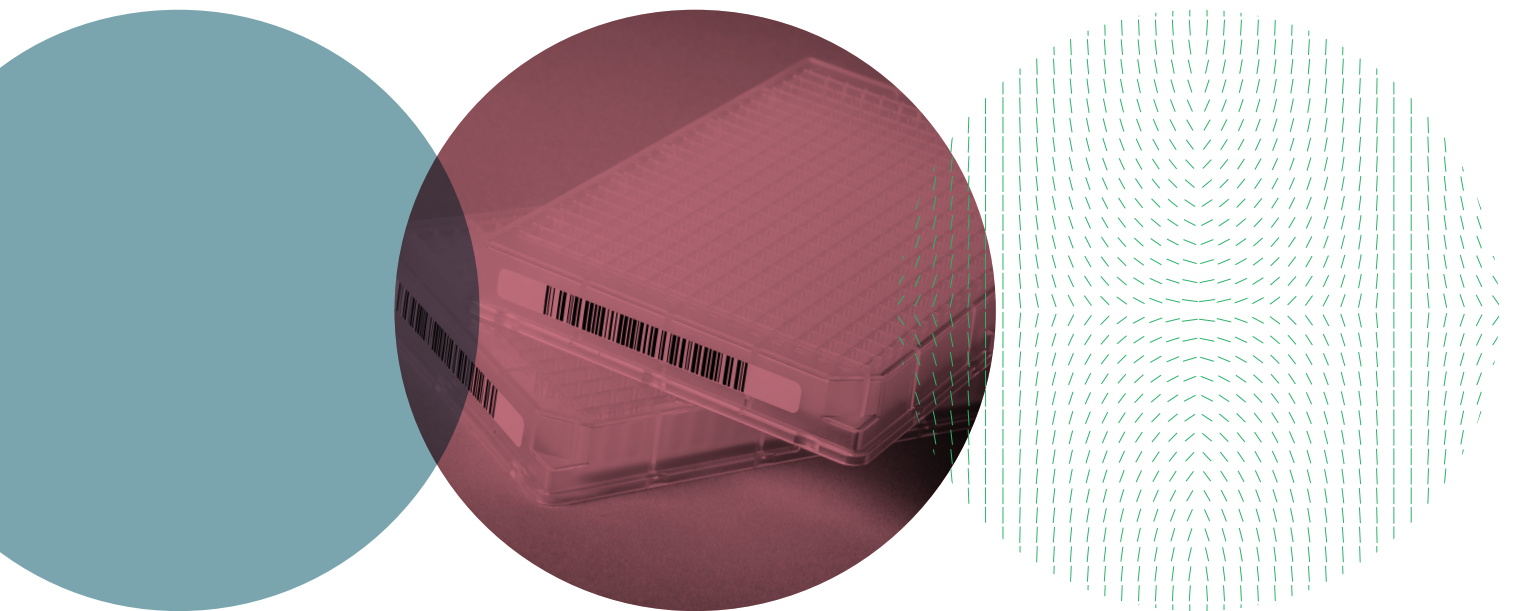


A CASE STUDY

# How RFID enables pre-spotted microwell plates in diagnostic instrumentation



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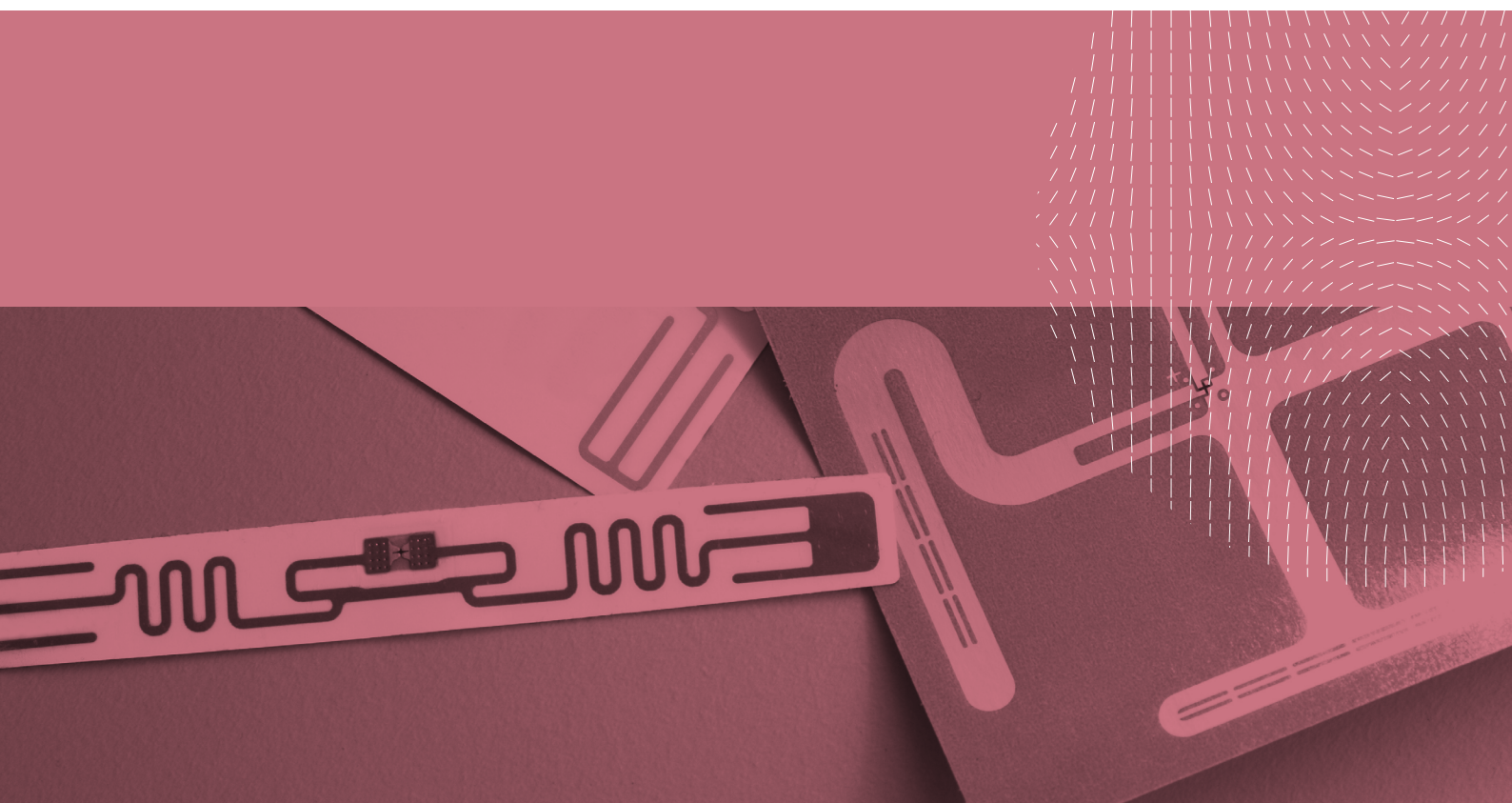
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Customer background

The challenge

Our solution

How Computype helped



## CUSTOMER BACKGROUND

We had previously aided a global organization that supplies hardware and consumables to labs in enabling one of their instruments to utilize RFID. After the successful launch of the instrument, they requested our expertise on a second RFID project. Once again, we would be working with them to integrate RFID enabled labels with an instrument.

## THE CHALLENGE

Having worked with us on an RFID project previously, the company was aware of our RFID expertise. The challenge they were facing with the labels necessary for their new instrument was mainly that a large amount of data was required and needed to be stored in a label with very limited surface area.

This meant that getting the read performance required for the project would be a big challenge since a small label can only accommodate a small antenna. Luckily, we have the ability to design and test custom RFID tags for challenges just like these, and our customer was aware of this from previous experience.

The instrument they were building was designed to handle micro-well plates; some of which are pre-spotted—and offered by the same company. Pre-spotted plates are only helpful if the user is aware of what is in each well, and can tell the platform itself what is in each well.

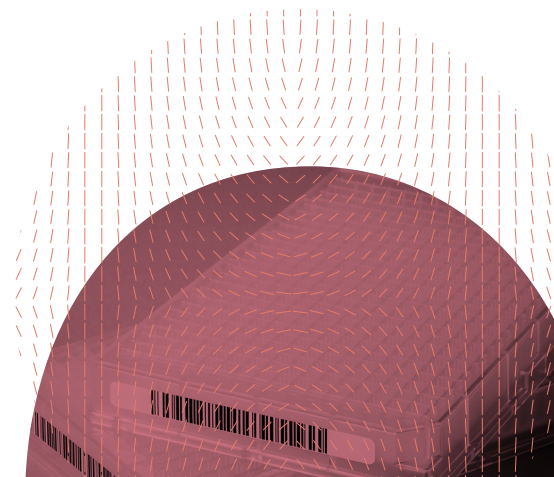
By adding RFID tags to the plates, and readers to the instrument, the data contained in the tag would be picked up by the instrument upon insertion of the plate. Each tag would include a data-map of the associated pre-spotted plate, allowing the instrument to auto-populate the map and verify plate authenticity at the same time.

No surprise, the sheer amount of data combined with the available real estate for an RFID label on a microwell plate made the project tricky. Not to mention, RFID being a critical component in the functioning of this instrument, we had to ensure a timely process between design, testing and preparing for product launch.

## OUR SOLUTION

Many iterations of antennas were tested along the course of an 18+ month timeline; the project was managed through regular check-in calls to ensure timelines and expectations remained on-pace with the launch schedule set forth by the organization.

The ultimate result was a highly customized (and small!) RFID label that complimented their instrument platform. The RFID labels met both the requirements of data transfer mapping and verifying authenticity, ensuring platform performance and competitive advantage from a usability & efficiency standpoint.



## HOW COMPUTYPE HELPED

First and foremost, our team was able to fully utilize our expertise in the area of RFID to build a working solution to a challenge that required a customized solution.

Additionally, the regular cadence of discussion was important from a project management standpoint, as our customer made some adjustments to their needs in order to stay on track with expectations and budget. Keeping up with the changing needs of our customer was critical to ensure the final product provided them with as much value as possible.

